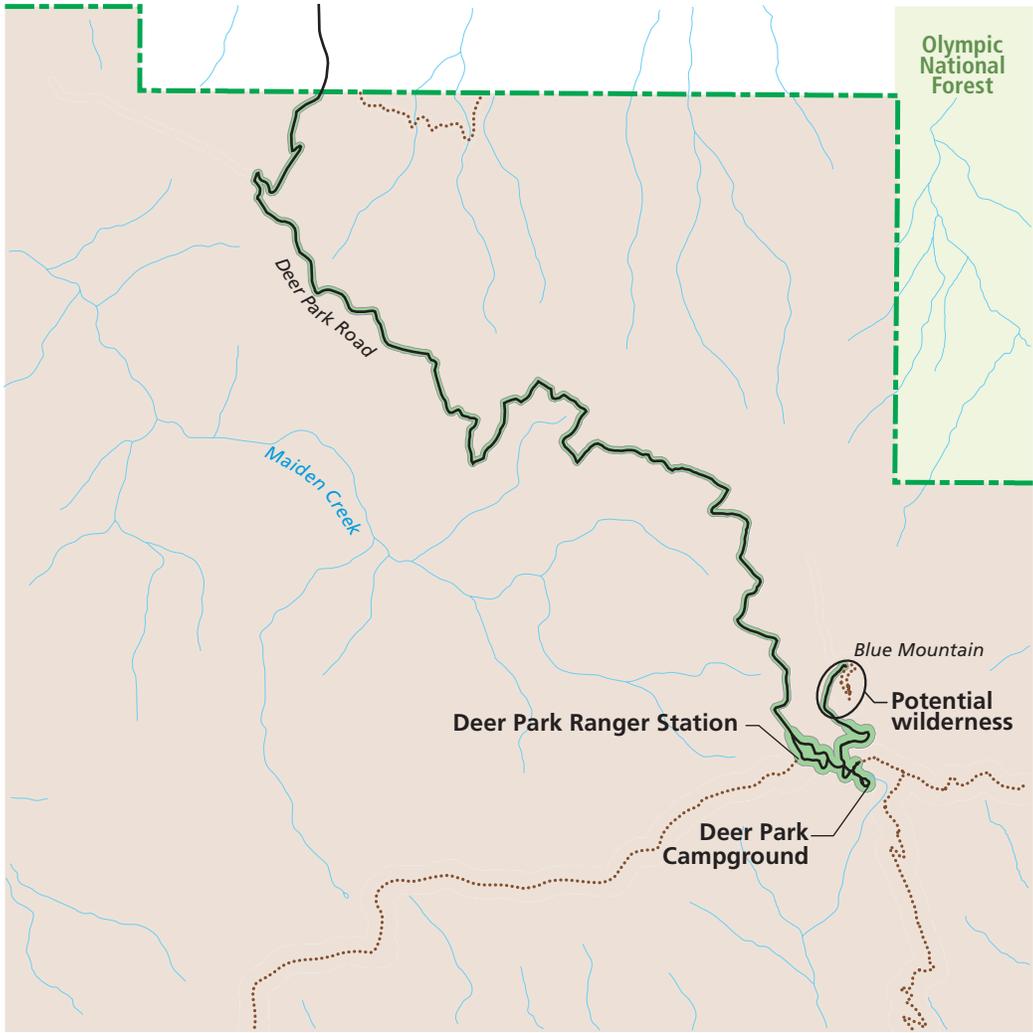


# Deer Park Alternative A - Current Management



1. The unpaved road would be retained and open seasonally.
2. The ranger station and campground would be open seasonally.

## Legend

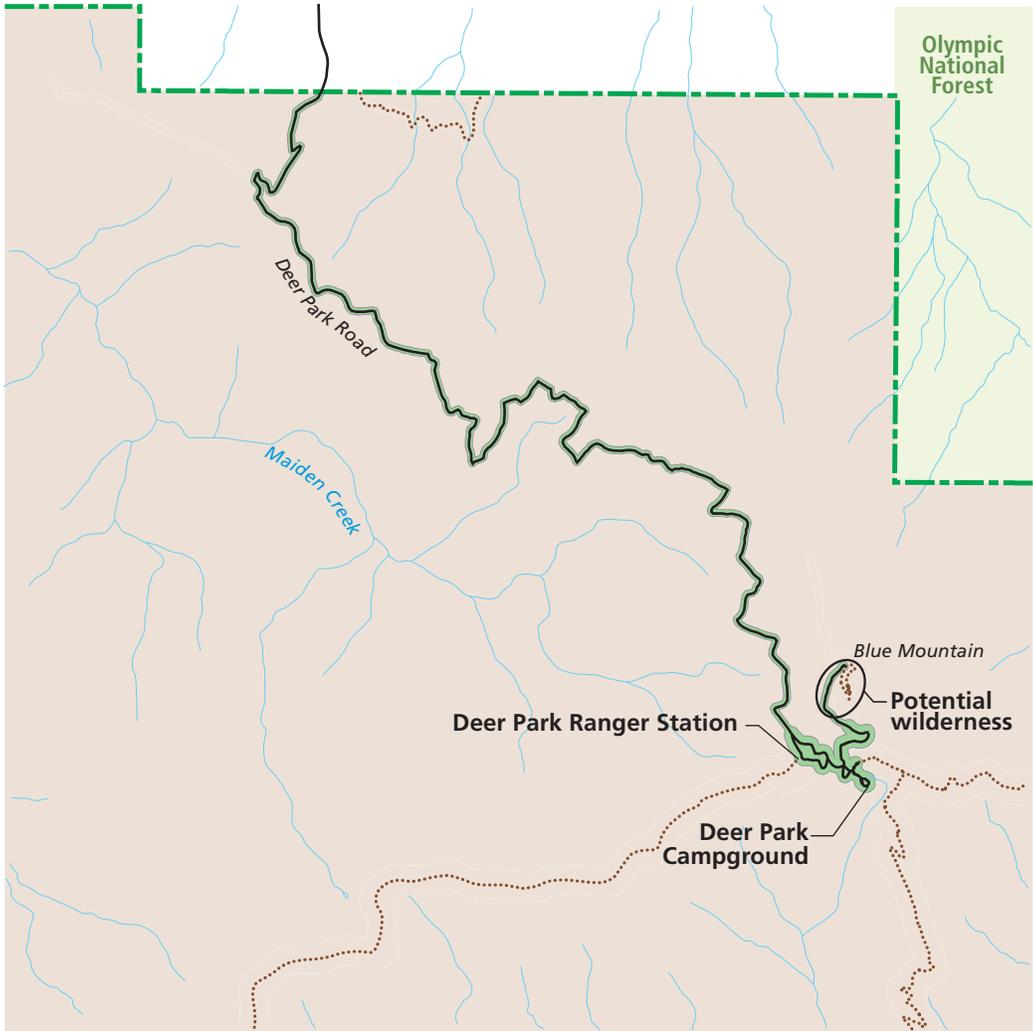
- Low Use Zone
- NPS Wilderness
- NPS Boundary
- Trail
- Paved road
- Unpaved road
- USFS



Private lands are are not shown on map



# Deer Park Alternative B - Resource Protection Emphasis



1. The unpaved road would be retained and open seasonally.
2. The ranger station would be eliminated and the campground would be reduced or eliminated.

## Legend

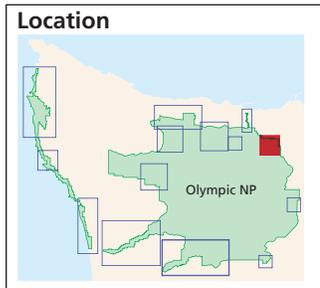
- |  |  |
|--|--|
|  Low Use Zone   |  NPS Boundary |
|  NPS Wilderness |  Trail        |
|  |  Paved road   |
|  |  Unpaved road |
|  |  USFS         |

North

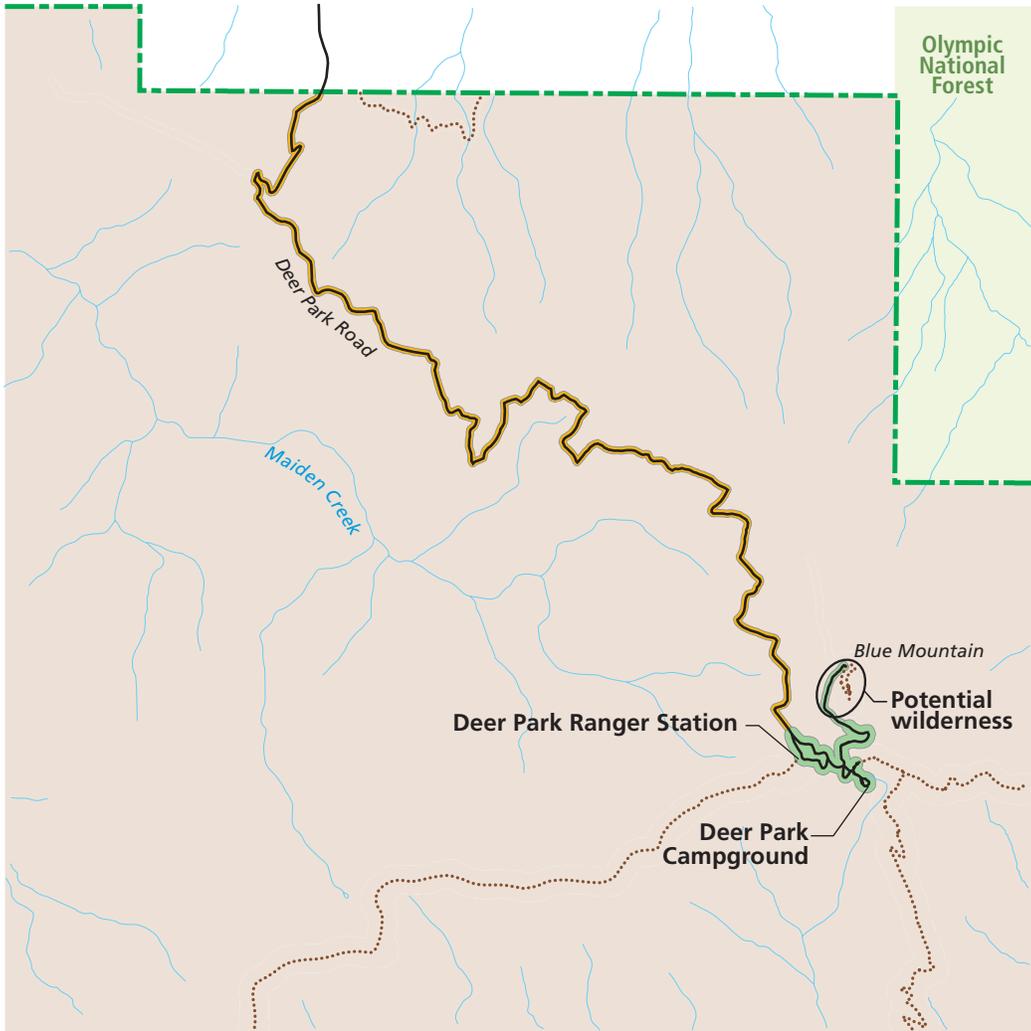


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Private lands are are not shown on map



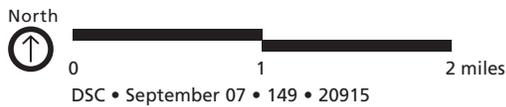
# Deer Park Alternative C - Visitor Opportunities Emphasis



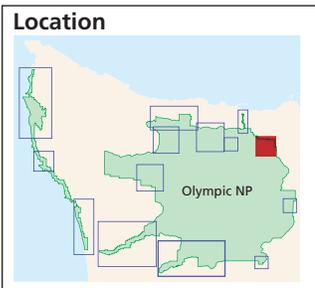
1. The road would be paved and open year-round.
2. The ranger station would be retained and campground would be expanded.

## Legend

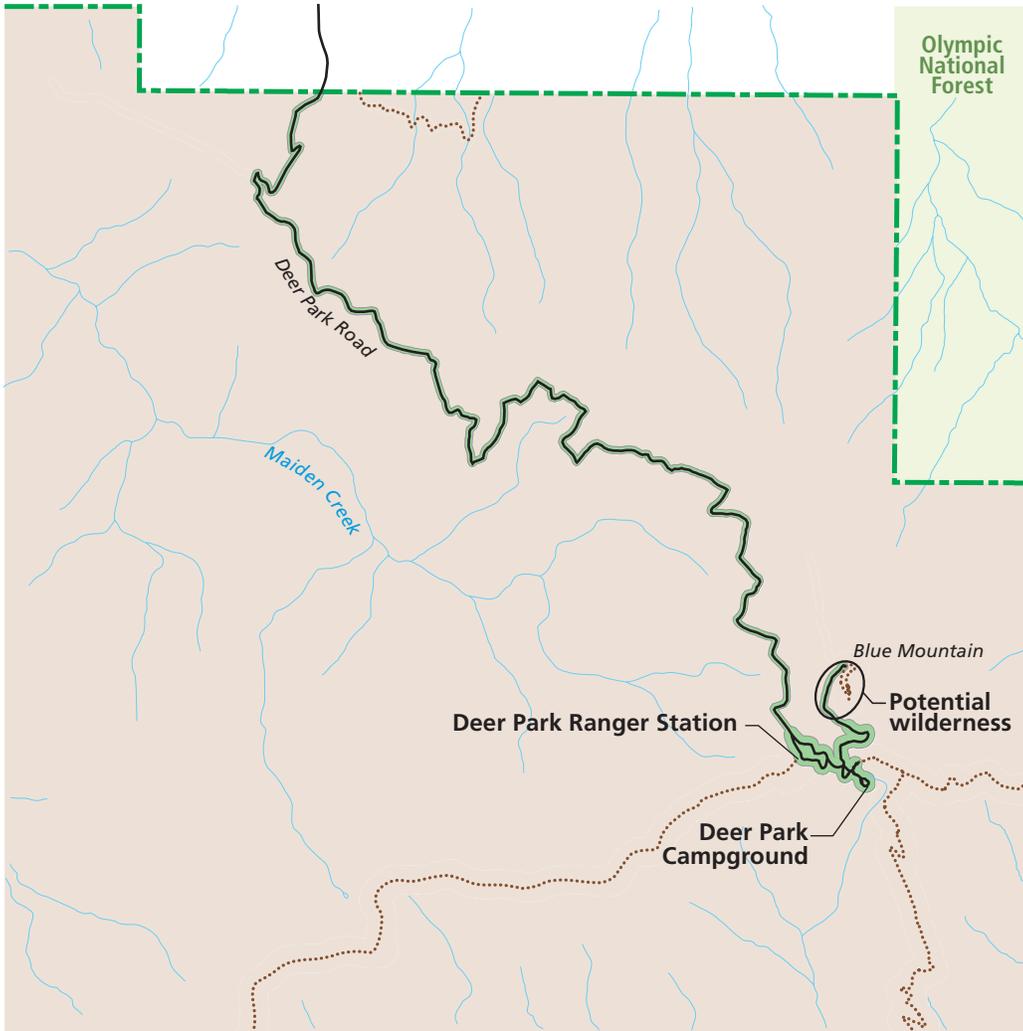
|                |              |
|----------------|--------------|
| Low Use Zone   | NPS Boundary |
| Day Use Zone   | Trail        |
| NPS Wilderness | Paved road   |
|                | Unpaved road |
|                | USFS         |



Private lands are are not shown on map

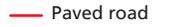
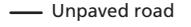


# Deer Park Alternative D - Preferred Alternative



1. The unpaved road would be retained and open seasonally.
2. The ranger station and campground would be open seasonally.

## Legend

- |  |  |
|--|--|
|  Low Use Zone   |  NPS Boundary |
|  NPS Wilderness |  Trail        |
|  |  Paved road   |
|  |  Unpaved road |
|  |  USFS         |

North

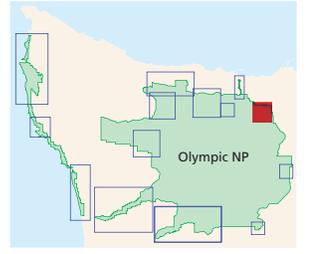


0 1 2 miles

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Private lands are are not shown on map

## Location



## VISITOR USE AND USER (CARRYING) CAPACITY

### USER CAPACITIES

General management plans are required to address user capacity (formerly referred to as visitor carrying capacity) for national park system units. The National Park Service defines user capacity as the type and level of visitor use that can be accommodated while sustaining desired resource conditions and visitor experiences in the park. User capacity does not necessarily involve identifying a number for visitor use, nor does it necessarily imply closures or use limits. User capacity cannot be measured simply as a number of people because impacts on desired resource conditions and visitor experience are often related to a variety of factors, including the number of people, the types of activities people engage in, where they go, what type of resources are in the area, and the level and type of management presence.

The user capacity process for national parks typically involves the following steps:

1. Identify desired conditions for resources and visitors.
2. Identify indicators (things to monitor to determine whether desired conditions are being met).
3. Identify standards (limits of acceptable change) for the indicators.
4. Monitor indicators.
5. Take management actions to ensure that standards are met.
6. Evaluate and make adjustments based on new information and lessons learned.

General management plans provide a broad approach to addressing user capacity, identifying desired conditions for resources and visitors, and focusing more specific monitoring and management on areas where action is most likely needed to achieve conditions. Implementation-level plans, such as the future wilderness management plan,

would provide more specific direction for addressing user capacity.

The following section identifies the types of indicators that may be monitored and a range of actions that may be taken when indicators are not showing progress towards meeting the desired conditions.

Nothing in this zoning would diminish existing tribal treaty rights.

### Development Zone

The development zone includes the high-use frontcountry areas of the park. Levels of use are primarily controlled by the physical capacity of facilities such as parking areas, campgrounds, and visitor centers. General information would continue to be collected, such as visitation trends, visitor complaints, parking problems, crowding in the visitor centers, vandalism, increase in law enforcement incidents, accidents, waste quantity, and requests for special uses. This information would be analyzed to watch for trends. More specific indicators and standards would be established to monitor invasive plants and social trails.

The range of management actions that might be undertaken if unacceptable impacts occur could include increasing education, developing transportation studies, designing facilities to confine or reduce impacts, removing exotic plants, and restoring damaged areas.

### Day Use Zone

The day use zone is generally a high-use zone at or near developed areas with no overnight lodging or camping and along paved roads in the park. Levels of use in this zone are primarily controlled by the physical capacity

of facilities such as trails, parking areas, and visitor centers. Park staff would continue to collect the same information as described in the development zone. This information would be analyzed to watch for trends.

In addition, indicators would be monitored to ensure desired resources conditions are met. These indicators could include the physical user capacity of current facilities such as roads, parking lots, and buildings; the number of visitors at one time at popular destinations; the condition of natural and cultural resources; visible impacts such as the presence of visitor-created trails and unplanned widening of trails; the presence of invasive plants; and visitor satisfaction.

The range of management actions that might be undertaken to address unacceptable impacts in the day use zone include providing seasonal transit to popular destinations, increasing education, modifying facilities, and encouraging visitors to come during less crowded times or to visit less popular park areas.

### **Low-Use Zone**

Areas within the low-use zone include those frontcountry areas that have fewer facilities and services and provide a more remote or isolated visitor experience. Smaller, more primitive campgrounds are provided, trailheads are provided, and trails may connect this zone with other zones. Levels of use are primarily controlled by facilities such as parking areas and campsites.

Indicators in this zone may include the condition of important resources (riparian communities, indicator species, soils, vegetation cover, archeological sites, water quality, and natural soundscape) and visible impacts (such as the presence of visitor-created trails, trash, or invasive plants). Indicators would be monitored to ensure that desired resource condition standards are met.

Resource management plans contain details for monitoring.

Types of management actions that may be undertaken in the low-use zone to address changes in resource conditions include defining road and parking facility edges so that parking is limited to desired locations, defining trailheads and river access points, restoring disturbed sites, improving trail delineation or hardening trails, removing invasive plants and revegetating using native plants, and expanding educational programs.

### **River Zone (Alternative B only)**

The river zone would be applied to selected rivers in the frontcountry where self-sustaining natural riverine systems would function largely untouched by humans, or where restoration is feasible. Indicators used in this zone might include the condition of important resources such as riparian and aquatic communities, indicator species, and water quality, and visible impacts such as the presence of trash and invasive plants. A combination of indicators would be monitored in specific popular or resource-sensitive areas to ensure that desired resource conditions are maintained.

The range of management actions that might be undertaken to address changes in resource conditions include removing facilities or roads, closing and rehabilitating unwanted trails, closing areas seasonally, removing invasive plants and revegetating using native plants, and expanding educational programs.

**Nothing in this zoning would diminish existing tribal treaty rights.**

### **Intertidal Reserve Zone**

The intertidal reserve zone would be applied to those nearshore areas (between high tide and low tide) within the coastal portion of

Olympic National Park that are critical to protect areas of high biodiversity as “seed sources” for adjacent areas. These are considered by biologists as the most important areas in the park coastal strip that warrant measures to protect the ecosystem for future generations. Considered for zone designation are the following areas: Point of Arches, Cape Alava to Sand Point, 2-Bit Point, Cape Johnson/Hole-in-the-Wall, Teahwhit Head, Taylor Point, and Goodman Creek to Hoh River.

Protective measures would include mandatory no-harvest zones to preserve seed sources and more structured visitor management. Currently, the following organisms may be harvested in appropriate seasons with appropriate licenses: mussels, hard shell clams (butter and little neck), gooseneck barnacles, surf smelt, and Dungeness crabs. The harvesting of these organisms and other live organisms would no longer be permitted in the designated intertidal reserve zones; however, surf fishing would be permitted in accordance with existing regulations.

The gathering of wood and shells would be permitted in accordance with existing regulations.

Nothing in this zoning would diminish existing tribal treaty rights.

Indicators in this zone might include the condition of intertidal habitats and organisms, community structure and complexity, evidence of trampling, visitor use levels, and visitor experiences.

The range of management actions that might be undertaken to address changes in resource conditions includes expanding educational programs (primarily off site and some onsite), limiting campsites and overnight use in adjacent wilderness areas, limiting/restricting tide pool access or designating routes, limiting group size, defining a maximum number of

permits for these areas, limiting commercial use, and prohibiting fire.

The islands off the coastal portion of Olympic National Park that make up the Washington Islands National Wildlife Refuge Complex are not included within the intertidal reserve zone. However, public access is currently not permitted on the upland portion of the islands, and landing on the coastal strip islands is currently prohibited through the Olympic National Park “Superintendent’s Compendium.”

### **Wilderness Zones (Wilderness Trail Zone, Primitive Wilderness Zone, and Primeval Wilderness Zone)**

Management of visitor use in the designated and potential wilderness would be determined in the future Olympic National Park wilderness management plan. Park staff would monitor resource conditions, visitor use, and trends in the wilderness. General information, such as permit information and follow-up use data would continue to be collected. The number of permits issued may be adjusted to protect park resources and the visitor experience. Specific resource and visitor experience monitoring would continue.

Indicators in these zones might include the condition of important resources (meadow condition, riparian communities, indicator species, soil erosion, vegetation cover, snow fields, historic structures, water quality, natural soundscape); visible impacts (the presence of social way trails, bare ground campsites, other campsite conditions, trash, down-wood availability, invasive plants); and visitor experience values (such as encounter rates, camp area capacity, human or stock excrement, and aesthetics). A combination of indicators would be monitored in specific popular or resource-sensitive areas to ensure that desired resource conditions are maintained and that desired visitor experiences are achieved. The wilderness management plan

would include a wilderness monitoring program that would be tied directly to plan indicators and standards to achieve wilderness management objectives.

A variety of actions may be undertaken to address changes in resource conditions or visitor experiences including: managing the resource (removing invasive plants, rehabilitating damaged areas); managing user activities (modifying permit numbers to reduce or shift use, modifying visitor activities); managing information (educating and informing visitors and the public); managing facilities (modifying trails, campsites, trailheads); and managing administrative practices (changing wilderness staff levels, altering permit requirements for special uses). A more detailed list would be developed for inclusion in the park's wilderness management plan.

## **IMPLEMENTATION**

Frontcountry areas of the park do not face major user capacity issues in the foreseeable future. Most existing facilities provide good visitor opportunities and, based on projected trends, will continue to function well. Some facilities need improvements as they are inadequate to meet current and future visitor needs. For example, the frontcountry trails do not adequately support universal accessibility. Certain frontcountry visitor centers are extremely crowded during the summer

season, and the displays are outdated. Occasionally roads in the more popular areas are busy, parking areas are full, and parking occurs off the pavement or along roads. Social trails are present in the frontcountry areas in picnic areas, near frontcountry trails, and in campgrounds and near overlooks. These social trails create impacts on soil and vegetation. Nonnative plants are present along roads and in developed areas.

The overall approach to user capacity in frontcountry areas is to contain visitor impacts within the developed area and monitor general trends for change. Change would trigger site specific monitoring and management.

Of greater concern is the wilderness. User capacity within the wilderness is directly related to the level of use that can be sustained while meeting wilderness standards and guidelines. Use levels in the wilderness, especially along the coast and in subalpine lake basins, are consistently high. As a result, the park faces major user capacity issues. An increase in use may cause changes to visitor experiences and impacts on resources. The park staff collects information regarding numbers of users and where they are going from the overnight permits. More specific indicators and standards will be developed in the wilderness management plan to maintain or achieve desired conditions.

## MITIGATIVE MEASURES COMMON TO ALL ALTERNATIVES

Mitigative measures are the practicable and appropriate methods that would be used under any alternative to avoid and/or minimize harm to park natural and cultural resources, wilderness, visitors and the visitor experience, and socioeconomic resources. These mitigative measures have been developed by using existing laws and regulations, best management practices, conservation measures, and other known techniques from past and present work in and around Olympic National Park.

The general management plan provides a management framework for the park. Within this broad context, the alternatives include the following measures that may be used to minimize potential impacts from the implementation of the alternatives. These measures would be applied to all alternatives, subject to funding and staffing levels. Additional mitigation would be identified as part of implementation planning and for individual projects to further minimize resource impacts.

### MANAGEMENT AND PROTECTION OF NATURAL RESOURCES

#### Air Quality

- Implement a dust abatement program. Standard dust abatement measures could include the following elements: water or otherwise stabilize soils, cover haul trucks, employ speed limits on unpaved roads, minimize vegetation clearing, and revegetate with native species.
- Minimize NPS vehicle emissions by using the best available technology whenever possible.
- Encourage the public and commercial tour companies to employ methods that reduce emissions.

- Employ sustainable designs that reduce energy demands, thus reducing pollutant production.

#### Soundscapes / Natural Quiet

- Implement standard noise abatement measures during park operations, including: scheduling to minimize impacts in noise-sensitive areas, using the best available noise control techniques wherever feasible, using hydraulically or electrically powered impact tools when feasible, and locating stationary noise sources as far from sensitive uses as possible.
- Site and design facilities to minimize objectionable noise.
- Minimize idling of motors when power tools, equipment, and vehicles are not in use.
- Muffle above ambient noise whenever possible to reduce noise impacts.

#### Night Skies (Lightscaapes)

- Replace existing outdoor lighting in the park with fixtures that do not contribute to nighttime light pollution.
- In frontcountry zones, install energy-efficient lights equipped with timers and/or motion detectors so that light would only be provided when it is needed to move safely between locations.
- In frontcountry zones, use low-impact lighting, such as diffused light bulbs, and techniques such as downlighting to prevent light spill and preserve the natural lightscape.

## Hydrologic Systems including Wetlands

- Time projects adjacent to or in waterways to occur during the dry season (late summer).
- Implement erosion control measures, minimize discharge to water bodies, and regularly inspect construction equipment for leaks of petroleum and other chemicals to prevent water pollution. Minimize the use of heavy equipment in a waterway.
- Integrate runoff control systems into the designs of larger parking areas near water resources to minimize water pollution.
- Develop sediment control and prevention plans for projects that could impact water quality.
- Delineate wetlands and apply protection measures during projects. Perform project activities in a cautious manner to prevent damage caused by equipment, erosion, siltation, etc.
- Delineate 100-year floodplains and minimize development in these areas.

## Soils

- Build new facilities on soils suitable for development. Minimize soil erosion by limiting the time that soil is left exposed and by applying other erosion control measures, such as erosion matting, silt fencing, and sedimentation basins in construction areas to reduce erosion, surface scouring, and discharge to water bodies. Once work is completed, revegetate construction areas with appropriate native plants in a timely period.
- Work with the Natural Resource Conservation Service to produce a soil survey of Olympic National Park to provide some of the information needed for sustainable soil management.

## Vegetation

- Monitor areas used by visitors (e.g., trails, campsites) for signs of native vegetation disturbance. Use public education, revegetation of disturbed areas with native plants, erosion control measures, and barriers to control potential impacts on plants from erosion or social trails.
- Designate river and stream access/crossing points, and use barriers and closures to prevent trampling and loss of riparian vegetation. Use of barriers and closures would be done in a manner that does not adversely impact treaty fishing rights.
- Develop revegetation plans for disturbed areas and require the use of genetically appropriate native species. Revegetation plans should specify species to be used, seed/plant source, seed/plant mixes, site-specific restoration conditions, soil preparation, erosion control, ongoing maintenance and monitoring requirements, etc. Salvaged vegetation should be used to the extent possible.
- Implement a noxious weed control program. Standard measures could include the following elements: use only weed-free materials for road and trail construction, repair, and maintenance; ensure equipment arrives on site free of mud or seed-bearing material; certify all seeds and straw material as weed-free; identify areas of noxious weeds pre-project; treat noxious weeds or noxious weed topsoil before construction (e.g., topsoil segregation, storage, herbicide treatment); when depositing ditch spoils along the roads, limit the movement of material to as close as possible to the excavation site; scrupulously and regularly clean areas that serve as introduction points for invasive plants (campgrounds, staging areas, maintenance areas, and corrals); revegetate with genetically appropriate native species; inspect rock and gravel sources to

ensure these areas are free of noxious weed species; and monitor locations of ground-disturbing operations for at least three years following the completion of projects.

### Fish and Wildlife

- Employ techniques to reduce impacts on fish and wildlife, including visitor education programs, restrictions on visitor and park activities, and law enforcement patrols.
- Implement a wildlife protection program. Standard measures would include project scheduling (season and/or time of day), project monitoring, erosion and sediment control, fencing or other means to protect sensitive resources adjacent to project areas, disposing of all food-related items or rubbish, salvaging topsoil, and revegetating.
- Consult with NOAA Fisheries and appropriate tribes for projects within essential fish habitat.

### Special Status Species

Mitigation actions would occur during normal park operations as well as before, during, and after projects to minimize immediate and long-term impacts on rare, threatened, and endangered species. These actions may vary by project area, and additional mitigation measures may be added depending on the action and location. Many of the measures listed for vegetation, wildlife, and water resources would also benefit rare, threatened, and endangered species by helping to preserve habitat.

- Conduct surveys for rare, threatened, and endangered species as warranted.
- Locate and design facilities/actions/operations to avoid or minimize the removal of rare, threatened, and

endangered species habitat. If avoidance is infeasible, minimize and compensate for adverse effects as appropriate and in consultation with the appropriate resource agencies.

- Plan work in areas in or near suitable threatened and endangered bird habitat as late as possible in the summer/fall.
- Conduct work outside of critical periods for the specific species when possible.
- Develop and implement restoration and/or monitoring plans as warranted. Plans should include methods for implementation, performance standards, monitoring criteria, and adaptive management techniques.
- For projects in or near streams, employ appropriate best management practices.
- Implement measures to reduce adverse effects of nonnative plants and wildlife on rare, threatened, and endangered species.
- Carry out surveys and monitoring for special status species.
- Protect and preserve critical habitat features, such as nest trees, whenever possible.

### MANAGEMENT AND PROTECTION OF WILDERNESS VALUES

In the park's future wilderness management plan, more specific desired conditions will be developed for wilderness resources, visitor experiences, and management protocols. Standards and guidelines establishing acceptable limits of change and mitigation measures would be developed for each zone. Monitoring would be conducted to ensure that conditions are meeting established standards and to determine if mitigation measures have been successful.

#### Minimum Requirement Process

The Wilderness Act directs that agencies administer wilderness to preserve the

wilderness character. The purpose of the minimum requirement process is to reduce the effects of management on wilderness character and values. It provides a method for developing, evaluating, and selecting the actions that would be the least intrusive on wilderness character and values, while allowing the administration of the wilderness. The concept is applied to all management actions, programs, and activities within Olympic National Park that might affect wilderness and potential wilderness.

The minimum requirement concept is applied as a two-step process. The first step determines whether a proposed management action is appropriate and necessary for the administration of the area as wilderness and does not cause a significant impact to wilderness resources and character, in accordance with the Wilderness Act. The second step determines the techniques and types of equipment needed to ensure that impacts on wilderness resources and character are minimized. If the project is found to be appropriate and necessary, then the management method (tool or technique) is selected that would result in the least amount of impact to the wilderness resources and character.

The minimum requirement process provides a formalized method for developing alternative ways to address an issue, and to evaluate each alternative's effects on wilderness character and wilderness resources. If a nonconforming use (i.e., mechanized equipment) is determined to be the minimum and necessary action to achieve wilderness management objectives, the use must conform to the minimum requirement concept. The minimum requirement process assists park managers in determining the appropriate environmental compliance.

## MANAGEMENT AND PROTECTION OF CULTURAL RESOURCES

The protection of Olympic National Park's cultural resources is essential for understanding the past, present, and future relationship of people with the park environment and the expressions of our cultural heritage. The park would pursue strategies to protect its cultural resources, including museum collections and archeological, historic, ethnographic, and archival resources, while encouraging visitors and employees to recognize and understand their value. The strategies would allow the integrity of the park's cultural resources to be preserved unimpaired. They would also ensure that Olympic National Park is recognized and valued as an outstanding example of resource stewardship, conservation education and research, and public use.

Some of the park cultural resources are within designated wilderness. The Wilderness Act specifies that the designation of any areas of the park system as wilderness "shall in no manner lower the standards evolved for the use and preservation of" such unit of the park system under the various laws applicable to that unit (16 USC 1133(a)(3)). Thus, the laws pertaining to historic preservation also remain applicable within wilderness but must generally be administered to preserve the area's wilderness character. In accordance with NPS management policies, cultural resources that have been included in wilderness would 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 (6.3.8). These NPS policies incorporate cultural resource stewardship requirements into the management standards for wilderness areas and reflect the requirements of the Wilderness Act as well as the numerous pieces of

cultural resource legislation, including laws include the National Historic Preservation Act, the Archeological Resources Protection Act, the American Indian Religious Freedom Act, the Native American Graves Protection and Repatriation Act, and Executive Order 13007 that addresses government-to-government consultation.

Adverse impacts on properties listed in or determined eligible for listing in the National Register of Historic Places, would be avoided if possible. If adverse impacts could not be avoided, mitigation would be developed through a consultation process with all interested parties. In accordance with NPS management policies, proposed adverse effects would be evaluated to determine whether the proposed actions constitute impairment of significant fundamental park cultural resources.

### Archeological Resources

Archeological surveys would precede any ground disturbance required for new construction or removal of eligible historic properties. Known archeological resources would be avoided to the greatest extent possible. If national register-eligible or-listed archeological resources could not be avoided, an appropriate mitigation strategy would be developed in consultation with the state historic preservation officer and associated American Indian tribes.

If unknown archeological resources are discovered during project work, work in the immediate vicinity of the discovery would be halted until the resources could be identified, evaluated, and documented and an appropriate mitigation strategy could be developed, if necessary, in consultation with the state historic preservation office and associated American Indian tribes.

### Historic Structures/Buildings

All project work relating to historic structures/buildings would be conducted in accordance with the guidelines and recommendations of the *Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring and Reconstructing Historic Buildings*. Typical mitigation measures for historic structures/buildings include measures to avoid adverse impacts, such as rehabilitation and adaptive reuse, designing new development to be compatible with surrounding historic properties, and screening new development from surrounding historic resources to minimize impacts on cultural landscapes and ethnographic resources.

Adaptive use is the best strategy to ensure that frontcountry buildings remain in good condition. When not being adaptively used, the best approach for preserving these structures is regular preservation maintenance, which ensures that roofs and walls as well as supporting structural elements are maintained in a sound, weather-resistant condition. An example of adaptive use is using historic structures to house park operations.

Historic structures would be maintained or stabilized until appropriate maintenance could be undertaken. No national register-listed or -eligible structure would be removed or allowed to decay naturally without prior review by park and region cultural resource specialists, including approval by the NPS regional director and consultation with the state historic preservation office. Before a national register-listed or -eligible structure is removed, appropriate documentation recording the structure would be prepared in accordance with Section 110(b) of the National Historic Preservation Act, and the documentation would be submitted to the Historic American Buildings Survey

(HABS)/Historic American Engineering Record (HAER) or Historic American Landscape Survey (HALS) program.

Historic structures that have been included within wilderness would 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. Laws pertaining to historic preservation remain applicable within wilderness but must generally be administered to preserve the area's wilderness character (16 USC 1133(a)(3)). The responsible decision-maker would include appropriate consideration of the application of the provisions of the Wilderness Act in analyses and decision-making concerning cultural resources.

### Cultural Landscapes

All project work relating to cultural landscapes would be conducted in accordance with the guidelines and recommendations of the *Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for the Treatment of Cultural Landscapes*. Typical mitigation measures for cultural landscapes include measures to avoid adverse impacts, such as designing new development to be compatible with surrounding historic properties and screening new development from surrounding cultural landscapes to minimize impacts on those landscapes. Adaptive use is the best strategy to ensure that landscapes remain in good condition.

### Ethnographic Resources

The National Park Service will continue to consult with federally recognized traditionally associated Native American tribes with treaty resources in the park on a government-to-government basis to identify

ethnographic resources and develop appropriate strategies to mitigate impacts on these resources. Such strategies could include continuing to provide access to traditional use or spiritual areas and screening new development from traditional use areas to minimize impacts on ethnographic resources. Consultations with American Indians linked by ties of kinship, culture, or history to park lands would address the inadvertent discovery of human remains, funerary objects, sacred objects, or objects of cultural patrimony, and all provisions outlined in the Native American Graves Protection and Repatriation Act (25 USC 3001) of 1990 would be followed.

### Museum Collections

Mitigative measures related to museum collections consist of conservation of a collection through proper storage, handling, and exhibit of objects as specified in the *NPS Museum Handbook* and NPS Director's Order No. 24, NPS Museum Collections Management.

## SCENIC RESOURCES

Mitigative measures are designed to minimize human-made visual intrusions. These include the following:

- Where appropriate, use facilities such as boardwalks and fences to route people away from sensitive natural and cultural resources while still permitting access to important viewpoints.
- Design, site, and construct facilities to minimize adverse effects on natural and cultural resources and visual intrusion.
- Provide vegetative screening, where appropriate.

## SOCIOECONOMIC ENVIRONMENT

During the future planning and implementation of the approved management plan for Olympic National Park, the National Park Service would pursue partnerships with tribes, local communities, and county governments to further identify potential impacts and mitigating measures that would best serve the interests and concerns of both the National Park Service and the local communities.

## SUSTAINABLE DESIGN AND AESTHETICS

Sustainable practices would be used in the selection of building materials and sources and building location and siting. Design standards specific to the park would be developed in all repair, rehabilitation, and construction projects.

Projects would use sustainable practices and resources whenever practicable by recycling and reusing materials, by minimizing materials, by minimizing energy consumption during the project, and by minimizing energy consumption throughout the lifespan of the project.



## FUTURE STUDIES AND IMPLEMENTATION PLANS NEEDED

After completion and approval of a general management plan for managing the national park, other more detailed studies and plans, including additional environmental compliance (National Environmental Policy Act, National Historic Preservation Act, and other relevant laws and policies) and public involvement would be needed. Those additional studies may include, but would not be limited to, the following.

A wilderness management plan would be prepared to guide the preservation, maintenance, use, and restoration of wilderness. The plan would establish specific goals and objectives, provide guidelines and standards, and designate zones for the Olympic National Park Wilderness. The wilderness management plan would be an adaptive management plan that would allow park managers to establish implementation priorities for the protection and preservation of wilderness resources and character. The wilderness management plan is the top planning priority for the park and would be initiated following the completion of this general management plan.

This plan would also include eligibility studies for lands and waters added to the park after 1974. In accordance with NPS *Management Policies* (6.2.1), all lands administered by the National Park Service, including new units or additions to existing units since 1964, will be evaluated for their eligibility for inclusion in the national wilderness preservation system.

A wilderness eligibility assessment (previously called a wilderness suitability study) is a managerial determination as to the eligibility of the park lands for wilderness designation. NPS lands will be considered eligible for wilderness if they are at least 5,000 acres or of sufficient size to make practicable their preservation and use in an unimpaired condition, and if they possess the following

characteristics (as identified in the Wilderness Act):

The earth and its community of life are untrammelled by humans, where humans are visitors and do not remain.

The area is undeveloped and retains its primeval character and influence without permanent improvements or human habitation.

The area generally appears to have been affected primarily by the forces of nature, with the imprint of humans' work substantially unnoticeable.

The area is protected and managed so as to preserve its natural conditions.

The area offers outstanding opportunities for solitude or a primitive and unconfined type of recreation.

The public is included in the wilderness eligibility assessment process through notification of the park's intentions to conduct the assessment and publication of the Director's determination, either as "eligible" or as "ineligible" for further wilderness study. If areas are determined to be ineligible for wilderness designation, the wilderness preservation provisions in the NPS *Management Policies* are not applicable. Lands and waters found to possess the characteristics and values of wilderness, as defined in the Wilderness Act and pursuant to the wilderness eligibility assessment, will be formally studied to develop the recommendation to Congress for wilderness designation. Wilderness studies will be supported by appropriate documentation of compliance with the National Environmental Policy Act and the National Historic Preservation Act.

A wilderness study may identify lands that are surrounded by or adjacent to lands proposed for wilderness designation but that do not themselves qualify for immediate designation due to temporary nonconforming or incompatible conditions. The wilderness recommendation forwarded to Congress by the president may identify these lands as “potential” wilderness for future designation as wilderness when the nonconforming use has been removed or eliminated. If so authorized by Congress, these potential wilderness areas will become designated wilderness upon the Secretary’s determination, published in the *Federal Register*, that they have finally met the qualifications for designation by the cessation or termination of the nonconforming use.

The findings and conclusions of a formal wilderness study will be reviewed by the NPS director, who will then determine which lands will be forwarded to the Department of the Interior as “proposed” wilderness. The proposal will identify park lands that the Director believes the Secretary should recommend for immediate wilderness designation, as well as any other lands identified as “not proposed” or as “potential” wilderness.

The secretary of the interior will review the proposal and either approve or revise the proposal, and provide a recommendation to the President those lands that are suitable or unsuitable for designation as wilderness. The President is then responsible for transmitting his recommendations with respect to wilderness designation to both houses of Congress.

After the President’s wilderness recommendation is formally sent to and considered by Congress, Congress may subsequently enact legislation to include the area within the national wilderness preservation system as “designated” and/or “potential” wilderness. Lands released by Congress from further wilderness

consideration will be managed in accordance with the NPS Organic Act and all other laws, executive orders, regulations, and policies applicable to nonwilderness areas of the national park system.

Additionally, lands that were originally assessed as ineligible for wilderness because of nonconforming or incompatible uses will be reevaluated if the nonconforming uses have been terminated or removed. The park staff would review all potential wilderness additions and determine if nonconforming uses still exist, and address strategies to work towards conditions that would allow full wilderness designation.

In accordance with *NPS Management Policies*, once an area is determined to be eligible for wilderness, no action would be allowed that would diminish the wilderness eligibility until the legislative process of wilderness designation has been completed. Until that time, management decisions will be made in expectation of eventual wilderness designation. This policy also applies to potential wilderness, requiring it to be managed as wilderness to the extent that existing nonconforming conditions allow. All management decisions affecting wilderness will further apply the concept of “minimum requirement” for the administration of the area regardless of wilderness category. The only exception is for areas that have been found eligible, but for which, after completion of a wilderness study, the Service has not proposed wilderness designation. However, those lands will still be managed to preserve their eligibility for designation.

Land acquisitions and boundary adjustments would be done in accord with an updated and approved *Olympic National Park Land Protection Plan*, which would focus on resource protection, visitor use, and operational needs within a priority context. If boundary adjustments are approved, it is envisioned that for the Ozette area, a forest management plan would be developed by the Washington Department of Natural

Resources, in collaboration with other partners, including the National Park Service.

Program management plans would be developed, including wildlife management plans and/or recovery plans, to examine the future management direction for wildlife (including extirpated wildlife), fish, exotics, and nuisance animals within the park. Olympic National Park will likely have a key role in the development and implementation of recovery plans for bull trout, Ozette Lake sockeye, and Puget Sound Chinook salmon.

A vegetation management plan would be developed. Topics would include the management and monitoring of rare plants and the control and eradication of exotic vegetation.

A Lake Crescent shoreline protection/management plan would be developed to focus on water quality and shoreline issues, including issues associated with wastewater treatment and development. An Ozette Lake management plan would be developed to address visitor use, access, and resource protection.

If wild and scenic rivers are designated in the park, a river management plan would be developed to address future management strategies and protective measures for designated rivers. NPS staff would use existing and future river reach studies to develop protective and/or restorative measures for rivers and streams in the park. Formal suitability studies related to wild and scenic rivers designation would be conducted in a separate planning process after the *General Management Plan* is completed due to the high number of rivers involved and the detail needed for these studies. Upon completion of this *General Management Plan*, formal requests would be made for funding to conduct the suitability studies and associated studies. These studies would be initiated as funding and staff time becomes available.

An air tour management plan would be developed with the Federal Aviation Admin-

istration to address the management of air tours and analyze the effects of these flights over the park.

Historic structure reports would be completed on several structures and historic districts in the park, including but not limited to the Elwha ranger station, the headquarters facilities in Port Angeles, the Kestner Homestead, and backcountry structures. Cultural landscape inventories would be conducted to identify the specific strategies and to determine priorities for the management and protection of these resources. Currently there are 27 cultural landscapes identified in the park (see appendix F).

Development concept plans, implementation plans, and site-specific compliance may be necessary for selected actions within the general management plan (such as actions associated with the Kalaloch road realignment, Kalaloch Lodge relocation, and the Queets River access). A restoration plan for the Olympic Hot Springs area would be developed in cooperation with tribal partners.

Road management plans would be developed in cooperation with federal, state, and tribal partners for at-risk roads near the rivers and/or within the floodplains of the park (e.g., Hoh, Queets, and Quinault area roads). These studies would include restoration recommendations and feasibility studies for road relocations and wilderness boundary modifications. In addition, a North Shore Road/Finley Creek management plan would be developed to address the hydrologic and geomorphic issues associated with maintaining year-round vehicle access in this unstable environment and to return Finley Creek to a more naturally functioning and stable condition. The National Park Service recognizes that until the restoration plans and feasibility studies are completed, and until funding is authorized and wilderness boundary adjustments allow road relocations, that emergency actions could be necessary to maintain road access into Olympic National Park. When emergency actions are necessary,

the National Park Service would work with federal, state, and county agencies, appropriate tribes, and others, to respond to emergencies and to develop strategies to maintain access while protecting area resources.

The park is developing an asset management plan that addresses facility maintenance and prioritizes work that needs to be done on all park assets (e.g., structures, campgrounds, trails, and roads). This asset management plan, when completed, will assist with park budgeting priorities. The park staff is also working on a comprehensive interpretive

plan. This plan establishes the foundation on which the details of a solid and integrated park education program are articulated. This plan would consider incorporating new technologies for informal learning.

The following table shows the future studies, reports, and/or site-specific implementation plans needed, some of which are also mentioned above. Other plans and reports would be developed as needed; this list is not all-inclusive.

**TABLE 4: FUTURE STUDIES, REPORTS, AND/OR SITE-SPECIFIC IMPLEMENTATION PLANS NEEDED**

| Plan Topic   | Examples and/or What Plan Would Address   |
|--|---|
| Wilderness management plan                         | This plan would address wilderness management, wilderness eligibility studies, and status of potential wilderness.  |
| Land protection plan                               | This plan would address the specifics related to the proposed boundary adjustments and land protection.   |
| Road management and/or river restoration plans     | These plans would focus on the restoration of rivers within the park, including the Quinault, Hoh, and Queets rivers, and determine the feasibility of road relocations to protect floodplain values and resources. |
| Northshore Road/Finley Creek management plan       | This plan would include restoration options for Finley Creek and alternatives for maintaining access at Quinault.   |
| Program management plans for wildlife              | These plans would examine the future management direction for wildlife, including fish, exotics, and nuisance animals.  |
| Vegetation management plan                         | This plan would include the management and monitoring of rare plants and the control and eradication of exotic vegetation.  |
| Lake Crescent Shoreline protection/management plan | This plan would focus on water quality and shoreline issues at Lake Crescent.   |
| Ozette Lake management plan                        | This plan would focus on visitor use, access, and resource protection at Ozette Lake.   |
| Suitability studies for wild and scenic rivers     | These studies would look at eligible rivers within the park to determine if designation is appropriate.   |
| Olympic Hot Springs restoration plan               | This plan would evaluate restoration options for the Olympic Hot Springs area.  |

| <b>Plan Topic</b>   | <b>Examples and/or What Plan Would Address</b>  |
|---|---|
| Air tour management plan                                    | This plan would address the management of air tours and analyze the effects of flights over the park.   |
| Historic structures reports                                 | These reports include information on the historic structures in the park.   |
| Cultural landscape inventory report                         | This report identifies cultural landscapes and determines strategies and priorities for managing cultural landscapes.                         |
| Development concept plans for a variety of proposed actions | These are site-specific plans for such actions as relocating Kalaloch Lodge and concessioner facilities and upgrading the Hoh Visitor Center. |
| Asset management plan for facility maintenance              | This plan addresses facility maintenance and priorities within the park.  |
| Comprehensive interpretive plan                             | This plan establishes the foundation for an integrated park education program.  |



## ALTERNATIVES AND ACTIONS CONSIDERED BUT NOT EVALUATED

In the planning process, one action considered was a boundary modification to include land southeast of the Quinault River slightly beyond all potential river meander areas. This would enhance management of elk that occur in this area of the park by providing an easily defined park boundary. The current boundary is the river, which frequently

meanders. To accomplish this, several parcels of private land would have to be purchased in accordance with National Park Service policy. The difficulty of making such purchases and the controversy of such a boundary modification were reasons for not evaluating this action any further in this general management plan.



## IDENTIFICATION OF THE ENVIRONMENTALLY PREFERRED ALTERNATIVE

The environmentally preferred alternative is defined as “the alternative that will best promote the national environmental policy as expressed in section 101(b) of the National Environmental Policy Act.” Basically, the environmentally preferred alternative would cause the least damage to the biological and physical environment and best protect, preserve, and enhance historic, cultural, and natural resources.

After the environmental consequences of the alternatives were analyzed, each alternative was evaluated as to how well the goals stated in section 101 of the National Environmental Policy Act are met. The criteria were established by section 101 and are listed in table 5. The following discussion highlights how each alternative meets these goals while table 5 also compares the advantages and disadvantages of each alternative.

The no-action alternative (alternative A) represents continuity with the present course of management. The park would continue to be managed in accordance with approved plans and policies. The no-action alternative responds to resource impacts and visitor demands as they occur rather than formulating a plan to address potential issues proactively. Many traditional uses would continue, the park would continue to be managed as a wilderness park, and the roads and facilities would be maintained. Some would be gradually replaced with more sustainable facilities.

Resource preservation goals (A and D) and sustainability goals (C and F) would not be met to the same degree as in the other alternatives. Visitor experience goals (B, C, and E) would be achieved to a lesser degree than under alternatives C and D.

Alternative B emphasizes cultural and natural resource protection, and results in a decreased

number of roads and facilities to support visitors. ~~The wilderness would include a larger primeval zone and a reduced wilderness trail zone; therefore, there would be reduced numbers of maintained trails.~~ This alternative would fully meet criteria A, D, and F because it would achieve a high level of protection for cultural and natural resources. However, it would only partially meet the remaining criteria B, C, and E because it would reduce the amount of visitor access and opportunities for enjoyment of some areas of the park.

Alternative C would focus on increasing visitor and recreational opportunities. Access would be retained to all existing frontcountry areas and could be improved. Although this alternative would fully meet criteria B, C, D, E, and F by providing greater access to and enjoyment of the park’s resources, it would not best preserve and enhance cultural and natural resources. Therefore, it would only partially meet criteria A — fulfill the responsibilities of each generation as trustee of the environment for succeeding generations.

Alternative D was developed based on combining the advantages of the other alternatives. Visitor access and opportunities would remain, though they could be modified for resource protection or to provide more sustainable access and opportunities. Management emphasis would be on protecting cultural and natural resources. ~~The wilderness would be managed primarily as a primeval area with some trails and facilities.~~ This alternative would protect, preserve, and enhance natural and cultural resources (criteria A, D, and F) while allowing appropriate human use and enjoyment (criteria B, C, and E). Taken as a whole, this alternative is the environmentally preferred alternative because it would best meet all six goals stated in the National Environmental Policy Act.

**TABLE 5: ENVIRONMENTALLY PREFERRED ALTERNATIVE ANALYSIS**

| NEPA Section 101(b) Goals   | No-Action Alternative A   | Alternative B   | Alternative C   | Alternative D, Preferred   |
|---|---|---|---|--|
| <p>A. Fulfill the responsibilities of each generation as trustee of the environment for succeeding generations.</p>     | <p><u>Meets goal:</u></p> <ul style="list-style-type: none"> <li>Protects the ecosystem and preserves park natural and cultural resources.</li> <li>Provides for ongoing wilderness preservation and management.</li> <li>Restoration activities continue.</li> </ul> <p><u>Does not meet goal:</u></p> <ul style="list-style-type: none"> <li>Responds to management issues and visitors needs as they arise with no long-term management outlook.</li> <li>All facilities remain in place.</li> </ul> | <p><u>Meets goal:</u></p> <ul style="list-style-type: none"> <li>Protects the ecosystem and preserves park natural and cultural resources.</li> <li>Provides for on-going wilderness preservation and management.</li> <li>Reduces current impacts of management actions by removing some facilities from sensitive areas.</li> <li>Restoration activities continue.</li> </ul>   | <p><u>Meets goal:</u></p> <ul style="list-style-type: none"> <li>Protects the ecosystem and preserves park natural and cultural resources.</li> <li>Provides for on-going wilderness preservation and management.</li> <li>Limited relocation of facilities.</li> <li>Restoration activities continue.</li> </ul> <p><u>Does not meet goal:</u></p> <ul style="list-style-type: none"> <li>Most facilities remain in place, even in sensitive areas.</li> </ul> | <p><u>Meets goal:</u></p> <ul style="list-style-type: none"> <li>Protects the ecosystem and preserves park natural and cultural resources.</li> <li>Provides for on-going wilderness preservation and management.</li> <li>Relocation of facilities and access from most sensitive areas.</li> <li>Restoration activities continue.</li> </ul> |
| <p>B. Ensure safe, healthful, productive, and aesthetically and culturally pleasing surroundings for all Americans.</p> | <p><u>Meets goal:</u></p> <ul style="list-style-type: none"> <li>Facilities and roads remain in place.</li> </ul> <p><u>Does not meet goal:</u></p> <ul style="list-style-type: none"> <li>Facilities and roads remain with only minimal improvements.</li> <li>Congestion can affect visitor access.</li> <li>No increases in opportunities.</li> <li>Education and outreach remain in place but are limited.</li> </ul>   | <p><u>Meets goal:</u></p> <ul style="list-style-type: none"> <li>Some facilities and roads remain in place or are moved outside the park to a less intrusive location.</li> </ul> <p><u>Does not meet goal:</u></p> <ul style="list-style-type: none"> <li>Overall, reduces visitor access, facilities, and services.</li> <li><del>Reduces maintained trails in wilderness.</del></li> <li>Educational facilities would not be improved.</li> <li>Not all user group needs are met.</li> </ul> | <p><u>Meets goal:</u></p> <ul style="list-style-type: none"> <li>Improves facilities, transportation and access options.</li> <li>Addresses congestion through redesign.</li> <li>Improves front-country trail system.</li> <li>Increases the amount of visitor services.</li> <li>More opportunities results in more dispersed visitor use.</li> <li>Expands educational opportunities.</li> </ul>   | <p><u>Meets goal:</u></p> <ul style="list-style-type: none"> <li>Improves facilities, transportation, and access options.</li> <li>Improves frontcountry trail system.</li> <li>Visitor services increased through longer season of operation in some areas.</li> <li>Expands educational opportunities.</li> </ul>                            |

Identification of the Environmentally Preferred Alternative

| NEPA Section 101(b) Goals  | No-Action Alternative A   | Alternative B   | Alternative C  | Alternative D, Preferred   |
|--|---|---|--|--|
| <p>C. Attain the widest range of beneficial uses of the environment without degradation, risk of health or safety, or other undesirable and unintended consequences.</p>                               | <p><u>Meets goal:</u></p> <ul style="list-style-type: none"> <li>• In the long term, facilities are upgraded for more sustainability.</li> </ul> <p><u>Does not meet goal:</u></p> <ul style="list-style-type: none"> <li>• Continues current use patterns.</li> <li>• Roads and facilities are not upgraded proactively.</li> <li>• Relocating Kalaloch Lodge could result in undesirable environmental consequences.</li> <li>• No universally accessible trails would be developed.</li> </ul> | <p><u>Meets goal:</u></p> <ul style="list-style-type: none"> <li>• Some facilities would be located outside the park and be more sustainable.</li> </ul> <p><u>Does not meet goal:</u></p> <ul style="list-style-type: none"> <li>• Reduces visitor access, facilities, and services</li> <li>• <del>Reduces number of maintained trails in wilderness.</del></li> <li>• <del>Reduces stock use.</del></li> <li>• No universally accessible trails would be developed.</li> </ul> | <p><u>Meets goal:</u></p> <ul style="list-style-type: none"> <li>• Increases visitor facilities in developed areas.</li> <li>• Provides for more sustainable facilities, services, and transportation.</li> <li>• <del>Accommodates a wide variety of uses, including increased stock use</del> and Provides for increased universally accessible trails.</li> </ul> <p><u>Does not meet goal:</u></p> <ul style="list-style-type: none"> <li>• Improving or increasing existing facilities and roads could result in environmental degradation in sensitive areas.</li> </ul> | <p><u>Meets goal:</u></p> <ul style="list-style-type: none"> <li>• Provides sustainable level of services, facilities, and transportation.</li> <li>• Provides a wide variety of opportunities in the frontcountry <del>and wilderness.</del></li> <li>• Allows for proactive management to meet visitor needs while preserving resource values.</li> <li>• Accommodates a wide variety of uses, including <del>stock use and</del> universally accessible trails.</li> </ul> <p><u>Does not meet goal:</u></p> <ul style="list-style-type: none"> <li>• Relocating some facilities and roads could result in undesirable environmental consequences.</li> </ul> |
| <p>D. Preserve important historic, cultural and natural aspects of our national heritage and maintain, wherever possible, an environment that supports diversity and variety of individual choice.</p> | <p><u>Meets goal:</u></p> <ul style="list-style-type: none"> <li>• Preserves unique and important cultural and natural resources.</li> <li>• Provides opportunities for frontcountry and wilderness experiences.</li> </ul> <p><u>Does not meet goal:</u></p> <ul style="list-style-type: none"> <li>• No universally accessible trails would be developed.</li> </ul>  | <p><u>Meets goal:</u></p> <ul style="list-style-type: none"> <li>• Preserves unique and important cultural and natural resources.</li> <li>• Provides opportunities for frontcountry and wilderness experiences.</li> </ul> <p><u>Does not meet goal:</u></p> <ul style="list-style-type: none"> <li>• No universally accessible trails would be developed.</li> </ul>  | <p><u>Meets goal:</u></p> <ul style="list-style-type: none"> <li>• Preserves unique and important cultural and natural resources.</li> <li>• Provides opportunities for frontcountry and wilderness experiences.</li> <li>• Provides some universally accessible trails.</li> </ul>  | <p><u>Meets goal:</u></p> <ul style="list-style-type: none"> <li>• Preserves unique and important cultural and natural resources.</li> <li>• Provides opportunities for frontcountry and wilderness experiences.</li> <li>• Provides some universally accessible trails.</li> </ul>  |

| NEPA Section 101(b) Goals   | No-Action Alternative A   | Alternative B   | Alternative C   | Alternative D, Preferred  |
|---|---|---|---|---|
| <p>E. Achieve a balance between population and resource use that will permit high standards of living and a wide sharing of life's amenities.</p> | <p><u>Meets goal:</u></p> <ul style="list-style-type: none"> <li>Over time, facilities could be more sustainable.</li> </ul> <p><u>Does not meet goal:</u></p> <ul style="list-style-type: none"> <li>Congestion continues.</li> <li>Some roads are not sustainable.</li> <li>Does not effectively respond to the needs of changing user groups.</li> </ul> | <p><u>Meets goal:</u></p> <ul style="list-style-type: none"> <li>Limits visitation through reduced access, which could provide a higher quality experience to fewer visitors.</li> </ul> <p><u>Does not meet goal:</u></p> <ul style="list-style-type: none"> <li>Access is limited or reduced.</li> <li>Fewer facilities and services.</li> <li>Does not address recreational need for diverse user groups.</li> <li>Fewer facilities would result in increased congestion in remaining frontcountry areas.</li> </ul> | <p><u>Meets goal:</u></p> <ul style="list-style-type: none"> <li>Facilities are more sustainable.</li> <li>Access is improved and retained.</li> <li>More facilities and services are provided.</li> <li>Addresses recreational needs for diverse user groups.</li> </ul> <p><u>Does not meet goal:</u></p> <ul style="list-style-type: none"> <li>Some roads are not sustainable.</li> </ul> | <p><u>Meets goal:</u></p> <ul style="list-style-type: none"> <li>Facilities are more sustainable.</li> <li>Some roads are more sustainable.</li> <li>Addresses recreational needs for diverse user groups.</li> </ul> <p><u>Does not meet goal:</u></p> <ul style="list-style-type: none"> <li>Some roads are not sustainable.</li> </ul> |
| <p>F. Enhance the quality of renewable resources and approach the maximum attainable recycling of depletable resources.</p>                       | <p><u>Meets goal:</u></p> <ul style="list-style-type: none"> <li>Replaces some facilities with more sustainable facilities.</li> </ul> <p><u>Does not meet goal:</u></p> <ul style="list-style-type: none"> <li>Continues some patterns of incompatible development.</li> </ul>   | <p><u>Meets goal:</u></p> <ul style="list-style-type: none"> <li>Areas where facilities and roads are removed would be restored.</li> </ul>   | <p><u>Meets goal:</u></p> <ul style="list-style-type: none"> <li>Facilities would be upgraded for improved sustainability.</li> </ul>   | <p><u>Meets goal:</u></p> <ul style="list-style-type: none"> <li>Facilities and roads would be upgraded or relocated for improved sustainability.</li> </ul>  |

**TABLE 6: SUMMARY OF KEY IMPACTS OF IMPLEMENTING THE ALTERNATIVES**

Note: There would be no impairment of park resources or values as a result of implementing any of these alternatives.

| RESOURCE                            | ALTERNATIVE A   | ALTERNATIVE B  | ALTERNATIVE C   | ALTERNATIVE D  |
|-------------------------------------|---|--|---|--|
| <b>IMPACTS ON NATURAL RESOURCES</b> |   |  |   |  |
| <b>Air Quality</b>                  | Implementing alternative A would have no effect on changing the possible long-term trend toward degrading air quality in Olympic National Park. There would be no contribution to cumulative effects.   | Implementing alternative B would have long-term minor beneficial impacts on air quality. The cumulative effects of past, present, and reasonably foreseeable future actions would be minor to moderate, long term, and adverse; this alternative's contribution to these impacts would be very small.  | Implementing alternative C would have a long-term minor adverse impact on the region's air quality. The cumulative effects of past, present, and reasonably foreseeable future actions, in combination with alternative C, would be minor, long term, and adverse; however, this alternative's contribution to these impacts, would be very small.  | Implementing alternative D would have a negligible to minor long-term adverse impact on the region's air quality. The cumulative effects of past, present, and reasonably foreseeable future actions in combination with alternative D would be minor, long term, and adverse; however, this alternative's contribution to these impacts would be very small.  |
| <b>Soundscapes</b>                  | Implementing alternative A would result in a negligible to minor adverse impact on the park's soundscapes. Cumulative impacts would be minor to moderate and adverse. This alternative's contribution to these effects would be very small.   | Implementing alternative B would have long-term minor beneficial impacts on natural soundscapes in some areas of the park. Cumulative impacts would be long term and beneficial for frontcountry soundscapes, and no change for wilderness soundscapes. The cumulative effects would be minor and beneficial. This alternative's contribution to these impacts would be small.                           | Alternative C would have long-term minor adverse impacts on natural soundscapes in the park. There would be long-term beneficial cumulative impacts on frontcountry soundscapes and no change in wilderness soundscapes. The cumulative effects would be minor to moderate and adverse. This alternative's contribution to these effects would be small and adverse.  | Implementing alternative D would have long-term negligible to minor adverse impacts on natural soundscapes in the frontcountry area of the park, and minor to moderate adverse effects on the park wilderness from operational activities. The cumulative effects would be minor to moderate and adverse. This alternative's contribution to these effects would be small and adverse.   |
| <b>Geologic Processes</b>           | Implementing alternative A would have no effect on geologic features and processes, and thus there would be no project-related cumulative effects.  | Alternative B would result in long-term minor to moderate beneficial impacts on geologic features and processes. The cumulative effects would be reduced relative to the no-action alternative, but would still be long term, adverse, and minor in intensity; this alternative's contribution to these impacts would be small.  | Implementing alternative C would result in long-term, minor adverse impacts and long-term moderate beneficial impacts on geologic features and processes. The cumulative effects would be long term, minor to moderate, and adverse; this alternative's contribution to these impacts would be relatively small.  | Implementing alternative D would result in a continuation of long-term minor adverse impacts on geologic features and processes. The cumulative effects would be long term, minor to moderate, and adverse; this alternative's contribution to these effects would be small.   |
| <b>Hydrologic Systems</b>           | The long-term moderate adverse effects on hydrologic systems occurring in the park would continue under the no-action alternative. This alternative could create long-term minor to moderate adverse impacts on floodplains or wetlands from ongoing park operations and road protective measures. The cumulative effects of other actions would be long-term, moderate, and adverse and beneficial. Implementing this alternative would add slightly to the overall cumulative effect. | Implementing alternative B would have long-term <del>minor to moderate</del> <b>to major</b> beneficial effects on hydrologic systems, including floodplains and wetlands in the park. The cumulative effects of other actions in combination with alternative B would be moderate to major, long term, and beneficial; this alternative's contribution to these impacts would be modest and beneficial. | Implementing alternative C would have a long-term <del>minor to moderate</del> <b>adverse effect</b> on hydrologic systems in the park, and long-term, moderate to major <b>beneficial impacts on the Ozette watershed</b> . It would have no additional effect on wetlands. The cumulative effects of past, present, and reasonably foreseeable future actions in combination with alternative C would be minor to moderate, long-term, <b>beneficial</b> , and adverse; this alternative's contribution to these effects would be modest. | Implementing alternative D would result in a long-term moderate beneficial effect and a long-term <del>minor to moderate</del> <b>adverse effect</b> on hydrologic systems. This alternative <b>includes moving facilities out of floodplains in some areas, and some facilities would continue to be located in floodplains elsewhere. There would be no effects to wetlands.</b> The cumulative effects of other actions in combination with implementing alternative D <b>would be moderate minor, long term, and adverse and beneficial; this alternative's contribution to these effects would be modest.</b> would improve floodplains in the Hoh and Quinault areas if roads and facilities are moved out of the floodplain. However, if roads and facilities are not relocated, the floodplains are not restored, and road protection measures are implemented in the future, there would continue to be moderate adverse effects. |
| <b>Intertidal Areas</b>             | Implementing alternative A would have no direct effect on resources in the intertidal areas but would provide no further protection for the most fragile intertidal areas. The cumulative effects of human-related impacts and expected increases in visitation would be long-term, minor to moderate, and adverse.   | Implementing alternative B would have long-term moderate beneficial impacts on resources in intertidal areas. Overall cumulative impacts on ecologically critical areas would be minor to moderate and beneficial; this alternative's contribution to these impacts would be small.  | Implementing alternative C would have long-term moderate beneficial impacts on resources in intertidal areas. Overall cumulative impacts on ecologically critical areas would be minor to moderate and beneficial; this alternative's contribution to these impacts would be small.   | Implementing alternative D would have long-term moderate beneficial impacts on resources in intertidal areas. Overall cumulative impacts on ecologically critical areas would be minor to moderate and beneficial; this alternative's contribution to these impacts would be small.  |
| <b>Soils</b>                        | Implementing alternative A would have a long-term minor adverse effect on soil resources. Cumulative effects would be long-term, moderate and adverse; this alternative's contribution would be small.  | Implementing alternative B would have a long-term moderate beneficial impact on the park's soils. Cumulative effects, including implementation of this alternative, on soils in the park would be long term, moderate, and adverse. This alternative's contribution to these impacts would be modest.  | Implementing alternative C would have a long-term minor adverse impact on the park's soils. Cumulative effects, including implementation of this alternative, on soils in the park would be long term, minor, and adverse; this alternative's contribution to these effects would be modest and adverse.  | Implementing alternative D would have a long-term minor to moderate adverse impact and a long-term negligible to minor beneficial impact on the park's soils. Cumulative effects on soils in the park would be long term, moderate, and adverse; this alternative's contribution to these effects would be small.  |

| RESOURCE   | ALTERNATIVE A   | ALTERNATIVE B  | ALTERNATIVE C  | ALTERNATIVE D  |
|--|---|--|--|--|
| <b>Vegetation</b>                                  | Implementing the no-action alternative would result in long-term minor adverse impacts on native vegetation communities. There would be moderate adverse cumulative effects on vegetative resources in the park; this alternative's contribution to these effects would be very small.  | Implementing alternative B would have long-term minor to moderate beneficial and long-term negligible adverse impacts on native vegetation. The cumulative effects on vegetation in the park would be long term, minor, and beneficial; this alternative's contribution to these impacts would be small and beneficial.  | Implementing alternative C would result in long-term, minor to moderate adverse impacts on native vegetation. The cumulative effects on vegetation in the park would be long term, minor, <b>beneficial</b> , and adverse; however, this alternative's contribution to these impacts would be modest.  | Implementing alternative D would result in long-term minor adverse impacts on native vegetation. The cumulative effects on vegetation in the park would be long term, minor, and adverse; however, this alternative's contribution to these impacts would be small.  |
| <b>Fish and Wildlife</b>                           | Implementation of this alternative would have a long-term negligible adverse impact and would result in the continuation of adverse effects. There would be <del>minor to moderate</del> <b>to major, beneficial and</b> adverse cumulative effects on fish and wildlife populations; this alternative's contribution to these effects would be <del>very small</del> <b>modest</b> .   | Implementation of this alternative would have long-term moderate beneficial impacts on fish and wildlife individuals and populations. Overall, cumulative impacts on fish and wildlife in the region would be long term, moderate to major, adverse and beneficial. This alternative's contribution to these effects would be modest.  | Implementing this alternative would have long-term minor beneficial and adverse impacts. Cumulative impacts on fish and wildlife populations in the region would be long term, moderate to major, beneficial and adverse; this alternative's contribution to these effects would be small.   | Implementing this alternative would have long-term minor adverse impacts and long-term moderate beneficial impacts on wildlife and fisheries. Cumulative impacts on fish and wildlife populations in the region would be long term, moderate to major, beneficial and adverse; this alternative's contribution to these effects would be small.  |
| <b>Special Status Species</b>                      | Implementing the no-action alternative may affect, but is not likely to adversely affect, special status species. Cumulative effects would be moderate and adverse; this alternative's contribution to these effects would be minor to moderate.  | Implementing this alternative would result in short-term minor adverse impacts and long-term minor beneficial impacts on special status wildlife and long-term major beneficial impacts for bull trout and other listed salmonids. There could be short-term, minor to moderate adverse effects from actions associated with the removal of facilities. Overall cumulative impacts on special status species in the region would be long term, moderate to major, <b>beneficial</b> , and adverse; this alternative's contribution to these impacts would be small and beneficial. | Implementing this alternative would result in beneficial and adverse impacts on bull trout and other sensitive salmonids. This alternative might adversely affect spotted owls and marbled murrelets. It might affect, but is not likely to adversely effect, other listed species occurring in the park. The overall cumulative impacts on special status species in the region would be long term, moderate to major, <b>beneficial</b> , and adverse; this alternative's contribution to these effects would be a small beneficial component and a small adverse component. | Implementing this alternative would result in long-term minor adverse and beneficial impacts on bull trout and sensitive salmonids. This alternative might adversely affect spotted owls and marbled murrelets, and would not likely adversely affect other sensitive or listed species in the park. The overall cumulative impacts on special status species in the region would be long term, moderate to major, and <b>beneficial</b> <del>adverse</del> ; this alternative's contribution to these cumulative effects would include a small beneficial component and a modest adverse component. |
| <b>IMPACTS ON WILDERNESS VALUES</b>                |   |  |  |  |
|  | Implementing alternative A would result in continued long-term, minor to moderate beneficial and adverse impacts on wilderness experience and wilderness character. The overall cumulative effects on wilderness values would be long term, moderate, and beneficial; this alternative would not change the current conditions.   | Implementing alternative B would result in long-term minor <del>to moderate</del> beneficial impacts on resources in wilderness, wilderness character, and wilderness visitor experience, and long-term negligible adverse impacts to the visitor experience if <b>visitor access into the wilderness decreases due to road closures</b> . Cumulative effects on wilderness values would be <b>minor to</b> moderate and beneficial; this alternative's contribution to these impacts would be small.  | Implementing alternative C would result in long-term minor <del>to moderate, adverse beneficial, and adverse</del> impacts on wilderness character, natural resources, and visitor experience. Cumulative effects on wilderness values would be beneficial; this alternative would contribute small beneficial and adverse components to these cumulative effects.   | Implementing alternative D would result in long-term minor long-term adverse impacts and <del>minor to moderate</del> beneficial impacts on wilderness character, <b>natural</b> resources and visitor experience. Cumulative effects on wilderness values would be beneficial; this alternative's contribution to these effects would be small and beneficial.  |
| <b>IMPACTS ON CULTURAL RESOURCES</b>               |   |  |  |  |
| <b>Archeological Resources</b>                     | Avoidance of national register-eligible or -listed archeological resources during excavation, construction, and demolition would result in no adverse effect. If, however, archeological resources could not be avoided, the impacts on such resources would be moderate to major and adverse. The overall cumulative impacts would be adverse, and the actions proposed in this alternative would be a very small component of that cumulative impact. | Increased emphasis on archeological identification, evaluation, and resource protection measures would assist the park's long-term preservation objectives. Implementation of alternative B would result in negligible to minor beneficial impacts on archeological resources, resulting in a determination of no adverse effects on archeological resources. Because alternative B would have no adverse effects, it would not contribute to the adverse cumulative effects.  | If important archeological resources could not be avoided, the impacts on such resources would be adverse. Implementation of alternative C would potentially result in long-term, moderate, adverse effects on archeological resources and would contribute a small increment to the adverse cumulative effects.   | Implementing alternative D would result in negligible to minor, long-term adverse effects, resulting in a no adverse effect determination. Implementation of alternative D would be expected to contribute a small increment to overall adverse cumulative effects on archeological resources.   |
| <b>Historic Structures and Cultural Landscapes</b> | The implementation of the no-action alternative would have long-term minor to moderate beneficial effects on the historic structures and cultural landscapes of Olympic National Park, resulting in a no adverse effect determination. The cumulative effects would be adverse; this alternative would contribute modestly to the overall beneficial cumulative effects, and would not contribute to the adverse cumulative effects.                    | The implementation of alternative B would have no adverse effect on the historic structures and cultural landscapes of Olympic National Park. There would be long-term minor to moderate beneficial impacts on historic structures and cultural landscapes from implementing alternative B. Alternative B would have no adverse effects and would not contribute to the adverse cumulative effects, and would result in long-term, beneficial effects to these resources.  | The implementation of alternative C would have a long-term minor to moderate beneficial effect on the historic structures and cultural landscapes of Olympic National Park, resulting in a no adverse effect determination. The beneficial effect of alternative C would contribute modestly to the overall beneficial cumulative effects.   | The implementation of alternative D would have no adverse effect on the historic structures and cultural landscapes of Olympic National Park and would result in long-term minor to moderate beneficial effects to these resources. Alternative D would have no adverse effects and would not contribute to the adverse cumulative effects.  |

| RESOURCE                                | ALTERNATIVE A   | ALTERNATIVE B  | ALTERNATIVE C   | ALTERNATIVE D  |
|---|---|--|---|--|
| <b>Ethnographic Resources</b>           | Actions under alternative A would generally have negligible to minor long-term adverse impacts on ethnographic resources in the national park. Alternative A would also contribute a small and adverse increment to the minor long-term adverse cumulative impacts on ethnographic resources.   | Actions under alternative B would have negligible to minor long-term adverse impacts on ethnographic resources. The negligible to minor adverse impacts of this alternative would contribute a small component to the overall minor to moderate long-term cumulative adverse impacts.  | Implementation of alternative C would have a negligible to minor adverse impact on ethnographic resources. This alternative would contribute a small component of the minor to moderate long-term cumulative adverse impacts on ethnographic resources.   | Implementing alternative D would have negligible to minor adverse impacts on ethnographic resources in the park. This alternative would also contribute a small increment to the adverse cumulative impacts.   |
| <b>Museum Collections</b>               | The ongoing program has resulted in major beneficial impacts to the museums collections. The planned cumulative activities would result in major beneficial long-term impacts. Alternative A would not add to these impacts.  | The ongoing program has resulted in major beneficial impacts to the museums collections. There would be long-term minor beneficial impacts on the collections. The planned cumulative activities would result in major beneficial long-term impacts. This alternative would add a small component to these impacts.  | The ongoing program has resulted in major beneficial impacts to the museums collections. There would be long-term minor beneficial impacts on the collections. The planned cumulative activities would result in major beneficial long-term impacts. This alternative would add a small component to these impacts.   | The ongoing program has resulted in major beneficial impacts to the museums collections. There would be long-term minor beneficial impacts on the collections. The planned cumulative activities would result in major beneficial long-term impacts. This alternative would add a small component to these impacts.  |
| <b>IMPACTS ON VISITATION</b>            |   |  |   |  |
|   | The impacts of continuing current management practices for most of the year would be long-term, negligible, and adverse. However, during the peak season in summer and holiday weekends, the most popular destinations in the park would be more crowded resulting in long-term, moderate, and adverse impacts to visitor use during those periods, primarily from continued congestion.  | Because there would be reduced facilities and roads, the overall impacts on visitation would be moderately adverse and long term.  | The overall impacts on visitation of improving or expanding facilities and services would be moderately beneficial and long term.   | The overall impacts of alternative D on visitation would be moderately beneficial and long-term because of improved or additional facilities and services.   |
| <b>IMPACTS ON VISITOR OPPORTUNITIES</b> |   |  |   |  |
|   | <p>The full spectrum of park visitor experiences would continue to provide visitor enjoyment and recreation. Continuing current management practices would maintain existing visitor experiences, with some moderate local beneficial impacts as already planned facility improvements take place and facilities were relocated, repaired, or replaced. However, crowding would persist primarily in the day-use zone during the summer or other peak periods, resulting in localized short-term moderate adverse impacts. Some campsites at risk from erosion could be lost, resulting in long-term, minor to moderate, adverse impacts on camping opportunities at high-risk areas.</p> <p>There would be moderate to major long-term to permanent beneficial cumulative impacts on visitors to Olympic National Park and the Olympic Peninsula; this alternative's contribution to these cumulative impacts would be a modest increment.</p> | <p>Under this alternative, it would be harder for many visitors to enjoy the full spectrum of park visitor experiences and recreation compared to the no-action alternative. Alternative B, in spite of the moderate permanent beneficial impact of past, present and reasonably foreseeable future cumulative actions, would result in fewer recreational opportunities, facilities, and services within the region than alternative A, resulting in substantially fewer visitor experiences. The impact of implementing alternative B on visitor experience would be moderate, adverse, and long term to permanent.</p> <p>There would be moderate to major, long-term to permanent beneficial cumulative impacts on visitors to Olympic National Park and the Olympic Peninsula, since the cumulative actions affect access to the park and provide additional visitor opportunities or experiences. This alternative's contribution to these cumulative impacts would be a modest increment.</p> | <p>Alternative C's emphasis is providing visitor opportunities. Day-use, development, and wilderness trail zones would be larger, regional trail and bike system connections would be improved, and skiing opportunities would be improved at Hurricane Ridge. More sustainable roads would result in less disruption of visitor access to river valleys, and visitor facilities and commercial services would be expanded. These changes would be apparent to most visitors.</p> <p>Alternative C would result in additional, more diverse, and improved recreational opportunities and services in the region compared to alternative A. The impact on visitor experiences would be moderate to major, long term to permanent, and beneficial. Alternative C, in conjunction with past, present, and reasonably foreseeable future actions by others, would result in major, long-term, and beneficial cumulative effects; this alternative's contribution to these effects would be substantial due to new and improved visitor opportunities.</p> | <p>Compared to the no-action alternative, the preferred alternative increases visitor experience opportunities, giving more people access to facilities and the spectrum of activities in the park as the result of slight increases in development and day-use, and primeval wilderness zones. <del>Wilderness opportunities would have slightly more focus on trail less areas and would have slightly less stock use opportunity.</del> Developing sustainable roads would result in less disruption of visitor access; winter opportunities would be retained; frontcountry camping would be improved in some areas; and some visitor facilities would be relocated, redesigned, or improved and very few visitor use areas would be closed.</p> <p>Alternative D would result in somewhat more and more diverse recreational opportunities and improved facilities and services in the region. The impact on visitor experience would generally be moderate to major, long term, and beneficial. Alternative D, in conjunction with past, present, and reasonably foreseeable future actions, would result in major, long-term beneficial cumulative impacts on visitors because the cumulative actions affect access to the park and provide additional visitor opportunities or experiences. This alternative's contribution to these cumulative impacts would be modest.</p> |

| RESOURCE   | ALTERNATIVE A   | ALTERNATIVE B   | ALTERNATIVE C   | ALTERNATIVE D  |
|--|---|---|---|--|
| <b>IMPACTS ON INFORMATION, ORIENTATION, AND INTERPRETATION</b> | <p>This alternative would be expected to continue to have minor long-term beneficial impacts on the visitor's ability to understand park themes and experience and appreciate park resources.</p> <p>Under this alternative, there would be a minor to moderate, long-term adverse effect to visitors who do not fully comprehend the park's role on the peninsula and the complexity of park resources because of the lack of educational and informal programs.</p> <p>Visitors who bypass the area visitor centers (perhaps partly due to limited parking on peak days) might find it difficult to fully understand and appreciate the park's remarkable diversity and the variety of visitor experience opportunities.</p> <p>The overall cumulative impacts would be minor to moderate and beneficial; this alternative's contribution to these impacts would be modest.</p> | <p>Overall, under this alternative, there would continue to be insufficient interpretive educational medial and programs. In some areas, facilities would be improved, but most facilities would not be improved, resulting in a continued minor to moderate long-term adverse impact on information, orientation, and interpretation. Education and outreach programs would focus on the primary interpretive themes, which would help the visitor understand and appreciate their connections to park resources, resulting in long-term, minor to moderate, beneficial effects. There would be a minor to moderate beneficial cumulative impact on the visitor's ability to understand park themes and experience park resources; this alternative's contribution to these effects would be modest.</p> | <p>The increased number of interpretive and educational media, programs, and new or expanded facilities would accommodate projected increases in park visitation, address all of the primary interpretive themes, assist with trip-planning opportunities, provide an integrated approach to cultural and natural resources and processes, and connect park resources to the broader expanse of the Olympic Peninsula. This would have a long-term moderate to major beneficial impact on the visitor experience in the park and throughout the region.</p> <p>The cumulative effects would be minor to moderate and beneficial; this alternative's contribution to these effects would be appreciable.</p> | <p>The increased number of interpretive and educational media, programs, and new or expanded facilities would accommodate projected increases in park visitation, address all of the primary interpretive themes, assist with trip-planning opportunities, provide an integrated approach to cultural and natural resources and processes, and connect park resources to the broader expanse of the Olympic Peninsula. This would have a long-term, moderate to major beneficial impact on the visitor experience in the park and throughout the region.</p> <p>The overall cumulative impacts would be minor to moderate and beneficial; this alternative's contribution to these effects would be appreciable.</p> |

| RESOURCE  | ALTERNATIVE A  | ALTERNATIVE B   | ALTERNATIVE C  | ALTERNATIVE D   |
|---|--|---|--|---|
| <b>IMPACTS ON VISITOR ACCESS AND TRANSPORTATION</b> | <p>During peak use periods, implementing alternative A would have a long-term minor to moderate adverse impact on visitor access.</p> <p>During off-peak periods, visitors would continue to find ready access and available parking and would experience excellent roadway capacity conditions. The effects on alternative transportation and health and safety at popular park destinations would be limited. Therefore, alternative A would have a negligible effect on visitor access during off-peak periods.</p> <p>Over the short term, the planned road and facility improvements in the park would have a minor to moderate adverse impact on visitor access depending upon the degree of disruption in construction areas and long-term minor to moderate beneficial effects by maintaining road access to park areas.</p> <p>These short-term impacts would be more intense at the popular destinations in the park in the peak use period. The management actions under alternative A (or lack of actions) would contribute substantially to these cumulative impacts.</p> <p>Over the long term, when the combination of impacts from development activities outside the park that directly affect visitor access are combined with the management actions under alternative A, this would result in minor to moderate beneficial and adverse cumulative impacts overall. Alternative A would contribute a substantial portion of these cumulative impacts.</p> | <p>During peak use periods, implementing alternative B would result in long-term moderate adverse impacts on parkwide visitor access largely due to the systemwide reduction in access, roads, and facilities.</p> <p>Due to redistribution of visitation, alternative B would also result in a long-term minor to moderate adverse impact locally on less used areas in the park.</p> <p>During peak periods, alternative B would result in a long-term minor beneficial effect locally on visitor access. The reduction in roads and related facilities would be somewhat offset during peak periods by the implementation of mandatory seasonal mass transit in congested areas.</p> <p>Under alternative B people visiting the park during off-peak periods would continue to find ready access and available parking and find excellent roadway capacity conditions, and limited effects would occur to alternative transportation and health and safety at popular destinations in the park. Therefore, alternative B would have a negligible effect on visitor access during off-peak periods.</p> <p>Cumulatively, over the short term, the planned road and facility improvements in the park would have a moderate adverse impact on road access and parking depending upon the degree of disruption in construction areas. Alternative B would contribute to these cumulative impacts in a minor way.</p> <p>Over the long term, the management provisions in alternative B would limit the amount of visitor use and access allowed in the park. Cumulative impacts on visitor access over the long term could be an overall decline in the diversity of the visitor opportunities in the park, and increase the levels and types of use and access on lands adjacent to the park. The actions under alternative B would contribute substantially to these overall moderate long-term adverse cumulative impacts.</p> | <p>During peak use periods, implementing alternative C would have a long-term moderate beneficial impact on visitor access.</p> <p>For proposed facilities and infrastructure expansion and improvement actions under alternative C, temporary and short-term minor to moderate, adverse impacts would result locally to transportation. This conclusion would primarily apply to access, parking capacity, and health and safety due to the potential for access delays to visitors and traffic and parking disruptions during construction.</p> <p>Under alternative C, people visiting the park during off-peak periods would continue to find ready access and available parking, and would experience excellent roadway capacity conditions. Therefore, alternative C would have a negligible effect on visitor access during off-peak periods.</p> <p>The planned road and facility improvements in the park would have a moderate adverse cumulative impact on road access and parking depending upon the degree of disruption in construction areas. The management actions under alternative C would contribute substantially to these cumulative impacts.</p> <p>Over the long term, the management actions under alternative C would result in a net increase in roads, trails, and related facilities (where appropriate and feasible), which would have the effect of enhancing parkwide access and parking capacity. Therefore, the cumulative impact of alternative C, in combination with past and other reasonably foreseeable actions, would result in a moderate benefit to visitor access in the park as a whole, and actions under this alternative would account for almost all of that benefit.</p> | <p>Overall, implementing alternative D would result in negligible to minor, beneficial and adverse impacts on visitor access to the park. The number of roads, trails, and related facilities under alternative D would be kept at approximately their current levels. With visitation expected to increase, this action would constitute a long-term minor adverse impact on visitor access and transportation during peak periods, particularly at popular destinations such as Hoh, Sol Duc, and Hurricane Ridge.</p> <p>Under alternative D, people visiting the park during off-peak periods would continue to find ready access, available parking, and excellent roadway capacity conditions at popular destinations in the park. Therefore, alternative D would have a negligible effect on transportation during off-peak periods.</p> <p>Assuming that parkwide facilities and infrastructure would be kept at current levels, with only slight expansions authorized, or possible reductions or modifications elsewhere, alternative D contribute a slight increment to the short-term minor adverse cumulative impacts.</p> <p>Management actions under this alternative would include the implementation of alternative forms of transportation and or other transit options, and this could minimize the adverse effects on visitor access of increasing demand.</p> <p>Over the long-term, when the impacts from development activities outside the park that directly affect visitor access are combined with actions proposed under alternative D, this would result in minor to moderate beneficial and adverse cumulative impacts on transportation.</p> |

| RESOURCE  | ALTERNATIVE A   | ALTERNATIVE B   | ALTERNATIVE C   | ALTERNATIVE D   |
|---|---|---|---|---|
| <b>IMPACTS ON THE SOCIOECONOMIC ENVIRONMENT</b>   |   |   |   |   |
| <p>Note: Because of the extent of changes, the full extent of changes to these impacts is shown in chapter 4.</p> | <p>Current approved projects to be funded under the no-action alternative would amount to about \$10 million. These projects would be phased over a number of years, so impacts on individual firms and employees could be minor to moderate, short term, and beneficial, but impacts on the regional economy would be negligible to minor.</p> <p>Visitors (3.1 million in 2005) would continue to support the local tourism industry. This level of impacts from tourism spending on adjacent communities and concessioners would continue to be beneficial, providing income, employment, and business opportunities within the gateway communities and regional economies, with minor changes over time.</p> <p>There would be no effect to the regional logging industry under this alternative because it does not include potential boundary adjustment and acquisition of private lands from willing sellers and no land exchanges affecting state-managed forest lands.</p> <p>Under this alternative the park's staffing level would remain relatively constant or decline slightly.</p> <p>The cumulative impacts would be long term, major moderate and beneficial; this alternative's contribution to these effects would be modest.</p> | <p>Park visitors (3.1 million in 2005) are expected to continue to account for major expenditures for goods and services at tourism-related businesses in the four-county region. The overall impacts would be comparable in magnitude to those under alternative A. Impacts on the economies of gateway communities would most likely be minor to moderate over the long term. Some concessioners would experience long-term minor to moderate adverse impacts with the loss of business and job opportunities. The public could look to the private sector within the gateway communities to provide services no longer offered in the park. Whether these effects were beneficial or negative would depend on the public's demand for facilities and services (since some would be removed from the park) and whether they would be supplied by the private sector in adjacent areas.</p> <p>Future expenditures for development, restoration, and other projects, could result in minor to moderate short-term and most likely beneficial economic impacts. The impacts on the regional economy would be negligible to minor due to the size of the area economy and because the projects would be accomplished in phases over the next 15 to 20 years.</p> <p>Implementation of this alternative could have negligible to minor, short-term, adverse effects and minor to moderate adverse long-term effects. This alternative has a higher adverse impact than alternatives A, C, or D related to the impact on the regional timber and related economy. Cumulative effects between the general management plan and the regional timber and wood processing industries would be minor to moderate over the long term, depending on the timing and lands involved in the boundary adjustments. The boundary adjustments could have minor long-term fiscal effects for local governments, but the timing and beneficial or adverse nature of these effects are indeterminate given current information.</p> <p>Some past staffing reductions would be reversed, such that park staffing would increase under alternative B. Increases in park staff and payroll would result in additional secondary jobs and incomes in the region. This would have long-term but negligible beneficial impacts on the local and regional economies because of their magnitude relative to size of the regional economy.</p> | <p>Park visitors (3.1 million in 2005) would be expected to continue to account for major expenditures for goods and service at tourism-related businesses in the four-county region.</p> <p>The overall impacts would be comparable in magnitude to those under alternative A, but projected annual expenditures and employment at the park would increase. These changes would be important for the park but would be a minor positive long-term impact on the regional economy. Impacts on the economies of gateway communities would most likely be minor to moderate over the long term.</p> <p>Most concessioners would experience long-term minor to moderate beneficial impacts from increased visitor use.</p> <p>Implementation of this alternative would have negligible to minor, short-term, adverse effects and minor to moderate adverse long-term effects on the regional timber and wood processing industries, depending on the timing and lands involved in the boundary adjustments. The boundary adjustments would have minor long-term fiscal effects on local governments, but the timing and beneficial or adverse nature of these effects is indeterminate given current information.</p> <p>Full implementation of alternative C would require restoration of some past staffing cuts, increasing staffing levels by an estimated 6 full-time and 25 seasonal FTEs. Increases in park staff and payroll would result in additional secondary jobs and incomes in the region.</p> <p>The cumulative impacts would be moderate to major and beneficial; this alternative's contribution to these effects would be modest.</p> | <p>Park visitors (3.1 million in 2005) would be expected to continue to account for major expenditures for goods and service at tourism-related businesses in the four-county region. The overall impacts would be comparable in magnitude to those under alternative A, but projected annual expenditures and employment at the park would increase. These changes are important for the park but would be a minor positive long-term impact on the regional economy. Impacts on the economies of gateway communities would most likely be minor to moderate and beneficial over the long term.</p> <p>Under alternative D, most concessions operations would remain the same, but some expansion in the season of operation could occur, resulting in long-term minor beneficial effects to those concessioners. Relocating Kalaloch Lodge would result in short-term adverse impacts associated with moving or reconstruction of this facility, but over the long-term, result in a more sustainable facility, which would be a beneficial effect.</p> <p>Implementation of the this alternative could have negligible to minor, short-term, adverse effects and minor to moderate adverse long-term effects on the regional timber and wood processing industries, depending on the timing and lands involved in the boundary adjustments. The boundary adjustments could have minor long-term fiscal effects for local governments, but the timing and beneficial or adverse nature of these effects are indeterminate given current information. Any adverse effects would be partially offset by income to county and other local taxing districts as a result of the land exchange to the state of Washington where the land would continue to be used for sustainable commercial forest use.</p> <p>Full implementation of alternative D would require restoration of some past staffing reductions, increasing staffing levels by an estimated 6 full-time and 19 seasonal FTEs. Increases in park staff and payroll would result in added secondary jobs and incomes in the region.</p> <p>Approved projects that would be funded under this alternative would increase capital development projects by about \$7 to \$11 million and road and facility removal and construction costs by about \$0.5 million to accomplish the actions identified. These projects would be phased in over time, so impacts could be minor to moderate, short term, and beneficial, for individuals or firms, but overall impacts on the regional economy would be negligible.</p> |

| RESOURCE   | ALTERNATIVE A   | ALTERNATIVE B   | ALTERNATIVE C  | ALTERNATIVE D  |
|--|---|---|--|--|
| <b>IMPACTS ON THE SOCIOECONOMIC ENVIRONMENT (cont'd)</b> |   |   |  |  |
|  |   | The overall cumulative impacts would be minor to moderate and beneficial; this alternative's contribution to these effects would be modest.   |  | <p>The current range and level of impacts (regarding future tourism spending and park expenditures for goods and services from the gateway communities) on adjacent communities would continue to be beneficial, providing income, employment, and business opportunities in the gateway communities and regional economy. Changes might be expected, but their impacts are indeterminate at this time.</p> <p>The cumulative impacts would be long term, moderate and beneficial; this alternative's contribution to these effects would be modest.</p>   |
| <b>IMPACTS ON PARK OPERATIONS</b>                        |   |   |  |  |
|  | Under the no action alternative, staffing levels would continue to be inadequate and not meet park needs, resulting in long-term, minor adverse impacts to park operations. As more projects are completed to improve the conditions of facilities and replace aging systems, more sustainable and efficient systems are in place, resulting in a reduced need for maintenance in the long term. Until the time when facilities are replaced, many still require periodic and extensive maintenance. When projects are completed, this results in long-term, moderate, beneficial cumulative impacts from decreased operational needs. Considered with the no action alternative, the overall impact would be long term, negligible to minor, and beneficial. | <p>Under alternative B, increases in staff levels, both temporary and permanent, would be required to meet the action elements of this alternative. Park operational functions would be relocated in those areas where road access is eliminated. This would require a great deal of staff time and without increases in park staff, staff time would have to be redirected from other project work, resulting in negative impacts to facilities parkwide.</p> <p>Ongoing projects in the park are resulting in improved facilities that are more sustainable, and in the long term, would result in decreased maintenance. Until the time when facilities are replaced, many still require periodic and extensive maintenance. When projects are completed, this results in long-term, moderate, beneficial cumulative impacts from decreased operational needs. When combined with the elements of alternative B, the overall impact to park operations would be long term, minor to moderate, and adverse.</p> | Under the alternative C, staffing levels would continue to be inadequate and not meet park needs, resulting in long-term, minor adverse impacts to park operations. As more projects are completed to improve the conditions of facilities and replace aging systems, more sustainable and efficient systems are in place, resulting in a reduced need for maintenance in the long-term. Until the time when facilities are replaced, many still require periodic and extensive maintenance. When projects are completed, this results in long-term, moderate, beneficial cumulative impacts from decreased operational needs. Considered with the no action alternative, the overall impact would be long-term, moderate, and beneficial. | Under this alternative, staffing levels would continue to be inadequate and not meet park needs, resulting in long-term, minor adverse impacts to park operations. As more projects are completed to improve the conditions of facilities and replace aging systems, more sustainable and efficient systems are in place, resulting in a reduced need for maintenance in the long-term. Until the time when facilities are replaced, many still require periodic and extensive maintenance. When projects are completed, this results in long-term, moderate, beneficial cumulative impacts from decreased operational needs. Considered with the no action alternative, the overall impact would be long-term, negligible to minor, and beneficial. |

