Executive Summary

Final
General Management Plan
Environmental Impact Statement

LAKE CHELAN

National Recreation Area • Washington


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Executive Summary

Final General Management Plan Environmental Impact Statement

June 1995

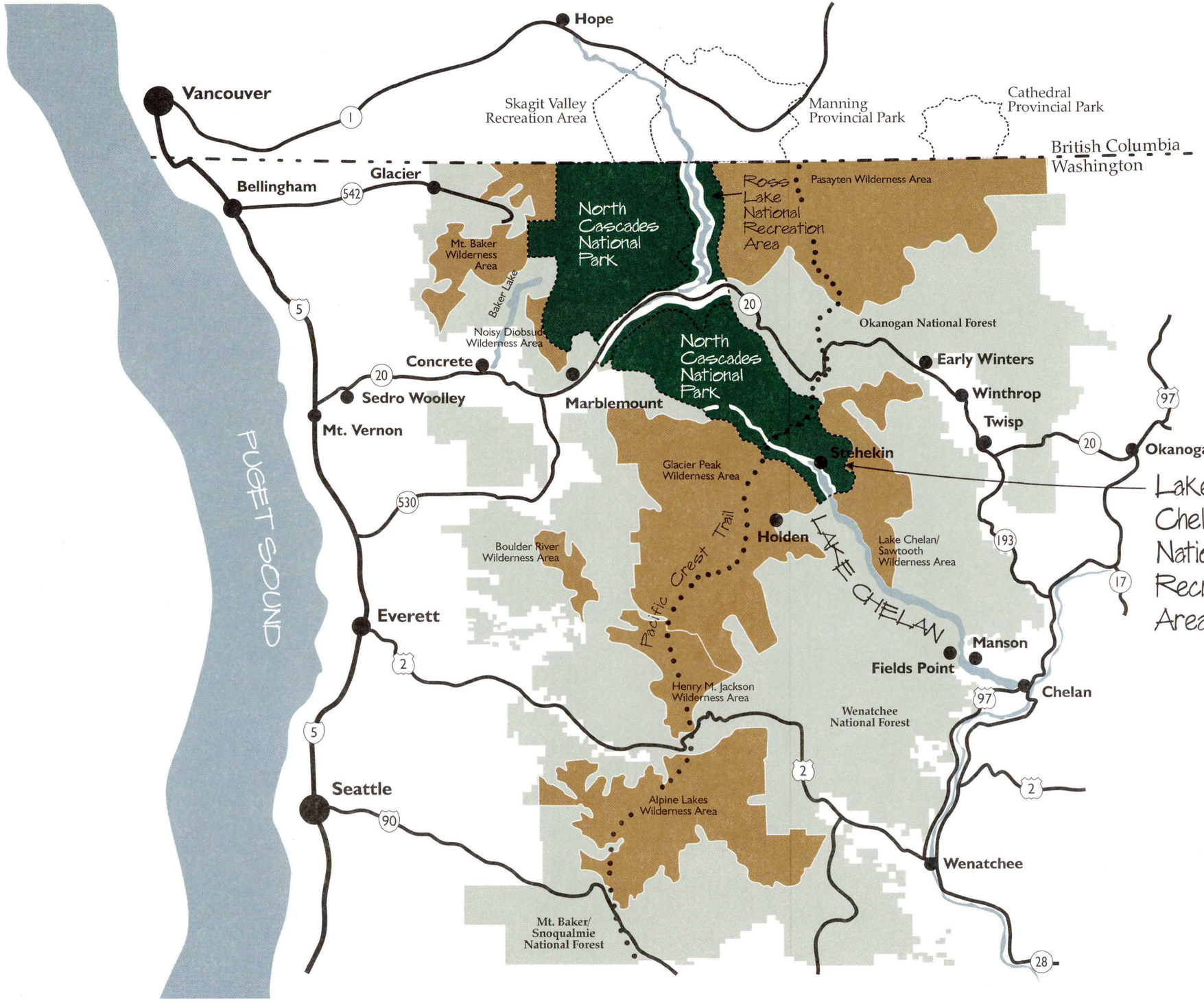
LAKE CHELAN

National Recreation Area • Washington

United States Department of the Interior • National Park Service • Denver Service Center

Region

Lake Chelan National Recreation Area
United States Department of the Interior • National Park Service
DSC • June 95 • 168 • 20,066A



NORTH

0 100 200 miles

- Stephen T. Mather wilderness area
- Wilderness area
- National forest
- Rivers and lakes



INTRODUCTION

This *Executive Summary* presents an abbreviated version of the alternatives and environmental impacts contained in the *Final General Management Plan / Environmental Impact Statement* (volume 1). Summary comparison charts and pertinent maps have been included.

PURPOSE AND NEED

The purpose of the federal action is to manage visitor use, natural and cultural resources, development, and operation of Lake Chelan National Recreation Area (NRA) according to the enabling legislation and other laws and regulations affecting management of the national recreation area. The general management plan (GMP) and implementation plans that result from the environmental impact statement process will guide the management of the recreation area for the next 10 to 15 years. The GMP will replace those portions of the 1988 *General Management Plan for North Cascades National Park, Ross Lake National Recreation Area, and Lake Chelan National Recreation Area* (NPS, USDI 1988a) that deal with Lake Chelan NRA. The implementation plans, which have been prepared separately, will either replace existing plans or provide guidance for topics that do not currently have implementation plans. The implementation plans are as follows:

Sand, Rock, and Gravel Plan
Forest Fuel Reduction / Firewood Management Plan
Wilderness Management Plan
Transportation Plan
Stehekin Landing and Valley Development Concept Plans
Land Protection Plan

The final environmental impact statement (final EIS), with the inclusion of alternatives for the GMP and implementation plans specified above is published in volume 1.

Preparation of this document is required by, and adheres to a consent decree. On April 22, 1991, a consent decree was approved by and entered in the United States District Court for the Western District of Washington. The consent decree specified actions agreed to for resolving the dispute between the plaintiff, North Cascades Conservation Council, and defendants, Manuel Lujan, secretary of the United States Department of the Interior, James M. Ridenour, director of the United States National Park Service, Charles H. Odegaard, regional director of the United States National Park Service, Pacific Northwest Region, and John R. Earnst, superintendent of the North Cascades National Park Complex. The consent decree resulted from a law suit filed by the North Cascades Conservation Council (Civil Case No. C-89-1342D).

The final EIS analyzes the environmental consequences of the proposed action alternative, a no-action/minimum requirements alternative, and three other GMP and implementation plan alternatives for management and use of Lake Chelan NRA. The document provides a full discussion of the environmental impacts associated with the alternatives. Technical preparation of the EIS has been in compliance with the requirements of the National Environmental Policy Act and the regulations of the Council on Environmental Quality. Other laws and executive orders that have directed this effort are described in the document text where appropriate. Site-specific environmental compliance will be done at a later time at the design phase as appropriate.

ISSUES AND CONCERNS

In developing this document, numerous issues and concerns were identified by the consent decree and through scoping. Several of these issues and concerns are listed below.

Protection of water quality
Water rights and protection of resources
Man-caused channel modification of the Stehekin River
Air pollution/acid precipitation impacts on resources
Protection of wetlands
Impacts of sand, rock, and gravel extraction on vegetation, wildlife, and scenic quality
Barging of sand, rock, and gravel from outside the recreation area
Amounts of sand, rock, and gravel available for private use
Forest fire management
Unnatural and dangerous levels of forest fuel accumulations
Cutting of green trees for firewood
Gathering of dead and downed wood for firewood
Amounts and sources of firewood
Barging of firewood from outside the recreation area
Impacts of additional electrical generation facilities on air quality and valley growth and development
Protection of threatened, endangered, or rare species
Impacts of nonnative species
Impacts of grazing by horses on natural vegetation in wilderness
Impacts of campfires on meadow vegetation in wilderness
Impacts of removing dead wood used for campfires in wilderness
Cultural resource protection
Airstrip provision of access to the Stehekin Valley
Airstrip use for search and rescue and fire control staging
Airstrip use for emergencies
Airstrip provision of a special recreational experience
Safety of the airstrip
Impacts of the airstrip on scenic quality
Impacts of the airstrip on wetlands
Impacts of airplane use on natural sights and sounds expected by visitors
Impacts of access provided by the roads
Impacts of road repair and maintenance on natural resources and the regional economy
Impacts of road closures
Impacts of accidental spills or leakage of toxic substances
Development by the National Park Service
Impacts of valley growth and development
Changes in the size and character of the Stehekin community
Impacts of development on sensitive and scenic natural areas
Adequacy and impacts of land protection plan
Adequacy and impacts of compatibility standards
Number and kinds of services provided by the National Park Service
Number and kinds of services provided by the private sector

PUBLIC COMMENT ON THE DRAFT DOCUMENT

The *Draft General Management Plan / Implementation Plan Alternatives / Environmental Impact Statement* for Lake Chelan National Recreation Area was made available for public review from August 26, 1994, to November 1, 1994. Approximately 750 copies of the document were distributed to agencies, elected officials, organizations, and individuals. In addition, three public hearings were held in Chelan, Seattle, and Stehekin, Washington, in October 1994. Approximately 950 comment letters and 107 oral comments were received during the comment period. The letters and transcripts of oral comments of agencies, elected officials, and organizations are reprinted in volume 2, *Comments and Responses*, of the final EIS, and responses from the National Park Service are included where appropriate. Letters and transcripts from individuals that raised substantive comments are also reprinted, with NPS comments where needed.

PROPOSED ACTION

CONCEPT AND DESCRIPTION

Under the proposed action, the rustic setting of Lake Chelan NRA would be part of a transition from the downlake recreational, residential, agricultural, and industrial setting to the very wild and natural North Cascades National Park. The use of recreation area resources by visitors and residents would be managed in order to preserve the natural, scenic, and cultural values of the area.

The National Park Service would not manipulate the Stehekin River or its tributaries nor manipulate woody debris except to protect public roads and bridges. Woody debris could be trimmed or turned in the lower 9 miles of the Stehekin River to allow safer recreational use of the river for rafting, kayaking, and canoeing if it did not alter the function or stability of woody debris accumulations and was permitted by the appropriate regulatory agency. Woody debris would not be removed from the river system in any case. The Park Service also would discourage private landowners from manipulating the Stehekin River or removing woody debris. If such actions would harm recreation area resources or would not be in compliance with local, state, or federal ordinances, regulations, or laws, the Park Service would take appropriate action.

The active sand, rock, and gravel borrow pit would be maintained at less than or equal to its current size. No new borrow pits would be opened. Old inactive borrow pits would be restored to natural-like contours and vegetative cover as appropriate. Allocation of pit material for private use would be based on available supply, resource impacts, and type of use. Pit material sold to the public would be at fair market value. No sand, rock, or gravel would be removed from the 100-year floodplain of the Stehekin River or its tributaries.

Fire suppression, prescribed natural fire, management-ignited prescribed fire, and selective manual fuel reductions would be used to improve wildland fire protection for human life and property; to manage for late-succession stage in ponderosa pine/Douglas fir forest; and to monitor and evaluate manual thinning and prescribed fire effects over time.

Human- and lightning-caused fires on the valley floor would be suppressed for the protection of human life and property.

Selective manual thinning and management-ignited prescribed fire would be used in forest fuel reduction areas to accomplish the following objectives:

- to reduce the amount of fuel in strategically located sites for more effective fire protection
- to strive for a 40%–60% forest canopy cover in some areas based on the mature forest component
- to perpetuate a multiaged ponderosa pine/Douglas fir forest
- to restore the effects of low-intensity fire
- to provide firewood for Stehekin residents from surplus logs as a secondary objective, contingent upon meeting the other objectives

Selective manual thinning would precede management-ignited prescribed fire treatment in some of the forest fuel reduction areas. Coniferous trees may be thinned in riparian communities within the fuel reduction areas.

The practice of woodlot cutting for firewood would be phased out over a two-year period while the forest fuel reduction areas are established.

When available, firewood would be provided from the following sources:

- hazard trees that are pruned or removed in accordance with an approved hazard tree management plan
- blowdown trees in developed areas
- trees removed to restore historic landscapes in historic districts
- trees removed because of new development
- trees pruned or removed for fire protection as a result of hazard fuel surveys for government-owned structures
- driftwood within the high-pool limits of Lake Chelan
- trees removed from forest fuel reduction areas by selective manual thinning

Firewood would be provided at fair market value. There would be no guarantee of firewood cordage per year. The firewood supply would probably diminish over the long term.

The Golden West Lodge and the High Bridge Historic District would be rehabilitated, and the Buckner homestead and orchard would be preserved. Significant parts of the Buckner collection should be acquired. Some artifacts should be maintained onsite for interpretation, and others should be stored in a curatorial facility constructed outside the valley but within Chelan County.

The airstrip would be operated under a special use permit with the Washington State Department of Transportation for private, noncommercial use by the public. Some NPS and concession seasonal housing, maintenance, and related facilities would be consolidated beside the airstrip in such a way as to not impair aircraft operations.

The Stehekin Valley road between the Landing and Harlequin Bridge would remain a two-lane paved road; from Harlequin Bridge to 9-Mile, it would become a single-lane, paved road with pullouts; from 9-Mile to High Bridge, a single-lane, gravel road; and from High Bridge to Cottonwood, a heavy-duty, high-clearance shuttle vehicle road.

Unconstrained private vehicle use would end at High Bridge. Private vehicle use from High Bridge to Bridge Creek would be allowed, but traffic flow would be regulated by season of year and/or hour of day. Public shuttle service would be provided from the Landing to Cottonwood. Only the public shuttle service, hikers, horses, and bicycles would be allowed to use the road from Bridge Creek to Cottonwood. The National Park Service would seek a concessioner to replace the NPS-operated public shuttle service. Frequency of shuttle service would increase over the current rate. Fare structure would provide discounts for frequent and local public shuttle users.

Company Creek road would be maintained in its current alignment. This road would be protected from river erosion at two locations with structures designed to withstand frequently recurring floods and made from rock, soil, and native vegetation.

Stehekin Landing would be redesigned to improve visitor flow and parking and to relocate lodging and other facilities away from geohazards. Relocation would occur as the end of the life cycle of structures was reached.

Land protection would emphasize high flood influence areas, wetlands, riparian areas, and high visual sensitivity areas.

The current capacity of concession services for food and lodging would increase somewhat. The Park Service would provide services essential for resource protection and visitor health and safety. There would be a

Lake Chelan National Recreation Area

Proposed Action
Stehekin Valley

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Road Corridor
» road from High Bridge to Bridge Creek -private vehicle use regulated by season and/or time of day
» road from Bridge Creek to Cottonwood accessible only to heavy-duty high-clearance shuttle service, hikers, horses and bicycles

4.3 miles to Bridge Creek
11.3 miles to Cottonwood

Stehekin Valley Trail
» proposed 11–mile valley trail from Stehekin Landing to High Bridge

Stehekin Valley Road
» provide scheduled NPS and/or commercial shuttles from Stehekin Landing to Cottonwood

Harlequin Bridge
» retain existing campground
» rehabilitate or replace bridge

new pedestrian suspension bridge

Rainbow Falls

Boulder Creek

9-Mile

Company Creek Road
» maintain existing road alignment and use erosion control measures

Gravel Pit

Stehekin Landing
» see DCP map
» preserve rural setting and locate facilities in least environmentally sensitive areas, away from hazard areas
» improve visitor flow and parking and relocate lodge
» retain Purple Point Campground

High Bridge Historic District
» rehabilitate structures and use for NPS operations

River Trail

Airstrip area
» see DCP map
» retain airstrip; state operates under special use permit
» locate NPS maintenance and NPS and concessioner housing in this area

Castle Area

LAKE CHELAN

Buckner Orchard Historic District
» preserve and restore

Weaver Point Campground
» expand and relocate sites back from shoreline

Riddle Creek
» replace permitted, private cabins with public camp sites

NORTH

0 1 2 miles

- Double-lane paved road
- Single-lane paved road
- Single-lane gravel road
- Heavy-duty high-clearance shuttle vehicle road
- Primary trail
- NPS visitor facility and administrative areas
- Forest fuel reduction area
- Campground
- Designated wilderness
- Rivers, creeks, and lakes

Proposed Action and Alternative B

Stehekin Landing Development Concept Plan

Lake Chelan National Recreation Area

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NORTH

0 120 240feet

Trail

New road

New structure

Existing structure

Structure to be removed

Golden West Historic District boundary

1450

1350

1250

1150

Water storage

To Purple Pass Trail

Housekeeping cabins

PURPLE CREEK

Lodge parking
10 spaces

Overflow camping

Parking
10 spaces

Overnight
lodging and restaurant

NPS boat dock

NPS staff housing

Historic bathing
pool remnant

Concessioner
staff housing

Staff parking

Golden West: district headquarters
on upper floors with visitor
center on main floor

Public boat launching

Floating dock for ferry landing
accessible to visitors in wheelchairs

NPS shelter, point of contact, and restroom
at grade with landing

Parking and loading area, 6 short-term spaces

Boat fuel/pump out

Remove buildings
& road: revegetate

Bus/shuttle parking

one way

Visitor parking
10 spaces

Shops

Grocery store
concession office

Parking
25 long-term spaces

IMUS CREEK

Sewage
treatment
plant

Laundry/shower
facilities

Interpretive
trail

two way

one way

Retain Purple Point
Campground

Barge dock

Community staffed
information area

Restore shoreline to natural contour
and recover rock and gravel

Locate existing dock at Weaver Point
during the summer and at Purple
Point in the fall–spring

LAKE CHELAN

Proposed Action and Alternative C

Airstrip Area Development Concept Plan

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Company Creek Road

NPS and concessioner housing – each unit represents a two-story structure containing a combination of efficiency and two-bedroom units

Permit/cleared boundary

Propane storage

Hazardous materials storage

Equipment and supply storage

Screen with native vegetation

Recycling center

Storage barn

Fence

NPS office

Equipment repair shop

Vehicle fuel

Search and rescue fire cache

Helipad

Existing gravel pit area

NORTH

0 160 320 feet

New road

New structures

fair-share charge for these services. Private contracts would be used where appropriate.

ENVIRONMENTAL CONSEQUENCES

The proposed action generally would have beneficial effects on natural river processes and habitat for fish and other aquatic species, including restoration of about 27 acres of the Stehekin River floodplain and reduced instream modifications. Acquiring interests in private lands would eventually provide additional long-term protection for another 149 acres of floodplain. Potentially hazardous conditions associated with flooding would be substantially reduced by relocating NPS facilities and acquiring land interests located in floodplain or geohazard areas.

Approximately 26 acres of habitat in or near wetlands would be restored where possible and another 63 protected by acquiring interests. Existing road disturbance and vegetation management activities to maintain the airstrip would adversely affect 6.7 acres of vegetated wetlands. Generally there would be beneficial effects on wetlands.

A total of 146 acres of riparian communities would be protected or restored, and up to 74 acres would be affected by prescribed fire. Given that there are only 936 acres of riparian land on the valley floor, this would be a major beneficial impact on community-level biodiversity in the valley.

A total of 140 acres of upland communities would be protected or restored, 9 acres would be lost, and 636 acres would be affected by prescribed fire and thinning.

The proposed action would enhance the integrity of existing native fish habitat and populations and would also help restore native cutthroat and bull trout populations in part of their historic habitat within the Stehekin drainage.

There would be no effect on existing bald eagle use of the area; possible effects on long-term recovery of the local population are unknown. Northern spotted owls and grizzly bears are not likely to be adversely affected, although impacts would be both beneficial and adverse. Gray wolves would be beneficially affected.

The proposed action would provide protection in addition to that provided by existing laws and regulations for water resources. Only minimal lakeshore erosion would be caused by wave action from boat or floatplane traffic compared to that caused by lake elevation fluctuation and natural wave action.

Compared to existing conditions, the proposed action would substantially increase some energy-related air pollutants within the Stehekin Valley, particularly for oxides of nitrogen if demand for electricity increases. Conversion to high-efficiency woodburning stoves and other energy conservation measures would help reduce some air pollutant emissions. Increases in dust and vehicle and prescribed fire emissions would adversely affect the recreation area's air quality.

Visual resources would be improved, while the opportunity to experience these resources by residents and visitors to the valley would become more confined as views from trails, the valley road, and the river became more enclosed and constricted.

A systematic and comprehensive program for the preservation, protection, and interpretation of cultural resources in the Lake Chelan NRA would be conducted in conformance with the park complex *Resource Management Plan*. The program would provide for the preservation of significant cultural resources illustrating the history of the area and for additional efforts directed toward management of the area's cultural resources and historic landscapes. One historic and two prehistoric archeological sites could be affected.

A wide spectrum of visitors would have diverse means of access to prime natural, cultural, scenic, and recreational resources without significantly affecting park resources or degrading the experiences of other visitors.

Moderate increases in visitor arrivals (40%–45%) would cause moderate increases in vehicular congestion and noise in the valley. Increased use would require increased maintenance of facilities, roads, and trails. Existing and proposed new facilities would meet the additional demand.

The proposed action would have moderate but positive effects on the regional economy. By 2007 visitor arrivals and lodging spaces would increase by about 40%. Visitor expenditures and total employment would increase by about 37%.

The net fiscal impacts on the Chelan County general and road funds would be a positive, resulting in a higher surplus in 2007 than in 1992. The school district is expected to have 24 pupils in 2007 and would generate a higher net fiscal surplus than in the 1992–93 school year.

Chelan County Public Utility District (PUD) No. 1 supplies power on a chronically deficit basis for the Stehekin system. Power costs are a limiting factor to Stehekin growth. A rate increase may be necessary over the next 15 years.

NPS-provided activities and their costs would expand in response to growth in visitor use and development levels. These services include sewer and water at the Landing, waste disposal, and road maintenance.

The Park Service would require compatibility of uses and would pursue land acquisition as sellers became willing and funds became available.

NO-ACTION/MINIMUM REQUIREMENTS ALTERNATIVE

CONCEPT AND DESCRIPTION

Under this alternative, Lake Chelan NRA would be a rural resort community where resources are used, within limits, by an expanding residential presence. This alternative is the 1988 GMP and supporting plans.

River erosion and flooding would be controlled only to protect life, health, existing public roads, and bridges. Immediate flood hazards to private property would be alleviated using minimum actions.

The currently active sand, rock, and gravel borrow pit would be reclaimed as new excavation occurred. The size of the pit would remain constant. New pits would be established if the existing pit was depleted. Mining of sand, rock, or gravel from the 100-year floodplain of the Stehekin River or its tributaries could occur only if there were no adverse impacts.

Where feasible, federal lands would be treated with prescribed fire to reduce fuels. A program would be implemented to reduce hazardous fuels adjacent to developments and private land. Naturally ignited fires burning under prescribed conditions would be suppressed in the lower Stehekin Valley.

Firewood would be obtained from harvesting 1-acre woodlots managed on an 80-year rotation for sustained-yield production. Administrative surplus trees cut by the National Park Service and driftwood from the lake also would be used as firewood.

The Golden West Lodge would be rehabilitated, and the Buckner homestead and orchard would be preserved. A small collection storage facility should be provided in the lodge or other NPS structure in the valley for storage of collection items.

The airstrip would be operated under a special use permit with the Washington State Department of Transportation.

The Stehekin Valley road between the Landing and Harlequin Bridge would remain a two-lane paved road: from Harlequin Bridge to Bridge Creek it would be maintained as a single-lane, gravel road; and from Bridge Creek to Cottonwood Camp, as a primitive road allowing safe vehicle passage. Company Creek road would be maintained in its current condition. Emergency repairs and reopening of the road following flood damage would be performed.

NPS and concession seasonal housing would remain at the Landing and throughout the valley. NPS administrative offices would remain at the Landing. NPS maintenance and related facilities would remain at the Harlequin Bridge area.

Land protection would emphasize wetlands, shoreline characteristics, high scenic quality, water quality, visitor access, restriction of unsightly development, and development on areas with gradients greater than 20%.

Services to accommodate existing and reasonable demand for expanded recreational experiences would be provided. The National Park Service would provide services essential for resource protection and visitor health and safety. Private contracts would be used where appropriate.

ENVIRONMENTAL CONSEQUENCES

This alternative would have the least beneficial effects on natural river processes and habitat for fish and other aquatic species. Less than 1 acre of the Stehekin River floodplain would be restored. Acquiring interests in private lands with the owner's consent would eventually provide

additional long-term protection for another 61 acres of floodplain. Potentially hazardous conditions associated with flooding and other geological hazards would not be substantially reduced. The potential for designation of the Stehekin River as a wild and scenic river would not be compromised.

Only 10 acres of habitat in or near wetlands would be restored where possible and another 11 acres protected by acquisition. Road disturbance and vegetation management activities would adversely affect 11.7 acres of wetlands. River manipulation and erosion and runoff from roads could also adversely affect an unknown amount of wetlands. The no-action/minimum requirements alternative would have the least beneficial impact on wetlands.

A total of 25 acres of riparian communities would be protected, and up to 130 acres would be lost. This would be a major adverse impact on riparian communities in the valley. The community-level biodiversity of the park complex would be adversely affected through impacts from this alternative.

This alternative would provide only limited additional protection for existing native cutthroat and bull trout populations and would not reestablish native fish populations in the Stehekin drainage.

Gray wolves and grizzly bears would continue to be adversely affected from the upper valley road, the loss of riparian areas, and general high levels of human activity in the lower valley. Existing bald eagle use would not be affected. Northern spotted owls would be adversely affected from multiple sources. These would combine to possibly preclude the potential nesting use of the lower valley by owls. Potential and occupied northern goshawk nesting sites could be adversely affected from human activities. The harlequin duck would be adversely affected from the loss of riparian areas and the continued construction of river control structures. The species-level biological diversity of the park complex would be adversely affected through impacts from this alternative.

This alternative provides some protection in addition to that provided by existing laws and regulations for water resources.

Compared to existing conditions, the no-action/minimum requirements alternative would increase the total energy-related air pollutant emissions within the Stehekin Valley by 12%, particularly for oxides of nitrogen if demand for electricity increases. Conversion to high-efficiency woodburning units and other energy conservation measures would help reduce some air pollutant emissions. Prescribed fire emissions and increases in dust and vehicle emissions would adversely affect the recreation area's air quality.

The incremental development of public facilities as well as an expanding private residential presence associated with the no-action alternative would affect visual resources. The shoreline of the lake and private parcels of land located on the river or along the Stehekin Valley road would be developed to service visitors or for private residences. Demands by both residents and visitors for additional services and facilities would create changes to the resources in the valley. These changes would affect visually sensitive areas and key viewpoints.

Cultural resource management actions would be more limited than under the proposed action, resulting in the possible deterioration or loss of some cultural resources and elements of the historic landscape and the lack of an interpretive program.

Visitors would have diverse means of access to prime natural, cultural, scenic, and recreational resources without significantly affecting park resources or degrading the experiences of other visitors.

Lake Chelan National Recreation Area

No Action/
Minimum Requirements Alternative
Stehekin Valley

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Stehekin Valley Trail
» proposed 11–mile valley trail from Stehekin Landing to High Bridge

Stehekin Valley Road
» shuttle service to continue from Stehekin Landing to Cottonwood Camp (may or may not be Park Service operated)

4.3 miles to Bridge Creek
11.3 miles to Cottonwood Camp

Harlequin Bridge
» retain existing campground, housing, and maintenance facilities

Rainbow Falls

Company Creek Road
» maintain existing road alignment and utilize erosion control measures

Stehekin Landing
» retain existing facilities

Gravel Pit

High Bridge Historic District
» rehabilitate structures and use as ranger station

Airstrip area
» retain existing state–operated airstrip

Buckner Orchard Historic District
» preserve and restore on a priority basis

Weaver Point Campground
» retain existing facilities

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Riddle Creek
» retain existing leased, private cabins

NORTH
0 1 2 miles

- Double lane paved road
- Single lane paved road
- Double lane gravel road
- Single lane gravel road
- Primary trails
- NPS visitor facility and administrative areas
- Managed woodlots
- Campgrounds
- Private, leased cabins
- Designated wilderness
- Rivers, creeks, and lakes

Moderate increases in visitor arrivals (30%) would cause moderate increases in vehicular congestion, noise, and potential accidents in the national recreation area compared to existing conditions. Increased use would require increased maintenance of facilities, roads, and trails. Existing facilities would meet the additional demand.

The no-action/minimum requirements alternative would have modest positive impacts on the regional economy. By 2007 visitor arrivals and lodging spaces would increase by about 30%. Visitor expenditures are projected to increase accordingly. When all direct, indirect, and induced affects are counted, total FTE employment, earnings, and output are projected to increase substantially above 1992 levels.

The net fiscal impacts on the Chelan County general and road funds would have a higher surplus in 2007 than 1992. The school district is expected to have 28 pupils in 2007, with a net fiscal surplus slightly lower than 1992–93 school year.

Chelan County PUD No. 1 operates the Stehekin system at a deficit. This would continue under this alternative.

Services provided by the National Park Service and their costs would expand by the full-implementation year, 2007.

Community economic impacts would be favorable due to gradually increased commercialization of visitor services. The Park Service would purchase land as sellers became willing and funds became available.

ALTERNATIVE A

CONCEPT AND DESCRIPTION

Under alternative A, Lake Chelan NRA would be a wild, natural area where resources and natural processes would be largely undisturbed and protected. Natural forces would be allowed to slowly remove evidence of manmade occupation.

Removal of existing river control structures would be pursued, and new river shoreline or bank protection structures on both federal and nonfederal lands would be prohibited. The removal or manipulation of woody debris from the river would be prohibited.

The mining of sand, rock, and gravel would be prohibited within the valley. All borrow pits would be restored to natural contours and vegetative cover.

Natural ignitions would be suppressed on the valley floor for the protection of human life and property. Management-ignited prescribed fire would be used to achieve desired stand conditions.

Woodlot cutting of firewood would stop immediately and the use of administrative wood would be phased out.

The Golden West Lodge would be rehabilitated; the associated historic cabins would be removed. The High Bridge Historic District would be rehabilitated. A minimum amount of Buckner artifacts should be acquired for interpretive purposed, and the remaining artifacts removed from Stehekin Valley by the family.

The airstrip would be closed and restored to natural conditions.

The Stehekin Valley road between the Landing and Cottonwood Camp would be converted to a trail. Nonmotorized modes of transportation would be used on this trail. Company Creek road would be converted to a trail.

All NPS and concession housing and maintenance and related facilities would be substantially reduced and located at the Landing. NPS recreation area headquarters would be in Chelan, and a reduced office space would remain at the Landing. All lodging would be removed. Appropriate areas at the Landing and other areas in the Stehekin Valley would be restored to natural conditions.

Land protection would involve acquisition, on a willing seller/willing buyer basis, or by eminent domain authority, all private lands within the recreation area. Acquisition would be with fee title purchase method.

Only those services that promote solitude and primitive recreational experiences would be provided. Services essential for resource protection and visitor health and safety would be provided.

ENVIRONMENTAL CONSEQUENCES

Overall, compared to the other alternatives, alternative A has the greatest long-term beneficial impacts on natural resources. For natural river processes and habitat for fish and other aquatic species, this would include restoration of 90 acres of the Stehekin River floodplain and removal of instream modifications. Acquiring private lands with the owner's consent would eventually provide additional long-term protection for another 167 acres of floodplain. Potentially hazardous conditions associated with flooding would be reduced substantially by removing NPS buildings, facilities, and roads, and acquiring private land now located in floodplain or other geohazard areas.

A total of 67 acres of habitat in or near wetlands would be restored where possible, and another 63 acres would be protected by acquisition. In addition, 315 acres of riparian communities and 247 acres of upland communities would be protected or restored.

Under this alternative, the integrity of existing native fish populations and habitat would be enhanced, and native cutthroat and bull trout populations would be reestablished in most of their historic habitat within the Stehekin drainage on NPS lands.

Both the upper and lower valley would be permanently protected and available as habitat for all species. For gray wolves, grizzly bears, Pacific fishers and possibly California wolverines — all wide-ranging predators — this is particularly important given the valley's unique geographic and ecologic position in the surrounding ecosystem. Potential nesting habitat for northern spotted owls, bald eagles, and northern goshawks would be available for recolonization, assisting in meeting the goals of recovery plans for the first two species. Harlequin ducks would not be displaced from important breeding habitat. Forest habitat for flammulated owls, Vaux's swifts, pileated woodpeckers, and western gray squirrels would be protected permanently.

Potential water resource impacts would be reduced substantially by restoring most land disturbance and minimizing use of fuels and other toxic materials. Only minimal lakeshore erosion would be caused by wave action from boat or floatplane traffic compared to that caused by lake elevation fluctuation and natural wave action.

Alternative A would have the greatest long-term beneficial impact on air quality. Compared to existing conditions, alternative A would eventually decrease the total energy-related air pollutant emissions within the Stehekin Valley by 99%. Diminishing vehicle use and revegetation of disturbed areas would also gradually improve air quality. Natural wildland fires would adversely affect the recreation area's air quality.

Visual resources would be enhanced. The potential to experience these resources by visitors to the area would be limited because of the reduction in viewing opportunities due to the elimination of culturally manipulated open spaces and restricted views from the shoreline and the valley road/trail.

Cultural resource management actions would be limited, resulting in the deterioration or loss of significant historic landscapes and historic properties and the lack of an interpretive program. There would be no impacts on any known archeological sites.

Visitors would have more opportunities for nonmotorized activities and fewer opportunities for motorized activities. Elderly, sedentary, and disabled visitors would have few opportunities to experience national recreation area resources and values.

Slight decreases in visitor arrivals and closing the airstrip and roads would eventually eliminate most vehicular congestion, noise, and potential accidents in Lake Chelan NRA. All maintenance equipment and activities to support motorized vehicles on the roadway system would eventually be eliminated. Landing facilities would be modified to meet pedestrian needs.

Alternative A would have modest negative effects on the regional economy. By 2007 visitor arrivals would decline about 7% from 1992. Lodging spaces would decline substantially to about 27% of the 1992 level. Visitor expenditures would decline to a level somewhat below that in 1992. Total direct, indirect, and induced effects generate employment, earnings, and output below those for 1992.

Lake Chelan National Recreation Area

Alternative A
Stehekin Valley

Lake Chelan National Recreation Area
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4.3 miles to Bridge Creek
11.3 miles to Cottonwood Camp

Stehekin Valley Trail
» convert road to trail

Harlequin Bridge
» convert existing campground to primitive backcountry type
» relocate maintenance facilities to Stehekin Landing

new pedestrian suspension bridge

Rainbow Falls

Company Creek Trail
» convert road to trail

High Bridge Historic District
» preserve ranger station and use as back country station

Stehekin Landing
» see DCP
» preserve valley's natural character
» minimize developments for visitor use, remove lodging, and allow no visitor's vehicles or parking

Wilderness
» convert road from High Bridge to Cottonwood Camp to a trail and seek wilderness designation for old road corridor

Airstrip area
» restore to natural conditions

Buckner Orchard Historic District
» document historic landscapes and structures and allow natural processes to reclaim site

Weaver Point Campground
» relocate sites back from shoreline

LAKE CHELAN

Riddle Creek
» remove permitted, private cabins and restore to natural conditions

NORTH

0 1 2 miles

- Primary trail
- NPS visitor facility and administrative areas
- Campground
- Designated wilderness
- Rivers, creeks, and lakes

Alternative A

Stehekin Landing Development Concept Plan

Lake Chelan National Recreation Area

United States Department of the Interior • National Park Service

DSC • June 95 • 168 • 20,075A

NORTH

0 120 240 feet

Trail

New structure

Existing structure

Structure to be removed

1450

1350

1250

1150

Water storage

To Purple Pass Trail

PURPLE CREEK

IMUS CREEK

NPS boat dock

NPS and concessionaire staff housing

Historic bathing pool remnant

Golden West historic district boundary

Golden West: district headquarters on upper floors

Sewage treatment plant

Remove buildings and road; revegetate

Groceries
Post office

Ramp and winter dock for barge

Floating dock for ferry landing

NPS shelter, point of contact at grade with landing

Loading area

Boat fuel/pump out

Retain Purple Point Campground

Reshape and revegetate shoreline

Convert road to trail

Relocate existing dock to Weaver Point

LAKE CHELAN

The net fiscal effects for the Chelan County general and road funds would be the lowest of the alternatives. The school district is projected to have 14 pupils and the lowest net fiscal balance (revenues in excess of expenditures) of the five alternatives.

Chelan County PUD No. 1 would have a lower operating deficit and might even break even on operations. NPS-provided public services would decline especially in view of the withdrawal of concession-provided food and lodging.

Impacts on the community by the year 2007 would be slightly negative. The NPS pursuit of land purchase and compatibility of uses would be more stringent than in 1992. Business might switch to some extent to the private sector after NPS withdrawal from food/lodging provision. However, overnight visits would likely decline sharply without NPS support. Economic survival for non-NPS local residents would be more difficult.

ALTERNATIVE B

CONCEPT AND DESCRIPTION

Under alternative B, Lake Chelan NRA would be a rural woodland gateway to the North Cascades where the use of resources by visitors and residents would be limited in order to preserve the natural, scenic, and cultural values of the area.

Riverbank protection structures would be allowed for protection of existing improvements only if no adverse impacts on the natural environment would result. The National Park Service would only consider the removal of woody debris that was a recreational hazard.

The mining of sand, rock, and gravel in the valley would be prohibited, but material could be barged in from outside the valley. All old borrow pits would be restored to natural contours and vegetative cover as appropriate. No sand, rock, and gravel would be removed from the 100-year floodplain of the Stehekin River or its tributaries.

Fire suppression, prescribed natural fire, management-ignited prescribed fire, and selective manual fuel reductions would be used to improve wildland fire protection for human life and property; to manage for late-succession stage in ponderosa pine/Douglas fir forest; and to monitor and evaluate manual thinning and prescribed fire effects over time.

Human- and lightning-caused fires on the valley floor would be suppressed for the protection of human life and property.

Selective manual thinning and management-ignited prescribed fire would be used in forest fuel reduction areas to accomplish the following objectives:

- to reduce the amount of fuel in strategically located sites for more effective fire protection
- to strive for a 40%–60% forest canopy cover in some areas based on the mature forest component
- to perpetuate a multiaged ponderosa pine/Douglas fir forest
- to restore the effects of low-intensity fire
- to provide firewood for Stehekin residents from surplus logs as a secondary objective, contingent upon meeting the other objectives

Selective manual thinning would precede management-ignited prescribed fire treatment in some of the forest fuel reduction areas. Coniferous trees may be thinned in riparian communities within the fuel reduction areas.

The practice of woodlot cutting for firewood would be phased out over a two-year period while the forest fuel reduction areas are established.

When available, firewood would be provided from the following sources:

- hazard trees that are pruned or removed in accordance with an approved hazard tree management plan
- blowdown trees in developed areas
- trees removed to restore historic landscapes in historic districts
- trees removed because of new development
- trees pruned or removed for fire protection as a result of hazard fuel

surveys for government-ow
structures

- driftwood within the high-pool limits of Lake Chelan

- trees removed from forest fuel reduction areas by selective manual thinning

Firewood would be provided at fair market value. There would be no guarantee of firewood cordage per year. The firewood supply would probably diminish over the long term.

The Golden West Lodge would be rehabilitated; the associated historic cabins would be retained. The High Bridge Historic District would be rehabilitated. A collections storage/museum curatorial facility should be constructed in Stehekin Valley.

The airstrip would be closed. Some NPS and concession housing, maintenance, and related facilities would be consolidated on and beside the closed airstrip.

The Stehekin Valley road between the Landing and Harlequin Bridge would remain a two-lane paved road: from Harlequin Bridge to High Bridge it would be reduced to a single-lane gravel road with pullouts; and between High Bridge and Cottonwood Camp the road would be converted to a pedestrian trail. Company Creek road would be maintained in its current alignment except for a 200-yard section that would be removed and replaced with a 0.9-mile section located away from active river erosion.

Stehekin Landing would be redesigned to improve visitor flow and parking and to relocate the lodging and other facilities away from the geohazards. Relocation would occur as the end of the life cycle of structures was reached.

Land protection would emphasize high flood influence areas, wetlands, riparian areas, and high visual sensitivity areas. Other land use

on private land would be done by Chelan County.

Services to accommodate existing and reasonable demand for expanded recreational experiences would be provided. The National Park Service would provide services essential for resource protection and visitor health and safety. Private contracts would be used where appropriate.

ENVIRONMENTAL CONSEQUENCES

This alternative would generally have beneficial effects on natural river processes and habitat for fish and other aquatic species, including restoration of 26 acres of the Stehekin River floodplain. However, instream modifications could adversely affect natural river processes and aquatic habitat. Acquiring interests in private lands with the owner's consent eventually would provide additional long-term protection for another 153 acres of floodplain. Potentially hazardous conditions associated with flooding would be reduced substantially by relocating most NPS facilities and acquiring land interests now located in floodplain or geohazard areas.

Approximately 18 acres of habitat in or near wetlands would be restored where possible and another 63 protected by acquiring interests. Existing road disturbance would continue to adversely affect about 1.2 acres of wetlands.

A total of 144 acres of riparian communities would be protected or restored, and up to 74 acres would be affected by prescribed fire. A total of 81 acres of upland communities would be protected or restored, and 636 acres would be affected by prescribed fire and thinning.

Alternative B would enhance the integrity of existing native fish populations and habitat and would also reestablish native cutthroat and bull trout populations in part of their historic habitat within the Stehekin drainage.

Lake Chelan National Recreation Area

Alternative B
Stehekin Valley

Lake Chelan National Recreation Area
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4.3 miles to Bridge Creek
11.3 miles to Cottonwood Camp

Stehekin Valley Road
» provide NPS and/or commercial shuttles from Stehekin Landing to High Bridge

Harlequin Bridge
» retain existing campground

new pedestrian suspension bridge

Rainbow Falls

Company Creek Road
» relocate section of road away from river

Gravel Pit

Stehekin Landing
» see DCP
» preserve rural setting and locate facilities in least environmentally sensitive areas away from geohazards
» improve visitor flow and parking

High Bridge Historic District
» rehabilitate structures and use for NPS operations

Airstrip area
» see DCP
» close airstrip and use for NPS and concessioner support facilities
» Restore unused areas to natural conditions

Wilderness
» convert road from High Bridge to Cottonwood Camp to a trail and seek wilderness designation for old road corridor

Buckner Orchard Historic District
» rehabilitate homestead and orchard for enhanced visitor use

Weaver Point Campground
» expand and relocate sites back from shoreline

LAKE CHELAN

Riddle Creek
» replace permitted, private cabins with less intrusive public camp sites

NORTH

0 1 2 miles

- Double lane paved road
- Single lane gravel road
- Primary trail
- NPS visitor facility and administrative areas
- Forest fuel reduction areas
- Campground
- Designated wilderness
- Rivers, creeks, and lakes

Alternative B

Airstrip Area Development Concept Plan

Lake Chelan National Recreation Area

United States Department of the Interior • National Park Service

DSC • June 95 • 168 • 20,073A

NPS and concessioner housing – each unit represents a two-story structure containing a combination of efficiency and two-bedroom units

Permit/cleared boundary

Company Creek Road

Storage barn

Restore area of airstrip and permit/cleared boundary to natural conditions

NORTH

0 160 320 feet

New road

New structures

Equipment and supply storage

Hazardous materials storage

Equipment repair building

Vehicle fuel

Propane storage

Helipad

Recycling barn

NPS office

Search and rescue fire cache

Existing gravel pit area

1190

1200

1210

1220

1230

1240

1250

1260

1270

1280

Impacts on threatened, endangered, or rare species are largely the same as those for the proposed action with the following exceptions. Three spotted owl nest sites would be better protected by the closure of the road between High Bridge and Bridge Creek. The closure of the upper valley road may benefit gray wolves, grizzly bears, Pacific fishers, and harlequin ducks.

Alternative B would reduce impacts on water resources compared to existing conditions. Only minimal lakeshore erosion would be caused by wave action from boat or floatplane traffic compared to that caused by lake elevation fluctuation and natural wave action.

Impacts on air quality would be the same as for the proposed action, except above High Bridge where vehicle-caused pollution would be less.

Under alternative B, visual resources would be improved. The opportunity to experience these resources by residents and visitors to the valley would increase because of the development of a vista and view clearing component to the vegetation management plan.

Cultural resource management actions would be limited, resulting in the deterioration or loss of significant historic landscapes and historic properties and the lack of an interpretive program. There is a possibility that one historic and two prehistoric archeological sites would be affected. No significant adverse effects are anticipated.

Impacts on visitor experiences would be the same as those for the proposed action, with greater access to river rafting and more limited access to interpretive activities.

Impacts on access and transportation would be similar to those for the proposed action.

Similar to the proposed action, alternative B would have moderate but positive effects on the regional economy. By 2007, visitor arrivals and lodging spaces would increase by 40%. Visitor expenditures and total employment would increase by about 37%.

The net fiscal impacts on the Chelan County general and road funds would have a higher surplus in 2007 than in 1992. The school district is expected to have 24 pupils in 2007 and would generate a higher net fiscal surplus than in the 1992–93 school year.

Chelan County PUD No. 1 supplies power on a chronically deficit basis for the Stehekin system. Power costs are a limiting factor to Stehekin growth. A rate increase may be necessary over the next 15 years.

NPS-provided activities and their costs would expand somewhat in response to growth in visitor use and development levels.

Impacts on the community would be generally favorable. The National Park Service would require compatibility and would pursue land acquisition as sellers became willing and funds became available.

ALTERNATIVE C

CONCEPT AND DESCRIPTION

Under alternative C, Lake Chelan NRA would be a retreat/refuge/resort where resources and natural processes are showcased for the enjoyment of visitors.

Protection of existing public or private improvements threatened by river erosion and flooding would be allowed. Removal and manipulation of woody river debris that causes severe erosion problems or safety hazards, including hazards to recreational activity, would be allowed.

The currently active sand, rock, and gravel borrow pit would be reclaimed as new excavation occurred. The size of the pit would remain constant. New pits would be established if the existing pit was depleted. Mining of sand, rock, or gravel from the 100-year floodplain of the Stehekin River or its tributaries could occur only if there were no adverse impacts.

Selective manual forest fuel reduction techniques would be used in selected areas rather than management-ignited prescribed fire to reduce hazard forest fuel loadings. Human- and lightning-caused fires on the valley floor would be suppressed for the protection of human life and property.

Woodlot cutting would be stopped within the next two years to allow the establishment of Company Creek road designated firewood area.

Firewood when available would be provided from the following sources:

- hazard trees that are pruned or removed in accordance with an approved hazard tree management plan
- blowdown trees in developed areas
- trees removed to restore historic landscapes in historic districts
- trees removed because of new development
- trees pruned or removed for fire protection as a result of hazard fuel surveys for government-owned structures
- driftwood within the high-pool limits of Lake Chelan

When fewer than 120 cords are supplied from administrative sources, an additional supply would be provided that, when added to the administrative wood, would not total more than 120 cords of firewood. The 120-cord limit should be reduced by an estimate of the amount eliminated by NPS conversions to other energy sources.

Selective cutting techniques would be used for the additional supply that comes from a designated area. These techniques are intended to retain the genetic stock of dominant trees of a species, preserve all existing layers of the vegetative community, and otherwise leave intact all elements and processes of the ecosystem.

All public lands within 250 feet of the Company Creek road or any historic roads on the south side of the river would be included within a designated area. The boundary of the designated area would be drawn on a map. No firewood cutting would be permitted in wetlands.

The Golden West Lodge, High Bridge Historic District, and Buckner homestead and orchard would be rehabilitated. A collection storage/museum curatorial facility should be constructed in Stehekin Valley.

The airstrip would be managed by the National Park Service for emergency use only.

The Stehekin Valley road between the Landing and Harlequin Bridge would remain a two-lane paved road: from Harlequin Bridge to High Bridge it would become a single-lane, paved road with pullouts; from High Bridge to Cottonwood Camp it would be maintained in its current condition except for some minor safety and comfort improvements. Company Creek road would be maintained in its current alignment except for a 300-yard section that would be removed, rehabilitated, and replaced with a 1.4-mile section located away from active river erosion.

Some NPS and concession seasonal housing, maintenance, and related facilities would be consolidated beside the airstrip in such a way as to not impair aircraft operations. The Landing would be redesigned to improve visitor flow and parking and to relocate facilities away from the geohazards. Lodging would be expanded and relocated from the Landing to the Rainbow Falls site.

Land protection would emphasize high flood influence areas, wetlands, and high visual sensitivity areas. Other land use control on private land would be done by Chelan County.

Services that promote expanded recreational experiences would be provided. Services to accommodate existing and reasonable demand for expanded recreational experiences would be provided. The National Park Service would provide services essential for resource protection and visitor health and safety. Private contracts would be used where appropriate.

ENVIRONMENTAL CONSEQUENCES

This alternative would generally have beneficial effects on natural river processes and habitat for fish and other aquatic species, including restoration of 16 acres of the Stehekin River floodplain. Instream modifications could adversely affect natural river processes and aquatic habitat. Acquiring interests in private lands with the owner's consent eventually would provide additional long-term protection for another 118 acres of floodplain. Potentially hazardous conditions associated with flooding would be reduced substantially by relocating most NPS facilities and acquiring land interests now located in floodplain or geohazard areas.

Alternative C generally would have beneficial effects on wetlands. Approximately 17 acres of wetlands would be restored where possible and another 63 protected by acquiring interests. Existing road disturbance and vegetation management activities to maintain the airstrip would adversely affect about 6.7 acres of vegetated wetlands.

A total of 70 acres of riparian communities would be protected or restored, and up to 74 acres would be affected by prescribed fire. A total of 53 acres of upland communities would be protected, and up to 837 acres would be affected by prescribed fire, thinning, and firewood cutting.

Alternative C would provide additional protection for existing native cutthroat and bull trout populations. Native fish populations may become reestablished in portions of the Stehekin drainage because of supplemental stocking and control of nonnative species.

This alternative would have the greatest impacts on sensitive wildlife species. Expected levels of development and human activity in the lower valley would represent a permanent loss of this area as usable habitat for the following species: gray wolf, bald eagle (nesting), grizzly bear, northern spotted owl (nesting), Pacific fisher, northern goshawk (nesting), and possibly harlequin duck. The species-level biological diversity of

Lake Chelan National Recreation Area

Alternative C
Stehekin Valley

Lake Chelan National Recreation Area
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4.3 miles to Bridge Creek
11.3 miles to Cottonwood Camp

Stehekin Valley Road
» shuttle service to continue from Stehekin Landing to Cottonwood Camp (may or may not be Park Service operated)

Harlequin Bridge
» retain existing campground

Rainbow Lodge
» see DCP for Rainbow Falls

Rainbow Falls

new pedestrian suspension bridge

Company Creek Road
» relocate section of road away from river

Gravel Pit

Stehekin Landing
» see DCP
» increase visitor services
» disperse facilities

High Bridge Historic District
» rehabilitate structures and use for NPS operations

Airstrip area
» same as Proposed Action DCP except airstrip retained for emergency purposes only

Buckner Orchard Historic District
» rehabilitate homestead and orchard for enhanced visitor use

Weaver Point Campground
» relocate sites back from shoreline

LAKE CHELAN

Riddle Creek
» retain leased, private cabins

NORTH

0 1 2 miles

- Double lane paved road
- Single lane paved road
- Single lane gravel road
- Primary trail
- NPS visitor facility and administrative areas
- Forest fuel reduction areas
- Designated firewood collection area
- Campground
- Leased, private cabins
- Designated wilderness
- Rivers, creeks, and lakes

Alternative C

Stehekin Landing Development Concept Plan

Lake Chelan National Recreation Area

United States Department of the Interior • National Park Service

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NORTH

0 120 240feet

Trail

New road

New structure

Existing structure

Structure to be removed

1450

850

1250

150

Water storage

To Purple Pass Trail

PURPLE CREEK

IMUS CREEK

Shuttle parking

NPS boat dock

Concessionaire staff housing

Historic bathing pool remnant

Golden West historic district boundary

Golden West: district headquarters on upper floors

Visitor parking 34 spaces

Remove buildings & road: revegetate

Bus parking

New road section

one way

Sewage treatment plant

Interpretive trail and buildings

Shops

Groceries and concession office

Post office

Retain Purple Point Campground

two way

one way

Barge dock

Ramp and winter dock for barge

Floating dock for ferry landing

NPS shelter, point of contact at grade with landing

Parking and loading area, 6 spaces

Boat fuel/pump out

Reshape and revegetate shoreline

Remove existing dock

LAKE CHELAN

Alternative C

Rainbow Falls Development Concept Plan

Lake Chelan National Recreation Area

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STEHEKIN RIVER

River viewpoint

Nature trail

Pump house

300,000 gallon reservoir underground

RAINBOW FALLS

Viewpoints

Picnic area

Remove roads and restore to natural conditions

River trail

Overnight lodging

Entrance

Grocery/ deli

Meadow/ drain field

Housekeeping cabins

Information and rental

Maintenance

Staff housing

Drain field reserve area

RAINBOW CREEK

Old Stehekin School

Day use bus/shuttle stop for Rainbow Falls and trails

Paved bicycle and pedestrian trail

TO LANDING

Add foot bridge to accommodate trail

Community center

TO ORCHARD

1800

1700

1600

1500

1400

1300

1200

1100

1000

NORTH

0 120 240feet

Trail

New road

Road to be removed

New structures

Existing structures

the park complex would be adversely affected under this alternative.

Alternative C would reduce impacts on water resources compared to existing conditions. Only minimal lakeshore erosion would be caused by wave action from boat or floatplane traffic compared to that caused by lake elevation fluctuation and natural wave action.

Compared to existing conditions, alternative C would increase the total energy-related air pollutant emissions within the Stehekin Valley by 27%, particularly for oxides of nitrogen if demand for electricity increases. Conversion to high-efficiency woodburning units and other energy conservation measures would help reduce some air pollutant emissions. Increases in dust, vehicle, and prescribed fire emissions would adversely affect the recreation area's air quality.

Overall, the increased emphasis on commercial activities and the new development required to meet all future demands would place stress on the visual resources in the Stehekin Valley. In the short term, there are sufficient areas of low sensitivity, where visual resource constraints are minimal, to accommodate this demand. As the demand increased and development followed that demand, the possibility of development affecting visual resources also increases. In addition, more and more people would be encountered on the road, on trails, and at viewpoints and historic sites, thus affecting the visual experience.

Cultural resource management actions and their impacts would be the same as those under alternative B.

A wide spectrum of visitors would have diverse means of access to prime natural, cultural, scenic, and recreational resources with some impacts on park resources and the experiences of other visitors.

Major increases in visitor arrivals (105%–110%) would cause substantial increases in vehicular congestion, noise, and potential accidents in the national recreation area compared to existing conditions. Increased use would require increased maintenance of facilities, roads, and trails. New or improved facilities would be needed at the Landing to meet the additional demand. Alternative C would have the highest positive impacts on the regional economy. By 2007 visitor arrivals and lodging spaces would increase. Visitor expenditures are also the largest among the five alternatives. The total direct, indirect, and induced activities are projected to generate workers, earnings, and output at more than double those of 1992.

The net fiscal impacts on the Chelan County general and road funds would have a higher surplus in 2007 than in 1992. The school district is expected to have 32 pupils in 2007.

Service demands and costs would increase for the Chelan-Douglas Health District and Chelan County PUD No. 1, although these are funded by fees. NPS-provided services and costs would also expand substantially.

Community effects would reflect less stringent NPS policies regarding commercialization of visitor services, resource use compatibility, and land purchase. Local residents would have greater business opportunities, but might face competition from outsiders.

SUMMARY OF ALTERNATIVES

ACTION ITEM	PROPOSED ACTION	NO-ACTION/MINIMUM REQUIREMENTS ALTERNATIVE
Concept	The rustic setting of Lake Chelan NRA would be part of a transition from the downlake recreational, residential, agricultural, and industrial setting to the very wild and natural North Cascades National Park. The use of NRA resources by visitors and residents would be limited to preserve the natural, scenic, and cultural values of the area.	Lake Chelan NRA would be a rural resort community where resources are used, within limits, by an expanding residential presence. This alternative is the 1988 *General Management Plan* and supporting plans.
Water Quality	Baseline water resource parameters would be inventoried. Adjacent land uses and their effects on water resources would be monitored in order to develop management strategies for minimizing impacts. The Park Service would take action where extremely adverse actions occur that violate the Clean Water Act and significantly threaten water resources.	The National Park Service would inventory and monitor water quality to evaluate changes and ensure compliance with standards. There would be no restrictions on lake use.
Fish	Resource inventory, monitoring, and research programs would be pursued to enhance the knowledge of native fish populations and their habitat to determine and evaluate change in response to habitat dynamics, nonnative fish species, recreational fishing, land use, and management actions.	Resource inventory, monitoring, and research programs would be pursued to enhance the knowledge of native fish populations and their habitat, and to evaluate effects of angler harvest and management actions. Nonnative fish species that threaten existing native fish populations would be controlled.
Stehekin River	The National Park Service would not manipulate the Stehekin River or its tributaries nor manipulate woody debris except to protect public roads and bridges. Woody debris could be trimmed or turned in the lower 9 miles of the Stehekin River to allow safer river running if it did not alter the function or stability of woody debris accumulations and was permitted by the appropriate regulatory agency. Woody debris would not be removed from the river system in any case. The Park Service also would not manipulate the river nor manipulate or remove woody debris to protect private property. The Park Service would discourage private owners from manipulating the Stehekin River or removing woody debris on their land to protect their property, but would take no action to prevent owners from doing so, unless such actions would harm NRA resources or would not be in compliance with local, state, or federal ordinances, regulations, or laws. But, such actions would not be encouraged.	River erosion and flooding would be controlled only to protect life, health, existing public roads, and bridges. Immediate flood hazards to private property would be alleviated using minimum actions. Research would be conducted to evaluate stream resource use impacts and to recommend stream-bank protection measures that minimize impacts.

Alternative A	Alternative B	Alternative C
Lake Chelan NRA would be a wild, natural area where resources and natural processes would be largely undisturbed and protected. Natural forces would be allowed to slowly remove evidence of manmade occupation.	Lake Chelan NRA would be a rural woodland gateway to the North Cascades where the use of resources by visitors and residents would be limited in order to preserve the natural, scenic, and cultural values of the area.	Lake Chelan NRA would be a retreat/ refuge/resort where resources and natural processes are showcased for the enjoyment of visitors.
Baseline water resource parameters would be inventoried and monitored to evaluate effects of land and water use, and to comply with standards and regulations. Nonessential land and water uses that threaten water quality and quantity should be eliminated where feasible and the best management practices implemented where not feasible.	Baseline water resource parameters would be inventoried and monitored to evaluate effects of land and water use, and to ensure compliance with standards and regulations.	Baseline water resource parameters would be inventoried and monitored to evaluate effects of land and water use, and to comply with standards and regulations. The best pollution control measures would be implemented to minimize the risk of water pollution. There would be no restrictions on recreational water use.
Resource inventory, monitoring, and research programs would be pursued to enhance the knowledge of native fish populations and their habitat, and to evaluate effects of angler harvest and management actions. Nonnative fish species would be eliminated and native fish and their habitat restored throughout their range. Only catch and release fishing would be allowed.	Same as proposed action.	Resource inventory, monitoring, and research programs would be pursued to enhance the knowledge of native fish populations and their habitat to determine and evaluate change in response to habitat dynamics, exotic fish species, recreational fishing, land use, and management actions. Nonnative fish species that jeopardized threatened, endangered, or candidate fish species would be controlled.
Removal of existing river control structures would be pursued and new river shoreline or bank protection structures on both federal and nonfederal lands would be prohibited. The removal or manipulation of woody debris from the river would be prohibited.	Riverbank protection structures would be allowed for protection of existing improvements only if no adverse impacts on the natural environment would result. The National Park Service would consider the removal of woody debris that was only a recreational hazard.	Protection of existing public or private improvements threatened by river erosion and flooding would be allowed. Removal and manipulation of woody river debris that causes severe erosion problems or safety hazards, including hazards to recreational activity, would be allowed.

Action Item	Proposed Action	No-Action/Minimum Requirements Alternative
Wetland, Floodplain, Shoreline, and Riparian Areas	Existing NPS development in these areas (except significant cultural resources) would be relocated to suitable sites and the disturbed sites restored to natural conditions. The National Park Service would take appropriate measures where actions threatened to cause significant impacts in these areas.	No action would be taken that supports further development of the 100-year floodplain; developments would not be removed from wetlands. Shoreline between the Landing and head of the lake would be restored to natural conditions and made available for public recreation.
Sand, Rock, and Gravel Plan Elements	The active sand, rock, and gravel borrow pit would be maintained at less than or equal to its current size. There would be no new borrow pits. Old inactive borrow pits would be restored to natural-like contours and vegetative cover as appropriate. Allocation of pit material for local residents only would be based on available supply, resource impacts, and type of use. Pit material sold to the public would be at fair market value. No sand, rock, or gravel would be removed from the 100-year floodplain of the Stehekin River or its tributaries.	The currently active sand, rock, and gravel borrow pit would be reclaimed as new excavation occurs. The size of the pit would remain constant. New pits would be established if the existing pit was depleted. Mining of sand, rock, or gravel from the 100-year floodplain of the Stehekin River or its tributaries could occur only if there were no adverse impacts.
Geohazards	New NPS facility developments would not be sited in geohazard areas, and existing NPS/concessioner development would be relocated away from geohazards. The National Park Service, through cooperative efforts with state and local agencies, would oppose private commercial visitor facilities in geohazard areas.	Same as proposed action. Existing private development would be protected from geohazards or relocated.
Forest Fuel Reduction / Firewood Management Plan Elements	Human- and lightning-caused fires on the valley floor would be suppressed for the protection of human life and property. Prescribed natural fire would be used beyond the valley floor, when conditions were appropriate, to maintain the natural role of fire on mountain slopes and upstream from High Bridge.	Where feasible, federal lands would be treated with prescribed fire to reduce fuels. A program would be implemented to reduce hazardous fuels adjacent to developments and private land. Naturally ignited fires burning under prescribed conditions would be suppressed in the lower Stehekin Valley.

Alternative A	Alternative B	Alternative C
All nonessential development would be removed from public wetland, floodplain, shoreline, and riparian areas and the habitat restored to natural conditions. Over time, all properties would be acquired, with the consent of the owners.	Same as proposed action.	Same as proposed action.
	The National Park Service would seek to acquire properties that have significantly threatened these areas.	The National Park Service would work with property owners to encourage public access and recreation as well as minimize impacts. It would seek to acquire properties or interest where uses most significantly threatened these areas.
The mining of sand, rock, and gravel would be prohibited within the valley. All borrow pits would be restored to natural contours and vegetative cover.	The mining of sand, rock, and gravel in the valley would be prohibited, but material could be barged in from outside the valley. All old borrow pits would be restored to natural contours and vegetative cover as appropriate. No sand, rock, and gravel would be removed from the 100-year floodplain of the Stehekin River or its tributaries.	The currently active sand, rock, and gravel borrow pit would be reclaimed as new excavation occurs. The size of the pit would remain constant. New pits would be established if the existing pit was depleted. Mining of sand, rock, or gravel from the 100-year floodplain of the Stehekin River or its tributaries could occur only if there were no adverse impacts.
Minimal new NPS development would be sited to avoid geohazards. Existing NPS or private development that is in geohazard areas or affects geological processes would be removed.	Same as proposed action.	New NPS developments and recreational facilities would be sited to avoid geohazards, and existing development would be protected from geohazards or relocated.
	Same as proposed action.	Same as proposed action.
Human- and lightning-caused fires on the valley floor would be suppressed for the protection of human life and property. Forest fuel reduction would only be used to restore/maintain a naturally open stand structure in ponderosa pine/Douglas fir forest.	Same as proposed action.	Same as proposed action.
Same as proposed action.	Same as proposed action.	Same as proposed action.

Action Item	Proposed Action	No-Action/Minimum Requirements Alternative
Forest Fuel Reduction / Firewood Management Plan Elements (cont.)	Selective manual thinning and management-ignited prescribed fire would be used in forest fuel reduction areas to • reduce the amount of fuel in strategically located sites for more effective fire protection • strive for a 40%–60% forest canopy cover in some areas • perpetuate a multiaged ponderosa pine/Douglas fir forest • restore effects of low-intensity fire • provide firewood for Stehekin residents from surplus logs as a secondary objective Selective manual thinning would precede management-ignited prescribed fire treatment in some of the forest fuel reduction areas. Coniferous trees may be thinned in riparian communities within the fuel reduction areas.	
	The practice of woodlot cutting for firewood would be phased out over a two-year period to enable the establishment of long-term monitoring plots and resource baseline data collection in forest fuel reduction areas.	Firewood would be obtained from harvesting 1-acre woodlots managed on an 80-year rotation for sustained-yield production. Administrative surplus trees cut by the National Park Service and driftwood from the lake would also be used as firewood.
	When available, firewood would be provided from the following sources: • hazard trees that are pruned or removed in accordance with an approved hazard tree management plan • blowdown trees in developed areas • trees removed to restore historic landscapes in historic districts • trees removed because of new development • trees pruned or removed for fire protection as a result of hazard fuel surveys for government-owned structures • driftwood within the high-pool limits of Lake Chelan • trees removed from forest fuel reduction areas by selective manual thinning	

ALTERNATIVE A	ALTERNATIVE B	ALTERNATIVE C
A fire suppression strategy would be applied equally throughout the valley. Management-ignited prescribed fire would be the only tool used to achieve desired stand conditions.	Same as proposed action.	Differs from proposed action in that the criteria for forest fuel reduction areas would be based primarily on a suppression strategy. Selective manual thinning would be the only tool employed to achieve desired stand conditions.
	Same as proposed action.	
The cutting of wood for firewood on public lands would be discontinued. Woodlot cutting of firewood would be stopped immediately and the use of administrative wood would be phased out.	Same as proposed action.	Woodlot cutting would be stopped within the next two years to allow the establishment of Company Creek road designated firewood area. When available, firewood would be provided from the following sources: • hazard trees that are pruned or removed in accordance with an approved hazard tree management plan • blowdown trees in developed areas • trees removed to restore historic landscapes in historic districts • trees removed because of new development • trees pruned or removed for fire protection as a result of hazard fuel surveys for government-owned structures • driftwood within the high-pool limits of Lake Chelan

Action Item	Proposed Action	No-Action/Minimum Requirements Alternative
Forest Fuel Reduction / Firewood Management Plan Elements (cont.)	Firewood would be provided at fair market value. There would be no guarantee of firewood cordage per year. The firewood supply probably would diminish over the long term, but ultimately the amount of government-supplied firewood would be significantly reduced.	Administrative surplus trees cut by the National Park Service and driftwood from the lake would be used as firewood.
	Residents with a woodcutter's permit would be able to obtain firewood from designated areas for personal, family, and business use. Residents not wishing to obtain their own firewood would be required to purchase it from the NPS contractor.	
	Firewood barged to Stehekin from other areas should be treated to eliminate potential nonnative pest species.	Fallen trees might be collected if they are within 100 feet of the road.
	Driftwood from the lake would be available for firewood, but logs and other woody debris would not be removed from the Stehekin River, to protect the diversity of fish and wildlife habitat. Firewood would be obtained from *Stehekin Valley only, not from wilderness or* the park.	Firewood would be obtained from Stehekin Valley only, not from wilderness or the park.
Other Energy Sources	Energy conservation would be encouraged through using sustainable construction and insulation materials, efficient woodstoves; eliminating NPS woodstoves as primary heat source; converting NPS electric space heating to more efficient systems; converting to propane for private and concession water and space heating needs; using propane for NPS and concession vehicles, exploring viability of solar space heating; and promoting energy conservation for all new private uses.	No specific conservation measures would be employed except for the requirement for efficient woodstoves. Energy conservation would be voluntary.
Threatened, Endangered, and Rare Species; Nonnative Species	Resource inventory, monitoring, and research programs would be implemented to enhance knowledge of biological communities and natural processes and to evaluate trends. Selected nonnative plant species that threaten to spread adversely affect NRA resources would be controlled.	The National Park Service would expand its inventory, monitoring, and research programs. Selected nonnative plants would be controlled through monitoring and mitigation, including biological control agents, herbicides, and mechanical means.
	The National Park Service would work with the U.S. Fish and Wildlife Service and other agencies to define and properly manage important habitats in an ecosystem context.	The U.S. Fish and Wildlife Service would define critical habitats.

Alternative A	Alternative B	Alternative C
Logs or wood derived from hazard trees would be used to restore disturbed sites, control soil erosion, maintain trails, and preserve historic structures. Firewood would not be provided.	Same as proposed action.	When less than 120 cords is supplied from administrative cords, an additional supply would be provided that, when added to the administrative wood, would not total more than 120 cords of firewood. The 120-cord limit should be reduced by an estimate of the amount eliminated by NPS conversions to other energy sources. Selective cutting techniques would be used for the additional supply that comes from a designated area. These techniques are intended to retain the genetic stock of dominant trees of a species, preserve all existing layers of the vegetative community, and otherwise leave intact all elements and processes of the ecosystem.
Same as proposed action.	Same as proposed action.	Same as proposed action.
	Same as proposed action.	Same as proposed action.
Similar to proposed action.	The efficiency of energy use and conservation would be emphasized in all NPS facilities. The conversion to propane or other less polluting systems than what are currently used for private and concession water and space heating needs would be encouraged. Also energy conservation would be encouraged for all new private uses through design guidelines.	The efficiency of energy use and conservation would be emphasized in all NPS facilities. The conversion to propane or other less polluting systems than currently used for private and concession water and space heating needs would be encouraged. Energy conservation would be encouraged through substantial economic incentives.
Same as proposed action.	The National Park Service would pursue resource inventory, monitoring, and research programs to enhance knowledge of biological communities and natural processes and to evaluate trends. Selected nonnative plants would be controlled through monitoring and mitigation, including biological control agents, herbicides, and mechanical means.	Control of nonnative, noxious plants would not be a priority. Current levels, or levels defined in approved recovery plans, or resource inventory, monitoring, and research programs would be maintained.
Critical habitats should be defined to include at least those areas identified by the U.S. Fish and Wildlife Service for listed and sensitive species; access should be restricted to these areas.	The U.S. Fish and Wildlife Service would define critical habitats.	The U.S. Fish and Wildlife Service would define critical habitats.

Action Item	Proposed Action	No-Action/Minimum Requirements Alternative
Scenic Resources	The current character of the road from the Landing to Harlequin Bridge and from 9-Mile to High Bridge would be maintained. The section from Harlequin Bridge to 9-Mile would be a hardened, single-lane road with pullouts visible from each other. The natural character of the lake and river edge on public lands (includes areas within 200 feet of the lake and river shoreline) would be restored. The open character of the pastures would be retained. The outpost community image of the area would be maintained.	No change would be made in the current road system. The natural character of the lake edge (includes areas within 200 feet of shoreline) would be restored. Existing structures would be removed, and no new docks or structures would be built there.
Wilderness Management Plan Elements	Horse grazing in the NRA portion of the Stephen Mather wilderness would continue to be permitted. Grazing would continue to be prohibited within the national park. Open campfires in subalpine zones and firewood gathering in subalpine zones and some other sensitive areas would be prohibited based on impact analysis.	Limited grazing would still be allowed in NRA wilderness but prohibited in the park. Campfires would be allowed in grates in designated sites only.
Cultural Resources	The Golden West Lodge and the High Bridge Historic District would be rehabilitated, and the Buckner homestead and orchard would be preserved. Significant parts of the Buckner collection should be acquired. Some artifacts should be maintained onsite for interpretation, and others should be stored in a curatorial facility constructed outside the valley but within Chelan County.	The Golden West Lodge would be rehabilitated, and the Buckner homestead and orchard would be preserved. A small collection storage facility should be provided in the lodge or other NPS structure in the valley for storage of collection items.
Visitor Experience	Visitors would be provided with opportunities to enjoy a relaxed, leisurely pace, and to have several choices of access to several feature locations. Shuttle buses would be the primary motorized form of transportation, but visitors would be encouraged to use nonmotorized methods (walking, riding bicycles and horses, and renting boats and canoes within the national recreation area). The Stehekin Valley road would be paved from the Landing to 9-Mile, gravel between 9-Mile and High Bridge, and a heavy-duty, high-clearance shuttle vehicle road from High Bridge to Cottonwood. Pedestrian and horseback riding loops would be provided off the road at several areas. Access to the lake and around the Landing would be included.	Visitors would have opportunities to enjoy a relaxed, leisurely pace, and to have choices of access to several feature locations. Shuttle services should be continued between the Landing and High Bridge and to Cottonwood Camp. To support relaxed pace, visitors would be encouraged to walk, ride bicycles and horses, or rent boats and canoes. A linear road spine would be provided from the Landing to Cottonwood Camp. The double-lane paved road for 4 miles from the Landing, the double-lane gravel road to 9-Mile, and the single-lane gravel road between 9-Mile and Cottonwood Camp would be maintained. A new 11-mile valley trail leading from the Landing to High Bridge, generally paralleling the road, would be constructed.

Alternative A	Alternative B	Alternative C
As property was acquired, roads would be removed to keep the visual experience primitive and trail-like. All existing native vegetation would be retained, and no manipulation clearing or vista clearing would be done. The overall image of wildlife would be determined by unmanipulated natural systems.	The current character of the road from the Landing to Harlequin Bridge and the country lane road image/rural character from Harlequin Bridge to High Bridge would be retained. The overall scene would be maintained largely as it is today. The natural character of the lake would be restored.	The road alignment would be manipulated to maximize the opening up of views; however, the country lane image/rural character would be retained. New structures would not be allowed to dominate the view of the lake edge. Dominant shoreline structures would be removed and the areas restored to natural conditions.
Grazing in the NRA wilderness would be prohibited. Campfire would be prohibited, and backcountry grates would be removed. The wilderness boundary should be changed to include the closed road corridor above High Bridge and to be managed as wilderness.	Grazing would be allowed at levels below, but within limits of acceptable change standards used in the Chelan-Sawtooth Wilderness. No changes would be proposed to the wilderness boundaries.	The same grazing standards used in the Chelan-Sawtooth Wilderness would apply in NRA wilderness. There would be no changes in the wilderness boundaries.
The Golden West Lodge would be rehabilitated; the associated historic cabins would be removed. The High Bridge Historic District would be rehabilitated. A minimum amount of Buckner artifacts should be acquired for interpretive purposes, and the remaining artifacts removed from Stehekin Valley by the family.	The Golden West Lodge would be rehabilitated; the associated historic cabins would be retained. The High Bridge Historic District would be rehabilitated. A collection storage/museum curatorial facility should be constructed in Stehekin Valley.	The Golden West Lodge, High Bridge Historic District, and Buckner homestead and orchard would be rehabilitated. A collection storage/museum curatorial facility would be constructed in the Stehekin Valley.
Visitors would have an opportunity to enjoy a slow pace.	Same as proposed action.	Visitors would be provided with the opportunity to enjoy a variety of paces, and to have several choices of access to a variety of feature locations.
Nonmotorized transportation (walking, bicycling, canoeing) would be emphasized. There would be no public transportation.	Same as proposed action.	Shuttles would be the primary motorized form of transportation, but visitors would be encouraged to use other modes (e.g., walking, bicycles, taxis, boats).
The road from the Landing to High Bridge would be converted to a bicycle and pedestrian trail. Pedestrian loops would be provided off the trail spine at feature areas. Access to the lake and around the Landing would be included.	A linear road spine would be provided from the Landing to Bridge Creek. The Stehekin Valley road would be paved from the Landing to Harlequin Bridge; between Harlequin Bridge and High Bridge the road would be a single-lane gravel road with pullouts. Pedestrian and horseback riding loops would be provided off the road spine at feature areas. Access to the lake and around the Landing would be included.	A linear road spine would be provided from the Landing to Cottonwood Camp, with pedestrian loops off the spine at feature areas. The spine road would be a double-lane paved road from the Landing to Harlequin Bridge, a single-lane paved road to High Bridge, and a single-lane gravel road to Cottonwood Camp. Lake access at and around the Landing and access to and along the river would be improved.

Action Item	Proposed Action	No-Action/Minimum Requirements Alternative
Visitor Experience (cont.)	NPS camping areas and concession lodging facilities would be provided	The concessioner and the community would provide overnight accommodations.
	At the head of the lake, speed limits, boat permits, and no-wake zones would encourage a peaceful ambience. The Stehekin River would be managed as one of the major scenic attractions in the valley. River-related activities (e.g., fishing, picnicking, rafting, kayaking, and canoeing) would be available, but the latter three activities would be at the visitor's own risk.	Boat and canoe camping would be available at the lake. The shoreline between the Landing and head of the lake would be restored. The Stehekin River would be managed as a scenic attraction and a modified natural system. River-related activities such as fishing and rafting would be available, but rafting would be allowed only when river levels permit safe transit.
Interpretation and Information	Information would be provided to visitors ahead of time so they can learn about the resources and experiences that would be available.	Same as proposed action.
	Orientation would be provided at contact stations at Chelan and Fields Point. Boat passengers could read printed materials and hear presentations by boat crew or NPS interpreters. Information would also be available at wayside exhibits, Stehekin Landing, and Golden West visitor center.	Same as proposed action.
	The National Park Service would take the lead in planning, managing, and providing information and interpretive services. The Stehekin community might provide additional interpretive services.	Same as proposed action.
Transportation Plan Elements	The airstrip would be operated under a special use permit with the Washington State Department of Transportation, Aeronautics Division, for noncommercial public use. Commercial floatplanes would be allowed to continue flying at present capacity and with similar flight patterns for landings. Takeoffs would be farther downlake to preserve natural quiet of the national recreation area.	The airstrip would continue to be operated as a state airstrip. The National Park Service might consider closure of the facility in the future. No changes would be made in floatplane use.
	The Stehekin Valley road between the Landing and Harlequin Bridge would remain a two-lane paved road; from Harlequin Bridge to 9-Mile, it would become a single-lane, paved road with pullouts; from 9-Mile to High Bridge, a single-lane, gravel road; and from High Bridge to Cottonwood a heavy-duty, high clearance shuttle vehicle road.	The Stehekin Valley road between the Landing and Harlequin Bridge would remain a two-lane paved road — from Harlequin Bridge to Bridge Creek it would be maintained as a single-lane, gravel road; and from Bridge Creek to Cottonwood Camp, as a primitive road allowing safe vehicle passage.

Alternative A	Alternative B	Alternative C
No publicly provided lodging would be offered.	The private sector should make available both separated (e.g., cabins) and clustered (e.g., lodge) accommodations.	Same as proposed action.
At the head of the lake most lakeside developments would be removed. Canoeing, kayaking, rowing, and fishing would be encouraged. The Stehekin River would be managed as a dynamic natural system. Low-impact activities such as hiking, picnicking, and fishing would be allowed. No boating or rafting would be allowed.	At the head of the lake, speed limits, boat permits, and no-wake zones would encourage a peaceful ambience. The Stehekin River would be managed as a natural system with some human manipulation. River-related activities such as hiking, picnicking, and fishing would be included. Rafting would be allowed only when river levels permitted safe transit.	Same as proposed action.
Same as proposed action.	Same as proposed action.	Same as proposed action.
Same as proposed action.	Same as proposed action.	Same as proposed action.
The National Park Service would plan, manage, and provide information and interpretive services. There would be no private sector interpretation except what would be provided on passenger boats.	Same as proposed action.	An association composed of NPS and private residents would be created to take the lead role in planning, designing, and providing information and interpretive services.
The airstrip would be closed and restored to natural conditions.	The airstrip would be closed.	The airstrip would be managed by the National Park Service for emergency use only.
The Stehekin Valley road between the Landing and Cottonwood Camp would be converted to a trail. Nonmotorized modes of transportation would be used on this trail.	The Stehekin Valley road between the Landing and Harlequin Bridge would remain a two-lane paved road: from Harlequin Bridge to High Bridge it would be reduced to a single-lane gravel road with pullouts; and between High Bridge and Cottonwood Camp the road would be converted to a pedestrian trail.	The Stehekin Valley road between the Landing and Harlequin Bridge would remain a two-lane paved road: from Harlequin Bridge to High Bridge it would become a single-lane, paved road with pullouts; from High Bridge to Cottonwood Camp it would be maintained in its current condition except for some minor safety and comfort improvements.

Action Item	Proposed Action	No-Action/Minimum Requirements Alternative
Transportation Plan Elements (cont.)	Unconstrained private vehicle use would end at High Bridge. Private vehicle use from High Bridge to Bridge Creek would be allowed, but traffic flow would be regulated by season of year and/or hour of day. Public shuttle service would be provided from the Landing to Cottonwood. Only the public shuttle service, hikers, horses, and bicycles would be allowed to use the road from Bridge Creek to Cottonwood. The National Park Service would seek a concessioner to replace the NPS-operated public shuttle service. Fare structure would provide discounts for frequent public shuttle users. Company Creek road would be maintained in its current alignment. This road would be protected from river erosion at three locations with structures designed to withstand frequently recurring floods and made from rock, soil, and native vegetation. An 11-mile pedestrian and horseback trail would be developed from the Landing to High Bridge. Also, a trail from the "Castle" area to the river trail, with suspension bridge, would be developed.	Company Creek road would be maintained in its current condition. Emergency repairs and reopening of the road following flood damage would be performed.
Stehekin Landing and Valley DCP Elements	Stehekin Landing would be redesigned to improve visitor flow and parking and to relocate lodging and other facilities away from geohazards. Relocation would occur as the end of the lifecycle of structures was reached. All campgrounds would be retained. Weaver Point dock facilities would be improved to accommodate the Purple Point dock and allow seasonal moving of the dock between Purple Point and Weaver Point. Some NPS and concession housing would be consolidated in clustered sites beside the airstrip, based on environmental parameters and in compliance with compatibility criteria. Also some NPS and concession housing would remain dispersed. Maintenance and related facilities would be located near the airstrip. Service facilities (restaurant, deli, grocery store) could be provided for year-round use.	NPS and concession seasonal housing would remain at the Landing and throughout the valley. NPS administrative offices would remain at the Landing. NPS maintenance and related facilities would remain at the Harlequin Bridge area.
Land Protection Plan Elements	Land uses on public and private lands would be compatible with the purposes of Lake Chelan NRA, emphasizing those uses that protect area natural and cultural resources and natural processes, and provide for safe visitor facilities and services. Land protection would emphasize high flood influence areas, wetlands, riparian areas, and high visual sensitivity areas.	Land protection would emphasize wetlands, shoreline characteristics, high scenic quality, water quality, visitor access, restriction of unsightly development, and development on areas with gradients greater than 20%.

Alternative A	Alternative B	Alternative C
Company Creek road would be converted to a trail.	Company Creek road would be maintained in its current alignment except for a 200-yard section that would be removed and replaced with a 0.9-mile section located away from active river erosion.	Company Creek road would be maintained in its current alignment except for a 200-yard section that would be removed and replaced with a 1.4-mile section located away from active river erosion.
All NPS and concession housing and maintenance and related facilities would be substantially reduced and located at the Landing. NPS recreation area headquarters would be in Chelan, and a reduced office space would remain at the Landing. All lodging would be removed. Appropriate areas at the Landing and other areas in the Stehekin Valley would be restored to natural conditions.	Stehekin Landing would be redesigned to improve visitor flow and parking and to relocate the lodging and other facilities away from the geohazards. Relocation would occur as the end of the lifecycle of structures was reached. Some NPS and concession housing would be consolidated in clustered sites on and beside the closed airstrip, based on environmental compliance with compatibility criteria. Also, some NPS and concession housing would remain dispersed. Maintenance and related facilities would be located near the airstrip.	Some NPS and concession housing would be consolidated in clustered sites beside the airstrip, depending on environmental parameters and in compliance with compatibility criteria. Also, some NPS and concession housing would remain dispersed. Maintenance and related facilities would be located near the airport. The Landing would be redesigned to improve visitor flow and parking and to relocate facilities away from the geohazards. Lodging would be expanded and relocated from the Landing to the Rainbow Falls site.
Land protection would involve acquisition, on an opportunity purchase basis, or by eminent domain authority, all private lands within the recreation area. Acquisition would be with fee title purchase method.	Land protection emphasizes high flood influence areas, wetlands, riparian areas, and high visual sensitivity areas. Other land use control on private land would be done by Chelan County.	Land protection emphasizes high flood influence areas, wetlands, riparian areas, and high visual sensitivity areas. Other land use control on private land would be done by Chelan County.

Topic	Proposed Action	No-Action/Minimum Requirements Alternative
Land Protection Plan Elements (cont.)	The National Park Service proposes that Chelan County adopt a new zoning code chapter establishing an overlay district for review of proposed uses and developments on private lands within the Stehekin Valley. This would be in addition to enforcement of applicable state laws and local controls.	The Park Service would support the use of private land for providing compatible public services and recreational opportunities for visitors.
	The Park Service will adopt a revised approach for a determination of compatibility (compatibility criteria) regarding proposed use and development on private and nonfederal lands within the recreation area to ensure that such uses are compatible with the purposes for which Lake Chelan NRA was established.	Existing compatibility standards would be enforced.
	Incompatible uses on all public and private property within the valley include	Incompatible structures, developments, and uses of property in Stehekin include
	• Any subdivision of land that was not in effect prior to the adoption of these compatibility criteria, except as permitted through the Chelan County Subdivision Regulations and as consistent with Chelan County health standards.	• Any subdivision of land that was not in effect prior to the adoption of the compatibility standards, except as permitted in section C, "The Subdivision and Use of Land in the Recreation Area."
		• Construction of any duplexes, apartments, condominiums, or other multifamily dwellings.
	• Siting or construction of any building, including but not limited to, residential, commercial, and industrial buildings, in an identified high flood influence area, wetland, or riparian area.	• Siting or construction of any structure in an identified high flood influence area.
	• Dredging or filling of Lake Chelan or Stehekin River without full compliance with the U.S. Army Corps of Engineers permitting process.	• Any dredging or filling of Lake Chelan or the Stehekin River, within the recreation area, for the siting or construction of a building.
		• Construction or siting of any building or structure more than 35 feet high.
	• Cutting of timber for sale or transport outside the Stehekin Valley.	• Cutting of timber for sale or transport outside the Stehekin Valley.
	• Cutting of timber by any means other than selective tree harvesting, except as required by Washington Dept. of Natural Resource regulations.	• Cutting of timber by any means other than selective harvesting.

Alternative A	Alternative B	Alternative C
Same as proposed action.	Same as proposed action.	Same as proposed action.
Same as proposed action.	Same as proposed action.	Same as proposed action.
Same as proposed action.	Same as proposed action.	Same as proposed action.

Topic	Proposed Action	No-Action/Minimum Requirements Alternative
Land Protection Plan Elements (cont.)	In addition to those uses above, the National Park Service will not site any building or structure in an identified: • 100-floodplain, unless used for nonhuman occupancy and with conditions on specific uses or mitigation • wetland soils, and those soils not conducive to building foundations, leachfield percolation, or site drainage • geohazard areas • areas with slopes greater than 20% gradient • areas of high visual sensitivity, except where specific design mitigation measures can successfully be used	• Siting, after adoption of the compatibility standards, of any recreation vehicles. The siting, after adoption, of any mobile or manufactured homes not certified as complying with applicable materials, safety, and set-up requirements of the Washington Department of Labor and Industries, the U.S. Department of Housing and Urban Development, and section (a) of these standards. • The construction or siting of structures on slopes greater than 20% without assurances acceptable to the superintendent that mitigation measures — to minimize the potential for erosion; hazards to public safety and health; and any impacts on the recreation, scenic, scientific, and historic values of the area — will be taken.
Park Operations	The range of concession services for food and lodging would be maintained. The Park Service would provide services essential for resource protection and visitor health and safety. There would be a fair-share charge for these services. Private contracts would be used where appropriate.	Services to accommodate existing and reasonable demand for expanded recreational experiences would be provided. The National Park Service would provide services essential for resource protection and visitor health and safety. Private contracts would be used where appropriate.
Estimated Costs	$31,107,000	$5,515,000

Alternative A	Alternative B	Alternative C
Same as proposed action.	Same as proposed action.	Same as proposed action.
Only those services that promote solitude and primitive recreational experiences would be provided. Services essential for resource protection and visitor health and safety would be provided.	Services to accommodate existing and reasonable demand for expanded recreational experiences would be provided. The National Park Service would provide services essential for resource protection and visitor health and safety. Private contracts would be used where appropriate.	Services that promote expanded recreational experiences would be provided. Services to accommodate existing and reasonable demand for expanded recreational experiences would be provided. The National Park Service would provide services essential for resource protection and visitor health and safety. Private contracts would be used where appropriate.
$11,266,000	$30,317,000	$33,874,000

SUMMARY OF ENVIRONMENTAL CONSEQUENCES

IMPACT TOPIC	PROPOSED ACTION	NO-ACTION/MINIMUM REQUIREMENTS ALTERNATIVE
Impacts on Stehekin River/Floodplain	Impacts on natural river processes and habitat for fish and other aquatic species generally would be beneficial, including restoration of about 27 acres of the Stehekin River floodplain and reduced instream modifications. Acquiring interests in private lands would eventually provide additional long-term protection for another 149 acres of floodplain. Potentially hazardous conditions associated with flooding would be substantially reduced by relocating NPS facilities and acquiring land interests currently located in floodplain or geohazard areas. Negative impacts might include accelerated erosion and increased flooding downstream and adjacent to erosion control structures at 8-Mile and Company Creek.	Impacts on natural river processes and habitat for fish and other aquatic species would be the least beneficial. Less than 1 acre of the Stehekin River floodplain would be restored. Acquiring interests in private lands with the owner's consent would eventually provide additional long-term protection for another 61 acres of floodplain. The river would continue to erode portions of Company Creek road. Potentially hazardous conditions associated with flooding and other geological hazards would not be substantially reduced.The potential for designation of the Stehekin River as a wild and scenic river would not be compromised by this alternative.
Impacts on Wetlands	Impacts on wetlands generally would be beneficial. Approximately 26 acres of habitat in or near wetlands would be restored where possible and another 63 protected by acquiring interests. Existing road disturbance and vegetation management activities to maintain the airstrip would adversely affect 6.7 of vegetated wetlands.	Impacts on wetlands would be the least beneficial. Only 10 acres of habitat in or near wetlands would be restored and another 10.5 protected by acquisition. Road disturbance and vegetation management activities would adversely affect 11.7 acres of wetlands. River manipulation and erosion and runoff from roads could also adversely affect an unknown amount of wetlands.
Impacts on Riparian Communities	A total of 146 acres of riparian communities would be protected or restored, and up to 74 acres would be affected by prescribed fire. Given that there are only 936 acres of riparian on the valley floor, this would be a major beneficial impact on community-level biodiversity in the valley.	A total of 25 acres of riparian communities would be protected, and up to 130 acres would be lost. This would be a major adverse impact on riparian communities in the valley. The community-level biodiversity of the park complex would be adversely affected through impacts from this alternative.
Impacts on Upland Communities	A total of 140 acres of upland communities would be protected or restored, 9 acres would be lost, and 636 acres would be affected by prescribed fire and thinning. The 48-acre airstrip, infested with aggressive invader species, would remain a source of nonnative species for the valley.	A total of 62 acres of upland communities would be protected, and 38 acres would be lost. This would result in a net beneficial change of 24 acres of upland communities — a minor gain of relatively abundant upland communities.
Impacts on Native Fish	The integrity of existing native fish habitat and populations would be enhanced; also, native cutthroat and bull trout populations would be restored in part of their historic habitat within the Stehekin drainage.	Only limited additional protection would be provided for existing native cutthroat and bull trout populations, and native fish populations would not be reestablished in the Stehekin drainage.

Alternative A	Alternative B	Alternative C
The greatest long-term beneficial impacts on natural river processes and habitat for fish and other aquatic species, including restoration of 90 acres of the Stehekin River floodplain and removal of instream modifications, would result. Acquiring private lands with the owner's consent would eventually provide additional long-term protection for another 167 acres of floodplain. Potentially hazardous conditions associated with flooding would be substantially reduced by removing NPS buildings, facilities, and roads, and acquiring private land now located in floodplain or other geohazard areas.	Impacts on natural river processes and habitat for fish and other aquatic species, including restoration of 26 acres of the Stehekin River floodplain, generally would be beneficial. Instream modifications could adversely affect natural river processes and aquatic habitat. Acquiring interests in private lands with the owner's consent eventually would provide additional long-term protection for another 153 acres of floodplain. Potentially hazardous conditions associated with flooding would be substantially reduced by relocating most NPS buildings and facilities now located in floodplain or geohazard areas and acquiring land interests.	Impacts on natural river processes and habitat for fish and other aquatic species, including restoration of 16 acres of the Stehekin River floodplain, generally would be beneficial. Instream modifications could adversely affect natural river processes and aquatic habitat. Acquiring interests in private lands with the owner's consent eventually would provide additional long-term protection for another 118 acres of floodplain. Potentially hazardous conditions associated with flooding would be reduced substantially by relocating most NPS buildings and facilities now in floodplain or geohazard areas and acquiring land interests.
The greatest long-term beneficial impacts, restoring 67 acres of habitat in or near wetlands where possible and protecting another 63 acres by acquisition, would result.	Impacts on wetlands generally would be beneficial, restoring approximately 18 acres of habitat in or near wetlands, and protecting another 63 acres by acquiring interests. Existing road disturbance would continue to adversely affect about 1.2 acres of wetlands.	Approximately 17 acres of wetlands would be restored where possible and another 63 acres protected by acquiring interests — generally beneficial effects. Existing road disturbance and vegetation management activities to maintain the airstrip would adversely affect about 6.7 acres of vegetated wetlands.
A total of 315 acres of riparian communities would be protected or restored — a major beneficial impact on riparian communities and on community-level biodiversity in the valley.	A total of 144 acres of riparian communities would be protected or restored, and up to 74 acres would be affected by prescribed fire. Overall, a major beneficial impact on community-level biodiversity in the valley would occur.	A total of 70 acres of riparian communities would be protected or restored, and up to 74 acres would be affected by prescribed fire.
A total of 247 acres of upland communities would be protected or restored — a major beneficial impact on upland communities.	A total of 81 acres of upland communities would be protected or restored, and 636 acres would be affected by prescribed fire and thinning.	A total of 53 acres of upland communities would be protected, and up to 837 acres would be affected by prescribed fire, thinning, and firewood cutting; 17 acres would be lost. This would result in a major adverse impact.
This alternative would have the greatest beneficial impact. The integrity of existing native fish populations and habitat would be greatly enhanced, and native cutthroat and bull trout populations would be reestablished in most of their historic habitat within the Stehekin drainage on NPS lands.	The integrity of existing native fish populations and habitat would be enhanced, and native cutthroat and bull trout populations would be reestablished in part of their historic habitat within the Stehekin drainage.	Additional protection would be provided for the existing native cutthroat and bull trout populations. Native fish populations may become reestablished in portions of the Stehekin drainage because of supplemental stocking and control of nonnative species.

Impact Topic	Proposed Action	No-Action/Minimum Requirements Alternative
Impacts on Threatened, Endangered, or Rare Species	There would be no effect on existing bald eagle use of the area; possible effects on long-term recovery of the local population are unknown. Northern spotted owls and grizzly bears are not likely to be adversely affected, although impacts would be both beneficial and adverse. Gray wolves would be beneficially affected. Peregrine falcons would not be affected. Potential and occupied goshawk nesting sites could be adversely affected. Harlequin ducks would be beneficially affected.	Gray wolves and grizzly bears would continue to be adversely affected from the upper valley road, the loss of riparian areas, and general high levels of human activity in the lower valley. Existing bald eagle use would not be affected. Northern spotted owls would be adversely affected from multiple sources. These would combine to possibly preclude the potential nesting use of the lower valley by owls. Potential and occupied northern goshawk nesting sites would be adversely affected from human activities. The harlequin duck would be adversely affected from the loss of riparian areas and the continued construction of river control structures. The species-level biological diversity of the park complex would be adversely affected through impacts from this alternative.
Impacts on Water Quality	Protection in addition to that afforded by existing laws and regulations would be provided for water resources.	Some protection of water resources in addition to that afforded by existing laws and regulations would be provided.
Impacts on Air Quality	This alternative would increase the total energy-related air pollutants within the Stehekin Valley by 6%, particularly for oxides of nitrogen. Energy conservation measures would help reduce some air pollutant emissions. Increases in dust, vehicle, and prescribed fire emissions would adversely affect the NRA's air quality.	This alternative would increase the total energy-related air pollutant emissions within the valley by 18%, particularly for oxides of nitrogen. Energy conservation measures would help reduce some air pollutant emissions. Prescribed fire emissions and increases in dust and vehicle emissions would adversely affect the NRA's air quality.
Impacts on Cultural Resources	A systematic and comprehensive program for the preservation, protection, and interpretation of cultural resources in the NRA would be conducted in conformance with the park complex's *Resource Management Plan* and *Interpretive Prospectus*. The program would provide for the preservation of significant cultural resources illustrating the history of the area and for additional efforts directed toward management of the area's cultural resources and historic landscapes. One historic and two prehistoric archeological sites would be affected.	Cultural resource management actions would be more limited under this alternative, resulting in the possible deterioration or loss of some cultural resources and elements of the historic landscape and the lack of an interpretive program.

ALTERNATIVE A	ALTERNATIVE B	ALTERNATIVE C
Both the upper and lower valley would be permanently protected and available as habitat for all species. For gray wolves, grizzly bears, Pacific fishers, and possibly California wolverines, this is particularly important given the valley's unique geographic and ecologic position in the surrounding ecosystem. Potential nesting habitat for northern spotted owls, bald eagles, and northern goshawks would be available for recolonization, assisting in meeting the goals of recovery plans for the first two species. Harlequin ducks would not be displaced from important breeding habitat. Forest habitat for flammulated owls, Vaux's swift, pileated woodpeckers, and western gray squirrels would be protected permanently.	These impacts are largely the same as those of the proposed action with the following exceptions. Three spotted owl nest sites would be better protected by the closure of the road between High Bridge and Bridge Creek. The closure of the upper valley road would benefit gray wolves, grizzly bears, Pacific fishers and harlequin ducks.	This alternative would have the greatest impacts on sensitive wildlife species. Expected levels of development and human activity in the lower valley would represent a permanent loss of this area as usable habitat for gray wolf, bald eagle (nesting), grizzly bear, northern spotted owl (nesting), Pacific fisher, northern goshawk (nesting), and possibly harlequin duck. The species-level biological diversity of the park complex would be adversely affected from this alternative.
This alternative would have the greatest beneficial impacts on water resources. Impacts would be reduced by restoring most land disturbance and removing most fuels and other toxic materials from the NRA.	Impacts on water resources would be reduced.	Same as alternative B.
This alternative would have the greatest long-term beneficial impact. It would eventually decrease the total energy-related air pollutant emissions within the valley by 99%. Diminishing vehicle use and revegetation of disturbed areas would also gradually improve air quality. Natural wildland fires would adversely affect the NRA's air quality on a periodic basis.	Same as proposed action, except vehicle-caused pollution above High Bridge would be less.	This alternative would increase the total energy-related air pollutant emissions within the valley by 34%, particularly for oxides of nitrogen. Energy conservation measures would help reduce some air pollutants. Increases in dust, vehicle, and prescribed fire emissions would adversely affect the NRA's air quality on a periodic basis.
Cultural resource management actions would be limited, resulting in the deterioration or loss of significant historic landscapes and historic properties and the lack of an interpretive program. There would be no impacts on any known archeological sites.	Cultural resource management actions would be limited, resulting in the deterioration or loss of significant historic landscapes and historic properties and the lack of an interpretive program. There is a possibility that one historic and two prehistoric archeological sites would be affected. No significant adverse effects are anticipated.	Same as alternative B.

Impact Topic	Proposed Action	No-Action/Minimum Requirements Alternative
Impacts on Visual/Scenic Resources	Visual/scenic resources would be improved, while the opportunity to experience these resources by residents and visitors to the valley would become more confined as views from trails, the valley road, and the river became more enclosed and constricted.	The incremental development of public facilities as well as an expanding private residential presence associated with this alternative would affect visual resources. The shoreline of the lake and private parcels of land located on the river or along the Stehekin Valley road would be developed to service visitors or for private residences. Demands by both residents and visitors for additional services and facilities would create changes to the resources in the valley. These changes would affect visually sensitive areas and key viewpoints.
Impacts on Access and Transportation	Moderate increases in visitor arrivals (40–45%) would cause moderate increases in vehicular congestion and noise in the valley. Increased use would require increased maintenance of facilities, roads, and trails. Existing and proposed new facilities would meet the additional demand.	Moderate increases in visitor arrivals (30%) would cause moderate increases in vehicular congestion, noise, and potential accidents in the NRA compared to existing conditions. Increased use would require increased maintenance of facilities, roads, and trails. Existing facilities would meet the additional demand.
Impacts on Visitor Experiences	A wide spectrum of visitors would have diverse means of access to prime natural, cultural, scenic, and recreational resources without significantly affecting park resources or degrading the experiences of other visitors.	Visitors would have diverse means of access to prime natural, cultural, scenic, and recreational resources without significantly affecting park resources or degrading the experiences of other visitors.
Impacts on the Regional Economy	There would be moderate but positive effects on the regional economy. By 2007 visitor arrivals and lodging spaces would increase by about 40%. Visitor expenditures and total employment would increase by about 37%.	There would be modest positive impacts on the regional economy. By 2007 visitor arrivals and lodging spaces would increase by about by about 30%. Visitor expenditures are projected to increase accordingly. When all direct, indirect, and induced effects are counted, total FTE employment, earnings, and output are projected to increase substantially above 1992 levels.
	The net fiscal impacts on the Chelan County general and road funds would have a higher surplus in 2007 than in 1992. The school district is expected to have 24 pupils in 2007 and would generate a higher net surplus than in the 1992–93 school year.	The net fiscal impacts on the Chelan County general and road funds would have a higher surplus in 2007 than 1992. The school district is expected to have 27.8 pupils in 2007, with a net fiscal surplus slightly lower than 1992–93 school year.

Alternative A	Alternative B	Alternative C
Visual/scenic resources would be enhanced. The potential to experience these resources by visitors to the area would be limited because of the reduction in viewing opportunities due to the elimination of culturally manipulated open spaces and restricted views from the shoreline and Stehekin Valley road/trail.	Visual resources would be improved. The opportunity to experience these resources by residents and visitors to the valley would increase because of the development of a vista and view clearing component of the vegetation management plan.	Overall, the increased emphasis on commercial activities and the new development required to meet all future demands would place stress on the visual resources in Stehekin Valley. In the short term, there are sufficient areas of low sensitivity, where visual resource constraints are minimal, to accommodate this demand. As the demand increases and the development follows that demand, the possibility of development affecting visual resources also increases. In addition, more people would be encountered on the road, on trails, at viewpoints, and at historic sites, thus affecting the visual experience.
Slight decreases in visitor arrivals and closing the airstrip and roads would eventually eliminate most vehicular congestion, noise, and potential accidents in the NRA area. All maintenance equipment and activities to support motorized vehicles on the roadway system would eventually be eliminated. Landing facilities would be modified to meet pedestrian needs.	Similar to proposed action.	Major increased in visitor arrivals (105–110%) would cause substantial increases in vehicular congestion, noise, and potential accidents in the NRA compared to existing conditions. Increased use would require increased maintenance of facilities, roads, and trails. New or improved facilities would be needed at the Landing to meet the additional demand.
Visitors would have more opportunities for nonmotorized activities and fewer opportunities for motorized activities. Elderly, sedentary and disabled visitors would have fewer opportunities to experience NRA resources and values.	Same as proposed action, except there would be greater access to river rafting and more limited access to interpretive activities.	A wide spectrum of visitors would have diverse means of access to prime natural, cultural, scenic, and recreational resources with some impacts on park resources and the experiences of other visitors.
Alternative A would have modest negative effects on the regional economy. By 2007, visitor arrivals would decline about 7% from 1992. Lodging spaces would decline substantially to about 27% of the 1992 level. Visitor expenditures would decline to a level somewhat below that in 1992. Total direct, indirect, and induced effects generate employment, earnings, and output below those for 1992.	Similar to the proposed action, alternative B would have moderate but positive effects on the regional economy. By 2007, visitor arrivals and lodging spaces would increase by 40%. Visitor expenditures and total employment would increase by about 37%.	Alternative C would have the most highest positive impacts on the regional economy. By 2007, visitor arrivals and lodging spaces would increase. Visitor expenditures are also the largest among the five alternatives. The total direct, indirect, and induced activities are projected to generate workers, earnings, and output at more than double those of 1992.
The net fiscal effects for the Chelan County general and road funds would be the lowest of the alternatives. The school district is projected to have 14 pupils and the lowest net fiscal balance (revenues in excess of expenditures) of the five alternatives.	The net fiscal impacts on the Chelan County general and road funds would have a higher surplus in 2007 than in 1992. The school district is expected to have 24 pupils in 2007 and would generate a higher net surplus than in the 1992–93 school year.	The net fiscal impacts on the Chelan County general and road funds would have a higher surplus in 2007 than in 1992. The school district is expected to have 32 pupils in 2007.

Impact Topic	Proposed Action	No-Action/Minimum Requirements Alternative
Impacts on the Regional Economy (cont.)	Chelan County PUD No. 1 supplies power on a chronically deficit basis for the Stehekin system. Power costs are a limiting factor to Stehekin growth. A rate increase may be necessary over the next 15 years.	Chelan County PUD No. 1 operates the Stehekin system at a deficit, and this would continue under this alternative.
	NPS-provided activities and their costs would expand in response to growth in visitor use and development levels. These include such services as sewer and water at the Landing, waste disposal, and road maintenance.	Services provided by the National Park Service and their costs would expand somewhat for the full-implementation year, 2007.
	Impacts on the community generally would be favorable. These include a sense of well being, community structure, and a better quality of life. The National Park Service would require compatibility of uses and would emphasize acquisition of interests in land rather than acquisition in fee, as sellers became willing and funds became available.	Impacts on the community would be favorable due to gradually increased commercialization of visitor services. The National Park Service would purchase land as sellers became willing and funds became available.

ALTERNATIVE A	ALTERNATIVE B	ALTERNATIVE C
Chelan County PUD No. 1 would have a lower operating deficit and might break even on operations.	Chelan County PUD No. 1 supplies power on a chronically deficit basis for the Stehekin system. Power costs are a limiting factor to Stehekin growth. A rate increase may be necessary over the next 15 years.	Service demands and costs would increase for the Chelan-Douglas Health District and Chelan County PUD No. 1, although these are funded by fees.
NPS-provided public services would decline especially in view of the withdrawal of concession-provided food and lodging.	NPS-provided activities and their costs would expand somewhat in response to growth in visitor use and development levels.	NPS-provided services and costs also would expand significantly.
Impacts on the community by the year 2007 would be slightly negative. The NPS pursuit of land purchase and compatibility of uses would be more stringent than in 1992. Business might switch to some extent to the private sector after NPS withdrawal from food/lodging provision. However, overnight visits would likely decline sharply without NPS support. Economic viability for non-NPS local residents would likely be more difficult.	Impacts on the community generally would be favorable. The National Park Service would require compatibility and would pursue land acquisition as sellers became willing and funds became available.	Impacts on the community would reflect less stringent NPS policies regarding commercialization of visitor services, resource use compatibility, and land purchase. Local residents would have greater business opportunities, but might face competition from outsiders.





As the nation's principal conservation agency, the Department of the Interior has responsibility for most of our nationally owned public lands and natural resources. This includes fostering sound use of our land and water resources; protecting our fish, wildlife, and biological diversity; preserving the environmental and cultural values of our national parks and historical places; and providing for the enjoyment of life through outdoor recreation. The department assesses our energy and mineral resources and works to ensure that their development is in the best interests of all our people by encouraging stewardship and citizen participation in their care. The department also has a major responsibility for American Indian reservation communities and for people who live in island territories under U.S. administration.

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