



United States Department of the Interior

NATIONAL PARK SERVICE

North Cascades National Park

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IN REPLY REFER TO:

L3415

(PNR)NOCA

March 2, 1976

Memorandum

To: Superintendent, Shenandoah National Park

From: Acting Superintendent, North Cascades National
Park Service Complex

Subject: Backcountry Management Plan

We are still revising our Backcountry Management Plan to meet
ever-changing use patterns and to reflect public input and review.
Enclosed is the 1974 revision which we followed fairly close
last season.

Alan D. Eliason

Enclosure



Backcountry Management
Plan
North Cascades National
Park Service Complex
March 14, 1974

Approved: W. Lowell White
Superintendent

INTRODUCTION

The Master Plan for the North Cascades National Park Service Complex is a document which describes and provides a conceptual framework for the development and management of the Complex. This Backcountry Management Plan is a bridge between that conceptual framework and management action. It is a statement of philosophy in managing backcountry resources, and it provides a base for implementing actions which will enable the park to achieve the high standards set forth herein.

"Resource Management:" (Excerpt from Master Plan)

"Manage fragile subalpine ecosystems to assure minimum impact. Increase the carrying capacity for hikers, horse users, and campers in the backcountry through innovative control and development of less damaging use-patterns, better designed facilities, and user education. Corrective measures will involve revegetation of the denuded areas; improvement of the surface, grade, and drainage of the trails; elimination of fires and overnight camping in the more fragile locations; control of horse traffic so that grazing and hitching of horses is not continued in the damaged areas; and the general dispersion of alpine activities, either toward the snow and rock environment of the mountain climber, or down into the more resistant fir and hemlock forests below the passes."

SCOPE

This plan shall deal primarily with the management of visitors and their activities associated with use of the backcountry. Activities by management including trail maintenance, construction and patrols shall be included as an appendix to this plan and referred to as STANDARDS. Complementing this plan are specific management recommendations for several more fragile and/or popular areas within the complex. They are: Cascade Pass, Whatcom Pass, Copper Ridge, Easy Pass and Park Creek Pass. The first of these, specifically for Cascade Pass, is complete and is to be implemented in 1974.

THE PLAN

As prescribed in the North Cascades Master Plan, the National Park Service is committed to wise, planned management of backcountry resources. Fragile places must be protected from damage. Areas damaged must be restored and rejuvenated. The backcountry user should understand the urgency of minimizing his impact on this delicate environment. Recent use patterns in the more popular subalpine areas have resulted in critical damage to plants and soils in some places. Denuded meadows, deeply rutted spur trails, disappearance of dead and down wood, and compacted and trampled camping areas are all obvious indicators of overuse. In order to preserve remaining natural resources, to prevent irreversible damage, and to begin the restoration of plants and soils in damaged areas this plan will attempt to eliminate those backcountry use activities which have undesirable results. Wood campfires, and improper waste disposal are examples of activities which must be eliminated in heavily used places.

To manage these visitor activities, capacity levels have to be determined and enforced. Rather than using CARRYING CAPACITY in its strictest interpretation, this plan shall use instead "optimum level of use". This is an attempt to realistically evaluate the

visitor experience, available funding, and resource values in determining priorities, quotas and other limiting factors of back-country participation.

Any area accessible within a day's hike from a trailhead cannot reasonably be accorded the same degree of wilderness as an area several days' hike from a trailhead. The expectation that a back-country experience could or should be the same a quarter mile from a road as it is twenty miles from a road ignores both the physical capabilities and expectations of most travelers. A traveler expects and will tolerate a greater number of encounters with other people near trailheads; but with each succeeding day's hike into the remote areas he should reasonably expect fewer encounters with other people. By managing for optimum level of use, this plan should provide a reasonable variety of wilderness experiences.

A primary objective of this plan, then, is to provide more camping and hiking opportunities in accessible areas within a day's hike of most trailheads and to provide fewer in remote and fragile areas.

Optimum level of use also recognizes that natural resources are more resilient in certain zones than in others. The subalpine zone, for example, is quite intolerant of human impact. Within the lower elevation forested zones are places which can tolerate considerable use. The plan will generally attempt to reduce use in fragile areas and to increase or stabilize use in resilient areas.

By using optimum level of use as a guide, funding would relate closely to resources and use patterns and would reflect priorities. Presently, for example, restoring damaged subalpine resources has high priority. Funding for trail relocation, trail and camp restoration, backcountry patrols, etc. are all closely related to this priority.

When choosing the optimum level of use, the precise number of visitors that can be accommodated will always be arbitrary. As a general rule standards call for five sites per campground, however many will have only two or three sites each. Current use capacity in the backcountry is now below optimum use level. A primary objective of this plan is to provide the guidelines for increasing the backcountry use level to approximately 300 campsites, which is almost double the present capacity of about 160. Generally, most of the sites will be added by expanding and sometimes relocating present camp areas, which now provide spaces for only two or three campsites. In some instances new camp areas will be provided. The goal is to increase capacity by about ten per cent per year, dependent upon resource and visitor tolerance. This means adding about fifteen additional campsites per year for the next ten years. At optimum use level, the backcountry should be able to accommodate about 63,000 visitor nights in 300 sites during the approximately 60-day summer season.

$$\begin{array}{r} 300 \text{ sites} \\ \times 60 \text{ effective summer days} \\ \hline 18,000 \\ \times 3.5 \text{ average group size} \\ \hline 63,000 \text{ person nights} \end{array}$$

To increase the number of backcountry campsites is not to degrade natural resources or to compromise the visitors' experiences. Camping, hiking, and horse riding are the dominant backcountry

activities, and optimum level of use mandates that travelers have access to the encounter levels of their choice. As a primary objective camping areas will be separated from travel routes, and campsites will be separated from each other to minimize unsought encounters with other people or groups.

Whereas the optimum level of use of the trailed areas is somewhat dependent upon funding for maintenance or construction, the capacity of the trailless areas to accommodate use is dependent almost exclusively on visitors tolerance to each other as well as the tolerance of the resource itself. The capacity of the trailless areas can be increased through educational programs directed at those who use this resource, the majority of whom belong to mountaineering clubs or conservation groups and who in general are receptive to reasonable regulations. The use level is undoubtedly self regulating in the very remote areas. The easier to reach areas will receive excessive visitation if limitations are not enforced.

Impact problems will be treated symptomatically in these remote areas, however no facilities will be furnished. Evaluation of impact does not require highly technical methods or highly trained personnel. Annual photographic/narrative inventories of current conditions coupled with transect lines will be used to determine short and long range trends. This inventory when compared with use data will guide management in setting "optimum levels of use". In areas where ground cover has been noticeably disturbed, a lower use level will be enforced. An initial reduction of use should, in most areas, permit a reversal of ground cover deterioration.

Camping Policy

Overnight use along the developed trails shall be restricted to specific campgrounds, each of which is precisely located on a map

available to the public. Individual campsites will be identified on the ground by numbered posts for the subalpine camps and fire grates in the lower forested areas. Developments at subalpine campgrounds will be limited to one pit privy of the Wallowa type. Standard pit toilets or Wallowa type (depending upon amount of use) will be furnished for the lower elevation campgrounds, in addition to the fire grates mentioned.

TRAILLESS area camping associated with climbers and cross country traverses will be permitted only by reservation and permit. Such camps must be located more than 1/2 mile from established trails or 1 mile from established campsites and more than 100 feet from open water. Wood fires or other campfires are not allowed in trailless area campsites.

Respect for the environment is the key phrase governing all use of the backcountry. This dictates that plants, animals, soils, and water not be abused. These fragile environs are not to be altered by making "improvements" to individual campsites.

Horse Camp Policy

Separate horse camps, removed from the developed hiker campgrounds will be located only within the lower elevation forested areas. They will be spaced within a one day ride of all trailheads and other

adjacent horse camps. Horse camps will only be allowed in designated areas. Reservations for horse camps will be required as with other backcountry users. Horses will not be permitted to graze except at selected sites within the National Recreation Areas as designated on the camping permit. Yearly site evaluation will determine the continued use of these grazing sites. Pelletized feed, hay or grain shall be required in all other cases.

The number of horses per party shall be left up to the individual group leader although groups requiring more than 15 horses shall be required to obtain a special use permit two weeks in advance of the planned trip. Such permits will not be issued during the heavy use season (July, August and September).

Horse camps will not be permitted within the subalpine areas of the Complex.

Trail Policy

Trails located in subalpine zones will be closed to livestock where it can be demonstrated that such use is detrimental to the resource. A trail will be closed full length to livestock until spring runoff has ended and the trail is relatively dry and can accommodate horse travel safely and without substantial damage to the trail. Following spring runoff, a seasonal closure will be enforced on that portion of the trail beyond the horse camp closest to snow line. Trails will be closed to livestock when trail maintenance costs become excessive.

Campfire Policy

That campfires create an atmosphere for fellowship, reflection and inspiration is recognized. Also should old fire rings, scorched rocks and charred butt-logs be recognized as the unsightly relicts of these damaging activities which may soon have to be forfeited. In some areas the demand for campfire wood far exceeds the available supply. Green limbs are broken and hatchet marks shine where some erstwhile camper gathered his wood. For these reasons, the use of indiscriminate fire rings will be discontinued in forest zone camps. Only dead or down wood can be used. Where allowed, all wood campfires shall be **confined** to a fire grate installed for that purpose.

Wood fires shall not be allowed in any subalpine areas. Backcountry users will be encouraged to do their cooking on alpine stoves. Emergency warming fires are an exception where danger of exposure threatens life or as other unforeseen emergencies might develop.

Sanitation Policy

As an overall policy, everything packed in must be packed out. However, combustible waste may be thoroughly incinerated in authorized fireplaces. Noncombustible litter cannot be buried. Bathing and laundering will not

be permitted in any lake or stream. If these activities are necessary water should be carried away from the shore for use and disposed so as not to flow directly back to the source. For bivouac and trailless area camping proper sanitation requires that human waste be disposed under 6" of soil. A preferred method would be the removal of a 6" cube of top soil with it being replaced upon breaking camp.

Reservation/Permit System Policy

Commencing in 1974 a reservation system to include all of the backcountry was inaugurated to provide some semblance of order in regulating overnight use of the backcountry. Reservation quotas were established for each backcountry management unit to include 70% of established capacity with the remaining 30% held back for those unable to stay on schedule, those not aware of the reservation system, and for holders of USFS Wilderness Permits. Reservations are not required but are recommended for May through September and only accepted 60 days in advance of the proposed outing. A "Reservation Desk" located at Marblemount maintains a register for each backcountry campground and the more popular climbing areas with their attendant trailless area camps. The supervisor responsible for this "desk" shall maintain close communication with other offices where permits may be acquired. These offices are: the NPS Stehekin,

Chelan and Concrete offices; Glacier Ranger District, Twisp Ranger District and Early Winters Information offices of the USFS. The Concrete Information Center will issue permits only for those entering the park through the Baker River drainage. All offices should be open daily from 8:00 a.m. to 5:00 p.m. or longer from Memorial Day through Labor Day. These offices may issue permits - but only after they have cleared through the "desk" at Marblemount. Normally permits will not be mailed although special arrangement can be made at the time of the initial contact for those planning to arrive before or after office hours.

Only one permit will be issued for each party up to the maximum group size of twelve people. This permit will be issued in the name of one person representing the party as leader. This person will be instructed to keep the permit in possession at all times while in the backcountry and be prepared to display it upon request by any ranger contacting the party. Parties will be encouraged to stay together for ease in checking permits in the field. If for some reason it becomes necessary to separate, all members of the party should be prepared to identify the leader by name and give the leader's location to the contacting ranger.

A group larger than 12 is not permitted to travel and camp as a unit. This restriction does not include day users however. Campers will be

permitted to stay up to five consecutive nights in individual designated camp areas except when visitation is high and when faster turnover would enable more people to be served. Under these circumstances a two night limit will be imposed.

USFS Wilderness Permits will be honored for those traveling the Pacific Crest Trail entering the Park from either the Paysaten or Glacier Peak Wilderness areas. In this event, USFS offices will forward copies of their permits to Marblemount for inclusion in the quota tabulation and for automatic data processing.

Boat-in campgrounds along Ross Lake and the campgrounds adjacent to the Stehekin Valley Road are not included in this permit system. Separate management plans will be prepared for these areas at a later date. Backcountry rangers will be issuing camping permits to any group or persons found to be without one.

Permit issuing instructions have been prepared and circulated separately. ADP codes have been designated for various entry and exit locations, trail units, cross country units, and permit issuing offices. Reservations are encouraged, although it is preferred that permits not be issued until the party enters the park or makes personal contact at an issuing station. Backcountry maps show all the developed trails and camp areas, and also include a section on rules and safety hints.

Winter Use Policy

Most backcountry areas are covered with snow during the months of December through April, while the higher passes are often not clear of snow until after mid-summer. Winter recreation activities are limited because of the very brief intervals of fair weather between winter storms, and because of high avalanche frequency in most areas. Snow touring on skis and snowshoes is encouraged providing wildlife and natural features are not disturbed. Touring by snowmobile is not compatible with other backcountry uses and will not be allowed under wilderness designations within the national park and portions of the recreation areas. Search and rescue missions would qualify as the only exception to this policy.

S T A N D A R D S

Standards define management limits imposed on backcountry development. They also attempt to establish backcountry use patterns, or to change those which are having undesirable results. Standards regulate people only to the extent that regulation is necessary for the protection of natural resources. Other management activities such as forest fire control, communications, search/rescue, aircraft operations and special use permits as they relate to the backcountry, are covered as separate plans which have already been prepared or will be shortly. The following activities are discussed in this plan:

Camping Area Standards

Trail Standards

Sanitation Standards

Sign Standards

Ranger Patrol Standards

CAMPING AREA STANDARDS

Campgrounds and sites will be constructed and maintained with the minimum amount of alteration to natural features. Camps will be located in the most resilient spaces available and in no place where irreversible damage to plants, soil, or other resources will occur. Where camping has caused extensive resource damage, the campground will be relocated and where necessary, environmental restoration efforts implemented.

Campgrounds will be located out of sight of main trails, and at least one hundred feet from stream banks, lake shores and other open water. They will be at least one but not more than five miles apart.

The number of sites per campground will be limited to five. Sites will be designed to accommodate one to three tents or two to six persons each. Sites will be separated by a combination of natural screening and distance so as to provide privacy and a sense of solitude.

Access trails to campsites will be planned so as to minimize their encroachment on the natural environment. Stumps will be flush-cut and felled trees will be bucked and split for consumption in campfires. All evidence of camp construction and maintenance will be removed or obliterated.

Special group camps will not be provided in the backcountry.

Separate horse camps will be established and maintained and visitors with pack or riding stock will be required to camp in these locations. These camps will not be located within 100 yards

of any designated hiker camp and, where possible, they will be located in a different side drainage from hiker camps. Horse camps will be spaced no more than one day's ride apart on any trail route that receives significant livestock use. Horse camps will not be established in subalpine meadows or upstream from or within 200 feet of any water source not intended for livestock use. Each horse camp shall have a hitch rail or stock holding facility capable of accommodating at least 15 head of livestock, however the final determination will depend upon the individual areas' ability to withstand the use. Stock holding facilities will be located on high, well drained soils at least 100 or more feet from the livestock users campsite. Each horse camp will be designated and signed as a "horse camp" and will be established and maintained in accordance with the standards for hiker camps.

TRAIL STANDARDS

All trails will be a complementary part of the environment and will conform to the limits set by terrain without sacrificing safety or trail stability. Grades in excess of 20% will be allowed only on trails designed to carry a minimum of use and designated as Primitive Trails. Extended constant grades shall be avoided so that visual impact of the trail is minimized. Major physical obstacles such as large trees, boulders, rock shoulders, swamps and bogs will be circumvented if possible. Routing will be centered on the most resilient physiographic and vegetational zones. Traverses of subalpine terrain, particularly open meadows, will be avoided. Switchbacks in steep meadows will be allowed only when safety becomes a critical factor, and all other alternatives, including trail abandonment, have been considered.

Secondary trails are frequently the result of a poorly routed or maintained primary trail. Primary trails will be restored

and/or relocated and all secondary trails obliterated through the use of water check dams or filling, and revegetation.

In high use areas where remnant avalanche snow or late melting snowfields cover the trail during the normal season of use, a route will be marked across the snow with wands or small cairns. Such routes will be periodically maintained to minimize terrain damage at entrance and exit points, and will be initially routed to allow for snow creep during melt. Explosives, lampblack, or large day-labor crews will not be used to remove such snow deposits early in the season.

Where terrain scarring may be anticipated or has occurred due to trail drainage downslope from the trail, the drainage course outflow will be stabilized with rock or log water checks. Revegetation of scars will be attempted by transplanting native species found in the immediate vicinity.

Trail drainage will be designed to take advantage of natural drainage patterns. Grades will be interrupted by dips that are designed to stop downtrail channel erosion over long distances. Tread will be sloped outward, and water bars used frequently.

Culverts will be used in any instance where fords may contribute to stream pollution or trail collapse.

The trail tread will be solid, of uniform cross-section, gently outsloped to facilitate drainage, and wide enough to provide a travel way that is both safe and capable of withstanding the intended traffic.

Drywall, headwalls and cribbing will be used to hold or maintain the trail margins in areas of unstable soils or soil deficiency.

Turnpike or puncheon will be used to provide a stable trail tread while allowing for natural drainage and water fluctuation. In subalpine meadows which are water-saturated throughout most of the use season, low rock or log turnpike will be used to minimize the trail impact.

All trail structures will be designed and constructed to provide a minimum serviceable life of 20 years with routine maintenance.

Switchbacks will be long enough to provide a free traverse for assurance of trail stability, optimum elevation gain, and designed to discourage straight downhill shortcutting. The minimum length will be 100 feet, unless the terrain dictates otherwise. The switchback will have sufficient turn radius to allow for stability of the tread. Shortcutting on switchbacks will be discouraged by using brush and fallen tree barriers, or the construction of steep rock walls at switchback turns.

Gravel will be used where soil compaction and/or persistent boggy conditions becomes a problem; gravel would be worked into the soil of the tread and not applied solely as a surfacing. The use of asphalt or concrete will be considered only for extreme and locally imperative conditions.

Non-native, but similar, materials will be used in preference to native materials in the construction and maintenance of trail facilities. Native materials will be obtained from locations completely out of sight of the trail. Such locations will be restored as nearly as possible to their original condition. In areas where native materials are scarce (such as the subalpine zone) the use of native materials will not be permitted.

Clearance provided along trails will be sufficient for user safety and full maintenance effectiveness, but will be held to the necessary minimum and will be maintained as unobtrusively as possible.

Where vista points exist, they will be maintained by periodic brush removal. New vistas may be selected which conform with natural openings and required a minimum of improvement. Routine maintenance in high use areas or during the July-August high use season shall be done with hand tools whenever possible.

Overt hazards will be minimized as follows:

Stream crossings which pose hazards during the normal high use season will be bridged. Footlogs will have a flattened tread and solid handrail.

Solid 3-stringer bridges and footlogs 30 inches or more in diameter will be used on spans of up to 50 feet. Where possible bridges and footlogs will be at least four feet above high water mark, which may require the construction of log crib abutments. Where span length dictates the use of other than solid-stringer structures, suspension bridges will be favored over other types. The use of cor-tem type rusting steels and tinted concrete will be preferred over galvanized steel or plain concrete.

Swamps, bogs, and seeps which are hazardous will be bridged with turnpike or puncheon.

Where vertical drops of 20 feet or over are encountered, the trail tread will be widened to 30 inches, and either a full 45° backslope or a lateral clearance of 4 feet

from trail centerline will be maintained on the uphill slope.

Brush, and fallen trees will be removed to allow clear vision of the trail tread and assure delineation of the route.

Major stumbling hazards such as protruding roots, rocks, and large loose debris, will be removed from the tread. Where maintenance standards vary between trail classes, the variation in tread will be made gradually over a distance of at least $\frac{1}{4}$ mile.

Snags exhibiting appreciable signs of advanced deterioration and which lean over the trail will be felled, with the stumps flush-cut.

Where the assurance of an acceptable degree of safety required resource modification in excess of the standards set for resource protection, the trail will be rerouted or abandoned.

Trail Classification

All-purpose trail: Open to stock and foot traffic, designed to withstand heavy use and function as the primary trunk access to the backcountry.

Foot Trail (high use): Designed to withstand extreme use intensity, and function as trunk access in very popular localized areas.

Foot Trail (moderate use): Designed to withstand constant use over a relatively long season and function as secondary access off of all-purpose trails.

Primitive Trail: A foot trail designed to withstand moderate use over a relatively short season. Its function is to provide the minimal trail necessary for access.

Trail Standards

	Use Class			
	All-Purpose Trail	Foot Trail (high use)	Foot Trail (moderate use)	Primitive Trail
Routing	Conforms to the terrain except for minor modification allowed where necessary to assure user safety and/or trail stability.			Conforms to the terrain.
Grade	Max. 10% except 15% for max 500 ft, 20% for max 100 ft.	Max. 12% except 15% for max 500 ft, 20% for max 100 ft.	Max 15% except 18% for max 300 ft, 20% for max 100 ft.	Max 18% except 20% for max 300 ft, 25% for max 100 ft.
Clearance	8 ft. lateral, 10 ft. vertical	6 ft. lateral, 8 ft. vertical	6 ft. lateral, 8 ft. vertical	6 ft. lateral, 8 ft. vertical
Tread	24" min, 30" max. Solid protrusions over 2" high loose material over 1" diam. removed.	24" min, 30" max.	22" min, 28" max. Protrusions over 4" high, loose material over 1" dia. removed	18" min, 24" max. Route may be marked with cairns. Protrusions over 6" high, loose material over 2" dia. removed.
Switchbacks	Min. 6' radius Max 8' rad.	Min 4' rad. Max 6' rad.	Min. 4' radius, Max. 6' radios	Min. 4' radius, Max 6' radius
Drainage	Adequate to carry maximum anticipated runoff and designed to minimize downslope erosion and scarring.			
Turnpike or Punchon	Across all bogs, swamps, marshes, etc., and wet subalpine meadows where necessary.			Where necessary to preserve the resource.
Streams	Which normally run over 30" deep will be bridged; footbridge on streams over 12" deep.	Footbridge on streams normally over 12" deep.	Footbridge on streams normally over 18" deep.	Footbridge on streams normally over 24" deep.

SANITATION STANDARDS

The pits used in conjunction with the Wallawa toilet will be at least 18" in diameter and no more than 48" deep. They are to be backfilled and abandoned before they completely fill with waste. Discretion must be used in their placement. They should be far enough removed from the camping area to provide adequate privacy and yet near enough to insure compliance for their use. They should not be located within 200 feet of any water source. The more standard "enclosed" pit toilet will only be located in the heavily used campgrounds, and special attention will be given to insuring that the water supply is not contaminated.

Sewage vaults will be used for disposal of human waste in heavily used camp areas where pit toilets are inadequate. The size and design of vaults used will depend on the location and method of servicing available. Vaults will be serviced before they fill to 75% capacity. If sewage disposal pits are used they should not be larger than twelve cubic feet or located within an eighth of a mile of a campsite. They should not be more than half filled with sewage and be backfilled immediately after sewage is dumped in. All pits and vaults must be more than one hundred feet from, and out of sight of, campsites and trails; and must be more than two hundred feet from open water.

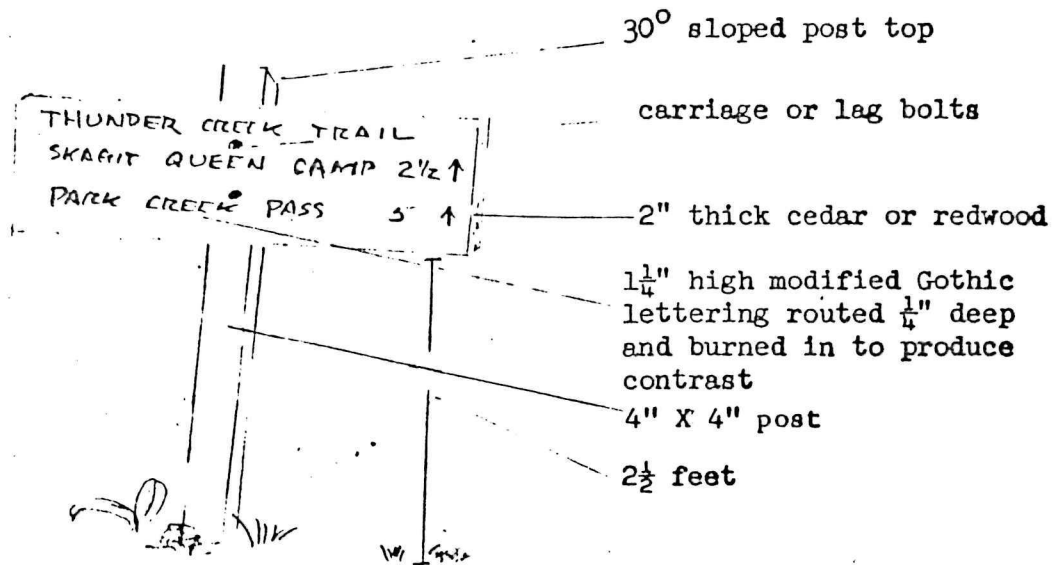
Garbage pits and receptacles will not be provided in backcountry areas.

SIGN STANDARDS

Signs in the backcountry will be few and simple. Destination signs will be placed only at trailheads and trail junctions. Posts indicating campsites will be placed only at subalpine camp areas. Directional signs may be used to route visitors around areas undergoing restoration or abandoned camps and trails.

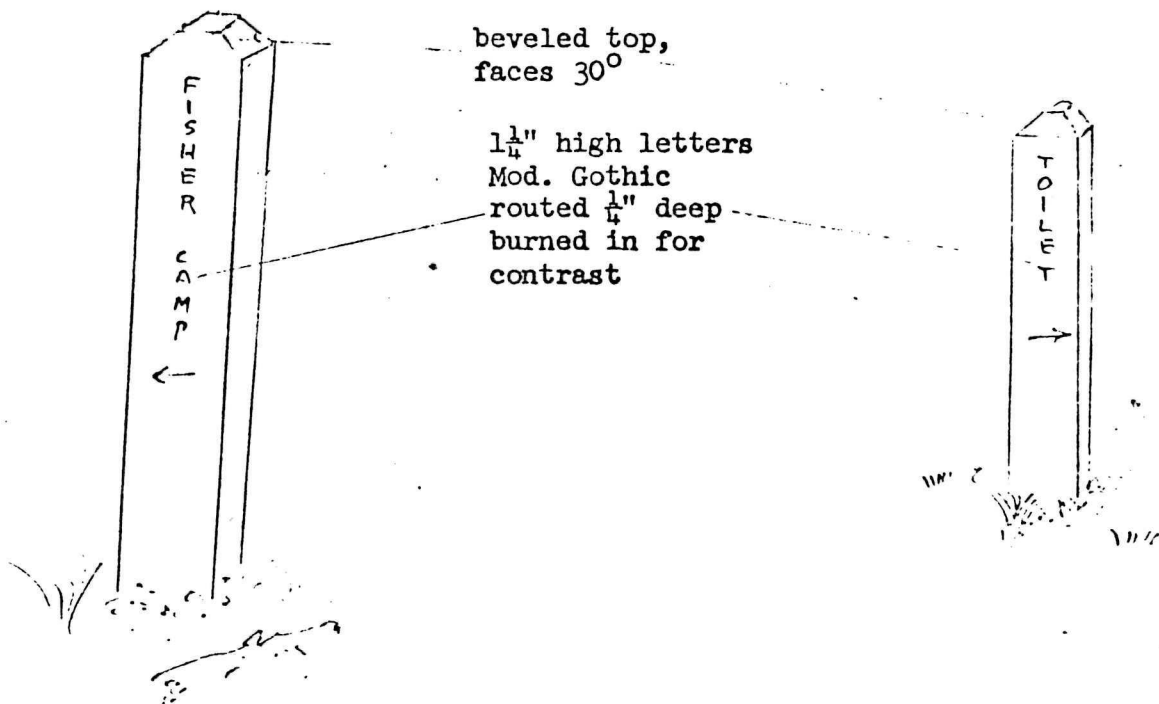
Only two destinations for any single direction will be listed on one sign. Distances greater than three miles will be listed for the nearest whole mile; distances less than three miles will be listed for the nearest half mile.

Signs and posts will be constructed of unpainted wood with routed and burned-in one inch Gothic capital letters. Plastic or metal materials will not be used. Posts will be firmly implanted at least 24 inches deep. Signs will not be attached to trees, rocks, or any other natural features. Sign styles are noted and illustrated on page following.



6" x 6" camp area designation

4" x 4" camp facility designation



RANGER PATROL STANDARDS

Each person selected for a backcountry ranger position must have a demonstrated ability to carry out normal backpacking skills. This would include living in the backcountry five or more consecutive days, carrying supplies and equipment thirty or more miles per week, camping with minimum environmental impact, and being able to provide effective aid to the injured.

Patrols by rangers will seek to maximize contact with backcountry visitors. Rangers will provide as well as receive information. The ranger's primary mission is to insure that the visitor is provided with as enriching a wilderness experience as possible and that natural processes are not interfered with. To this end the ranger will enlighten travelers on minimum impact backcountry use styles.

During the intensive use season one or more patrol rangers will be assigned to any major drainage containing a maintained travel route that receives significant use which include the following:

Cascade Pass Area	Fisher Creek/Easy Pass Area
Thunder Creek Area	Big and Little Beaver Areas
East Bank Area	Rainbow Creek/Boulder Creek Area
Hannegan/Whatcom Area	Bridge Creek/Park Creek Area
Chilliwack/Copper Ridge Area	

Primary travel routes will be patrolled a minimum of once every two weeks. Any trailless area receiving significant use will be patrolled at least annually or more often when warranted.

Prior to patrol assignments personnel will receive instruction in the following activities and subjects:

- Law enforcement and use regulations
- Fire suppression and control policies
- First Aid refresher training
- Backcountry management objectives
- Search and rescue techniques
- Use of helicopters and helispot maintenance
- Radio operation
- Campground and trail maintenance
- Backcountry safety
- History and natural history of area
- Report and inspection requirements

The service shall supply patrol rangers with all items of backpacking equipment required for their assigned duties, except personal items - boots or non-uniform clothing items, sleeping bags and food. The employee may, at his option, use personal equipment except that the service will not reimburse the employee for normal wear and tear, damage or loss. In addition to the standard backpacking equipment, patrol personnel will be equipped with the following items:

Map and compass	Small lightweight binocular or minocular
Two way radio	Inspection forms and violation notices
First aid supplies	Conditional Use Permits
A small, lightweight camera	
High visibility flagging or signaling devices	

Prior to actual assignments, patrol personnel will be given a detailed listing of their duties in the form of Performance Standards for their job. These Performance Standards shall cover at least the following:

Uniform standards	Patrol scheduling and coverage
Camp area maintenance	Use regulations and enforcement
Daily logs	Radio operations and radio checks
Patrol objectives	Obliteration of unauthorized camps
Sanitation and litter	Search and rescue responsibilities
Complaints	Resource impact reports
Signing and trail drainage maintenance	
Fire suppression policy as it pertains to area of patrol	
Reporting of hazards, conditions and visitor use	
Personal conduct including spurious unauthorized travel and climbing and travel with friends and relatives	

Patrol personnel will camp in designated areas during their assigned duties when such camping does not preclude visitor use.

Operational and emergency maintenance to include the cleaning of camping areas and trails, minor repairs of signs and sanitary facilities, minor maintenance of trail tread structures or drainage will be performed by patrol rangers. They will correct or post hazardous situations, provide information and interpretive service, render First Aid, help in evacuation of sick and injured, engage in fire suppression, assist on search and rescue operations and enforce applicable State and Federal rules and regulations.

During each patrol the number of visitors encountered traveling on trails, camping in designated camping areas or bivouacking will be reported by location and date. The condition of physical facilities, unusual or rare wildlife observations, or resource conditions will also be reported.

A checklist form will be provided which will permit patrol personnel to make these evaluations and additionally a photographic/narrative description will be required. These inspections shall be performed during the latter part of August.

Each trail section shall be inspected at least annually to determine and record the following information by location:

Brush conditions	Degradation of natural resources
Trail tread conditions	Suggested improvements
Erosion problems	Safety hazards
Evaluation of tolerance to use by livestock	
Suggestions to provide better vistas or trail reroutes	
Parallel user created trails or cross cuts on switchbacks	
Adequacy and condition of puncheon, turnpike, bridges, footlogs, signing, drywall, cribbing, waterbars, culverts or other drainage structures, and any other trail facility.	