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# Lassen Volcanic National Park

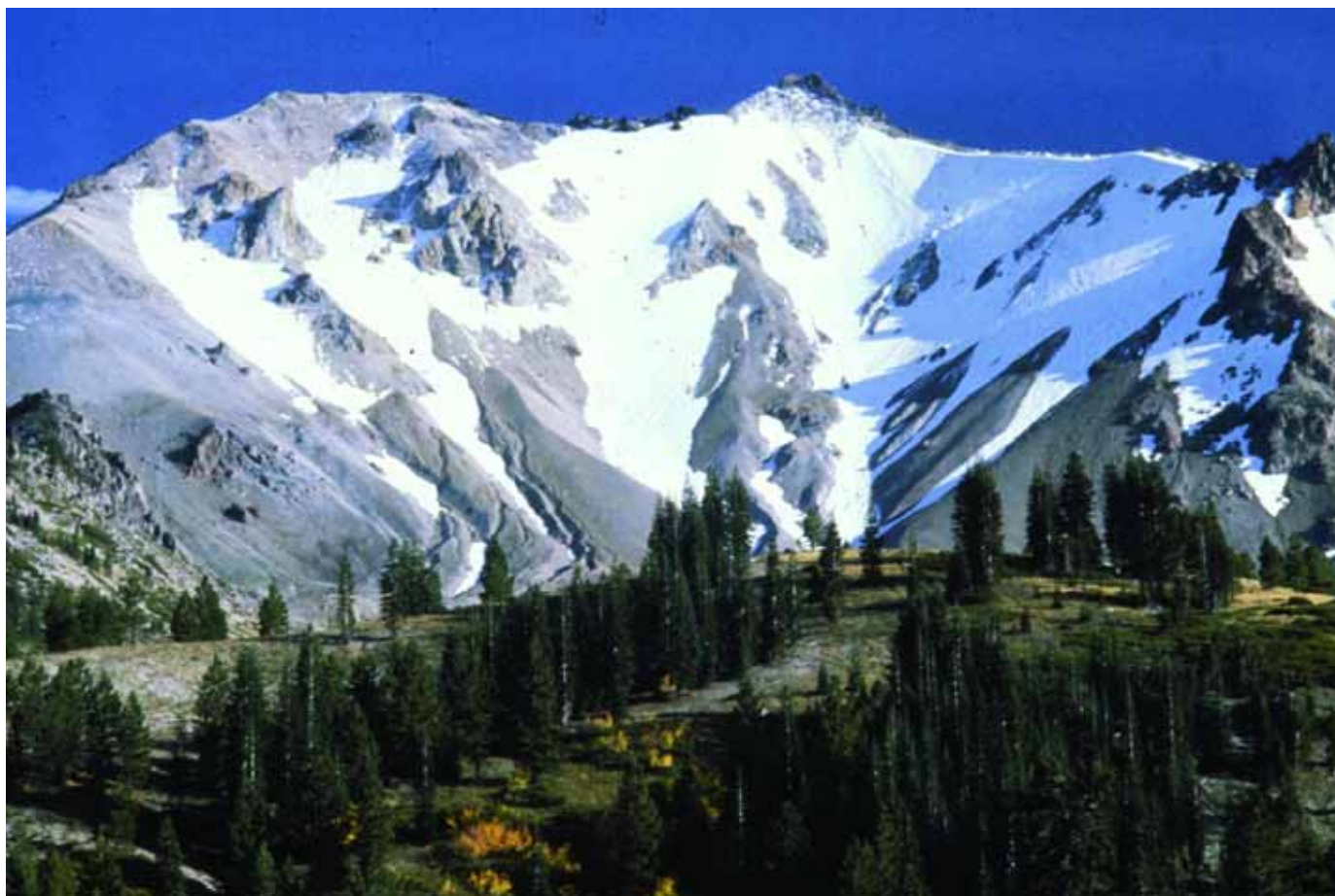
## *General Management Plan*

Lassen Volcanic National Park  
California

Produced by the Pacific Great Basin Support Office  
National Park Service

U.S. Department of the Interior  
Washington, DC

July 2003



*This General Management Plan is Lassen Volcanic National Park's overall management strategy for a ten to fifteen year period. This document summarizes the selected alternative from the Final General Management Plan / Environmental Impact Statement (August 2001). The Record of Decision (ROD), signed on February 25, 2002, is included in this document as an appendix. The ROD includes a summary of public and interagency involvement.*



Lassen volcanic eruption October 13, 1915

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cinder cone



junior ranger program



administration building in winter





clockwise from left: park visitors at Devil's Kitchen, King's Creek Meadow  
Manzanita Lake, and Mt. Harkness



# Background

Lassen Volcanic National Park, established in 1916, is located in northeastern California in portions of Shasta, Lassen, Plumas, and Tehama counties. The 106,372-acre park is located about fifty miles east of both Red Bluff and Redding and is within a day's drive of two major California metropolitan centers, the Sacramento and San Francisco Bay areas. (See Map 1, Regional Map.) The park accommodates about 400,000 visits each year, providing opportunities for visitors to learn about volcanism and other park phenomena and enjoy various recreation pursuits such as sightseeing, camping, picnicking, and hiking. Over 75 percent of the park is congressionally designated wilderness.

## Purpose of the General Management Plan

The National Park Service maintains an up-to-date general management plan (GMP) for each unit of the National Park System. The purpose of the plan is to provide long-term direction for resource preservation and visitor use. The plan was developed in consultation with servicewide program managers, interested parties, and the general public, and is based on an analysis of existing and projected resource conditions, visitor experiences, environmental impacts, and costs.

General management planning constitutes the first phase of a tiered planning and decision making process. It focuses on what resource conditions and visitor experiences should be achieved and maintained over time. The GMP takes a long-term view, which may be many years into the future when dealing with the time frames of natural and cultural processes. The plan considers the park in its full ecological and cultural contexts as a unit of the national park system and as part of a surrounding region.

The general management plan primarily provides a vision of the future. It does not include detail on how to achieve that vision. A number of action plans and development designs will be prepared subsequently to implement the GMP and provide more specific guidance on how to achieve the vision. Plans will be completed for various park programs, for example, natural and cultural resource management, interpretation, land protection, and fire management. Site plans and designs will be completed for proposed development. All of these plans will reflect the

management direction and the vision articulated in the approved GMP. These implementation plans and designs will include additional public review and environmental compliance as appropriate.

The impacts of all construction projects and various other park programs/projects to be implemented under the approved general management plan will be considered in subsequent implementing plans in order to comply with National Environmental Policy Act (NEPA,) Section 106 of the National Historic Preservation Act (NHPA), and the implementing regulations set forth in the Code of Federal Regulations.

The Government Performance and Results Act (GPRA) has instituted a government-wide performance management system with requirements for the preparation of five year strategic plans and annual performance plans and reports. The National Park Service approach to compliance with GPRA requires the completion of such plans at the park level as well as at the servicewide level.

The NPS approach to GPRA uses an 8-step process as follows:

1. Review Servicewide Strategic Plan
2. Establish Park Mission
3. Develop Park Mission Goals (Desired Future Conditions)
4. Determine Long-Term Goals (Measurable 5-year goals)
5. Assess Resources
6. Develop Annual Performance Plan
7. Implement Annual Plan
8. Develop Annual Performance Report

The first three steps of the GPRA process have been completed in this general management plan.

The California Region of the U.S. Forest Service is undertaking a major collaborative natural resource planning effort for the Sierra Nevada region, including the area of the park and the adjacent Lassen National Forest. This effort, referred to as the Sierra Nevada Ecosystem Framework, is intended to facilitate resource

decision-making on an ecosystem basis. Cooperative working relationships have been established under the umbrella of this effort and a number of collaborative projects are underway. The National Park Service will participate actively in this program over the next several years.

## Legislative and Administrative Basis for the General Management Plan

### *Park Mission*

Congress established the park in 1916 "for recreation purposes by the public and for the preservation from injury or spoliation of all timber, mineral deposits and natural curiosities or wonders within said park and their retention in their natural condition and...[to] provide against the wanton destruction of the fish and game found within said park and against their capture or destruction. . . ."

The park's mission as stated in the approved Strategic Plan is "to conserve, preserve, and protect Lassen Volcanic National Park and its geological, biological, and cultural resources for the enjoyment, education, and inspiration of present and future generations." The goals associated with this mission are:

- Natural, cultural, and wilderness resources and associated values are protected, restored, and maintained in good condition and managed within their broader ecosystem and cultural context.
- The park contributes to knowledge about cultural and natural resources and associated values; management decisions about resources and visitors are based on adequate scholarly and scientific information.
- Visitors safely enjoy and are satisfied with the availability, accessibility, diversity, and quality of park facilities, services, and recreational opportunities.
- Park visitors and the general public understand and appreciate the preservation of parks and their resources for this and future generations.
- The park uses current and sustainable management practices, systems, and technologies to accomplish its mission.
- The park increases its managerial capabilities through initiatives and support from other agencies, organizations, and individuals.

### *Legal Mandates and Servicewide Policies*

Several laws and policies specify how parks will be managed. They must be adhered to under any plan approved for park management.

**Park Management Policy:** National Park Service Management Policies, most recently updated in 2001, provides comprehensive policy guidance for all aspects of National Park management.

**Laws Generally Governing Park Management:** The most important statutory directive for the National Park Service is provided by interrelated provisions of the NPS Organic Act of 1916, and the NPS General Authorities Act of 1970, including amendments to the latter law enacted in 1978.

The Organic Act of 1916 requires that the National Park Service "... promote and regulate the use of the Federal areas known as national parks, monuments, and reservations hereinafter specified... by such means and measures as conform to the fundamental purpose of the said parks, monuments, and reservations, which purpose is to conserve the scenery and the natural and historic objects and the wild life therein and to provide for the enjoyment of the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations."

Congress supplemented and clarified these provisions through enactment of the General Authorities Act in 1970, and again through enactment of a 1978 amendment to that law. The key part of that act, as amended, is:

Congress declares that the national park system, which began with establishment of Yellowstone National Park in 1872, has since grown to include superlative natural, historic, and recreation areas in every major region of the United States, its territories and island possessions; that these areas, though distinct in character, are united through their interrelated purposes and resources into one national park system as cumulative expressions of a single national heritage; that, individually and collectively, these areas derive increased national dignity and recognition of their superlative environmental quality through their inclusion jointly with each other in one national park system preserved and managed for the benefit and inspiration of all the people of the United States; and that it is the purpose of this Act to



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*Congress has provided that when there is a conflict between conserving resources and values and providing for enjoyment of them, conservation is to be predominant.*

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include all such areas in the System and to clarify the authorities applicable to the system. Congress further reaffirms, declares, and directs that the promotion and regulation of the various areas of the National Park System, as defined in section 1c of this title, shall be consistent with and founded in the purpose established by section 1 of this title [the Organic Act provision quoted above], to the common benefit of all the people of the United States. 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, except as may have been or shall be directly and specifically provided by Congress.

The "fundamental purpose" of the national park system, established by the Organic Act and reaffirmed by the General Authorities Act, as amended, begins with a mandate to conserve park resources and values. This mandate is independent of the separate prohibition on impairment, and so applies all the time, with respect to all park resources and values, even when there is no risk that any park resources or values may be impaired. National Park Service managers must always seek ways to avoid, or to minimize to the greatest degree practicable, adverse impacts on park resources and values. However, the laws do give the National Park Service the management discretion to allow impacts to park resources and values when necessary and appropriate to fulfill the purposes of a park, so long as the impact does not constitute impairment of the affected resources and values.

The fundamental purpose of all parks also includes providing for the enjoyment of park resources and values by the people of the United States. The "enjoyment" that is contemplated by the statute is broad; it is the enjoyment of all the people of the United States, not just those who visit parks, and so includes enjoyment both by people who directly experience parks and by those who appreciate them from afar. It also includes deriving benefit (including scientific knowledge) and inspiration from parks, as well as other forms of enjoyment. Recognizing that the enjoyment by future generations of the national parks can be ensured only if the superb quality of park resources and values is left

unimpaired, Congress has provided that when there is a conflict between conserving resources and values and providing for enjoyment of them, conservation is to be predominant.

While Congress has given the National Park Service the management discretion to allow certain impacts within parks, that discretion is limited by the statutory requirement (enforceable by the federal courts) that the National Park Service must leave park resources and values unimpaired, unless a particular law directly and specifically provides otherwise. This cornerstone of the Organic Act establishes the primary responsibility of the National Park Service. It ensures that park resources and values will continue to exist in a condition that will allow the American people to have present and future opportunities for enjoyment of them.

The impairment of park resources and values may not be allowed by the National Park Service unless directly and specifically provided for by legislation or by the proclamation establishing the park. The relevant legislation or proclamation must provide explicitly (not by implication or inference) for the activity, in terms that keep the Service from having the authority to manage the activity so as to avoid the impairment.

The impairment that is prohibited by the Organic Act and the General Authorities Act is an impact that, in the professional judgment of the responsible National Park Service manager, would harm the integrity of park resources or values, including the opportunities that otherwise would be present for the enjoyment of those resources or values. Whether an impact meets this definition depends on the particular resources and values that would be affected; the severity, duration, and timing of the impact; the direct and indirect effects of the impact; and the cumulative effects of the impact in question and other impacts.

An impact to any park resource or value may constitute an impairment. An impact would be more likely to constitute an impairment to the extent that it affects a resource or value whose conservation is: necessary to fulfill specific purposes identified in the establishing legislation or proclamation of the park; key to the natural or cultural integrity of the park or to opportunities for enjoyment of the park; or identified as a goal in the park's general management plan or other relevant National Park Service planning documents. An impact would be less likely to constitute an impairment to the extent that it is an unavoidable result, which cannot reasonably be further mitigated, of an action necessary to



Juniper Lake

preserve or restore the integrity of park resources or values.

The "park resources and values" that are subject to the no impairment standard include:

The park's scenery, natural and historic objects, and wildlife, and the processes and conditions that sustain them, including, to the extent present in the park: the ecological, biological, and physical processes that created the park and continue to act upon it; scenic features; natural visibility, both in daytime and at night; natural landscapes; natural soundscapes and smells; water and air resources; soils; geological resources; paleontological resources; archeological resources; cultural landscapes; ethnographic resources; historic and prehistoric sites, structures, and objects; museum collections; and native plants and animals;

Opportunities to experience enjoyment of the above resources, to the extent that can be done without impairing any of them;

The park's role in contributing to the national dignity, the high public value and integrity, and the superlative environmental quality of the national park system, and the benefit and inspiration provided to the American people by the national park system; and

Any additional attributes encompassed by the specific values and purposes for which it was established.

**Park Planning:** *Director's Order # 2*, promulgated in May 1998, provides overall guidance for National Park Service planning, integrating general management planning, strategic planning, and implementation planning. This general management plan conforms to the requirements of this order.

**Wilderness:** Congress designated 78,982 acres of Lassen Volcanic National Park as wilderness in October, 1972. National Park Service wilderness management policies are based on provisions of the 1916 National Park Service Organic Act, the 1964 Wilderness Act, and legislation establishing individual units of the national park system. These policies establish consistent servicewide direction for the preservation, management, and use of wilderness.

**National Trails System:** The park includes portions of two Congressionally designated trails, the Nobles Emigrant Trail, a component of the California National Historic Trail, and the border-to border Pacific Crest National Scenic Trail. Federal law and policy require the park to coordinate with other jurisdictions in the management of all national trails. The National Park Service is the designated administrator of the California Trail. The U.S. Forest Service administers the Pacific Crest Trail.

**National Wild and Scenic Rivers System:** The park includes the headwaters and a short reach of Mill Creek, which has been identified as having potential for designation as a component of the Wild and Scenic Rivers System. National Park Service policy requires that no actions be taken that would adversely affect the values that qualify a stream for designation.

**Cultural Resources:** The National Park Service preserves and fosters appreciation of the cultural resources in its custody through appropriate programs of research, treatment, protection, and interpretation. All National Park Service programs affecting cultural resources are subject to the provisions of the National Historic Preservation Act, the National Environmental Policy Act, the American Indian Religious Freedom Act, the Advisory Council on Historic Preservation's regulations regarding "Protection of Historic Properties," and the Secretary of the Interior's "Standards and Guidelines for Archeology and Historic Preservation."

**Air Quality:** The National Park Service seeks to perpetuate the best possible air quality in parks because of its critical importance to visitor enjoyment, human health, scenic vistas, and the preservation of natural systems and cultural resources. Vegetation, visibility, water quality, wildlife, historic and prehistoric structures and objects, and most other elements of a park environment are sensitive to air pollution and are referred to as "air quality related values." The National Park Service takes an aggressive role in promoting and pursuing measures to safeguard these values from the adverse impacts of air pollution. In cases of doubt as to the impacts of existing or potential air pollution on park resources, the Park Service errs on the side of protecting air quality and related values for future generations.

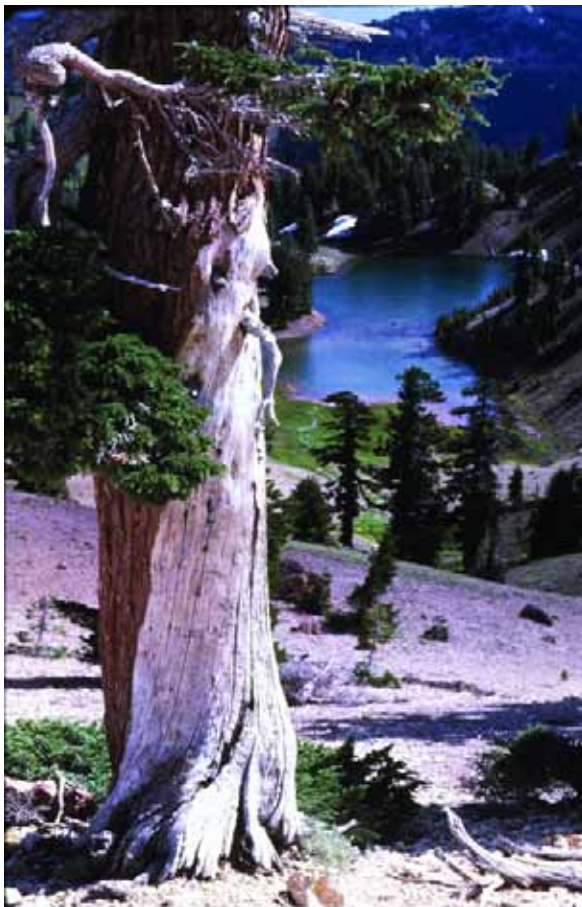
The National Park Service has a responsibility to protect air quality under both the 1916 Organic Act and the Clean Air Act. The Clean Air Act requires superintendents to take actions

consistent with their affirmative responsibilities to protect air quality related values in class I areas. Class I areas include all National Park Service units designated as national parks with more than 6,000 acres and all national wilderness areas with more than 5,000 acres that were in existence on August 7, 1977, and any other area redesignated as class I by the governing state or Native American authority. The act also establishes a national goal of preventing any future and remedying any existing man-made visibility impairment in class I areas.

**Threatened or Endangered Plants and Animals:** Consistent with the purposes of the Endangered Species Act, the National Park Service identifies and promotes the conservation of all federally listed threatened, endangered, or candidate species within park boundaries and their habitats. As necessary, the National Park Service controls visitor access to and use of habitats, and it may close such areas to entry for other than official purposes. Active management programs are conducted as necessary to perpetuate the natural distribution and abundance of threatened or endangered species and the ecosystems on which they depend. The U.S. Fish

and Wildlife Service and the National Marine Fisheries Service are the lead agencies in matters pertaining to federally listed threatened and endangered species. The National Park Service cooperates with those agencies in activities such as the delineation of critical habitat and recovery zones on park lands and participates on recovery teams.

The National Park Service also identifies all state and locally listed threatened, endangered, rare, or candidate species that are native to and present in the parks, and their habitats. These species and their habitat needs are considered in National Park Service planning activities. Based on an analysis of the status of state and locally listed species throughout their native ranges and throughout the National Park System, the National Park Service may choose to control access to habitats essential for maintaining viable populations. It may also conduct active management programs similar to activities conducted to perpetuate the natural distribution and abundance of federally listed species. The National Park Service preserves to the greatest extent possible state and locally listed species as part of the park's ecosystem.



clockwise: mountain hemlock, guided tour lake, Loomis Museum





## An Overview of Lassen Volcanic National Park

### *Park Purpose and Significance*

Lassen Volcanic National Park was established by an Act of Congress on August 9, 1916 "for recreation purposes by the public and for the preservation from injury or spoliation of all timber, mineral deposits and natural curiosities or wonders within said park and their retention in their natural condition...and provide against the wanton destruction of the fish and game found within said park and against their capture or destruction..." Incorporated into the park were Cinder Cone and Lassen Peak National Monuments, which were established by Presidential Proclamations (No. 753 and 754) on May 6, 1907 as part of the Lassen Peak Forest Reserve (established on June 5, 1905 by Presidential Proclamation).

Lassen Volcanic National Park is an outstanding example of a dynamic geologic landscape and is of unquestioned national significance. Lassen Peak erupted over a six- year period between 1914 and 1921. Preserved within the park is the site of the most recent volcanic eruption within the continental United States, prior to the Mount Saint Helens eruption in May, 1980. Lassen Peak is one of the largest plug dome volcanoes in the world. The park is unique in that it also preserves, in a relatively small geographic area, examples of the three other types of volcanoes recognized by geologists: shield volcanoes, composite volcanoes and cinder cones. Also within the park is the most extensive, intact network of geothermal resources west of

Yellowstone National Park, including outstanding examples of boiling springs, mudpots, and fumaroles.

In 1972 Congress designated 75 percent of the park (78,982 acres) as the Lassen Volcanic Wilderness. Appropriate recreation on lands managed for wilderness values include such activities as hiking, backpacking, horseback riding and fishing. The Wilderness Act, passed by Congress in 1964, provides guidance to federal agencies with respect to the management of wilderness areas. This act restricts the construction of roads, buildings, and other man-made improvements and the use of motorized vehicles in wilderness.

In addition to natural resources, the park preserves nationally significant cultural resources including 84 historic buildings that are on the List of Classified Structures (most of which date from the Civilian Conservation Corps era), over 70 Native American archeological sites, and portions of the Nobles Emigrant Trail.

### *Park Developed Areas*

The purpose of this section is to provide a basic orientation on the park's sites and facilities.

Lassen Volcanic National Park is a mountainous, mostly wilderness park. As shown in Map 2, Physical Features, there are six basic developed areas: the main park road, Butte Lake, Juniper Lake, Manzanita Lake, Warner Valley, and Headquarters. These areas are discussed in the next pages.



**Main Park Road:** The main park road, running from the southwest corner of the park to the northwest corner around three sides of Lassen Peak, is a two-lane paved road which was aligned and constructed subsequent to park designation for the express purpose of providing visitor access to a range of phenomena associated with the eruption of Lassen Peak. The great majority of first-time visitors to Lassen Volcanic National Park drive the length of this road.

The first park facility encountered by the visitor entering at the southwest boundary is the staging area for the Brokeoff Mountain Trail. This area, located approximately half a mile north of the boundary, is currently a minimal unpaved parking lot. A trail to the west climbs to the top of Brokeoff Mountain.

Another half-mile north on the main road takes the visitor to the entrance station, where entrance fees are collected. A short distance north of the entrance station the visitor encounters a very large paved parking lot just east of the road, and a structure known as the Chalet because of its A-Frame design. The two-story Chalet provides restrooms on the lower floor and concession services, including a gift shop and food service, on the upper floor. There is not sufficient space in the Chalet for park information services or interpretive materials, so in summer months the park staffs a small information kiosk adjacent to the Chalet where visitor questions are answered and park materials are provided as needed. This area becomes highly congested during peak summer periods.

The Southwest Walk-In campground is also located in this area. Campers park in the large parking lot.

The first major interpretive stop on the road, the Sulphur Works, is located a short distance north of the Chalet. Here park visitors can see and smell volcanic phenomena on either side of the park road. A short boardwalk provides access to some of the features.

A few more miles of twists and turns on the park road take the visitor to the staging area for the Bumpass Hell Trail. The parking lot is somewhat roughly laid out and subject to severe crowding in summer months. This heavily used trail provides an opportunity to hike in to see a range of volcanic features.

A short distance north is the staging area for the Lassen Peak Trail. This trail, though a long and steep climb to the top, is extremely popular with visitors beginning in the spring even before the snow has melted. A large parking lot is provided.

A few more miles on the main road takes the visitor to the Kings Creek picnic area, and yet a few more miles takes the visitor to Summit Lake. At Summit Lake there are two large campgrounds, a horse corral, a trailhead to Twin Lakes, and a historic ranger station. A historic CCC-built ranger cabin is located at Lower Twin Lake.

A couple of miles west of Summit Lake, the visitor arrives at the interpretive site for the Devastated Area, the area that was most dramatically affected by the eruption. This area





Horseshoe Lake Ranger Station

offers interpretive displays on the eruption, a large parking lot, restrooms, and a short interpretive trail.

Several miles further northwest is the Lost Creek group campground. The seven sites at this campground will serve up to 25 visitors each. These sites must be reserved in advance.

Crags campground is located just beyond Lost Creek.

**Butte Lake:** The Butte Lake area is located in the extreme northeastern corner of the park, and is accessible from a spur extending south from State Highway 44. Facilities provided include a campground, horse corral, a ranger station, and a popular trail around and to the summit of Cinder Cone. Map 3 shows the layout of the area.

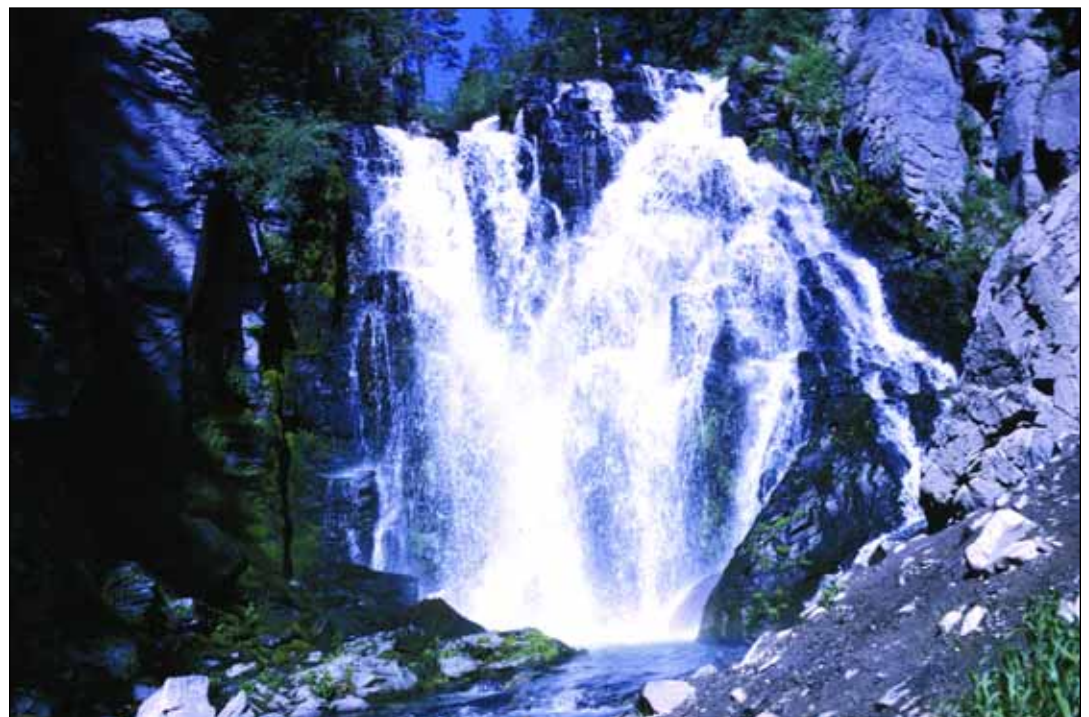
**Juniper Lake:** The Juniper Lake area is located in the extreme southeast corner of the park. It is accessible by an unpaved and rough road extending north from the town of Chester. Facilities include a family campground, a group campground, ranger station, horse corral, and a staging area for trails leading to popular wilderness destinations such as Horseshoe Lake, site of a historic ranger station, and Mt. Harkness, where a historic fire lookout is located. Map 4, Juniper Lake Unit, displays the layout.

**Manzanita Lake:** The Manzanita Lake area is the first developed area encountered by the visitor

entering the park via the northwest entrance. Manzanita Lake is the largest developed area in the park with a large campground, picnic area, museum, and general store. The National Park Service also has administrative and maintenance facilities in this area. Map 5, Manzanita Lake Unit, shows the overall layout of this area.

**Warner Valley:** This area is located in the south central part of the park. See Map 6, Warner Valley Unit. It is accessible by a fairly rough, mostly unpaved road extending northwest from the town of Chester. This area provides a wide range of visitor facilities and attractions including a small campground, the historic Warner Valley Ranger Station, a trailhead providing access to volcanic phenomena and wilderness destinations, and the Drakesbad Guest Ranch, a concession-operated facility which offers rustic lodging, horseback riding, pool swimming, and dining. Many of the structures in this area are historic.

**Headquarters:** Park headquarters is located outside the park on a separate parcel straddling State Highway 36 in the town of Mineral. The main park administrative offices and maintenance facilities are located here, along with a number of units of employee housing. This area includes several rustic structures constructed in the Civilian Conservation Corps era. See Map 7, Headquarters Unit, for the layout of the area.



Kings Creek Falls



# THE PLAN



Bumpass Hell



Mudpot at Devils Kitchen



Black Bear



# The General Management Plan

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## Plan Vision

Lassen Volcanic National Park is a model for ecosystem management, wilderness preservation, and cultural resource protection. Park resources are passed on unimpaired for the benefit of present and future generations.

Resource conditions are known and basic trends of natural systems have been assessed. Scientifically sound mechanisms are in place to ensure that natural systems and processes are perpetuated. Cultural resources and their significance are documented and appropriate preservation standards are applied. All stakeholders play an active stewardship role.

A diversity of visitors are provided year-around opportunities for education, enjoyment, and understanding which inspire appreciation of resource values and dedication to stewardship. Wilderness visitors experience a landscape largely devoid of human impacts.

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## Plan Concept

This plan is intended to preserve, protect, and restore natural and cultural resources and wilderness conditions and to provide visitors with high quality park experiences throughout the calendar year.

Designated wilderness will be increased by approximately 25,000 acres. (See Map 8, Areas Considered for Wilderness Expansion.) Gathering of baseline data on natural and cultural resources will be accelerated. This information is essential for completion of scientific studies to guide resource preservation and restoration activities for such needs as exotic species control and habitat restoration for threatened and endangered species. Tested monitoring methods will be applied. Park staff will increase efforts to work with the U.S. Forest Service and other regional land managers toward ecosystem management. Visitor activity will be closely managed to prevent resource damage. Visitor service functions will be directed to enhance visitor experience throughout the year and provide for visitor safety and protection. Interpretive activities will be focused to provide basic orientation/information and encourage individual stewardship and resource protection. Facility improvements will be undertaken to achieve resource protection and improved management efficiency.

Budget increases for staff will be targeted to resource management staff, but will also include ranger activities, interpretation, and maintenance to support functions related to resource

management and provide for enhanced visitor experience. Staff and funding increases will result in:

- More effective control of exotic plant and animal species, including non - native fish species in lakes and streams;
- Analysis of the feasibility of reintroduction of selected extirpated species such as the wolverine and fisher in cooperation and consultation with adjacent land managers such as the U.S. Forest Service;
- Increased use of prescribed fire to restore natural conditions and reduce fuel loads;
- Inventory and monitoring of natural resources, especially targeted species such as the Cascades frog;
- Accession, catalog, and storage of park museum collections and archives to servicewide standards;
- Inventory, documentation, and preservation of park archeological sites and cultural landscapes;
- Completed ethnographic and administrative histories for use by staff, researchers, and the public;
- Better maintenance of trails and service roads to prevent resource damage;
- Stimulation of increased visitor stewardship through interpretive programs;
- Greatly improved visitor services at the southwest entrance;
- Increased ecosystem management efforts;

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*Management zones are used to describe the desired mix of resource conditions and visitor experiences to be achieved in different areas of the park.*

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- Increased "partnering" efforts with local communities, other government agencies, American Indian communities, and private organizations;
- Winterization of facilities to allow day use in winter and shoulder seasons;
- Provision of ranger-led programs in key visitor locations, including remote sites such as Butte Lake, Juniper Lake, and Warner Valley;
- Interpretation programming offering greater depth and variety of experiences that lead to stewardship of the park's natural and cultural resources;
- Improved campfire and amphitheater facilities to support interpretive programs;
- Improved pullouts on the main park road to provide interpretive and scenic view opportunities;
- Improved visitor information including radio broadcasts and written guides;
- Enhanced winter access at the northwest entrance; and
- Improved facilities for environmental education.

## Management Zones and Prescriptions

Management zones are used to describe the desired mix of resource conditions and visitor experiences to be achieved in different areas of the park.

Eight zones are identified at Lassen Volcanic National Park: Wilderness, Winter Backcountry, Scenic Drive, Summer Developed, Winter Developed, Remote Unit Access Road, Administration, and Inholder Zone. Division of the park into the various zones is displayed on Maps 9 and 10.

Management zone prescriptions provide the basis for a system of management intended to ensure that resources are passed on unimpaired to future generations and visitor experiences remain high quality. This approach is generally referred to as "managing within carrying capacity." The federal law requiring general management plans for all parks includes a provision requiring commitments to management within carrying capacity.

There is no evidence to suggest that Lassen Volcanic National Park is, on a parkwide basis, exceeding or even close to exceeding its carrying capacity, or that carrying capacity will be exceeded during the life of this general management plan considering the potential for

increased visitation. While resource damage is occurring at discrete locations within the park, both in developed areas and in backcountry locations, that damage is attributable to poorly located or designed facilities and/or insufficient management of visitors, and can realistically be remediated by measures other than visitation reduction. Moreover, existing facilities such as campgrounds, picnic areas, and parking lots are sufficient to accommodate much of the potential increased visitation, except that occurring at peak weekend and holiday periods.

The National Park Service uses a management system called Visitor Experience and Resource Protection (VERP) as its basic framework for managing within carrying capacity or achieving the resource conditions and visitor experiences prescribed for the zones. VERP provides for development of a set of measurable resource and visitor experience standards that are monitored on a regular basis. If the monitoring reveals that existing management is not achieving the prescribed resource and visitor experience conditions, then the management approach is revised as necessary. Generally a number of options will be available to achieve the desired conditions, ranging from staffing changes to physical facility and access changes. In some cases direct limitations on visitor use levels may be necessary.

The general management plan accomplishes only the initial steps toward implementation of the VERP program at Lassen Volcanic National Park. The remaining steps will be undertaken in future years, and it may be some time before Lassen Volcanic National Park's VERP program is fully implemented.

### **Wilderness Zone**

This zone, encompassing a majority of park land, consists of legislatively designated wilderness and lands considered for proposed designation. It is managed consistent with the Wilderness Act and National Park Service policies regarding wilderness. This zone encompasses approximately 104,594 acres.

**Resource Conditions:** Natural resource conditions are intended to be pristine in this zone, regulated fully by natural processes uninfluenced by human activities except as may be needed to restore natural conditions, e.g. removal of invasive and disruptive non-native species. Plant and animal communities function as part of an entire ecosystem, and natural geologic processes proceed unhindered. Fire is recognized as a normal process necessary for the restoration of natural vegetative communities.



Top: North entrance station

Bottom: Warner Valley Ranger Station

Historic structures and sites, cultural landscapes, ethnographic and archeological sites within the zone are documented and appropriate preservation standards applied.

**Visitor Experience:** Visitors to the wilderness experience a landscape where human impacts are minimized. Use of this zone requires a relatively high degree of physical exertion and an extended time commitment. The wilderness experience offers a moderate to high degree of challenge and adventure. Opportunities for independence, closeness to nature, tranquility, and the application of outdoor skills are high. There is a low probability of encountering other visitors or NPS staff except in the vicinity of lakes. Visitor use at lakes is dispersed and of low intensity.

**Management:** Resource protection is achieved primarily through appropriate visitor behavior and limitation of visitor numbers. Management for visitor protection and safety within this zone is very limited. Onsite controls and restrictions are minimized and those that are present are subtle. Offsite management of visitor behavior includes wilderness visitor education programs, such as "Leave No Trace" information, and wilderness permitting procedures. Restoration projects such as disturbed land reclamation and exotic species removal may be undertaken. Fire is used to help achieve natural processes.

Developed facilities are minimal in this zone, consisting of trails, minimal directional signing, and bridges where essential at key stream crossings. The designation of primitive campsites is an option to be applied if needed to achieve resource protection goals.

### ***Winter Backcountry Zone***

This zone goes into effect when the main park road is closed for the winter season. This includes the entire park except the Winter Developed Zone.

**Resource Conditions:** Natural processes are unimpeded in this zone. Cultural resources are documented and appropriate preservation standards applied.

**Visitor Experience:** Visitors to this zone experience wilderness-like conditions. While human improvements may be readily observable in some areas, they are generally not operational. Use of this zone requires a relatively high degree of physical exertion and a long time commitment. The environment offers a moderate to high degree of challenge, adventure, and risk. Opportunities for independence, closeness to

nature, tranquility, and the application of outdoor skills are high. There is a low probability of encountering other visitors or NPS staff except within one mile of the winter developed zone.

**Management:** Management in this zone is similar to wilderness. Management for visitor protection and safety within this primitive zone is low to moderate. Resource protection is achieved through visitor education, control of numbers as needed in sensitive areas, and regular patrols and enforcement. Some interpreter-led trips may be provided. There is no additional development in this zone, except for signing, to facilitate winter visitor use or park management.

### ***Scenic Drive Zone (Summer)***

This zone includes the main park road extending from the Highway 44 junction at the north entrance to the southwest entrance. It encompasses the paved roads, pullouts, overlooks, and associated trails and small picnic areas, parking areas, and other facilities that support visitor touring. It includes Manzanita Lake, Emerald Lake, Reflection Lake, Devastated Area, Sulphur Works, Lake Helen, Lassen Peak Trail, and Bumpass Hell Trail. Approximately 1,192 acres are included in this zone.

**Resource Conditions:** Although there is concentrated visitor use and extensive development in this zone, natural systems are not significantly affected. Biological inventories and assessments provide sufficient information to ensure that there are no impacts from development or visitor use on sensitive or threatened and endangered species habitat, wetlands are avoided in any new development and restored where already impacted, thermal areas are protected from inappropriate visitor uses, and streams are protected from erosion and polluted runoff.

Cultural resources in this zone, including the historic Route 1 landscape, are documented and appropriate preservation standards applied.

**Visitor Experience:** Visitors use the paved roadways, trails, and associated developments in the scenic drive zone to tour the park, enjoy scenic overlooks and interpretive media, and gain access into other park zones. Visitor attractions are convenient and easily accessible. Observing the natural environment is an important activity. The probability of encountering other visitors is very high, and moderate for encountering National Park Service staff. Many visitors may be present in some areas. Some trails and most facilities in this



Manzanita Lake amphitheater

zone are accessible to disabled persons. Lakes and trails have concentrated visitor use and developed visitor facilities.

**Management:** Intensive management is provided in the scenic drive zone to ensure resource protection and public safety with frequent ranger patrols and regular trail, road and roadside facility maintenance. Interpretation includes signs, displays, wayside exhibits and milepost guides. Some interpreter-led programs and tours may also occur in this zone. Development is evident, but is designed to harmonize with the natural environment. Facilities are rustic and consistent with the defining elements of the cultural landscape. Visitor facilities include unpaved maintained trails with bridges at key creek crossings.

Visitor stopping points along the road serve a number of different purposes and they are developed and managed accordingly.

Major interpretive sites and trailheads have rest rooms, trash cans, wayside exhibits, and paved parking areas designed for traffic flow and safety. Major sites include Bumpass Hell, Sulphur Works, Lassen Peak, Devastated Area, and Loomis Museum.

Minor trailheads and interpretive sites have wayside exhibits, are generally unpaved, but have designated parking. Trash cans and picnic tables may be provided.

Individual pullouts are located and designed to allow opportunities for a visitor or group of visitors to enjoy the views or other park resources for a period of time without the disruption of other visitors. Pullouts accommodate one to three vehicles. They are unpaved, but designed to prevent informal enlargement. Trash cans and picnic tables may be provided.

### ***Remote Unit Access Road Zone (Summer)***

This zone encompasses the major access roads serving Butte Lake, Juniper Lake, and Warner Valley areas. The zone includes approximately 334 acres.

**Resource Conditions:** Resource protection objectives are the same as in the Scenic Drive zone. Significant natural processes and sensitive habitat are not affected. Cultural resources are documented and appropriate preservation standards applied.

**Visitor Experience:** This zone provides a driving experience that gives visitors a sense of being in

a largely undisturbed natural environment. Regularly maintained roads and directional signs are the only facilities present. The probability of encountering other visitors is high, and it is moderate for encountering National Park Service staff.

**Management:** Regular ranger patrols occur on these routes for visitor and resource protection. Onsite controls and restrictions are subtle, such as berms, rocks, or vegetation used to prevent vehicles from leaving the road. Some development is evident, but design is such as to harmonize with the natural environment.

### ***Summer Developed Zone***

This zone includes areas with major visitor facilities that are accessible and usable in the summer months. Visitor service facilities, concession facilities, ranger stations, and major campgrounds and picnic areas are included in the developed zone. This zone encompasses approximately 246 acres of the park.

**Resource Conditions:** Natural resource protection objectives are the same as in the Scenic Drive Zone. Although there is substantial development and concentrated use, significant natural processes and sensitive habitat are not affected.

Cultural resources are documented and appropriate preservation standards applied. Some historic structures may be adaptively used.

**Visitor Experience:** Although buildings, structures, and the signs of people predominate, natural elements are present. The facilities are convenient and easily accessible. There is little need for visitors to physically exert themselves, apply outdoor skills, or make a long time commitment to see the area. Opportunities for adventure are minimal. Many of these areas provide opportunities for social experiences, interpretation and educational programs, and compatible recreation activities. The probability of encountering other visitors or National Park Service staff is very high.

**Management:** There is a high level of management for visitor protection and safety, with frequent ranger patrols. Interpretation is provided through wayside exhibits and interpreter-led programs. Facilities are designed to be rustic and non-intrusive and conform to parkwide architectural standards. Landscaping employs native plants. Most facilities are accessible to visitors with disabilities, and there are some accessible trails.

### ***Winter Developed Zone***

This zone includes areas at the two major entrances that are accessible and usable in the winter months. Visitor service facilities, concession facilities, and ranger stations are included in the winter developed zone.

**Resource Conditions:** Natural and cultural resource protection objectives are the same as in the Summer Developed zone.

**Visitor Experience:** Visitors experience a high degree of interaction with park staff and other visitors while acquiring the information and conveniences necessary to learn about and enjoy the park's winter environment.

**Management:** There is a high level of management for visitor protection and safety. Interpretation is provided through wayside exhibits and interpreter-led programs. Most facilities are accessible to visitors with disabilities.

### ***Administrative Zone***

This zone includes the developed areas used for administration and maintenance. Included in this zone are major administrative areas at headquarters and Manzanita Lake, minor service roads for administrative use, and minor administrative structures and utility features. There are approximately 80 acres within this zone.

**Resource Conditions:** Although buildings, structures, and signs of people predominate, conflicts with natural processes and sensitive species and habitats are avoided. Cultural resources are documented and appropriate

preservation standards applied. Historic structures may be adapted for current needs.

**Visitor Experience:** Visitors enter these areas only infrequently. When they do, they are confronted with developments reflecting environmental sensitivity and sustainability.

**Management:** There is a high level of management for protection and safety. Facilities are accessible to employees with disabilities. Facility design conforms to parkwide architectural design standards and is sensitive to historic settings and landscapes. Landscaping employs locally obtained native plants.

### ***Inholder Zone***

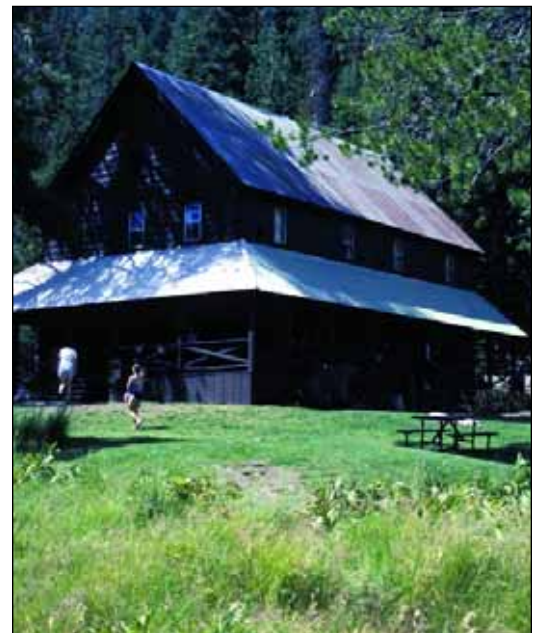
This zone includes the two areas of inholdings within the park, Hat Creek and Juniper Lake. The total area of the zone is approximately 6 acres. There are 14 privately owned tracts within the zone.

**Resource Conditions:** Buildings, structures, and signs of people predominate in privately owned lands in this zone. Roads across park land are maintained to avoid damage to significant resources.

**Visitor Experience:** Visitor presence in these areas is minimized.

**Management:** The park will acquire these tracts as they are offered for sale. Park staff will cooperate with property owners to achieve mutual objectives. Tracts that are acquired will be rezoned as appropriate.

left: snow shoe walk  
right: Drakesbad lodge





Top: Loomis Museum  
Bottom: Mudpot at Devils Kitchen

## Needed or Allowable Changes

A number of physical and operational changes are required to achieve the standards prescribed for the various zones and to achieve the objectives of the plan, and these are described below for each of the several zones. Map 11, Restoration and Development Projects, shows major projects to be undertaken at various locations in the park which are discussed below.

### *Parkwide*

Many of the visitor use facilities not available or fully functional in the colder months of the shoulder season will be winterized to facilitate use in a lengthened season. Also, a radio broadcast Traveler Information System will be installed at four locations and maintained to improve the dissemination of visitor information.

### *Wilderness Zone*

The Wilderness Zone will include existing designated wilderness plus an added area of approximately 25,000 acres, which will be evaluated as an area of consideration for inclusion into designated wilderness.

Education efforts will be undertaken aimed at instilling wilderness ethics in visitors and increasing stewardship by user groups to support wilderness values. The park will increase staff available for information and partnership activities with appropriate groups.

Inventorying and monitoring will determine existing wilderness conditions, where problems exist, and what type of management actions are needed. Studies will assess the most effective means of reducing concentrations of visitors on lake shores. Possible measures could include designating primitive campsites or using a permit system with quotas. Studies will determine how best to manage stock use to avoid adverse resource impacts. Measures will include reevaluation and possible revision to existing carrying capacities and group size limits, trailhead quotas, redesign of trails to withstand stock use, and dispersal of use to less sensitive areas. Information will be provided to visitors on low-impact backcountry practices.

Disturbed areas will be revegetated and historic structures rehabilitated.

Ranger patrol levels in the wilderness will be increased to provide education, prevention, and enforcement, and should decrease problems with dogs, cattle trespass, and vandalism.

A monitoring program will document the extent of flights over wilderness to determine impacts on wilderness values of solitude and quiet.

### *Remote Unit Access Road Zone*

Because these roads provide access to U.S. Forest Service, private lands, and park sites, management and maintenance will be coordinated among National Park Service, U.S. Forest Service, and the involved counties.

Roads will remain designed for low-speed travel, and alignments will not be changed except for sections of Warner Valley Road. The Warner Valley Road will be upgraded and segments realigned to prevent soil erosion, improve public safety, and improve road drainage. Abandoned sections of that road will be recontoured and revegetated.

Increased ranger presence will be provided on these roads for fee collection and resource protection. Fee stations will be improved to provide more information to visitors, and technology will be employed to make fee collection more user friendly.

### *Scenic Drive Zone*

A major effort will be made to improve interpretation of the park's natural and cultural history along the main road. More ranger-led interpretive programs will be conducted at major visitor attractions such as the Devastated Area, Bumpass Hell, and Sulphur Works. Non-personal services will be enhanced as well, to include a traveler information system (audio tape tour), milepost-keyed road guide, and organized information for use by bus tour organizations.

Improved information will encourage dispersal of visitors in the highly visited thermal areas to less crowded areas and educate visitors about hazards.

A monitoring program will document the extent of flights over Lassen Peak to determine impacts on park values of solitude and quiet.

The Lassen Volcanic National Park Highway cultural landscape will be preserved and interpreted for park visitors.

Physical improvements will be undertaken for resource protection purposes such as redesigning Bumpass Hell Trail in locations where resource damage is occurring, and realignment of portions of Lassen Peak Trail to bypass late season snow fields. Additional resource protection improvements will include redesign and relocation of the southwest entrance station, rehabilitation of several historic culverts, repair of road structural deficiencies, and restoration of disturbed lands

at the site of the old North District ranger station. Brokeoff Mountain trailhead will be improved to better delineate the parking area and, because this trailhead is outside the entrance station, a fee collection device will be installed along with increased visitor information exhibits.

Pullouts on the main park road will be reevaluated, redesigned, and relocated to eliminate safety deficiencies, to avoid resource damage, and to achieve improved visitor experience including scenic views, interpretation, and availability of convenience facilities.

Parking and picnic facilities will be replaced at Reflection Lake.

Parking lots at Bumpass Hell and Lassen Peak will be redesigned to improve their safety and appearance.

Increased staffing will better manage use on Lassen Peak Trail, especially early in the season when snow remains along the trail. Actions will include better marking the trail route, provision of trail signs, and temporary closures where use cannot be managed on a non-destructive basis.

Overall ranger presence will be increased for education, prevention, and enforcement.

### ***Summer Developed Zone***

Site assessments and plans for each key development area will be undertaken to determine means of reducing resource impacts and improving visitor safety. Site plans will also look for opportunities to improve accessibility for disabled persons, and consider the introduction of sustainable practices to conserve water and energy and reduce wastewater.

*Key operational and physical changes needed in the zone for specific areas are discussed below:*

**Southwest Entrance:** A new visitor services facility will be developed in this area to provide for visitor orientation, cooperating association sales of interpretive and educational materials, food service, gift shop, other appropriate commercial services, and ranger and maintenance operations. Parking areas will be redesigned to improve circulation, add some capacity, and enhance the esthetics of the area.

**Kings Creek:** This area will be redesigned to improve resource protection, safety, and visitor experience and the picnic area will be expanded to provide bus parking and areas suitable for group use.

**Lost Creek Group Campground:** This heavily used group campground will be retained at its existing scale and design, but will be redeveloped with improved restrooms and septic system, improved circulation, and better definition of campsite and parking areas. Interpretive programs and services will be initiated in this area, supported by a primitive amphitheater.

**Crags Campground:** This campground will be retained at its existing scale and design but will be managed solely as an overflow facility.

**Summit Lake:** The campgrounds will be redesigned to eliminate existing impacts to riparian areas and facilitate non-damaging visitor use of the area. Improvements will include upgraded restrooms/sewage treatment system, relocated campsites and internal roads, development of a new horse corral, and a rehabilitated amphitheater. Additional improvements in the area will include increased water storage, improved trailhead parking, and consolidation of the ranger station outbuildings.

**Manzanita Lake:** Several disturbed former developed sites in this area will be restored to natural conditions, including the Summertown development, former campground loops, and the existing interpretive workroom building and site. The abandoned telephone lines in the area will also be removed and a vegetation management plan will be implemented to provide for regeneration of Jeffrey pine.

A comprehensive site plan will be completed for this area to alleviate safety and environmental impact concerns. The plan will be expected to improve circulation in this oft-congested area, and pedestrian and bicycle trails will be developed to provide access between the lake, museum, store, campground, and amphitheater, and a trail will be developed to Reflection Lake. The boat launch and parking area will be relocated to a more functional and resource-sensitive location.

The former campground "A" Loop will be developed to serve as a picnic area. Accessible showers and restrooms will be provided in the campground and the existing facilities upgraded to meet health and safety codes. Existing campground roads and the amphitheater will be rehabilitated.

The historic naturalist residence at Manzanita Lake will be rehabilitated to provide space for interpretive staff to provide education programs year around for a variety of users, including school groups.



snowboarder

**Butte Lake:** Excess government structures and service roads will be removed and lands restored to natural conditions. The horse corral will be reestablished and an addition to the ranger station will provide interpreter housing.

Environmentally approved dust suppressants will be employed on campground roads. Interpretive programs and services will be initiated in this area, supported by a rehabilitated amphitheater.

**Juniper Lake:** A comprehensive site plan will be completed for the area to look at alternatives for relocation of the campground from its present location on the lakeshore and in the riparian zone to a less sensitive and more resilient area, retaining the same scale of 18-20 sites. A consolidated trailhead with adequate directional signing will be provided and a canoe put-in location will be designated. Environmentally approved dust suppressants will be employed on campground roads. Interpretive programs and services will be initiated in this area.

**Warner Valley:** A comprehensive site plan will be developed for Warner Valley to address natural and cultural resource conflicts and to improve parking and circulation. The existing trailhead parking will be relocated from its wetland location and the disturbed area restored, and historic structures in the area will be rehabilitated and maintained. The existing campground will be relocated to only the north side of the road, retaining approximately the existing scale, but eliminating riparian conflicts and safety concerns. A trail will be developed from the campground to Drakesbad Meadow and other existing trails. Environmentally approved dust suppressants will be employed on campground roads.

Visitor orientation and safety information will be provided at Drakesbad and interpretive programs and services will be initiated in this area.

### ***Winter Developed Zone***

Increased educational and interpretive programs and services will be provided at both entrances.

Resource protection and visitor information at the north entrance will be enhanced during peak visitation periods by increasing the current limited ranger station staffing to allow the facility to remain open eight hours per day Friday through Monday. In addition, the road will be plowed as far as the camper store, allowing the concession operation to provide limited food service and rental of skis and

snowshoes. A facility will also be provided in this area to accommodate winter environmental education groups.

The new visitor services facility at the southwest entrance will remain open in winter months to provide for visitor orientation, Museum Association sales of interpretive and educational materials, food service, gift shop, other appropriate commercial services, and ranger and maintenance operations.

### ***Administrative Zone***

A comprehensive site plan will be completed for the headquarters area to guide construction of new administrative and maintenance complexes, and reconversion of the four satellite administration buildings to housing. Utilities will be upgraded and replaced as needed for safe and dependable service, with provisions for back-up power for use on those frequent winter occasions when commercial electrical power is interrupted.

At Manzanita Lake, a comprehensive site plan will be completed to guide the development of a consolidated maintenance facility, other administrative facilities, and provision of landscaping for improved esthetics.

As staff is added to implement this plan, additional employee housing may be required. Specific housing needs will be addressed at that time following National Park Service housing policy.





snow plow

## Estimated Costs

The costs discussed below consist of rough estimates of recurring and one-time expenditures needed to achieve the goals of the plan. The estimates provide a rough measure of the resources needed to implement the plan but are not appropriate for use in developing budgets or seeking appropriations. All estimates are in 1998 dollars.

**Recurring** total operation costs will total approximately \$7.7 million, and FTE (full-time equivalent employees) will be about 137.

**One-time project costs** for implementing this plan, including detailed planning and information - collection projects as well as construction projects, are estimated at approximately \$73.6 million.

Construction project estimates include, in addition to actual construction costs, required predesign natural and cultural resource analysis, design, and an allowance for contingencies. The costs are summarized below. The highest funding priorities will be accorded to remediation of environmental intrusions in backcountry and developed areas and natural and cultural resource management activities, since those activities are urgently needed to preserve critical park resources. High priority will also be accorded to development of a visitor service facility at the southwest entrance, where visitor orientation is currently minimal and urgently needed, and to remediation of safety deficiencies at various parking lots on the main road.

**Table 1: Estimated Capital Improvement Costs**

Project Category	Total Cost
<b>Remediate Backcountry Environmental Intrusions</b> <i>Major Projects:</i> Remove Redundant Trails Revegetate Disturbed Areas Bumpass Hell Trail Improvements Lassen Peak Trail Realignment	\$ 1,680,000
<b>Remediate Developed Area Environmental Intrusions</b> <i>Major Projects:</i> Underground Utility Lines Implement sustainable water/energy/wastewater management practices Restore Disturbed Lands Remove Obsolete/Excess Structures Relocate Facilities from Wetlands and Riparian Areas Redesign/Reconstruct Parking Lots at Bumpass Hell and Lassen Peak Trailheads Expand/Relocate Manzanita Dump Station	\$6,480,000
<b>Natural Resource Management</b> <i>Major Projects:</i> Obtain Baseline Data Exotic Species Research and Control Design Monitoring Program Stock Carrying Capacity Analysis Evaluate Feasibility of Reintroducing Fisher and Wolverine Accelerate Exotic Species Control	\$6,360,000
<b>Cultural Resource Management</b> <i>Major Projects:</i> Obtain Baseline Data Rehab Historic Structures Construct Collection Storage Facility	\$4,225,000
<b>Developed Area Planning</b> <i>Major Projects:</i> Comprehensive Trail Plan Parkwide Design Standards for Structures and Landscapes Site Plans for All Major Developed Areas	\$725,000

**Visitor Facility/Orientation Improvements**

**\$16,350,000**

*Major Projects:*

- Southwest Visitor Service Facility
- Upgrade safety at Major Parking Lots
- Upgrade Toilets on Main Road
- Relocate/Upgrade Main Road Pullouts
- Construct Summit Lake and Butte Lake Horse Corrals
- Improve Boat Launch at Manzanita and Juniper Lake
- New Picnic Area at Manzanita Lake
- Improve Trails at Manzanita Lake
- Improve Water and Sanitation at Manzanita Lake CG
- Improve Water and Sanitation at Warner Valley CG
- Traveler Information System (audio tape tour)
- Winterize Facilities
- Interpretive Media
- Maintain Existing Trails
- Relocate and Redesign Pullouts on Main Road
- Picnic Area at Reflection Lake
- Amphitheatres at Lost Creek and Butte Lake

**Circulation Improvements**

**\$16,140,000**

*Major Projects:*

- Repair Main Road Structural Deficiencies
- Improve Traffic Controls and Signs
- Snow Removal Equipment and Storage
- Improve Drakesbad Roads and Parking
- Harden Warner Valley Road

**Administrative Facility Improvements**

**\$21,610,000**

*Major Projects:*

- New Headquarters Admin and Maintenance Facilities
- Upgrade Headquarters Utilities
- Upgrade/Modernize Manzanita Lake Facilities
- Butte Lake Interpreter Housing
- Winterize Manzanita Lake Maintenance Area

**Total Estimated One-Time Costs**

**\$73,570,000**



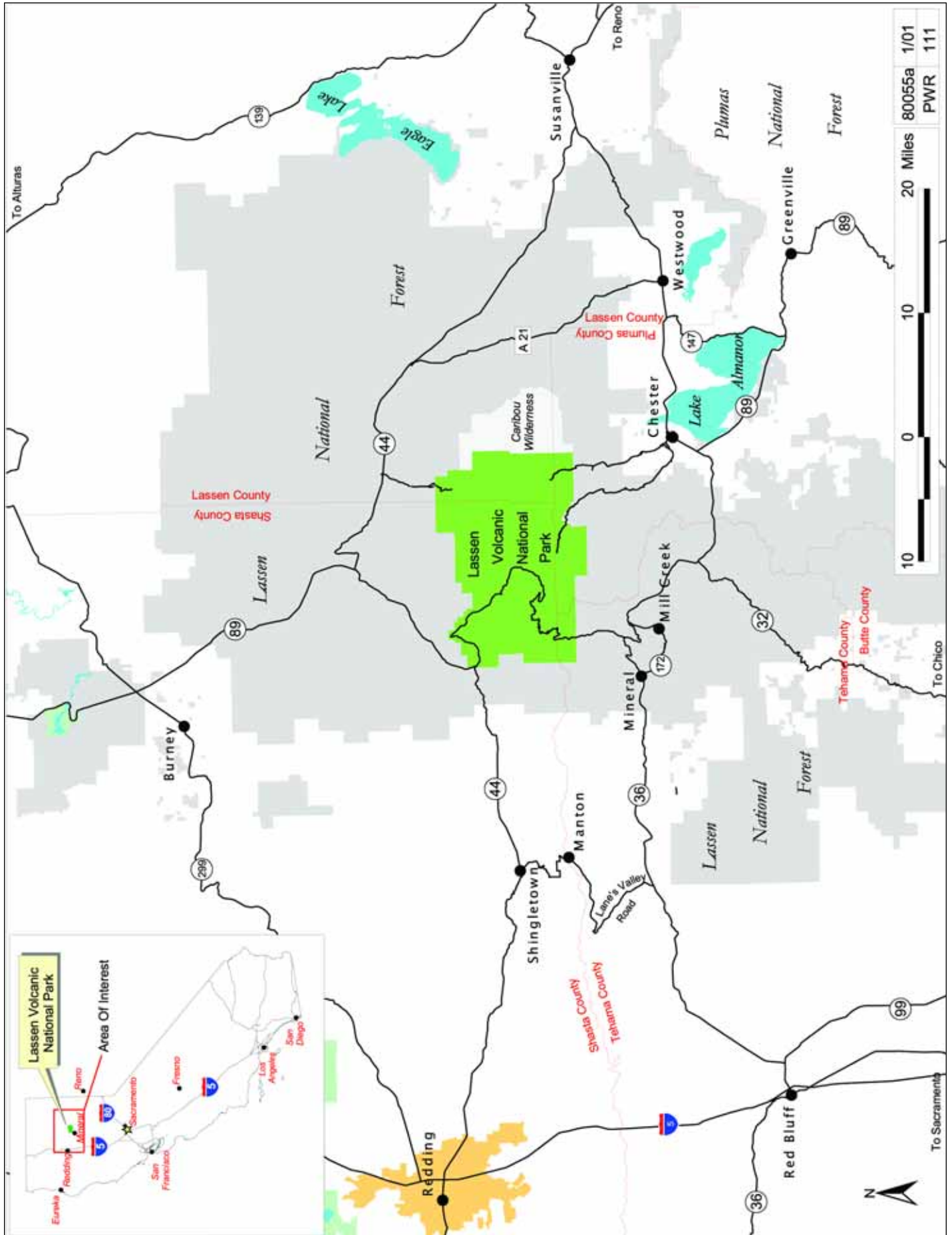
California Conservation Corps crew



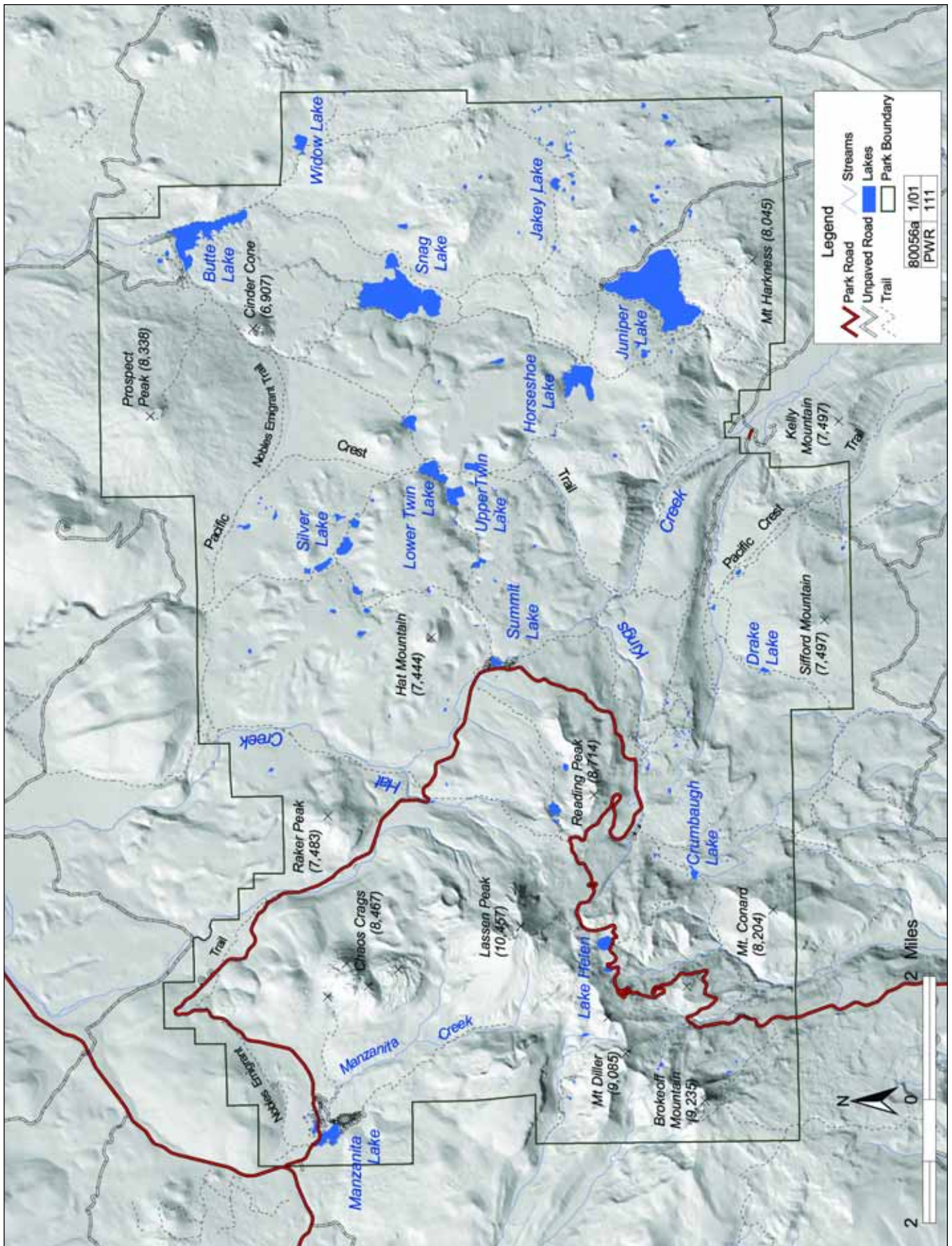
# MAPS

1. Regional Map
2. Physical Features
3. Butte Lake Unit
4. Juniper Lake Unit
5. Manzanita Lake Unit
6. Warner Valley Unit
7. Headquarters Unit
8. Areas Considered for Wilderness Expansion
9. Summer Zoning
10. Winter Zoning
11. Restoration and Development Projects

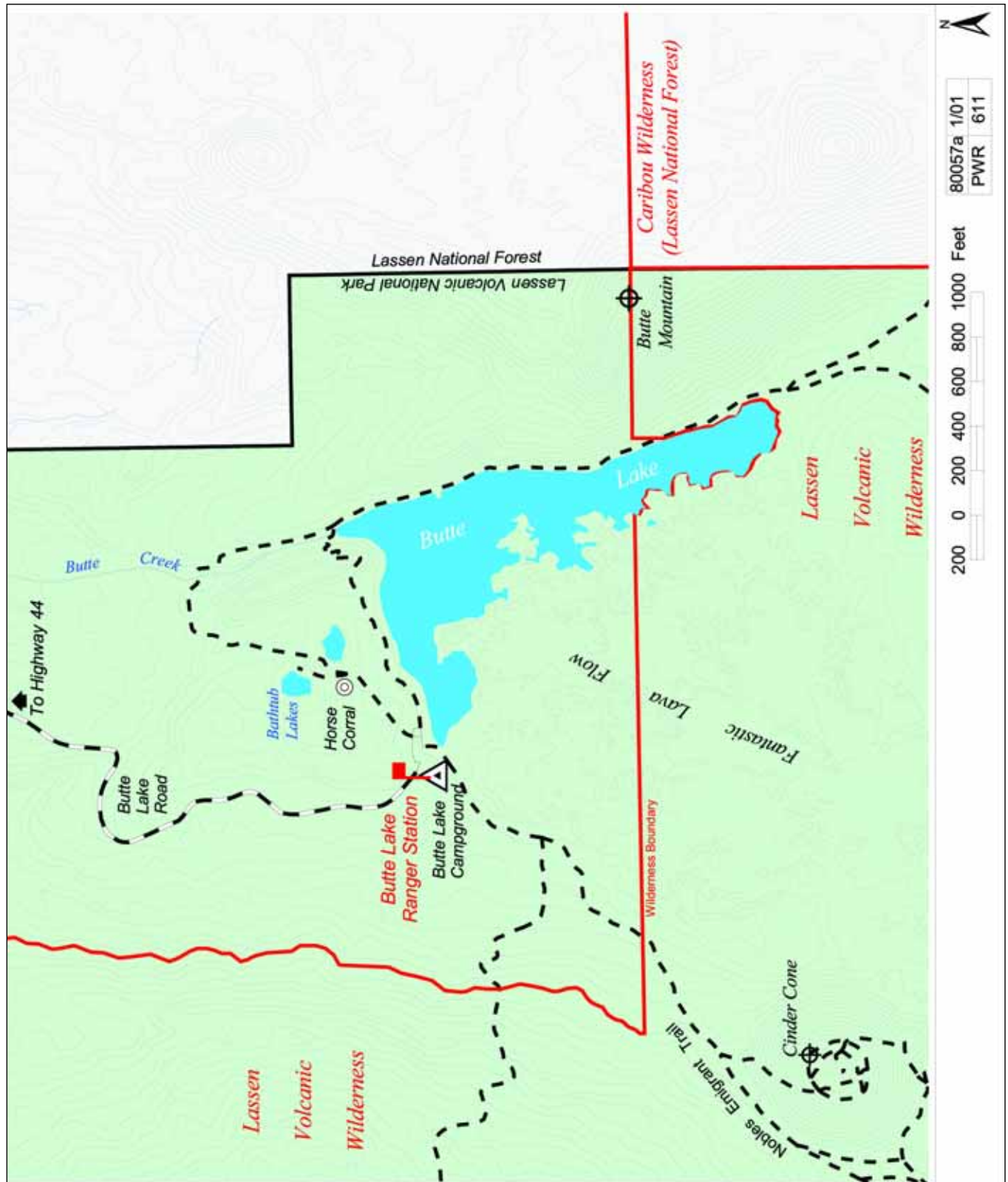
# 1. Region



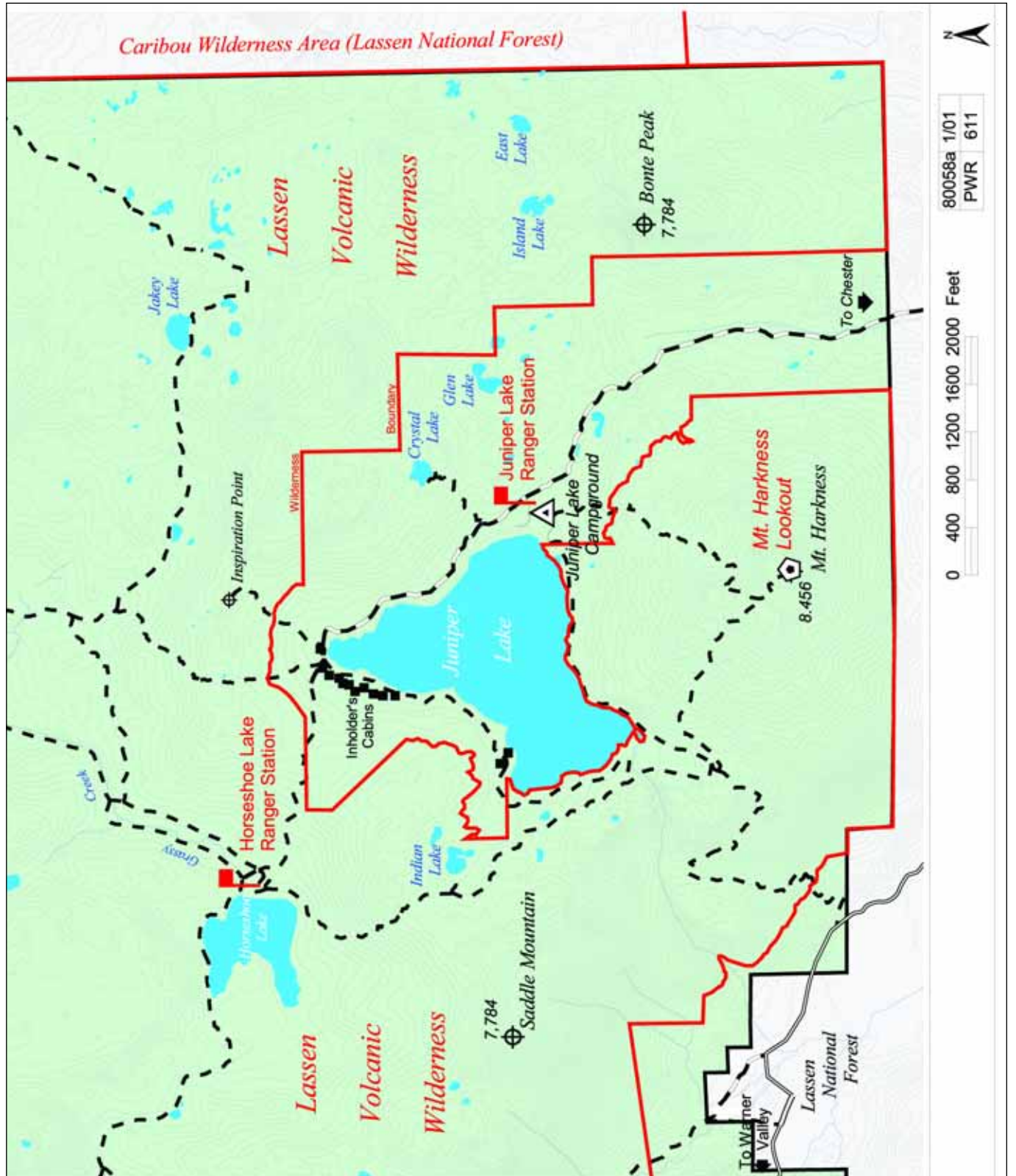
## 2. Physical Features



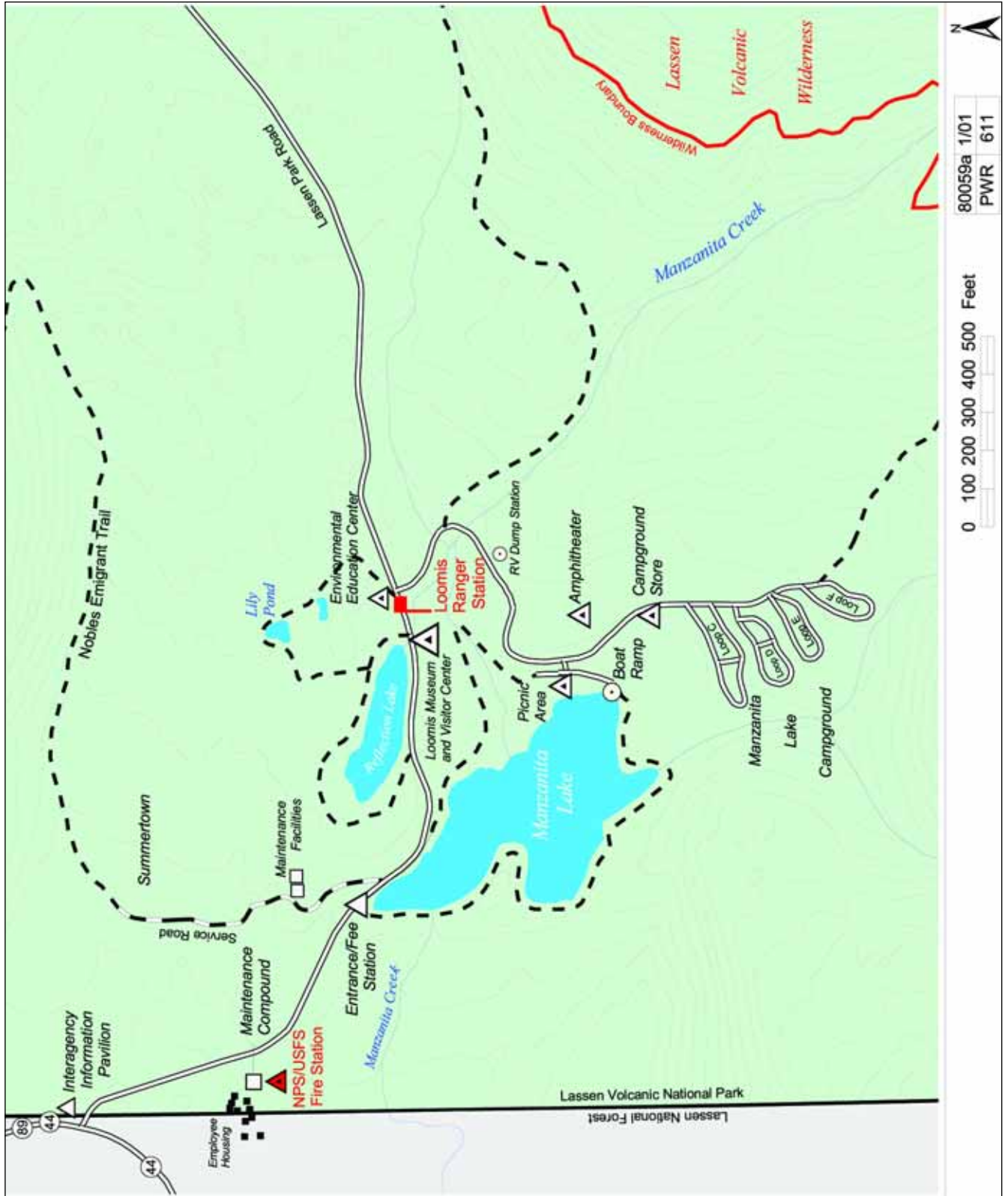
### 3. Butte Lake Unit



# 4. Juniper Lake Unit

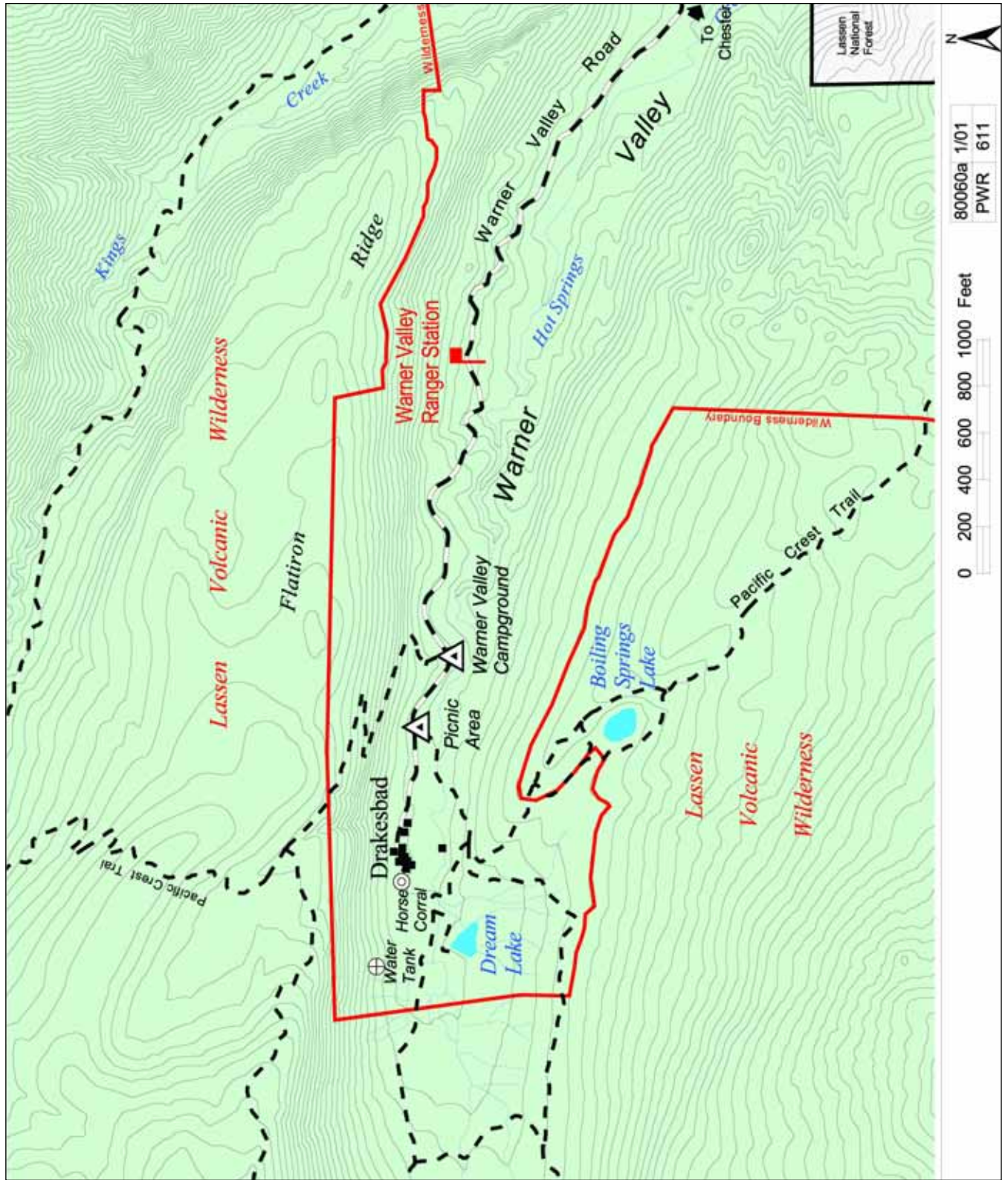


# 5. Manzanita Lake Unit

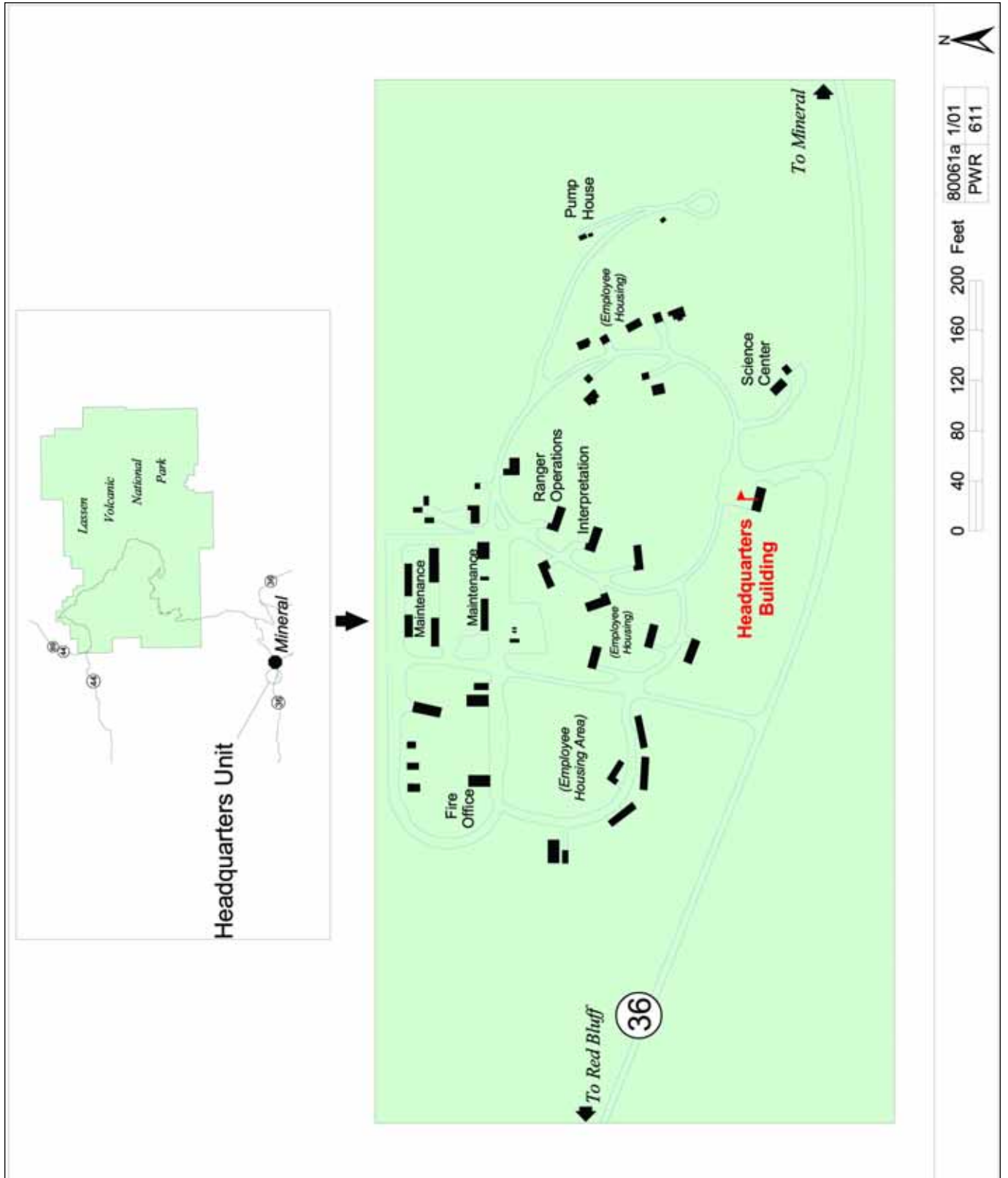




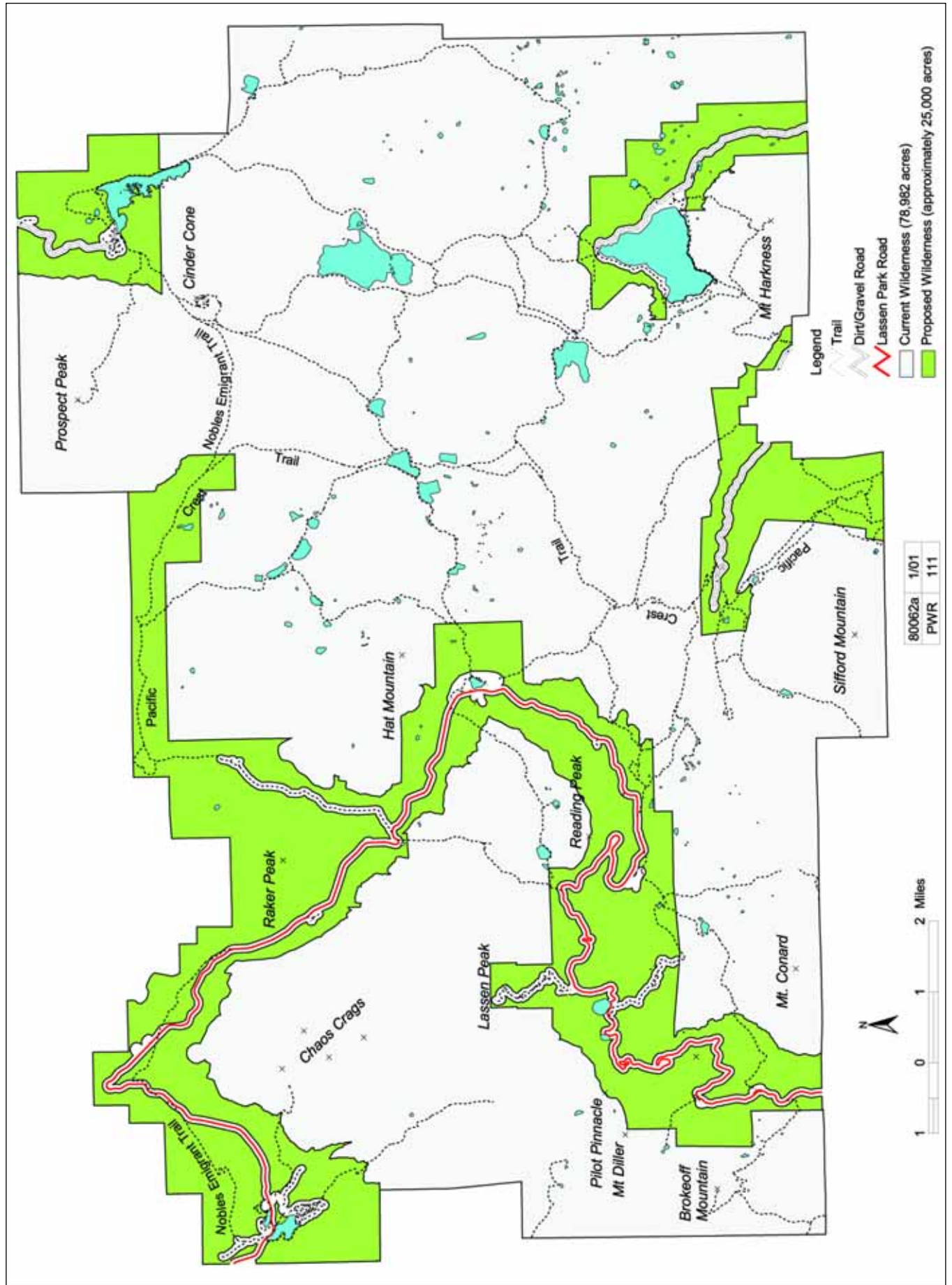
# 6. Warner Valley Unit



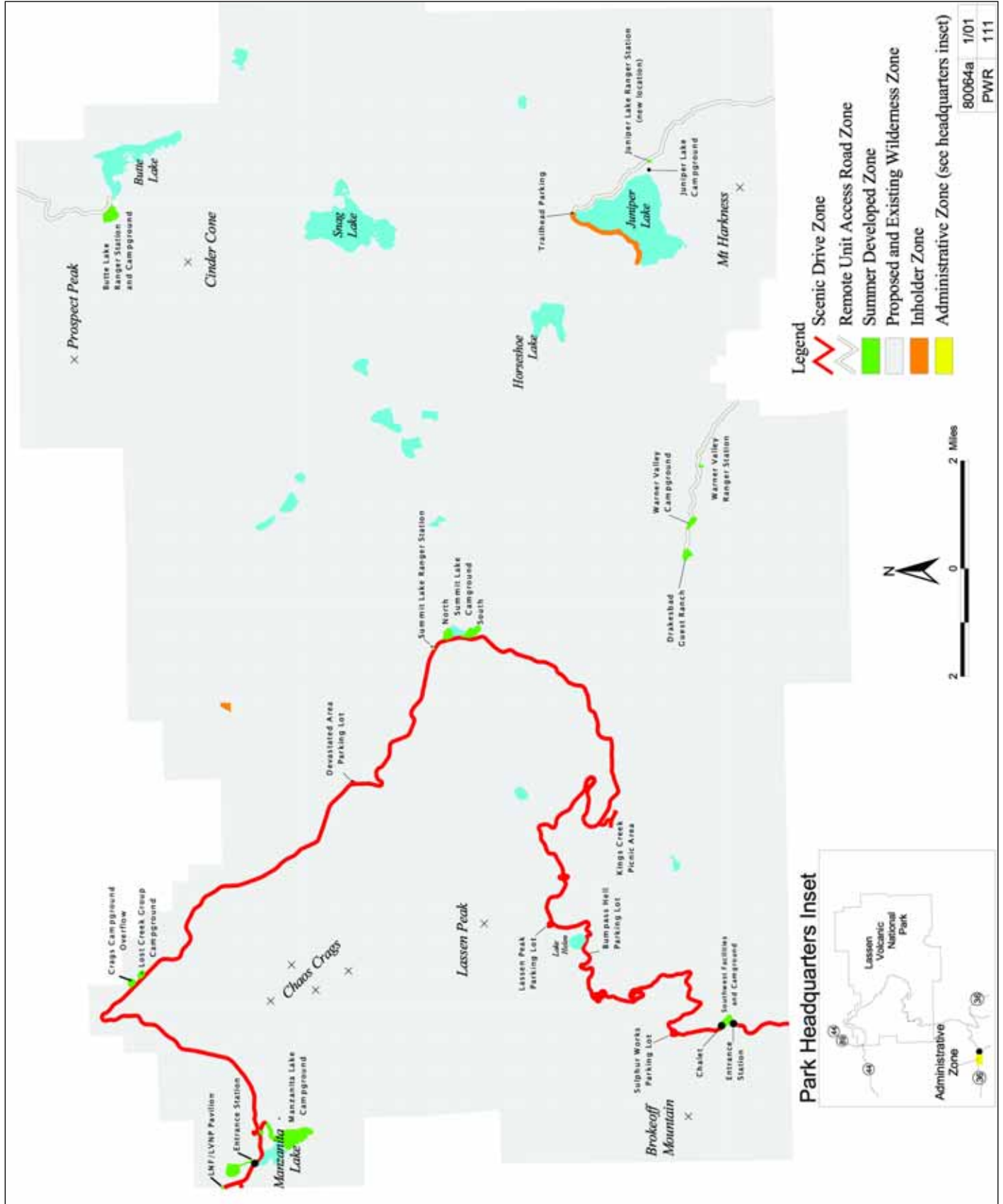
# 7. Headquarters Unit



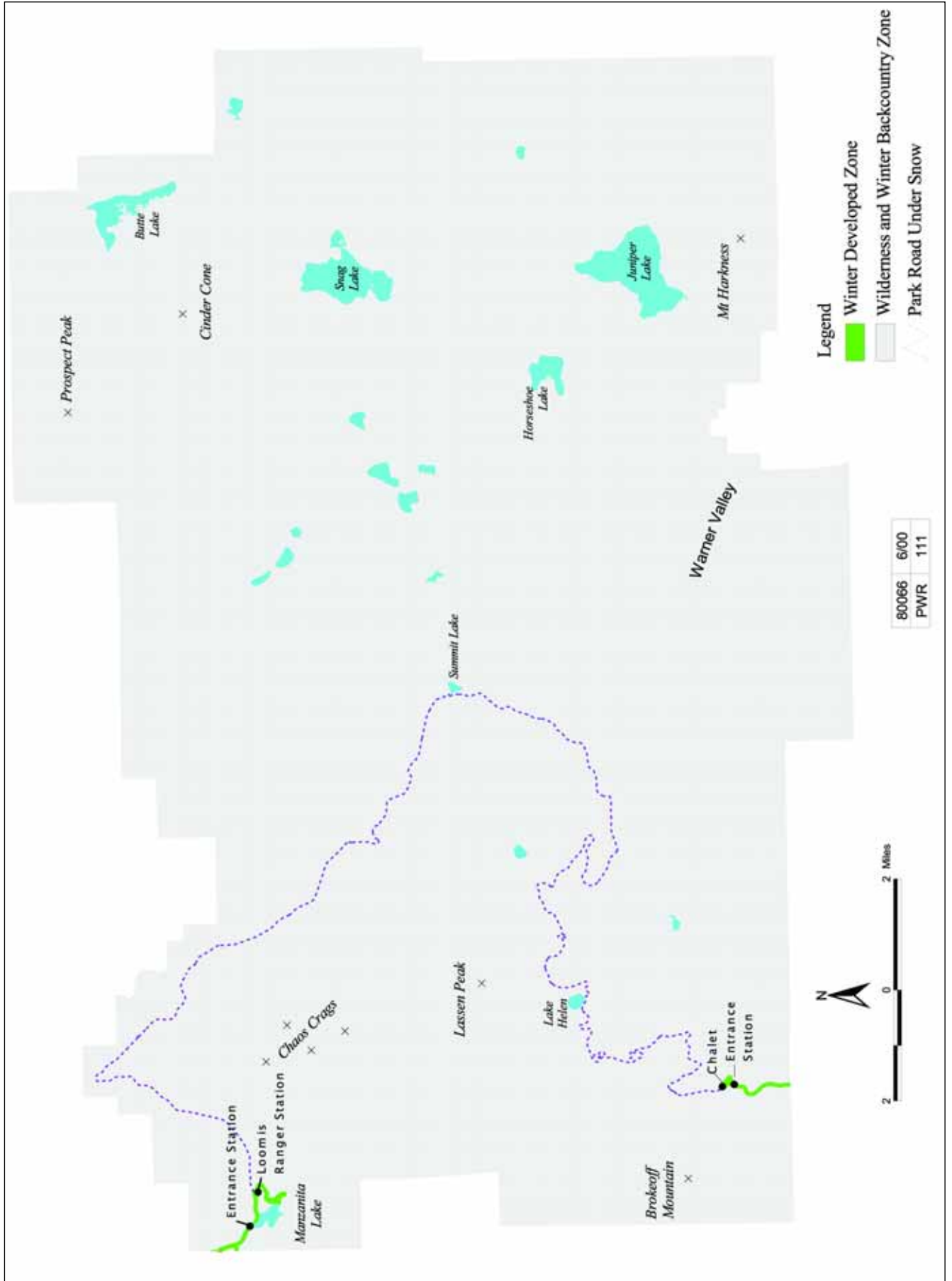
# 8. Areas Considered for Wilderness Expansion



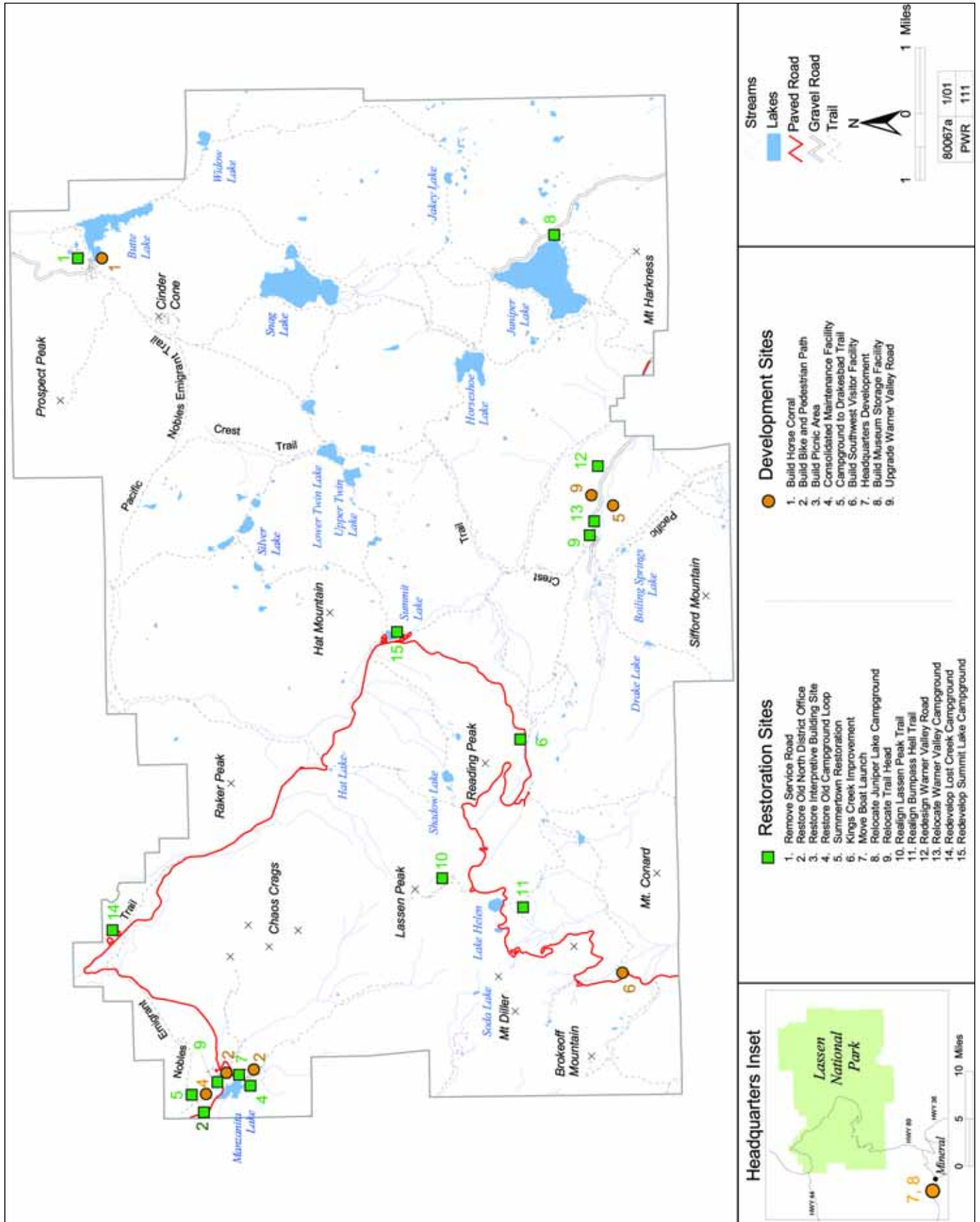
# 9. Summer Zoning

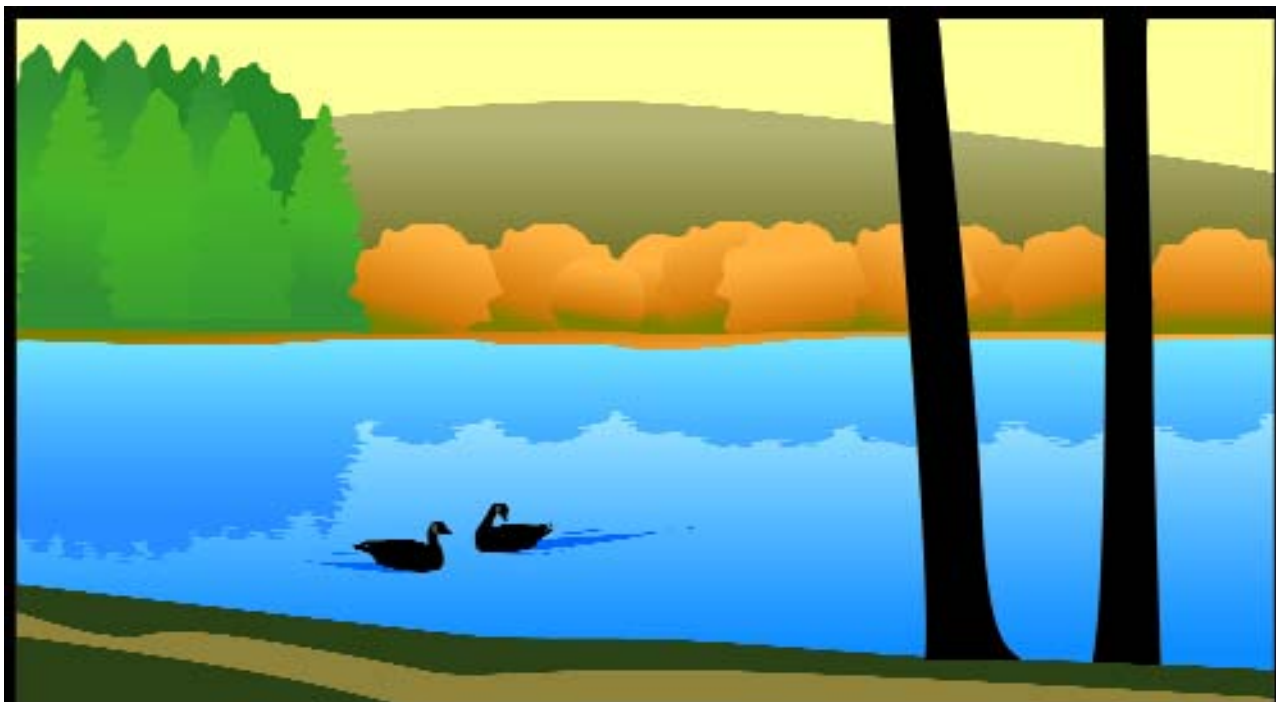


# 10. Winter Zoning



# 11. Restoration and Development Projects





# APPENDIXES

- A: Proclamation
- B: Legislation
- C: Record of Decision
- D: List of Classified Structures (LCS)

# A: Proclamation

CINDER CONE NATIONAL MONUMENT, CALIFORNIA  
BY THE PRESIDENT OF THE UNITED STATES OF AMERICA

## A PROCLAMATION

[No. 753—May 6, 1907—35 Stat. 2131]

WHEREAS, the elevation in the State of California, within the Lassen Peak National Forest, known as "Cinder Cone", and the adjacent area embracing a lava field and Snag Lake and Lake Bidwell, comprising chiefly public lands, are of great scientific interest, as illustrations of volcanic activity which are of special importance in tracing the history of the volcanic phenomena of that vicinity;

AND WHEREAS, it is provided by section two of the Act of Congress, approved June eighth, nineteen hundred and six, entitled, "An Act For the preservation of American antiquities," "That the President of the United States is hereby authorized, in his discretion, to declare by public proclamation historic landmarks, historic and prehistoric structures, and other objects of historic or scientific interest that are situated upon the lands owned or controlled by the Government of the United States to be national monuments, and may reserve as a part thereof parcels of land, the limits of which in all cases shall be confined to the smallest area compatible with the proper care and management of the objects to be protected;"

NOW, THEREFORE, I, Theodore Roosevelt, President of the United States of America, by virtue of the power in me vested by section two of the aforesaid act of Congress, do proclaim that there are hereby reserved from appropriation and use of all kinds under all of the public land laws, subject to all prior valid adverse claims, and set apart as a National Monument, all the tracts of land, in the State of California, shown as the Cinder Cone National Monument on the diagram forming a part hereof.

The reservation made by this proclamation is not intended to prevent the use of the lands for forest purposes under the proclamation establishing the Lassen Peak National Forest, but so far as the two reservations are consistent they are equally effective. In all respects in which they may be inconsistent the National Monument hereby established shall be the dominant reservation.

Warning is hereby given to all unauthorized persons not to appropriate, injure or destroy any feature of this National Monument or to locate or settle upon any of the lands reserved by this proclamation.

IN WITNESS WHEREOF, I have hereunto set my hand and caused the seal of the United States to be affixed.

DONE at the City of Washington this 6th day of May, in the year of our Lord one thousand nine hundred and seven, and of the Independence of the United States the one hundred and thirty-first.

THEODORE ROOSEVELT.

By the President:

ROBERT BACON,

*Acting Secretary of State.*



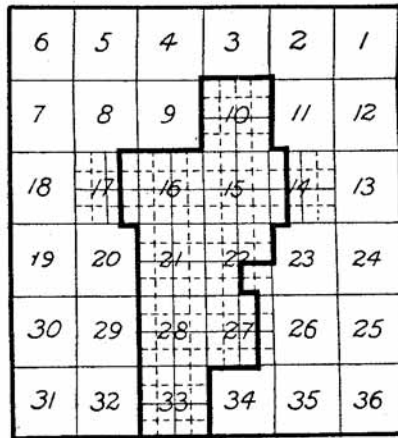
**CINDER CONE NATIONAL MONUMENT  
WITHIN LASSEN PEAK NATIONAL FOREST  
CALIFORNIA  
1907**

MT. DIABLO MERIDIAN AND BASE  
FOREST SERVICE, U.S. DEPT. OF AGRICULTURE

— NATIONAL MONUMENT BOUNDARY

R. 6 E.

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LASSEN PEAK NATIONAL MONUMENT,<sup>2</sup> CALIFORNIA  
BY THE PRESIDENT OF THE UNITED STATES OF AMERICA

A PROCLAMATION

[No. 754—May 6, 1907—35 Stat. 2132]

WHEREAS, Lassen Peak, which is situated upon public land in the State of California, within the Lassen Peak National Forest, marks the southern terminus of the long line of extinct volcanoes in the Cascade Range from which one of the greatest volcanic fields in the world extends, and is of

special importance in tracing the history of the volcanic phenomena of that vicinity,

AND WHEREAS, it is provided by section two of the Act of Congress, approved June eighth, nineteen hundred and six, entitled, "An Act For the preservation of American antiquities," "That the President of the United States is hereby authorized, in his discretion, to declare by public proclamation historic landmarks, historic and prehistoric structures, and other objects of historic or scientific interest that are situated upon the lands owned or controlled by the Government of the United States to be national monuments, and may reserve as a part thereof parcels of land, the limits of

LASSEN PEAK NATIONAL MONUMENT  
WITHIN LASSEN PEAK NATIONAL FOREST  
CALIFORNIA  
1907

MT. DIABLO MERIDIAN AND BASE  
FOREST SERVICE, U. S. DEPT. OF AGRICULTURE

— NATIONAL MONUMENT BOUNDARY

R. 4 E.

T. 31 N.

6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
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[DIAGRAM FORMING A PART OF PROCLAMATION  
DATED MAY 6, 1907.]

which in all cases shall be confined to the smallest area compatible with the proper care and management of the objects to be protected ;”

NOW, THEREFORE, I, Theodore Roosevelt, President of the United States of America, by virtue of the power in me vested by section two of the aforesaid act of Congress, do proclaim that there are hereby reserved from appropriation and use of all kinds under all of the public land laws, subject to all prior valid adverse claims, and set apart as a National Monument, all the tracts of land, in the State of California, shown as the Lassen Peak National Monument on the diagram forming a part hereof.

The reservation made by this proclamation is not intended to prevent the use of the lands for forest purposes under the proclamation establishing the Lassen Peak National Forest, but so far as the two reservations are consistent they are equally effective. In all respects in which they may be inconsistent the National Monument hereby established shall be the dominant reservation.

Warning is hereby given to all unauthorized persons not to appropriate, injure or destroy any feature of this National Monument or to locate or settle upon any of the lands reserved by this proclamation.

IN WITNESS WHEREOF, I have hereunto set my hand and caused the seal of the United States to be affixed.

DONE at the City of Washington this 6th day of May, in the year of our Lord one thousand nine hundred and seven, and of the Independence of the United States the one hundred and thirty-first.

THEODORE ROOSEVELT.

By the President:

ROBERT BACON,  
*Acting Secretary of State.*

## B: Legislation

**An Act To establish the Lassen Volcanic National Park in the Sierra Nevada Mountains in the State of California, and for other purposes, approved August 9, 1916 (39 Stat. 442)**

Lassen Volcanic  
National Park,  
Calif.  
Established.

Description.

*Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,* That all those certain tracts, pieces, or parcels of land lying and being situate in the State of California and within the boundaries particularly described as follows, to wit: Beginning at the northeast corner of section three, township thirty-one, range six east, Mount Diablo meridian, California; thence southerly to the southeast corner of said section; thence easterly to the northeast corner of the northwest quarter of section eleven, said township; thence southerly to the southeast corner of the southwest quarter of section fourteen, said township; thence easterly to the northeast corner of the northwest quarter of section twenty-four, said township; thence southerly to the southeast corner of the southwest quarter of section twenty-five, said township; thence westerly to the southwest corner of section twenty-six,

said township; thence southerly to the southeast corner of section thirty-four, said township; thence westerly along the sixth standard parallel north, allowing for the proper offsets, to the northeast corner of section three, township thirty north, range six east; thence southerly to the southeast corner of section twenty-seven, said township; thence westerly to the southwest corner of the southeast quarter of section twenty-eight, said township; thence northerly to the northwest corner of the southeast quarter of said section; thence westerly to the southwest corner of the northwest quarter of said section; thence northerly to the northwest corner of said section; thence westerly to the southwest corner of the southeast quarter of section twenty, said township; thence northerly to the northwest corner of the southeast quarter of said section; thence westerly to the range line between ranges five and six east; thence southerly along said range line to the southeast corner of township thirty north, range five east; thence westerly along the township line between townships twenty-nine and thirty north to the southwest corner of section thirty-three, township thirty north, range five east; thence northerly to the northwest corner of said section; thence westerly to the southwest corner of the southeast quarter of section twenty-nine, said township; thence northerly to the northwest corner of the southeast quarter of said section; thence westerly to the southwest corner of the northwest quarter of said section; thence northerly to the northwest corner of said section; thence westerly to the southwest corner of the southeast quarter of section twenty, township thirty north, range four east; thence northerly to the northwest corner of the southeast quarter of section eight, said township; thence easterly to the northeast corner of the southwest quarter of section nine, said township; thence northerly to the township line between townships thirty and thirty-one north; thence easterly along the sixth standard parallel north, allowing for the proper offsets, to the southwest corner of section thirty-three, township thirty-one north, range four east; thence northerly to the northwest corner of section twenty-one, said township; thence easterly to the range line between ranges four and five east; thence northerly along said range line to the northwest corner of fractional section eighteen, township thirty-one north, range five east; thence easterly to the southwest corner of section twelve, said township; thence northerly to the northwest corner of section one, said township; thence easterly along the township line between townships thirty-one and thirty-two north to the northeast corner of section three, township thirty-one north, range six east, the place of beginning, are hereby reserved and withdrawn from settlement, occupancy, disposal, or sale, under the laws of the United

States, and said tracts are dedicated and set apart as a public park or pleasuring ground for the benefit and enjoyment of the people of the United States under the name and to be known and designated as the Lassen Volcanic National Park; and all persons who shall locate or settle upon or occupy the same, or any part thereof, except as hereinafter provided, shall be considered trespassers and be removed therefrom: *Provided*, That nothing herein contained shall affect any valid existing claim, location, or entry under the land laws of the United States or the rights of any such claimant, locator, or entryman to the full use and enjoyment of his land: *Provided further*, That rights of way for steam or electric railways, automobiles, or wagon roads may be acquired within said Lassen Volcanic National Park under filings or proceedings hereafter made or instituted under the laws applicable to the acquisition of such rights over or upon the national forest lands of the United States when the construction of such roads will not interfere with the objects of the national park, and that the United States Reclamation Service may enter upon and utilize for flowage or other purposes any area within said park which may be necessary for the development and maintenance of a Government reclamation project; that no lands located within the park boundaries now held in private, municipal, or State ownership shall be affected by or subject to the provisions of this Act: *And provided further*, That no lands within the limits of said park hereby created belonging to or claimed by any railroad or other corporation now having or claiming the right of indemnity selection by virtue of any law or contract whatsoever shall be used as a basis for indemnity selection in any State or Territory whatsoever for any loss sustained by reason of the creation of said park. (U.S.C., title 16, sec. 201.)

**Trespassing forbidden.**

**Provisos. Valid claims not affected.**

**Rights of way. (Repealed by 46 Stat. 1043. See p. 199.)**

**Reclamation Service use.**

**Present ownership not affected. Indemnity selections.**

**Regulations of control, etc.**

**Sec. 2.** That said park shall be under the exclusive control of the Secretary of the Interior, whose duty it shall be, as soon as practicable, to make and publish such rules and regulations not inconsistent with the laws of the United States as he may deem necessary or proper for the care, protection, management, and improvement of the same. Such regulations being primarily aimed at the freest use of the said park for recreation purposes by the public and for the preservation from injury or spoliation of all timber, mineral deposits, and natural curiosities or wonders within said park and their retention in their natural condition as far as practicable and for the preservation of the park in a state of nature so far as is consistent with the purposes of this Act. He shall provide against the wanton destruction of the fish and game found within said park and against their capture or destruction for purposes of merchandise or profit, and generally shall be authorized to take all such measures as

shall be necessary to fully carry out the objects and purposes of this Act. Said Secretary may, in his discretion, execute leases to parcels of ground not exceeding ten acres in extent at any one place to any one person or persons or company for not to exceed twenty years when such ground is necessary for the erection of buildings for the accommodation of visitors and to parcels of ground not exceeding one acre in extent and for not to exceed twenty years to persons who have heretofore erected, or whom he may hereafter authorize to erect, summer homes or cottages. Such leases or privileges may be renewed or extended at the expiration of the terms thereof. No exclusive privilege, however, shall be granted within the park except upon the ground leased. The regulations governing the park shall include provisions for the use of automobiles therein and the reasonable grazing of stock. (U.S.C., title 16, sec. 202.)

Leases to accommodate visitors, etc. (This section so far as it relates to summer cottages repealed by 46 Stat. 1043. See p. 199.)

SEC. 3. That the Secretary of the Interior may also sell and permit the removal of such matured or dead or down timber as he may deem necessary or advisable for the protection or improvement of the park. (U.S.C., title 16, sec. 203.)

Timber disposal.

SEC. 4. That the Secretary of the Interior may exact such charges as he deems proper for leases and all other privileges granted hereunder. (U.S.C., title 16, sec. 203.)

Charges.

SEC. 5. That no appropriation for the maintenance, supervision, or improvement of said park in excess of \$5,000 annually shall be made unless the same shall have first been expressly authorized by law.

Limit on appropriations. Repealed by 42 Stat. 503. See p. 189 below.

**An Act to designate certain lands in the Lassen Volcanic National Park, California, as wilderness. (86 Stat. 918)**

*Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,* That, in accordance with section 3(c) of the Wilderness Act (78 Stat. 892; 16 U.S.C. 1132(c)), certain lands in the Lassen Volcanic National Park, which comprise about seventy-eight thousand nine hundred and eighty-two acres, and which are depicted on the map entitled "Recommended Wilderness, Lassen Volcanic National Park, California" numbered NP-LV-9013C and dated August 1972, are hereby designated as wilderness. The map and the description of the boundaries of such lands shall be on file and available for public inspection in the offices of the National Park Service, Department of the Interior.

SEC. 2. As soon as practicable after this Act takes effect, a map of the wilderness area and a description of its boundaries shall be filed with the Interior and Insular Affairs Committee of the United States Senate and House of Representatives, and such map and description shall have the same force and effect as if included in this Act: *Provided, however,* That correction of clerical and typographical errors in such legal description and map may be made.

SEC. 3. The wilderness area designated by this Act shall be known as the "Lassen Volcanic Wilderness" and shall be administered by the Secretary of the Interior in accordance with the provisions of the Wilderness Act governing areas designated by that Act as wilderness areas, except that any reference in such provisions to the effective date of the Wilderness Act shall be deemed to be a reference to the effective date of this Act, and any reference to the Secretary of Agriculture shall be deemed to be a reference to the Secretary of the Interior.

SEC. 4. Section 1 of the Act of August 9, 1916 (39 Stat. 443; 16 U.S.C. 201) is amended by deleting the words "that the United States Reclamation Service may enter upon and utilize for flowage or other purposes any area within said park which may be necessary for the development and maintenance of a Government reclamation project" and the semicolon appearing thereafter.

Approved October 19, 1972.



## C: Record of Decision

### UNITED STATES DEPARTMENT OF THE INTERIOR NATIONAL PARK SERVICE

### RECORD OF DECISION

#### GENERAL MANAGEMENT PLAN FINAL ENVIRONMENTAL IMPACT STATEMENT

#### LASSEN VOLCANIC NATIONAL PARK SHASTA, TEHAMA, PLUMAS AND LASSEN COUNTIES, CALIFORNIA

#### INTRODUCTION

Pursuant to section 102 (2) (C) of the National Environmental Policy Act of 1969, Public Law 91-190 (as amended), and the regulations promulgated by the Council on Environmental Quality at 40 CFR 1505.2, the Department of the Interior, National Park Service, has prepared the following "Record of Decision" on the *Final Environmental Impact Statement for the General Management Plan* for Lassen Volcanic National Park.

This "Record of Decision" is a concise statement of the decisions made, the alternatives considered, the basis for the decision, and the mitigating measures developed to avoid or minimize environmental impacts.

#### DECISION

The National Park Service will adopt a general management plan for Lassen Volcanic National Park as outlined in the proposed action (Alternative C: Resource Protection and Enhanced Visitor Experience) contained in the General Management Plan/Final Environmental Impact Statement dated August, 2001. The selected action is described below.

#### SELECTED ACTION

**Plan Vision** - Lassen Volcanic National Park is a model for ecosystem management, wilderness preservation, and cultural resource protection for the benefit of present and future generations.

Resource conditions are known and basic trends of natural systems have been assessed. Scientifically sound mechanisms are in place to ensure that natural systems and processes are perpetuated. Cultural resources and their significance are documented and appropriate preservation standards are applied. All stakeholders play an active stewardship role.

A diversity of visitors are provided year-around opportunities for education, enjoyment, and understanding which inspire appreciation of resource values and dedication to stewardship. Wilderness visitors experience a landscape largely devoid of human impacts.

**Plan Concept** - The plan preserves, protects, and restores natural and cultural resources and wilderness conditions. Designated wilderness would be increased by approximately 25,000 acres. Gathering of baseline data on natural and cultural resources would be accelerated. This information is essential for completion of scientific studies to guide resource preservation and restoration activities for such needs as exotic species control and habitat restoration for threatened and endangered species. Tested monitoring methods would be applied. Park staff would increase efforts to work with the Forest Service and other regional land managers toward ecosystem management. Visitor activity would be closely monitored and managed to prevent resource damage.

The plan would provide visitors with high quality park experiences throughout the calendar year. Visitor safety and protection would be increased. Interpretive activities would provide basic orientation/information and encourage individual stewardship and resource protection. Facility improvements would be undertaken to achieve resource protection and improved management efficiency.

Budget increases for staff would be targeted to resource management staff, but would also include ranger activities, interpretation, and maintenance to support functions related to resource management and quality visitor experience. Staff and funding increases would result in:

- More effective control of exotic plant and animal species, including non-native fish species in lakes and streams;
- Analysis of the feasibility of reintroduction of selected extirpated species such as the wolverine and fisher in cooperation and consultation with adjacent land managers such as the Forest Service;
- Increased use of prescribed fire to restore natural conditions and reduce fuel loads;
- Inventory and monitoring of natural resources, especially those identified as vital signs for ecosystem health;
- Management of all cultural resources to achieve the servicewide standard;
- Better maintenance of trails and service roads to prevent resource damage;
- Stimulation of increased visitor stewardship through interpretive and resource education programs;

Greatly improved visitor service at the southwest entrance;

Increased ecosystem management efforts;

Increased “partnering” efforts with local communities, other government agencies, American Indian communities, and private organizations;

Winterization of facilities to allow day use in winter and shoulder seasons;

Increased interpretive staffing to provide for ranger-led programs in key visitor locations, including remote sites such as Butte Lake, Juniper Lake and Warner Valley;

Improved campfire and amphitheater facilities to support interpretive programs;

Improved pullouts on the main road to provide interpretive and scenic view opportunities;

Improved visitor information including radio broadcasts and written guides;

Enhanced winter access and visitor services at the northwest entrance (i.e. concessions, interpretive programs);

Improved facilities for environmental education.

### **OTHER ALTERNATIVES CONSIDERED**

The environmental impact statement evaluated four alternatives for the management and use of Lassen Volcanic National Park over the next 15 years.

**Alternative A: No Action** - assumes that physical facilities would remain largely unchanged and that staffing and operational funding would remain constant over the planning period.

**Alternative B: Resource Preservation and Basic Visitor Service** - provides a program for preserving, and where necessary, restoring significant park resources. It includes significant staffing and funding increases for the park’s resource management functions, restores key elements of the park’s infrastructure, provides for restoration of several specific sites with natural system conflicts, establishes a standards-based management zoning system, and proposes designation of approximately 25,000 acres as part of the National Wilderness System. The plan also includes program increases and visitor facility improvements to provide for quality basic visitor service.

**Alternative C: Resource Protection and Enhanced Visitor Experience** - is described above as the Selected Action.

**Alternative D: Resource Protection and Expanded Visitor Opportunities** - includes all of the features of Alternative C and in addition, provides for expansion of family and

group campgrounds at several locations. It also expands winter access at the north entrance by plowing the park road an additional nine miles to the Devastated Area, and keeping one loop of the campground open for winter camping.

### **BASIS FOR DECISION**

The proposed plan is the selected action because it provides increased protection for the park's significant natural, cultural, and wilderness resources and improves visitor experience while increasing management efficiency and avoiding significant environmental impacts.

**Natural, Cultural, and Wilderness Resource Protection** - Resource protection would be enhanced by increasing staff and funding for inventory, maintenance, and physical protection of resources, by removal of facilities from wetlands and other areas of significant environmental value, and by the use of interpretation to stimulate greater environmental stewardship among visitors and others in local communities through educational outreach efforts.

**Visitor Experience Enhancement** - Visitor experience would be enhanced by remediating existing health and safety deficiencies, by increasing interpretive and educational opportunities, and by expanding the season of use in several areas of the park through winterization of facilities.

**Management Efficiency Enhancement** - Operational efficiency would be increased by upgrading management facilities to allow for increased communication and staff productivity, modernizing the park's utility infrastructure, and by relocating ranger staff from the headquarters area to the southwest entrance proximate to the workload.

**Avoidance of Adverse Environmental Impacts** - No significant adverse environmental impacts would be expected as a result of the proposal. Major beneficial impacts would accrue in the area of natural and cultural resource protection and visitor experience. Minor adverse impacts would result to soils and vegetation from the limited proposed development projects.

### **FINDINGS ON IMPAIRMENT OF PARK RESOURCES AND VALUES**

The Act of August 25, 1916, often referred to as the National Park Service Organic Act, 16 USC2, created the National Park Service and assigned to it responsibility for administering the parks and monuments under its jurisdiction "...by such means and measures as conform to the fundamental purpose of the said parks, monuments, and reservations, which purpose is to conserve the scenery and the natural and historic objects and the wildlife therein and to provide for the enjoyment of the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations"

National Park Service' *Management Policies 2001* highlights the necessity of avoiding "impairment" as a legally binding requirement and provides guidelines and criteria for ensuring that management decisions do not result in impairment.

In determining whether impairment may occur, park managers consider the duration, severity, and magnitude of impacts; the resources and values affected; and direct, indirect, and cumulative effects of the action. According to National Park Service policy, "An impact would be more likely to constitute an impairment to the extent that it affects a resource or value whose conservation is: a) Necessary to fulfill specific purposes identified in the establishing legislation or proclamation of the park; b) Key to the natural or cultural integrity of the park or to opportunities for enjoyment of the park; or c) Identified as a goal in the park's general management plan or other relevant National Park Service planning documents."

This policy does not prohibit impacts to park resources and values. The National Park Service has the discretion to allow impacts to park resources and values when necessary and appropriate to fulfill the purposes of a park, so long as the impacts do not constitute impairment. Moreover, an impact is less likely to constitute impairment if it is an unavoidable result of an action necessary to preserve or restore the integrity of park resources or values.

Human activity and past development have resulted in the ongoing disruption of natural systems and processes at some locations in Lassen Volcanic National Park for generations. The No Action Alternative would result in future unplanned and uncoordinated actions that are merely reactive to immediate concerns. Furthermore, these actions would likely be responsive to immediate, short-term, adverse impacts that demand attention, but may result in long term impairment to park values and resources.

The actions comprising the proposed general management plan will protect and enhance the natural and cultural resources of Lassen Volcanic National Park and provide opportunities for high-quality, resource-based year-around visitor experiences in a comprehensive, integrated manner that takes into account the interplay between resource protection and visitor use. Actions implemented under the proposed plan that will cause overall negligible adverse impacts, minor adverse impacts, short term impacts, and beneficial impacts to park resources and values, as described in the Lassen Volcanic National Park General Management Plan/Final Environmental Impact Statement, will not constitute impairment. This is because these impacts have limited severity and/or duration and will not result in appreciable irreversible commitments of resources. Beneficial effects identified in the Final EIS include effects related to restoring and protecting park resources and values.

In conclusion, the National Park Service has determined that implementation of the proposed general management plan will not constitute an impairment of Lassen Volcanic National Park's resources and values. This conclusion is based on a thorough analysis of the environmental impacts described in the Final Lassen Volcanic National Park General

Management Plan/Environmental Impact Statement, the public comments received, relevant scientific studies, and the professional judgment of the decision-maker guided by the direction in Director's Order 55. While the plan has some minor negative impacts, these adverse impacts are the result of actions taken to preserve and restore other park resources and values. Overall, the plan results in major benefits to park resources and values, facilitates their enjoyment by the public, and does not result in their impairment.

### **ENVIRONMENTALLY PREFERRED ALTERNATIVE**

Environmentally preferable is defined as "the alternative that will promote the national environmental policy as expressed in the National Environmental Policy Act's Section 101. Ordinarily, this means the alternative that causes the least damage to the biological and physical environment; it also means the alternative which best protects, preserves, and enhances historic, cultural, and natural resources" (Forty Most Asked Questions Concerning Council on Environmental Quality's National Environmental Policy Act Regulations, 1981).

The goals characterizing the environmentally preferable condition are described in Section 101 of the National Environmental Policy Act (NEPA). NEPA Section 101 states that "...it is the continuing responsibility of the Federal Government to ... (1) fulfill the responsibilities of each generation as trustee of the environment for succeeding generations; (2) assure for all Americans safe, healthful, productive, and aesthetically and culturally pleasing surroundings; (3) attain the widest range of beneficial uses of the environment without degradation, risk to health or safety, or other undesirable and unintended consequences; (4) preserve important historic, cultural, and natural aspects of our national heritage, and maintain, wherever possible, an environment which supports diversity, and variety of individual choice; (5) achieve a balance between population and resource use which will permit high standards of living and a wide sharing of life's amenities; and (6) enhance the quality of renewable resources and approach the maximum attainable recycling of depletable resources."

Selection of the environmentally preferred alternative for the Lassen Volcanic National Park General Management Plan is based on these national environmental policy goals.

**Alternative A: No Action** - This alternative continues the current management direction with no significant or comprehensive changes taking place in the management of the park. Although Alternative A would have the least physical changes to park resources, it would not achieve the same level of environmental protection and restoration for park resources as would occur under the various action alternatives. In having lesser protection and restoration of park resources, including highly valued natural, cultural, and wilderness resources, Alternative A would not fully achieve provisions 1, 3, 4, and 5 of Section 101 of NEPA. Compared to the action alternatives, the No Action alternative would be least effective in attaining goal 3 of NEPA, as described in Section 101, in that it would have the narrowest range of beneficial uses that would occur without degradation of natural and cultural resources in the park and without exposure to risks to health and safety. Because of existing impacts that are not remedied and that relate to

provisions 1, 2, 3, 4, and 5 of Section 101 (as discussed above), these provisions would not be realized by Alternative A, the No Action Alternative.

**Alternative B: Resource Preservation and Basic Visitor Service** - This alternative would realize each of the provisions of the national environmental policy goals stated in NEPA Section 101. Alternative B would protect and enhance the park's natural, cultural, and wilderness resources. These actions would further goals 3, 4, and 5 of NEPA Section 101 by attaining a wide range of beneficial uses of the environment without degradation, and by preserving important resources and maintaining a variety of individual choice for visitors to the park.

The features of Alternative B will achieve each of the NEPA goals, but the limited provisions for enrichment of visitor experience through interpretation and education will limit the indirect benefits which could be realized from the stimulation of increased environmental stewardship.

**Alternative C: Resource Protection and Enhanced Visitor Experience** - Overall, the benefit and effect of the alternative's environmental restoration activities would be similar to those described under Alternative B. However, this alternative would be more effective than Alternative B in realizing the provisions of the national environmental policy goals in Section 101 of NEPA. Visitor services in this alternative would be designed to encourage environmental awareness and stewardship with benefits both within and outside Lassen Volcanic National Park. The additional visitor facility improvements included in this alternative would occur in already developed areas, would be intended primarily to winterize facilities so as to allow a longer season of use, and would not result in significant environmental impacts.

**Alternative D: Resource Protection and Expanded Visitor Opportunities** - Overall, this alternative would be similar to Alternative C in realizing the provisions of the national environmental policy goals in Section 101 of NEPA. However, visitor facility expansion in several locations aimed at increasing visitor capacities would have minor incremental adverse impacts on vegetation, soils, and wildlife as compared to Alternatives B and C.

**Summary** - The National Park Service has determined that the environmentally preferred alternative is Alternative C. While other alternatives may achieve similar levels of protection for certain cultural resources, natural resources, wilderness resources and/or visitor experience, Alternative C, in aggregate, best achieves the six conditions prescribed under Section 101 of NEPA. While many of the actions in other alternatives may be similar to Alternative C in their effect and consequence, Alternative C provides a high level of protection of natural and cultural resources while concurrently attaining the widest range of beneficial uses of the environment without degradation; maintains an environment that supports diversity and variety of individual choice; and integrates resource protection with opportunities for an appropriate range of visitor uses.

## MEASURES TO MINIMIZE ENVIRONMENTAL HARM

The proposed general management plan has relatively limited potential for environmental harm because much of the plan is dedicated to environmental rehabilitation projects such as the removal of facilities from wetland locations. In addition, all of the physical improvements and/or additions will occur in areas that are already disturbed. For example, the largest single construction project, the southwest entrance visitor service facility, will be located in an area already occupied by structures and parking lots, and the finished product will be a significant esthetic improvement over the present situation and will provide code-compliant, sustainable, maintainable, and accessible facilities.

All practical means to avoid or minimize environmental harm associated with included plan features have been included in the proposed action. Any development projects, water management projects, or vegetation management projects would be preceded by archeological surveys, surveys for threatened and endangered plant species, and consideration of cultural landscape implications.

Because NPS general management plans primarily provide a vision of the future, they do not include a great deal of detail on how to achieve that vision. A number of action plans and development designs will be prepared subsequently to implement this GMP and provide more specific guidance on how to achieve the vision. Plans will be completed for various park programs, e.g. natural and cultural resource management, interpretation, land protection, and fire management. Site plans and designs will be completed for proposed development and/or proposed relocation of existing development. All of these plans will reflect the management direction and the vision articulated in the approved GMP, and in most cases, these implementation plans and designs will include additional public review and environmental compliance at a more detailed level. The impacts of all construction projects and various other park programs/projects to be implemented under the approved general management plan (e.g., natural resource management, interpretation, land protection, fire management, etc.), will also be considered in subsequent implementing plans in order to comply with Section 106 of the National Historic Preservation Act and the implementing regulations set forth at 36 CFR Part 800.

## PUBLIC AND INTERAGENCY INVOLVEMENT

### REVIEW OF DRAFT GMP/EIS

**Procedures** - Availability of the draft GMP/EIS was announced August 25, 2000 in the *Federal Register* in the Environmental Protection Agency's routine weekly nationwide listing of environmental documents. In addition, the Park Service's notice of availability was published in the *Federal Register* on August 18, 2000. Both notices set October 31, 2000 as the deadline for submission of comments to the park superintendent.

News releases regarding the plan and its availability were widely distributed to local and regional media.



Copies of the draft GMP/EIS were sent to persons attending the scoping meetings, offering written comments during the scoping period, or requesting to be kept informed of the planning project. In addition, agencies and organizations known to have an interest in future management decisions for Lassen Volcanic National Park were sent copies. The park mailed out a total of 673 copies of the draft GMP/EIS.

Seven public workshops were held in communities near the park in late August and early September to answer questions about the document. No oral comments were recorded or transcribed at these workshops; participants wishing to have comments included in the record were asked to provide them in writing. The park superintendent contacted all four county Boards of Supervisors about the draft and gave a presentation to the Plumas County Board of Supervisors.

A meeting was also held during the comment period with the senior management team of Lassen National Forest to discuss the draft document and range of alternatives.

**Substance of Review Comments** - A total of 189 letters of comment were received by the park during the comment period. These letters ranged from several page analyses of the draft document to postcards highlighting specific issues or preferences. Included were 31 individual letters from members of a sixth-grade class who visited the park and prepared suggestions as part of a class project.

Of those commenters explicitly expressing support for one of the alternatives, Alternative C received the most approval, with a total of 59 affirmative responses. Most of the letters supporting Alternative C noted particular support for wilderness expansion, reintroduction of extirpated species, and restoration of natural fire. Alternative D was next, with a total of 9 letters indicating it as their choice. Alternatives A and B were each selected three times.

A total of 34 comment letters expressed opposition to the proposal for relocation of the Juniper Lake campground. Many of the letters were from long-time users of the area who find the campground to be a particularly appealing setting and question the need for relocation. Several of the letters indicated dissatisfaction with the National Park Service rationale and with the scientific basis for the proposal.

The proposal for designation of an additional 25,000 acres of the park as wilderness was endorsed in 56 comment letters. A number of the letters urged that wilderness protection be made the park's first priority and specified several management actions to be carried out to achieve that end. However, a total of 8 letters opposed the designation of additional land as wilderness, citing concerns about limiting options for future development and exclusion of visitors not physically able to access the wilderness.

Many letters indicated support for increasing winter opportunities but expressed concerns about further plowing the road during the winter season because of impacts on wilderness character and on wildlife.

One commenter suggested inclusion of a new alternative featuring the development of a lodge in the Manzanita Lake area. However, such a development would be contrary to established National Park Service management policy, which calls for minimizing in-park commercial facilities when out-of-park opportunities are or can be readily made available. This is the case at Lassen Volcanic National Park, with reasonably close-by facilities in Mineral and other nearby communities.

## REVIEW OF FINAL GMP/EIS

**Procedures** - Availability of the final GMP/EIS was announced November 9, 2001 in the *Federal Register* in the Environmental Protection Agency's weekly nationwide listing of environmental documents. In addition, the Park Service's notice of availability was published in the *Federal Register* on December 7, 2001

News releases regarding the plan and its availability were widely distributed to local and regional media.

Copies of the final GMP/EIS were sent to all persons offering comments on the draft GMP/EIS or requesting to be kept informed of the planning project. In addition, agencies and organizations known to have an interest in future management decisions for Lassen Volcanic National Park were sent copies.

**Substance of Responses** - Only one respondent commented on the final General Management Plan, expressing disagreement with proposed additions to park wilderness, proposals for park infrastructure improvements, and the park's stated intention to evaluate the impact of aircraft overflights on park values and resources. No new issues were raised, no significant environmental impacts were identified, and no deficiencies were identified in the EIS' evaluation of environmental impacts.

## CONCLUSION

The above factors and considerations justify selection of the alternative identified as the proposed action in the final environmental impact statement.

Approved:



John J. Reynolds  
Regional Director, Pacific West Region

Date:

2.25.02

## D: List of Classified Structures (LCS)

	<b>LCS ID</b>	<b>Preferred Structure Name</b>	<b>Structure Number</b>	<b>Ultimate Structure Treatment</b>
1.	005459	Park Headquarters Building	B1	Preservation (PP)
2.	005460	Service Station	B21	Preservation (PP)
3.	005461	Park Naturalist's Residence	R41	Stabilization (ST)
4.	005462	Mae Loomis Memorial Museum	B43	Rehabilitation (RH)
5.	005464	Ranger Residence	R49	Preservation (PP)
6.	005465	Park Entrance Station	B50	Preservation (PP)
7.	005466	Twin Lakes Patrol Cabin	B53	No Treatment Documented (NO)
8.	005467	Horseshoe Lake Ranger Station	R56	Preservation (PP)
9.	005468	Mount Harkness Fire Lookout	B57	Preservation (PP)
10.	005469	Warner Valley Ranger Station	R58	Preservation (PP)
11.	005470	Loomis Seismograph Station	B178	Rehabilitation (RH)
12.	005473	Mount Harkness Pit Toilet	B353	No Treatment Documented (NO)
13.	005474	Sunflower Flume and Canal	HS2	No Treatment Documented (NO)
14.	014012	Prospect Peak Fire Lookout	HS10	Preservation (PP)
15.	014030	Summit Lake Ranger Station	B37	Preservation (PP)
16.	021124	Split Rail Fence	HS4	No Treatment Documented (NO)
17.	021125	Superintendent's Residence	B2	Preservation (PP)
18.	021126	Superintendent's Garage	B3	Preservation (PP)
19.	021127	Residence 4	R4	Preservation (PP)
20.	021128	Garage for Residence 4	B5	Preservation (PP)
21.	021129	Residence 6	R6	Preservation (PP)
22.	021130	Garage for Residence 6	B7	Preservation (PP)
23.	021131	Residence 8	B8	Preservation (PP)
24.	021132	Garage for Residences 8 and 10	B9	Preservation (PP)
25.	021133	Residence 10	R10	Preservation (PP)
26.	021134	Residence 11	R11	Preservation (PP)
27.	021135	Garage for Residence 11	B12	Preservation (PP)
28.	021136	Residence 13	R13	Preservation (PP)
29.	021137	Dormitory	R14	Preservation (PP)
30.	021138	Residence 16	R16	Preservation (PP)

31.	021139	Residence 17	R17	Preservation (PP)
32.	021140	Wash House	B19	Preservation (PP)
33.	021141	Fire Cache	B20	Preservation (PP)
34.	021142	Warehouse & Maintenance Office	B22	Preservation (PP)
35.	021143	Machine Shop	B23	Preservation (PP)
36.	021144	Equipment and Storage Shed	B24	Preservation (PP)
37.	021145	Garage and Storage Building	B25	Preservation (PP)
38.	021146	Roads and Trails Building	B26	Preservation (PP)
39.	021147	Carpenter Shop	B27	Preservation (PP)
40.	021148	Electrical Shop	B28	Preservation (PP)
41.	021149	Storage Barn	B30	Preservation (PP)
42.	056776	Seismograph Building at Headquarters	B31	Preservation (PP)
43.	056777	Raker Memorial Gateway	LF1	No Treatment Documented (NO)
44.	056778	Raker Peak Sign	LF2	No Treatment Documented (NO)
45.	056779	Diamond Peak Sign	LF3	No Treatment Documented (NO)
46.	056780	Manzanita Lake Sign	LF4	No Treatment Documented (NO)
47.	056781	Hat Lake Sign	LF5	No Treatment Documented (NO)
48.	056782	Manzanita Lake Hanging Sign	LF6	No Treatment Documented (NO)
49.	056783	Hat Creek Culvert-Bridge	LF7	No Treatment Documented (NO)
50.	056784	Lost Creek Culvert-Bridge	LF8	No Treatment Documented (NO)
51.	056785	National Park Service Route 1 (State Route 89)	LF9	No Treatment Documented (NO)
52.	056786	National Park Service Route 1 Culverts	LF10	No Treatment Documented (NO)
53.	056787	National Park Service Route 1 Retaining Walls	LF11	No Treatment Documented (NO)
54.	056788	Northwest Entrance Pylon	LF12	No Treatment Documented (NO)
55.	056789	Loomis House	B39	Rehabilitation (RH)
56.	056790	Nobles Emigrant Trail	HS1	No Treatment Documented (NO)
57.	056791	Warner Valley Ranger Station Barn and Corral	B60	Preservation (PP)
58.	056792	Warner Valley Ranger Station Garage	B59	Preservation (PP)
59.	056793	Generator Plant	B29	Preservation (PP)
60.	056794	Maintenance Compound East Retaining Wall	LF13	No Treatment Documented (NO)

61.	056795	Maintenance Area Retaining Wall at Northern Boundary	LF14	No Treatment Documented (NO)
62.	056796	Old Viola Road	LF15	No Treatment Documented (NO)
63.	056797	Old Viola Road Drainage Ditches and Culverts	LF16	No Treatment Documented (NO)
64.	056798	Mineral Residential Road	LF17	No Treatment Documented (NO)
65.	056799	Residential Road Culverts & Drainage Ditches	LF18	No Treatment Documented (NO)
66.	056800	Residential Area Spur Road	LF19	No Treatment Documented (NO)
67.	056801	Residential Area Retaining Walls	LF20	No Treatment Documented (NO)
68.	056802	Utility Area	LF21	No Treatment Documented (NO)
69.	056803	Mary Westrope Grave Marker	MKR1	No Treatment Documented (NO)
70.	056804	Sarah Cunningham Grave Marker	MKR2	No Treatment Documented (NO)
71.	056805	Mount Harkness Cistern	XX	No Treatment Documented (NO)
72.	056806	Naturalist's Garage	B42	No Treatment Documented (NO)
73.	056807	Drakesbad Lodge	267	Preservation (PP)
74.	056808	Drakesbad Lodge Dining Hall	268	Preservation (PP)
75.	056809	Drakesbad Cold House	3	Preservation (PP)
76.	056810	Drakesbad Guest Cabin #9	272	Preservation (PP)
77.	056811	Drakesbad Guest Cabin #10	273	Preservation (PP)
78.	056812	Drakesbad Guest Cabin #11	274	Preservation (PP)
79.	056813	Drakesbad Guest Cabin #12	275	Preservation (PP)
80.	056814	Drakesbad Storage Building	281	Preservation (PP)
81.	056815	Water Fountain at Administration Building	LF22	No Treatment Documented (NO)
82.	056816	Administration Building Flagpole	LF23	No Treatment Documented (NO)
83.	056817	Sifford Memorial	MKR3	No Treatment Documented (NO)
84.	056818	Loomis House Retaining Wall	LF24	No Treatment Documented (NO)





## Planning Team and Consultants

### Planning Team

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