USDA United States Department of Agriculture

Forest Service

Pacific Northwest Region

1998

Wilderness Resource Protection

ENVIRONMENTAL ASSESSMENT

Glacier View Wilderness
Goat Rocks Wilderness
Indian Heaven Wilderness
Mt. Adams Wilderness
Tatoosh Wilderness
Trapper Creek Wilderness
William O. Douglas Wilderness

Gifford Pinchot National Forest
in cooperation with the Wenatchee National Forest

Proposed Project:
Institute management action(s) to prevent resource degradation in the seven Wildernesses in which the Gifford Pinchot National Forest has management responsibility.

Proposed Implementation Date: Fiscal Year 1999

RESPONSIBLE OFFICIAL: Ted Stubblefield
Forest Supervisor
Gifford Pinchot National Forest

INFORMATION CONTACT: Randall D. Shepard
Forest Wilderness Coordinator
Cowlitz Valley Ranger District
10024 U.S. Highway 12
Randle, Washington 98377

Please direct comments on this Environmental Assessment to Randall D. Shepard at the above address no later than December 4, 1998.

Prepared by: Kevin Cannon, Michael Rowan

Date: October 15, 1998

CHAPTER 1
PURPOSE AND NEED

A. INTRODUCTION/PROJECT PROPOSAL

Wilderness monitoring on the Gifford Pinchot National Forest indicates that physical conditions within Wilderness are deteriorating and that standards and guidelines for the Gifford Pinchot National Forest Wildernesses are inadequate to provide the level of resource protection required by the Wilderness Act, the Gifford Pinchot Land and Resource Management Plan as amended by the Northwest Forest Plan and Forest Service policy. In response to this situation the Gifford Pinchot National Forest, in cooperation with the Wenatchee National Forest, is proposing actions to modify Forest Plan standards and guidelines and to control degradation of physical resources within the following Wildernesses:

Glacier View Wilderness
Goat Rocks Wilderness (co-administered with the Wenatchee National Forest)
Indian Heaven Wilderness
Mt. Adams Wilderness
Tatoosh Wilderness
Trapper Creek Wilderness
William O. Douglas Wilderness (co-administered with the Wenatchee National Forest)

The Gifford Pinchot National Forest has administrative responsibilities in each of the Wildernesses listed above. In the case of the Goat Rocks Wilderness, the Gifford Pinchot National Forest is considered the "lead Forest" which means the Gifford Pinchot National Forest has primary responsibility for proposing management activities which could affect the entire Wilderness. Conversely, the Wenatchee National Forest is the lead forest for the William O. Douglas Wilderness, of which 15,723 acres are administered by the Gifford Pinchot National Forest.

The action alternatives displayed in this document include proposed amendments to the Gifford Pinchot National Forest Land and Resource Management Plan standards and guidelines for Wilderness. Two action alternatives will also address the issue of impacts from recreational use. Regulated use could be one method to control further degradation and would be implemented on lands administered by either Forest based on area specific needs and/or administrative considerations.

Project Proposal

The project proposal is to implement actions which will lead to preservation of natural conditions and/or improvement of detrimental conditions within the above-mentioned Wildernesses. This would include amending the standards and guidelines for Wilderness management on the Gifford Pinchot National Forest and possibly regulating use in all or portions of the seven Wildernesses. Monitoring on the Gifford Pinchot National Forest indicates that adherence to the current standards and guidelines for Wilderness would allow an unacceptable level of degradation to physical conditions within the Wildernesses. With use levels projected to increase, degradation of resource conditions within Wilderness is a primary concern.

Actions associated with a regulatory permit system would also include:

1) Development of an expanded educational program connected with the permit system;

2) Development of area/site rehabilitation programs that tier to the Aquatic Conservation Strategy described in the Northwest Forest Plan (Record of Decision for Amendments to Forest Service and Bureau of Land Management Planning Documents Within the Range of the Northern Spotted Owl).

B. AREA DESCRIPTIONS

The seven Wildernesses affected by this document cover an area of approximately 179,543 acres and extend along the Cascade Range from just north of the Columbia River to Mt. Rainier National Park.

Glacier View Wilderness is approximately 3,067 acres and is adjacent to the southwest boundary of Mt. Rainier National Park. Major features include Mount Beljica, Glacier View Peak, some small cirques and lakes, and the Mount Beljica Meadows. The area is forested with noble fir, Pacific silver fir, white pine, Douglas-fir, hemlock, western red cedar, and true fir. It provides important summer range for mountain goats and elk.

Two primary trailheads provide access to this Wilderness from the National Forest and there are approximately 9 miles of trails. The Puyallup Trail #248 provides access through Glacier View Wilderness to the National Park and, since the Westside Road in the National Park washed out, this trail has become a more popular access to the trail system in the southwest portion of the National Park. Day use constitutes the major portion of the total use in this Wilderness and stock use is extremely low. Glacier View receives most use during the summer with some hunting use during the fall and cross country skiing in the winter.

Goat Rocks Wilderness is approximately 104,849 acres. The Gifford Pinchot National Forest administers approximately 71,219 of these acres and is considered the lead Forest for administration of the Wilderness. The Goat Rocks Wilderness is located in portions of both Yakima and Lewis Counties, between Mt. Rainier and Mt. Adams. The area is bounded by U.S. Highway 12 and the White Pass Ski Area on the north and the Yakama Nation on the southeast. The Tieton and Klickitat River systems drain the east side of the Wilderness, and streams of the Cowlitz River system are fed from the west side. The Goat Rocks is a series of fairly high peaks and open ridges running from north to south. The forested valleys are dissected by numerous streams descending from glacier-carved basins on the ridge line. There are several small lakes at the higher elevations; the two major lakes in the vicinity, Packwood and Walupt, are adjacent to the western Wilderness boundary.

Vegetation types consist of true firs and hemlocks as well as some Alaska yellow cedar and western white pine. The alpine soils are shallow and rocky. A recent influence on these soils was the May 1980 eruption of Mount St. Helens, which deposited a layer of ash several inches thick in places in the Wilderness.

Wildlife populations include deer, elk, coyote, black bear, pika, northern three-toed woodpecker, and pine marten. Mountain goats may be sighted within the area. Game birds such as blue, ruffed, and spruce grouse are also present. Streams and lakes support cutthroat and rainbow trout, and Dolly Varden trout inhabit the North Fork Tieton River.

There are 18 primary trailheads with approximately (134 miles + 53 miles east side) 187 trail miles.

Indian Heaven Wilderness is approximately 20,826 acres. It is a unique upland plateau area of relatively gentle terrain crossed by a sharp ridge of low-elevation peaks and volcanic cones. There are many small subalpine meadows and numerous lakes scattered throughout the relatively open forest.

The area is generally forested with Pacific silver fir, noble fir and subalpine fir. Some Douglas fir, lodgepole pine, mountain hemlock, and white pine are also present. The area serves as summer and early fall habitat for deer and elk. Cutthroat, some brook and rainbow trout can be found in the numerous lakes, many of which are stocked regularly.

There are ten designated trailheads and approximately 47 miles of trails. The extensive trail system, which includes a portion of the Pacific Crest National Scenic Trail, provides access throughout. The attractiveness of the area, combined with easy access and extensive trail system, has resulted in heavy use during the summer and fall, including the hunting season.

The area has religious, ceremonial, and cultural significance to the Yakama Indian Nation and receives regular use by them.

Mt. Adams Wilderness is approximately 47,096 acres. Mt. Adams (12,276 feet), with its rock faces and numerous glaciers radiating from the summit, is the major feature in this area. It includes the headwaters of the Lewis and White Salmon Rivers, and two forks of the Cispus River. It is bounded on the east by the Yakama Reservation. The boundary extends north and south from the peak of the mountain. "Pahto," known to European settlers as Mt. Adams, and much of the adjacent land is sacred to the Yakama Indian Nation.

The lower slopes of the mountain have an exceptionally rich array of trees, shrubs, and ground cover. Tree species include mountain hemlock, alpine fir, whitebark pine, lodgepole pine, white pine, Engelmann spruce, and Pacific silver fir.

Wildlife species include: marmot, pika, black-tailed deer, elk, black bear, mountain goat, cougar, bobcat and coyote. White-tailed ptarmigan, blue and ruffed grouse, peregrine falcon and sharp-shinned hawk are among the many birds inhabiting the area.

The trail system, including the Pacific Crest National Scenic Trail, leads visitors up through coniferous forests on the lower slopes to the alpine meadows which are a major attraction above tree line. A number of small lakes are scattered throughout the forested portions of the area.

Mt. Adams has a number of climbing routes, but the majority of climbing occurs on the South Climb.

Tatoosh Wilderness is approximately 15,704 acres and is located along the southern boundary of Mt. Rainier National Park. It is rugged and steep, with the forested lower slopes leading to subalpine areas on the Tatoosh ridge line. Tatoosh Lakes, just east of the ridge, are popular destinations as is the old Tatoosh Lookout site on the high point of the ridge (6310' elev.). The Muddy Fork of the Cowlitz River runs through the eastern portion of the Wilderness.

The Wilderness includes 532 acres of the Butter Creek Research Natural Area in the upper Butter Creek drainage. The RNA was established to facilitate the study of watersheds, stream biology, and subalpine plant communities. The forested area consists of Pacific silver fir, mountain hemlock, western hemlock, Douglas-fir, noble fir, and western red cedar. Mountain goats, elk, and deer use the upper elevations during the summer and early fall. The valley bottoms along the Muddy Fork provide winter range. Subalpine wildlife species include Swainson's hawk, golden eagle, white-tail ptarmigan, marmots, pika, bear, cougar, bobcat, and snowshoe hare.

The trail system is limited with one primary trail accessing the ridge. Two spur trails access Tatoosh Lakes and the old lookout site. There is a total of approximately 10 trail miles within Tatoosh Wilderness.

Trapper Creek Wilderness is approximately 5,908 acres. This Wilderness offers a variety of ecological types including young and old-growth Douglas fir at lower elevations, cliffs, talus slopes, Soda Peaks Lake, wet meadows, open rocky peaks, streams and waterfalls, and silver fir forest. Key features are: Observation Peak, offering panoramic views, and the headwaters of Trapper Creek, a main tributary of the Wind River, which is important for water quality and anadromous fish habitat.

The relatively small size and low elevation (up to 4,250 feet) of this Wilderness provides for easy access by recreationists and hunters on almost 22 miles of trails. Day use predominates, due to the small size, accessibility and limited opportunities for overnight camping.

William O. Douglas Wilderness is approximately 165,850 acres, of which 15,723 are administered by the Gifford Pinchot National Forest. The Wenatchee National Forest is the lead Forest for the William O. Douglas. It shares a boundary with Mt. Rainier National Park on the west, is bounded by Highway 410 in the north and US Highway 12 on the south. The Wilderness is located in both Lewis and Yakima counties. While significant portions of the Wilderness are high elevation forest, the overall topography is varied. The Cougar Lakes portion is characterized by high alpine lakes, and the Tumac Plateau is dotted with numerous lakes in a forest setting.

Vegetation types consist of true firs and hemlocks to pine and bare ridges. Wildlife populations include deer, elk, coyote, bear, pika, northern three-toed woodpecker, and pine marten. Mountain goats may be sighted within the area. Game birds such as blue, ruffed, and spruce grouse are also present.

There are 34 primary trailheads with a total of approximately 385 trail miles (47 miles west side and 338 miles east side).

C. MANAGEMENT DIRECTION

Forest Plans

In 1990, the Regional Forester signed the Records of Decision for both the *Gifford Pinchot National Forest Land and Resource Management Plan* and the *Wenatchee National Forest Land and Resource Management Plan,* referred to as the Forest Plans. The Forest Plans include overall guidance for management of Wilderness on the Gifford Pinchot and Wenatchee National Forests. These include goals and objectives, Desired Future Conditions, standards and guidelines, and management area prescriptions.

Forest Plan direction for Wilderness:

GOALS

Gifford Pinchot National Forest - Preserve the Wilderness character. Allow for natural processes and provide opportunities for solitude, challenge, and inspiration. Within these objectives, and following a policy of nondegradation management, provide for appropriate levels of recreational, scenic, educational, scientific, and in some cases, historical uses.

Wenatchee National Forest - Manage designated Wilderness to perpetuate Wilderness character, natural ecological processes and to provide outdoor recreation opportunities appropriate in Wilderness.

DESIRED FUTURE CONDITION

Each Forest Plan includes Desired Future Condition statements for the Forest in 10 and 50 years.

10 Years

No changes in Wilderness acreage are anticipated by either Forest.

On the Gifford Pinchot National Forest, the demand for primitive and semi-primitive recreation is expected to be met, although some overcrowding is expected at popular attractions during summer weekends.

On the Wenatchee National Forest, there is an expectation that:

- "Wilderness resource values will be somewhat improved through management of visitor use and increased user knowledge of proper use ethics" and,
- "...a general upward trend should be apparent in monitoring results."

- "...increased visitors will result in more management actions . . . "
- " ...education programs will continue to be a tool in improving conditions ... "
- "Restoration and revegetation of heavily impacted sites will be ongoing . . . "
- "The existing Wilderness entry permit system (Alpine Lakes Wilderness) may be expanded and/or new systems installed to restrict use to the appropriate carrying capacity . . . "
- "A few miles of trail may be taken off of the inventory to meet wilderness management objectives" and "There will also be some reconstruction of trails . . . to mitigate resource impacts."
- "Naturally occurring fire will be allowed to have more natural effect on wilderness ecosystems."

DESIRED FUTURE CONDITION

50 Years

Gifford Pinchot National Forest - Wilderness demand will continue to increase by about 124% between the first and fifth decade and will exceed capacity after the second decade. Capacity will be reached sooner in the Goat Rocks and William O. Douglas Wildernesses, which are now nearing capacity. Opportunities to experience solitude will decrease.

Measures taken to keep Wilderness use within carrying capacities, including a permit system, are in place on some Wildernesses, reducing the freedom of visitors.

Wenatchee National Forest - Increasing levels of visitor use in most accessible areas will necessitate greater restriction of visitor activities. Most Wildernesses will be under permit systems or some other means to strictly control numbers of people in each Wilderness at one time.

Changes in Wilderness resource conditions will be stable to improving as a result of education programs, regulation, and restriction of visitor use, and biological resource rehabilitation.

Fire will return to its natural role in Wilderness ecosystems through management of prescribed fire and the gradual deterioration of natural fuel accumulations.

GIFFORD PINCHOT NATIONAL FOREST STANDARDS AND GUIDELINES

Standards and guidelines have been established for Gifford Pinchot National Forest Wildernesses. Within each Wilderness, a range of acceptable conditions has been identified through a classification system called the Wilderness Recreation Opportunity Spectrum (WROS). Five classifications are described: Transition, Trailed, General Trailless, Dedicated Trailless, and Special Area. The Special Area classification only applies to the Butter Creek Research Natural Area within Tatoosh Wilderness. The other classifications represent a range of conditions from least pristine (Transition) to most pristine (Dedicated Trailless). Each class has a set of standards for a range of physical and social conditions, such as vegetation loss at campsites, trees with roots exposed and number of parties encountered when traveling. WROS acreage allocations for the Wildernesses are indicated in Table 1-1.

Table 1-1
WROS Acreage Allocations for All Wildernesses

WROS Classification	Acres
Transition	8,750
Trailed	16,450
General Trailless	141,150
Dedicated Trailless	13,690
Special Area	560

WROS maps and acreages for each Wilderness are shown in Appendix A.

NOTE: Reference to WROS (Wilderness Recreation Opportunity Spectrum) and WRS (Wilderness Resource Spectrum) will be made throughout this document. They can be considered to be interchangeable terms for describing the classification system. WROS was used in the Wenatchee and Gifford Pinchot Forest Plans, 1990. In recent years, WRS has become the accepted terminology for Wilderness condition classifications in the Region (Washington, Oregon). For consistency, there will be a transition to using the WRS terminology in future documents.

The "Northwest Forest Plan"

Also known as the "Final Supplemental Environmental Impact Statement on Management of Habitat for Late-Successional and Old-Growth Forest Related Species within the Range of the Northern Spotted Owl," the Northwest Forest Plan was adopted by the Forest Service in 1994. Six categories of designated areas and matrix (where timber harvest is allowed) are identified in the Northwest Forest

Plan. Wildernesses are included in the Congressionally Reserved Areas category. Management of these areas is guided by the applicable legislation, such as the Wilderness Act, and existing direction in plans, such as the Forest Plan. Direction from standards and guidelines is contained in the Record of Decision for the Northwest Forest Plan and applies "where it is more restrictive or provides greater benefits to late-successional forest related species, unless the application of these standards and guidelines would not be contrary to legislative or regulatory language or intent." In 1994, the Forest Plan for the Gifford Pinchot National Forest was amended to incorporate guidance from the Northwest Forest Plan. That amendment, however, only made minor changes to the Wilderness standards and guidelines within the Forest Plan because the Forest was still in the process of evaluating Wilderness standards, guidelines and WRS/WROS classifications. This Environmental Assessment includes proposed standards, guidelines, and WRS/WROS class revisions that are intended to be more effective in meeting Forest Plan and Northwest Forest Plan objectives.

Management direction which is applicable to Wilderness (Congressionally Reserved Areas) is provided by the Aquatic Conservation Strategy objectives:

National Forest lands within the range of the northern spotted owl will be managed to:

1. Maintain and restore the distribution, diversity, and complexity of watershed and landscape-scale features to ensure protection of the aquatic systems to which species, populations and communities are uniquely adapted.

2. Maintain and restore spatial and temporal connectivity within and between watersheds. Lateral, longitudinal, and drainage network connections include flood plains, wetlands, up slope areas, headwater tributaries, and intact refugia. These network connections must provide chemically and physically unobstructed routes to areas critical for fulfilling life history requirements of aquatic and riparian-dependent species.

3. Maintain and restore the physical integrity of the aquatic system, including shorelines, banks, and bottom configurations.

4. Maintain and restore water quality necessary to support healthy riparian, aquatic, and wetland ecosystems. Water quality must remain within the range that maintains the biological, physical, and chemical integrity of the system and benefits survival, growth, reproduction, and migration of individuals composing aquatic and riparian communities.

5. Maintain and restore the sediment regime under which aquatic ecosystems evolved. Elements of the sediment regime include the timing, volume, rate, and character of sediment input, storage, and transport.

6. Maintain and restore in-stream flows sufficient to create and sustain riparian, aquatic, and wetland habitats and to retain patterns of sediment, nutrient, and wood routing. The timing, magnitude, duration, and spatial distribution of peak, high, and low flows must be protected.

7. Maintain and restore the timing, variability, and duration of flood plain inundation and water table elevation in meadows and wetlands.

8. Maintain and restore the species composition and structural diversity of plant communities in riparian areas and wetlands to provide adequate summer and winter thermal regulation, nutrient filtering, appropriate rates of surface erosion, bank erosion, and channel migration and to supply amounts and distributions of coarse woody debris sufficient to sustain physical complexity and stability.

9. Maintain and restore habitats to support well-distributed populations of native plant, invertebrate, and vertebrate riparian-dependent species.

D. PURPOSE OF AND NEED FOR THE PROPOSED PROJECT

The purpose of the proposed project is to address resource problems related to recreational use in the Goat Rocks, Mt. Adams, Tatoosh, Trapper Creek, Glacier View, Indian Heaven and William O. Douglas Wildernesses. Specifically:

1) The current monitoring indicators and associated standards and guidelines are inadequate to protect the Wilderness values and resource as required by the Wilderness Act.

2) The current and expected future use will further degrade the Wilderness conditions. There is a need to manage use at or near current levels in order to prevent overall degradation of Wilderness. In association with management of use levels, there is a need to:

   a) reduce impacts caused by Wilderness visitors by providing educational and informational material on minimum impact techniques specific to the area being visited, the season of use, and type of trip.

   b) reduce and/or repair resource damage in areas not meeting standards by implementing an aggressive restoration program.

Generally, implementation of the project is intended to change the current conditions of the area so that they more closely resemble the Desired Future Conditions described in the Forest Plans. Overall, this should result in general improvement in resource conditions Wilderness-wide.

Resource Needs

Based on the purpose stated above, management direction from the Forest Plans, guiding legislation, and the current conditions within the planning area, the following resource needs have been identified for the planning area:

1. Wildernesses shall be managed

   ☆ "...to protect and preserve its natural condition and wilderness character"
   ☆ "...for the use and enjoyment for the American people in such manner as will leave them unimpaired for future use as wilderness."
   (The Wilderness Act of 1964)

2. Maintain and restore the ecological health of watersheds and aquatic ecosystems contained within them on public lands.
   (Gifford Pinchot Forest Plan, Amendment 11, Aquatic Conservation Strategy)

Management Objectives

Based on the Desired Future Conditions in the respective Forest Plans and the project purpose and resource needs stated above, the following **management objectives** have been identified for the planning area:

1. Establish indicators, standards, and monitoring protocols to improve our ability to monitor the effects of management actions. This involves an assessment of existing indicators, modification and/or creation of indicators, and the establishment of standards for each indicator based on data currently available.

2. Stabilize the total number of sites in each Wilderness Resource Spectrum (WRS) class by meeting proposed established site density standards for each WRS area. This will involve restoration and/or closure of some sites.

3. Maintain or improve overall site conditions as needed to meet accepted standards for each Wilderness. This will involve rehabilitation of sites on a broad scale in order to meet site condition standards that have been established for each Wilderness.

4. Maintain or improve conditions in selected sites to meet standards which have been established for individual sites across WRS classes. This will involve site specific actions to correct or improve conditions in individual sites.

E. DECISION TO BE MADE

This document will provide the Forest Supervisor of the Gifford Pinchot National Forest with a basis on which to make an informed decision. Following review of this document, the Forest Supervisor will decide to do one or more of the following:

1. Approve amendments to the Forest Plan as proposed in this document. This would include adjustments to the Wilderness standards and to the WRS/WROS management classifications.

2. Approve management proposals as presented in one of the alternatives or a combination of alternatives analyzed in this document.

3. Defer some or all of the specific management proposals for implementation at a later date.

4. Determine that the proposed actions or certain individual proposed actions in this document may cause significant impacts (as defined in 40 CFR 1508.27) that will require development and approval of an environmental impact statement prior to implementation.

F. ISSUES

Issues associated with the proposed actions in the planning area were identified through the scoping process by an Interdisciplinary Team, written feedback received from individuals and groups, from contact with interested parties and groups, and from comments on the South Climb Permit System EA, January 1998. Scoping is the procedure used to determine the extent of the analysis necessary for an informed decision on a project proposal.

In the summer of 1994, comment cards were made available at Ranger Stations and trailheads asking for ideas on how to "reduce the effects of recreation overuse" and feedback on the possibility of a "permit system to manage use." In September 1994, information packets were sent to approximately 850 groups and individuals who had previously indicated an interest in Wilderness, trails and/or recreation management issues on the Gifford Pinchot National Forest. Each packet briefly described what had become apparent through monitoring of Wilderness conditions: 1) Physical conditions within Wilderness were deteriorating, 2) many of the Forest Plan Limits of Acceptable Change (LAC) standards and guidelines for monitoring conditions were not useful in their current form, 3) WRS/WROS zones or classes, did not accurately reflect current or desired future conditions and, without modification, would allow unacceptable levels of degradation of conditions to occur.

A follow-up packet was sent in May 1995 that expanded on earlier information and included descriptions of proposals to: 1) modify LAC indicators and standards, 2) modify WRS/WROS zones to better reflect current and/or desired future conditions and use patterns, 3) implement a regulatory permit system to prevent further degradation. Public involvement meetings were held in May, June, and July of 1995. Additional comments and concerns have been accepted since that time and will be given consideration prior to a final decision. Comments were also incorporated from the South Climb Permit System EA, January 1998.

In January 1998 the "Environmental Assessment: South Climb Permit System" was released for public review. Copies of that document were mailed to more than 400 individuals and organizations. The document was also available for review via the Gifford Pinchot National Forest Internet connection. Comments received in response to that document fell into four primary categories:

1. **Forest Plan —** Two "themes" emerged from the analysis of public comments regarding the Forest Plan and the South Climb proposal. First, several commenters suggested that the existing Forest Plan "Limits of Acceptable Change" Standards did not adequately consider the unique setting and recreational use on South Climb, and should be revised. (Changing Forest Plan standards was determined not within the scope of the South Climb EA). Second, some reviewers questioned why the Forest was conducting an environmental assessment addressing Wilderness Management Forest-wide, including reevaluation on Limits of Acceptable Change standards, during approximately the same time frame as the South Climb Environmental Assessment.

   The South Climb assessment process began well before the Forest-wide process was initiated. The draft environmental assessment: "Mt Adams Climbing Permit" (April 1995) was completed based on specific direction in the Forest Plan: "Limits of Acceptable Change have been established for various Wilderness resource values such as vegetation, soil, and solitude . . . If limits are exceeded, remedial action will be taken. Strategies will be developed by 1995 to bring into compliance those areas which are out of compliance with the Limits of Acceptable Change and Wilderness Act" (LRMP, IV-25). After reviewing comments received on the draft EA, the decision regarding management of the South Climb was deferred, and in the interim, another process addressing Wilderness management Forest-wide was initiated, hence the "overlap" of the two studies.

   In response to the two primary concerns regarding the South Climb and the Forest Plan, a decision was made to: 1) incorporate the decision regarding management of the South Climb in the Forest Wilderness EA; and 2) consider changes in Limits of Acceptable Change standards for the South Climb in that process/document.

2. **Displacement —** Another concern expressed by reviewers of the South Climb EA was that a decision to limit use on the South Climb could result in unacceptable resource impacts to other vulnerable and relatively unimpacted areas such as North Cleaver/High Camp. Displacement was identified as a Key Issue in the South Climb EA, and after considering public comment on this issue, it was determined that displacement resulting from limiting use would be better addressed in a comprehensive management approach than in a separate management decision. For that reason, no decision was issued on the South Climb EA, and that proposal has been incorporated into this comprehensive Forest Wilderness EA.

3. **Allocating Use —** Many reviewers provided suggestions for methods of allocating use, or commented that they were concerned that details regarding allocation were not provided in the South Climb EA. Methods of distributing permits (e.g., number available for weekday vs. weekend, or day vs. overnight) are considered to be aspects of implementation of the selected management strategy, therefore they were not evaluated as issues in the NEPA analysis. There will be an opportunity to provide input on how any quota system may be implemented, and the resulting administration will likely be

modified based on monitoring of the program.

4. **Human Waste Management —** The decision about how to manage human waste on the South Climb is not within the scope of this document. A variety of options regarding human waste management are being considered, and if facilities are provided within or outside of Wilderness, separate analysis would be required for any ground disturbing activity. In addition, implementing a waste management system will not eliminate other impacts (e.g., to soils and vegetation) occurring with the current amount of use. Forest Service policy (FSH R-6 ID 2309.28-96-1) states: "Primitive toilet facilities should only be used in extreme cases, but are permissible for resource protection and human safety **if all other resource changes are within the limits of acceptable change."**

The issues identified in this process fall into one of three categories. These categories are:

1. **Key Issues.** Key issues are used to develop and analyze the alternatives. They involve potential effects to resources that might not be addressed by existing laws, Standards and Guidelines, policies, or mitigation measures.

2. Other Issues. These issues can be addressed by existing laws, Standards and Guidelines, policies or mitigation measures. Descriptions of how these relate to the project alternatives are included in Other Issues, later in this chapter.

3. **Issues Not Given Detailed Analysis.** These issues are not given detailed analysis because the potential effects do not vary between alternatives and/or the effects are not expected to be significant or are mitigatable.

The following section describes the issues and related or affected resources. More detailed information concerning the effects to resources can also be found in Chapter 3 and in the analysis file.

Key Issues

The key issues relate to the potential effects of the proposed changes in Standards and Guidelines, changes in Wilderness Resource Spectrum allocations, implementation of a restrictive permit system and implementation of actions to regulate use.

1. Degradation of site and/or area conditions within Wilderness from continued heavy use or increasing use.

   Monitoring has shown a correlation between the level of use an area receives and physical impacts documented for those areas. State and Regional use projections show that use levels will continue to increase at a moderate rate for the foreseeable future. Use level trends for Wildernesses on the Gifford Pinchot National Forest reflect that same trend.

   The evaluation criterion will be projected use levels and projected number of camping and day use sites developed under each alternative.

2. Effect on public's ability to freely access and utilize Wilderness due to implementation of management actions and/or additional regulations.

   Additional regulations and/or restrictions on use are viewed as having a negative effect on access to and utilization of Wilderness. While these types of management actions may be viewed as having a negative effect on use and access, they may also be considered necessary in order to preserve the very qualities of Wilderness that attract people in the first place. A restrictive permit system could directly restrict access to people that are unable to get permits. Additional regulations (such as camping closures or campfire restrictions) could effect what people could do once they were in Wilderness.

   The evaluation criterion will be a projection of the number of people that would be denied entry permits and an assessment of the amount and type of additional regulations or restrictions that would be applied under each alternative.

3. Displacement of use impacts to other areas including other Wilderness and non-Wilderness areas.

   Restrictions such as additional regulations and/or a regulatory permit system can have the effect of displacing people. A restrictive permit system can have the effect of directly displacing people to other areas. Additional regulations (such as camping or campfire restrictions) can have the same type of effect although it is not so directly obvious. For example, someone that felt it was very important to have a campfire as part of their Wilderness experience might be displaced to an area that did not have those restrictions.

   The evaluation criterion will be the projected number of people displaced based on use level projections, and the projected number of camping and day use sites that might be developed in other areas as a result of that displacement.

Other Issues

The following issues are those that can be addressed by existing laws, Standards and Guidelines, policies, administrative actions or mitigation measures.

1) Regulatory Permits - Issues and Concerns included the following:

   - ❖ Administration - There are concerns that the Forest Service may not have the ability to effectively or economically administer a permit system.
   - ❖ Abuse of the System - There are concerns that some people might attempt to reserve or acquire permits for the purpose of preventing some user groups from gaining access to Wilderness.

- ❖ Ensuring System is Fair and User Friendly - There are concerns that a restrictive permit system might be administered in a way that is unfair and does not have enough flexibility to meet the needs of a diverse constituency. Specific examples include: concerns that non-local users might be able to get most of the permits to the exclusion of local residents or vice versa; a reservation system for acquiring permits would not be fair to people who are unable to schedule trips several weeks or months in advance; and systems for distribution of permits.

- ❖ Fees - There are concerns that additional user fees should not be necessary to adequately manage Forest lands including Wilderness - appropriated dollars should be sufficient. If fees are charged there is a concern that some people would not be able to afford the cost of the permits and that would unfairly discriminate against lower income families.

All of the issues/concerns listed under Regulatory Permits would primarily apply to the alternative that implements a regulatory permit system. These issues will be addressed, in part, by the implementation of administrative actions. The evaluation criteria, in these cases, will simply be whether or not a regulatory permit system is implemented.

2) Solitude - Increasing use could have a negative effect on opportunities for solitude within Wilderness.

Opportunities for solitude are affected by the total number of people visiting Wilderness. The evaluation criteria will be based on the relative changes in projected use levels for each alternative and will be expressed as an increase or decrease in opportunities.

3) Water Quality - Increasing recreational use could have a negative effect on water quality especially where popular destinations are near streams or lake shores.

This issue will be addressed, in part, by implementation of mitigation measures and/or other administrative actions. The evaluation criteria will be based on the relative changes in projected use levels for each alternative and will be expressed as an increase or decrease in risk of impact to water quality.

4) Resource/Trail Impacts Related to Specific Activities and Timing of Activities - This issue pertains to concerns about trail and resource impacts from specific types of uses and/or use of areas during particularly sensitive times of the year. One example would be the use of a trail in the early spring when saturated soil conditions and heavy trail use can combine to cause extensive damage to the trail. Another example would be the impacts to vegetation caused by long term, stock supported camps that are fairly common during hunting season. Increasing recreational use would tend to exacerbate these types of problems.

This issue can, in part, be addressed by mitigation measures and/or other administrative actions. The evaluation criteria will be based on the relative changes in projected use levels for each alternative and will be expressed as an increase or decrease in resource or trail impacts.

5) Plant and Animal Species

- ❖ Proposed Endangered, Threatened and Sensitive (PETS) Wildlife, Fish and Plants - Increasing recreational use could have a negative impact on Proposed Endangered, Threatened and Sensitive Wildlife, Fish and Plants.

- ❖ Survey and Manage Species - Standards and guidelines developed in the Northwest Forest Plan require land managers to take actions to protect certain rare species of plants and animals, particularly amphibians, bryophytes, lichens, mollusks, vascular plants, fungi, and arthropods. Increasing recreational use could have an impact on Survey and Manage Species.

- ❖ Non-TES plant and animal species - Increasing recreational use could have an impact on plant and animal species other than TES or Survey and Manage Species.

Primary concerns with plants and animals are the potential direct and indirect impacts of people on plant and animal species. This includes direct loss of plant species from trampling, loss of animal species due to loss of habitat or forage and displacement of wildlife due to more frequent interactions with people. The evaluation criteria will be based on the relative changes in projected use levels for each alternative and will be expressed as an increase or decrease in risk of impact on plant and animal species.

6) Resource Impacts from Day Use - There is a concern that management actions that are taken to address recreational impacts tend to focus on overnight use and the effects of day use are often overlooked or inadequately addressed. This is especially critical in smaller Wildernesses where day use may be a very high percentage of total use.

This issue will, in part, be addressed by mitigation measures and/or other administrative actions. Resource impact monitoring does not currently distinguish between day use impacts and overnight use impacts. It is generally accepted, however, that most campsite impacts are from overnight use activities. Day use impacts will likely become more apparent if and when overnight use becomes more restrictively managed. The evaluation criteria for day use impacts, therefore, will be whether or not monitoring protocols are in place to track day use impacts and/or if specific actions to manage day use are included in the alternative proposal.

7) Education Emphasis - There is a concern that the Forest Service has not done enough to educate Wilderness visitors. Some people believe that an increased emphasis on education will lessen or eliminate the need for additional regulations or restrictions.

Education programs will be an integral part of any alternative, including the no-action alternative, and are often considered to be mitigation measures for some activities. While the effectiveness of educational programs is difficult to measure, it is understood that education is a vital component of any program. The evaluation criteria, in this case, will be a comparison of the methods for getting information and educational messages to Wilderness visitors.

Issues not given detailed analysis

These issues will not be given detailed analysis because the potential effects do not vary between alternatives and/or the effects are not expected to be significant or are mitigatable. They are grouped into three categories: 1) Issues that are outside the scope of this document; 2) Issues that would require separate environmental analysis and 3) Issues that can be handled administratively.

Issues that are outside the scope of this document

- Cattle grazing in Wilderness.
  The 1964 Wilderness Act (section 4(d)(4)(2) allows cattle grazing in Wilderness where it was established as a traditional use prior to Wilderness designation. Direction for management of grazing in all National Forest wildernesses is provided in the Congressional Grazing Guidelines as referenced in Section 108 of the 1980 Colorado Wilderness Act. Changing legislation is beyond the scope of this document.

- Create more Wilderness
  The creation of Wilderness requires congressional legislation and is beyond the scope of this document.

- Human Population control.
  Population control is beyond the scope of this document.

- Stop fish stocking.
  Fish stocking programs within National Forest Wildernesses are done in cooperation with the States in accordance with established policies and guidelines. Specific proposals regarding fish stocking would be addressed in coordination with the State of Washington and would be outside the scope of this document.

- Provide better access for senior citizens and people with disabilities.

The Americans with Disabilities Act of 1990 (section 507(c)) specifically addresses Wilderness access. Use of an unmodified wheelchair within Wilderness is acceptable for use by an individual whose ability requires the use of a wheelchair. However, no agency is required to "provide any form of special treatment or accommodation, or to construct any facilities or modify any conditions of lands within a wilderness area to facilitate such use. In addition, addressing disabled access would not meet the purpose and need for this decision.

- Prohibition on motorized equipment in Wilderness prevents trail maintenance from being done efficiently and in a manner that would prevent degradation of the trail system.

  The 1964 Wilderness Act (section 4(c)) prohibits use of motorized equipment, except as necessary for the administration of a wilderness. Current Forest Service policy prohibits the use of motorized equipment except in emergency situations or where the use of motorized equipment can be shown to be the minimum tool necessary with regard to safety and protection of the Wilderness resource. Any alternative proposed must be consistent with this law and policy.

Issues that would require separate environmental analysis

- More trails are needed to disperse use. Reopen old trails and construct new ones.

  Opening and relocating trails are tools available to alter use where the effects of use are not within Limits of Acceptable Change. The construction and relocation of trails are ground disturbing activities and would require additional site specific environmental analysis.

- Restrict road access to control use in Wilderness.

  This involves physical changes in access and may also involve physical alterations where roads are modified through obliteration or reconstructed into trails. These types of actions would require additional environmental analysis.

Issues that can be handled administratively

- Harden campsites to increase carrying capacity of Wilderness.

  Hardening of campsites usually involves adding facilities in specific areas. The intent is to concentrate people and activities into areas that are managed to handle heavier use while creating less impact to surrounding vegetation. By current policy, and in accordance with the Wilderness Act, developing facilities within Wilderness can be done to protect the resource. It cannot be done solely for the convenience of users or to accommodate more use. In

addition, if the "hardening" activities involve ground disturbance, then additional environmental analysis would be needed prior to the hardening activity.

- Need more Rangers in the field and they should give more citations.
  The number of Rangers that are in the field is, to a large extent, driven by budget constraints and is beyond the scope of this document. The work priorities of Rangers in the field are based on identified resource needs. Shifting those priorities based on changing circumstances is very common and law enforcement frequently becomes a primary focus. These kinds of decisions are administrative in nature and can be done without additional analysis.

- Utilize organized groups to help maintain trail system.
  The use of organized groups and individuals to assist in trail maintenance is a common practice and can be done through administrative agreements. Use of volunteers would be a part of implementing any alternative.

- Build better trails so people and stock don't cause so much damage.
  The Forest Service strives to construct trails to the standards necessary to meet the demands of the intended use. Varying conditions such as soil type, slope, etc. sometimes make it extremely difficult, if not impossible, to construct or maintain trails that will not sustain damage even under "normal" use. Decisions to reconstruct trails and/or add structures to prevent damage can be done administratively although budget constraints will always be a factor in determining the extent of the work that can be done. Of greater concern are the effects of people's activities on soil and vegetation that can occur when people leave the maintained trail system.

- Reduce theft and vandalism at trailheads.
  Reducing theft and vandalism at trailheads would likely require increased patrols. This can be done administratively. However, decisions of this type need to be balanced with other patrol priorities and the necessity of working within budgetary constraints. This would be just one of many competing priorities for limited law enforcement resources. Addressing theft and vandalism would not meet the purpose and need for this decision.

- Develop Golden Eagle-type system for people to a pay single yearly fee with proceeds dedicated to trail maintenance and wilderness administration.
  A program of this type could be implemented administratively. The current Trail Park Program uses a similar concept to direct fees to trail and trailhead improvements and maintenance.

CHAPTER 2
ALTERNATIVES

A. INTRODUCTION

The Wilderness Planning Team considered alternative ways of managing Wildernesses that are administered or co-administered by the Gifford Pinchot National Forest. This resulted in project alternatives which address the issues raised in Chapter 1 and:

1. Meet the purpose and need for the project.

2. Provide a reasonable range of actions to address the issues.

3. Meet, or include proposals for modifying, Standards and Guidelines of the Gifford Pinchot Forest Land and Resource Management Plan (Forest Plan).

B. THE PROCESS USED TO DEVELOP THE ALTERNATIVES

Limits of Acceptable Change (LAC) is the process used in developing and describing the alternatives considered in this Environmental Assessment (EA). The LAC concept is based on the awareness that although recreation is a legitimate use of Wilderness as stipulated by the Wilderness Act of 1964, recreation use - even light use - will result in some impact to the Wilderness resource. The challenge for managers is to accommodate recreation use yet preserve the Wilderness quality. The LAC approach is not to prevent all human-induced change, but instead to decide how much and what kind of change will be allowed to occur and where, and what management actions are necessary to control the change. This process is applicable not only to maintaining existing Wilderness conditions, but also to achieving conditions more desirable than the status quo.

The LAC process consists of four major components:

1) The specification of acceptable and achievable resource and social conditions, defined by a series of measurable indicators; these are usually called the desired conditions.
2) An analysis of the relationship between existing conditions and the desired conditon;
3) If there is a difference between existing and desired conditions, identify management actions necessary to achieve the desired conditions; and
4) A program of monitoring and evaluation of management effectiveness.

Alternative A, the no-action alternative, describes the existing situation. The action alternatives, Alternatives B, C & D, were designed to move the wilderness toward desired conditions based on purpose and need, objectives, and issues described in Chapter 1.

Alternatives were designed to address each key issue and the management objectives to varying degrees. The issues were identified through scoping efforts and are listed in Chapter 1 along with evaluation criteria for each issue.

The No-Action Alternative

Alternative A is the no-action alternative. Under this alternative, current management would not change within the Wildernesses. The current non-regulatory permit system would continue under this alternative. This alternative represents the existing situation and provides a baseline from which to compare the effects of the action alternatives.

Alternative B

This action alternative would amend Wilderness management sections of the Forest Plan for the Gifford Pinchot National Forest. The primary changes would be to the indicators, standards and guidelines in the Appendix B section of the Forest Plan which would be amended to reflect significant improvements in knowledge about physical conditions within Wilderness and an improved understanding of indicator and monitoring needs. Standards for physical conditions and use capacity would be established. Indicators selected for monitoring conditions would include a combination of new indicators and modified indicators all of which would be designed to be more easily measurable in field situations. The standards and guidelines associated with each indicator would be based on the Forest Service policy of non-degradation. Wilderness condition monitoring would be ongoing and would be based on the new standards and guidelines. In areas where conditions exceed standards, administrative actions could be taken to move conditions toward meeting standards. The current non-regulatory permit system would continue under this alternative.

No changes to the Wenatchee Forest Plan are proposed in this alternative.

Alternative C

This action alternative amends the Wilderness management section of the Gifford Pinchot Forest Plan as in Alternative B and imposes a regulatory permit system to manage total use at or near the established use levels as indicted in the Standards and Guidelines. The permit system could be applied to all areas. Exceptions to the regulatory permit requirements could be made in specific areas based on Wilderness condition information and/or administrative considerations. Within the regulatory permit system, regulated use patterns would attempt to approximate existing patterns except where incompatible with Standards and Guidelines.

Additional actions associated with a regulatory permit system would include an expanded information/education program and a site/area restoration program. Educational and informational material would accompany permits that are issued in advance and could include information specific to the area being visited or the activities planned (such as horseback riding, hunting, mountain climbing, etc.). Site and area restoration programs would be expanded into areas where increasing use levels had prevented successful restoration efforts in the past. Use of volunteers would be a part of this alternative.

No changes to the Wenatchee Forest Plan are proposed in this alternative.

Alternative D

This action alternative amends the Wilderness management section of the Gifford Pinchot Forest Plan as in Alternative C to manage total use. This alternative would add management of use through designating and assigning campsites. The permit system could be applied to all areas. Exceptions to the regulatory permit requirements could be made in specific areas based on Wilderness condition information and/or administrative considerations. Within the regulatory campsite and use permit system, regulated use patterns would attempt to approximate existing patterns except where incompatible with Standards and Guidelines.

Additional actions associated with a regulatory permit system on designated and assigned campsite use would include an expanded information/education program and a site/area restoration program. Educational and informational material would accompany permits that are issued in advance and could include information specific to the area being visited or the activities planned (such as horseback riding, hunting, mountain climbing, etc.). Site and area restoration programs would be expanded into areas where increasing use levels had prevented successful restoration efforts in the past. Use of volunteers would be a part of this alternative.

No changes to the Wenatchee Forest Plan are proposed in this alternative.

C. POTENTIAL ACTIONS COMMON TO ALL ALTERNATIVES

Various administrative actions may be appropriate under any alternative, including the no-action alternative. The application of these actions would be dependent upon availability of personnel, funding and demonstrated need based on monitoring of field conditions. Potential actions include, but are not limited to, the following types of actions:

1. Regulatory closure of campsites or other areas for purposes of site restoration or to meet Forest Plan standards and guidelines and the Aquatic Conservation Strategy Objectives in the Northwest Forest Plan.

2. Establishment of designated camp sites/areas where it is beneficial for the protection of natural vegetation and/or restoration of closed areas or sites.

3. Restrictions on campfires in areas where damage to vegetation and/or loss of woody debris is significantly altering plant communities. Alpine and subalpine areas are particularly sensitive.

4. Trail access restrictions based on trail conditions and type of use. An example would be a seasonal delay in stock use on a particular trail due to chronic wet trail conditions in the spring. The primary consideration would be a trail where conditions make the trail tread

particulary susceptible to damage. Other temporary restrictions could apply to all types of use also based on protection of the trail tread.

5. Use of volunteers would be a part of any alternative implemented.

D. ALTERNATIVES CONSIDERED BUT NOT ANALYZED IN DETAIL

In Selected Areas, Move Trailheads Away from the Wilderness Boundary.

This alternative would extend trails in order to lengthen distances to popular destinations. The intent would be to discourage access to interior areas which would therefore result in less resource impact. This alternative was not analyzed in detail in this document for the following reasons:

- None of the analyzed alternatives in this Environmental Assessment preclude moving specific trailheads or extending certain trails. Each trailhead proposal, however, would require site specific environmental analysis. Opportunities to move trailheads could be analyzed and evaluated separately.

- Many trailheads are not in locations that make lengthening the trail and/or relocating the trailhead a feasible option. Those trailheads may already be at or very near a highway or major through-road. Displacement of use to these trails from other "lengthened trails" could not be addressed by relocation of the trailhead.

- The effect of trailhead relocations only ensures a short term decrease in use on those particular trails. If rising use trends continue, for example, a 10% decrease in use due to a trailhead relocation could be overcome within 5 to 10 years at which time another trailhead relocation would be needed to keep use levels in check.

Adopt Licensing/Certification/Education Program in Lieu of Other Restrictions.

This alternative would utilize some form of licensing/certification program to certify people for access to some areas within Wilderness or provide preferential access to Wilderness by people that have completed the certification program. Emphasis would be on the education of people in an attempt to minimize their impact on the land. This alternative was not analyzed in detail for several reasons:

- The Gifford Pinchot National Forest would not be able to financially support and/or staff a program of this type. A program requiring large scale certification of large numbers of people would need to be managed on a regional or national scale (possibly in partnership with private organizations) since visitors to the Gifford Pinchot National Forest come from all over the nation and around the world.

- As a stand alone alternative, this proposal would not address the need to manage total use. The exclusive reliance on education as the primary management tool is not effective based on past experience. Even the most skilled backpackers will create some impacts. A program of this type, however, could be incorporated into other programs (such as a national permit system) where "certified" individuals could be granted additional access. The success of a certification/education program over time could help to determine when and where other restrictions could be relaxed while still preserving and protecting the Wilderness resource.

- This alternative may be discriminatory.

E. ALTERNATIVE DESCRIPTIONS

ALTERNATIVE A - No Action/Existing Conditions

Alternative A is the no action alternative and represents no change in current management direction. This alternative represents the existing situation and provides a baseline from which to compare the effects of the action alternatives.

Use Levels - Use has increased at a moderate percentage rate during the years monitored under the mandatory permit system which has been in effect for most of the Wildernesses since 1992. Longer term use projections come from several sources. In the 1991 Washington State Trails Plan[4], growth rates in the number of household trips for specific activities are projected for the years 1987 to 2000 and are shown in Table 2-1.

Table 2-1
Activity Growth Rate for Washington State

Activity	Growth Rate 1987-2000
Day Hike on Trails	37%
Hike/Backpack Overnight along Trails	30%
Ride Horses	17%
Camp with Packstock	18%

This translates into annual growth rates of approximately 1.3% to 2.8% depending on the activity.

[4] Interagency Committee for Outdoor Recreation, 1991. *Washington State Trails Plan, Policy and Action Document*.

The following projections come from the Regional Demand and Supply Projections for Outdoor Recreation[2] from 1987 to the years 2000 and 2010 for the Pacific Coast Region (Washington, Oregon, California, Alaska, Hawaii) and are shown in Table 2-2.

Table 2-2
Activity Growth Rate for the Pacific Coast Region

Activity	2000	2010
Backpacking	34%	58%
Horseback Riding	27%	43%
Day Hiking	25%	43%

Through the year 2000, this translates into increases of approximately 1.9% to 2.6% per year depending on the activity and, through the year 2010, approximately 1.8% to 2.5%.

Local permit data generally supports these projections. Since 1992, use has increased approximately 1.2% per year in spite of circumstances that have affected access to Wilderness in recent years. Table 2-3 indicates the current use levels by user group for all Wildernesses combined. Overall, there has been an increase in total use of approximately 2.5% although there is variation among activity groups.

Table 2-3
Activity Growth Rates for Wildernesses on the Gifford Pinchot National Forest

Activity	1992[3]	1993	1994	1995	19964
Backpackers	10,840	12,634	14,449	14,376	12,698
Overnight Stock Users	1,234	1,484	1,588	1,371	1,029
Day Hikers	14,176	17,580	18,338	16,975	13,254
Day Stock Users	1,964	3,421	2,871	2,237	1,947

2 USDA Forest Service, 1993. *Regional Demand and Supply Projections for Outdoor Recreation.* General Technical Report RM -230.

3 Does not include Wm.O.Douglas Wilderness. Permits were not required in the Wm.O.Douglas Wilderness until 1993.

4 Includes significantly reduced numbers for Glacier View and Tatoosh Wildernesses due to flood damaged roads that restricted access to primary trailheads.

Factors affecting use during some years include forest fires, extremely wet summers, unusually heavy snowpacks and washouts of access roads. Road washouts in 1995 and 1996 were particularly impacting on Glacier View and Tatoosh Wildernesses where they temporarily eliminated access to primary trailheads.

Permit System - Permits are currently required for day or overnight entry into all Gifford Pinchot National Forest Wildernesses. The permits are **not** regulatory and are self issued at trailheads. Compliance with the permit system has been approximately 76% based on extensive field checks.

Information/Education - The primary sources of information for backcountry users are the information boards that are in place at all managed Wilderness entry points. The information available at the information boards includes the rules and regulations along with information on how to minimize impacts to the Wilderness. Beginning in 1997, an improved self registration Wilderness permit was being utilized at all Gifford Pinchot National Forest Wilderness entry points. Information on regulations and low impact techniques are included right on the permit. In addition, Forest Service Wilderness maps and trail guides include information on regulations and minimum impact techniques. More specific information is generally obtained by contacting the Forest Service directly. Educational programs have been conducted annually at local schools and periodically at the request of organized groups.

Outfitter/Guide Use - Outfitter/guide use has been regulated since 1985 in the Glacier View, Goat Rocks, Tatoosh and William O. Douglas Wildernesses. Based on an Environmental Analysis completed in 1985, the annual number of outfitter/guide service days was set at 300. The actual number of days utilized annually since 1985 has never reached the 300 day limit. From 1991 through 1996, outfitter use ranged from 91 to 272 days with an average of approximately 150 days utilized per year. Operating restrictions apply to many areas based on resource concerns. Outfitter/guide operations are currently prohibited in Glacier View and Tatoosh Wildernesses due to concerns about resource conditions, existing heavy use in some areas and limited trail/destination opportunities. Twenty of the 300 service days have been allocated for the portion of the William O. Douglas Wilderness administered by the Gifford Pinchot National Forest. This limitation was established due to existing heavy use levels and based on the small area and existing concerns about resource conditions at many places.

Very little outfitter/guide use occurs in the Trapper Creek and Indian Heaven Wildernesses. A total of nearly 1000 outfitter/guide service days has been authorized per year in the Indian Heaven, Mt. Adams, and Trapper Creek Wildernesses with the predominate use occurring in the Mt. Adams Wilderness, including the South Climb area.

Site Restoration - Site restoration efforts are currently limited. Restoration work has been done in some areas where trail relocations have moved use away from impacted areas and in areas where there is high confidence that efforts to prevent the use of restored sites will be successful. Restoration efforts usually involve breaking up compacted soil to encourage vegetative growth, removing fire rings and other structures and placing logs and/or other debris to discourage use of a site or portions of a site. Some sites have been closed to use by regulation and are posted as restoration areas. Restoration efforts

have been of limited success in areas where use levels are on an upward trend or where use levels are traditionally very high on busy summer and holiday weekends. In all cases where ground disturbance is a component of the restoration process, environmental analysis is required before any ground disturbing activity can be approved.

Threatened, Endangered And Sensitive Species - The Regional Office maintains a list of sensitive species (Regional Forester's Sensitive Species List) under the direction of the Forest Service Manual, FSM 2670.44. It is the policy of the Region that all actions are taken to ensure that management activities do not jeopardize the continued existence of species listed under the Endangered Species Act as threatened, endangered or sensitive species or result in adverse modification of their essential habitat (FSM 2670.3). Management activities which could jeopardize the existence of a Regional Foresters's sensitive or federally listed threatened, endangered or sensitive species require environmental analysis prior to approval of the project or activity. This would include projects such as trail relocations and site restoration work where some ground disturbance is expected.

Visitor use of the backcountry has undoubtedly had some effect on plant and animal species through loss of vegetation from trampling and disturbance to animals simply due to the presence of people. These impacts are considered to be very localized and, to date, there is no indication that threatened, endangered or sensitive species have been significantly impacted. Over time, if rising use trends continue, the impact of visitor use on TES species may become more of a concern.

A list of all Threatened, Endangered and Sensitive plant and animal species documented or suspected to occur on the Gifford Pinchot National Forest can be found in Appendix B.

Cultural Resources - Numerous sites, structures and trails within the Wildernesses have been identified as having historic or cultural significance. Many of those sites have been deemed eligible for inclusion in the National Register of Historic Places. American Indians have used many of the areas within the Wildernesses as travel routes and for hunting, fishing, gathering and religious purposes. Many of the trails and sites that have cultural and/or historic significance are being utilized today by backcountry visitors as they travel and camp within Wilderness. Some surface disturbance of sites has occurred although subsurface disturbance has probably been limited.

WRS/WROS Classification - Table 2-4 shows the current total acres in each WRS/WROS classification for all Gifford Pinchot National Forest Wildernesses combined. Maps and acreages for individual Wildernesses are indicated in Appendix A.

Table 2-4
WRS /WROS Acreage Allocations for All Wildernesses

WRS/WROS classification		Acres
Transition	W5	8,750
Semi-Primitive	W4	16,450
Primitive	W3	141,150
Pristine	W2	13,690
Special Area	W6	560
Total		180,600

Standards And Guidelines

Figure 2A is from the Gifford Pinchot Forest Plan (1990) and summarizes existing standards and guidelines for Wilderness on the Gifford Pinchot National Forest. The Wilderness Recreation Opportunity Spectrum (WROS) class titles (Transition, Semi-Primitive, Primitive, Pristine and Special Area) reflect changes made via an amendment to the Forest Plan in 1995 and provides terminology consistent with the Wenatchee National Forest and the Pacific Northwest Region (Washington and Oregon).

Following is a summary of conditions based on Standards and Guidelines from the Forest Plan:

- CAPACITY COEFFICIENT RVDS/ACRE/YEAR - Recreational Visitor Days (RVDs) have been estimated for each Wilderness for the years 1992 through 1996. A Recreation Visitor Day is defined as a single person for a defined period of time, such as 12 hours used on the Gifford Pinchot NF for wilderness. In each case, the measured RVDs are considerably lower than the RVD capacity standards indicated in the Forest Plan (capacity was determined based on the amount of land suitable for recreating and factored with a RVD co-efficient for each WRS/WROS class). The capacity standards indicated in the Forest Plan were largely based on unsubstantiated use information that was available prior to publication of the Forest Plan in 1990. The RVD capacity estimates reflect a significant overestimation of Wilderness use. In addition, while the Forest Plan RVD standards are broken down by WRS/WROS class in the standard and guideline summary, it has not been possible to calculate accurate RVD estimates for all classes because information gathered from permits does not provide enough detail for all areas to accurately determine the length of time spent in each WRS/WROS area. For this reason, the use estimates are given as totals for each Wilderness. Table 2-5 gives the Forest Plan RVD capacities for each Wilderness and the average use levels in RVDs given as

an average for all years 1992 through 1996 [5].

Table 2-5
RVD Capacities and Average Annual Use

Wilderness	RVD Capacity (from Forest Plan)	Projected RVDs per Acre	RVD Use	Actual RVDs per Acre
Glacier View	6,370	2.07	4,700	1.53
Goat Rocks	48,060	0.67	23,500	0.33
Indian Heaven	49,370	2.36	15,100	0.73
Mt. Adams	57,780	1.22	27,200	0.58
Tatoosh	5,070	0.32	1,800	0.11
Trapper Creek	13,010	2.19	2,200	0.37
William O. Douglas	16,880	1.06	10,200	0.65

[5] Glacier View and Tatoosh Wildernesses averages are calculated from 1992 through 1995 information due to flood damaged roads in 1996.

Figure 2A adapted from Forest Plan 1990
Wilderness Management Options
Limits of Acceptable Change Summary 1/ 2/

Standard (Indicator)	*Intensities ☆*				
	W5 Transition	**W4 Semi-Primitive**	**W3 Primitive**	**W2 Pristine**	**W6 Special Area 5/ (Butter Cr RNA)**
Capacity Coefficient RVDs/Acre/Year	15	3.75	0.001 4/	0.25	0.25
Veg. Loss at Campsite (Square Feet)	600	400	200	0	0
Maximum Trampled Area (Square Feet) "Seasonal Recovery"	1,500	1,000	600	100	0
Mineral Soil Exposed (Square Feet)	75	50	20	0	0
Trees with Roots Exposed or Percent of Trees on Site whichever is least	8(50)	6(25)	2(25)	0	0
Average Number Parties Encountered when Traveling/Day/Snow-free Season	8	5	2	1	1
Party Size Limit (People and Stock) (*Encouraged)	12	12	12	6 people* 9 stock*	6 people* 0 stock*
Party Size Limit (People and Stock) with Permit 3/	30	30	30	10	10
Maximum Number Campsites Visible When Occupied	3	1	1	0	0
Maximum Number Fire Rings/Campsite	1	1	1	0	0

1/ A standard may be made more restrictive on site-specific areas at the discretion of the District Ranger, if no resource damage is occurring. These areas will be identified by name and the lower LAC documented.

2/ Trails are defined as system trails and user-built that have the travelway maintained or worn to mineral soil over long distances.

3/ Permits may be denied if other standards are being exceeded or resource damage is expected. Permits must specify routes of travel, camp locations, dates, and other conditions necessary to meet management objectives.

4/ The .001 capacity is intentionally set low because only a small proportion of the area is suitable for use.

5/ Refer to the Research Natural Area Management Area Category for additional management direction concerning the Butter Creek RNA.

☆ WRS/WROS classes were previously referred to as Transition, Trailed, General Trailless, Dedicated Trailless and Special Area.

- ❑ VEG. LOSS AT CAMPSITE (SQUARE FEET) - This measures the amount of vegetation loss in campsites primarily due to trampling and is an indicator of campsite condition. Of

approximately 700 campsites monitored, the average vegetation loss for all sites is 542 sq.ft. Based on the current standards for vegetation loss, 32% of the sites exceed the standard for vegetation loss in the Transition classification, 31% in Semi-Primitive (formerly Trailed), 25% in Primitive (formerly General trailless) and 48% in Pristine (formerly Dedicated Trailless). There are currently no identified sites in the Special Area (Butter Creek Research Natural Area) within Tatoosh Wilderness. The following table summarizes the information collected by WRS class. Sites monitored in the South Climb corridor are not included.

Table 2-6
Vegetation Loss at Campsites

WRS Class	Vegetation Loss Std.	Avg Veg Loss/site in Sq Ft	# Sites monitored[6]	Ave. Veg. Loss/site with >1500 sq.ft. sites removed	# of sites monitored	# Sites exceeding std.	% of sites exceeding std.
W2 Pristine	0	128	23	128	15	11	48
W3 Primitive	200	234	154	173	132	39	25
W4 Semi-Primitive	400	557	350	270	301	109	31
W5 Transition	600	797	178	362	135	57	32
W6 Special Area	0	0	0	0	0	0	0
Totals	~	542	705	269	583	216	31

Data analysis indicates that extremely large sites tend to skew the averages within each WRS class. A higher percentage of large sites (over 1500 sq. ft.) are found in the Transition zone (24%). Of the 23 sites over 3000 sq. ft, none are found in Pristine (W2) and only one site is in Primitive (W3). The remaining 22 sites are in the trailed WRS zones (W4 and W5). It appears that sites situated in close proximity to established trails are prone to have more vegetation loss. This is probably due to a higher frequency of use of sites along trail systems and the limited opportunity for vegetation to recover on the more frequently used sites.

- MAXIMUM TRAMPLED AREA (SQUARE FEET) "SEASONAL RECOVERY" - This indicator measures the area of trampled vegetation at a campsite and is intended to be an indicator of campsite condition. Measurements for trampling were done as part of the monitoring protocol for each site. Difficulties were encountered in attempting to measure trampled area. Evidence of trampling could not always be attributed to human activity. In some cases, deer and elk had trampled the area or heavy snowpack had smashed vegetation.

[6] There are 263 sites in the South Climb Zone of Mt. Adams that have been inventoried but not monitored.

In addition, determining the extent of the trampling proved to be very subjective depending on the person monitoring the site. Data collected on trampling is considered to be of little value for determining campsite conditions. The measurements of trampled area that were taken, however, showed that 42% of sites exceeded the standard for the appropriate WRS class with average trampled areas being 2424 ft in Transition, 1792 ft. In Semi-Primitive, 1023 ft. in Primitive and 429 ft. in Pristine. There are currently no identified sites in the Special Area (Butter Creek Research Natural Area) within Tatoosh Wilderness.

- MINERAL SOIL EXPOSED (SQUARE FEET) - This indicator measures the area where organic soil has been removed or eroded away in campsites and is intended to be a measure of campsite conditions. Measurements were done as part of the monitoring protocol for each site. Difficulties were encountered trying to accurately measure the amount of mineral soil exposed. In most sites there was not a clear distinction between mineral soil and organic layers due to human disturbance causing mixing of organic materials into surface layers. Subjective judgement was needed to determine the amount of exposed mineral soil present. Data collected on mineral soil exposed is considered to be of little value for determining campsite conditions. Recorded measurements indicate that most of the sites had no exposed mineral soil. In cases where measurements for mineral soil were made, 57% of sites exceeded standards.

- TREES WITH ROOTS EXPOSED OR PERCENT OF TREES ON SITE WHICHEVER IS LEAST - Movement of soil or compaction of soil around trees tends to expose tree roots to damage from foot and stock traffic. For purposes of measurement, an "exposed root" was a root where trampling from use of the site had removed the bark from the root. This measurement is simply the number of trees that have roots in this exposed condition and is an indicator of campsite condition. Table 2-7 summarizes conditions found for sites for each WRS classification.

Table 2-7
Trees with Roots Exposed

WRS Class	Roots exposed standard	Ave. # of trees with exposed roots/site	# Sites monitored	# Sites exceeding std.	% of sites exceeding std.
W2 Pristine	0	.1	23	1	4
W3 Primitive	2	1.9	154	29	19
W4 Semi-Primitive	6	2.9	350	51	15
W5 Transition	8	4.1	178	18	10
W6 Special Area	0	0	0	0	0
Totals	~		705	99	14

As was the case with vegetation loss, monitoring indicated that the number of trees with

exposed roots did not vary significantly according to WRS class.

- AVERAGE NUMBER OF PARTIES ENCOUNTERED WHEN TRAVELING/DAY/ SNOW-FREE SEASON - This indicator is measured as a simple count of the number of groups encountered while traveling during the course of the day. It is intended to be an indicator of the level of crowding or solitude for an area. To date, the number of encounters documented have been within standard for most areas. Exceptions are noted below in Table 2-8. The Forest Service's ability to collect consistent encounter data is limited. Most trails are patrolled only 1 to 5 times in a given year so it is difficult to accumulate the amount of data needed to accurately represent the encounter situation for each trail or area given that such things as time of season, day of the week, time of day and weather will have dramatic effects on the number of encounters recorded on a given day and time. The data is also somewhat weighted toward weekend situations since the rangers collecting the information work weekends during the summer use season. This means that roughly 2 out of every 5 days (40% of the information) is collected on Saturdays and sundays. A specific group of trails are typically scheduled for more frequent patrols due to specific resource concerns or heavy recreational use levels. These trails will tend to have a larger encounter database. The following table lists all trails where data collected indicated that encounter standards exceeded the current Forest plan standard of "Average Number of Parties Encountered When Traveling/Day/ Snow-free Season" at least once based on data collected between 1992 and 1997.

Table 2-8
Encounter Data for Trails where Standards were Exceeded at Least Once

Trail	# Days when encounter data was collected	# Hours of encounter data collected	# Days when encounter standard was exceeded	Approximate ratio of days out of standard
Puyallup #248	74	121.2	3	1 in 25
Lake Christine #249	59	78.6	5	1 in 12
Glacier View #267	35	59.5	4	1 in 9
Tatoosh #161	111	348.5	1	1 in 111
PCT #2000 (Goat Rocks)	127	417.3	15	1 in 8
Packwood Lake #78	62	148.1	3	1 in 21
Lily Basin #86	73	233.8	13	1 in 6
Goat Ridge #95	26	87.7	1	1 in 26
Snowgrass #96	185	335.2	24	1 in 8
Nannie Ridge #98	27	99.9	2	1 in 14

Trail	# Days when encounter data was collected	# Hours of encounter data collected	# Days when encounter standard was exceeded	**Approximate ratio of days out of standard**
PCT #2000 (W.O. Douglas)	123	401.5	14	1 in 9
Placid Lake #29	45	21.9	1	1 in 45
Indian Heaven #33	78	63.5	9	1 in 8
Thomas Lake #111	105	104.9	15	1 in 7
Elk Lake #176	13	10.8	1	1 in 13
Lemei Lake #179	17	28	1	1 in 17
PCT #2000 (Indian Heaven)	70	63.1	4	1 in 17
Round the Mountain #9	38	48.6	1	1 in 38
High Camp #10	30	43	2	1 in 15
Killen Creek #113	58	68.5	4	1 in 16
South Climb #183	187	380.3	60	1 in 3
PCT #2000 (Mt. Adams)	89	90.4	3	1 in 30

- PARTY SIZE LIMIT (PEOPLE AND STOCK) - The party size limit for all Gifford Pinchot National Forest Wildernesses is a maximum of 12 for a combination of people and stock. This limit is enforced by regulation. Compliance with the group size limit has been excellent with less than .24 % of total use being in violation of the regulation. The encouraged group sizes of 6 people with no more than 9 stock for Pristine (formerly Dedicated Trailless) and 6 people with 0 stock in Special Areas is generally being realized since neither area has trails (which tends to discourage stock use) and the average group size for all areas is approximately 2.7 people per group.

- PARTY SIZE LIMIT (PEOPLE AND STOCK) WITH PERMIT - Protection of resource conditions is a primary consideration prior to authorizing oversize groups. Permits for exceeding the group size limit of 12 are rarely issued due to very restrictive criteria for approval.

- MAXIMUM NUMBER OF CAMPSITES VISIBLE WHEN OCCUPIED - This indicator is a measure of campsite crowding. Vegetation and topography are important factors since the measurement relies on visibility between sites. Generally, a high percentage of sites exceed this standard in all WRS/WROS where the standard is zero or one campsite visible. In the Transition classification, where the standard is 3 campsites visible, most of the sites are within standards. The following table summarizes measured conditions based on this indicator.

Table 2-10
Data for Number of Campsites Visible

WRS Class	Maximum # of campsites visible (std)	Ave. # of campsites visible/site	# Sites monitored[7]	# Sites exceeding std.	% of sites exceeding std.
W2 Pristine	0	1.0	23	12	52
W3 Primitive	1	1.3	154	48	31
W4 Semi-Primitive	1	1.5	350	139	40
W5 Transition *	3	2.0	178	28	16
W6 Special Area	0	0.0	0	0	0
Totals	~	1.6	705	227	32

- MAXIMUM NUMBER OF FIRE RINGS/CAMPSITE - The number of fire rings in a campsite is intended to be an indicator of campsite condition although it is logical to assume that there should be no more than one fire ring in any campsite. Since fire rings can be relatively easily removed, the standard of one fire ring per campsite for the Transition, Semi-Primitive and Primitive WRS/WROS classes and zero fire rings for the Pristine and Special Area WRS/WROS classes have been met in virtually all inventoried campsites. The following table summarizes the data collected on fire scars vs. just counting fire rings in campsites. A fire scar is defined as an area where repeated fire use has occurred and there is evidence of charred or heat sterilized soil, blackened rocks or extensive charcoal remnants.

Table 2-11
Data for Number of Fire Scars Per Campsite

WRS Class	Standard for maximum # of fire rings	Ave. # of fire scars per site	# Sites monitored[7]	# Sites where # of fire scars exceeds the fire ring std.
W2 Pristine	0	1.4	23	22
W3 Primitive	1	1.3	154	42
W4 Semi-Primitive	1	1.4	350	118
W5 Transition	1	1.4	178	57
W6 Special Area	0	0.0	0	0
Totals	~	1.4	705	239

7 There are 263 sites in the South Climb Zone of Mt. Adams that have been inventoried but not monitored.

ALTERNATIVE B - Amend the Forest Plan Standards and Guidelines for Wilderness

This alternative amends three sections of the Gifford Pinchot National Forest Land and Resource Management Plan (Forest Plan):

1) Appendix B, Wilderness Management section of the Forest Plan
2) Page IV-25 in the Forest Management Direction chapter of the Forest Plan
3) Pages IV-116 through IV-121 in the Forest Management Direction chapter of the Forest Plan

The principal changes are to the standards and guidelines and Wilderness Resource Spectrum (WRS) classification areas - currently referred to as the Wilderness Recreation Opportunity Spectrum (WROS). Intensive baseline inventory and monitoring began prior to Forest Plan publication in 1990 and have continued to the present time. Following is a summary of the findings that have come out of the inventory and monitoring program. These findings provide the basis for the proposed changes:

1. Many Forest Plan standards for Wilderness resource conditions, as indicated in the Forest Plan Limits of Acceptable Change Summary (see Figure 2A in this document), are being exceeded.

2. The Forest Plan carrying capacity standards for each Wilderness were based on inaccurate estimates of historic use levels. This resulted in a significant overestimation of total capacity.

3. Some indicators (listed as 'Standards' in the Forest Plan) for measuring physical impacts in Wilderness proved to be ineffective for monitoring changes in conditions.

4. WRS/WROS class designations, as indicated on the WRS/WROS maps in the Forest Plan Limits of Acceptable Change Summary, were intended to reflect non-degradation principles. This means that the condition standards associated with each WRS/WROS classification were intended to be representative of the existing conditions or, in some cases, improved conditions in various areas. Under no circumstances was the classification system intended to allow degradation of conditions by applying a WRS classification with standards that were lower than the existing conditions. Recent monitoring, however, has indicated that the current WRS/WROS classifications are not representative of current conditions much less desired conditions. In part, this is due to the limited information that was available when the original classifications were mapped. In addition, the original WRS/WROS classifications combined both the social and physical standards. This resulted in some situations where WRS/WROS classifications that were primarily based on social standards resulted in the application of associated physical standards that could allow degradation of physical conditions while still remaining within standard.

5. A definitive campsite density indicator was not included in the original LAC summary. This would effectively leave the door open to unlimited creation of new sites with no upper limit standard. The current Forest Plan standards and guidelines are primarily based on the

assumption that the physical conditions of campsites are tied to the WRS/WROS designation they fall within. Recent monitoring indicates that there is limited correlation between campsite conditions and the WRS/WROS designation. Campsite density (number of campsites per given area) appeared to be better correlated to the WRS/WROS designation.

6. Management actions that have been taken to deal with resource concerns have been only marginally effective. This includes such actions as:

    - ✓ campfire closures
    - ✓ site rehabilitation
    - ✓ stock restrictions
    - ✓ camping closures
    - ✓ education/information programs directed at specific issues
    - ✓ focused law enforcement operations

Previous Forest Plan Amendments - Wilderness Management Area Category (W) Standards and Guidelines section of the Gifford Pinchot Forest Plan was amended in 5/1/95 as part of Forest Plan Amendment 11, which incorporated guidance from the Northwest Forest Plan. The Goals and Desired Future Conditions statements remained the same.

Use Levels - There would be no change in anticipated use patterns under this alternative. Annual increases in use of between 1% and 3% would be expected.

Permit System - Permits would continue to be required for day and overnight entry into all Gifford Pinchot National Forest Wildernesses. The permits would be non-regulatory and self issued at trailheads. Permit information would be used to monitor use trends.

Information/Education - There would not be significant changes in the way information is made available to Wilderness visitors and other interested groups. Educational programs would continue as before. Monitoring of conditions based on new standards and guidelines may change the focus of educational/informational materials and programs. Volunteers would continue to be utilized in the capacities for which they are recruited for.

Outfitter/Guide Use - The only change to outfitter and guide operations under this alternative is that as of the year 2010, all existing outfitter/guide services within Wilderness will be required to be administered by a person who is certified as a master of Leave No Trace. For those proposing outfitter/guide services after the signing of this document they will be required to show their certificate as a master of Leave No Trace before their application will be considered complete.

Site Restoration - The new standards and guidelines proposed in this alternative will improve our ability to track the effects of restoration efforts and to monitor incremental changes in overall Wilderness **and** site specific conditions. If use levels continue to rise as projected, however, opportunities for restoration

projects will remain somewhat limited.

Threatened, Endangered And Sensitive Species - There would be no change to the current standards and guidelines with regard to Threatened, Endangered or Sensitive Species under this alternative. Any management activities that could jeopardize the existence of a threatened, endangered or sensitive species would require environmental analysis prior to approval of the project activity.

A list of all Threatened, Endangered and Sensitive plant and animal species documented or suspected to occur on the Gifford Pinchot National Forest can be found in Appendix B.

Cultural Resources - There would be no change to the current standards and guidelines with regard to cultural resources under this alternative. Protection of cultural sites would be primary consideration with all management activities.

Proposed Changes to WRS/WROS Classifications - Table 2-12 summarizes the proposed acreage allocations for each WRS/WROS classification. Maps and acreages for individual Wildernesses are indicated in Appendix A.

Table 2-12
Proposed WRS/WROS Acreages

WRS/WROS classification		Proposed Acres	Current Acres
Transition	W5	590	8,750
Semi-Primitive	W4	1,719	16,450
Primitive	W3	112,085	141,150
Pristine	W2	63,762	13,690
Special Area	W6	532	560
South Climb Zone	SCZ	855	~
	Total	179,543	179,543

Proposed Changes to Current Standards And Guidelines

Following are descriptions of the proposed changes to the Gifford Pinchot National Forest Land and Resource Management Plan. Some current Forest Plan indicators have been dropped, some have been retained with modifications and others have been added.

These WRS changes are based on inventories of existing conditions, projections of our ability to improve conditions in some areas and the need to prevent degradation of conditions at a minimum. In addition, social standards (encounters) and physical standards would no longer be directly linked. Where the

encounter standard does not fit with the physical standards within a given WRS class, a different social standard class has been identified. For example, an area with high encounters but minimal physical impacts could have a Transition social standard and a Semi-Primitive physical standard. This flexibility prevents the lowering of either the physical or social standard based on lesser conditions in either category.

Discussion of Proposed Changes to Current Indicators and Standards

Each of the following indicators is listed in the Forest Plan LAC summary. They are listed as 'standards' in Figure 2A but should more correctly be listed as 'indicators' or 'policy statements'.

- CAPACITY COEFFICIENT RVDS/ACRE/YEAR - RVDs are recreation visitor days. An RVD is equal to one person in an area for 12 hours. Estimates for RVDs are based on information collected from permits issued but it is extremely difficult to determine each person's length of stay in Wilderness in order to come up with accurate RVD estimates. Further compounding the problem is the additional calculation needed to determine how much time each person spent in each WRS/WROS zone as they travel through the Wilderness. For simplicity we have credited day users with 1 RVD and overnight users with 1 RVD each for their first and last days and 2 RVDs for each full day in between the entry and exit days. For example, one person hiking in on a Friday (1 RVD) that stayed all of Saturday (2 RVDs) and hiked out on Sunday (1 RVD) would be credited with 4 RVDs. We found no reliable way to calculate the RVDs spent in each WRS/WROS zone.

  PROPOSED CHANGE - Drop the RVD/acre standard for each WRS/WROS zone. Retain a Wilderness wide RVD calculation since this can be determined from permit information. Add a Person Days Per Year standard for each Wilderness since this can be directly determined from permit information. *A Person Days Per Year standard is measured by the total number of people in the Wilderness each day of the year*. Length of stay estimates would be adjusted as use patterns change over time.

- VEGETATION LOSS AT CAMPSITE (SQUARE FEET) - This indicator is often referred to as 'barren core' and is a measurement of the area of total vegetation loss.

  PROPOSED CHANGE - Retain this as an indicator of site condition but refer to this indicator in the future as 'barren core at site' to reflect the more common terminology and the fact that it need not apply to campsites alone. We also propose that, instead of having separate barren core area standards for each WRS/WROS zone, a single upper limit standard (900 square feet) be applied to all sites with an acceptable range of 0 to 900 square feet and a collective target average of approximately 450 square feet. This will allow some normal variation in barren core area to occur between sites that receive vastly different levels of use and allows practical decisions to be made with regard to restoration efforts. For example, it may not be practical to attempt to reduce the barren core area of a particular site to 450 square feet if it is a very popular site in a Transition WRS area. It

may, however, be reasonable to reduce the barren core area of a more remote site to something less than 450 square feet based on use levels for that particular site. In combination with other site indicators, the barren core ratings will be used to determine an overall site condition rating that will be used to track collective site conditions for each Wilderness AND individual site conditions. The upper limit threshold of 900 square feet of barren core will be an indication of unacceptable site conditions regardless of other site indicator measurements.

- MAXIMUM TRAMPLED AREA (SQUARE FEET) "SEASONAL RECOVERY" - We propose to drop this indicator completely. Measurements for this indicator are very subjective and we were unable to get consistent measurements. Several problems were encountered such as the inability to consistently determine if trampling was done by humans, deer, elk, or, in some cases, whether snow and/or wind had smashed the vegetation. In addition, each person monitoring had their own perception of what constituted the edge of the trampled area.

  PROPOSED CHANGE - Eliminate as an indicator.

- MINERAL SOIL EXPOSED (SQUARE FEET) - We propose to drop this indicator. The intent with this indicator was to measure the amount of area where the organic soil had been removed or eroded away down to mineral soil. One problem was that we seldom encountered areas where there was a clear distinction between the mineral soil layer and organic layers. Quite often there was mixing of organic soil and mineral soil which complicated measurements. To further complicate the situation, a considerable amount of Mount St. Helens ash was deposited in the nearby Wildernesses following the 1980 eruption and this ash is essentially mineral soil laid down in a layer on top of organic soil.

  PROPOSED CHANGE - Eliminate as an indicator.

- TREES WITH ROOTS EXPOSED OR PERCENT OF TREES ON SITE WHICHEVER IS LEAST - This indicator is intended to reflect the relative impact from occupancy of a site. Movement of soil or compaction of soil around trees tends to expose tree roots and is an indicator of the level of use of a site. Once tree roots are exposed, the bark covering is susceptible to damage from foot and stock traffic.

  PROPOSED CHANGE - As with the Barren Core indicator, we propose this indicator be used in combination with other site indicators to determine an overall site condition rating. Within the rating, the number of trees with root damage will be the measure used to rate the indicator. This will enable us to track overall site conditions for each Wilderness AND individual site conditions. An upper limit threshold will be identified that will be an indication of unacceptable site conditions regardless of other site indicator measurements. This indicator will be referred to as 'root damage' in the proposed site condition monitoring criteria table.

- AVERAGE NUMBER OF PARTIES ENCOUNTERED WHEN TRAVELING/DAY /SNOW-FREE SEASON - This is a simple count of the number of groups encountered while hiking within Wilderness during the course of a day. It is intended to be an indicator of the level of crowding or solitude for an area. We encountered several problems with this indicator as it was written: 1) It is difficult to distinguish one group from another as groups string out and overlap along the trail. 2) Our ability to collect encounter data is very limited. Since use levels vary by area, trail, the season of use, day of week, and time of day, it is not possible to collect encounter data that covers the range of variables in a statistically valid manner given our current and projected staffing levels. 3) There is no uniform length of time established that constitutes a standard travel time. For example, on a short trail the average travel time may be less than one hour and therefore the number of parties encountered will tend to be relatively low even though the number of people encountered on a per hour basis may be relatively high. Conversely, on longer trails, the average travel time may be several hours and the number of parties encountered will tend to be relatively high even though the number of encounters on a per hour basis will be low. The number of parties encountered varies by trail and is largely affected by the length of time it takes to travel to the primary destination for each trail. 4) In the Forest Plan LAC summary, physical standards are associated with encounter standards for each WRS/WROS classification. The implication is that areas that have more encounters also have more physical impacts. We found that this is not the case in some areas. For example, in a given transition area which has a lot of day hikers you would generally encounter more people. However, since the use is predominantly day use there may be minimal physical impacts, since day hikers are generally not creating or using campsites. The result of connecting physical and social standards within WRS/WROS classes, in this case, would be an overestimation of allowable physical impacts. In turn, physical conditions could decline in this area and we would still be well within our physical standards. Data collected since publication of the Forest Plan bear out this situation. There are areas where we have relatively high encounters and the associated physical standards for the area would allow significant impacts to occur and still allow us to remain within standard. We feel this is an unacceptable situation.

  PROPOSED CHANGE - We propose to retain this indicator with 3 modifications. 1) Change the indicator standards to reflect the number of people encountered as opposed to the number of parties. Using a group size average we simply propose changing from number of groups encountered to number of people encountered. 2) Define the "travel day" as 8 hours so that hourly comparisons can be made between trails. 3) Separate the encounter standards from the physical standards. For many areas there is no direct correlation between the number of people encountered along a trail and the physical conditions along the same trail. For example, the physical conditions along a particular trail may be pristine even though the encounter rate is relatively high. Establishing encounter standards that are independent of physical standards allows independent evaluation of physical and social conditions. This prevents situations where physical conditions could be allowed to degrade to a lesser standard in areas where trail encounters are high but still within acceptable ranges.

- Party Size Limit (People and Stock)(* Encouraged)

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- Party Size Limit (People and Stock with Permit)

Both of these indicators relate to the number of people and stock that are allowed in a single group. Waivers to the maximum group size are very rarely issued.

PROPOSED CHANGE - Retain group size limits but remove from the LAC summary chart as an indicator since the current standard of 12 is the same for all areas. Group size limit measures would be listed for each Wilderness in the amended Appendix B. The maximum group size would remain 12 for all Forest Wildernesses although lower group size limits could be implemented on a case by case basis where it is deemed necessary to protect resource values. Permits for a temporary waiver of the maximum group size will be handled on a case by case basis. Smaller group sizes may be encouraged in some areas.

- MAXIMUM NUMBER CAMPSITES VISIBLE WHEN OCCUPIED - This is an indicator of site density and crowding.

PROPOSED CHANGE - Retain as an indicator with minor adjustment in the standard for Transition and Semi-primitive WRS classifications. Data collection indicated that 3 campsites visible in the Transition zone were not a common occurrence and could be managed effectively with the proposed change to a standard of 2 visible campsites. This standard is currently being met in the vast majority of Transition areas. The Semi-primitive standard will be changed from 1 to 2 campsites visible. In part, this is because the acreage under the Semi-primitive classification is significantly reduced in this proposal and includes only the most heavily utilized portions of the areas previously classified as Trailed. This change will not result in allowing more resource impacts in those areas. This indicator will be listed with other indicators relating to site density.

- MAXIMUM NUMBER FIRE RINGS/CAMPSITE - This is the number of fire rings that are acceptable in a campsite. We found this indicator to be of limited use as described. Since fire rings can be constructed and/or removed rather quickly, long term monitoring shows this is less an indication of conditions than it is of people's ability to remove or construct fire rings. Also, for practical purposes, it makes little sense to have a standard other than 1 fire ring for any site.

PROPOSED CHANGE - We propose to retain this indicator in a modified form. Re-describe as 'fire scars' to better indicate the impacts from past and existing fire rings. Do not include a separate 'fire scar' standard for each WRS/WROS classification. Instead include 'fire scars' as a component of the site condition rating in combination with other site indicators. It will then be used to determine an overall site condition rating that will be used to track the overall site conditions for each Wilderness AND individual site

conditions. An upper limit threshold will be identified that will be an indication of unacceptable site conditions regardless of other site indicator measurements.

Proposed <u>New</u> Indicators And Standards -

Discussion of Proposed New Indicators and Standards

- PERSON DAYS PER YEAR CAPACITY STANDARD - Instead of having an RVD capacity standard, we propose to add a capacity standard which is simply Person Days Per Year by Wilderness and would be based on a People at One Time (PAOT) daily capacity. In other words, there would be a limit on the number of people allowed into a particular Wilderness on any given day. The intent would be to provide some control over the peak use periods that result in the creation of new sites and/or larger sites. The capacity standard is based on use data gathered for each Wilderness.

- CAMPSITE DEVELOPMENT - This proposed indicator is intended to reflect the relative impact from occupancy of a site. Developments are any physical items of the site made by humans, such as corrals, meat racks, toilets, seats, etc. The proposed indicator will not include a separate 'Campsite Development' standard for each WRS/WROS classification. Instead it will include 'Campsite Development' as a component of the site condition rating in combination with other site indicators. It will then be used to determine an overall site condition rating that will be used to track the overall site conditions for each Wilderness AND individual site conditions. An upper limit threshold will be identified that will be an indication of unacceptable site conditions regardless of other site indicator measurements.

- SITE CONDITION STANDARD - A condition standard for each Wilderness is established based on an inventory of site conditions and our anticipated ability to improve conditions in various areas. Overall site conditions within a particular Wilderness should not be allowed to degrade below these established levels. Eight indicators are used to determine a "score" for each site. The average site rating for all sites monitored in each Wilderness is a primary factor in determining the Site Condition Standard rating for that Wilderness. Analysis of site condition information has indicated that an overall rating of 2.5 is a reasonable upper limit for an average site condition rating. All but one Wilderness have current overall site condition ratings of 2.5 or less. The objective, over time, would be to maintain conditions at a 2.5 rating or less and, in the case of Indian Heaven where the current overall condition rating is 3.0, gradually improve conditions with the objective of meeting a 2.5 or better condition rating at some point in the future. An example of how a site condition rating is derived at is in Table 2-13.

Table 2-13
Site Condition Rating Example

Indicator	Physical Measurement	Rating Class
Barren Core Area	575 square feet	3
Fire Scars	1 Fire Scar	2
Campsite Development	none	1
Vegetation Loss	Difference of 1 Coverage Class	3
Root Damage	8 trees	5
Tree Mutilations	4 trees	3
Campsites Visible	2 campsites	3
Access Trails	4 total access trails	5
	Average of Rating	3

The site condition standard number selected for each Wilderness is intended to prevent degradation of conditions. For reference, a site with a class 1 rating would have no measurable impacts versus a site with a class 5 rating which would have severe impacts. Each site is monitored and a "score" is determined based on eight indicators (see Figure 2C). Four of the indicators are adapted from current Forest Plan indicators (barren core, fire scars, root damage & campsites visible) and four new indicators (campsite development, vegetation loss, tree mutilations & access trails) were adopted during the monitoring process.

- ❑ A Single Campsite per Area by WRS Classification

  &

- ❑ Number of Campsites Per Any Acre by WRS Classification

These two proposed site density indicators are intended to address concerns about the proliferation of sites over time. For purposes of these standards, the term "campsite" can include any site where significant use impacts are evident. In combination, these indicators would address overall density of sites within each WRS classification by establishing standards for the total number of sites allowed within each classification and the number of sites allowed in destination areas within a specific WRS classification. In a Pristine WRS area, for example, fewer sites would be allowed on a per acre basis than in a Transition WRS area. In addition, crowding of sites at destination areas would be controlled by limiting the number of sites on any given acre within a WRS area. This latter measure prevents situations where all of the allowable sites for a WRS area end up clustered into just one or two acres within the entire area.

- TREES MUTILATIONS - This proposed indicator is intended to reflect the relative impact from occupancy of a site. Trees with scars, or that are stumps and that are visible from the site is an indicator of the level of use of a site. The proposed indicator will not include a separate 'Tree Mutilations' standard for each WRS/WROS classification. Instead it will include 'Tree Mutilations' as a component of the site condition rating in combination with other site indicators. It will then be used to determine an overall site condition rating that will be used to track the overall site conditions for each Wilderness AND individual site conditions. An upper limit threshold will be identified that will be an indication of unacceptable site conditions regardless of other site indicator measurements.

- ACCESS TRAILS - This proposed indicator is intended to reflect the relative impact from occupancy of a site. Access trails are side trails which provide access to water, viewpoints or other sites. The proposed indicator will not include a separate 'Access Trails' standard for each WRS/WROS classification. Instead it will include 'Access Trails' as a component of the site condition rating in combination with other site indicators. It will then be used to determine an overall site condition rating that will be used to track the overall site conditions for each Wilderness AND individual site conditions. An upper limit threshold will be identified that will be an indication of unacceptable site conditions regardless of other site indicator measurements.

PROPOSED STANDARDS AND GUIDELINES SUMMARY- The proposed standards and guidelines for this alternative are shown in Figures 2B and 2C. These standards are based on monitoring information that has been collected for each Wilderness and, in general, would preserve or moderately improve conditions that currently exist. In the case of Indian Heaven Wilderness, the site condition rating of 2.5 would reflect a desire to significantly improve conditions to a level that is closer to that which exists in the other Wildernesses. The current site condition rating in Indian Heaven is 3.0. These standards and guidelines would only apply to Wildernesses or portions of Wildernesses on the Gifford Pinchot National Forest. Standards and guidelines for the Wenatchee National Forest portions of the Goat Rocks and William O. Douglas Wildernesses can be found in the Forest Plan for the Wenatchee National Forest.

Figure 2B
Wilderness Management Options
Limits of Acceptable Change Summary

Wilderness	Acres	Annual RVDs[1]	Site Condition Standard[2] [3]	Person Days Per Year
Glacier View	3,067	4,700	2.5	4,300
Goat Rocks	71,217	23,500	2.4	16,700
Indian Heaven	20,832	15,100	2.5	12,400
Mt. Adams South Climb	47,096	13,900 13,300	2.5 2.5	11,000 10,000
Tatoosh	15,704	1,900	2.4	1,500
Trapper Creek	5,908	2,200	2.5	2,000
William O. Douglas	15,723	10,200	2.5	7,000
Total	179,547	84,800	~	64,900

Site Density Standards

Indicators	*Wilderness Resource Spectrum*					
	Transition	Semi-Primitive	Primitive	Pristine	Special Area	South Climb
Campsites per any acre	3	2	1	1	0	5
1 Campsite per area	5 acres	7 acres	480 acres	960 acres	none	5 acres
Campsites Visible	2	2	0	0	0	~

Social Standards

Indicators	*Wilderness Resource Spectrum*					
	Transition	Semi-Primitive	Primitive	Pristine	Special Area	South Climb
Average Number of People Encountered when Traveling/Day[4]/Snow free Season	24	15	6	3	3	48

1 The numbers shown are the permit database averages for the respective Wilderness for the years 1992 - 1996. Except Glacier View is from 1992 - 1995 and Tatoosh Wilderness is the 1992 - 1995 average plus 7% to compensate for the percentage of days that no one entered the Wilderness based on our data.

2 The site condition standard is based on inventory of existing conditions and desired future conditions, to manage to a non-degradation standard. Site specific factors used to determine the site condition rating are described in Figure 2C

3 For a description of the Site Condition Standard refer to Figure 2C.

4 Travel day is defined as an 8 hour day.

Figure 2C
Site Condition Monitoring Criteria

Indicators	Class 1	Class 2	Class 3	Class 4	Class 5
Barren Core Area (in square feet)	Absent	1 to 300	301 to 600	601 to 900	> 900
Fire Scars	Absent	1	2	3	4 or more
Campsite Development	Absent	1 Development	2 Developments	3 Developments	4 or more Developments
Vegetation Loss	Same Coverage Class	~	Difference of 1 Coverage Class	~	Difference of 2 Coverage Classes
Root Damage	Absent	~	1 to 4	~	5 or more
Tree Mutilations	Absent	1 to 2	3 to 5	6 to 10	11 or more
Campsites Visible	None	1	2	3	4 or more
Access Trails	Absent	1	2	3	4 or more

Barren Core - Usually the central portion of a site (usually around a fire ring) that is virtually free of living vegetation (often in conjunction with soil compaction) as a result of human use of the area. When measuring barren core, ignore patches of moss and seasonal growth such as occasional seedlings and small sprouts of seasonal growth less than one year old. Naturally non-vegetated areas which show little evidence of soil compaction should not be included. Barren satellite areas, such as stock holding areas, associated with the site are included.

Fire Scars - Count all fire scars and sites of repeated fires, with or without rock rings. Faint scars or sites of one-time use should not be counted.

Developments - Developments might be (but are not limited to): primitive toilets, seats, tables, corrals, meat racks, hitch rail and metal or cement fire rings. Anything that was made by humans, other than litter.

Vegetation Loss - Determine vegetation loss by comparing the average vegetative cover of the TOTAL site area (which includes satellite areas but excludes un-impacted inclusions) to a similar area with the same species, slope, rockiness and canopy as the site was before impact occurred. Determine vegetative coverage by visualizing a projection or shadow effect of living foliage from standing height to ground. Note that coverage classes lie in the range between indicators; the indicators do not represent coverage classes.

Root Damage - The number of trees visible from the site with the bark removed and root wood exposed. Do not count natural exposures.

Tree Mutilations - The number of trees with scars that are visible from the site. Include stumps and other obviously human-made damage to any standing tree, living or dead. Do not include trees already counted for root damage.

Campsites Visible - The number of campsites that would be visible from the monitored site if those sites were occupied.

Access Trails - Access trails are side trails which provide access to water, other sites, viewpoints, satellite sites, firewood, etc. and are usually not maintained as a system trail. Be careful not to include minor paths; access trails are definable and characterized by vegetative loss.

Figure 2D
Site Condition Monitoring Criteria
for the South Climb Zone of Mt. Adams Wilderness
Above 8,600 foot Elevation

Indicators	Class 1	Class 2	Class 3	Class 4	Class 5
Barren Core Area (in square feet)	Absent	1 to 300	301 to 600	601 to 900	> 900
Campsite Development	Absent		1 rock structure or 1 other dev		2 or more rock structures or 2 or more other devs
Access Trails	Absent	1	2	3	4 or more
Human Waste Visible	Absent	1	2	3	4 or more

Figure 2E
Site Condition Monitoring Criteria
for the South Climb Zone of Mt. Adams Wilderness
Below 8,600 foot Elevation

Indicators	Class 1	Class 2	Class 3	Class 4	Class 5
Barren Core Area (in square feet)	Absent	1 to 300	301 to 600	601 to 900	> 900
Campsite Development	Absent	1 Development	2 Developments	3 Developments	4 or more Developments
Vegetation Loss	Same Coverage Class	~	Difference of 1 Coverage Class	~	Difference of 2 Coverage Classes
Root Damage	Absent	~	1 to 4	~	5 or more
Tree Mutilations	Absent	1 to 2	3 to 5	6 to 10	11 or more
Access Trails	Absent	1	2	3	4 or more
Human Waste Visible	Absent	1	2	3	4 or more

Human Waste Visible - The number of incidences of human waste that are visible from the site.

See Figure 2C for explanation of other Indicators.

ALTERNATIVE C - Amend the Forest Plan Standards and Guidelines for Wilderness and Implement a Restrictive Permit System

Use Levels - Based on the proposed amendments to the standards and guidelines, the restrictive permit program would be managed to hold use at or near the established use levels for Wilderness as indicated in the amended Standards and Guidelines. This would apply to RVDs and Person Days Per Year. Initially, the permit system would apply only to overnight use and climbing Mt. Adams. Restrictive permits could be required for day use if monitoring indicates the need and/or other day use management actions prove inadequate to manage day use impacts.

Wilderness-wide use levels for all wilderness acreage managed by the Gifford Pinchot National Forest would be 64,900 Person Days Per Year in this alternative. Variation would be allowable on a Wilderness by Wilderness basis depending on information gathered through monitoring. For example, if monitoring indicated that conditions were deteriorating in spite of implemented actions, the Forest Service could reduce levels to bring conditions back into compliance with the amended Standards and Guidelines. Conversely, if trends show conditions were significantly improving, the Forest Service could increase use, while conditions remained within the amended Standards and Guidelines.

Within the restrictive permit system, regulated use patterns would attempt to approximate existing patterns except where incompatible with Standards and Guidelines. For example, the South Climb of Mt. Adams may limit use at its current level, but through redistributing that use off of weekends to the currently lesser used weekdays it may achieve the desired resource benefits.

Overnight use currently accounts for approximately 43% of all use although there are distinct variations by wilderness. Backpackers and overnight stock users would be given proportional use allocations based on established use patterns. Backpackers currently account for approximately 39% of all overnight use, stock users account for approximately 4% of all overnight use. Those percentages, would be preserved with some allowance for variations in use patterns.

Day use would initially use the current non-regulatory permit system, but would be monitored and could be managed under the restrictive permit system if conditions warrant it. Day use and Day stock use would be managed based on established use patterns. Day stock use is currently 8% of total use and day hiking use is currently 49% of total use.

Permit System - Public input will be integral to the development of the permit program. Such details as the type of permit (voucher or date specific), length of season regulatory permits are required, percent of permits offered as vouchers, percent of permits issued in advance and how permits would be issued (by phone, by mail, in business outlets, etc.) will need to be determined initially. Over time, changes to the system would be likely as new information and experience with the system develops. *A fee may be required for permits.*

Information/Education - In addition to existing information/education systems that are currently in place, information relevant to specific areas and activities would be provided with all permits that are

issued in advance of proposed trips. All permits issued under the regulatory permit system would be accompanied by educational and regulatory information that would apply specifically to 1) the areas to be visited, 2)season of use and/or 3) anticipated activity. Emphasis would be on information that would promote minimum impact use of the backcountry. For example, hunters in November could receive information that focuses on activities specific to hunting and may also receive information specific to the area they are visiting and the time of year that they are visiting. Relevant information in that case could include information on how to best manage pack stock over relatively long stays, regulations specific to the area they are visiting, suggestions on places to camp and helpful hints on dealing with late fall and early winter weather. The objective would be to provide each visitor with information relevant to their own circumstances so that they are more likely to become familiar with, not only the rules and regulations, but the rationale behind rules and regulations along with techniques they can employ to preserve Wilderness values and enjoy the Wilderness safely. Volunteers would continue to be utilized in the capacities for which they are recruited for.

Outfitter/Guide Use - Alternative C would be the same as described in Alternative B.

Site Restoration - In this alternative, site and area restoration work would be expanded into areas where increasing use trends had previously prevented successful restoration efforts. The intent of the restoration program would be to improve physical conditions and move toward meeting Wilderness site density and condition standards (see Figure 2B) and the standards and guidelines provided in the Northwest Forest Plan. These standards, along with guidance found in Watershed Analyses for key watersheds, will be used to develop restoration plans and identify priority areas.

Threatened, Endangered And Sensitive Species - The Forest Service will continue to ensure that management activities do not jeopardize the existence of TES species. Under this alternative, a limit on total use of the Wildernesses will help to control impacts to plants and wildlife habitat from backcountry visitors in specific areas. Currently, there is no indication that TES species are being significantly impacted by backcountry use.

A list of all Threatened, Endangered and Sensitive plant and animal species documented or suspected to occur on the Gifford Pinchot National Forest can be found in Appendix B.

Cultural Resources - The Forest Service will continue to ensure that cultural resources are protected. It is unlikely that the limit on total use in this alternative will have a measurable positive effect on minimizing impacts to historic or cultural sites.

Standards And Guidelines - Alternative C would implement a restrictive permit system in conjunction with amendments to the Forest Plan Standards and Guidelines for Wilderness as described in Alternative B.

ALTERNATIVE D - Amend the Forest Plan Standards and Guidelines for Wilderness and Implement a Restrictive Permit System for Campsite Use

Use Levels - Based on the proposed amendments to the standards and guidelines, the restrictive permit program for campsite use would be managed to hold the number of campsites at or near the established levels for each WRS/WROS area in Wilderness as indicated in the amended Standards and Guidelines. Initially, the permit system would apply only to overnight use and climbing Mt. Adams. Restrictive permits could be required for day use if monitoring indicates the need and/or other day use management actions prove inadequate to manage day use resource impacts.

The wilderness-wide number of campsites for all wildernesses managed by the Gifford Pinchot National Forest would be 835 in this alternative. Campsites would be managed to not exceed the amended Standards and Guidelines. Campsites would be designated as Hiker Only or Hiker/Stock in proportion to their current use level.

Within the restrictive campsite permit system, campsites would be designated and overnight campers assigned a campsite. For example, a hiker on a three-day trip in the Goat Rocks Wilderness planning to camp at Sheep Lake and then at Goat Lake the following night will be assigned a campsite in each location and must camp in the assigned site.

Day use would initially be monitored and could be managed under the restrictive permit system if conditions warrant it. Day use and Day stock use would be managed based on established use patterns. Day stock use is currently 8% of total use and day hiking use is currently 49% of total use.

Permit System - Public input will be integral to the development of the permit program. Such details as length of season regulatory permits are required, percent of permits issued in advance and how permits would be issued (by phone, by mail, in business outlets, etc.) will need to be determined initially. Over time, changes to the system would be likely as new information and experience with the system develops. *A fee may be required for permits.*

Information/Education - In addition to existing information/education systems that are currently in place, information relevant to specific areas and activities would be provided with all permits that are issued in advance of proposed trips. All permits issued under the regulatory permit system would be accompanied by educational and regulatory information that would apply specifically to 1) the areas to be visited, 2)season of use and/or 3) anticipated activity. Emphasis would be on information that would promote minimum impact use of the backcountry. For example, backpackers could receive information that focuses on how to camp on snow and receive information specific to the area they are visiting and the time of year that they are visiting. Relevant information in that case could include information on how to best secure a tent on snow, regulations specific to the area they are visiting, recognizing and dealing with hypothermia, and how to cook on a snowpack. The objective would be to provide each visitor with information relevant to their own circumstances so that they are more likely to become familiar with, not only the rules and regulations, but the rationale behind rules and regulations along with techniques they can employ to preserve Wilderness values and enjoy the Wilderness safely. Volunteers

would continue to be utilized in the capacities for which they are recruited for.

Outfitter/Guide Use - Alternative D would be the same as described in Alternative B.

Site Restoration - In this alternative, site and area restoration work would be expanded into areas where increasing use trends had previously prevented successful restoration efforts. The intent of the restoration program would be to improve physical conditions and move toward meeting Wilderness site density and condition standards (see Figure 2B) and the standards and guidelines provided in the Northwest Forest Plan. These standards, along with guidance found in Watershed Analyses for key watersheds, will be used to develop restoration plans and identify priority areas.

Threatened, Endangered And Sensitive Species - The Forest Service will continue to ensure that management activities do not jeopardize the maintenance of TES species populations. Under this alternative, a limit on total campsites in the Wildernesses will help to control impacts to plants and wildlife habitat from backcountry visitors in specific areas. Currently, there is no indication that TES species are being significantly impacted by backcountry use.

A list of all Threatened, Endangered and Sensitive plant and animal species documented or suspected to occur on the Gifford Pinchot National Forest can be found in Appendix B.

Cultural Resources - The Forest Service will continue to ensure that cultural resources are protected. Campsites may be rehabilitated and closed in areas where it is deemed that it will further protect culturally significant resources.

Standards And Guidelines - Alternative D would implement a restrictive campsite permit system in conjunction with amendments to the Forest Plan Standards and Guidelines for Wilderness as described in Alternative B.

F. COMPARISON OF ALTERNATIVES

Following is a summary of the main features of the alternatives.

Table 2-13
Main Feature Summary

Alternative	New Standards & Guidelines in Effect with Use Level/Campsites Capacities Established	Restrictive Permit System in Effect
A - no action	No	No
B	Yes	No
C	Yes	Yes
D	Yes	Yes

CHAPTER 3
ENVIRONMENTAL CONSEQUENCES

A. INTRODUCTION

The purpose of this chapter is to disclose the environmental consequences of implementing the alternatives described in Chapter 2.

B. EFFECTS OF THE ALTERNATIVES ON MANAGEMENT OBJECTIVES

The following **management objectives** have been identified for the planning area:

Management Objective 1 - Establish new indicators, associated standards and guidelines, and monitoring protocols to improve our ability to monitor the effects of management actions. This involves an assessment of existing indicators, modification and/or creation of indicators, and the establishment of standards for each indicator based on information currently available.

Alternative A
- **Does not meet** Management Objective 1.
- Current standards and guidelines are retained.

Alternative B
- **Meets** Management Objective 1.
- New indicators, standards and guidelines are developed.

Alternative C
- **Meets** Management Objective 1.
- New indicators, standards and guidelines are developed.

Alternative D
- **Meets** Management Objective 1.
- New indicators, standards and guidelines are developed.

Management Objective 2 - Stabilize the total number of sites in each Wilderness Resource Spectrum (WRS) classification by meeting established site density standards for each WRS area. This will involve restoration and/or closure of some sites.

Alternative A
- **Unlikely to meet** Management Objective 2.
- There are no site density standards on a per acre basis in this alternative. Stabilization of the number of sites would be difficult to achieve if increasing use trends continue as projected.

Alternative B
- **Partially meets** Management Objective 2.
- Site density standards are established for each WRS area. The number of sites within each WRS area would be monitored over time. Stabilization of the number of sites would be difficult to achieve if increasing use trends continue as projected.

Alternative C
- **Meets** Management Objective 2.
- Site density standards are established for each WRS area. The number of sites within each WRS area would be monitored over time. Stabilization of sites would be accomplished in conjunction with a permit system designed to cap use at or near the established carrying capacity.

Alternative D
- **Meets** Management Objective 2.
- Site density standards are established for each WRS area. The number of sites within each WRS area would be monitored over time. Stabilization of sites would be accomplished by designating campsites in conjunction with a permit system designed to cap use at or near the established carrying capacity.

Management Objective 3 - Maintain or improve overall site conditions as needed to meet accepted standards for each Wilderness. This will involve rehabilitation of sites on a broad scale in order to meet site condition standards that have been established for each Wilderness.

Alternative A
- **Does not meet** Management Objective 3.
- There are no overall condition standards to be met under Alternative A. Individual site conditions could be improved which would have a positive effect on overall conditions. There would, however, be no target standard to work toward or meet.

Alternative B
- **Partially meets** Management Objective 3.
- Overall site condition standards would be established. Management actions could be taken to improve overall site conditions however long term maintenance of those improvements would be difficult if increasing use trends continue as projected.

Alternative C
- **Meets** Management Objective 3.
- Overall site condition standards would be established. Management actions would be taken to improve the overall site conditions in conjunction with a permit system designed to cap use at or near the established carrying capacity.

Alternative D
- **Meets** Management Objective 3.
- Overall site condition standards would be established. Management actions would be taken to close all but designated sites and improve the overall site conditions of designated sites in conjunction with a permit system designed to cap use at or near the established carrying capacity.

Management Objective 4 - Maintain or improve conditions in selected sites to meet standards which have been established for individual sites across WRS classifications. This will involve site specific actions to correct or improve conditions in individual sites.

Alternative A
- **Partially meets** Management Objective 4.
- Site conditions can be improved under this alternative, however, it is not considered possible to meet current standards for site conditions due to the nature of the standards established for the various indicators. For example, the barren core standard for sites in the Semi-Primitive areas is 400 square feet. In order to meet standards for just this one indicator, all sites exceeding the 400 square foot standard would need to be revegetated. In this case, 109 sites (31 % of the total number of sites in the Semi-Primitive areas) would need to be revegetated - some to an extensive degree. The proposed standard for barren core would establish an acceptable range (0 to 900 square feet) and a target average that would roughly fall between 300 and 600 square feet based on the overall site condition standard of 2.4 or 2.5. Long term maintenance of site improvements would be difficult to achieve if increasing use trends continue as projected.

Alternative B
- **Partially meets** Management Objective 4.
- Site conditions can be improved under this alternative. Management actions could be taken to improve overall site conditions however long term maintenance of those improvements would be difficult if increasing use trends continue as projected.

Alternative C
- **Meets** Management Objective 4.
- Site conditions can be improved under this alternative. Management actions would be taken in conjunction with a permit system designed to cap use at or near the established carrying capacity. This would allow site conditions to be improved over the long term.

Alternative D
- **Meets** Management Objective 4.
- Site conditions can be improved under this alternative. Management actions would be taken to close all but designated sites and improve the overall site conditions of designated sites in conjunction with a permit system designed to cap use at or near the established carrying capacity. This would allow site conditions to be improved over the long term.

C. KEY ISSUE RESOURCE EFFECTS

Key Issue 1 Degradation of site and/or area conditions within Wilderness from continued heavy use or increasing use.

This issue focuses on the physical impacts caused by people. Increasing use levels result in the creation of new sites and/or increasing impacts to existing sites. The use levels and type of use in specific areas are good indicators of the number and condition of sites that will be found in those areas.

The number of sites and the condition of those sites is related to the level of use a particular area receives.
Within each of the seven Wildernesses, analysis areas were identified based on primary access trails and the destination areas accessed by those trails. Correlations were made between use levels and the relative site density and site conditions in those areas. In general, the analysis indicated that areas with higher use levels had more identifiable sites. In high use areas where topography was a limiting factor in the ability to create new sites, site impacts were more severe which resulted in higher site condition ratings. This is probably due to greater utilization of those few available sites.

The basis for evaluation of this key issue will be current and projected use levels for Person Days Per Year (PDPY), Recreational Visitor Days (RVD) and the total number of campsites projected to exist after 10 years.

Comparison of the Alternatives:

Current Recreation Visitor Days is approximately 84,800.
Current Person Days Per Year is approximately 64,900.
Current Total number of Sites is 874.

Table 3-1
Projected Use Levels and Site Development by Alternative

Alternative	Projected RVDs (10 Years)	Projected PDPYs (10 years)	Total # of Sites projected in 10 years
A	103,249	78,991	985
B	103,249	78,991	985
C[1]	84,800	64,900	835
D[1]	84,800	64,900	835

Use projections are based on Wilderness permit data that has been collected since 1992. Other studies support the conclusion that backcountry use will continue to increase in the future.

A secondary consideration related to use levels is the Forest Service's ability to restore or improve conditions in areas where use levels are increasing. Restoration work can involve site closures, removal of evidence of human use such as fire rings or primitive benches and/or revegetation of denuded areas. The effectiveness of restoration efforts is significantly hampered in areas where human use is

1 Projected RVDs and PDPYs assumes Day Use levels remain constant either by a normal change in use trends, incorporation of day use into the regulatory permit system, or implementation of other management actions to control day use.

increasing. Generally, in areas where increasing use has created more impacted sites, site closures and site restoration efforts have had limited success.

Some significant circumstances are believed to have affected use levels in some years. For example, in the summer of 1994, wildfires were burning in the Alpine Lakes Wilderness to the north. A significant increase in use occurred in the Goat Rocks Wilderness that summer and it is believed that much of the increase was from people being displaced from Alpine Lakes Wilderness due to those fires. In 1996, flood damaged roads temporarily blocked access to numerous trailheads. The most significant impacts occurred in Tatoosh and Glacier View Wildernesses where both of the primary Glacier View trailheads were blocked for most of the summer along with the most popular Tatoosh trailhead. Other variations in use levels have occurred due to weather conditions such as the presence of snow on trails early in the season and poor trail conditions.

The overall use trend for all Wildernesses is up. From 1992 to 1995, there was an overall increase in day use of approximately 19% and an increase in overnight use of 17% for all Wildernesses combined. This increase occurred in spite of declines in day and overnight stock use over the same period. Stock use is approximately 12% of all use. From 1992 to 1996 there is an overall decline in total use which can largely be attributed to flood related access problems in Glacier View and Tatoosh Wildernesses. Over this period, day use declined by 3% and overnight use declined less than 1%. If data for Glacier View and Tatoosh Wildernesses are discounted over this period, the five remaining Wildernesses once again show increases in use; 10% for day use and 4% for overnight use in spite of the fact that many of the trailheads to these Wildernesses had also experienced access problems due to flood damage.

Key Issue 2 Effect on public's ability to freely access and utilize Wilderness due to implementation of management actions and/or additional regulations.

This issue focuses on the impacts to recreational users based on the management action selected. For example, a restrictive permit system could limit the number of people allowed to visit a Wilderness or area on a given day. The result would be that people who were unable to get a permit for that day will not have that recreational opportunity available to them. Conversely, unlimited entry into an area will alter the recreational experience for people that do enter the area. In this situation site conditions will likely be somewhat diminished due to the heavier use. Crowding may also be an issue for some people. While a number of administrative actions could be taken under any alternative, it is expected that more administrative actions would be taken in the absence of a limited entry permit system. Administrative actions can include site or area closures, campfire restrictions, more restrictive group size limits, seasonal trail closures, restrictions on type of use, etc. In short, a restrictive permit system will likely result in a loss of opportunity for some people if demand for recreational opportunities continue to rise as predicted. For people who do get permits, the opportunities will be very similar to what they have experienced in the past. In the absence of a permit system, the opportunity to enter Wilderness would not be lost to anyone but there would be a change in the recreational opportunities within Wilderness. In the latter case, more on site restrictions could be expected, site impacts would be more apparent and more people would be encountered.

Evaluation of the alternatives for this key issue will be based on projections of the number of people who would not be allowed entry due to limitations on entry under a restrictive permit system. The projection will be the difference between the determined carrying capacity under a permit system and predictions of future use of the areas in the absence of a permit system.

Table 3-2 is a projection of the number of people per year that would be denied a permit for entry into Wilderness based on the proposed carrying capacity of 64,900 person days per year and a use increase projection of 2% per year. Also included is a qualitative assessment of the anticipated need for additional restrictions/regulations and the effect on crowding and site conditions. Under Alternatives C & D, displacement due to a limiting permit system will initially have an impact on the traditional high use summer weekends. Weekday displacement may not occur for several years based on the current use patterns. However, under Alternative D, where in the Wilderness a person can camp will be impacted in the first year, by sites being designated and assigned.

Table 3-2
Projected Displacement, Restrictions and Site Effects for All Wildernesses

Alternative	Projected # of People Displaced in 1st Year[1]	Projected # of People Displaced in 5th Year[2]	Projected # of People Displaced in 10th Year[2]	Anticipated Need for Additional Regulations& On-site Restrictions	Anticipated Effect on Crowding	Anticipated Effect on Site Conditions
A	0	0	0	High - based on need to meet *current* standards and guidelines	Increase	Decline - based on meeting *current* standards and guidelines
B	0	0	0	High - based on need to meet *new* standards and guidelines	Increase	Moderate Decline - based on meeting *new* standards and guidelines
C	700	3,600	7,600	Low	Decrease on traditional high use weekends, otherwise no change	Improvement
D	700	3,600	7,600	Moderate - to enforce campsite designations and assignments	Decrease on traditional high use weekends, otherwise no change	Improvement

Key Issue 3 - Displacement of use impacts to other areas including other Wilderness and non-Wilderness areas.

This issue addresses the impacts due to the displacement of people from Wildernesses. Specifically, the displacement to other areas which would occur if capacity limits are established and enforced for the Gifford Pinchot National Forest Wildernesses. Use displacement can occur for various reasons. Natural events such as forest fires and heavy snow packs frequently cause people to alter planned trips. A limiting permit system can also cause displacement and that is the focus of this issue. The number of people that could be displaced under a permit system is indicated in the analysis for Key Issue 2. Under Alternative C, the proposed permit system allows flexibility in the application of the established carrying capacity. Limits could be applied Wilderness wide, by area or by trail and/or by time of week (weekends versus weekdays). Under Alternative D, the proposed designated and assigned campsite permit system would have very limited flexibility in the application of the established carrying capacity. Limits would be applied Wilderness wide. Displacement from trail to trail or Wilderness to Wilderness is less of a concern under Alternatives C & D in this case because permit requirements could be applied

[1] These numbers represent estimated total displacement from all Gifford Pinchot Wildernesses in each respective year.

as needed to protect conditions within any of the Wildernesses administered by the Gifford Pinchot National Forest.

Displacement from Wilderness to non-Wilderness areas can also occur. While the number of people that could be displaced under a permit system can be predicted, it is difficult to determine how all of the displaced people will respond. It can be assumed that a certain percentage will abandon their plans completely and stay home or do something unrelated to backcountry travel. Some will look for opportunities in other Wildernesses or non-Wilderness backcountry areas and still others may opt to participate in other outdoor activities such as car camping or fishing. The possibilities are numerous and extremely difficult to predict.

Based on the displacement projections indicated in Table 3-2 under Key Issue 2, there would be no measurable displacement of people in Alternatives A and B. The potential number of people displaced under Alternatives C & D would gradually rise each year. After 10 years, approximately 7,600 people would be displaced from all Gifford Pinchot Wildernesses. In the 10^{th} year, then, 7,600 people would be participating in other activities or would be finding other areas to obtain a backcountry and/or Wilderness experience. The result would be that other backcountry areas would receive increased use pressure along with the associated physical impacts. Proposed mitigation measures for displacement would be outside the scope of this document.

Table 3-1 under Key Issue 1, projects the number of sites that would be created under each alternative if the additional 7,600 people recreated within the Gifford Pinchot Wildernesses. It is reasonable to assume that displacement of people to areas *outside* these Wildernesses would result in comparable site impacts - potentially the creation of 150 new sites and/or the general decline in conditions in existing sites.

Also of concern is displacement to the Gifford Pinchot National Forest Wildernesses from other areas in Washington and Oregon that already have or are going to institute restrictive permit systems for their areas. There is evidence that displacement to Gifford Pinchot National Forest Wildernesses has occurred due to natural disturbances in recent years which is an indication that displacement can be a significant factor. The extremely active fire seasons in 1994 in eastern Washington coincided with use increases on Gifford Pinchot National Forest Wildernesses.

D. OTHER ISSUES

Regulatory Permits

❖ Administration

Alternatives A & B — Regulatory permits would not be required under these alternatives so there would be no changes in the manner of permit administration. Permits would continue to be self-issued at trailheads.

Alternative C & D Administration of a regulatory permit system could be done in a variety of ways through vendor services, the Forest Service or a combination of the two. Vendor services are currently available that can provide reservation and permit services for campgrounds, Wildernesses and other areas. Forest Service administration of regulatory permit systems has been done successfully in other areas although the cost of administration has been a concern. It is most likely that a fee would be charged for the permits and that at least some portion of the permits would be issued through Forest Service offices by mail or in person. Non-traditional sources for permits, such as through computer networks, would probably become an option.

❖ **Abuse of the System**

Alternatives A & B Permits would continue to be self-issued at trailheads. Concerns about abuse of the system would pertain only to a regulatory permit system.

Alternative C & D A concern was raised that some people might abuse a regulatory permit system in a manner that excludes some user groups. The specific example given was a situation where anti-horse groups could take up all the permits so that stock users would not have access to Wilderness. In theory, any person or group could attempt to do this to the detriment of any other person or group. While there is little evidence that this type of abuse would become a major problem, there are safeguards which can be applied to help prevent it. Under a regulatory permit system, a set number of permits would be available to stock users. Routine field contacts would reveal if people were utilizing permits under false pretenses and, if so, legal action could be taken. If permits were simply acquired under false pretenses with no intention of actually utilizing the permit, monitoring of use levels and patterns would help determine a percent of non-utilization and the number of permits issued would be adjusted to account for that type of abuse. In addition, if abuse is suspected, follow-up contact with permit applicants can be done to confirm the legitimacy of permit application and the accuracy of the information provided. The Gifford Pinchot National Forest has excellent information on use levels of hikers and stock users and significant changes in those patterns could be detected.

❖ **Insuring System is Fair and User Friendly**

Alternatives A & B Permits would continue to be self issued at trailheads with no limit on the number of permits issued and no requirement to schedule trips in advance.

Alternative C & D Alternatives C & D would result in some permits being issued in advance through a reservation system. While a reservation system is less

convenient than a self-issue system, measures can be taken to ensure that the system is administered in a manner that is fair and is as user friendly as possible. If Alternative C or D is selected, a regulatory permit system would not be implemented without prior involvement of interested groups and individuals. Preliminary feedback from groups and individuals during the scoping process indicated that the following features would be highly desirable if a regulatory permit system was implemented:

1) Build flexibility into the system so permit requirements can be phased in as needed or removed if it is shown that some requirements are not needed. For example, in Alternative C the regulatory system may initially apply only to overnight use with the option to apply the requirement to day use if monitoring indicates a need. Conversely, monitoring may indicate that a regulatory system that initially applied to all overnight use could be restructured to apply only to weekends and holidays if monitoring indicated that weekday use remained relatively low.

2) Issue a percentage of permits as "day of" permits. This is fairly common practice in other permit systems. A predetermined number of permits would be available on a first come/first serve basis at Ranger Stations or other outlets for people that could not schedule their trip in advance. This preserves a certain amount of spontaneity for people that cannot or do not want to plan weeks or months in advance.

3) For Alternative C, issue a percentage of permits as "vouchers". These types of permits could be issued in advance but would not have specific trip dates identified ahead of time. Other restrictions, however, would apply. The voucher would come with a pre-set time frame that the permit is good for (possibly a 30 day time frame) and would probably identify specific dates within that time frame when the voucher could NOT be used (such as traditionally busy weekends and/or holidays). Since there is less ability to control of the dates of use under a voucher system, the number of vouchers available would be limited. It does, however, provide an option to people that want some degree of spontaneity and flexibility without having to take a chance on getting a "day of" permit. *This would not be an option under Alternative D.*

❖ **Fees**

Alternatives A & B Permits will continue to be self issued at trailheads with no associated permit fees. There would be no new financial burden on Wilderness

visitors due to continuation of the permit system under these alternatives.

Alternative C & D — A percentage of the permits would be issued as regulatory permits and it is highly likely that a fee would be charged for all regulatory permits issued. This would add some financial burden to individuals visiting Wilderness.

Solitude

Alternatives A & B — Neither of these alternatives implements a system that limits use. If use trends continue as projected, there would be some incremental effect on opportunities to find solitude within Wilderness if other measures were not implemented.

Alternative C — This alternative would institute a permit system that places a cap on use levels at or near current use levels. Since use levels would not be allowed to increase, the opportunities for solitude which currently exist would be preserved.

Alternative D — This alternative would institute a designated and assigned campsite permit system that places a cap on the number of campsites within a WRS area. Since the number of campsites would not be allowed to increase, the opportunities for solitude which currently exist would be preserved.

Water Quality

Alternatives A & B — Neither of these alternatives implements a system that limits use. If use trends continue as projected, there would be some incremental increase in risk to water quality within Wilderness if other measures were not implemented.

Alternative C — This alternative would institute a permit system that places a cap on use levels at or near current use levels. Since use levels would not be allowed to increase, there would be no increased risk to water quality. In some areas there would be improvement in water quality due to elimination or improvement of sites in sensitive areas.

Alternative D — This alternative would institute a designated and assigned campsite permit system that places a cap on the number of campsites within a WRS area. Since the number of campsites would not be allowed to increase, there would be no increased risk to water quality. In some areas there would be improvement in water quality due to elimination or improvement of sites in sensitive areas.

Resource/Trail Impacts Related to Specific Activities and Timing of Activities

Alternatives A & B — Neither of these alternatives implements a system that limits use. If use trends continue as projected, there would be some increase in trail and resource impacts. Other measures may be applied to partially mitigate the effects of increased use.

Alternative C — This alternative would institute a permit system that places a cap on use levels at or near current use levels and could also be used to manage use levels during specific times of the year. Resource and trail conditions would not continue to degrade where use levels are capped. Some improvements in conditions would be expected in some areas where restoration efforts are coordinated with the restrictive permit system.

Alternative D — This alternative would institute a designated and assigned campsite permit system that places a cap on the number of campsites within a WRS area. Resource and trail conditions would not continue to degrade where the campsites are designated and their number capped. Some improvements in conditions would be expected in some areas where restoration efforts are coordinated with the restrictive campsite permit system.

Plant and Animal Species

- **Threatened, Endangered or Sensitive (TES) Wildlife, Fish and Plants**

- **Survey and Manage Species**

- **Non-TES Plant and Animal Species**

Alternatives A & B — Implementation of either of these alternatives would not change the way public use of Wilderness is managed. If rising use trends continue as projected, the impact of visitor use on TES, Survey and Manage or non-TES plant or animal species could become a concern in the future.

Alternative C & D — Under these alternatives, a regulatory permit system to manage total use or campsites would be in place to minimize the impact of visitor use on TES, Survey and Manage and non-TES plant and animal species in the future.

A list of all Threatened, Endangered and Sensitive plant and animal species documented or suspected to occur on the Gifford Pinchot National Forest can be found in Appendix B. A list of all Survey and Manage Species can be found in the Standards and Guidelines section of the Northwest Forest Plan.

Resource Impacts from Day Use

Alternatives A & B — Neither of these alternatives implements a system that limits use. If use trends continue as projected, there would be some incremental impact on resources from day use in some areas.

Alternative C — This alternative would institute a permit system that places a cap on use levels at or near current use levels. Initial emphasis would likely focus on overnight use because of the logistical complexity of implementing a permit system that also includes day use. Monitoring of day use levels and associated impacts would determine the need to extend a restrictive permit system to include day use. If day use was not included in the restrictive permit program there would be some incremental impact on resources from day use in some areas if use trends continue as projected. Resource conditions could improve or be held in check if the proposed regulatory permit system also included day use.

Alternative D — This alternative would institute a designated and assigned campsite permit system that places a cap on the number of campsites within a WRS area. Initial emphasis would focus on overnight use. Monitoring of day use levels and associated impacts would determine the need to extend a restrictive permit system to include day use. If day use was not included in the restrictive permit program there would be some incremental impact on resources from day use in some areas if use trends continue as projected. Resource conditions could improve or be held in check if the proposed regulatory permit system also included day use.

Education Emphasis

Alternatives A & B — There would not be significant changes in the way information is made available to Wilderness visitors and other interested groups. Educational programs would continue as before. Monitoring of conditions based on new standards and guidelines may change the focus of educational/informational materials and programs in Alternative B.

Alternative C & D — In addition to existing information/education systems that are currently in place, information relevant to specific areas and activities would be provided with all permits that are issued in advance of proposed trips. All permits issued under the regulatory permit system would be accompanied by educational and regulatory information that would apply specifically to 1) the areas to be visited, 2)season of use and/or 3) anticipated activity. Emphasis would be on information that would promote minimum impact use of the backcountry. For example, hunters in November could receive information that focuses on activities specific to hunting and may also

receive information specific to the area they are visiting and that time of year. Relevant information in that case could include information on how to best manage pack stock over relatively long stays, regulations specific to the area they are visiting, suggestions on places to camp (for Alternative C) and helpful hints on dealing with late fall and early winter weather. The objective would be to provide each visitor with information relevant to their own circumstances so that they are more likely to become familiar with, not only the rules and regulations, but the rationale behind rules and regulations along with techniques they can employ to preserve Wilderness values and enjoy the Wilderness safely.

E. MONITORING

Monitoring is the process of evaluating the implemented alternative to determine how well objectives have been met or if adjustments are necessary to Standards and Guidelines to preserve the Wilderness resource. The Forest Wilderness Coordinator will recommend to the Forest Supervisor such changes in management direction, revisions, or amendments as are deemed necessary. Yearly changes in resource conditions may be imperceptible, trends may begin to be perceived after 5 years. Wilderness visitor use shall be monitored and reported annually, and resource conditions shall be monitored and reported every 5 years. The current monitoring methodology, used in preparing this Wilderness Resource Protection EA, is adapted from methods used by accredited research scientists and will continue to be the methodology used.

F. REQUIRED DISCLOSURES

Survey and Manage Species

The Gifford Pinchot National Forest Land and Resource Management Plan, as amended, includes standards and guidelines for managing late-successional habitats in a way that will be beneficial to certain late-successional dependent species. The "survey and manage" standard and guideline will provide benefits to amphibians, mammals, bryophytes, mollusks, vascular plants, fungi, lichens, and arthropods.

None of the Alternatives involve ground disturbing activities so there would be no effect on survey and manage species. If, after implementation of any one of the alternatives, some ground disturbing follow-up activities are proposed, such as site restoration work, the effect on survey and manage species would need to be analyzed and a management strategy adopted. Four categories of survey and manage strategies are defined and assigned to each species as warranted by the evaluation of the species projected viability under the implementation of the Northwest Forest Plan.

Strategy 1 - Manage Known Sites
Strategy 2 - Survey Prior to Ground Disturbing Activities and Manage Sites

Strategy 3 - Conduct Extensive Regional Surveys and Manage Sites
Strategy 4 - Conduct General Regional Surveys

A list of all Survey and Manage Species can be found in the Standards and Guidelines section of the Northwest Forest Plan.

Cultural Resources, American Indian Use & Access

No significant impact to cultural resources is anticipated under any of the alternatives. None of the alternatives would affect use or access by American Indians when exercising their treaty rights on ceded lands. Consultation with the Tribes to ensure their knowledge of the purpose, need and impacts to them of the permit system will be done within one year from the signing of this document.

Floodplains and Wetlands

Alternatives A & B	Limits on use will not be imposed through a permit system in these alternatives. Since human activity tends to be focused near streams, lakes and ponds, increasing use trends may pose some increased impact to wetland or riparian areas in the future.
Alternative C & D	These alternatives establish limits that would be administered through a regulatory permit system. The established limist would reduce the potential for increased impacts to wetland or riparian areas due to human use.

Irreversible Resource Commitments

There would be no irreversible commitment of resources as a result of implementation of any of the alternatives. No ground disturbing activities are proposed in any of the alternatives.

Irretrievable Resource Commitments

There would be no irretrievable commitment of resources as a result of implementation of any of the alternatives. Changes in WRS allocations in Alternatives B, C and D would change the acreage allocations for the Pristine, Primitive, Semi-primitive and Transition allocations. Those changes, however, would not lead to significant changes in conditions in those allocations since the proposed allocations have been drawn using current conditions as the foundation for achieving non-degradation objectives.

Prime Farmland or Rangeland

There is no prime farmland within the analysis area. Some grazing allotments still exist in some Wildernesses however there would be no effect on that activity from any of the alternatives. The proposed changes in WRS allocations in Alternatives B, C & D would not change any aspects of the existing grazing allotments.

Consumers, Civil Rights, Minority Groups, or Women

Alternatives A & B These alternatives would not change current use trends and therefore would not have any effect on consumers, civil rights, minority groups or women.

Alternative C & D These alternatives establish limits that would be administered through a regulatory permit system. Since the limits would be placed at or near current levels, there would be no short term impact to businesses that cater to recreational and/or other uses of Wilderness. Jobs dependent on the recreational services and/or the sale and service of recreational equipment would not be affected. If there continues to be an increasing demand for recreational opportunities, nearby non-Wilderness areas will likely absorb much of the increased use and will account for a corresponding increase in recreation related business growth. While there will likely be situations where some people are unable to obtain a permit for entry into a particular Wilderness for a specific time period, the implementation of this alternative does not affect the civil rights, privileges, or status quo of consumers, minority groups, women or American Indians.

Energy Requirements

There would be no unusual energy requirements associated with implementing any alternative.

CHAPTER 4
CONSULTATION WITH OTHERS

A. INTRODUCTION

The purpose of this chapter is to list the interdisciplinary team and the agencies, organizations and individuals who were consulted throughout the environmental analysis.

B. INTERDISCIPLINARY TEAM

Doris Tai	Former Forest Wilderness Coordinator (ID Team Leader)
Randy Shepard	Current Forest Wilderness Coordinator
Mike Rowan	Former Recreation Planner (ID Team Leader), Packwood Ranger District
Kevin Cannon	Wilderness Coordinator, Cowlitz Valley Ranger District
Mary Bean	Recreation Planner/Wilderness Coordinator, Mt. Adams Ranger District
Ray Sharpf	Forest Biologist
Nancy Fredricks	Forest Botanist
Rick McClure	Forest Archaeologist

C. SCOPING

An informal scoping document was sent out to interested individuals and agencies in Summer '94. At the same time, comment cards were made available at trailheads, Ranger Stations and businesses with the intent to expand our mailing list and/or solicit additional feedback. More than 100 responses were received. A follow up planning packet with more detailed information was mailed out on May 10, 1995 requesting additional comments and indicating dates for public meetings. Public meetings were initially scheduled and held at the following locations:

May 23, 1995 - Gifford Pinchot National Forest Headquarters, Vancouver, WA
May 24, 1995 - Trout Lake Grange Hall, Trout Lake, WA
May 31, 1995 - Packwood Senior Center, Packwood, WA
June 1, 1995 - Mount Baker-Snoqualmie National Forest Headquarters, Mountlake Terrace, WA

Based on public feedback, additional meetings were held at the following locations:

June 21, 1995 - Toutle High School, Toutle, WA
July 7, 1995 - Yakima Public Schools Office, Yakima, WA

_ All comments received at the public meetings were documented.

_ Approximately 40 additional written comments were received following the meetings and the May 10 mailing.

_ Copies of letters and comments received and the complete mailing list is in the Analysis File for this project.

_ Scoping done for and the 37 comments regarding the "South Climb Permit System EA, January 1998" are included.

_ Sent out an update letter to approximately 850 people on the Wilderness mailing list informing them of the estimated release of the EA and that the South Climb will be incorporated in with the Gifford Pinchot Wilderness Resource Protection EA.

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List of Tables and Figures