



REFERENCE GUIDE

to the Selected Alternative
July 2014

Death Valley National Park Wilderness & Backcountry Stewardship Plan

This Reference Guide incorporates text from both the *Environmental Assessment* (EA) August 2012 and *Finding of No Significant Impact* (FONSI) July 2013 that pertain to the park's selected *Alternative D: Focused Action* for implementation.

Specific modifications have been incorporated into the selected action as described in the FONSI with minor edits to clarify meaning and delete references to other alternatives. Some information from the EA's text has been formatted into bulleted lists. Excerpts or text from the FONSI, identified **in red**, have been incorporated within the pertinent sections of the selected action and are identified as supplementing or replacing EA information.

This Reference Guide does not include actions considered, but not selected by the NPS, nor does it include the following EA chapters: Chapter 1: *Purpose and Need for the Plan*, Chapter 3: *Affected Environment*, Chapter 4: *Environmental Consequences*, Chapter 5: *Consultation and Coordination*, or Chapter 6: *References*.

To view the entire EA, appendices, and FONSI visit the web at:
<http://parkplanning.nps.gov/projectHome.cfm?projectID=23311>

DEATH VALLEY NATIONAL PARK

WILDERNESS & BACKCOUNTRY STEWARDSHIP PLAN

Executive Summary (EA pages iii-iv)

This Wilderness and Backcountry Stewardship Plan (the Plan) and Environmental Assessment provide direction for the National Park Service to make decisions regarding the future use and protection of the park's vast wilderness and backcountry lands. This planning process addresses all Congressionally designated wilderness and potential wilderness lands within Death Valley National Park as designated by the California Desert Protection Act of 1994. It also includes non-wilderness backcountry concerns including backcountry road corridors and campsites, backcountry cabins near roads, and non-wilderness backcountry lands. This plan was developed in consultation with the Timbisha Shoshone Tribe and these cooperating agencies: Inyo County (CA), Esmeralda County (NV), and Nye County (NV).

The purpose of this Wilderness and Backcountry Stewardship Plan and Environmental Assessment for Death Valley National Park is to provide a framework by which to preserve and improve wilderness character while providing for unique visitor opportunities for quiet, solitude, and primitive adventure; and to accommodate continued use of the Park's unpaved roads and protection of backcountry resources. Completion of the planning process and approval of the plan also fulfills the requirements of NPS policy that parks have a wilderness management plan and a backcountry management plan (combined in this case) and addresses the needs identified in the 2002 General Management Plan.

This purpose will be achieved through advancement of the following goals:

...common to both wilderness and backcountry:

- promote safety and outdoor ethics;
- preserve natural and cultural resources;
- preserve dark night skies;
- preserve natural soundscapes;
- minimize conflicts between user groups as well as between users and sensitive resources;
- accommodate and manage commercial uses as subject to applicable laws and policies;
- preserve undisturbed areas for appropriate scientific research; and
- proactively foster an inspired and informed public and park staff who value the preservation of the Park's natural and cultural resources.

...specific to wilderness:

- preserve the untrammeled quality of wilderness character by refraining from the deliberate manipulation or management of wilderness resources except as necessary to promote another quality of wilderness character or to preserve human life or to accommodate other activities in compliance with applicable laws;
- promote the natural quality of wilderness character through the thoughtful restoration and/or maintenance of natural processes and features while managing archaeological, historical and ethnographic sites in a manner that is compatible with wilderness and cultural resources management laws;
- preserve and enhance the undeveloped quality of wilderness character by judicious review and, where appropriate, removal of non-conforming and/or unnecessary installations;

- provide for outstanding opportunities for solitude or primitive and unconfined recreation as long as such visitor uses can be offered without degradation of significant natural and cultural resource values;
- preserve ecological, geological, scientific, educational, scenic, and historical values of wilderness, including culturally significant resources and paleontological resources within wilderness as important and prominent values of the Death Valley NP Wilderness consistent with the California Desert Protection Act and the General Management Plan;
- preserve the intangible aspects of wilderness, including the ethnographic value to the Timbisha Shoshone and accommodate ongoing traditional cultural uses by the Timbisha Shoshone within their Natural and Cultural Preservation Area and other special use areas.

...specific to non-wilderness backcountry:

- allow for continued use of backcountry roads where appropriate for multiple purposes, including:
 - to accommodate recreational access;
 - to accommodate administrative access and other authorized uses;
 - to accommodate opportunities for recreational backcountry road travel (including vehicles, bicycle, stock, foot, etc);
 - to facilitate voluntary stewardship of backcountry roads and cabins by interested publics;
 - to provide for continued roadside camping opportunities;
 - to provide for campfires where safe and appropriate;
 - and as a gateway to wilderness.
- accommodate continued backcountry cabin use while providing for the protection of historic resources and public health and safety.
- minimize impacts of backcountry uses on adjacent wilderness lands.

2.5.3 Wilderness and Backcountry Management (EA page 67)

- **Wilderness Character:** All four qualities (untrammled, natural, undeveloped, solitude or unconfined recreation) will be valued and protected. The selected alternative would enhance naturalness and undeveloped character by emphasizing removal of exotic species and implementation of wilderness restoration projects, though such actions may temporarily degrade the untrammled quality of wilderness. It also enhances solitude for those visitors who seek it by providing for a wider variety of visitor experiences and facilities along frontcountry and easily accessible backcountry locations for those visitors who are not looking for wilderness, leaving the wilderness for the use of self-reliant and well-prepared wilderness users. The undeveloped quality will remain largely unchanged in wilderness but there will be a limited number of new developments in backcountry sites adjacent to wilderness.
(see Appendices E and G for more information)
- **Backcountry Opportunities:** The selected alternative provide for a moderate number of additional designated visitor use locations by formalizing existing visitor use patterns and anticipating future demands along the primary backcountry access routes. New facilities would be developed in non-wilderness at the most concentrated visitor use areas to accommodate sustainable visitor use and protect park resources from direct and indirect visitor impacts. The new facilities and NPS direction would offer a more structured experience for visitors who want it while maintaining abundant opportunities for visitors who want a remote and self-directed experience.
- **Wilderness Dispersed Overnight Use Group Size:** 12 individuals per party per night.
- **Backcountry Roads Dispersed Overnight Use Group Size:** 12 individuals and 4 vehicles per party per night.

- **Human Waste Disposal:** A requirement to pack out solid waste and toilet paper using a sanitary system will be implemented during high use seasons as needed along the Cottonwood Canyon and Marble Canyon Loop, including both the roads and hiking route.

New low maintenance toilets will be added at non-wilderness sites at these locations:

- Mosaic Canyon Trailhead,
 - Darwin Falls Trailhead,
 - Keane Wonder Mine Trailhead,
 - Salt Wells Campground,
 - Leadfield historic site,
 - near the Ubehebe Crater parking lot.
 - The park will replace or upgrade existing toilet facilities at Homestake Dry Camp and Eureka Dunes as well as add an additional toilet to the Eureka Dunes area.
 - In addition, a new toilet will be installed or the existing septic system rehabilitated at Warm Springs Camp and the existing outhouses will be replaced with new toilets or a pack out toilet option will be instituted at each of the Butte Valley cabins. The site placement, toilet type (e.g. composting, solar dehydration, traditional vault, etc.), and capacity will be determined later based on engineering studies and anticipated use conditions.
- **Visitor Use Restrictions:** Dispersed camping will not be allowed within 1 mile of all paved roads plus the following graded dirt roads:
 - Titus Canyon,
 - West Side Road,
 - Wildrose,
 - Skidoo Mine,
 - Aguerberry Point Road,
 - Mosaic Canyon,
 - Cottonwood Canyon Road (first 8 miles),
 - Grotto Canyon Road,
 - Keane Wonder Mine Road,
 - Salt Creek Road,
 - Historic Stovepipe Wells Road,
 - Racetrack Road from Teakettle Junction to Homestake Dry Camp,
 - Natural Bridge Canyon,
 - Desolation Canyon,
 - Big Pine /Death Valley Road (22-mile section south of Crankshaft Junction)
 - along the Death Valley floor from Ashford Mill to 2 miles north of the Mesquite Flat Sand Dunes.
 - In addition, Darwin Falls Trail and the Greenwater Canyon (not Greenwater Road) will be designated as day use only.
 - When established, no dispersed camping will be allowed in Designated Roadside Camping Corridors as described for this selected alternative in EA section 2.5.5.
 - **Carrying Capacity Limits:** Specific visitor capacity management actions (including potential use limits) will be implemented at these sites that are zoned for managed use/high use:
 - Aguerberry Point,
 - Eureka Dunes,
 - Skidoo Historic Site,
 - Keane Wonder,
 - Mosaic Canyon,
 - Mesquite Flat Dunes,
 - Telescope Peak,
 - Surprise Canyon,

- Ubehebe Crater
- Racetrack Playa,
- Butte Valley,
- Indian Pass,
- Titus Canyon,
- Cottonwood Canyon,
- Sidewinder Canyon,
- Natural Bridge Canyon.

2.5.4 Commercial Services and Special Park Uses (EA page 68)

Listed below are the commercial services that Death Valley National Park will authorize for permit under the selected alternative. Non-profit groups may apply for a special use permit for the same activities. Identical limits on group size, frequency, and activity locations apply to commercial use authorizations and non-commercial special use permits unless otherwise noted.

- **Day Use Motorcycle Groups:** One event per location per day and no more than 2 events per location per week. Travel restricted to backcountry roads only. Group size limited to 20 motorcycles per group, plus no more than 4 support vehicles.
- **Day Use 4-wheel-drive Groups:** One event per location per day and no more than 2 events per location per week. Travel restricted to existing backcountry roads only. Group size limited to 12 vehicles total.
- **Commercial Day Use Hiking and Photography Groups:** Allowed in both backcountry and wilderness, limited to 12 people per group and 4 support vehicles. One commercial group per day in Mosaic Canyon, Natural Bridge Canyon, and Sidewinder Canyon. Support vehicles restricted to travel on backcountry roads.
- **Non-Commercial Day Use Hiking and Photography Groups:** Allowed in both backcountry and wilderness, limited to 15 people per group and 4 support vehicles. One commercial group per day in Mosaic Canyon, Natural Bridge Canyon, and Sidewinder Canyon. Support vehicles restricted to travel on backcountry roads.
- **Day Use Guided Bicycle Groups:** One event per location per day. Bicycle use and support vehicles allowed on backcountry roads only, no off-road travel permitted. Group size limited to 25 bikes and no more than 4 support vehicles.
- **Day Use Guided Horse and Pack Animal Trips:** One event per location per day. Travel with pack animals and support vehicles restricted to backcountry roads only. Group size limited to 8 animals and no more than 4 support vehicles.
- **Day Use Running Sporting Events:** Allowed on Titus Canyon Road once per 90 days, and on West Side Road **once per 60 days. 250 people** and 15 support vehicles maximum.
- **Day Use Bicycle Sporting Events:** Not allowed in backcountry or wilderness.
- **Day Use Guided Canyoneering Groups:** Not allowed in wilderness.
- **Day Use Guided Climbing Groups:** Not allowed in wilderness.
- **Guided Overnight Motorcycle Groups:** One event per location per day and no more than 2 events per location per week. Travel restricted to existing backcountry roads only. No more than 12 people and 4 vehicles total.
- **Guided Overnight 4-wheel-drive Groups:** One event per location per day and no more than 2 events per location per week. Travel restricted to existing backcountry roads only. No more than 12 people and 4 vehicles total.
- **Guided Overnight Bicycle Groups:** One event per location per day and travel restricted to existing backcountry roads only. No more than 12 people and 4 support vehicles.

- **Guided Overnight Backpacking / Hiking Groups:** Foot travel allowed in backcountry and wilderness. No more than 12 people and 4 support vehicles. One commercial group per day in Cottonwood Canyon, Marble Canyon, and Indian Canyon. Support vehicles restricted to travel on backcountry roads.
- **Guided Overnight Horse and Pack Animal Groups:** Travel restricted to existing backcountry roads only. **No more than 12 people, 8 animals, and 4 support vehicles.**
- **Overnight Historic Wagon Train Events:** One event per year and travel restricted to existing backcountry roads only. **No more than 15 wagons/50 stock and no more than 3 support vehicles.**
- **Overnight Historic Equestrian Events:** One event per year and travel restricted to existing backcountry roads only. No more than 50 horses and riders and 15 additional people. **No more than 18 support vehicles.**
(see Appendix J for more information)

2.5.5 Backcountry Facilities (EA pages 69-70)

- **Unpaved Roads:** Approximately 540 miles of existing unpaved roads will be managed as backcountry exploration roads with minimal maintenance by NPS except as necessary to keep road conditions passable by high clearance four wheel drive vehicles. Approximately 230 miles of existing unpaved roads will be managed as backcountry corridor roads, including routine maintenance by NPS or other agencies to keep road conditions passable by two-wheel drive vehicles.
(see Appendix N for more information)
- **Primitive campgrounds:** There are existing primitive campgrounds located at Eureka Dunes (10 existing sites) and Homestake Dry Camp (4 existing sites) that will be better defined, including delineation of 1 group site plus three new campsites at Eureka Dunes and two new sites at Homestake Dry Camp. In addition a new 10 site primitive campground will be developed in an existing disturbed area at Salt Wells near the intersection of West Side Road and Galena Canyon Road. At each campsite, the sites will be clearly delineated and have access to a toilet facility. Sites might or might not have picnic tables or firepits. Permits may be required for overnight use.
- **Designated Roadside Camping Corridors (DRCC):** Existing campsites will be individually evaluated and those found to be acceptable will be marked and managed as designated campsites and all other sites will be restored to natural conditions along these specific road corridors:
 - Echo Canyon Road to Inyo Mine (4-9 sites anticipated),
 - Hole-in-the-Wall Road (3-6 sites anticipated),
 - Greenwater Valley Road (3-6 sites),
 - Cottonwood Canyon Road (6-10 sites),
 - Marble Canyon (2-4 sites).
 - Sites along Greenwater Valley Road will be surveyed for tortoise before selection, and signage at these sites will include information about tortoise protection.

All DRCC campsites will be marked with sign post indicating site number and number of vehicles allowed. Sites might or might not have firepits. Sites will be located to protect sensitive resources, provide for quality visitor experiences, and to avoid natural hazards (e.g. flash floods, rock falls, etc). Designated roadside camping corridor will be established along 55 miles of existing roads and will accommodate 18-35 designated roadside campsites. Permits required for overnight use. **Existing campsites in new DRCCs will first be individually evaluated, and the Park will continue the dialogue with interested parties during this evaluation and design phase. The DRCCs will be subject to a phased implementation, with one road corridor developed as a DRCC and evaluated for its effectiveness in reducing resource impacts and visitor use conflicts before implementation in other areas.**

- **Dispersed Roadside Camping:** Approximately 695 miles of existing backcountry roads will remain open for self-directed dispersed roadside camping. Site selection will be on a first-come first served basis and visitors will be encouraged to camp in previously used campsites in order to minimize campsite proliferation and associated impacts.

- **Trails and Trailheads:**

This plan will maintain existing trails and trailheads at:

- Telescope Peak,
- Wildrose Peak,
- Natural Bridge Canyon,
- Golden Canyon,
- Zabriskie Point,
- Keane Wonder Mine,
- Salt Creek,
- Mesquite Flat Sand Dunes,
- Badwater,
- Ubehebe Crater,
- Mosaic Canyon.

In addition, it will formalize existing informal trailheads and routes at:

- Fall Canyon,
- Darwin Falls,
- Ubehebe Peak,
- Cottonwood/Marble Canyons.

New trailheads and marked routes will be created at:

- Indian Pass,
- Dante's Peak,
- Eureka Dunes,
- Sidewinder Canyon.

If Surprise Canyon, either through the separate Surprise Canyon EIS planning process or pending legislation, were designated off-limits to vehicle traffic, a trailhead could be established cooperatively with the BLM at Chris Wicht's Camp. (If Surprise Canyon is designated by the EIS or legislation as open to vehicular traffic, no such trailhead will be established.)

All trails and routes will generally be primitive, with a minimum amount of wayfinding aids such as posts or rock cairns. Each trailhead will include a place to park and signs or posts to aid visitors in accessing the trail, though the configuration and information available at each trailhead will be highly variable. Some trailheads may also have toilet facilities as indicated elsewhere in this section. These trailheads will provide access to 55 miles of designated trails and hiking routes.

(see Appendix Q for more information)

- **Backcountry Cabins:** Cabins will be evaluated for historic significance and safety concerns and over time treatment prescriptions will be developed. Volunteer stewardship activities will implement those treatment prescriptions. In addition, the NPS will formally manage on a seasonal basis during spring and autumn the cabins at Warm Springs and Butte Valley for administrative purposes. These cabins will be available to the public at times of non-administrative use on a first-come, first-serve basis. Before administrative use could be implemented, these cabins will require rehabilitation, in compliance with the National Historic Preservation Act and all other applicable cultural preservation laws. Until that time, the cabins will continue to be available for public use on a first-come, first-serve basis.
 - The maximum stay limit for Warm Springs Camp, Russell's Camp, Stella's Cabin, and Geologist Cabin will be three consecutive nights. Until further evaluations are completed and other treatments prescribed, all other cabins in the backcountry will continue to be available for public use on a first-come, first-serve basis with a seven day stay limit.
 - Permits will be required for all overnight cabin use.

- All fires in cabins will be prohibited. If the Park installs a fire ring outside a particular cabin consistent with backcountry fire ring placement in this plan (see bullet below), fires will be permitted in the fire rings outside cabins.
- All cabin use will be at visitors' own risk and known safety hazards will be signed or otherwise identified in cabins (e.g. warnings about hantavirus risk).
- No installation of locks will be allowed.
- There will be a requirement that human waste be disposed of at least 400 feet from the cabin or packed out, unless there is a park-installed toilet facility. (*see Appendix K for more information*)
- **Campfire Rings:** No campfires will be allowed in wilderness.
 - Fires will be allowed only in NPS provided fire rings in primitive campgrounds, some designated roadside camping corridor sites, outside some cabins, and some dispersed roadside sites outside of wilderness (< 50 total parkwide).
 - No fuelwood collection will be allowed on site. All fuelwood imported to the park will be subject to pest control regulations.
 - Users pack out ashes.
 - No fires in visitor firepans allowed.
 - Controlled propane fires allowed in devices designed for that purpose.
- **Signs:** New wayfinding, regulatory, and interpretive signs will be installed at a few locations. Sign needs will be further evaluated and consistent graphics and wording will be used. Some of the new signs expected under this plan include:
 - trailhead signs at all formal trailheads;
 - directional markers such as rock cairns or posts to aid in route finding at specific locations along Fall Canyon Trail, Sidewinder Canyon Trail, and Cottonwood/Marble Loop crossover;
 - road name signs at confusing junctions along backcountry road corridors (backcountry exploration roads will specifically not be signed);
 - signs noting the beginning of designated roadside camping corridors;
 - warning signs near hazards at the upper falls of Darwin Falls, Keane Wonder/Chloride Cliff, and Lippincott Road.

2.5.6 Administrative Activities (EA pages 60-71)

- **Overnight Visitor Use Permits:** Permits will be required for all overnight wilderness and some overnight backcountry use, including overnight use at backcountry cabins, in designated roadside camping corridors, at primitive campgrounds, and in wilderness areas. Permits will not be required for dispersed roadside camping. These mandatory permits will be free for the first three years, and then the park will evaluate its permit process to determine whether or not a fee-based system is feasible under this plan. (The permit implementation strategy is described in detail in Appendix F). The permit will not be a reservation for a particular area; use of backcountry and wilderness areas will still be on a first-come, first served basis. The mandatory permit will, however, include a proposed itinerary disclosure to aid in search and rescue, as well as to inform visitor use statistics. Permit terms and conditions will apply. Permits will be issued through multiple venues, including via the internet. If after three years fees were determined feasible for this permit system, fees will also be required for the Emigrant, Wildrose, Thorndike, and Mahogany Flats developed campgrounds. The exact fee will be determined based on NPS policy and comparability study. (*see Appendix F for more information*)
- **Canyoneering Day use permits** will be required for all private canyoneering trips due to the limited routes available, the increasing popularity of the sport, and the challenging conditions that Death Valley's canyons present. Depending on patterns of visitor use, permits could be adapted to allocate routes on a per day, per party basis. The permit system will be phased in and will include online access to permits. Permits may be free or for a nominal cost, depending on the requirements for the permit system selected. All permits will include terms and conditions to require clean and safe canyoneering practices, environmental sensitivity, and respect for other park visitors.

A permit system will be instituted for canyoneering activities in Death Valley National Park. In this pilot permit system, permits will be issued on an annual basis to individual canyoneers, with a mechanism for each individual to report number of trips and trip locations. All permits will include terms and conditions to require clean and safe canyoneering practices, environmental sensitivity, and respect for other park visitors. Depending on patterns of visitor use, visitor safety, and resource conditions, the permit system could be modified to a day-use system for specific canyons or for the entire Park. Permits may be free or for a nominal cost, depending on the requirements for the permit system developed.

- **Administrative Camps:** Warm Springs Cabin and associated buildings will be re-purposed as an administrative camp with bunkhouses and kitchen facilities to host research groups, education groups, work crews, volunteers, artists in residence, and other administrative uses on a seasonal reservation system during spring and autumn, approximately 6 months per year. The three cabins in Butte Valley will be auxiliary administrative sites managed under the same reservation system but will also be available for public use on a first-come, first-serve basis when there are no reservations. All cabins will require rehabilitation, in compliance with the National Historic Preservation Act and all other applicable cultural preservation laws, before administrative use could be implemented. Until that time, the cabins will continue to be available for public use on a first-come, first-serve basis.
- **Campground Hosts:** Volunteer campground hosts will be sought for primitive campgrounds during high use seasons. The highest priority for siting a host will be Eureka Dunes.

2.5.7 Costs (EA page 71)

The cost of implementing the selected alternative was generated by combining FY2011 budget analysis with budget projections of the specific management actions outlined in the plan. Each division of Death Valley National Park generated this budget analysis by identifying those program areas and costs that intersected directly with backcountry and wilderness management. Since this plan outlines some actions that require one-time project and capital expenditures, the data was further refined to provide both an estimate of the one-time expenses and the cyclic or annual expenses. The estimated cost of implementing this plan will be:

- One-time capital and project expenses: \$656,276
- Cyclic or annual expenses: \$1,427,812
- Total expenses: \$2,084,088

2.6 MANAGEMENT ACTIONS APPLICABLE

These are largely administrative tasks and processes that were identified during alternative development as being needed to gain efficiency and accountability in wilderness and backcountry stewardship operations.

2.6.1 Stock Use (EA pages 71-72)

- Overnight stock use by private groups will require a user permit to be obtained in the park visitor contact stations or online in advance of entry into the park.
- Overnight stock use by commercial groups will require an appropriate commercial use authorization, available through the park's office of commercial services.
- Stock will be limited to horses, mules, burros, llamas, and alpaca used for riding or packing.
- Weed free feed will be required and must be fed three days in advance of entry into the park to avoid transport of invasive weeds in the gut of the animal.
- Private stock groups will be allowed on the Wildrose Peak, Ubehebe Peak, and the Indian Pass Canyon, Fall Canyon and Cottonwood/Marble Canyon hiking routes, as well as backcountry roads, but excluded in sand dunes and all other designated trails except under special use permit.

- Private stock groups will be limited to 8 animals and 12 people.
- Commercial stock groups will be limited to backcountry roads only.
- Stock will be required to be controlled at all times (hobbles, pickets, highlines).
- Stock will not be allowed to graze on native vegetation or to camp within 100 yards of water.

2.6.2 Volunteer Stewardship Activities (EA page 72)

- The NPS will actively facilitate and encourage stewardship activities, particularly related to cabins, roads and trails.
- Volunteer opportunities will be provided for organized groups as well as individuals and families.
- The existing Volunteer-in-Parks program will be expanded to provide a wide range of volunteer experiences, ranging from short-term (e.g. a few hours) to long-term (work weekends, week-long, and season-long).
- Volunteers will be recruited using a wide variety of communication methods.
- Special request stewardship opportunities will be handled on a case by case basis.
- All stewardship activities will require appropriate safety equipment and practices.
(see Appendix K for more information)

2.6.3 Commercial Services and Special Park Uses (EA page 72)

NPS Management Policies 2006 states in section 6.4.4.:

Wilderness-oriented commercial services that contribute to public education and visitor enjoyment of wilderness values or provide opportunities for primitive and unconfined types of recreation may be authorized if they meet the “necessary and appropriate” tests of the National Park Service Concessions Management Improvement Act of 1998 and section 4(d)(6) of the Wilderness Act (16 USC 1133(d)(5)), and if they are consistent with the wilderness management objectives contained in the park’s wilderness management plan, including the application of the minimum requirement concept. Activities such as guide services for outfitted horseback, hiking, mountain climbing, or river trips and similar activities may be appropriate and may be authorized if conducted under the terms and conditions outlined in the park’s wilderness management plan and/or in legislation authorizing these types of commercial uses.

NPS Management Policies 2006 states in section 6.4.5.:

The National Park Service will not sponsor or issue permits for special events to be conducted in wilderness if those events are inconsistent with wilderness resources and character or if they do not require a wilderness setting to occur. Permits will not be issued in NPS wilderness areas for commercial enterprises or competitive events, including activities involving animal, foot, or watercraft races; the physical endurance of a person or animal; organized survival exercises; war games; or similar exercises.

The NPS will develop a framework for the administration of commercial services and special park uses in wilderness and backcountry areas of the park. The framework includes the extent necessary determination for proposed commercial activities in wilderness (Appendix J), terms and conditions of use, user capacity analysis for popular locations, cost recovery, and the park’s internal permit request evaluation process.

A decision on the location of the Mormon Peak phone communication facility will be made in the context of a future environmental compliance process. Through this process, the NPS will consider alternative locations for the facility. This facility is currently located in wilderness and the right of way authorizing the facility expired on May 26, 2012.

Wireless communication towers are a specific category of special park uses that is addressed here due to their increasing prevalence and the reasonably foreseeable future demand for these facilities. New wireless communication towers are not appropriate in wilderness as they are permanent installations, which are prohibited in section 4(C) of the Wilderness Act. Where such structures are proposed for installation in non-wilderness backcountry lands, the proposal will be evaluated for environmental impacts as provided for in the National Environmental Policy Act, including cumulative impacts on wilderness character. In general, any wireless communication towers should be sited to minimize environmental impact, optimize access for maintenance, be painted or designed to blend in to the landscape, be low in stature, and be as unobtrusive as possible. Such considerations will be included in the environmental impact analysis, as will any policy and procedures in place at the time of application. Applications for wireless communication towers in frontcountry developed areas will be prioritized for review over applications for these facilities in backcountry areas.

2.6.4 Visitor Information and Education (EA page 73)

NPS Management Policies 2006 states in section 6.4.2.:

In the context of interpretive and educational planning, national park system units with wilderness resources will (1) operate public education programs designed to promote and perpetuate public awareness of and appreciation for wilderness character, resources, and ethics while providing for acceptable use limits; (2) focus on fostering an understanding of the concept of wilderness that includes respect for the resource, willingness to exercise self-restraint in demanding access to it, and an ability to adhere to appropriate, minimum-impact techniques; and (3) encourage the public to use and accept wilderness on its own terms—that is, the acceptance of an undeveloped, primitive environment and the assumption of the potential risks and responsibilities involved in using and enjoying wilderness areas. NPS interpretive plans and programs for wilderness parks will address the primary interpretive themes for wilderness. Education is among the most effective tools for dealing with wilderness use and management problems and should generally be applied before more restrictive management tools.

To fulfill this policy requirement, Death Valley National Park will formally adopt and emphasize Leave No Trace® and Tread Lightly! ® for both internal and external audiences (park visitors, special park use permittees, work crews, park partners, etc.). A variety of educational messages and delivery methods will be used to achieve desired outcomes as described in the ‘Death Valley National Park Wilderness and Backcountry Education Strategy’ (Appendix I).

2.6.5 Aviation (EA page 73)

Air tours will be managed as prescribed in the Air Tour Management Plan, which is undergoing environmental review in a parallel planning process. The current interim operating authority has a maximum of no more than 67 air tours per year.

- Military overflight issues are legislatively outside the scope of this planning effort but NPS will continue to work cooperatively with Department of Defense managers to resolve problems.
- Private airplane use will continue to be managed by Federal Aviation Administration (FAA) but the NPS will continue to work cooperatively with FAA to resolve problems. No additional backcountry airstrips will be constructed in the park under this plan.

2.6.6 Scientific Activities in Wilderness (EA page 74)

NPS *Management Policies 2006* 6.3.6 states that:

The statutory purposes of wilderness include scientific activities, and these activities are encouraged and permitted when consistent with the Service's responsibilities to preserve and manage wilderness. The National Park Service has a responsibility to support appropriate scientific activities in wilderness and to use science to improve wilderness management. The Service recognizes that wilderness can and should serve as an important resource for long-term research into and study and observation of ecological processes and the impact of humans on these ecosystems. The National Park Service further recognizes that appropriate scientific activities may be critical to the long-term preservation of wilderness. Scientific activities are to be encouraged in wilderness. Even those scientific activities (including inventory, monitoring, and research) that involve a potential impact to wilderness resources or values (including access, ground disturbance, use of equipment, and animal welfare) should be allowed when the benefits of what can be learned outweigh the impacts on wilderness resources or values. However, all such activities must also be evaluated using the minimum requirement concept and include documented compliance that assesses impacts against benefits to wilderness. This process should ensure that the activity is appropriate and uses the minimum tool required to accomplish project objectives.

Death Valley is a world renowned research site for meteorological study, earth sciences, quaternary studies, ecology, paleontology, archeology, and other disciplines and subdisciplines. The extreme aridity, extreme heat, diurnal and seasonal temperature fluctuations, complex geological processes, and extreme environmental gradients provide a unique location to study some of earth's most fundamental natural processes. The long history of human interactions in this dynamic environment and the preservation of artifacts provided for by the remoteness and extremely dry climate also provide unique research opportunities in anthropology.

In recognition of the importance of research in Death Valley, the continuation of such research efforts is encouraged. To facilitate research while providing for the protection of wilderness character, park resources, and visitor experiences, the park will adopt a framework for evaluating research and science activities in wilderness. The criteria applied to research proposed in wilderness will include an evaluation using the minimum requirement concept and will also include documented compliance that assesses impacts against benefits to wilderness to ensure that the activity is appropriate and uses the minimum tool required to accomplish the research objectives. The complete "Framework for Evaluating Research and Science Activities in Death Valley National Park Wilderness" can be found in Appendix H.

2.6.7 Resource Management (EA page 74)

Regarding natural resources management in wilderness, NPS *Management Policies 2006* section 6.3.7 states:

The principle of non-degradation will be applied to wilderness management, and each wilderness area's condition will be measured and assessed against its own unimpaired standard. Natural processes will be allowed, insofar as possible, to shape and control wilderness ecosystems. Management should seek to sustain the natural distribution, numbers, population composition, and interaction of indigenous species. Management intervention should only be undertaken to the extent necessary to correct past mistakes, the impacts of human use, and influences originating outside of wilderness boundaries.

Management actions, including the restoration of extirpated native species, the alteration of natural fire regimes, the control of invasive alien species, the management of endangered species, and the protection of air and water quality, should be attempted only when the knowledge and tools exist to accomplish clearly articulated goals.

Regarding cultural resources management in wilderness, NPS *Management Policies 2006* section 6.3.8 states:

Cultural resources that have been included within wilderness will be protected and maintained according to the pertinent laws and policies governing cultural resources using management methods that are consistent with the

preservation of wilderness character and values. These laws include the Antiquities Act and the Historic Sites, Buildings and Antiquities Act, as well as subsequent historic preservation legislation, including the National Historic Preservation Act, the Archaeological Resources Protection Act, and the Native American Graves Protection and Repatriation Act. The Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation provides direction for protection and maintenance.

These directives apply to this plan and will also adopt the resource management related actions and guidelines provided in the appendices to this Plan, which will serve to preserve all qualities of wilderness character consistent with the park's General Management Plan and California Desert Protection Act, and, provides a crosswalk between ongoing resource management activities and the *Wilderness Character Monitoring Program* described in Appendix G.

The NPS will seek to restore the desired conditions specific to wilderness character. Some of these actions will include:

- **Removal of non-historic debris**, including the removal of non-functioning and abandoned utility and research installations, remains of motorized vehicles and airplane crashes, abandoned property, and other similar debris for the purpose of preserving wilderness character. Before this project will proceed at any site, the park will ensure that cultural resources (i.e. archeological sites, historic trails and routes, cultural landscapes, historic structures, and ethnographic resources) are protected and maintained according to the pertinent laws and policies governing cultural resources using management methods that are consistent with the preservation of wilderness character and values. Cultural resources will be managed according to existing laws, policies, and ongoing inventory and treatment programs. Cultural resources listed or eligible for listing in the national register will be managed in accordance with *The Secretary of the Interior's Standards and Guidelines*, which set forth standards for the treatment of historic properties and contain standards for preservation, rehabilitation, restoration, and reconstruction, in accordance with the National Historic Preservation Act. Non-historic debris will be prioritized for removal based on the criteria and process outlined in Appendix O. Removal of any debris that may be of military origin will be coordinated with the Department of Defense.
- **Removal of non-historic motor vehicle routes** using techniques specific to the route but typically involving raking of existing vehicle tracks, the creation of a natural barrier to off-road travel (e.g. boulders) if possible, installation of vertical and horizontal mulch, breaking up compacted soil to encourage plant establishment, and actively or passively restoring native plants and contours to the route.
- **Restoration of sheet flow at Racetrack Playa.** The Racetrack ditch was installed in 1968 by Death Valley National Monument staff as a barrier to vehicular trespass on the Racetrack Playa. This installation was accomplished at the same time that the old road traversing the Racetrack Playa was relocated to the west of the playa for purposes of geologic restoration. The ditch was re-dug every 3-4 years until 1990, when it was recognized that the ditch interrupted natural hydrologic processes. The ditch is slowly being reclaimed by natural infilling, but it is being done mostly at the expense of the playa side. Playa sediments are being eroded through the numerous breaches, and are slowly filling the ditch. There are a few breaches on the upslope side (road side) of the ditch, and the same processes are at work filling the ditch with upland sediment. This process of natural breaching of the upslope levee coupled with ditch-filling sediment delivery is prevented along most of the ditch by the below-grade and bermed Racetrack Road. If flow is restored across the road it would accelerate the natural reclamation of the ditch through the delivery of levee-breaching sediment-laden storm flows. Because of the diffuse and braided runoff patterns flowing easterly from the Last Chance Range, common methods of runoff conveyance (culverts, Arizona crossings, etc.) would not achieve the goal of restoring flow across the Racetrack Road. The hydrologically preferred method would be to return the road to the natural grade, which would restore functionality of the distributary drainage systems. In order to accomplish this, the berms and unnatural sediment accumulations would be

pulled into the roadway by mechanical means to restore the grade for a total distance of 3.0 miles. The proposed action will result in additional disturbance of less than six feet on either side of the existing roadway. Larger plants in this footprint of disturbance, such as creosotes, will be left in place. The roadway for this 3.0-mile section will be maintained after the proposed action to the level of the park's 4-wheel-drive road maintenance standards, in order to provide for 4-wheel-drive vehicle passage while maintaining the natural grade necessary to ensure sheet flow onto the Racetrack Playa. The ditch would be strategically breached at intervals by hand crews under supervision of the park hydrologist and an archeological monitor, in order to encourage flow to the Racetrack Playa while protecting historic and pre-historic resources. Since the desired future condition for restoration of hydrologic function involves an elimination of the road berm and ditch that was created to discourage illegal vehicle trespass on the playa, the proposed action must also include a strategy for preventing vehicle trespass. To prevent vehicle trespass a cable fence will be installed along the 2.5 miles of the Racetrack Road closest to the playa. The fence will be comprised of a one-inch steel cable strung through holes drilled near the tops of eight-inch diameter wooden posts, with tensioners employed to keep the cable taut. The posts will be six feet long, with 24-32 inches of the post above ground and the remainder buried. Post spacing will be 15 feet. The fence will be installed as close as possible to the playa-side edge of the roadway after it is restored to natural grade, in order to mitigate impacts to viewshed and to wilderness character, and avoid impacts to archeological resources. Before this project would proceed in any phase, the park will conduct an archeological survey of the proposed project area and coordinate with the Tribal Historic Preservation Officer and the State Historic Preservation Officer to ensure that any historic or prehistoric resources are not adversely affected.

- **Removal of non-historic artificial wildlife watering devices** that interfere with natural flows or wildlife interactions. Devices were installed to supplement bird populations and to mitigate negative effects of management actions on bighorn sheep populations, or to supplement wildlife populations for hunting. All devices were installed on former Bureau of Land Management lands in cooperation with California Department of Fish and Game and were transferred to NPS through passage of the California Desert Protection Act in 1994. There are five large artificial watering devices (guzzlers), four in the north end of the park and one near Pyramid Peak; and 3 known bird devices. Two of the five big-game guzzlers are non-functional; the status of the bird guzzlers will be systematically assessed. Each of the devices, including the big-game guzzlers, will be inspected by a team of NPS resources management specialists and assessed as to the functionality and necessity of the device. Where devices are no longer functional or where they are determined to be interfering with natural spring flows or wildlife interactions, the park's wilderness coordinator will work in coordination with the park hydrologist and park wildlife biologist to develop a removal plan that will remove the unnatural components to the extent possible and restore natural conditions to the site.
- **Restoration of desert springs** that have been altered by modern human activities by re-contouring the land surface to natural contours, removal of non-native vegetation, and removal of unnatural impoundments or pipes used to concentrate flows for human use. Some of these spring alterations may be associated with historic activities (mining, ranching, traditional Indian use). Such actions would be undertaken at the direction of the NPS natural and cultural specialists but may be conducted by the Timbisha as part of their traditional cultural practices or by park cooperators.

This Wilderness and Backcountry Stewardship Plan also supports the actions to restore natural conditions found in other planning documents, including the *Death Valley National Park General Management Plan* (NPS 2002), *Wildland Fire Management Plan* (NPS 2009), and "Exotic Vegetation Management Plan" (in draft).
(see Appendix O for more information)

2.6.8 Specialized Recreation in Wilderness (EA page 77)

NPS *Management Policies 2006* states in chapter 8:

The National Park Service will manage recreational activities according to the criteria listed in sections 8.1 and 8.2 (and 6.4 in wilderness areas). Examples of the broad range of recreational activities that take place in parks include, but are not limited to, boating, camping, bicycling, fishing, hiking, horseback riding and packing, outdoor sports, picnicking, scuba diving, cross-country skiing, caving, mountain and rock climbing, earth caching, and swimming. Many of these activities support the federal policy of promoting the health and personal fitness of the general public, as set forth in Executive Order 13266. However, not all of these activities will be appropriate or allowable in all parks; that determination must be made on the basis of park-specific planning.

All proposals for park uses will be evaluated for: 1) consistency with applicable laws, executive orders, regulations, and policies; 2) consistency with existing plans for public use and resource management; 3) actual and potential effects on park resources and values; 4) total costs to the Service; and 5) whether the public interest will be served.

Many types of recreational use commonly associated with wilderness and backcountry lands are addressed in detail under the descriptions of the zones. The discussion in this section focused on those recreational activities not previously discussed in detail that were identified during scoping.

- **Sandboarding** is the use of specialized or improvised equipment to slide down sand dunes. It is an intense activity that has focused impacts on the dune surfaces. There are five dune systems at Death Valley National Park: Eureka, Mesquite Flat, Panamint, Saline Valley, and Ibex. Mesquite Flat is the only dune system easily accessible from a paved road, and it often experiences high visitor use. Sandboarding has long been prohibited in the Eureka Dunes due to the potential for impacts to rare and endangered plant species including the Eureka dune grass, Eureka Valley evening primrose and shining milkvetch. The shining milkvetch is also found at the Panamint Dunes. The Ibex Dunes is habitat for the Death Valley sandpaper plant. For the protection of these rare plants and wilderness character, sandboarding will be prohibited in the Eureka Dunes, Ibex, and Panamint dune systems.
- **Peak summiting** is a long-standing pursuit in the park, popularized by the Sierra Club Desert Peaks Section (DPS) list of 99 desert peaks, and climbing books such as Walt Wheelock's *Desert Peak Guides Part 1* and *Part 2*, and Andy Zdon's *Desert Summits*. Nineteen peaks on the DPS list and an additional 31 peaks mentioned in the Zdon book are located within the park. These 50 peaks receive the most attention from climbers and currently have registers where climbers record their names and short messages. Such peak registers are a tradition of many mountaineering organizations and were installed prior to the establishment of the area as wilderness. These registers also have value to search and rescue operations as well as in documenting visitor use of specific areas. For these reasons, the existing registers at these 50 peaks will remain. However, no new registers will be allowed to be installed at additional locations as such registers are an installation and therefore are not appropriate in wilderness. Any registers in locations not mentioned above will be removed.
(see Appendix R for more information)
- **Long distance backpacking** in Death Valley presents logistical challenges due to the limited access to natural and reliable water supplies. For this reason, people who pursue multi-day routes across the park often cache drinking water along the route in order to resupply during the expedition. Such water caches will be allowed subject to the following requirements:
 - Water caches are an extreme measure and should only be used when there is no other alternative (e.g. resupply at road crossings, carry enough water for the trip, plan a route to follow perennial natural water sources, etc.).
 - All water caches must be transportable using non-motorized, non-mechanized methods (e.g. hikers must transport the water either by pack stock or by backpacking)
 - All water caches are limited to 30 days duration from the time the water is initially cached until it is consumed and the containers removed.
 - Caches may not involve digging or any disturbance to natural or cultural resources.

- Caches pose specific health risks including water contamination and unexpected loss of the cache (due to weather, wildlife, vandalism, etc.). All visitors who chose to cache water do so at their own risk.
- All proposed caches must be identified at the time of the overnight visitor use permit request, including cache locations, volumes to be cached, and the dates the cache will be left and when it will be removed.
- **Recreational Caving:** The park does not have extensive cave systems but cave passages do exist and some are used for recreational caving. All cave passages located totally within the surface wilderness boundary and all caves that have entrances within wilderness but contain passages that may extend outside the surface wilderness boundary will be managed as wilderness. Caves that have multiple entrances located both within and exterior to the surface wilderness boundary will be managed in keeping with the surface boundary
- **Climbing and canyoneering** are both legitimate recreational pursuits, but there are limitations on where they may be appropriate and under what conditions. “Clean climbing” techniques involving the use of temporary equipment and anchors that can be placed and removed without altering the environment (e.g. slings, webbing, cams, nuts, chocks, and stoppers) are preferred and should be the norm. The occasional placement of a fixed anchor or webbing for belay, rappel, or protection purposes does not necessarily impair the future enjoyment of wilderness. However, climbing and canyoneering practices with the least negative impact on wilderness resources and character will be the preferred choice. Intensively bolted routes are not appropriate in wilderness. It is anticipated that Servicewide guidance on this issue will be forthcoming. In its absence, the park will adopt the following restrictions.
 - No new climbing hardware may be left in a fixed location **without review by the park’s Wilderness Committee and approval from the Superintendent**; however, if an existing bolt or other hardware is unsafe, it may be replaced.
 - The physical altering of rock surfaces such as chiseling or the intentional removal of lichens or plants, glue reinforcement of existing holds, and gluing of new holds is prohibited.
 - The use of motorized drills is prohibited within wilderness.
 - Rock climbing is not allowed within 200 yards of an archeological or cultural site.

2.7 MANAGEMENT ACTIONS COMMON TO ALL ALTERNATIVES (EA page 78)

2.7.1 Grazing (EA page 78)

Grazing at Hunter Mountain, the last remaining open allotment in the park, will be permanently retired as provided for in the *General Management Plan* (NPS 2002). The allotment is currently 86,400 acres within the park and is grazed by cattle on a seasonal basis. The allotment will be permanently retired with either a willing seller scenario or after a period of 5 years non-use. Upon retirement, all associated range improvements (e.g. fences, pipelines, water tanks, corrals, cabin, etc.) will be evaluated for historical significance and those determined to be historic will be treated according to the NPS standards for cultural resources. Those that are determined to be non-historic will be removed and the area restored to meet wilderness character values.

2.7.2 Rules & Restrictions Established by Superintendent’s Compendium (EA page 79)

In addition to the specific visitor use restrictions identified in the selected alternative, it is subject to the rules and restrictions established annually by the Superintendent’s Compendium. The Compendium is established in accordance with federal regulations and the delegated authority provided in Title 36 Code of Federal Regulations, Chapter 1, Parts 1-7, authorized by Title 16 United States Code, Section 3. Such provisions are established for the proper management, protection, government and public use of those portions of Death Valley National Park under the jurisdiction of the National Park Service. The compendium routinely

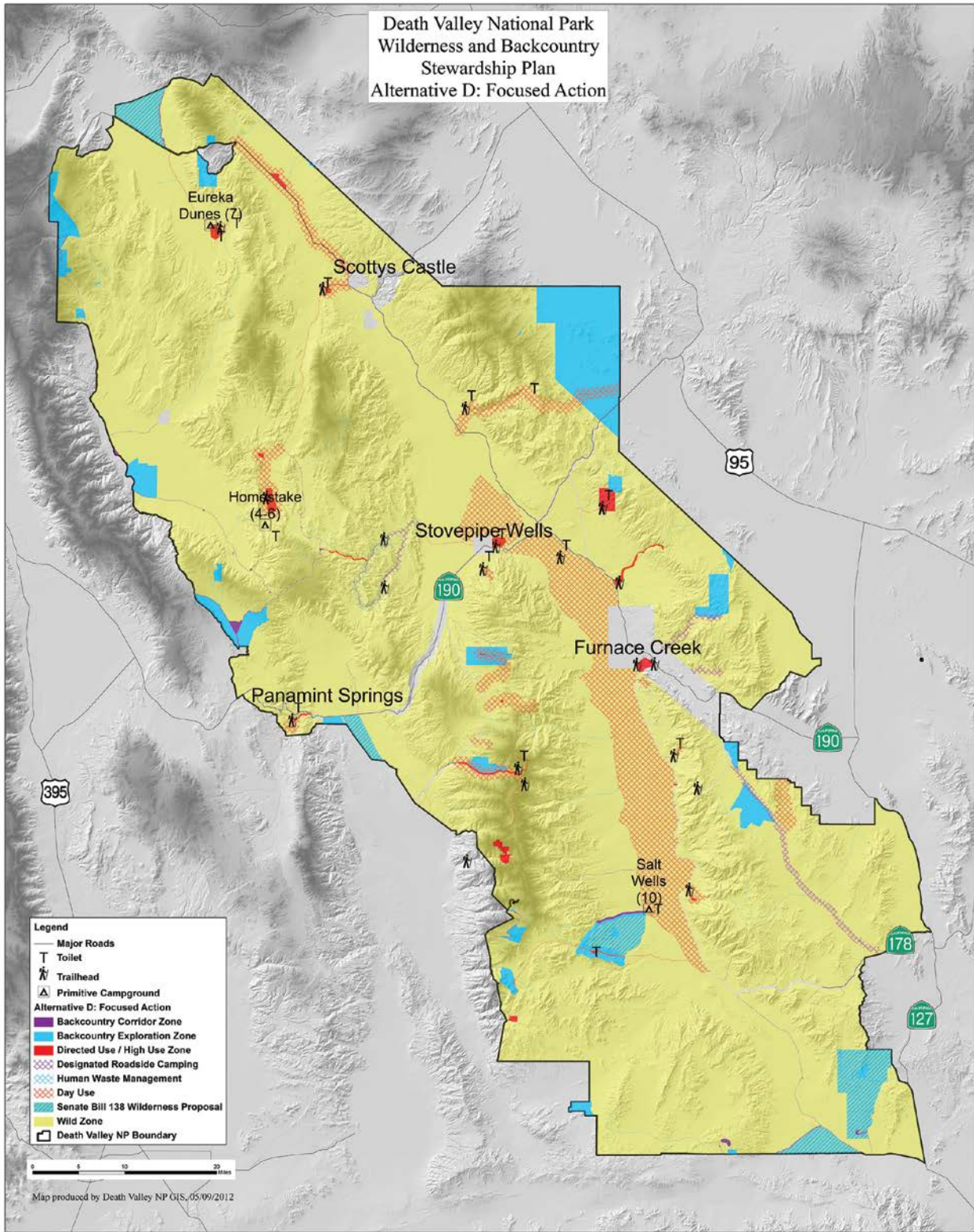
addresses designations, closures, permit requirements and other restrictions imposed under this discretionary authority. Of particular relevance to this Wilderness and Backcountry Stewardship Plan are the following restrictions (not already addressed in the description):

- cave closures and mine closures
- no viewing of wildlife with artificial lights
- transportation of weapons, traps, etc. allowed with certain restrictions
- no camping on Eureka Dunes or one mile from several listed mine sites
- no pets in wilderness
- no smoking while hiking or riding in wilderness
- geocaching not allowed
- applying the criteria of adverse effect to affected historic properties in the area of APE [800.5.(a)(1)]
- considering ways to avoid, minimize, or mitigate or otherwise resolve adverse effects.

Minimum Requirements Analysis (FONSI pages 12-13)

There are a number of facilities and installations in Death Valley National Park wilderness examined in the Plan/EA. Principal among them are emergency communications installations. There is a NPS radio repeater on Grapevine Peak and on Dry Mountain, both within the wilderness boundary. These repeaters are part of a network of non-commercial radio repeaters that provides a means of emergency communications for the National Park Service and other law enforcement and land management agencies, and with current technological constraints, have been determined the minimum tool necessary for the administration of Death Valley National Park's extensive wilderness areas. Depending on the weight of the equipment to be replaced or maintained, the minimum tool that has been determined necessary to maintain these facilities includes helicopter. The selected action includes these minimum requirement determinations. For future potential actions that may involve Wilderness Act section 4(c) prohibited uses within the wilderness area (prohibitions include temporary roads, use of motorized vehicles, motorized equipment, or motorboats, landing of aircraft, other form of mechanical transport, and structures or installations), the NPS will conduct a minimum requirements analysis to determine whether the proposed action is necessary for the administration of the Death Valley National Park wilderness. Under no circumstances may a Minimum Requirements Analysis be used to allow permanent roads or commercial enterprise within wilderness. Appendix L of the Plan/EA details the process for conducting the Minimum Requirements Analysis, including provisions for interdisciplinary review.

Death Valley National Park
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Stewardship Plan
Alternative D: Focused Action



2.2 ZONE DESCRIPTIONS

2.2.1 Purpose of Zoning (EA page 36)

Management zoning is the method used by the National Park Service to identify and describe the appropriate variety of resource conditions and visitor experiences to be achieved and maintained in the different geographic areas of a park. Zoning is generally a two-step process: (1) identify a set of potentially appropriate management zones, and (2) allocate those zones to geographic locations throughout the park. Differences in opinion about optimal and/or feasible resource conditions and visitor experiences for particular areas are addressed through alternative ways to apply zones to the park, thus resulting in different action alternatives. Zoning is intended to provide for a variety of resource conditions and visitor uses that are compatible with the park's purpose and preserve its fundamental resources and values; thus, wilderness lands are zoned in such a way that wilderness character would be maintained or improved. Zoning is an administrative tool and cannot be used to alter the requirements of the Wilderness Act, or the California Desert Protection Act.

In this plan the

- Wild Zone will be 3,094,500 acres,
- Backcountry Exploration Zone will be 202,500 acres,
- Backcountry Corridor Zone will be 6,000 acres,
- High Use/Directed Use zone will be 17,000 acres.

2.2.2 Wild Zone (EA pages 36 & 39-42)

This zone would only apply to congressionally designated wilderness, which is the vast majority of the park. It is the default zone for wilderness lands and such lands would only be re-zoned as high use or directed use if needed to maintain or improve wilderness character due to either the amount or type of visitor use at that location or due to the inherent sensitivity of the resources which dictate a higher level of management presence and visitor direction. If additional lands are designated as wilderness by an act of Congress, those areas would automatically be included in the Wild Zone.

The Wild Zone is designed to embrace all of the experiential attributes of wilderness for park visitors and highlights the wilderness character quality of outstanding opportunities for solitude or a primitive and unconfined recreation. Recreational pursuits in this zone are self-directed and require a high degree of self-reliance due to the intentional lack of visitor facilities. This zone provides ample opportunity for adventure, the use of primitive skills, as well as physical and mental challenge. This zone is also the premier place in the park to experience natural sounds, natural odors, dark night skies, and broad vistas where modern human presence is nearly imperceptible. This zone does include layers of human history to be “discovered” by modern park visitors, including many pre-historic and historic resources that provide an opportunity for visitors to reflect on past human relationships with the land.

Resource Stewardship and Resource Condition

- This zone provides for highly focused protection of critical resources consistent with maintaining or improving the natural quality of wilderness character. There would tend to be less active management or manipulation of intact physical or biological resources and processes in order to maintain the untrammeled quality of wilderness character.
- There would be a very low tolerance for unnatural sounds and light sources as such intrusions degrade both the natural quality of wilderness character and outstanding opportunities for solitude.
- There would be active management to improve the undeveloped quality of wilderness character by removing defunct installations and debris that are not cultural resources.

- Restoration of biophysical processes may be appropriate and managed with active NPS oversight. Restoration may be active or passive in nature. Any restoration activity would take place in accordance with the Wilderness Act. Such actions would carefully weigh the impacts to both the untrammeled and the natural quality of wilderness character.
- Scientific research would be encouraged but strictly managed within this zone. There would be a very low tolerance for research installations and existing defunct research installations would be actively removed.
- Cultural resource management in this zone would focus on inventory and condition assessments; preservation treatments would be considered using a minimum requirements decision process as needed. The integrity of ethnographic resources is preserved and protected through consultation with area tribes. Such actions would carefully consider both the historic significance of the resource and the preservation of wilderness character.
- There would a limited range of interpretive techniques (e.g., handouts, visitor contacts) or no interpretation of historic properties.

Visitor Experiences

- Visitors would very rarely encounter other parties, and group sizes would be small. Visitor access and travel routes for hiking would be unrestricted.
- This zone would offer abundant opportunities to experience solitude, dark night skies, natural sounds, and clear vistas. The sense of solitude and remoteness would be easily realized.
- Recreational facilities such as trails and NPS wayfinding markers such as rock cairns or posts would be infrequent, but allowed in wilderness. There would be abundant opportunities for challenge, adventure, and discovery in self-directed recreational pursuits.
- Volunteer stewardship activities would not be emphasized but might be accommodated under the direction of the NPS. Types of stewardship activities could include but not be limited to archeological studies, site restorations, non-historic debris removal, and invasive weed management.
- Visitor education is obtained prior to travel into this zone. Most of the visitor information is focused on providing the skills and knowledge to promote safety in self-directed recreational pursuits. NPS provided visitor education is primarily through off-site or remote delivery methods.

Administrative Uses/Actions

- Consistent with the Wilderness Act there is no tolerance for new permanent communication/utility installations. The need for existing installations (pre-dating the designation of wilderness) would be re-evaluated by NPS and removed when no longer necessary or appropriate.
- Non-historic debris removal would be a priority in this zone but the tools and techniques used will be carefully evaluated using the minimum requirements decision analysis process.
- Consistent with the Wilderness Act, commercial services would generally be prohibited in this zone except to the extent necessary to realize the purposes of wilderness. Similarly, most special park uses in this zone would be limited. Sporting events and historic wagon train and equestrian events would not be permitted and group sizes would be limited. Wireless communication towers would not be allowed in this zone.
- Self-reliance and self-rescue (including communication technologies) would be emphasized in this zone. Access to emergency services would likely be very difficult and response times may be extremely long.
- There would be a low presence of NPS personnel in this zone, consisting primarily of resource management and law enforcement personnel.

2.2.3 Backcountry Exploration Zone (EA pages 36-37 & 39-42)

This zone would apply to non-wilderness backcountry lands. This zone is generally accessed by 4-wheel-drive vehicles and typically includes backcountry lands that are not designated wilderness as well as backcountry roads that are not through roads or where road conditions are such that they require highly skilled operators and/or specialized vehicles for safe travel. There is very limited NPS maintenance on these roads, though extreme conditions may be moderated by the volunteer stewardship efforts of backcountry road organizations and enthusiasts. Signs and visitor use facilities are very limited, typically focused on warning signs of a regulatory nature, so visitor use in this zone is largely self-directed. This zone provides good opportunities for self-reliance, challenge, and adventure. Many of these roads were originally built to access mines or homestead sites, the remains of which provide a sense of discovery and an opportunity for visitors to reflect on past human relationships with the land.

Resource Stewardship and Resource Condition

- Exotic plant and animal species would be actively controlled and contained to mitigate impacts to resources and visitor use.
- Resource protection would be balanced with providing visitor use opportunities. Sensitive resources would be provided the maximum protection possible.
- There would be a low tolerance for unnatural sounds and light sources, though some noise and light pollution is expected in association with vehicle use.
- There would be active management to improve the undeveloped quality of wilderness character by removing defunct installations and debris that are not cultural resources.
- Restoration of biophysical processes would be appropriate and considered on a site by site basis, though some alteration of biophysical processes would persist due to the presence of the roads and their inherent alteration of surface hydrology.
- Scientific research would be appropriate and encouraged in this zone especially if it does not impact safety, visitors, or resources.
- Cultural resource management in this zone would focus on identification, evaluation, monitoring, and inspection to enable the longterm preservation of a resource's historic features, qualities and materials. The integrity of ethnographic resources is preserved and protected through consultation with area tribes.
- Cultural sites would likely be a primary visitor attraction in this zone. Cultural sites would be protected from impacts of visitor use and to mitigate safety hazards.

Visitor Experiences

- Visitors would rarely encounter other parties in this zone, though the presence of modern humans would be obvious due to the road network.
- The quality of the natural soundscape would be moderate to high during the day (due to vehicle noises) and high at night. Quality of night sky may be moderate to high depending on proximity to headlights. The sense of solitude and remoteness could be realized in most places during most seasons.
- Recreational facilities might include minimally maintained or unmaintained unpaved roads, existing cabins, a few signs (mostly regulatory), potential for campfire facilities, and roadside campsites used for dispersed camping. There would be moderate opportunities for self-reliance and most recreational pursuits would be self-directed.
- Volunteer stewardship activities would be accommodated under the direction of the NPS. Types of stewardship activities could include but not be limited to archeological studies, site restorations, non-historic debris removal, and invasive weed management.
- Visitor education is focused on minimal health and safety (hantavirus, hazardous mines). Wayfinding and interpretive waysides are closely scrutinized in this zone and would not be appropriate in most cases.

Administrative Uses/Actions

- There would be a moderate tolerance for existing installations and a low tolerance for new installations. Existing installations that are no longer needed would be removed. Road counters would be common.
- Non-historic debris removal would be undertaken where it detracts from visitor experience or is impacting resources.
- Commercial services and special park uses that support visitor access and enjoyment would be allowed. Number of, frequency of, and type of special park uses and/or commercial services would be carefully considered to avoid impacts to visitor backcountry experience and resources. Sporting events and historic wagon train and equestrian events would not be permitted and group sizes would be limited.
- Self-reliance and self-rescue (including communication technologies) are emphasized. Access to emergency services may be difficult and response times may be long.
- There would be a low to moderate presence of NPS personnel in this zone, consisting primarily of resource management and law enforcement personnel.

2.2.4 Backcountry Corridor Zone (EA pages 37 & 39-42)

This zone would apply to non-wilderness backcountry lands. This zone is generally accessed by high clearance, but not necessarily 4-wheel-drive vehicles traveling on unpaved roads. These are the through roads that serve as the primary connectors or travel corridors in the network of backcountry roads in the park and may connect to primary backcountry roads outside the park boundary. Wayfinding, regulatory, and interpretive signs may be present. Other facilities are infrequent but may be present (e.g. research equipment). Roads are periodically maintained in a passable condition by the NPS or other agencies via cooperative agreements, though road condition may be somewhat variable due to the dynamic nature of unpaved roads and extreme weather events. These areas experience a relatively high visitor use and NPS presence, which tends to moderate opportunities for self-reliance, challenge, and adventure. There are numerous and typically well-known cultural features visible along these roads that many visitors find interesting or inspiring, some of which are highlighted with interpretive signs while others are less obvious and can still be “discovered” by visitors.

Resource Stewardship and Resource Condition

- Exotic plant and animal species) would be actively controlled and contained to mitigate impacts to resources and visitor use.
- Resource protection would be balanced with providing visitor use opportunities. Sensitive resources would be provided the maximum protection possible. There would be more resource stewardship activities in this zone than in the Backcountry Exploration Zone due to higher levels of visitor use and the resulting impacts.
- There would be a higher tolerance for unnatural sounds and light sources than in the Backcountry Exploration Zone and vehicle noise and lights would be a more common occurrence.
- There would be active management to improve the undeveloped quality of wilderness character by removing defunct installations and debris that are not cultural resources.
- Restoration of biophysical processes would be appropriate and considered on a site by site basis, though some alteration of biophysical processes would persist due to the presence of the roads and their inherent alteration of surface hydrology. Due to relatively high visitor use and road capacity in this zone, the impacts to natural processes would be greater than in the Backcountry Exploration Zone.

- Scientific research would be appropriate and encouraged in this zone especially if not impacting safety, visitors, and resources. There would be opportunities to interpret scientific research to visitors.
- Cultural resource management in this zone would focus on identification, evaluation, monitoring, and inspection to enable the longterm preservation of a resource's historic features, qualities and materials. The integrity of ethnographic resources is preserved and protected through consultation with area tribes.
- Cultural sites would be a primary visitor attraction in this zone. Cultural sites would be protected from impacts of visitor use and to mitigate safety hazards.

Visitor Experiences

- Visitors would likely encounter other parties in this zone, most likely in passing on the road and where roadside camps are occupied. Most pursuits within this zone could be done with minimal close encounters with other parties, except at popular destination points where there may be several vehicles and parties at a time.
- The quality of the natural soundscape would be low to moderate during the day (due to vehicle noises) and high at night. Quality of night sky may be moderate to high depending on proximity to headlights. The sense of solitude and remoteness could be realized in some places and during some seasons.
- Recreational facilities would likely include maintained unpaved roads, existing cabins, a few signs (regulatory, wayfinding, and interpretive), potential for campfire facilities, and roadside campsites used for dispersed or designated camping. There would be moderate opportunities for self-reliance and most recreational pursuits would be self-directed.
- Volunteer stewardship would be encouraged under NPS direction. Types of stewardship activities could include but not be limited to archeological studies, site restorations, non-historic debris removal, resource condition monitoring, and invasive weed management.
- A full range of visitor education opportunities are appropriate in this zone, including signs, podcasts (or similar technological delivery methods), and ranger guided hikes or activities.

Administrative Uses/Actions

- There would be a high tolerance for existing installations and a moderate tolerance for new installations. Existing installations that are no longer needed would be removed promptly. Road counters and road engineering structures would be common.
- Non-historic debris removal would be undertaken where it detracts from visitor experience or is impacting resources.
- Commercial services that support visitor access and enjoyment of backcountry would be allowed. Many types of special park uses would be permitted in backcountry as long as they would not interfere with visitor use or impact resources.
- Self-reliance and self-rescue (including communication technologies) are encouraged. Access to emergency services may be difficult in places and response times may be short or long.
- There would be a moderate to high presence of NPS personnel in this zone, including maintenance, law enforcement, interpretation, and resource management personnel.

2.2.5 High Use/ Directed Use Zone (EA pages 37 & 39-42)

This zone would apply to both wilderness and non-wilderness backcountry lands—or more typically, geographically small areas that include both. This zone includes popular destinations that seasonally or often see high visitor use. To accommodate such use and protect park resources, these areas typically have a higher level of visitor facilities and visitor services. Facilities are often installations that are prohibited in wilderness, so in most cases the facilities occur on adjacent non-wilderness lands but the visitor destination is in

wilderness. For example, a trailhead with parking area, signs, and toilet is accessible by vehicle and located on non-wilderness lands but the popular destination is the hiking route or trail that is accessed from the trailhead and enters wilderness in order to reach a particular destination. There are other locations where this zone is used to provide a higher level of management presence and visitor use direction due to the inherent sensitivity of park resources, rather than as a result of high visitation. In these locations, any visitor use (not just high visitor use) needs to be carefully directed to avoid impacts to the park's natural or cultural resources. This zone is still largely characterized as a natural landscape, but the presence of modern humans is obvious in the form of parking areas, signs, toilets, barriers, and people. Generally, there are fewer opportunities to experience the solitude as visitors would seldom be alone or out of sight of clues of modern human presence. There are also fewer opportunities for primitive and unconfined recreation because the use levels and/or resource sensitivities of these locations require that visitors adhere to agency direction such as stay on trails or no overnight use. This zone still provides opportunities for adventure, discovery, self-reliance and challenge, but the amount of agency presence in these locations tends to moderate the extremes. Cultural resources are often high use destinations so this zone provides an opportunity for the NPS to help visitors gain understanding of past human relationships with the land through interpretive programs, signs, and other media. Likewise, some cultural resources are also sensitive to visitor use and so in some locations visitor use restrictions could be imposed for the protection of cultural resources.

Resource Stewardship and Resource Condition

- Exotic plant and animal species would be controlled and contained to mitigate impacts to resources and visitor use.
- Resource protection would be balanced with providing visitor use opportunities. Sensitive resources in high use areas would be provided the maximum protection possible. In wilderness, such actions would be carefully considered for their potential to degrade or improve wilderness character.
- Permanent lighting would be dark sky friendly. There would be a moderate tolerance for daytime unnatural sounds and a low tolerance for nighttime unnatural sound. There would be active management to improve the undeveloped quality of wilderness character by removing defunct installations and debris that are not cultural resources.
- There would be a moderate tolerance for disruption to biophysical processes, but where those processes are significantly altered restoration activities would be undertaken to mitigate impacts of human use.
- There would be a high tolerance for research activities that do not significantly impact recreational or resource values of sites. In wilderness, installations would rarely be appropriate. Research that can only be conducted in wilderness or is important to informing management of park wilderness resources may be permitted. In backcountry, temporary installations that are not highly visible or intrusive would be appropriate. Research of all types would be expected to occur within this area (social sciences, etc.). There would be opportunities to interpret scientific research to park visitors.
- Cultural resource management in wilderness lands would focus on inventory and condition assessments; preservation treatments would be considered using a minimum requirements decision process as needed. Such actions would carefully consider both the historic significance of the resource and the preservation of wilderness character.
- Cultural resource management in non-wilderness lands would focus on identification, evaluation, monitoring, and inspection to enable the long-term preservation of a resource's historic features, qualities and materials. The integrity of ethnographic resources is preserved and protected through consultation with area tribes.
- Cultural sites that are a primary attraction at high use areas would be protected from impacts of visitor use and to mitigate safety hazards. There would be opportunities to interpret cultural resources.

Visitor Experiences

- Encounter rates could be high and group sizes would be highly variable, but group sizes could be quite large (e.g. when a tour bus stops at the access point). Generally there would be a high likelihood of encountering other people or signs of other people in this zone.
- Quality of the natural soundscape would typically be low to moderate during the day depending on level of use and high at night. Quality of night sky may range from low to high depending on level of visitor use, particularly due to vehicle lights and occasionally nearby outdoor lighting.
- Minimal opportunity for solitude and sense of self-reliance.
- Roads may be frequent in backcountry. Trails would be NPS defined. There would be low tolerance for social trails. New trails may be created to provide a variety of recreational experiences and to protect sensitive resources. Human waste management would be considered. NPS created signs and waysides would be frequent in backcountry. NPS wayfinding signs would be infrequent but allowed in wilderness. Campsites may be designated.
- Volunteer stewardship would be encouraged under NPS direction. A wide variety of activities might be accommodated here.
- Resources would be actively interpreted both on-site and off-site. Ranger led tours, waysides, and signs would be appropriate.

Administrative Uses/Actions

- There would be a high tolerance for existing installations and a moderate tolerance for new communications installations in backcountry. There would be no tolerance for utilities and communication installations in wilderness. Existing installations that are no longer needed would be removed promptly.
- Non-historic debris removal would be a priority in this zone, particularly where it detracts from visitor experience or is impacting resources in wilderness lands. Removal actions in wilderness will be carefully evaluated using the minimum requirements decision analysis process.
- Commercial services in non-wilderness backcountry that support visitor access and enjoyment of backcountry would be allowed. Commercial services in wilderness would generally be prohibited except to the extent necessary to realize the purposes of wilderness. Similarly, many types of special park uses would be permitted in backcountry areas as long as they would not interfere with visitor use or impact resources, but in wilderness sporting events and historic wagon train and equestrian events would not be permitted, and group sizes would be limited.
- Self-reliance and self-rescue (including communication technologies) are encouraged. Emergency services are relatively accessible and response times may be short or long.
- There would be a high presence of NPS personnel in this zone, including maintenance, law enforcement, interpretation, and resource management personnel.

2.2.6 Visitor Use Issue Analysis & Strategies for specific locations managed for High Use/ Directed Use. (EA pages 43 & 45-52)

Location	Issue	Proposed Measures	Proposed Standards	Proposed Management Strategy
Aguereberry Point (backcountry)	Improper disposal of human waste	Number of encounters of improper human waste disposal	No or limited incidence of improperly disposed human waste	No NPS Interpretive groups and no Special use permit groups over 20 participants. Revise terms and conditions for special use permits to include proper human waste disposal.
	Crowding due to frequency of encounters with other parties	Number of encounters with other visitor groups per hour	No more than an average of three encounters with other visitor groups per hour	Implement visitor education regarding proper human waste disposal.
Butte Valley and Warm Springs Cabins (backcountry)	Improper disposal of human waste at cabins, especially during high use seasons and near springs	Number of encounters of improper human waste disposal	No or limited incidence of improper disposal of human waste	Require pack-out of human waste during high use seasons or provide on-site toilet facilities.
	Unauthorized “maintenance” or alterations to cabins	Number and severity of Incidence of unauthorized cabin work	No unauthorized cabin maintenance or alterations	Establish a cabin stewardship program to facilitate cabin maintenance activities by interested groups and individuals under NPS direction with proper care for historic materials and worker safety.
		Presence/absence of posted warning signs at cabins regarding hanta virus and other concerns	All cabins posted with visitor safety warnings	
		Presence of visitor constructed fire rings near cabins	No visitor created campfire rings	
	Rendezvous of large groups at cabin sites without permits thus exceeding the site capacity	Number of large groups at each cabin site at the same time	No more than two special use permit groups per week.	Manage all groups via special use permits (appendix G). Operate cabins as administrative sites for specific park purposes.
Cottonwood Canyon/Marble Canyon Hiking Loop (backcountry and wilderness)	Improper disposal of human waste especially in and near the spring brook	Number of encounters of improper human waste disposal	No more than one incidence of improperly disposed human waste per campsite	Require that human waste be packed out during high use seasons and when large groups are permitted.
	Crowding due to frequency of encounters with other parties and competition for optimal campsites during high use seasons	Number of encounters with other visitor groups when more than two miles from end of road	No more than 4 encounters per day	Manage the road and hiking corridors for designated camping rather than dispersed camping. Implement an overnight use permit system as necessary to allocate campsites. Manage groups under a special use

Location	Issue	Proposed Measures	Proposed Standards	Proposed Management Strategy
	Disturbance to nesting riparian birds by visitors	Incidence of nest abandonment or reduction in nesting success	No incidence of nest abandonment due to visitor encounters	<p>permit with specific terms and conditions.</p> <p>Designate and mark a hiking trail through Cottonwood Canyon to avoid disturbance of birds. Avoid establishing campsites near nesting habitat.</p>
Darwin Falls (backcountry and wilderness)	Improper disposal of human waste	Number of encounters of improper human waste disposal	No incidence of improperly disposed human waste	NPS Interpretive groups and Special use permit groups limited to no more than 20 participants.
	Crowding due to frequency of encounters with other parties	Number of encounters with other visitor groups per hour	No more than an average of three encounters with other visitor groups per hour	Formalize trailhead with designated parking, low maintenance toilet facility, and visitor use information sign.
Eureka Dunes (backcountry and wilderness)	Improper disposal of human waste	Number of encounters of improper human waste disposal	No incidence of improperly disposed human waste	<p>Establish designated campsites along east side of dunes outside of archeological sites, one would be a group campsite. No dispersed camping allowed within 2 miles. Upgrade or replace the existing vault toilet to ensure a locking door, an acceptable seat, and increased capacity.</p> <p>Install a second low maintenance toilet on east side of dunes outside of archeological sites.</p> <p>Increase maintenance frequency of toilet facilities and/or increase capacity of existing toilet.</p> <p>Support a campground host at this site during heavy use periods.</p> <p>Increase visitor education both on-site and off-site, improve visitor use signs.</p> <p>Do not pave the road.</p>
	Proliferation of out of bounds campsites	Number of out of bounds campsites or parking areas	No out of bounds camping	
	Illegal off road travel, especially along east side of dunes	Linear feet of new tracks encountered monthly	No new tracks	
	Illegal sandboarding	Number of sandboarding incidence documented per month	No incidence of sandboarding	
	Disturbance to archeological sites/illegal artifact collection	Number of illegal collecting incidence documented per month by law enforcement personnel; archeological site condition	No incidence of illegal collection or disturbance; archeological sites conditions do not degrade due to visitor activities	
Indian Pass (frontcountry parking and wilderness)	Improper disposal of human waste	Number of encounters of improper human waste disposal	No more than 3 incidence of improperly disposed human waste along primary hiking route	Require permits for overnight use.
	Crowding due to frequency of encounters with other parties	Number of encounters with other visitor groups per hour	No more than an average of three encounters with other visitor groups per day	Establish a trailhead with a small graded parking area to accommodate a few vehicles off the highway for overnight parking. Provide a trailhead sign with visitor use information, including information regarding proper disposal of human waste and alternative backpacking routes when the parking area is full.
	Unsafe parking along Highway 190 and associated damage to road shoulder	Number of vehicles parked along Highway 190 near route origin	No vehicles parked overnight along road shoulder (after construction of new parking area)	If campsite proliferation at the canyon becomes a problem, consider establishing designated campsites and prohibiting dispersed camping.

Location	Issue	Proposed Measures	Proposed Standards	Proposed Management Strategy
Keane Wonder Mine (after safety concerns are addressed and site is re-opened to the public) (backcountry and wilderness)	Sensitive historic resources	Incidents of visitor caused damage to historic resources	No incidence of damage to historic resources	Install low maintenance toilet facility.
	Improper disposal of human waste	Number of encounters of improper human waste disposal	No incidence of improperly disposed human waste	Do not enlarge the parking lot or pave the road.
	Crowding due to frequency of encounters with other parties	Number of encounters with other visitor groups per hour	No more than an average of three encounters with other visitor groups per hour	Limit size of NPS interpretive walks to no more than 20 participants during busy periods. Do not issue special use permits for groups larger than 20. Implement visitor education strategy and post visitor use information regarding visitor safety around mine sites, protection of historic resources, and proper human waste disposal.
Mesquite Flat Dunes (backcountry and wilderness)	Sensitive cultural resources	Incidents of illegal camping	No incidence of illegal camping	Maintain area as day use and direct visitor parking and access to the existing parking area.
	Illegal off road travel	Linear feet of new tracks encountered monthly	No new tracks	
Mosaic Canyon (backcountry and wilderness)	Improper disposal of human waste	Number of encounters of improper human waste disposal	No incidence of improperly disposed human waste	Formalize trailhead including clearly delineated parking area, low maintenance toilet, and visitor information signs. Post areas as “no parking” where needed to avoid out of bounds or overflow parking.
	Crowding due to frequency of encounters with other parties	Number of encounters with other visitor groups per hour	No more than an average of seven encounters with other visitor groups per hour	
	Out of bounds parking when lot is at capacity	Number of vehicles parked out of bounds per hour during high use periods	No more than 2 incidents of out of bounds parking per day.	Limit special use permit groups to no more than 20 participants. Limit NPS interpretive programs to no more than one a day.
Natural Bridge (backcountry and wilderness)	Out of bounds parking when lot is at capacity	Number of vehicles parked out of bounds per hour during high use periods	No more than 2 incidents of out of bounds parking per day.	Formalize trailhead including clearly delineated parking area near existing toilet facility, and post visitor information signs. Post areas as “no parking” where needed to avoid out of bounds or overflow parking.
	Crowding due to frequency of encounters with other parties	Number of encounters with other visitor groups per hour	No more than an average of seven encounters with other visitor groups per hour below the bridge or three per hour beyond the bridge.	Upgrade toilet capacity if necessary to meet demand. Limit special use permit groups to no more than 20 participants. Limit NPS interpretive programs to no more than one a day. Do not pave access road.

Location	Issue	Proposed Measures	Proposed Standards	Proposed Management Strategy
Racetrack Playa/ Homestake Dry Camp (backcountry and wilderness)	People moving , defacing, or stealing the rocks on the playa	Number of new rockless tracks	No rocks moved or removed	<p>Include visitor information signs at Racetrack Playa parking area regarding no removal of rocks, no walking on playa when its wet, proper disposal of human waste and no overnight camping. Incorporate similar messages into other visitor education materials.</p> <p>Formally establish Homestake Dry Camp as a primitive campground, including delineated campsites with firepits and picnic tables at each site. Replace existing plastic outhouse with a low maintenance toilet facility. Do not pave road or improve road maintenance. Remove existing roadberm and ditch adjacent to Racetrack Road to restore natural contours to allow natural overland flows from Ubehebe Peak onto the playa. Install low profile fencing outside of wilderness as necessary to prevent off road travel onto playa. Install strong “No Driving on Playa” sign on road at northern end of Racetrack Playa.</p>
	Crowding at Homestake Dry Camp	Number of new visitor created campsites	No camping outside of designated campsites	
	Improper disposal of human waste	Number of encounters of improper human waste disposal along road between Playa parking area and Homestake Dry Camp	No incidence of improperly disposed human waste	
	Off road vehicle travel on playa	Count new vehicle tracks on playa per month	No new tracks	
	Hiking on playa when its wet	Count new footprints per month	No new footprints	
	Crowding at the playa parking area and environs	Number of visitor complaints	Less than five complaints about crowding per year	
	Altered natural overland flow onto playa due to road berm and ditch previously constructed to prevent off-road travel	NA	NA	
Sidewinder Canyon (backcountry and wilderness)	Improper disposal of human waste	Number of encounters of improper human waste disposal	No incidence of improperly disposed human waste	<p>Formalize trailhead including clearly delineated small parking area, low maintenance toilet facility, and visitor information signs. Delineate trail as needed up Sidewinder Canyon.</p> <p>Limit size for NPS interpretive walks to no more than 12 or consider no NPS guided activities at this location. Do not authorize this site for special use permit groups or commercial use groups.</p>
	Crowding due to frequency of encounters with other parties	Number of encounters with other visitor groups per hour	No more than an average of three encounters with other visitor groups per hour	
Skidoo Historic Site (backcountry)	Sensitive historic resources	Incidents of visitor caused damage to historic resources	No incidence of damage	<p>Manage site for day use only. No roadside camping.</p> <p>Implement visitor education strategy and post visitor use information regarding visitor safety around mine sites, protection of historic resources, and proper human waste disposal.</p> <p>No NPS interpretive groups and no special use permit groups over 20 participants. Revise terms and conditions for special use permits to include proper human waste disposal.</p>
	Improper disposal of human waste	Number of encounters of improper human waste disposal	No incidence of improperly disposed human waste	
	Crowding due to frequency of encounters with other parties	Number of encounters with other visitor groups per hour	No more than an average of three encounters with other visitor groups per hour	

Location	Issue	Proposed Measures	Proposed Standards	Proposed Management Strategy
Surprise Canyon (NPS managed portion only) (backcountry and wilderness)	Improper disposal of human waste	Number of encounters of improper human waste disposal	No more than two incidence of improperly disposed human waste observable from the trail	Implement visitor education strategy and post visitor use information regarding visitor safety around mine sites, protection of historic resources, and proper human waste disposal . If standards are still exceeded, coordinate with BLM for installation of trailhead toilet (on BLM land) or implement a pack it out strategy for high use seasons.
	Crowding due to frequency of encounters with other parties	Number of encounters with other visitor groups per hour	No more than an average of five encounters with other visitor groups per day	Require permits for overnight use and include terms and conditions regarding protection of sensitive resources, proper disposal of human waste and staying on trail. Coordinate with BLM on trail designation and management.
Telescope Peak (backcountry and wilderness)	Improper disposal of human waste	Number of encounters of improper human waste disposal	No more than an average of three new incidences of improperly disposed human waste for length of trail during primary use season (measured every two months)	Require permits for overnight use and include terms and conditions regarding protection of sensitive resources, proper disposal of human waste, staying on trail, and camping in previously used campsites. Implement Education Strategy. If problems persist consider designated campsites, limiting number of overnight permits issued per day for this area, and/or pack it out requirement for human waste disposal.
	Spur trails and cutting of switchbacks	Number of new spur trails	No more than two new spur trails along the route during primary use season	No special use permits for groups larger than 20. Limit NPS or Death Valley Natural History Association guided hikes to 12 individuals.
	Proliferation of user defined campsites along route and size creep of existing campsites with frequent use	Seasonally count number of campsites by quantitative size categories	No increase in number or size of campsites	
Titus Canyon (backcountry and wilderness)	Improper disposal of human waste, especially in/near spring and Leadfield historic site	Number of encounters of improper human waste disposal	No incidence of improperly disposed human waste	Manage Titus Canyon for day use only to minimize impacts to bighorn sheep
	Archeological site degradation at Leadfield historic site and petroglyph	Site condition as recorded in ASMIS	Maintain or improve condition (poor, fair, good) at each assessment	Implement education strategy regarding protection of natural (Klare Spring, bighorn sheep) and cultural resources (petroglyph site, Leadfield historic site), and proper disposal of human waste.
	Visitor use causes disruption of bighorn sheep access to Klare Spring for water	Persistence of bighorn population in the vicinity	Population remains viable and uses habitat around Titus Canyon/Klare Spring	Limit group size and manage groups under a special use permit with

Location	Issue	Proposed Measures	Proposed Standards	Proposed Management Strategy
	Crowding around Leadfield and at Klare Spring	Number of encounters with other parties	No more than ten encounters with other parties per trip through Titus Canyon	<p>specific terms and conditions.</p> <p>Formalize parking area and limit number of parking spots (about 7) and install low maintenance toilet at Leadfield/Klare Springs vicinity.</p> <p>Develop a self guided site exploration trail around the Leadfield and Klare Springs area to avoid trampling and social trailing.</p> <p>Either remove petroglyph sign or develop a more comprehensive interpretive sign and access barrier near the site.</p>
Ubehebe Crater (backcountry)	Crowding/encounter rates	Number of visitor groups inside the Crater at one time	No more than an average of five encounters with other visitor groups inside of the crater at any one time	To preserve and protect the integrity of sensitive ethnographic resources at Ubehebe Crater, area tribes will be consulted prior to the installation of a large capacity, low maintenance toilet facility below the parking area before road splits.
	Improper disposal of human waste	Number of encounters of improper human waste disposal	No incidence of improperly disposed human waste	<p>No Special Use Permit groups over 20.</p> <p>Limit NPS interpretive programs to no more than one a day.</p>

LIST of APPENDICES to the Death Valley Wilderness and Backcountry Stewardship Plan

- **Appendix A.** California Desert Protection Act of 1994 (EA page 215)
- **Appendix B.** Summary of Public Comments (EA page 225)
- **Appendix C.** Summary of 2009-10 Visitor Use Study (EA page 239)
- **Appendix D.** Summary of Geospatial Model of Wilderness Character at Death Valley National Park (EA page 241)
- **Appendix E.** Wilderness Character Narrative for Death Valley National Park (EA page 243)
- **Appendix F.** Visitor Use Permit System Implementation Strategy (EA page 249)
- **Appendix G.** Wilderness Character Monitoring Strategy (EA page 253)
- **Appendix H.** Framework for Evaluating Research and Science Activities in Death Valley National Park Wilderness (EA page 269)
- **Appendix I.** Wilderness and Backcountry Education Strategy (EA page 273)
- **Appendix J.** Determination of Extent Necessary For Commercial Services (EA page 299)
- **Appendix K.** Cabin Stewardship Strategy (EA page 311)
- **Appendix L.** Minimum Requirements Decision Analysis Process (EA page 337)
- **Appendix M.** Criteria for Evaluating Emerging Recreational Activities in Wilderness (EA page 341)
- **Appendix N.** Road Maintenance Standards (EA page 345)
- **Appendix O.** Wilderness Restoration Criteria (EA page 351)
- **Appendix P.** Wilderness Committee Charter (EA page 359)
- **Appendix Q.** Trails List and Maintenance Standards (EA page 363)
- **Appendix R.** Summit Registers (EA page 369)
- **Appendix S.** Agency Correspondence (EA page 371)