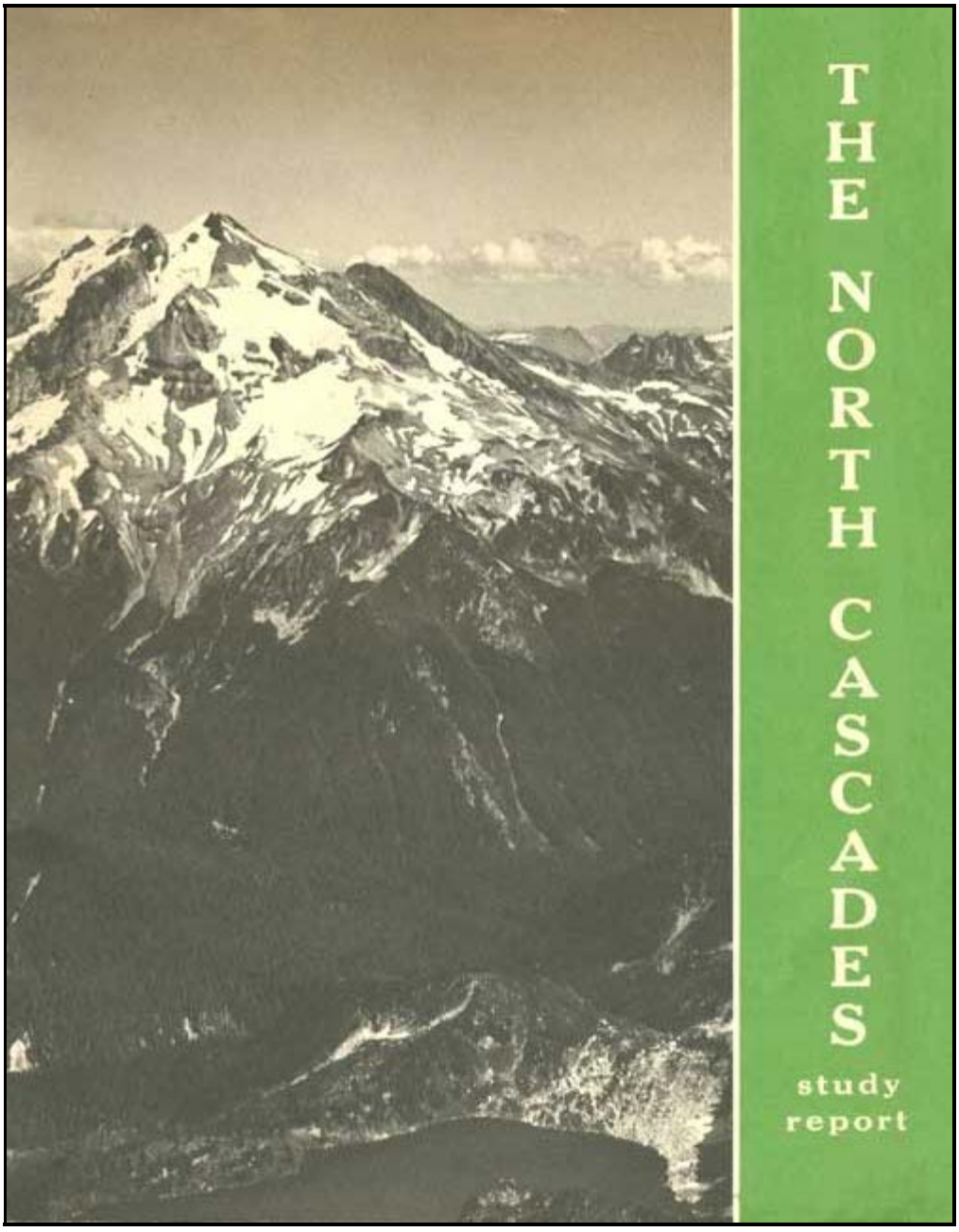
The North Cascades Study Report



THE NORTH CASCADES
Study Report

A report to the Secretary of the Interior and the Secretary of Agriculture

By
The North Cascades Study Team

October 1965

U.S. Department of the Interior
U.S. Department of Agriculture

TABLE OF CONTENTS

The North Cascades Study Report

TABLE OF CONTENTS

Cover

Letter of Transmittal

Acknowledgment

Figures

The North Cascades in Pictures

I Introduction

Origin and Purpose
Procedures and Collaboration
  Procedures
  Collaboration
Previous Studies
Summary of Recommendations

II The North Cascades—Resource Highlights

Description
Historical Highlights
Population and Employment Population
  Employment
Natural Resources
  Timber Resources
    Forest Description
    Commercial Timber Values and Output
    Some Timber Policy Questions
    High Mountain Policy
  Recreation Resources
    Lands Dedicated to Recreation
    Recreation Use and Facilities
    Land Classification
    Transportation and Access
  Fish and Wildlife Resources
  Mineral Resources
    Geology
    Mining Exploration and Activity
    Limitations on Mining
  Water and Power
    Water Supply

Water Quality
Water Needs
Power Needs and Supply
Power Transmission
Range Resources

III Recommendations

Agency Recommendations
National Park Service
Forest Service
Hearing Record
Team Recommendations
Wilderness Areas
North Cascades National Park
Description of Area
Resources
Agency Plans for the Area
Forest Service
National Park Service
Major Considerations in Recommending a National Park
Mount Rainier National Park
Other Recreation Areas
Scenic Roads and Trails
Timber Management
Other Recommendations
Economic Impact of Recommendations
Effect of Recreation Dedications on Timberland and Volumes
Glacier Peak Wilderness Area
North Cascades National Park
Scenic Roads
Conclusions

IV Individual Views of Study Team Members

V Appendices

A Letters Initiating the Study

B Position Statement by Forest Service

C Position Statement by National Park Service

D Highlights in the History of the North Cascades, Including Selected Key Events, Acts of Congress, Legislative Proposals, and Administrative Decisions

E Selected Bibliography

NORTH CASCADES STUDY TEAM

Department of Agriculture	Department of the Interior

Dr. George A. Selke
Consultant to the Secretary

Dr. Owen S. Stratton
Consultant to the Secretary

Arthur W. Greeley
Deputy Chief—Forest Service

George B. Hartzog, Jr.
Director—National Park Service

Chairman

Edward C. Crafts
Director—Bureau of Outdoor Recreation

LIST OF FIGURES

Figure		
1	Map	Vicinity of the North Cascades Study Area.
2	Map	North Cascades Study Area topography.
3	Table	Land area of the State of Washington, by major land classes, as of January 1, 1963.
4	Table	Relation of the land and water area of the North Cascades Study Area to State of Washington, by Federal and non-Federal ownership.
5	Map	Federal land ownership and management areas in the Study Area.
6	Chart & table	Gross area within the exterior boundary of the North Cascades Study Area, by land and water areas, by ownership classes.
7	Chart & table	Federal lands in the North Cascades Study Area, by area in National Parks, Wilderness and Primitive areas, and other National Forest lands by resource associations.
8	Map	Population distribution, 1961, State of Washington.
9	Map	Population distribution, 1960, western United States and British Columbia.
10	Table	Population of the United States, three-State area, Washington, British Columbia, and 11-county North Cascades Area, and Gross National Product for the United States, 1940 and 1960, and projection for 2000.
11	Table	Employment in the North Cascades Area, annual average, 1961.
12	Chart & table	Forest land area and other land area in Federal ownership in the North Cascades Study Area, by commercial forest land area and sawtimber volume, and other land area, by area open or closed to commercial timber cutting.
13	Table	Acreage, sawtimber volume, and sawtimber stand per acre in the stocked portion of the commercial forest area of the North Cascades Study Area open to commercial timber cutting, by broad species groups.
14	Table	Relation of the timber resource in the North Cascades Study Area to the timber resource of the State of Washington and to the Nation in terms of available commercial forest area and sawtimber volume, allowable annual cut, and lumber, plywood, and pulp production or plant capacity.
15	Map	Available and reserved commercial forest lands in the Study Area.

16	Map	Forest resource associations and Landscape Management Areas in the Study Area.
17	Chart & table	Acreage and year of establishment of existing Federal areas in the North Cascades Study Area managed wholly or primarily for recreation purposes or where recreation is a key management purpose, by type of area.
18	Chart & table	Past, current, and projected public recreation use of the North Cascades Study Area, selected years, by primary purpose of visit.
19	Table	Recreation facilities existing in 1962-63 in the North Cascades Study Area.
20	Map	Outdoor recreation resource management classification of the Study Area by the National Park Service according to ORRRC criteria.
21	Map	Outdoor recreation resource management classification of the Study Area by the Forest Service according to ORRRC criteria.
22	Chart & table	Outdoor recreation resources of the North Cascades Study Area as separately classified by the National Park Service and the Forest Service according to management classes recommended by the Outdoor Recreation Resources Review Commission.
23	Table	Miles of existing and planned forest highways and forest development roads and trails in the National Forests of the North Cascades Study Area.
24	Map	Major hunting areas in Study Area.
25	Table	Non-metal mineral production in the North Cascades area.
26	Table	Metal production from mines in the Washington portion of the North Cascades Area, 1904-1962.
27	Map	Existing and potential water resource development projects in the Study Area.
28	Map	Range and forage allotments in the Study Area.
29	Map	Proposed management areas recommended by the National Park Service.
30	Map	Eldorado Peaks High Country development plan prepared by the Forest Service.
31	Map	Proposed management areas recommended by the Forest Service.
32	Table	Summary of testimony, both oral and written statements, including petitions, submitted for the record during and after the public hearings of October 7-11, 1963, relating to the North Cascades Study Area.
33	Map	Recommended management areas.
34	Map	Proposed scenic roads and trails recommended for the Study Area.
35	Map	Proposed North Cascades National Park boundary.
36	Chart & table	Area of the proposed North Cascades National Park, by land and water areas, by National Forest, by county, by present land status.
37	Chart & table	Area of proposed North Cascades National Park, by ORRRC outdoor recreation resource management classes, Forest Service Landscape Management classes, and forest and non-forest areas.
38	Map	Proposed North Cascades National Park, recreation resource management classification by the National Park Service.
39	Map	Proposed North Cascades National Park, recreation resource management classification by the Forest Service.
40	Map	Proposed North Cascades National Park forest resource associations and Landscape Management Areas.
41	Map	Proposed North Cascades National Park forest and non-forest lands.
42	Map	Proposed North Cascades National Park grazing allotments.

43	Map	Proposed North Cascades National Park water resource development projects, existing and potential.
44	Map	Major hunting areas in relation to proposed North Cascades National Park.
45	Chart & table	Relation of the proposed North Cascades National Park to the North Cascades Study Area, by total land area, available commercial forest area and sawtimber, ORRRC recreation resource classes, area dedicated primarily to recreation, and existing and potential water resource development projects.
46	Map	Proposed development plan for a Mount Baker National Park as recommended by National Park Service.
47	Table	Proposals for scenic roads and parkways in the North Cascades Study Area, by agencies.
48	Table	Net difference within the North Cascades Study Area between existing and proposed areas managed wholly or primarily for recreation, by total area, sawtimber volume and area of available commercial forest land, by kind of area.
49	Table	Relation of all proposed areas dedicated wholly or primarily to recreation and the proposed North Cascades National Park to the existing Study Area, in terms of total land area, available and reserved commercial forest area and sawtimber volume.
50	Table	Estimated annual expenditures, wages, and employment which would be generated by visitors to and development of recreation facilities in the proposed North Cascades National Park, and by visitor use and development of scenic roads in the North Cascades Study Area.

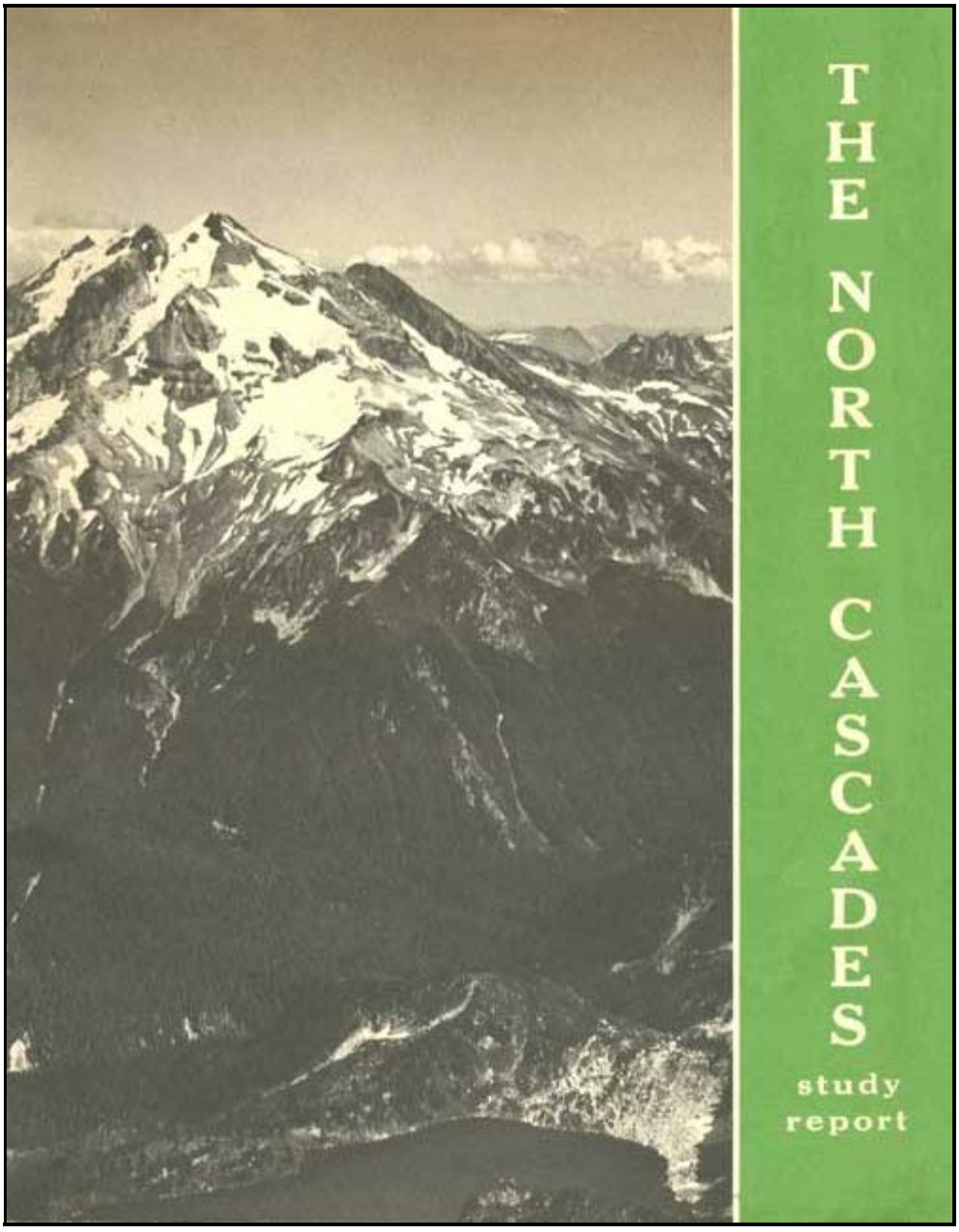
Appendix B

1	Map	North Cascades Mountains Study Area.
2	Map	Eldorado Peaks High Country.

Appendix C

1	Map	Major Scenic, Scientific and Recreation Target Areas.
2	Map	Flow Patterns of Recreation Use Today.
3	Map	Scenic Road and Parkway Possibilities.
4	Map	Management Proposals.

The North Cascades Study Report



THE NORTH CASCADES
Study Report

A report to the Secretary of the Interior and the Secretary of Agriculture

By
The North Cascades Study Team

October 1965

U.S. Department of the Interior
U.S. Department of Agriculture

TABLE OF CONTENTS

LETTER OF TRANSMITTAL

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF OUTDOOR RECREATION
WASHINGTON, D.C. 20240

December 6, 1965

Hon. Orville L. Freeman
Secretary of Agriculture

Hon. Stewart L. Udall
Secretary of the Interior
Washington, D.C.

Dear Mr. Secretaries:

On behalf of the North Cascades Study Team, I am pleased to submit its report, *The North Cascades*, in fulfillment of your instructions of March 5, 1963.

In accordance with those instructions, the report reviews all the resource potentials of Federal lands in the North Cascade Mountains of Washington and includes recommendations as to management and administration of those lands that will best serve the public interest.

The report of the study team is the result of a truly joint undertaking. The team effort included field exploration, numerous meetings and discussions, extensive public hearings, the preparation of special resource reports and much other material, and an exhaustive examination of existing information, including that which is publicly available as well as internal records of the Forest Service and National Park Service.

Much valuable information and advice were freely given by the State of Washington, local governments, and a large number of private organizations and individuals.

Throughout the work of the study team, there was the finest type of cooperation and interchange among team members.

Also, there was general agreement on the facts. There was consensus on most of the recommendations although it is only fair to other team members to make clear that the exact wording and presentation of material is that of the chairman.

Your attention is called to the individual views of other team members appearing at the close of the report. These relate to the last review draft and many of their comments were accommodated in the final report. Where there are still differences of viewpoint, the individual opinions of team members should be considered as alternate recommendations.

The recommendations of the Forest Service and National Park Service, summarized in the report and appearing in full in Appendices B and C, predated the letters from individual team members. In some respects the individual letters differ substantively from the agency positions prepared earlier. Thus, in reviewing the agency recommendations, special attention should be given to the individual letters from team members dated September 27—December 3, 1965.

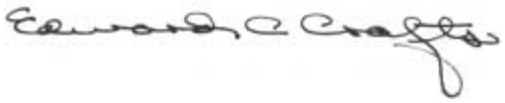
Whether there should be a new National Park in the North Cascades is the one fundamental issue on which there is disagreement. The two representatives of the Department of the Interior favor a new National Park, including the Mount Baker area. The two representatives of the Department of Agriculture oppose any new National Park in the North Cascades.

The views of the chairman and the recommendations set forth in the body of the report lie in between these divergent views. I favor a North Cascades National Park in the Eldorado Peaks-Picket Range area, but not including Mount Baker. The proposal in the report differs from any that have been advanced previously. I do not favor the establishment of a National Recreation Area as a substitute for a National Park. My views have been arrived at after full consideration of the September 27—October 27 comments of the individual team members, and are not altered by the Selke-Greeley letter of December 3.

The recommendations in the report are interrelated and should be evaluated as a whole. They would result in the creation of four new Wilderness areas, a new National Park, and, at the same time, would increase the supply of available commercial timber and have minimal adverse impact on other resources.

It has been a privilege to serve in this interdepartmental undertaking. All members of the study team are hopeful that the study and resulting report will have rendered a public service.

Respectfully,



EDWARD C. CRAFTS,
Chairman, North Cascades Study Team.

"A joint study should be made of Federal lands in the North Cascade Mountains of Washington to determine the management and administration of those lands that will best serve the public interest. These lands for the most part have been under the administration of the Forest Service as national forests for many years. A study team should explore in an objective manner all the resource potentials of the area and the management and administration that appear to be in the public interest. The study team will consist of representatives of the two Departments and will be chaired by an individual jointly selected by us.

"Recommendations of the study group will be submitted to us and we in turn will make our recommendations to you."

. . . Excerpt from letter of January 28, 1963, to President John F. Kennedy from Secretary of Agriculture Orville L. Freeman and Secretary of the Interior Stewart L. Udall.

<<< Previous <<< Contents >>> Next >>>

study_report/letter.htm
Last Updated: 26-Mar-2010





ACKNOWLEDGMENTS

Washington, D.C.
October 1965

The following report on the management and administration of all the resources of the Federal lands in the North Cascades of Washington is the result of an extraordinary interdepartmental effort.

It was a privilege to serve as chairman of the study team. The individual members, despite the press of other duties, gave high priority to this assignment, discussed issues with utmost candor, cooperated to the fullest extent possible, and approached the complicated and controversial questions in a completely statesman-like manner.

The Forest Service and the National Park Service gave unstintedly of their personnel and facilities, made their records fully available, and supplied special information requested by the team to the extent of their abilities.

About 50 Federal and State resource specialists participated in the individual resource reports prepared at the request of the study team, or in the preparation of the final report.

The agencies represented on these efforts included the National Park Service, Forest Service, several departments of the State of Washington, the Bureau of Sport Fisheries and Wildlife, Bonneville Power Administration, Geological Survey, Bureau of Reclamation, Corps of Engineers, Federal Power Commission, Bureau of Land Management, Bureau of Mines, Soil Conservation Service, Columbia Basin Inter-Agency Committee, the Resources Program Staff of the Department of the Interior, the Department of Health, Education, and Welfare, and the Bureau of Outdoor Recreation.

The Commissioner of Public Lands for the State of Washington, as the State's designated representative, cooperated fully with the team, took part in some of the field inspections, and sat with the team during public hearings.

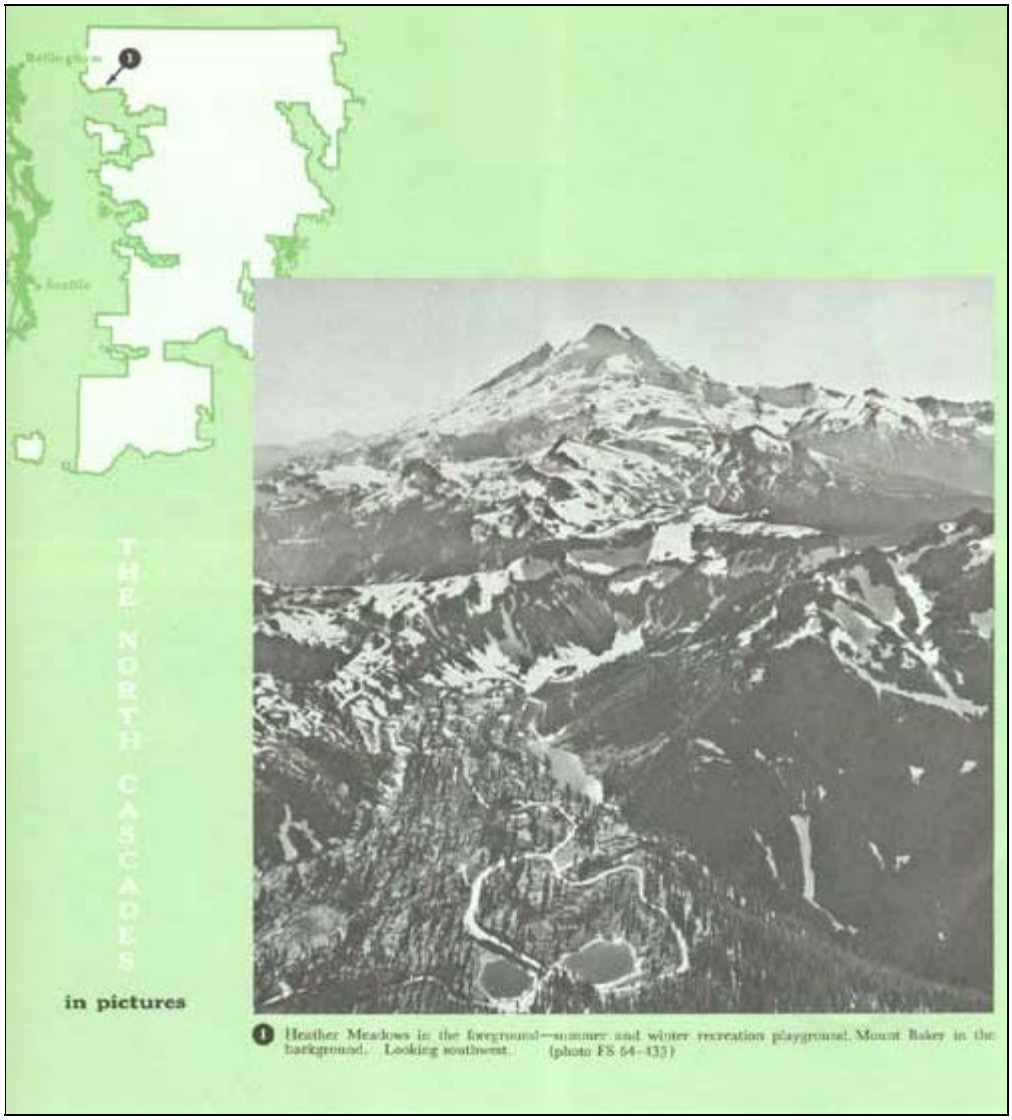
The report does not necessarily reflect the views of any of the cooperating agencies or individuals, or the State of Washington.

Edward C. Crafts
Study Team Chairman, and
Director, Bureau of Outdoor Recreation

<<< Previous <<< Contents>>> Next >>>

Last Updated: 26-Mar-2010

THE NORTH CASCADES IN PICTURES



1. Heather Meadows in the foreground—summer and winter recreation playground. Mount Baker in the background. Looking southwest. (Photo FS 64-433)





2. The South Pickets in the Mount Baker National Forest. (photo NPS 5307-172)



3. Head of Ross Lake. Boom across the lake is the international boundary. Canada is beyond the boom. Little Jackson Mountain and Hozomeen Lake in foreground. Looking northwest. (photo FS 64-419)



4. Looking southeast across Hidden Lakes on the East Fork of the Pasayten River in the North Cascades Primitive Area, Okanogan National Forest. (photos FS 483877)



5. Ross Lake and Dam in the lower foreground; Diablo Lake, left center; and the Skagit River. Mount Baker is in the background, North Cascades Highway—under construction—skirts Diablo Lake on the left. Looking a little south of west. (photo FS 64-414)



6. Methow River. The road winding across the face and up the left side leads to Harts Pass. Lost River forks to the right, center. Looking northwest. (photo FS 64-408)



7. Early Winters Creek. Clearing is route of the North Cross-State Highway. Looking a little west of south. (photo FS 64-406)

<<< Previous <<< Contents>>> Next >>>





I

INTRODUCTION

This is the report of the North Cascade Study Team appointed March 5, 1963, by Secretary of the Interior Stewart L. Udall and Secretary of Agriculture Orville L. Freeman. It is a report with recommendations to guide the management and administration of the Federal lands in the North Cascade Mountains of the State of Washington. All the resource potentials of these lands have been considered.

It is by no means the first, and perhaps not the last, such report. It rests on a consideration in depth of the rich resource potentials of this vast area and the controversies that swirl about them.

The North Cascade Mountains are immensely valuable in natural resources. Much of the area is characterized by spectacular mountain scenery unsurpassed in the United States. Thousands of acres are relatively inaccessible. The area in its entirety is known to only a relatively few people.

Except for Mount Rainier National Park, nearly all Federal lands are under the administration of the Forest Service and have been for many years.

The hard core of the issues before the study team was whether there should be a new National Park established in a portion of the North Cascades. Almost equally difficult questions involve the conflicts between timber utilization and recreation, and between mass recreation and dedication to wilderness.

The proper and best balanced use of water, fish and game, minerals and forage also are deeply involved.

Such issues are not new but have been brought sharply into focus in recent years by a combination of circumstances. These include greatly increased population in the Puget Sound area, more leisure time, improved accessibility, growing demands for National Forest timber, the militancy of conservation groups, and new top-level Federal administrators who desire to chart a course in the long range public interest regardless of traditional bureaucratic tradition, competition or ambition.

The North Cascades Study Team has worked together closely and harmoniously, respecting each other's differing views, in carrying out its charter from the two Secretaries. This report does not reflect unanimous views, because unanimity was not reached. The most fundamental difference in viewpoint among the team members is about the recommendation for a North Cascades National Park. There was also significant difference of opinion as to the interdependence of the recommendations. In reviewing the next to the last draft of the report, it became apparent that the team members also differed considerably as to some details and emphasis.

The report does reflect the views of the chairman. With respect to other team members, their differing views and recommendations are reflected in individual statements at the conclusion of the report to the extent that they wished to do this. In some instances, where there was clearly a lack of consensus, this is pointed out in the text of the report.

Many experts and agencies have contributed to the team's understanding and analysis, but it should be understood that this report is only the work of the team and does not necessarily reflect the views of any other individuals or agencies.

ORIGIN AND PURPOSE

Historically, the present study stems from the natural beauty and environmental quality of the North Cascades, the growing impact of people, and the existence in different Departments of two Federal conservation agencies—the Forest Service and National Park Service—with related but differing missions.

Numerous western National Parks or Monuments were either created from or are surrounded by National Forests. Over the years the National Park Service and the Forest Service have settled amicably many questions of boundary relationships. On the other hand, from time to time major questions of jurisdiction have erupted.

When Secretaries Udall and Freeman took office early in 1961, they learned that there were many interagency transfer proposals in various stages of negotiation. By mutual discussion and negotiation, agreement was reached to transfer or not transfer numerous areas. In the course of these discussions the two Secretaries determined to establish a climate of cooperation and reasonableness that had not always characterized proposed interagency transfers in the past.

At the request of the two Secretaries, a representative of each Department joined in recommending to them settlement of certain pending issues, including the desirability of examination of the North Cascades in depth.

Portions of this area had been proposed from time to time by the National Park Service and others for National Park status. Accordingly, on January 28, 1963, the two Secretaries jointly wrote the President an historic letter commonly referred to as the "Peace Treaty," which stated among other things:

"We have reached agreement on a broad range of issues which should enable our Departments to enter into a 'new era of cooperation' in the management of Federal lands for outdoor recreation. This agreement settles issues which have long been involved in public controversy, we have closed the book on these disputes and are now ready to harmoniously implement the agreed-upon solutions.

"The decisions reached will do much to further development of Federal recreation resources, eliminate costly competition, promote cooperation, and recognize the major role that the Departments of Agriculture and the Interior both have in administering Federal lands under their jurisdiction for recreation purposes."

The flyleaf statement by the Secretaries recommending an interdepartmental study of the North Cascades is excerpted from their letter of January 28 to the President.

On January 31, President John F. Kennedy stated in response that the "joint exploration of the North Cascades Mountains in Washington is most significant—it is clearly in the public interest."

Accordingly, on March 5, 1963, the two Secretaries by letter to the individuals selected to comprise the study team established the team and its charter.

These letters of January 28, January 31, and March 5, 1963, appear in full in Appendix A.

The most significant aspects of the study team's charter include the following:

1. The potential of all the natural resources of the area were to be explored.

2. The team consisted of two representatives of each Department and was chaired by a fifth individual jointly selected by the two Secretaries.

3. Recommendations of the team were to be submitted to the two Secretaries and they in turn would make recommendations to the President.

4. Recommendations were to be included as to management, administration, and jurisdictional responsibility.

5. The team was to invite from the Governor of Washington a statement setting forth recommendations of the State.

6. Recommendations were to be in the interest of the people in the area, the State of Washington, the region, and the United States.

The two Departments by administrative action undertook a much broader examination than had been proposed in both the 86th and 87th Congresses. In the 86th Congress, Congressmen Pelly and Magnuson, and Senator Magnuson introduced bills (H.R. 9360, H.R. 9342, and S. 2980) to direct the Interior Department in cooperation with Agriculture to study the North Cascades only as to its suitability for a National Park. The bills were not reported on by the Administration, but the Forest Service in an exchange of correspondence with Congressman Pelly in 1959 declined to join, or concur, in a study of the area by the National Park Service. Congressman Pelly asked for an investigation of 19 questions. The Forest Service declination was based on several grounds, including the fact that hearings had already been publicly announced on a proposed Glacier Peak Wilderness Area. Congressman Pelly reintroduced his bill (H.R. 2056) in the 87th Congress but no action was taken on it.

The members of the North Cascades Study Team jointly selected by the two Secretaries were:

AGRICULTURE

Dr. George A. Selke, Consultant to the Secretary Arthur W. Greeley, Deputy Chief, Forest Service

INTERIOR

Henry Caulfield, Assistant Director, Resources Program Staff

On September 27, 1963, Mr. Caulfield was replaced by Dr. Owen S. Stratton, Consultant to the Secretary and Chairman, Department of Political Science, Wellesley College.

George B. Hartzog, Jr., Associate Director, National Park Service

On January 8, 1964, Mr. Hartzog became Director of the National Park Service, but retained his membership on the Team.

CHAIRMAN

Edward C. Crafts, Director, Bureau of Outdoor Recreation

Each of these individuals served personally and actively throughout the study, drawing extensively on the members of their respective organizations as needed for both advice and technical expertise.

There was established also an informal group of principal staff assistants, the membership of which changed from time to time. It operated under the general direction of John F. Shanklin, Assistant Director, Bureau of Outdoor Recreation.

PROCEDURES AND COLLABORATION

PROCEDURES

The study team utilized six methods of becoming informed and arriving at recommendations. These included:

1. Review of existing information

2. Field examinations

3. Public hearings

4. Special resource studies

5. Agency statements and much special material prepared by the National Park Service, Forest Service, and special consultants

6. Team consultations with each other and with key officials, groups and individuals.

It is believed that these steps provided a thorough examination and exploration of the subject.

The review of existing information included documenting highlights in the history of the North Cascades (Appendix D) including key events, Acts of Congress, legislative proposals, and administrative decisions.

A bibliography of selected references was prepared from among the documents examined (Appendix E).

Field examinations were carried out by team members, both individually and collectively. On occasion, these field examinations were known to the public. On other occasions, team members visited the area for specific purposes and such visits were not generally publicized.

Each member of the team has a good personal knowledge of the physical environment of the North Cascades, the surrounding area, and the management and utilization of resources. This knowledge includes both the areas that are generally accessible as well as portions of the North Cascades that are normally inaccessible. Travel was by car, boat, foot, horseback and airplane.

The team conducted open public hearings in Wenatchee, Mount Vernon, and Seattle in October 1963, over a five-day period. All who wished to testify or submit statements were allowed to do so. Over 300 witnesses or statements were heard or received at these hearings. The record was kept open for about a month and about 2,200 additional letters were received by the team prior to closing of the record on November 15, 1963. The transcript of some 3,200 pages continues to be available for public inspection at offices of the Bureau of

Outdoor Recreation, National Park Service, and the Forest Service.

The study team decided early in its work that a series of resource studies should be undertaken to provide the factual basis for recommendations. Each of these studies was chaired by a member of the study team, using professional personnel from the Federal agencies listed in the acknowledgment.

The State of Washington made available professional personnel to participate in each of these studies.

The resources studies did not include action recommendations. They did provide essential technical background information on the value, extent, and needs of the various resources. These studies, although not made an integral part of this report, are available for public inspection in the offices of the Bureau of Outdoor Recreation, the National Park Service, and the Forest Service.

The special resource studies and the team members responsible for each follow:

1. "Outdoor Recreation in the Northern Cascades Today and Tomorrow." George B. Hartzog, Jr.

2. "Timber Resource Study of the North Cascades." Arthur W. Greeley.

3. "Range Resource Study of the North Cascades." Arthur W. Greeley.

4. "Fish and Wildlife Study of the North Cascade Mountains." Arthur W. Greeley.

5. "Water and Power Resources Report for North Cascade Mountains Study." Owen S. Stratton. This report was prepared by the Columbia Basin Inter-Agency Committee, directed by its Coordinated Planning Subcommittee and developed by an ad hoc group chaired by Don H. Huff.

6. "Mineral Resources and Geology of the North Cascade Mountains Study Area." George A. Selke.

Six additional reports especially prepared for the Study Team are worthy of mention:

1. "Resource Reports of the North Cascades Study: Assessment of Their Economic Features." James Rettie. June, 1964.

2. "An Economic Analysis of Proposed Changes in the Use and Management of the National Forest Lands in the North Cascades." Burnell Held. November, 1964.

3. "An Economic Appraisal of the North Cascades Area—Preliminary Draft." Bonneville Power Administration. March 1964.

4. "A Summary Report on How the National Forest Lands in the North Cascades Study Area Will Be Managed by the U.S. Forest Service." This appears as Appendix B.

5. "National Park Service Management Proposals for the North Cascade Mountains Study Area." This appears as Appendix C.

6. "A Report on the Recreation Resources of the National Forests in the North Cascades." Forest Service, Pacific Northwest Region. December 1963.

The Rettie Report, as the title indicates, evaluates the special resource reports in economic

terms. The Held Report evaluates in economic terms the differing management proposals and recommendations of the National Park Service and the Forest Service as presented in the individual agency statements.

The Forest Service and National Park Service statements (Items 4 and 5 above) appearing as Appendices B and C, are documents prepared by the two land administering agencies directly involved, and incorporate their separate recommendations for the area. These are included in this team report as alternative possibilities and in order to make generally available the individual agency views.

The recreation report of the Forest Service (Item 6 above) was volunteered by the Pacific Northwest Region of the Forest Service in anticipation of the needs of the study team. It was made available to both the recreation resource study group and the full study team. Because it includes much valuable information, it is mentioned here.

It is the belief of the study team that the special resource reports, the other special reports prepared for the team, the individual agency statements, maps, statistical material, and supplementary memoranda represent the most comprehensive assembly of information ever put together on the North Cascades. This material, all of which is available for inspection, can be correctly referred to as a monograph on the Study Area.

The study team held eleven executive session discussions over the period of the study. Two of these were on the West Coast, two in West Virginia, and the remainder in Washington. The purposes of the discussions were to chart the course of the study, review progress, evaluate information, debate issues, and prepare recommendations.

COLLABORATION

The study team enjoyed the collaboration of the State of Washington, Federal and local public agencies, and numerous private individuals, organizations, groups, and firms of various types.

The collaboration of private individuals, organizations and local groups was largely in the form of testimony, statements, resolutions, or petitions submitted in connection with the hearings during October 1963. Material was received from chambers of commerce, sportsmen's organizations, PTA and other school associations, civic groups, business and industrial groups, professional societies, conservation groups, farm, utility, irrigation and soil conservation groups, and county and municipal officials. A digest of the hearing record appears later in the report.

The Federal agencies that contributed the most were, as could be expected, the National Park Service and the Forest Service.

The collaboration of other Federal agencies, the State, and individuals deserving special mention is covered in the acknowledgment.

The Secretarial instructions of March 5, 1963, to the team state ". . . . We ask that you arrange to receive from the Governor of the State of Washington a written statement setting forth the recommendations of the State." Accordingly, in May 1963, three members of the team met with Governor Rosellini and Commissioner Cole. Subsequently, the Governor assured the team of the cooperation of his office in connection with its work. In accord with Secretarial instructions the Governor was formally invited by the Chairman at three different times (letters of April 9, July 17, and November 18, 1964), to express the views of the State. Such views were not received.

With the change of State administration in January 1965, the Chairman on March 6 invited Governor Daniel J. Evans to make available recommendations of the State. On March 25 Governor Evans advised that in view of the shortness of his period in office and his preoccupation with legislative matters, it was his plan to wait until the Federal Government's report was issued, at which time he would comment on it.

During the course of the North Cascades Study, Governor Rosellini appointed a Washington State Forest Area Use Council to advise the Governor on matters in the North Cascades Study Area. In May 1964, the Council approved two reports prepared by the Council's Technical Committee—a "North Cascades Report," which was a commentary on the six resource studies prepared for the study team, and a report on "The Cougar Lake Limited Area." Both of these reports were made available to the study team by Governor Rosellini.

PREVIOUS STUDIES

The North Cascades have been the subject of repeated studies, books, reports, and travelogues almost since the first Federal Forest Reserves were established in the 1890's.

Most of the available literature deals with one of three subjects:

1. Whether a North Cascades National Park should be established,

2. Problems of resource balance, and conflicts in use of the area for timber versus wilderness recreation, or

3. Accounts of the spectacular beauty and magnificent scenery of the North Cascades.

The available literature appears not to give a balanced picture of the multiple resources of the area, their use and management. The bulk of the literature over the years has been by advocates of change, particularly those who have favored a North Cascades Park. Their views have been repeatedly, militantly, and emotionally expressed.

In contrast, Federal administrators of the area and commercial users of the resources for the most part have been going about their business of management, administration and use, rather than defending their actions or explaining their plans.

Criticism has been freely and frequently directed at the Forest Service. Officials of that agency, as is usually the case with public servants, are necessarily restrained by their position from exercising equal freedom in their response to criticism.

Following are a few selected references which appear to be among the best:

1937 O. A. Tomlinson and others, National Park Service. "Report of Committee, Northern Cascades Area Investigation." 40 pp. (Typed.)

This is a well-known National Park Service report, frequently quoted. There are several accompanying memoranda and supplementary maps and reports. The cited document along with the letter of transmittal constitutes the principal early report which recommended a North Cascades National Park.

1940 National Park Service Cascades Committee, O. A. Tomlinson, Chairman. "National Park Potentialities in the Cascade Mountains of Washington." 27 pp. (Typed.)

1940 Forest Service, Pacific Northwest Region. "Preliminary Report on North Cascade National Park Study Area." (Typed.)

This is a Forest Service report and commentary on the 1937 National Park Service report. It opposes a National Park.

1940 Washington State Planning Council. "Cascade Mountains Study." 56 pp., illustrated.

This is a well-known Washington State Report prepared subsequent to the Tomlinson study. It recommends that "no additional lands of the Cascade Mountains be converted into use as a national park."

1949 Roderick Peattie (Editor). "Cascades: Mountains of the Pacific Northwest." 417 pp., illustrated.

1958 David R. Simons. "The Need for Scenic Resource Conservation in the Northern Cascades of Washington." Sierra Club. 36 pp. (Processed.)

This document recommends a National Park. It is not available for quotation or publication without express permission of the Sierra Club.

1961 Columbia Basin Inter-Agency Committee, Recreation Subcommittee. "Recreation Survey of the Pacific Northwest Region. Part One: Existing Recreation Areas." 58 pp. (Processed.)

1962 Forest Service. "Management Objectives and Policies for the High Mountain Areas of National Forests of the Pacific Northwest." 8 pp. (Processed.)

1962 Forest Service, Pacific Northwest Region. "Analysis of National Forest Lands Included in a Proposal for a Northern Cascades National Park." 67 pp., illustrated. (Processed.)

This is the Forest Service analysis of recommendations for a North Cascades National Park advanced by the North Cascades Conservation Council.

1962 Bernard C. Collins. "Land Use Conflict in the North Cascades Wilderness of Washington State." Thesis for Master of Forestry. 149 pp., illustrated. (Typed.)

1963 Washington State Inter-Agency Committee on Outdoor Recreation. "Governor's Report on Outdoor Recreation in Washington." 36 pp., illustrated.

1963 North Cascades Conservation Council. "Prospectus for a North Cascades National Park." 103 pp., illustrated. (Processed.)

This report is divided into five parts: (1) The National Park Quality of the North Cascades, (2) The Unsatisfactory Nature of Present Management, (3) The Superiority of National Park Service Management, (4) Legislation Proposed to Create a National Park, and (5) The Economic Impact of a North Cascades National Park.

1963 Forest Service, Pacific Northwest Region. "A Report on the Recreation Resources of the National Forests in the North Cascades." 51 pp., illustrated.

1964 Washington Forest Area Use Council, Technical Committee. "North Cascades Report." 36 pp., illustrated. (Processed.)

This is a commentary on the resource studies prepared for the North Cascades Study Team.

1964 Columbia Basin Inter-Agency Committee, Recreation Subcommittee. "Recreation Survey of the Pacific Northwest Region. Part Two: Recreation Report." 82 pp., illustrated.

1964 Tom Miller. "The North Cascades." 95 pp., illustrated.

Primarily a photographic portfolio, this book offers considerable text discussing the history and physiography of the North Cascades.

1965 Harvey Manning. "The Wild Cascades: Forgotten Parkland." 128 pp., illustrated.

The latest in the Exhibit-Format Series of the Sierra Club. Foreword by Justice William O. Douglas points out that the special message of the book is to demonstrate the need for a North Cascades National Park.

SUMMARY OF RECOMMENDATIONS

The body of this North Cascades report presents the resource situation, the facts that led to the recommendations, the recommendations, and the reasons behind them.

Although a brief digest and summary are presented at this point in the introduction, *the full discussion of the recommendations should be read in order to understand them adequately*.

The recommendations are grouped into the following seven categories: (1) Wilderness Areas, (2) North Cascades National Park, (3) Mount Rainier National Park, (4) other recreation areas, (5) scenic roads and trails, (6) timber management, and (7) other.

There are 21 recommendations. Five deal with Wilderness areas, one with a North Cascades National Park; two with Mount Rainier National Park; four with other recreation areas; two with scenic roads and trails; one with timber management; and six with other aspects of the area, including fish and wildlife and water and power developments.

Of the 21 recommendations, 10 will require action by the Congress and 11 may be implemented by administrative decision. Those recommendations requiring Congressional action are specified.

Figure 33 shows recommended new and revised management areas in relation to existing designations. This key map summarizes visually a number of major recommendations, including those relating to Alpine Lakes, Enchantment, Mount Aix, Glacier Peak and Okanogan Wilderness areas, the North Cascades and Mount Rainier National Parks, Mount Baker Recreation Area, and the Skagit Wild River.

Figure 34 shows a proposed system of scenic roads. It also shows the Cascade Crest Trail, existing and proposed.

To evaluate the recommendations, they should be considered as a group. They are, for the most part, interrelated and interdependent.

The proposals for Wilderness and other recreation areas, National Parks, and scenic roads and trails constitute a significant package that will improve the availability and utilization of the recreational potential of the North Cascades and at the same time increase the amount of commercially available sawtimber without significant impairment of water and power and other resource values. It is most important that the individual recommendations not be evaluated separately, but on their merits as a group.

It is also significant that the recommendations, as a group, are not those of either of the two land administering agencies—the Forest Service or the National Park Service—or of any other public body or private group. They are a new set of recommendations that has not heretofore been proposed. Some of the recommendations are wholly new; others are not.

WILDERNESS AREAS

There should be established four new Wilderness areas—Alpine Lakes, Enchantment, Mount Aix, and Okanogan. In addition, the boundary of the Glacier Peak Wilderness should be extended in three places: (1) on the northeast perimeter from Riddle Creek on Lake Chelan up the lake and along the Stehekin River to Cascade Pass; (2) in the Suiattle River corridor; and (3) in the White Chuck River corridor.

The Alpine Lakes Wilderness Area would be similar to, but smaller than, the present Alpine Lakes Limited Area. The Enchantment and Mount Aix Wilderness areas would be new. The Okanogan Wilderness Area would be roughly equivalent to that part of the present North Cascade Primitive Area lying east of Ross Lake. The Cougar Lake and Monte Cristo Peak Limited Areas would be declassified.

The reduced size of the Alpine Lakes Limited Area and the declassification of the Cougar Lake Limited Area would make available 123,000 acres and 2.9 billion board feet of commercial land and timber, hitherto reserved.

NORTH CASCADES NATIONAL PARK

There should be established a North Cascades National Park extending from Riddle Creek, a few miles below the head of Lake Chelan; northwestward generally along the Stehekin River to Cascade Pass and Cascade River drainage, including the Eldorado Peaks area, Thunder Creek and Granite Creek, including Ross and Diablo Lakes; crossing the Skagit River and including that part of the North Cascade Primitive Area west of Ross Lake, and Mount Shuksan.

This would include about 698,000 acres, of which only 19,000 acres is presently available commercial forest land—less than 1 percent of the timberland or volume commercially available in the Study Area.

Of the total acreage included in the proposed park, about 314,000 acres are now in the North Cascade Primitive Area and most of the remainder is in the area designated by the Forest Service as the Eldorado Peaks High Country.

The recommendation to establish a new North Cascades National Park is conditioned upon development of adequate facilities and means of entry into presently remote areas. This can be done by use of helicopter and aerial trains providing convenient access for large numbers of people to the spectacular and majestic mountain scenery, snow fields, glaciers, and other attractions of the North Cascades. The recommendation is also conditioned upon non-interference with the needs of Seattle City Light on Ross and Diablo Lakes.

Enabling legislation should include provisions to maintain the status-quo of the present proportionate distribution of National Forest receipts among affected counties.

The National Park can be established without removing lands from tax rolls, and without appreciable expenditures for land acquisition. This is because practically all of the land within the proposed boundary (99 percent) is already in Federal ownership.

There would be no significant adverse effects on timber harvesting, grazing, or fishing. There is no mining of consequence. Hunting would be precluded in the park.

One of the basic reasons for recommending a National Park is to give national recognition, National Park stature and special legislative protection to the unique and unparalleled

mountain masses which occur so close to major metropolitan areas and in such grandeur and magnificence no place else in the United States.

The qualifications of this area as a National Park are not at issue. They are so outstanding that this National Park will take its place with Yosemite, Yellowstone, Grand Canyon and Mount Rainier as one of the truly superlative units of the National Park System.

A major reason for recommending a National Park is that by means of access and development, the area can be made available to large numbers of people rather than retaining half the area in Wilderness area status, as would be done by the Forest Service.

A third reason that should be of significance locally is to bring to the area the tourism and other economic benefits that inevitably accrue in connection with a major National Park attracting visitors nationally and internationally.

MOUNT RAINIER NATIONAL PARK

The southern boundary of the Mount Rainier National Park should be extended to include about eleven sections of National Forest land in the vicinity of the Tatoosh Range.

There should be more effective coordination and management to accommodate present and prospective heavy recreational use in Mount Rainier National Park and on surrounding National Forest lands.

Master planning needs to be carried forward aggressively for the National Park.

The National Park Service and Forest Service should coordinate their expertise in the management of *Wilderness* areas in order to protect the fragility of wilderness and at the same time accommodate increased use.

OTHER RECREATION AREAS

Mount Baker and most of the surrounding Recreation Area should continue to be administered by the Forest Service in accord with that agency's plans for development; pending establishment of the North Cascades National Park, the Eldorado Peaks High Country should be managed primarily for recreation as it proposes; both the Forest Service and the National Park Service should energetically pursue the development of opportunities and facilities for camping, picnicking, winter sports, and other mass recreation pursuits to accommodate the anticipated increased demand; and certain portions of the Skagit River and its tributaries, including the Cascade, the Suiattle, and the Sauk Rivers, should be managed as a Wild River and given Wild River status.

SCENIC ROADS AND TRAILS

High priority should be given to the construction of an adequate system of scenic roads. This would include construction of new roads, such as completion of the North Cross-State Highway, the construction of a road from the head of Ross Lake in British Columbia along the lake to a junction with the North Cross-State Highway, the construction of a road from Heather Meadows tunneling under Austin Pass to Baker Lake, the construction of connecting roads through Curry Gap, Cady Pass, Harts Pass, and the construction of a connecting link between Alpine Lakes and Enchantment Wilderness areas. An adequate system of scenic roads will include an estimated 921 miles, of which amount, 649 miles are existing but need minor improvements, 154 miles involve new construction, and 118 miles need reconstruction or major improvements such as surfacing and turnouts. Many of the roads in the latter group were designed primarily for timber harvesting purposes.

A north-south Cascade scenic road was explored but was not considered feasible.

The construction of an adequate network of scenic roads will greatly facilitate the enjoyment of the area's recreational opportunities by large numbers of people.

There should be developed and maintained a more adequate system of hiking and riding trails. This includes particularly the improvement of the Cascade Crest Trail and connecting trails. There are about 5,800 miles of trails in the area but a substantial proportion were constructed initially for fire protection purposes and 40 percent needs to be improved and better maintained for recreational use.

TIMBER MANAGEMENT

The Forest Service is commended for, and should continue to systematically apply, the policy directives and guidelines described in its statement "Management Objectives and Policies for the High Mountain Areas of National Forests of the Pacific Northwest Region."

In general, clear-cutting of blocks on the west side should be kept as small as practicable. In or near areas proposed for special attention for recreation, clear-cutting should be used only where other forms of silviculture are not feasible.

If adequate natural regeneration does not occur promptly, the areas should be planted. Further, road banks and other areas where there are similar soil disturbances should be artificially revegetated to minimize land scarring and stabilize soil.

In the design and construction of forest development roads, appropriate consideration should be given to the needs of all resources without undue emphasis on timber. Adequate scenic strips and roadside improvements should be provided consistent with landscape management principles.

In areas recommended for Wilderness area classification or National Park status, timber harvesting should not be permitted for a period of 5 years to allow time for congressional consideration and action.

Research should continue to be carried on on Douglas-fir and ponderosa pine types. This should include silviculture and economics of Douglas-fir and practical methods of harvesting and regeneration of that species by other means than clear-cutting.

OTHER

The Federal and State agencies concerned should develop and improve habitat and carry on management measures in fish, wildlife and range management to the full extent of their responsibilities and capabilities in anticipation of increased public use.

The Secretary of Agriculture should support the Secretary of the Interior in his intervention with the Federal Power Commission concerning the proposed development of Wenatchee River by Public Utility District No. 1 of Chelan County.

The Secretary of the Interior should seek the views of the Secretary of Agriculture and should carefully assess the recreation impacts, both favorable and unfavorable, before acting on the proposed replacement dam on Bumping River below the existing Bumping Lake reservoir.

The enactment of legislation to create a North Cascades National Park should include provisions that would protect the present installations and plans of the Seattle City Light on the main stem of the Skagit River.

The Forest Service should continue to work with cities having closed municipal watersheds in order to develop satisfactory plans and procedures by which these watershed areas can be made available to help meet the expanding future recreational needs of the Study Area.

CONCLUSIONS

The net effect of the recommendations is to:

1. Establish four new Wilderness areas—Alpine Lakes, Okanogan, Enchantment, and Mount Aix—totaling 720,000 acres;

2. Enlarge the Glacier Peak Wilderness Area by 39,000 acres;

3. Establish a North Cascades National Park totaling 698,000 acres;

4. Enlarge Mount Rainier National Park by 7,000 acres and provide for coordinated management between the park and surrounding National Forest lands;

5. Declassify three limited areas—Alpine Lakes, Cougar Lake, and Monte Cristo Peak;

6. Provide for an increase of 228,000 acres of National Forest lands to be placed under normal multiple-use administration by the Forest Service;

7. Increase the available commercial forest land by 56,000 acres and increase the available commercial saw-timber by 1.5 billion board feet, thus providing a net benefit to the timber industry despite the creation of new Wilderness areas and a new National Park;

8. Provide for a 900-mile system of scenic roads and several thousand miles of trails.

9. Establish a Wild River in the Skagit Basin;

10. Provide for adequate camping, picnicking, winter sports, boating and other recreation facilities, including fishing and hunting opportunities, in anticipation of much greater population pressure and use;

11. Provide for timber management and needed research that will minimize erosion, land scarring, adverse effects on the natural beauty of the land scape, and accomplish prompt regeneration;

12. Involve no removal of lands from the tax rolls, no acquisition costs, no change in distribution of National Forest receipts, no impairment of operations of Seattle City Light on the Skagit River, and no significant adverse effects on the livestock industry, on commercial or sport fishing. There would be some adverse effects on hunting, and there could be on mining if significant future discoveries occur in the area proposed for a National Park.

13. Provide substantial net economic advantages from creation of a North Cascades National Park through increases in tourism and the expenditures, wages, and employment generated thereby, and by capital outlays to develop the National Park, with resulting employment and wages; and

14. Provide substantial economic benefits through the construction development costs, maintenance, and employment required to establish the recommended scenic road system, and from the expenditures and employment generated by increased driving for pleasure.

The overall conclusion is that there will be an economic benefit to the timber and tourism

industries, little or no significant adverse effect on other resource-based activities, substantial economic advantages from the creation of the scenic road system and the establishment of a new National Park, and great intangible benefits to the population of the State, region, and Nation through new opportunities for mass recreation, through creation of a National Park, and through creation of new Wilderness areas.

<<< Previous <<< Contents>>> Next >>>

study_report/intro.htm
Last Updated: —2009

II

THE NORTH CASCADES—RESOURCE HIGHLIGHTS

DESCRIPTION

The specific portion of the North Cascades to be considered by the study team was not described in the letter of instructions from the Secretary of the Interior and the Secretary of Agriculture. Accordingly, the first action of the team was to define the area.

After due consideration, it was agreed that the Study Area would include all Federal lands in the North Cascade Mountains of the State of Washington north of State Route No. 14 (which is the principal highway between Chehalis and Yakima, Wash., via White Pass formerly designated as State Route 5) to the Canadian border.

This includes all of the Mount Baker and Wenatchee National Forests, those parts of the Okanogan National Forest lying west of the Okanogan River, those parts of the Gifford Pinchot and Snoqualmie National Forests lying north of State Route No. 14, and Mount Rainier National Park. The Study did not include the State, county, municipal, or private lands that are intermingled with and/or lying inside the boundary of the specified National Forests and the National Park.

The Study Area is shown in figure 1 in relation to major cities, roads, and other features in Washington, Oregon, Northern California, and British Columbia.



Figure 1 Vicinity Map. *(click on image for a PDF version)*

Figure 2 is a larger scale blow-up of the Study Area showing topographic relief, existing roads, drainage, and county lines.

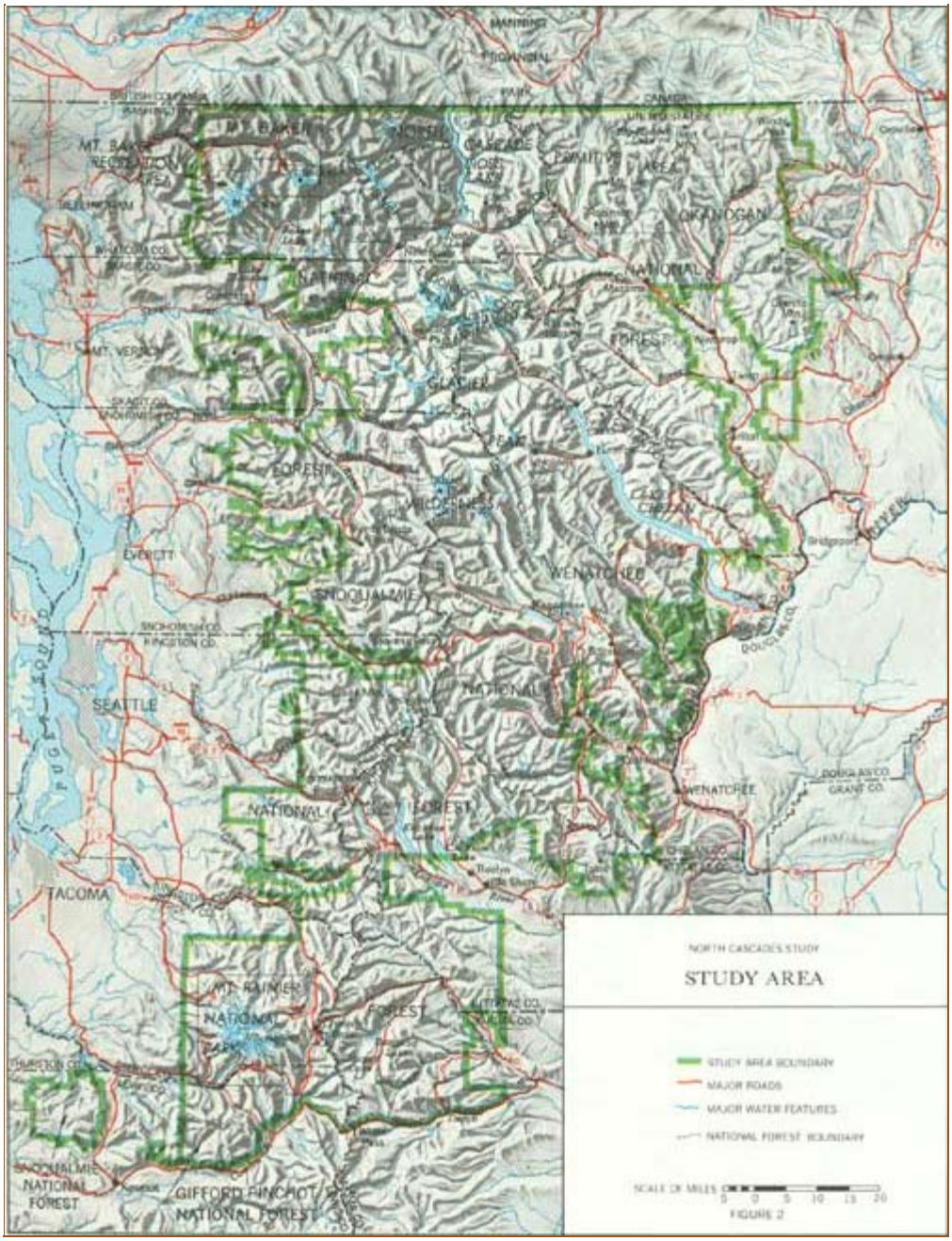


Figure 2 Study Area. *(click on image for a PDF version)*

The State of Washington is our twentieth State in size and covers about 43 million acres. Slightly over half of it is forested (fig. 3).

Figure 3 Land area of the State of Washington, by major land classes, as of January 1, 1963

	Thousand acres	Percent
Forest land:		
Commercial	19,510	46
Non-commercial (1)	3,540	8
All forest land	23,050	54

Cropland	7,910	19
Pasture and range	9,079	21
Other land	2,655	6
Total land area	42,694	100

(1) Of this amount, 1,312,000 acres, or 37 percent is productive but reserved and the remainder is unproductive.
Source: Publications of the Forest Service, U.S. Department of Agriculture.



Mount Shuksan and its breathtaking neighbors in the Mount Baker National Forest are sometimes called the American Alps. See figure 2 map, page 20. (photo NPS 5307-135)

The Study Area of 7 million acres is about 16 percent of the entire State, and includes over half of all Federally owned land in the State (fig. 4).

Figure 4 Relation of the land and water area of the North Cascades Study Area to State of Washington, by Federal and non-Federal ownership.

Area	State of Washington	North Cascades Study Area	Study Area as portion of Washington State
	Thousand acres	Thousand acres	Percent
Water area	949	33	3
Land area:			
Federal ownership	12,529	6,309	50
Other public and private ownership	30,165	729	2
All land area	42,694	7,038	16

Total water and land area	43,643	7,071	16

As for the Study Area itself, about 90 percent, or 6.3 million acres, is Federal land. About 1 percent is other public land and 9 percent is privately owned (figs. 5 and 6). There are 33,000 acres of water surface in bodies of water 25 acres or larger.

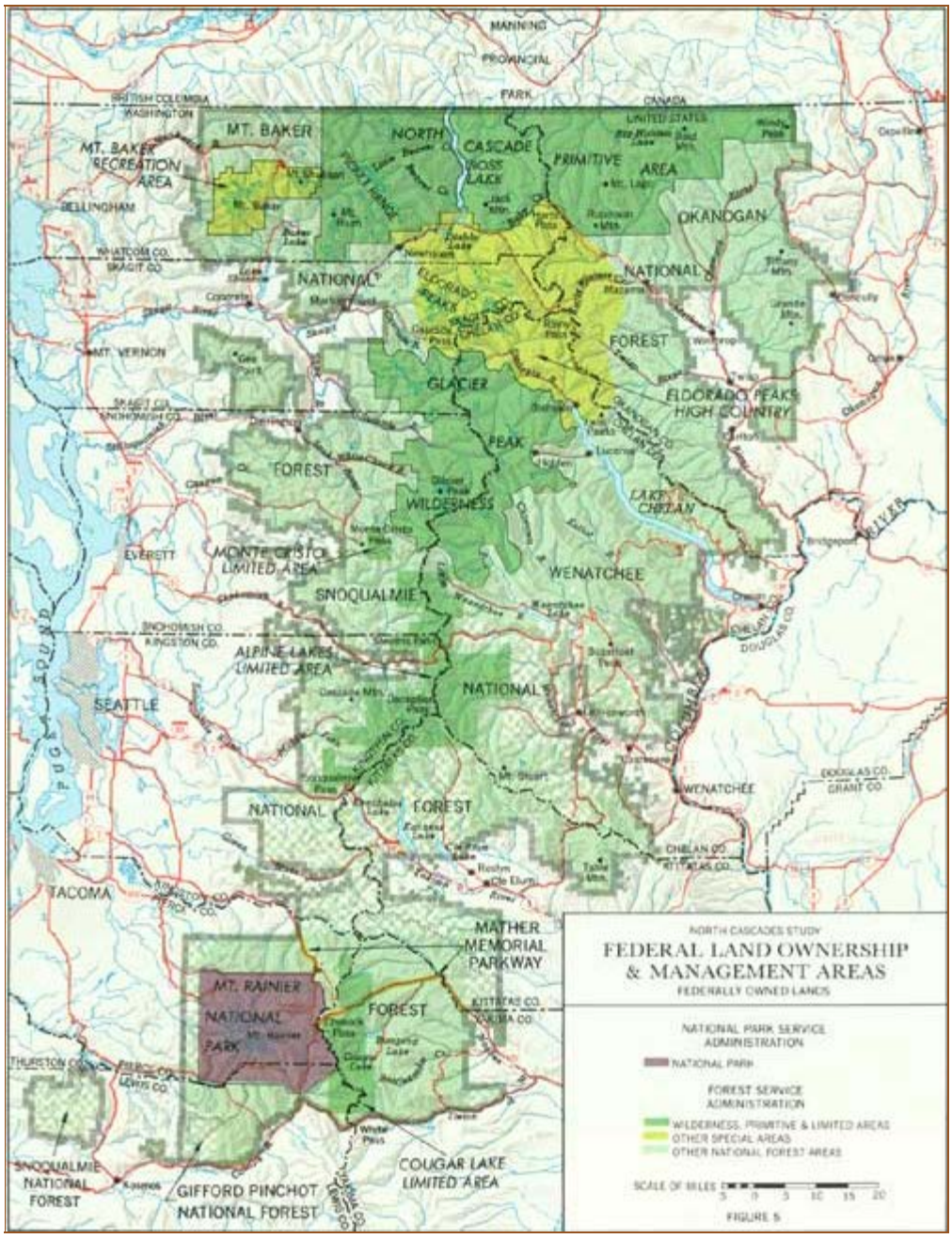


Figure 5 Federal Land Ownership & Management Areas. *(click on image for a PDF version)*

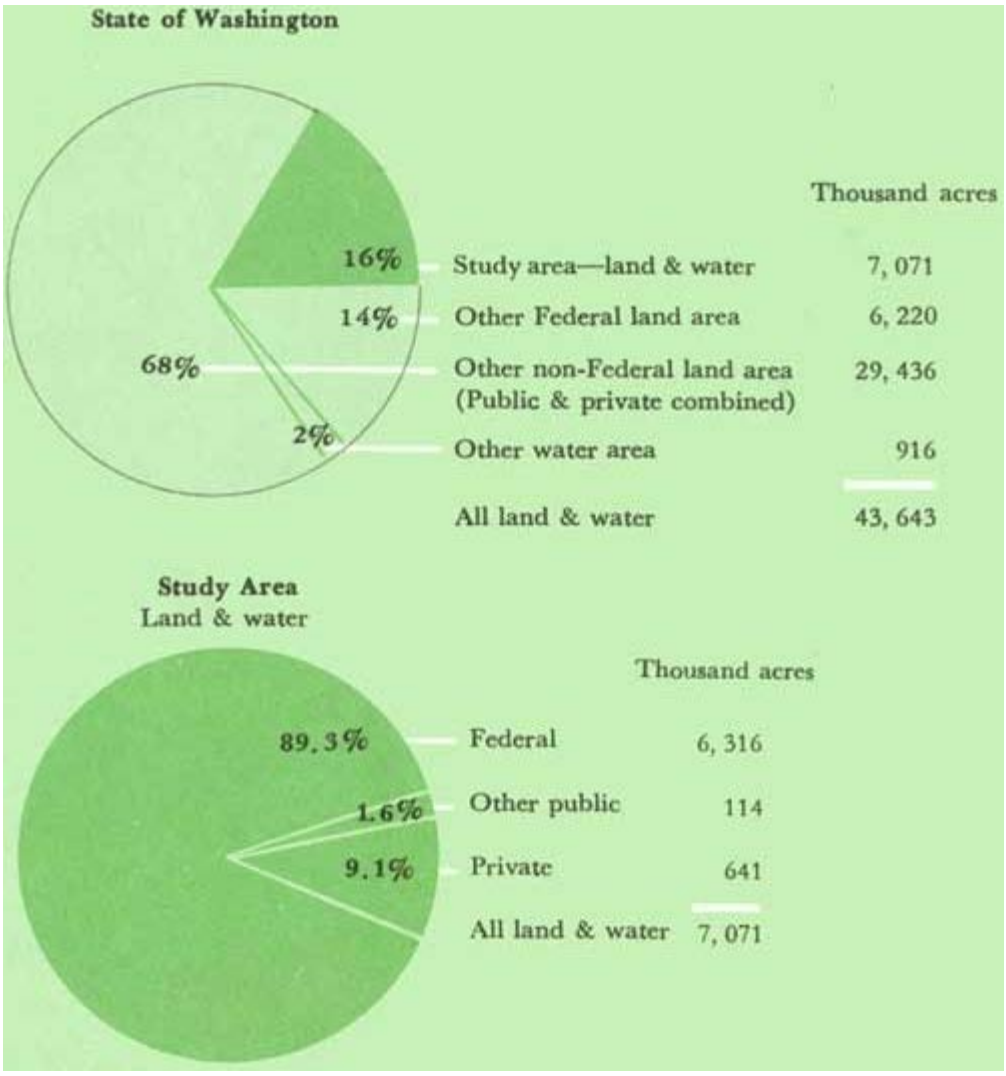
Figure 6 Gross area within the exterior boundary of the North Cascades Study Area, by land and water areas, by ownership classes.

State of Washington

	Thousand acres
Study area—land & water	7,071
Other Federal land area	6,220
Other non-Federal land area (Public & private combined)	29,436
Other water area	916
All land & water	43,643

Study Area
Land & water

	Thousand acres
Federal	6,316
Other public	114
Private	641
All land & water	7,071



	Land area (1)	Water area (2)	Total area

	Thousand acres	Percent	Thousand acres	Percent	Thousand acres	Percent
Federal:						
National Forest	6,067.8	86.2	6.9	21.1	6,074.7	85.9
National Park	241.6	3.4	.2	.6	241.8	3.4
Other Federal	0	0	0	0	0	0
Total	6,309.4	89.6	7.1	21.7	6,316.5	89.3
Other public:						
State	37.3	.5	24.7	75.3	62.0	.9
County	.2	(3)	0	0	.2	(3)
Municipal	51.6	.7	0	0	51.6	.7
Total	89.1	1.3	24.7	75.3	113.8	1.6
All public	6,398.5	90.9	31.8	97.0	6,430.3	90.9
Private	639.7	9.1	1.0	3.0	640.7	9.1
All ownerships	7,038.2	100.0	32.8	100.0	7,071.0	100.0

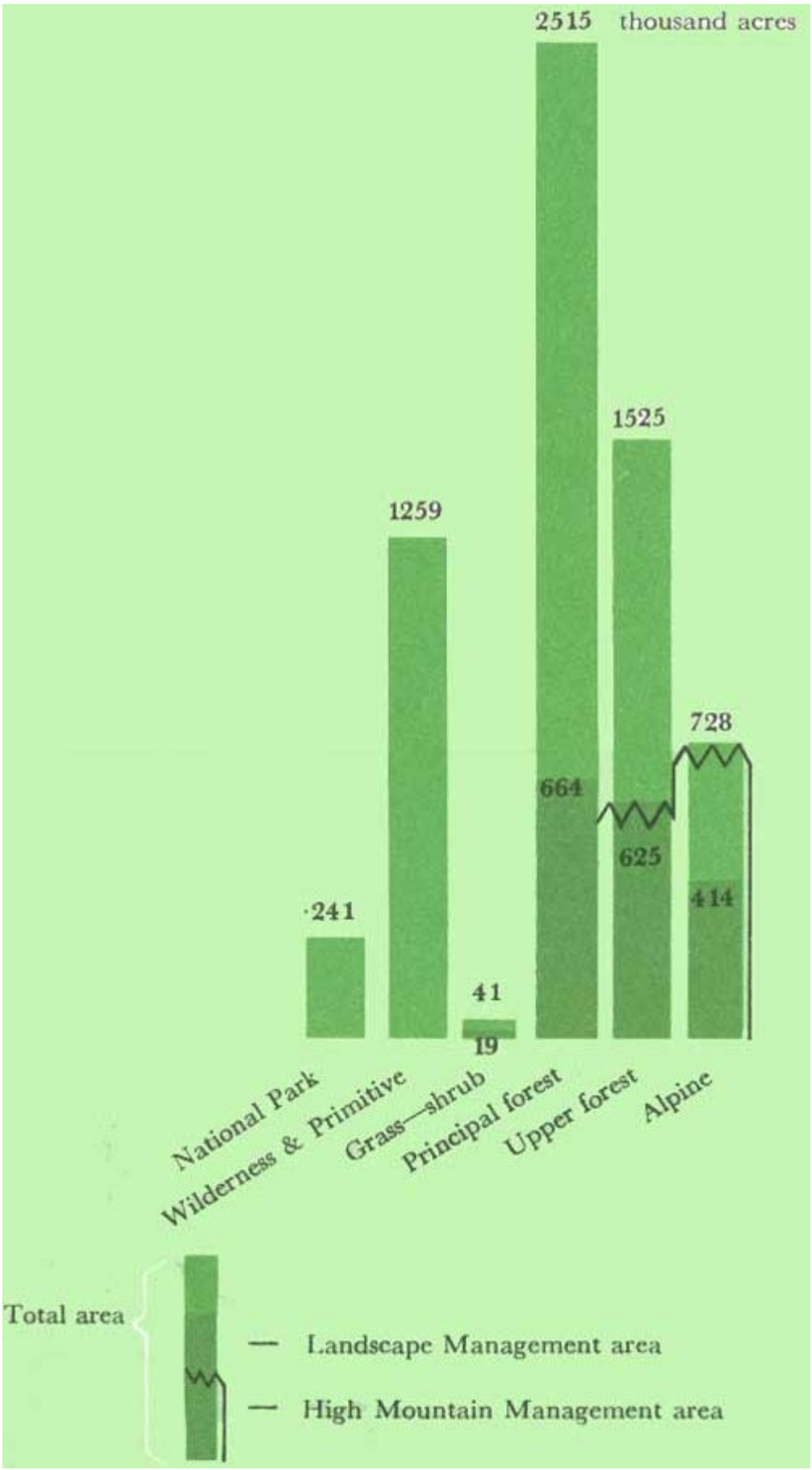
(1) Including bodies of water under 25 acres in size.
(2) Bodies of water 25 acres or larger.
(3) Less than 0.05 percent.

The Federal land in the Study Area consists of 6,068,000 acres of National Forest land and 241,000 acres of National Park land. This is roughly 10,000 square miles, or about the size of the State of Vermont or Maryland. Most of the area classified as State owned is the water surface of major lakes, such as Lake Chelan and Ross Lake.

The National Forest ownership within the boundaries of the Study Area is quite solid except for a portion lying between Township 19 north and Township 28 north, or roughly from about Government Meadow and Naches Pass north to Wenatchee Lake.

The 6.3 million acres of Federal land is roughly 4 percent National Park, 20 percent Wilderness and Primitive areas, 64 percent principal and upper forest associations, and 12 percent alpine (fig. 7).

Figure 7 Federal lands in the North Cascades Study Area, by area in National Parks, Wilderness and Primitive areas, and other National Forest lands by resource associations.



Park, wilderness, and primitive areas, and Landscape High Mountain

	management resource associations			Management Area		Management Area	
	Thousand acres	Percent	Percent	Thousand acres	Percent (1)	Thousand acres	Percent (2)
Mount Rainier National Park	241	4					
National Forest lands:							
Glacier Peak Wilderness Area	458	7					
North Cascade Primitive Area	801	13					
Other National Forest lands:							
Grass-shrub	41	(3)	1	19	46		
Principal forest	2,515	40	52	664	26		
Upper forest	1,525	24	32	625	41	625	41
Alpine	728	12	15	414	57	728	100
All resource associations	4,809	76	100	1,722	36	1,353	28
All Federal land areas	6,309	100					

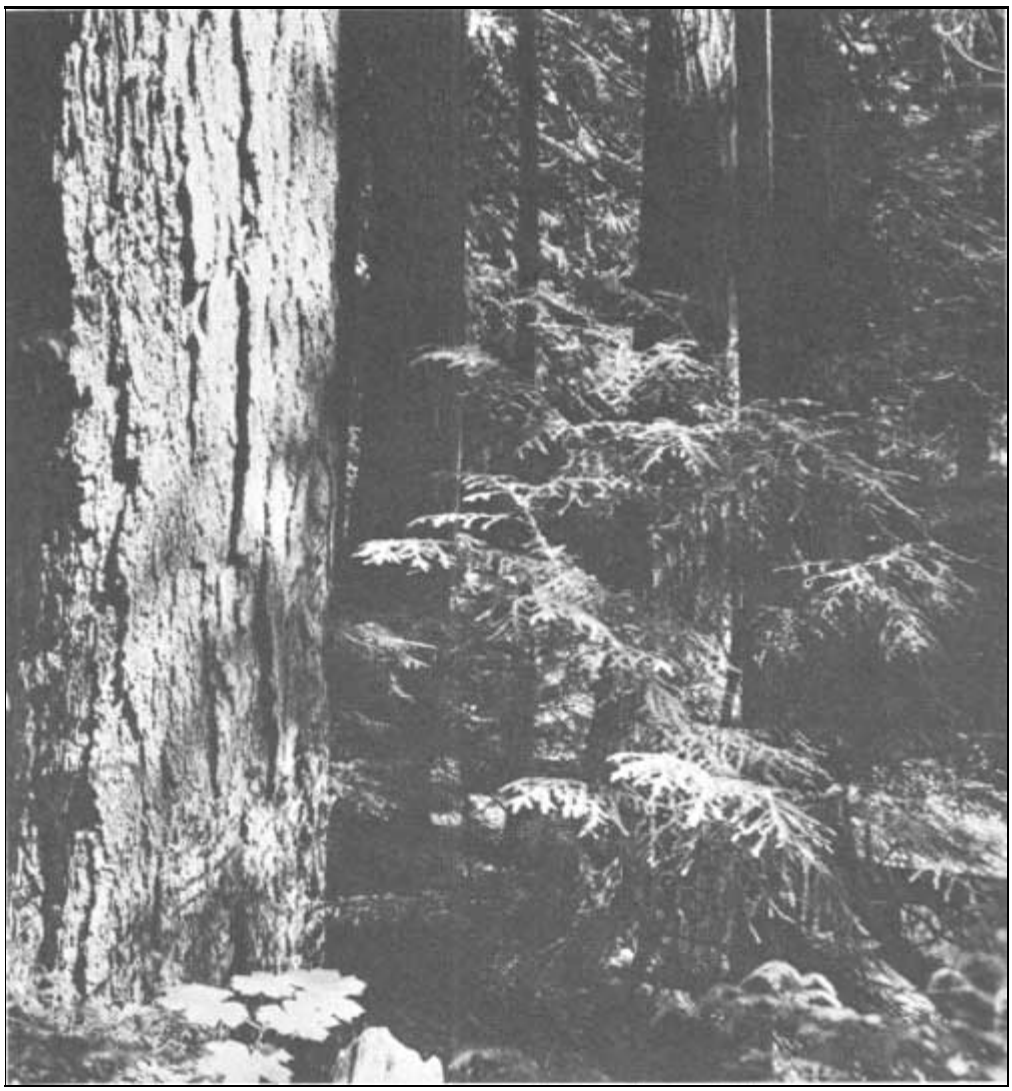
(1) Portion of the resource association which is classified as Landscape Management Area
(2) Portion of the resource association which is classified as High Mountain Management
(3) Less than one percent.



The North Cascades are so inaccessible that few people are aware of their character. A

combination of foot or horseback travel and air travel in a helicopter or small low-flying plane is needed to appreciate and understand remote areas such as Teebone Ridge west of the Eldorado Peaks. See figure 2 map, page 20. (photo NPS 4214-504)

The portion of the North Cascades in the Study Area defies description. Here occurs the most breathtakingly beautiful and spectacular mountain scenery in the 48 contiguous States. From Glacier Peak northward, particularly the Eldorado Peaks complex, the Picket Range and Mount Shuksan, are what have been termed the American Alps. Here is scenic grandeur that unquestionably belongs in our national gallery of natural beauty.



Storms moving in from the Pacific precipitate heavy moisture on western slopes of the North Cascades Mountains, resulting in lush Douglas-fir stands such as this one on Sulphur Creek. Eastern slopes of the North Cascades are dry, covered with ponderosa pine, mixed conifers, and grass. (photo NPS 4214-661)



A total of 519 glaciers, including Boston Glacier in the Mount Baker National Forest, lie between Snoqualmie Pass and the Canadian border in the North Cascades. See figure 2 map, page 20. (photo NPS 5307-22)

Yet, relatively few people are aware of the character of these mountains because of their inaccessibility. Few roads transverse the area. Those that do, cut through the passes. The nature of the North Cascades can only be appreciated and understood by a combination of foot or horseback travel and air travel in a helicopter or a small low-flying plane.

The area is divided into two distinct climatic zones—a wet temperate western zone and dry continental eastern slopes. On the west side, and specifically in the valley bottoms, occur extremely heavy stands of high quality, old-growth Douglas-fir. On the eastern slopes, there are ponderosa pine, mixed conifers, and grasslands. On the mountain tops are spruce-fir timberline types, Alpine meadows, snow and ice fields, and barren rocks.

The mountain masses rise from sea level; 288 peaks have elevations between 7,000 and 9,000 feet. Sixteen rise above 9,000 feet.

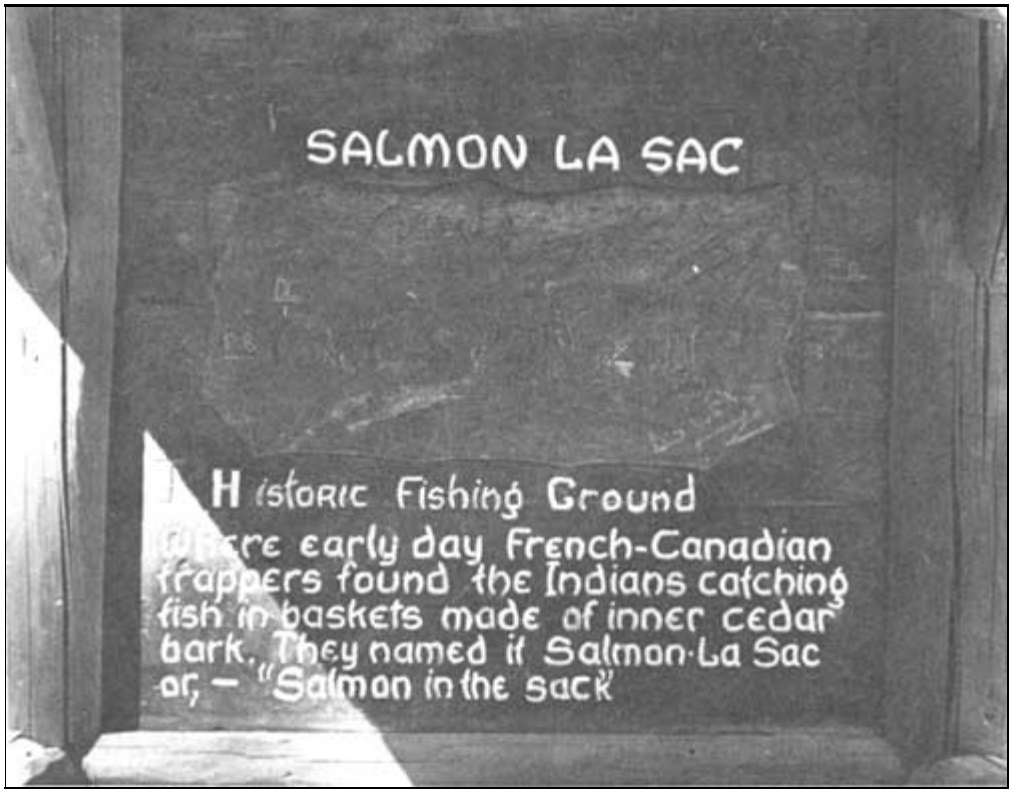
There are 519 glaciers covering 97 square miles between Snoqualmie Pass and the Canadian border. This is about three times the glacier area in all of the rest of the United States excluding Alaska.

Generally, the annual precipitation on the west side of the Cascade summit is from 40 to over 100 inches per year. This comes largely in the form of rain at lower elevations, but much of it falls as snow at higher altitudes. Precipitation east of the summit vanes from 12-15 inches per year to 40-50 inches near the summit. The average mean temperature is about the same for the east and west sides, but variation between high and low is pronounced. The east side is hotter during the summer months, colder during the winter.

Mount Rainier at 14,410 feet, Mount Baker at 10,778 and Glacier Peak at 10,541 are the three highest mountains in the Study Area, but only Glacier Peak lies in the main range of the Cascades. The Alpine Lakes area, north of Mount Rainier but south of Glacier Peak, is an

unmatched concentration of glacial lakes. Lake Chelan is an impressive example of a lake-filled glacial canyon extending into the heart of the area from the east some 55 miles. The Eldorado Peaks, Boston Peak, Cascade Pass, Stehekin, Thunder and Granite Creeks areas are separated from the Mount Baker-Shuksan-Picket range area by the Skagit River Valley which runs southwestward from the impounded Diablo and Ross Lakes.

The numerous articles and picturesque descriptions of the area are available in both word and picture, such as Miller's photographic portfolio on the North Cascades, the National Geographic's report of March 1961, "Washington Wilderness—the North Cascades," and a motion picture by the Sierra Club, "The Wilderness Alps of the Stehekin," and a new book by Harvey Manning, "The Wild Cascades: Forgotten Parkland."



Early day fishing history in the North Cascades. (photo NPS 4214-361)

HISTORICAL HIGHLIGHTS

The first white men who traveled into the North Cascades wilderness more than 1-1/2 centuries ago were undoubtedly trappers and hunters. They found, in addition to a great variety of furbearers and game animals, a land of alpine scenery, snow-capped peaks, cascading streams, and western foothills covered with dense softwood forests.

Gold and other metallic ores were discovered sometime prior to 1850. Prospectors and fortune-seekers were immediately attracted to the region. Scattered small-scale mining operations sprang into being.

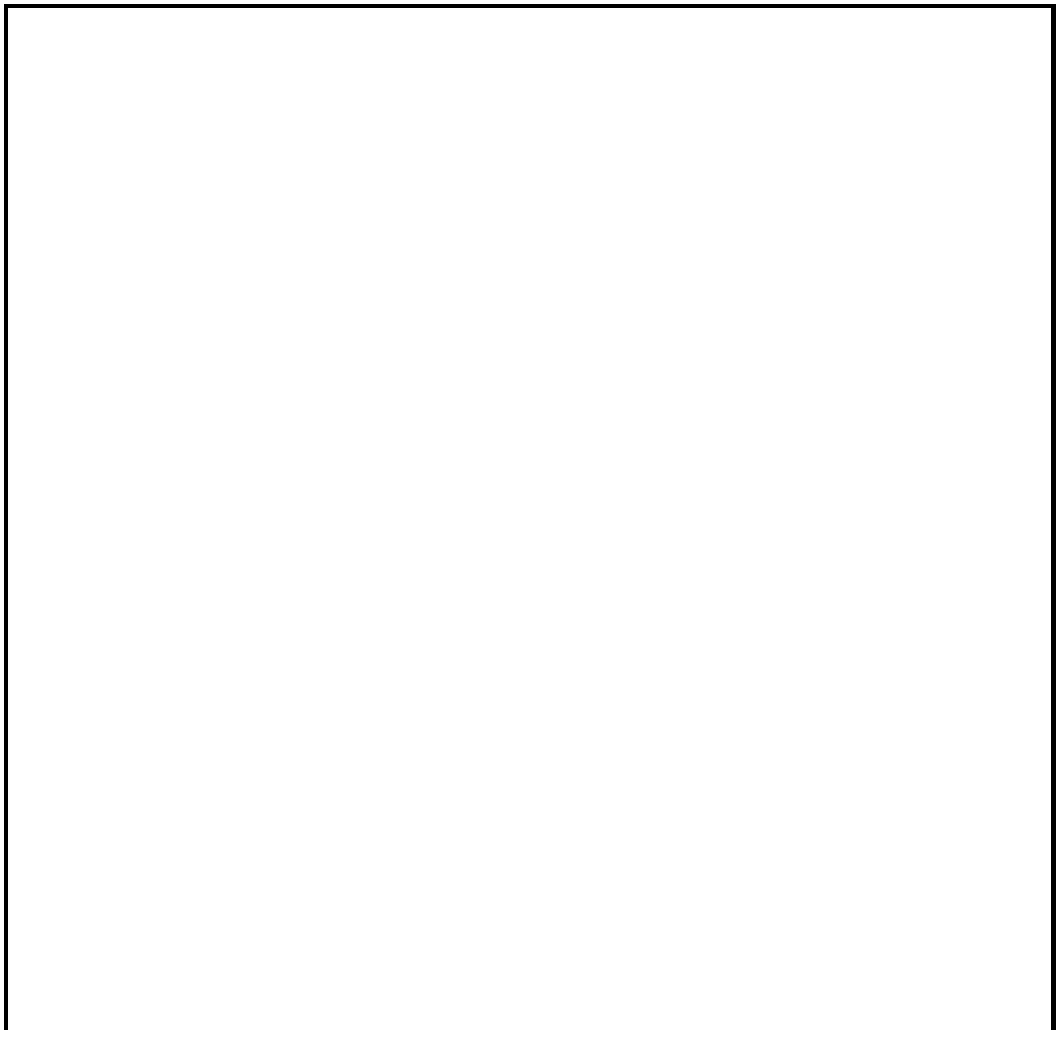
Through the years, with the advent of large commercial mining operations, the extraction of gold, silver, copper, lead, mercury, iron, chromium, and other minerals played a significant role in the economy of several communities. But today mining activities are relatively unimportant in the area.

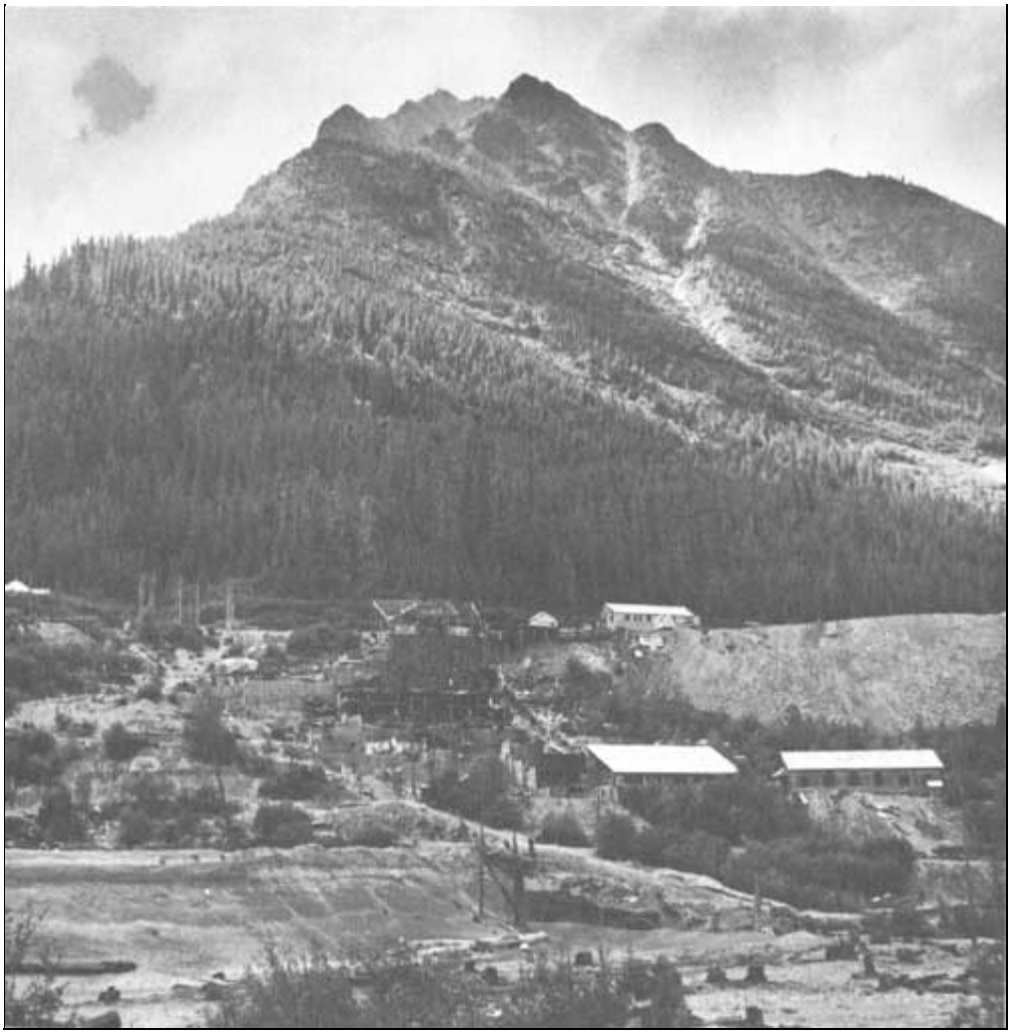
The harvest of timber from the dense forests of the Cascades region also began around the mid-1800's. However, it was not until decades later that large-scale commercial logging became important.

An abundance of high quality water, stemming in part from melting snowfields and glaciers, is another valuable resource of the North Cascades region. The use of the water for hydroelectric power generation in the Study Area began with the establishment of the Gorge Power Plant on the Skagit River in 1924. Since then, some 20 water resource development projects have been built, including those associated with Lake Chelan, Ross, Diablo, and Bumping Lakes.

The Federal lands in the Study Area originally became part of the public domain in 1846 when the United States established title to the Oregon Territory. They remained in that status until the Pacific Forest Reserve was carved out of the lower portion of the North Cascade Mountains in 1893 and the Washington Forest Reserve was created in 1897 in the northern portion of the North Cascades.

The act of March 3, 1891, under which the President established these Forest Reserves, did not provide for their management. The Forest Reserves were mainly closed areas until the middle of 1897 when Congress, by act of June 4, provided for the improvement and protection of the forest within the reservation and their establishment to secure "favorable conditions of water flows, and to furnish a continuous supply of timber for the use and necessities of citizens of the United States." The Forest Reserves were under the jurisdiction of the General Land Office of the Department of the Interior until 1905, when their administration was transferred to the Department of Agriculture.





1. Mining once flourished in several North Cascades areas. Buildings at the Holden Mine in the Railroad Creek drainage now are used for a Lutheran Church retreat. (photo NPS 4214-207)



2. Abandoned cabin on mining claim at road head along Cle Elum River. (photo NPS 4214-375)



3. Loggers in the Snoqualmie National Forest using a wood-burning donkey engine in 1911. (photo FS 95426)

In 1897, the Pacific Forest Reserve was enlarged and renamed the Mount Rainier Forest Reserve. It was from a part of this Reserve that Mount Rainier National Park was created in 1899. The remainder of the Mount Rainier Forest Reserve and the Washington Forest Reserve to the north eventually became, after numerous boundary and name changes, the five National Forests or parts thereof which comprise the North Cascades Study Area. The five National Forests are the Mount Baker, Snoqualmie, Wenatchee, Okanogan, and Gifford Pinchot.

The 65 years following the establishment of the Mount Rainier National Park was a period during which there were many proposals by public and private groups for additional National Parks and other management suggestions for the North Cascades area.

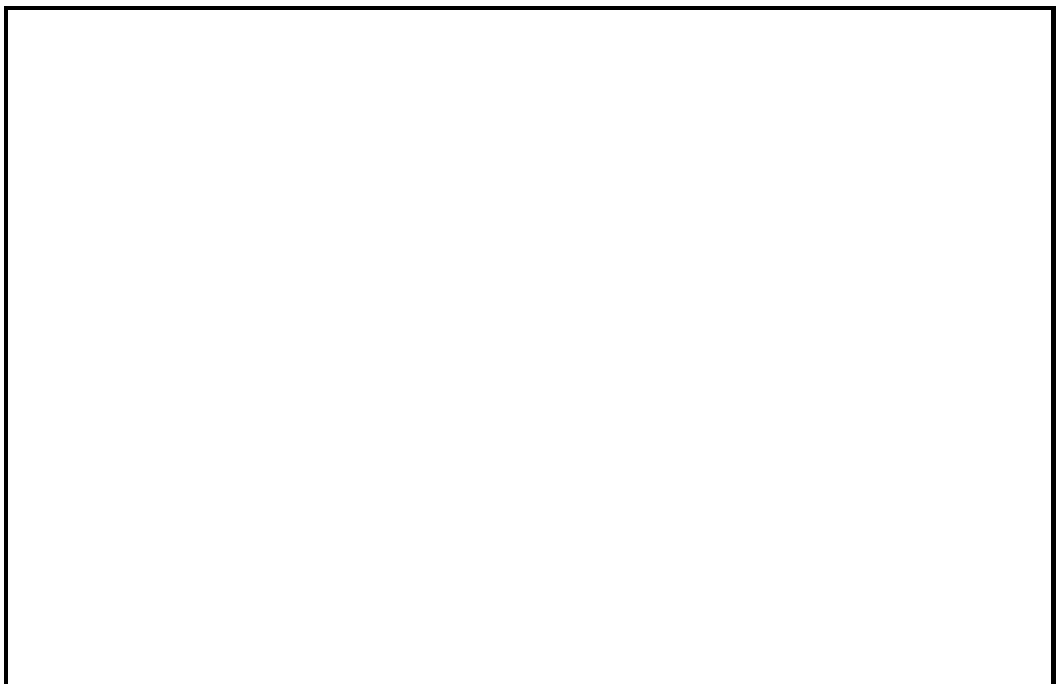
The first area to be suggested for National Park status was the Lake Chelan region, proposed by the Mazamas club in 1906. The Mount Baker area was suggested for similar status in 1908.

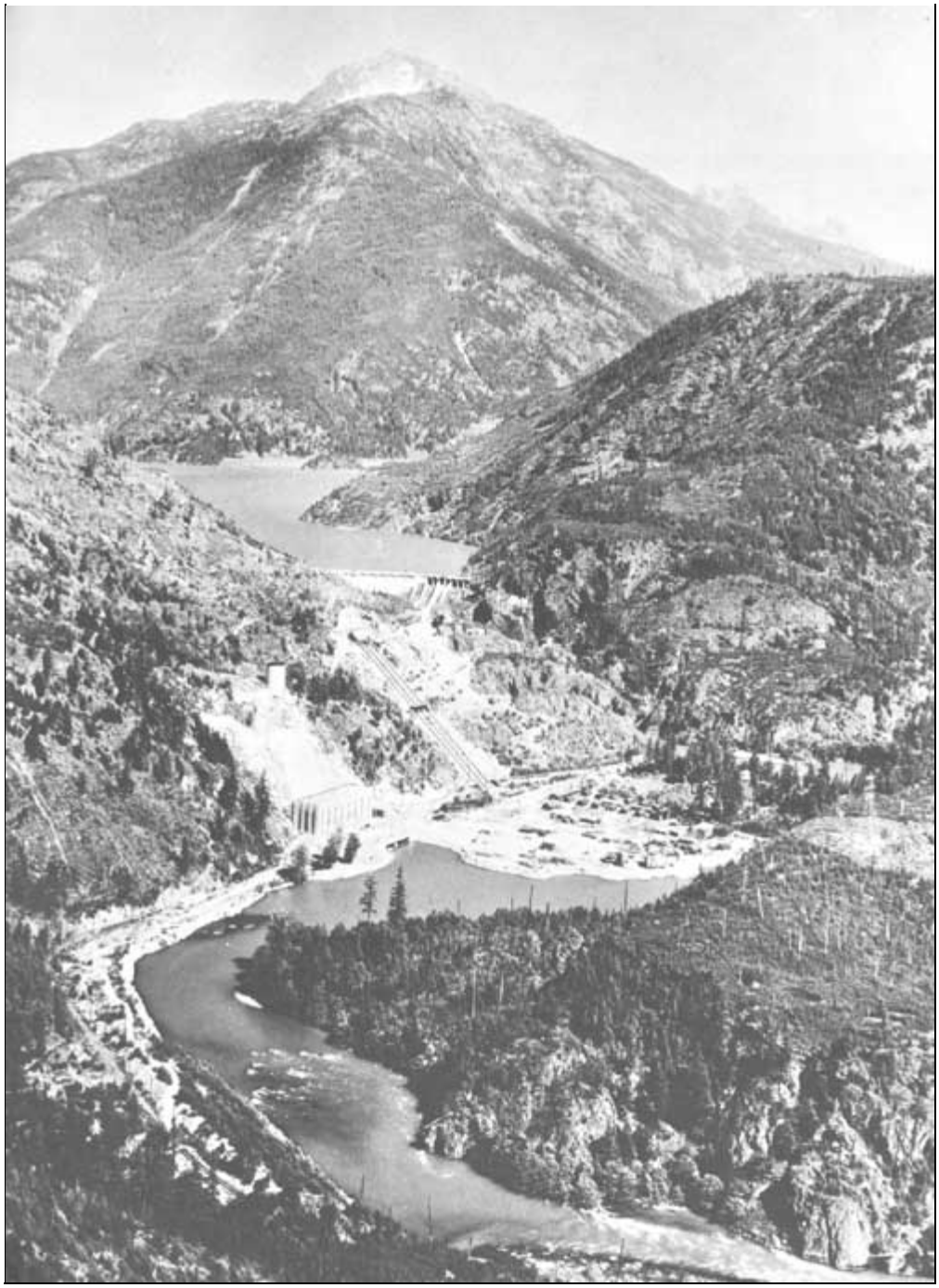
Such suggestions, however, did not find congressional sponsorship until early in 1916, when three separate bills were introduced to create a Mount Baker National Park. Nothing happened to them until the following year, when only the House bill was reported by the House Committee on Public Lands, after which it died. Six similar bills were introduced during the next three years, but none received congressional action.

The creation of a Yakima National Park was the subject of three separate bills introduced during the years 1919 through 1921. These also received no congressional action.

Despite the lack of action by Congress, interest among certain public and private agencies to create additional National Parks in the North Cascades area continued to run high. Trail clubs, civic, and other outdoor conservation groups continued to press their cause. As a result, during the past three decades a number of studies of the recreation potential of the area have been made by public and conservation groups. A 1937 study by the National Park Service recommending a National Park is often quoted.

All the while, increasing attention was being directed to recreation in the administration of the National Forests. These comprise 96 percent of the Federal land and water acreage of the Study Area.





1. Diablo Dam on the Skagit River. Water for hydroelectric power generation is a major North Cascades resource. See figure 27 map, page 72. (photo FS 470716)



2. Recreation began assuming increased importance in National Forests of the North Cascades in the 1920's and 1930's. In 1935 visitors often drove to the upper end of the Mount Baker Highway, shown here. See figure 17, page 49. (photo FS 364048)

The management goal with respect to recreation was to provide facilities and services adequate to meet rising demands of hunters, fishermen, campers, mountain climbers, winter sports enthusiasts, wilderness lovers, and other recreationists visiting the area.

In the Mount Baker area, recreation development began in 1923 with the construction of a road from the town of Shuksan to the Austin Pass-Heather Meadows area. A management plan was prepared calling for recreation development of the area along broad lines. These events, combined with completion of the construction of the Mount Baker Lodge, encouraged the designation in 1926 of 75,000 acres in the Mount Baker Park Division in the Mount Baker National Forest. This division is commonly referred to as the Mount Baker Recreation Area. Although recreation was a key management objective, other uses of the area were permitted to continue.

Recreation plans for all National Forests in the North Cascades area were completed between 1925 and 1933. In 1931, a 234,000 acre area around Glacier Peak was established as the Glacier Peak-Cascade Recreation Unit.

In the meantime, Department of Agriculture regulations were issued in 1929 providing for a system of Primitive areas without roads and little other development. The first Primitive area within the Study Area was the Whatcom Primitive Area established in 1931. It comprised 173,000 acres adjacent to the Mount Baker Recreation Area.

In 1935, all of this area and the area to the east, including the summit of the Cascade Range and the more rolling mountain country of the Okanogan National Forest, comprising about 800,000 acres, were established as the North Cascade Primitive Area.

Considerable progress in establishing recreation areas and facilities was made under the Civilian Conservation Corps program which was activated in 1933 and discontinued in 1940. That year, also, the Glacier Peak Limited Area of about 350,000 acres was set aside for study regarding its future management.

World War II materially slowed recreation development work in the area. Afterwards, at a time when road building was again beginning to move ahead rapidly under emergency work programs, three "limited areas"—Alpine Lakes, Cougar Lake, and Monte Cristo Peaks—were administratively defined in 1946.

Areas which had recognizable wilderness values were identified by regional foresters as limited areas, on a "stop, look, and listen" basis, until they could be studied in more detail to determine the form of management to be applied under the multiple use concept. The "limited" designation precluded road building and other modifying resource management practices in the areas until need could be substantiated by thorough study. Limited areas were not established on the basis of careful study; but on the basis of recognition of the need for study. Since they were not authorized by specific regulations, they did not have the same status as formally classified areas, such as Wilderness and Primitive areas.

During the 1950's there was a revival of a variety of proposals for National Parks or Monuments in the Study Area by various civic groups, outdoor clubs, and conservation agencies. One such proposal called for establishing the Mount Baker Recreation Area as a National Monument; another was to establish a Waptus Lake National Park; still another, a Lake Chelan-Glacier Peak National Park.

During that decade, also, both the National Park Service and the Forest Service launched long-range programs to develop, expand, and improve the recreation resources of the lands under their respective jurisdictions. These were known as "Mission 66" and "Operation Outdoors."

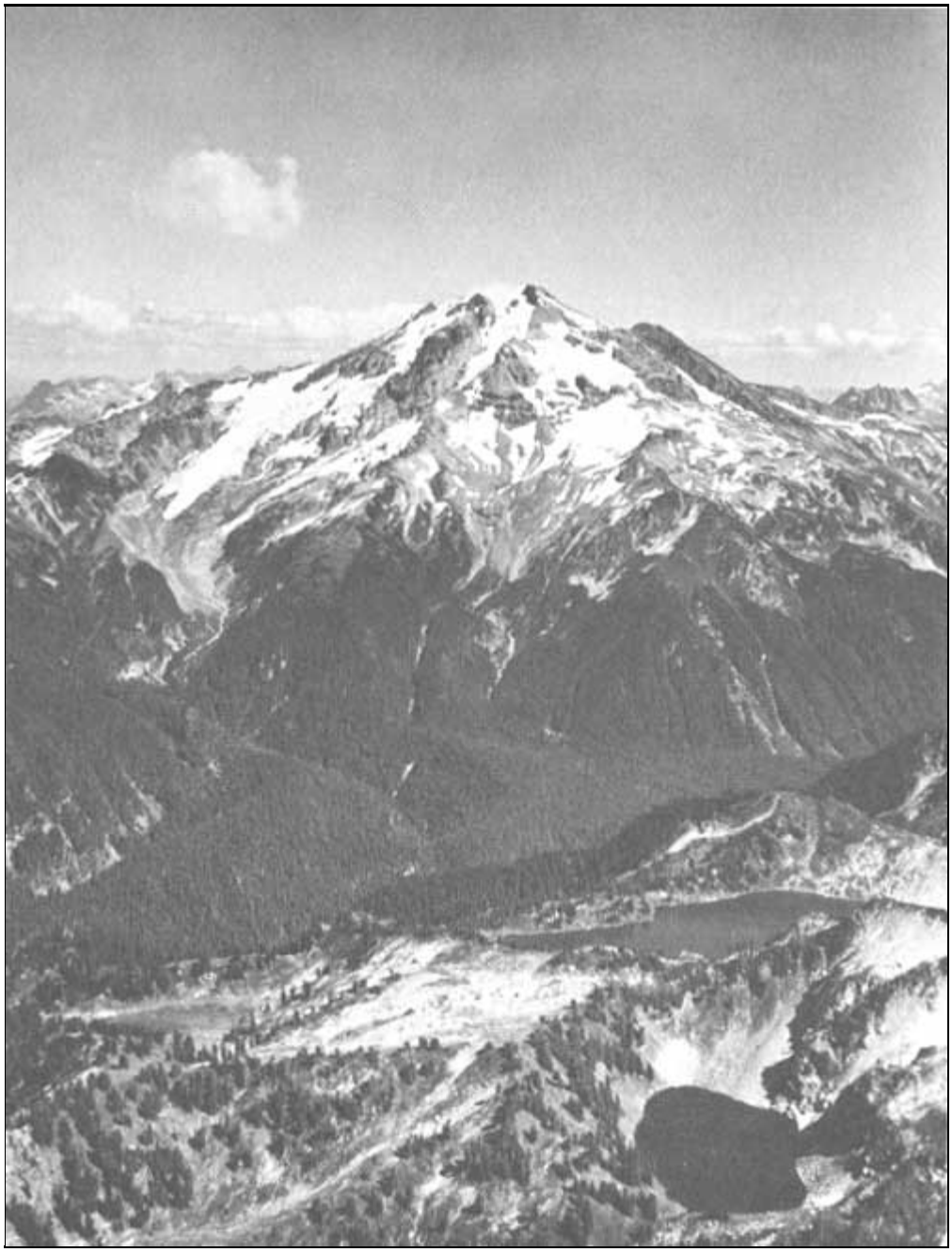
Additional emphasis on recreation resources in the Study Area came early in the sixties with establishment of the Glacier Peak Wilderness Area and the designation by the Secretary of Agriculture of the Cascade Pass-Ruby Creek area to be managed "primarily for preservation of scenic values and to open up and develop it for the use and enjoyment of the large numbers of people who desire other kinds of outdoor recreation and those who are unable to engage in wilderness travel." This action by the Secretary of Agriculture was the basis for the Forest Service decision during the course of the Study Team's deliberations to propose and publicize the "Eldorado Peaks High Country."

The Multiple Use-Sustained Yield Act of 1960 specifically provided that outdoor recreation be among purposes for which the National Forests shall be administered and singled out Wilderness Areas as being, consistent with such purposes.

Large-scale timber cutting on Federal lands in the Study Area first occurred in the 1920's. Transporting of logs was changed from railroads to truck roads during the 1930's. As the rate of timber harvesting increased, there was a companion development of timber access roads. These roads provided better access by car to many parts of the Study Area which hitherto had been inaccessible. But timber access roads for the most part have limited recreational value.



1. Registry booth at the Denny Creek Campground, Snoqualmie National Forest, 1918. (photo FS 40134A)



2. In 1931, some 234,000 acres were designated as the Glacier Peak-Cascade Recreation Unit. Later, in 1960, the Glacier Peak Wilderness Area was established. In this picture, Camp Lake, Lake Byrne, and White Chuck River are in the foreground, Glacier Peak beyond. See figure 5, page 22. (photo NPS 5307-86)



3. The first Primitive area in the North Cascades, the Whatcom, was designated in 1931. Later its 173,000 acres became part of the North Cascade Primitive Area. The view here is from over Ross Lake westward across the Whatcom area. See figure 5, part 22. (photo FS 64-420)

The harvesting of old-growth Douglas-fir particularly in the valley bottoms and corridors on the west side where the large values and volumes per acre occur, gave rise to a number of complaints. The silvicultural system used was mainly clear cutting in blocks, usually at least 20 acres in size, but more often much larger. Such cutting inevitably leaves unsightly scars for a number of years.

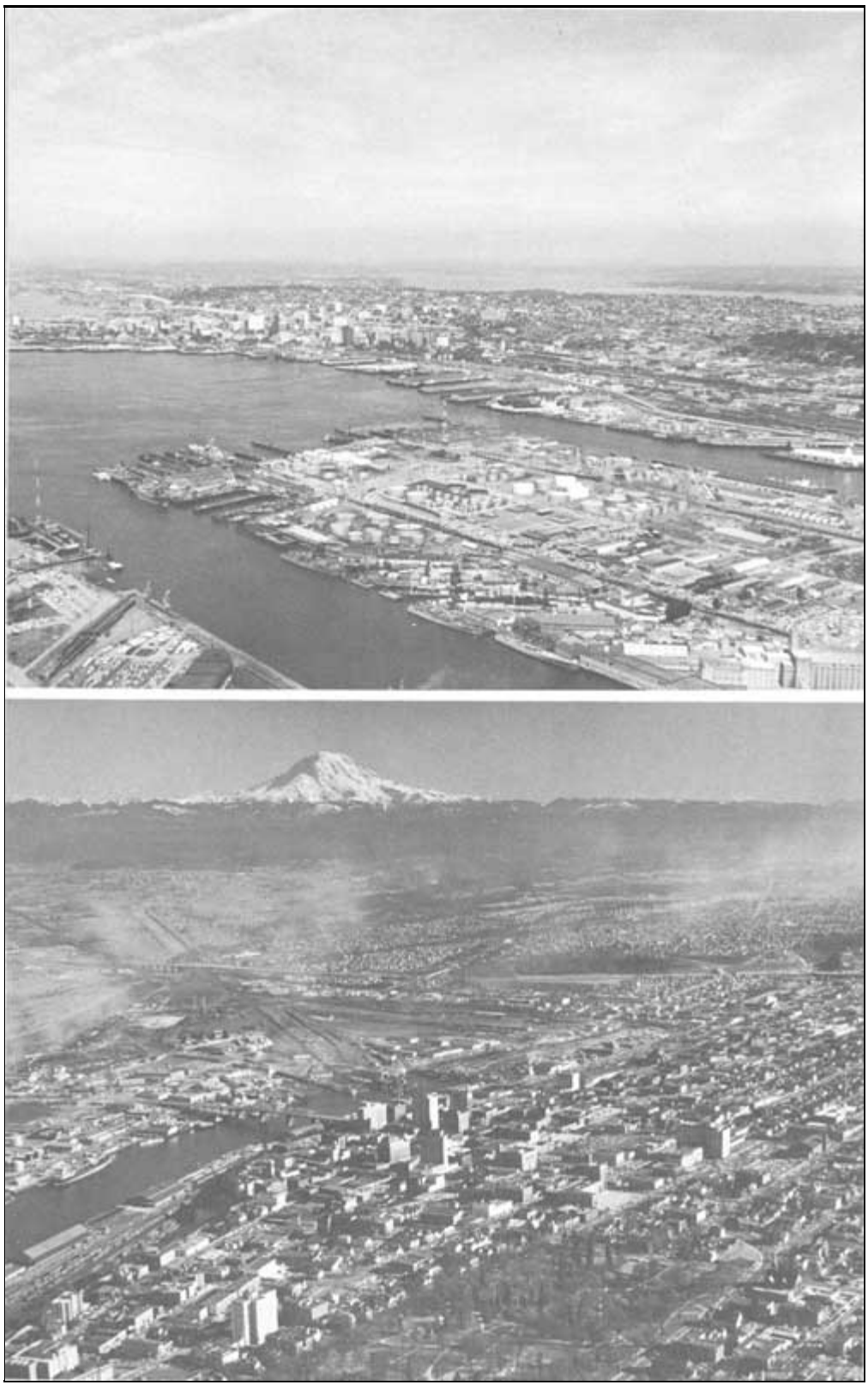
As the old-growth timber on private lands adjoining the western boundary of the National Forests became increasingly cut over, the dependence of the timber industry on National Forests greatly increased. Thus, in the span of 30 years, the sustained yield potential of National Forest timber from the western slopes of the North Cascades became a major factor in the forest products industry in the State.

In the 14-year period from 1950-63, some 332,000 acres of National Forest timberland in the Study Area were cut. About 90,000 acres were clear cut. The Forest Service estimates that at recent rates of cutting, about 43,000 acres are in a nonstocked condition because of the time required to abate slash, remove excess logs, and obtain regeneration. This figure is slightly in excess of the average cut-over in a year.

Notwithstanding the recent impetus given to recreation in the management of the National Forests generally and the Study Area in particular, bills were introduced in 1960 and 1961, 86th and 87th Congresses, to provide for a study of the advisability of establishing a National Park or other unit of the National Park System in the North Cascades area. Congress took no

action on these bills.

The sum total of recent events prompted the Secretary of the Interior and the Secretary of Agriculture early in 1963 to establish the North Cascades Study Team in the manner and for the purposes previously described.



Unique among major wilderness, forest, and park areas, the North Cascades lie in close proximity to major urban and industrial centers. Citizens of Tacoma, Seattle, and other cities

can see North Cascades peaks on clear days, can reach favored vacation spots after short drives. See figure 8 map, page 33 (photos: Tacoma Chamber of Commerce, City of Seattle).

POPULATION AND EMPLOYMENT

The Study Area includes significant portions of ten counties and is in close proximity to the major metropolitan areas of Washington State (fig. 8).

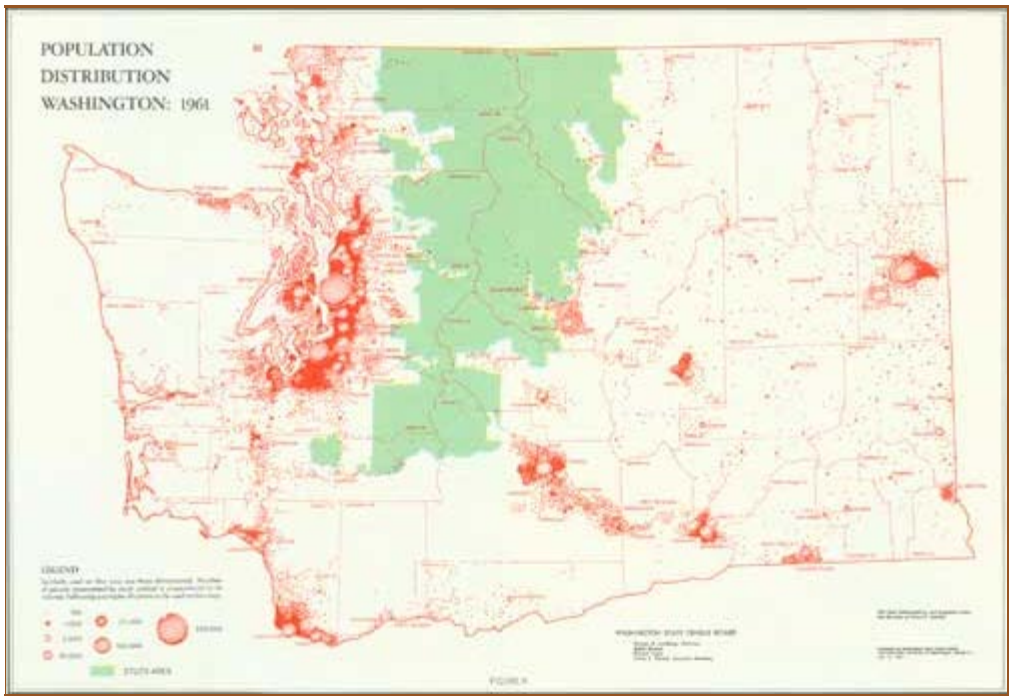


Figure 8. Population Distribution, Washington: 1961. *(click on image for a PDF version)*

The counties in which the Study Area lies are Okanogan, Chelan, Kittitas, Yakima, Whatcom, Skagit, Snohomish, King, Pierce, Lewis, and a tiny portion of Thurston. The 11 counties include two-thirds of the State's population. However, very few people live permanently within the Study Area itself because of its mountainous wild character and because less than 10 percent of the lands are privately owned.

The occurrence of such a large area of unique, wilderness, forested, and park lands in close juxtaposition with major urban and industrial centers occurs nowhere else in the United States. The waters of Puget Sound and the Olympic Peninsula offer additional recreation attractions.

The bordering megalopolis within the 11-county area stretching from Olympia, the State capital, north along Puget Sound to Canada and including such cities and surrounding metropolitan areas as Tacoma, Seattle, Everett, and Bellingham, is a center of manufacturing, trade, government, service industries, education, and all the associated activities of a very large urban area. Just over the line in British Columbia are Vancouver and Victoria. East of the Study Area lie Yakima, Wenatchee, and other smaller population centers largely dependent on agriculture and trade.

The proximity of the Study Area to large numbers of people indicates the Study Area's present and potential values for recreation use.

POPULATION

Not only is the Study Area in close proximity to population concentrations in Puget Sound and British Columbia, it is also within reasonable driving distance of the population centers of Oregon and California (fig. 9). In the three West Coast States, plus British Columbia, there were about 21.6 million residents in 1960. Although this represents a great increase during the past two decades, it is estimated that by 2000 the population for the same area may be about 50 million persons or an increase of roughly 150 percent (fig. 10).

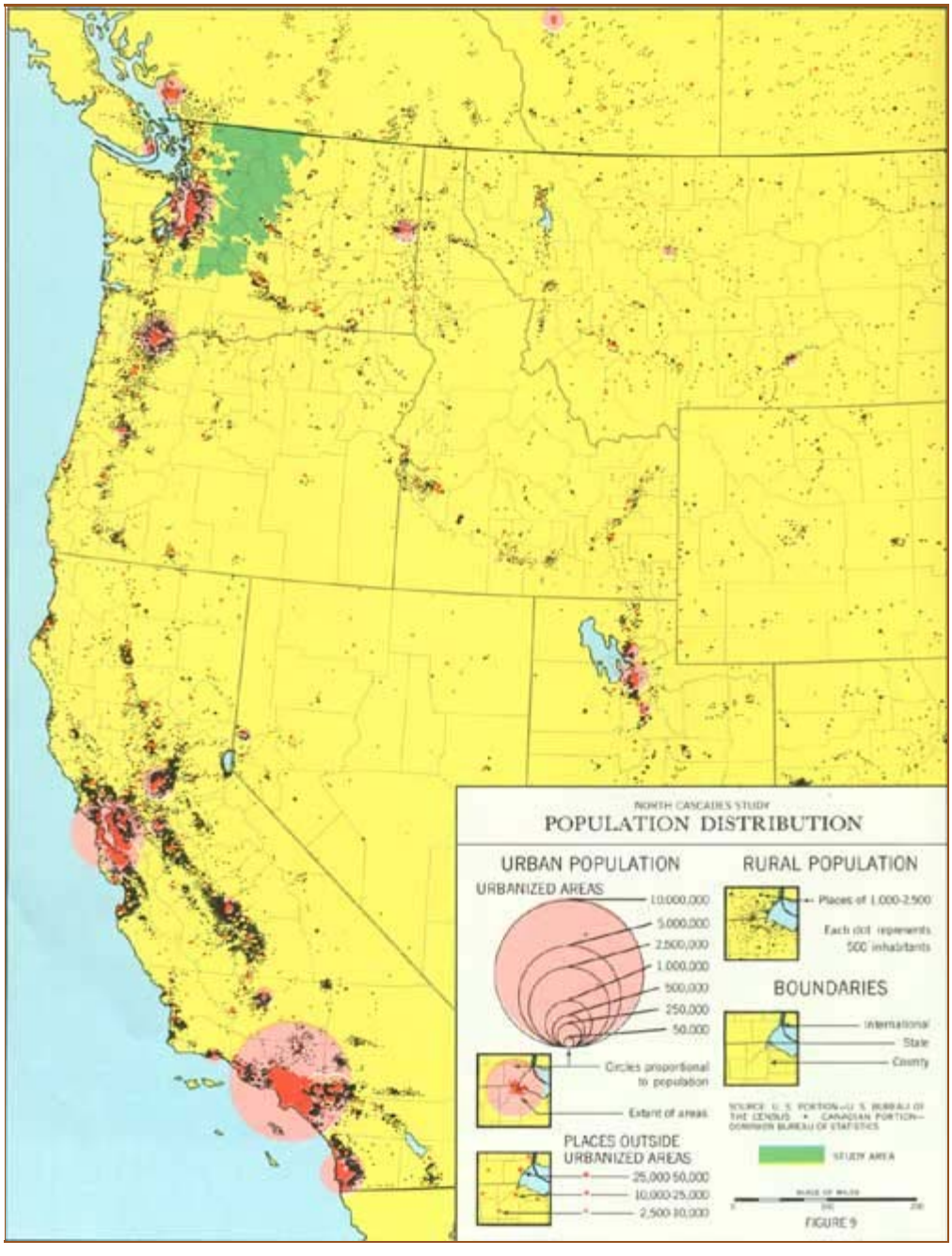


Figure 9. Population Distribution. *(click on image for a PDF version)*

Figure 10 Population of the United States, three-State area, Washington, British Columbia, and eleven-county North Cascades Area, and gross national product for the United States, 1940 and 1960, and projection for 2000.

	Actual		Projection for 2000	Percent increase between 1960/2000
	1940	1960		
Population in millions:				
United States	132.0	179.0	350.0	96
3-State area (1)	10.0	20.0	51.0	155
Washington	1.7	2.9	6.2	114
British Columbia	0.8	1.6	4.0	150
11-county area (2)	1.1	1.9	4.6	142
Gross national product in billion $: (3)				
United States	234	503	3,000	496

(1) California, Oregon, and Washington.
(2) Chelan, King, Kittitas, Lewis, Okanogan, Pierce, Skagit, Snohomish, Thurston, Whatcom, and Yakima.
(3) In terms of 1960 dollars.

Within the 11-county area and the metropolitan centers of British Columbia, all of which are within a half day's drive or less from some portion of the Study Area, there are now about 3-1/2 million people; by 2000, this figure may rise to 8.6 million.

The conclusion to be drawn from the presence of the large numbers of people living in the immediate vicinity of the Study Area and the very much larger population in the Pacific Coast States is that there is now, and will be in the future, a great need for utilization of the resources the Study Area offers, especially its recreation possibilities and advantages.

EMPLOYMENT

In the 11 counties of the Study Area, 695,000 persons were employed in 1961. Twenty-two percent of the total employment was in manufacturing and one-half of this was in aircraft and other transportation equipment. The other major employment items were trade, government, self-employed, and service industries (fig. 11).

Figure 11 Employment in the North Cascades Area, annual average, 1961.

	North Cascades Area (1)		North Cascades as portion of total employment in State of Washington
	Thousand	Percent	Percent
Manufacturing:			
Transportation equipment	74.8	10.8	99
Timber based industries	29.4	4.2	50
Food and kindred products	18.2	2.6	74
Other manufacturing	33.1	4.8	61
All manufacturing	155.5	22.4	72
Trade, wholesale, and retail	126.1	18.1	71
Government, Federal, State, and local	103.2	14.9	61
Self-employed and domestics	88.2	12.7	68

Service	72.0	10.4	71
Agriculture	46.5	6.7	61
Transportation, communications, and utilities	42.1	6.1	69
Mining	0.9	0.1	50
All other	60.4	8.6	68
Total employment	694.9	100.0	68

(1) Includes Chelan, King, Kittitas, Lewis, Okanogan, Pierce, Skagit, Snohomish, Thurston, Whatcom, and Yakima counties.

Timber-based industries accounted for four percent of the employment in the 11-county area. This included the manufacture of lumber, paper, furniture, wood, and allied products. Employment dependent on agriculture was 6.7 percent. Mining represented 0.1 percent. Thus, it is apparent in terms of directly dependent employment that neither the timber-based industry nor the mining industry accounted for a very significant portion of the area's total. This is true despite the fact that timber-based manufacturing in the 11-county area represented one-half of the State's total of this activity.

In the 12-year period from 1950-62, employment dependency on the timber industries in the area declined 17 percent. Dependency on mining declined 47 percent; in agriculture, the trend was downward 20 percent. Within the timber industries themselves, there was a 57 percent increase in the paper and allied products sector, but a 25 percent decrease in the lumber and wood products sector. Employment in manufacture of transportation equipment rose about 250 percent in this period and is currently more than double any other manufacturing activity.

The conclusion with respect to employment dependency and trends is that in terms of total population of the 11-county area, the raw materials of timber and minerals that come from the Study Area itself do not in turn support a very large segment of the total population of the 11-county area.

NATURAL RESOURCES

The following summary of the major natural resources in the area describes the more salient characteristics and assesses their significance. This is needed to develop a background for recommendations, relate resources to each other, and bring various issues into focus.

The order in which the resources are discussed is not indicative of their relative importance.

Attention is called at the beginning of this discussion to the statements by the Forest Service and the National Park Service that appear as Appendices B and C. The views of each of these agencies are recorded in these statements without alteration by the study team. Attention also is called to the "high mountain policy statement" of the Forest Service, and also to its Multiple Use-Sustained Yield Act. Both of these key items are discussed under the section on timber resources, but they could equally well have been handled under recreation or water. This underscores the interrelationship and interdependence of all resources of the Study Area.

TIMBER RESOURCES

Forest Description

Of the 6.3 million acres of Federal lands in the Study Area, 2.9 million acres are classed by the Forest Service as timberland that is suitable and available for commercial timber

management. The land classification is:

Commercial forest land (both available and reserved)	3.2 million acres
Noncommercial forest land and non-forest land	3.1 million acres
Total land area	6.3 million acres

Of the commercial timberland, 3.2 million acres, it is significant that 250,000 acres containing 7.8 billion board feet are in Wilderness, Primitive, or other reserved National Forest categories. An additional 106,000 acres containing 3.4 billion board feet is within Mount Rainier National Park.

These administrative reservations reduce the available commercial timberland to 2.9 million acres and 65.5 billion board feet of sawtimber. In other words, of the total potential, 11 percent of the acres and 15 percent of the feasible sawtimber volume is reserved from commercial timber utilization for scenic and recreation purposes (fig. 12).

Figure 12 Forest land area and other land area in Federal ownership in the North Cascades Study Area, by commercial forest land area and sawtimber volume, and other land area, by area open or closed to commercial timber cutting.

	Commercial forest area				Noncommercial forest and non-forest areas		All areas	
	Area		Sawtimber volume					
	Thousand acres	Percent	Million bd. ft.	Percent	Thousand acres	Percent	Thousand acres	Percent
Area open to commercial timber cutting: (1)								
National Forests	2,858 (2)	89	65,462	85	1,585	51	4,443	70
Area closed to commercial timber cutting: (3)								
National Forests	250	8	7,797	10	1,375	45	1,625	26
Mount Rainier National Park	106	3	3,400	5	135	4	241	4
Total	356	11	11,197	15	1,510	49	1,866	30
All Federal land areas	3,214	100	76,659	100	3,095	100	6,309	100

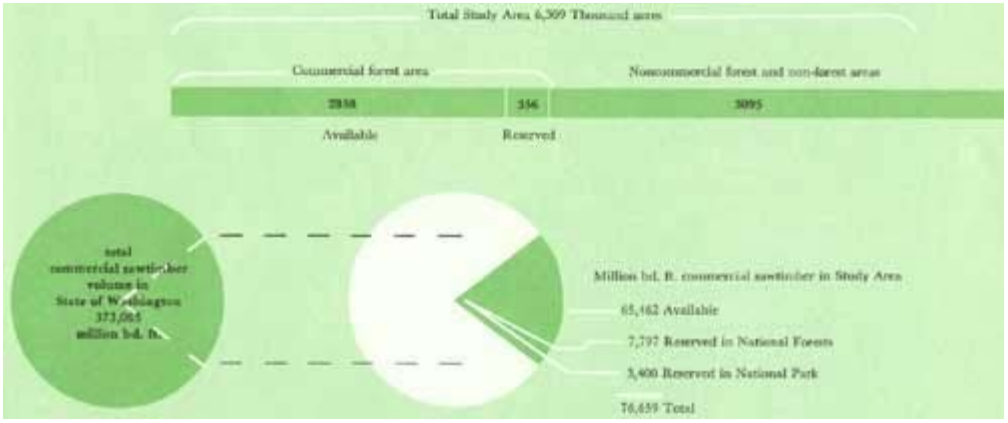
(1) Referred to in the text as available commercial forest area.
(2) Of this area, approximately 272,000 acres or about 10 percent has been cutover during the 10-year period 1954 through 1963.
(3) Referred to in the text as reserved commercial forest area.

Of the available commercial timberland, two-thirds of the area and three-fourths of the volume is in an "associated species" type. Eleven percent of the area and 17 percent of the volume is the Douglas-fir type. The balance is in ponderosa and lodgepole pine types (fig. 13).

Figure 13 Acreage, sawtimber volume, and sawtimber stand per acre in the stocked portion of the commercial forest area of the North Cascades Study Area open to commercial timber cutting, by broad species groups.

Species group	Area		Sawtimber volume		Sawtimber stand per acre
	Thousand acres	Percent	Million bd. ft.	Percent	Thousand bd. ft.
Douglas-fir	297	11	10,826	17	37
Ponderosa pine	512	18	5,544	8	11
Associated species	1,848	65	48,809	75	26
Lodgepole pine	158	6	283	(1)	2
All species groups	2,815	100	65,462	100	23

(1) Less than 0.5 percent.



The Cascade Divide separates the Study Area into two basic timber zones—a Douglas-fir region on the west and ponderosa pine on the east. The lower and mid-elevations on the western side are among the world's most productive timber areas, both in quantity and quality.

The valley bottoms in the Douglas-fir region on the west side support coniferous stands of great volume and value. These average 55,000 to 65,000 board feet per acre, which is five to six times the average for all National Forests in the country. Some stands run much higher. The average of old-growth Douglas-fir volume in the entire Study Area is about 37,000 board feet per acre.

Quality is superior, but it is a disappearing characteristic of natural stands. It will not be replaced in new stands because future managed crops will be harvested at younger ages.

Almost half the National Forest allowable annual cut of sawtimber in Washington, or 6 percent of the National Forest total for the country, is within the Study Area. Figure 14 illustrates the relationship of timber area, volume and timber products production in the Study Area to the State of Washington, and to the United States.

Figure 14 Relation of the timber resource in the North Cascades Study Area to the timber resource of the State of Washington and to the Nation in terms of available commercial forest area and sawtimber volume, allowable annual cut, and lumber, plywood, and pulp production or plant capacity.

	Study Area as a percent of	
	State of	United

	Study Area	Washington	States
Available commercial forest area	2,858 Thousand acres	15	0.6
Available commercial sawtimber volume	65,462 Million bd. ft.	23	3.4
Allowable annual cut	605 Million bd. ft.	45 (1)	6.0 (1)
Lumber	Production or plant capacity (2)	52	6.0
Plywood		64	12.0
Pulp		32	3.0

(1) Relates to National Forest lands only. (2) In the whole of the 11-county area within which the Study Area is situated.

The location of National Forest land—commercial and noncommercial—in relation to whether it is available or reserved from utilization is shown on figure 15.

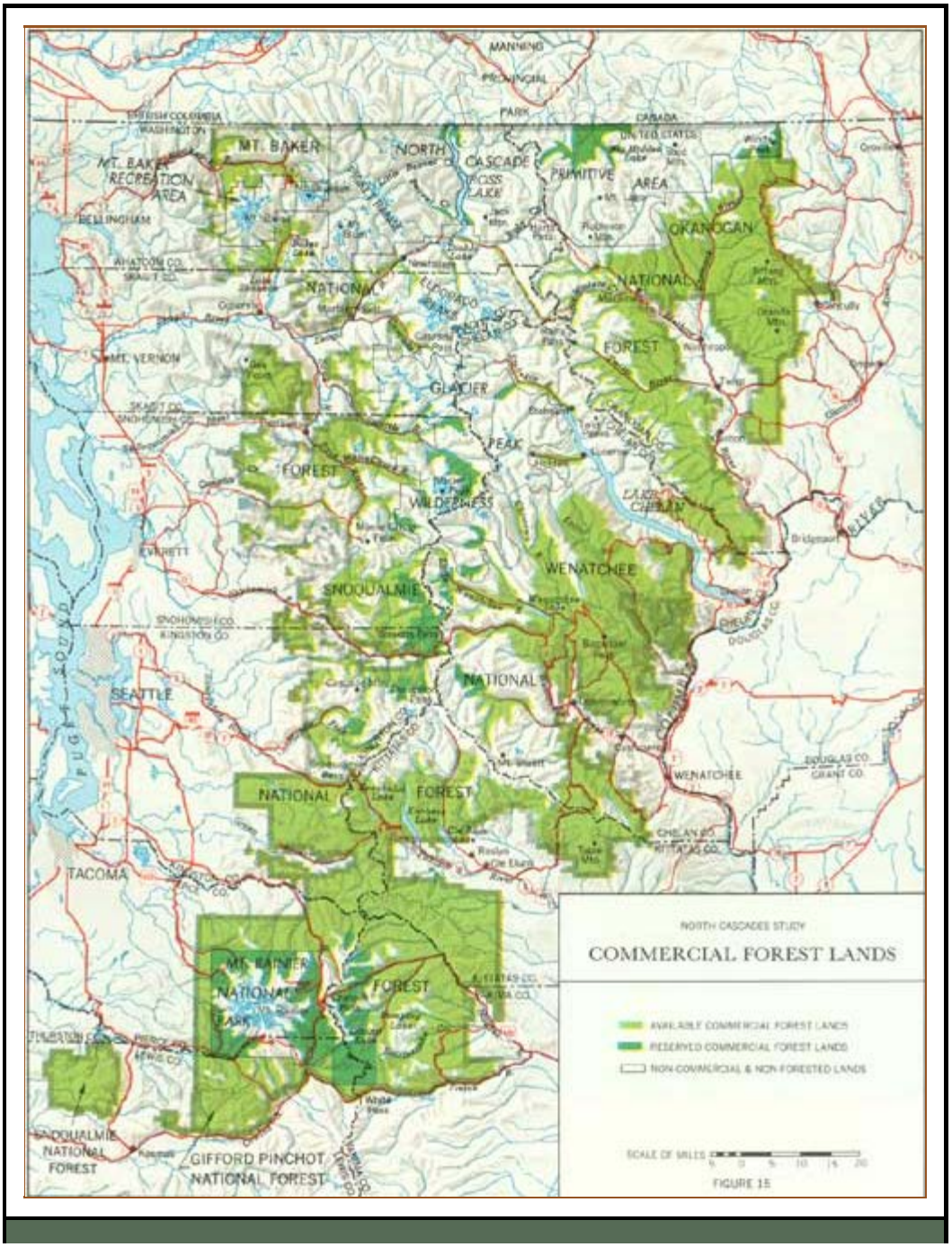
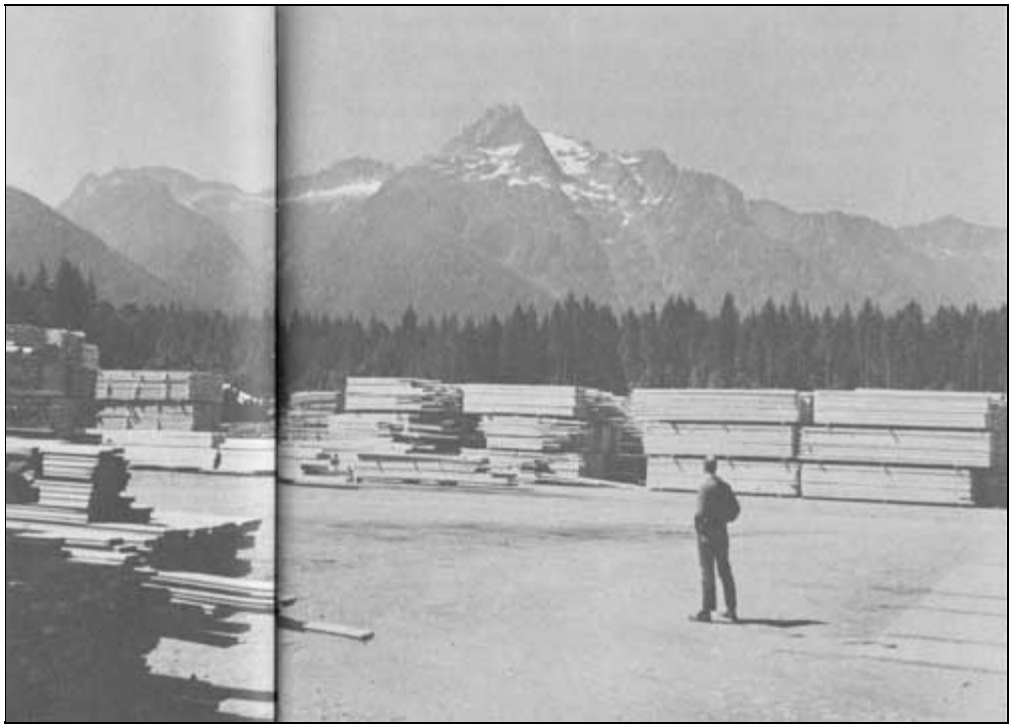


Figure 15. Commercial Forest Lands. *(click on image for a PDF version)*

Most of the land in the commercially available category is in the southern half and along the eastern side of the Study Area. The areas on the west side and north side of Stevens Pass are smaller and more scattered, but these bear prime old-growth commercial timber with good quality and are drawn on by a heavy concentration of sawmills.



Lumber mill yard in Darrington, Washington. About 4 percent of the 695,000 people employed in the 11-county North Cascades Study Area work in timber-based industries. (photo NPS 4214-660)

Commercial Timber Values and Output

The Forest Service estimates the allowable annual cut from 65 billion board feet of available commercial timber at about 605 million board feet, of which roughly 10 percent comes from areas such as roadside or waterfront zones where methods or rates of cutting are modified for esthetic reasons. The actual estimated cut has varied in the past 5 years from about 400 million to 600 million board feet annually.

In 1962, the stumpage value of the timber cut was about $10 million. In addition, roads constructed in harvesting timber were valued at $6-7 million in that year. In other words, the equivalent of about two-thirds of the stumpage value of National Forest timber was allowed in the appraisals to cover the cost of building roads for the harvesting of timber.

In the same year the counties received about $1.75 million as their share of National Forest receipts derived mainly from timber cut in the area.

An estimated 5,400 people were employed in harvesting and processing National Forest timber in the Study Area in 1962. This figure climbed to 7,700 in 1964. The value of products ultimately manufactured from this timber is estimated at $160 million or more per year.

The annual National Forest timber cut from the Study Area is about 11 percent of the State's total. Corresponding employment is about 9 percent. Forest products industry ranks second to transportation and ahead of food and kindred products in the State.

The current rate of timber harvesting means that about 40,000 acres are cut annually. In 1964, there were 1,100 timber sales in operation on National Forest lands. These were divided as follows:

Size of sale	Number of sales
$1—$300	385
$301—$2,000	56
$2,001 and over	659
Total	1,100

The first group represents small salvage, clean-up and sanitation sales, as well as a few poles for farmers. Much of the timber sold is dead or dying material. The second group is similar to the first, but a little larger in size. It is the third group, 659 sales, that represents the commercial sales to timber operators.

The Forest Service periodically is requested to suspend harvesting or declare a "moratorium" on timber sales in areas that various organizations or groups believe should be reserved from timber cutting for recreation or other reasons pending either Congressional or Secretarial resolution of an issue.

Questions as to management of the Study Area have been moot almost since the National Forests were originally created near the turn of the century. Broad scale suspension of timber management or other normal Forest Service activities pending so-called "final" resolution of policy issues by the Congress or the executive branch would place the Forest Service in an impossible position. The study team therefore believes that normal activities should, for the most part, proceed while the policy problems are evaluated. Where delay or adjustment can be accomplished without major disrupting impact, consideration should be given to such action.

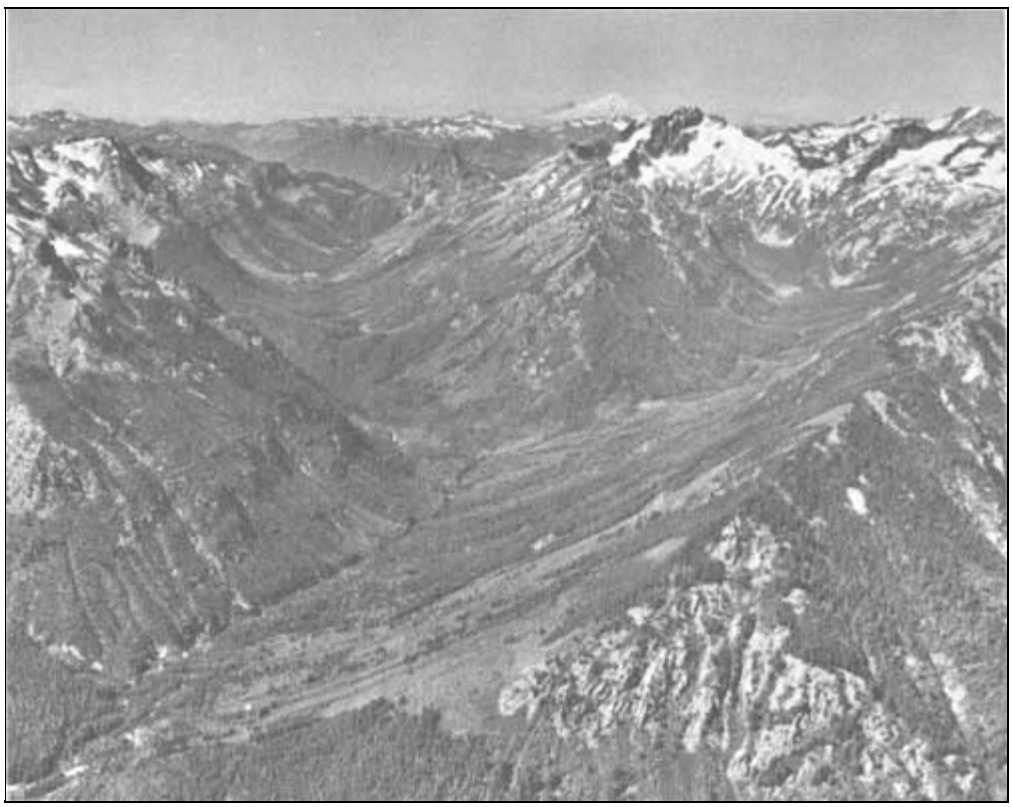
The Forest Service for the past several years has been requested by several parties to impose a logging moratorium on about 20 timber sale areas in the North Cascades, mostly in the vicinity of the Glacier Peak Wilderness Area and northward. These are nearly all small sales covering a total area of about 367 square miles (234,880 acres).

In response to these inquiries and in recognition of the study team's work, the Forest Service is on record as agreeing to no further new sales or building of new roads until fiscal year 1967 in 10 of the areas. These areas are Upper Little Wenatchee River and Phelps, Sulphur, Jordan, Thunder, Panther, Granite, Tomyhoi, Silesia, and Goodell Creeks. The latter is in the North Cascade Primitive Area and no timber harvesting is permitted. The first nine of these timber sale areas cover 112 square miles.

In the areas recommended in this report for Wilderness area classification, management of timber and all other resources should be carried on in the same way as though these areas were Primitive areas awaiting classification as Wilderness. This should be the practice until such areas either are classified as Wilderness, or until their classification as Wilderness has been proposed under the procedures of the Wilderness Act and Congress has not acted after a reasonable time.

In the area recommended for a North Cascades National Park, including the upper end of

Lake Chelan, the Stehekin River drainage, and those parts of the present North Cascade Primitive Area and the Eldorado Peaks High Country which are included in the team proposal, timber harvest should be discontinued for a period of 5 years to provide time for congressional consideration and action on the recommendations. This prohibition would not apply to tree cutting necessary for road construction, placing of recreation improvements and facilities, maintenance of existing facilities or needed work in connection with the approved operations of Seattle City Light and Power.



Timber harvest on parts of the Phelps Creek drainage on the east side of the Glacier Peak Wilderness Area is deferred by the Forest Service in response to requests and in recognition of the work of the North Cascades Study Team. (photo FS 64-374)

Some Timber Policy Questions

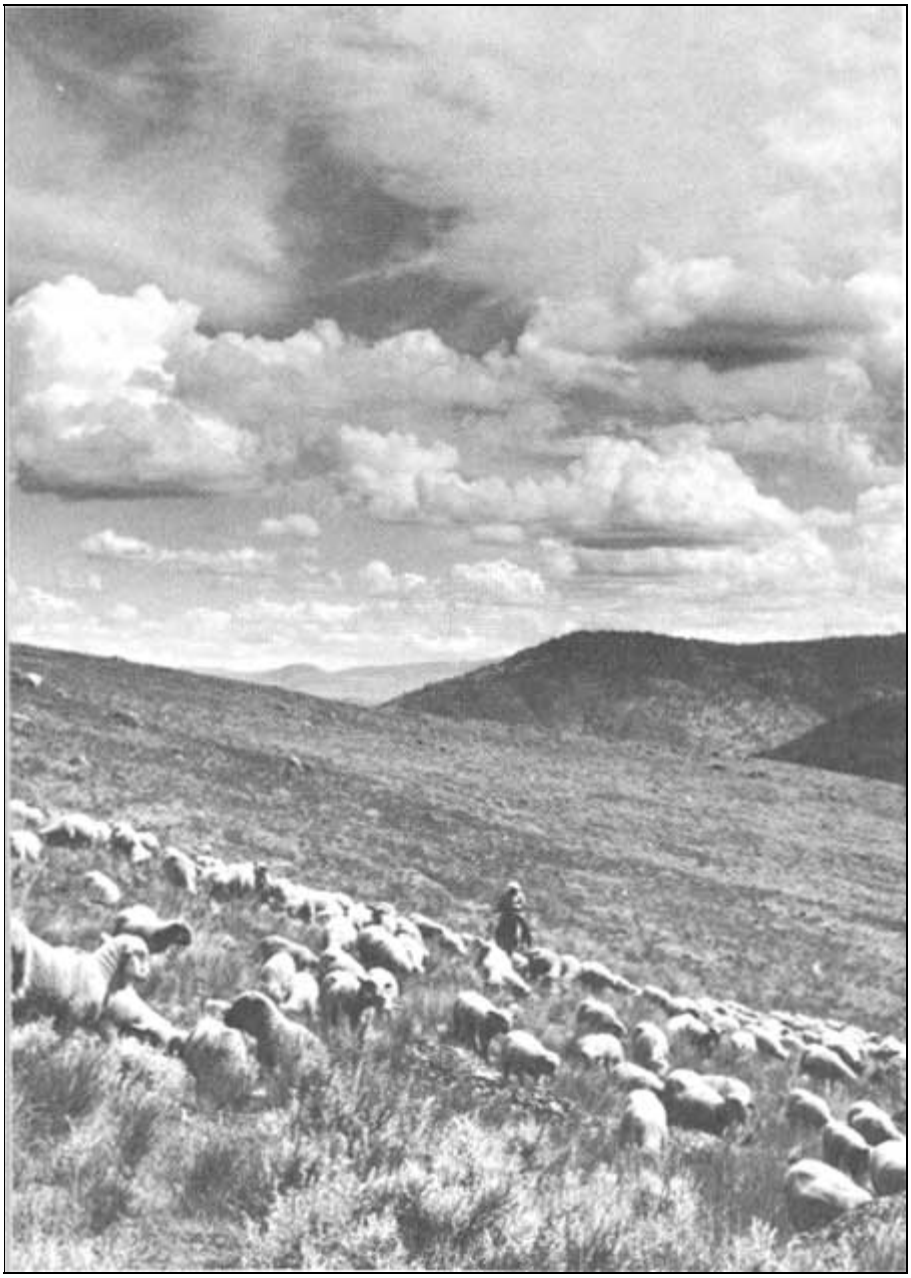
The timber resources report prepared for the study team by the Forest Service concerned itself primarily with the factual situation and does not discuss some of the more basic policy questions involved in timber management. Some of the more basic policy questions involved in timber management include: future stand composition, clear-cut versus selective cutting, the size of clear-cut blocks, problems of reforestation including whether such areas should be planted and how long to wait for natural reforestation, the policy with respect to roadside or other protective scenic strips, timber quotas, the building of roads by operators by reducing the price of stumpage, substitution of allowable cuts for sustained yield as an objective of management, location of timber sales, and the rate at which old-growth timber should be cut.

Of the commercial forest land in the Study Area, the Forest Service estimates that 43,000 acres are non-stocked. For the remaining 95 percent of the area, information as to the degree of stocking is not available. About 63,000 acres have been planted or seeded, but there is no estimate as to the proportion of successful plantations. About 7,500 acres are planted or seeded annually.

The charge has been made that the Forest Service is overly oriented to timber sales, that its young professionals are primarily trained in timber sale work, that its program mainly is dependent on how much timber is harvested, and that Forest Service appropriations are geared too closely to the agency achieving its quota of timber cuts. The Forest Service is cognizant of these criticisms, and particularly since enactment of the Multiple Use-Sustained Yield Act, is achieving a better balance in resource management.

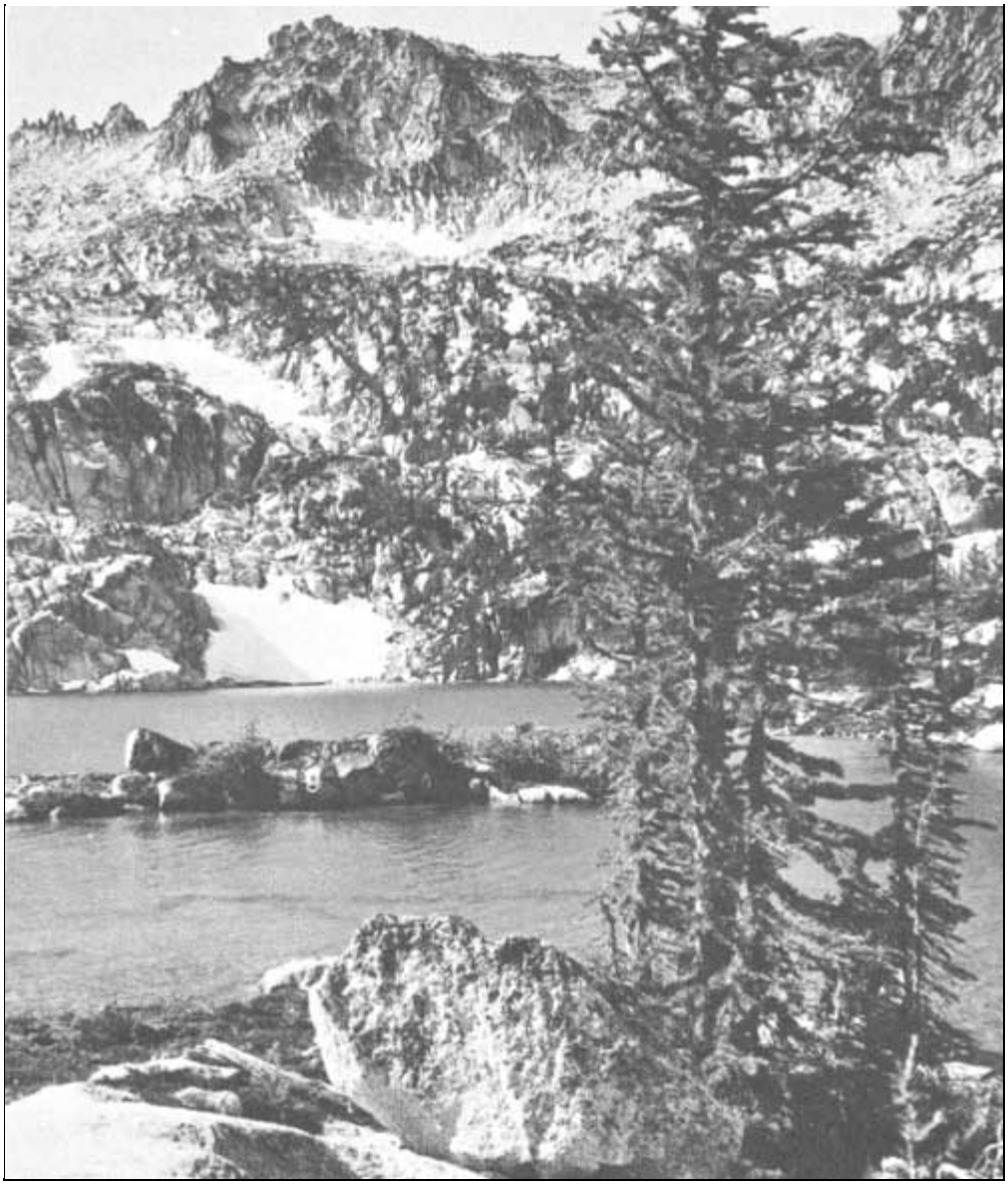
There are other individuals who feel that the Forest Service gives insufficient attention to watershed management, managing range conditions for wildlife and livestock, to the need for mineral development, and that it favors certain recreation uses over others more than it should.

The Forest Service response to this question of balance in resource management has been to consider the various points of view, and to exercise its best judgment within the limitations of law, appropriations, and public pressure.









Forest Service Multiple Use and High Mountain Management Policy:
1. land classed in grass-shrub (photo FS 2200-3)
2. principal forest (photo FS 2400-1-11)
3. upper forest (photo FS 64-333)
4. Alpine (photo Fs 509104) resource management associations.
See figure 16, page 44.



Landscape management area in the Forest Service's principal forest resource association. In these areas timber and other resources are managed to maintain or enhance recreation and scenic values. See figure 16, page 44. (photo FS 500731)

High Mountain Policy

In April 1962, the Forest Service issued a statement "Management Objectives and Policies for the High Mountain Areas of the National Forests for the Pacific Northwest Region." This statement of objectives and policies was the result of a reexamination by the Forest Service of its future resource management goals, particularly for areas which were at that time undeveloped. The policy did not cover Wild, Wilderness, and Primitive areas because such areas were already administered under specific Secretarial regulations.

In general, this policy has been received favorably, but questions have been raised as to the aggressiveness and the completeness with which the Forest Service is applying it. Also, the policy probably is not fully understood by the general public.

The policy statement adopts three kinds of classifications with objectives for each. These classifications overlap to some degree. In the first classification, the National Forest lands are divided into four broad resource management associations: grass-shrub, principal forest, upper forest, and Alpine. Management objectives are spelled out for each.

The second classification is the designation of landscape management areas. These areas occur in each of the first group of associations. In the landscape management areas, all resources and activities are managed to maintain or enhance recreation values.

The "high mountain" area is the third type of classification. It includes all the Alpine resource association and all the landscape management areas in the upper forest association. The management objectives of the high mountain areas are to keep soil in place, give primary consideration to watershed values, and enhance opportunities for recreation.

In summation, that National Forest land classed in the high mountain category, plus the land in the landscape management areas of the other two associations, plus the land in Wilderness and Primitive areas constitute that portion of the National Forests wherein timber management and other resource use is subordinated to recreation.

Figures 16 and 7 show the location and size of the resource associations, landscape management, and high mountain areas. Of the total National Forest land area of 6,068,000 acres, 54 percent is being given special recreation attention, and timber harvesting subordinated to recreational or watershed objectives.

	Thousand Acres	Percent
National Forest land area	6,068	100
Wilderness and Primitive areas	1,259	21
High mountain areas	1,353	22
Landscape management areas in principal forest and grass-shrub association	683	11
Total now receiving recreation attention	3,295	54



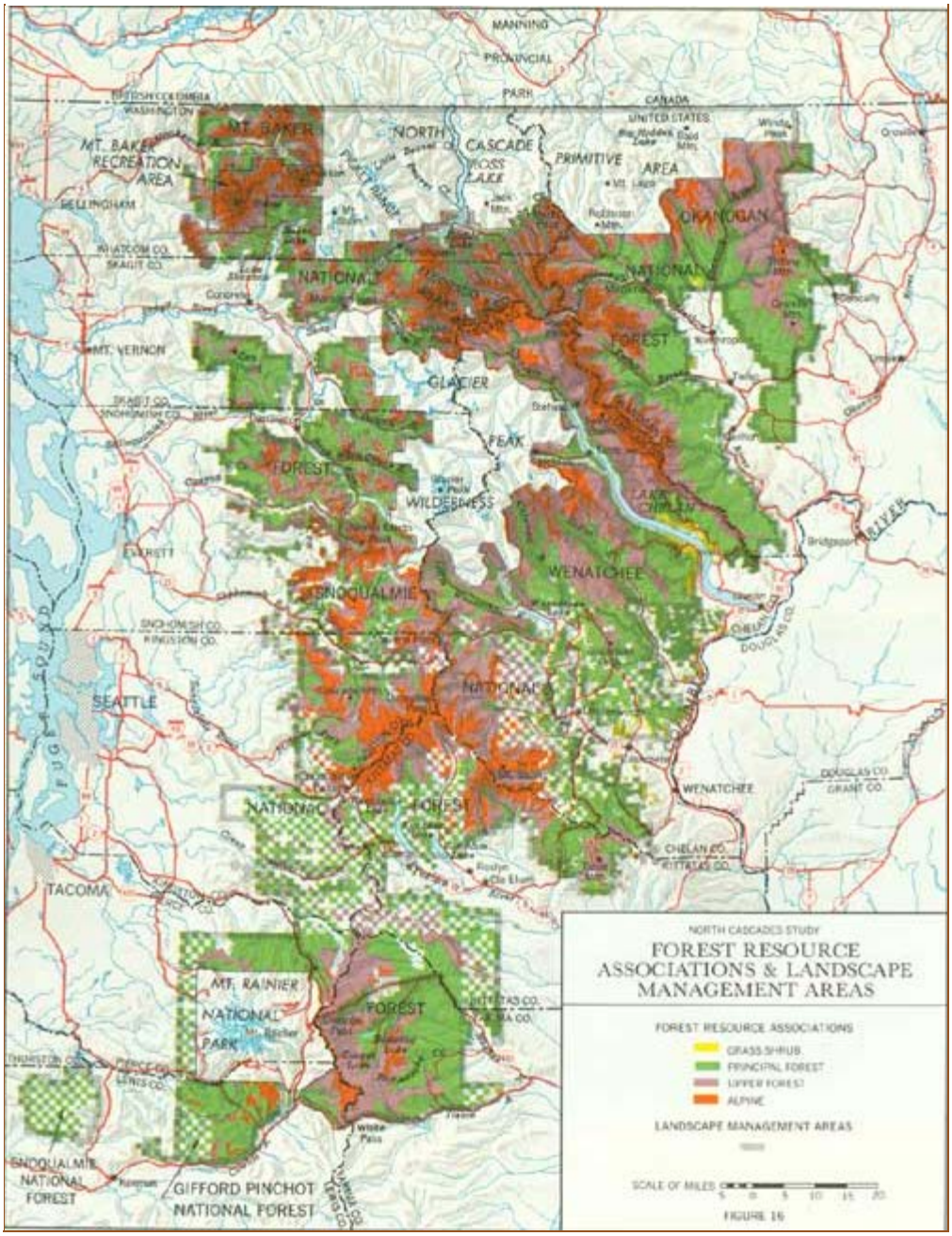


Figure 16. Forest Resource Associations & Landscape Management Areas. *(click on image for a PDF version)*

RECREATION RESOURCES

In a study of the recreation resources, it becomes apparent that substantial portions of the Study Area are dedicated to recreation, there are extensive recreation facilities and use of such facilities, the prospects for the future indicate, as with most other resources, needs substantially above present levels of use, and classification of lands as to their suitability for recreation differs in some substantial respects between the Forest Service and the National Park Service.

Most analyses or reports on recreation resources are shaded, depending upon the philosophy or objectives of the authors. The proper balance between utilization of the North Cascades for recreation or for timber or between different types of recreation, are fundamental questions. The ideas of individuals vary all the way from those who view the cutting of any tree as a

desecration to those who feel it is equally unfortunate for an old-growth over-mature forest not to be harvested and converted into a young forest producing net growth. There are all gradations of opinion in between.

There is much information about the recreational resources of the North Cascades. The best materials available to the North Cascades Study Team included the recreation resource report specially prepared for the team, a recent Forest Service report on recreation resources in the North Cascades, the position statements by both the Forest Service and the National Park Service that appear as Appendices B and C, and agency applications of the recreation classification system of the Outdoor Recreation Resources Review Commission.

The basic legislative and administrative documents that control the management and use of recreation resources of the Study Area include:

1. The Multiple Use-Sustained Yield Act of 1960 applicable to the National Forests (P.L. 86—S 17). This act (which applies to other National Forest resources as well as recreation) makes it clear that the National Forests are established and shall be administered for outdoor recreation as well as for other National Forest resources. The legislative history makes it clear that the resources named in the act are of equal priority and that all of the resources are entitled to equal consideration. The act applies the principle of sustained yield to recreation resources as well as to other resources and it states that the establishment and maintenance of wilderness areas are consistent with the purposes of the act.



Forest Service administration in this Baker Lake vicinity provides many uses—water skiing, water for hydroelectric power generation, timber harvest, and water conservation, fishing, and wildlife among others. See figure 5, map, page 22. (photo NPS 4214-451)



A portion of the Glacier Peak Wilderness Area. This area was included in the Wilderness Preservation System under the Wilderness Act of 1964. The Forest Service administers the area. See figure 5 map, page 22. (photo NPS 5307-80)

2. The Wilderness Act of 1964 (P.L. 88—577). This act applies to both the Forest Service and National Park Service, and establishes a National Wilderness Preservation System.

3. The act to establish the National Park Service of 1916. (39 Stat. 535.) This act establishes the National Park Service and directs that Service to promote and regulate the use of National Parks, Monuments, and Reservations for the purpose of conserving the scenery and natural and historic objects and wildlife, and to provide for their enjoyment in such manner and by such means as will leave them unimpaired for the enjoyment of future generations.

4. Secretary of the Interior Lane's policy letter of 1918 which specifies, "This policy is based on three broad principles: First, that the national parks must be maintained in absolutely unimpaired form for the use of future generations as well as those of our own time; second, that they are set apart for the use, observation, health, and pleasure of the people; and third, that the national interest must dictate all decisions affecting public or private enterprise in the parks."

5. The Act of March 2, 1899, (30 Stat. 993.) established the Mount Rainier National Park from part of the Mount Rainier Forest Reserve.

6. The decision of the Assistant Secretary of Agriculture of September 1960 establishing the Glacier Peak Wilderness Area.

7. The land classification order of Secretary of Agriculture Jardine of September 1926 establishing the Mount Baker Park Division of the Mount Baker National Forest.

8. The decision of the Secretary of Agriculture of July 1935 establishing the North Cascade Primitive Area.

Historically, recreational use of the North Cascades dates from early mountaineering expeditions of a century ago. There are unsubstantiated reports that Mount Rainier was climbed in 1852 to 1854. The first documented successful climbs were about 1870. Mount Shuksan was climbed in 1906.

Development of Mount Rainier National Park progressed steadily following its establishment in 1899, marked by construction of Paradise Inn in 1916. Recreation use is now varied and visitation has increased to about 2 million persons per year.

Prior to 1920, there was little recreational use of the National Forests with campground visits averaging less than 5,000 per year. One of the first major National Forest recreation developments was the construction of a road to Heather Meadows near Mount Baker and building Mount Baker Lodge in 1926.

From 1923 to 1933, recreation plans for all National Forests in the North Cascades were prepared. A small number of camp and picnic grounds and ski facilities were developed in those years.

The major breakthrough on construction of recreation facilities for both the National Park Service and the Forest Service came with the Civilian Conservation Corps activated in 1933. Most roads in the area have been constructed by timber purchasers under timber sale contracts. These roads unquestionably have made the country more accessible to hunters, fishermen, and other recreationists. They do not have, nor would they be expected to have, the recreational values that scenic roads, parkways or recreation ways would provide.

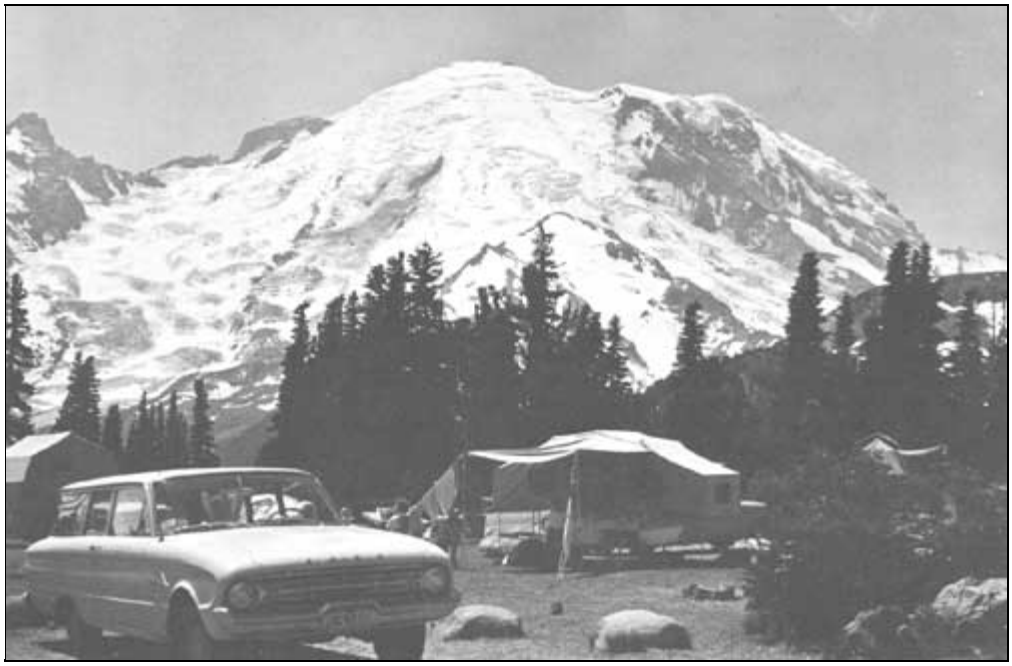
The total number of annual recreation visits to the Study Area increased from 3.5 million in 1952 to 6.6 million in 1962.



1. Mount Baker Park Division of Mount Baker National Forest, designated by the Secretary of Agriculture in 1926. The view is across Iceberg Lake. (photo NPS 4214-337)



2. Looking southeast toward the headwaters of Lease Creek in the North Cascade Primitive Area. The Secretary of Agriculture designated the area in 1935. See figure 5 map, page 22. (photo FS 483874)



Access routes to Sunrise Campground in Mount Rainier National Park bring out trailer campers. On an average Sunday in summer, more than 11,000 people occupy campsites in the North Cascades Study Area. See figure 17, page 49. (photo NPS Y-7)

Lands Dedicated to Recreation

Of the 6.3 million acres of Federal lands in the Study Area, a substantial portion—2.3 million acres, or 36 percent—is presently dedicated to recreation, closely related uses, or earmarked for special study. These include Mount Rainier National Park, Glacier Peak Wilderness Area, the North Cascade Primitive Area, Mount Baker Recreation Area, and Alpine Lakes, Cougar

Lake, and Monte Cristo Peak Limited Areas (figs. 5 and 17).

In addition, there are some 237,000 acres of roadside, trailside and waterfront zones. Also there are 1.7 million acres of landscape management areas in the National Forests which do not include any lands in Wilderness or Primitive areas but do substantially overlap the acreages indicated for some of the other designated areas.

The Forest Service further estimates that there are about 5.1 million acres suitable and available for hunting, 50,000 acres of fishing areas, and about 5,000 acres of boating access areas (fig. 17).

In the National Park, Wilderness, Primitive, and Limited areas occur 356,000 acres of commercial timberland bearing over 11 billion board feet of saw timber. This timber has an estimated stumpage value of over $200 million and, if operated, would provide an annual sustained yield of about 134 million board feet and support 1,200 employees.

Figure 17 Acreage and year of establishment of existing Federal areas in the North Cascades Study Area managed wholly or primarily for recreation purposes or where recreation is a key management purpose, by type of area.

	Date established	Thousand acres	Percent
Total North Cascades Study Area		6,309.4	100.0
Mount Rainier National Park	1899	241.6	3.8
National Forest areas dedicated wholly or primarily to recreation purposes:			
Wilderness type areas:			
North Cascade Primitive	1935	801.0	12.7
Glacier Peak Wilderness	1960	458.1	7.3
Total		1,259.1	20.0
Limited areas: (1)			
Alpine Lakes	1946	256.0	4.1
Cougar Lake	1946	90.0	1.4
Monte Cristo Peak	1946	11.5	.2
Total		357.5	5.7
Other dedicated National Forest areas:			
Mount Baker Recreation Area	1926	74.9	1.2
Mather Memorial Parkway	1931	24.3	.4
Eldorado Peaks High Country (2)	1965	537.6	8.5
Total		636.8	10.1
All dedicated National Forest areas		2,253.4	35.8
Special National Forest zones managed for recreation purposes:			
Roadside zones		84.8	1.4
Trailside zones		53.8	.9
Waterfront zones		97.2	1.5

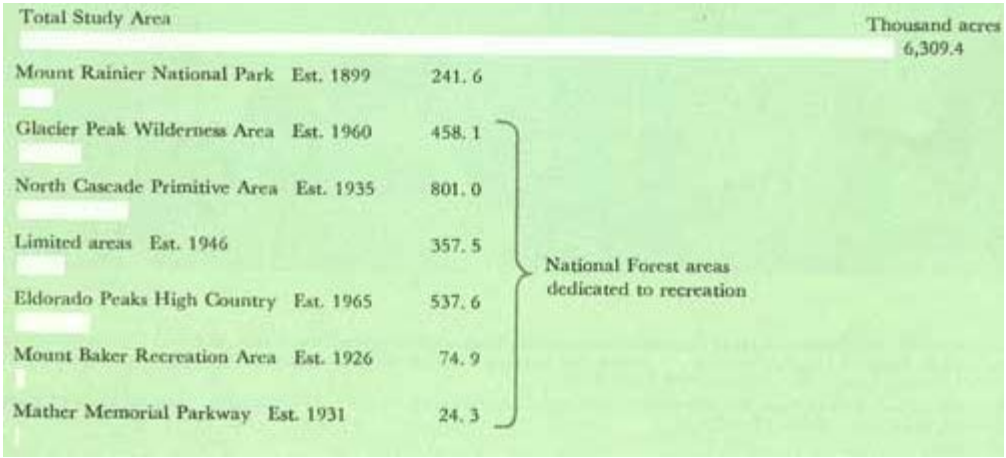
Buffer zones	1.1	(4)
Total (3)	236.9	3.8
National Forest areas where recreation is a key management purpose:		
Hunting areas	5,172.0	82.0
Fishing areas	50.2	.8
Boating areas	4.9	.1
Mountain-climbing areas	272.2	4.3
Hiking and riding areas	107.5	1.7
Total (3)	5,606.8	88.9

(1) Limited areas are not formally dedicated to a special purpose but are identified for study of their wilderness, scenic, and all other resource values.

(2) This area is planned for management by the Forest Service primarily for preservation of scenic values and to open up and develop it for the use and enjoyment of the large numbers of people who desire other kinds of outdoor recreation and those who are unable to engage in wilderness travel."

(3) These areas are the total area for the particular purpose indicated whether inside or outside National Forest areas dedicated wholly or primarily for recreation purposes.

(4) Less than 0.05 percent.



All of Mount Rainier National Park is properly classed for recreational use. Insofar as National Forests are concerned, the multiple use directive under the 1960 statute makes clear that in addition to the specially dedicated recreation areas, there may be a degree of recreational use and development on substantial additional acreages of National Forests land.

Mention should be made of the "Eldorado Peaks High Country" lying between the Glacier Peak Wilderness Area and the North Cascade Primitive Area.

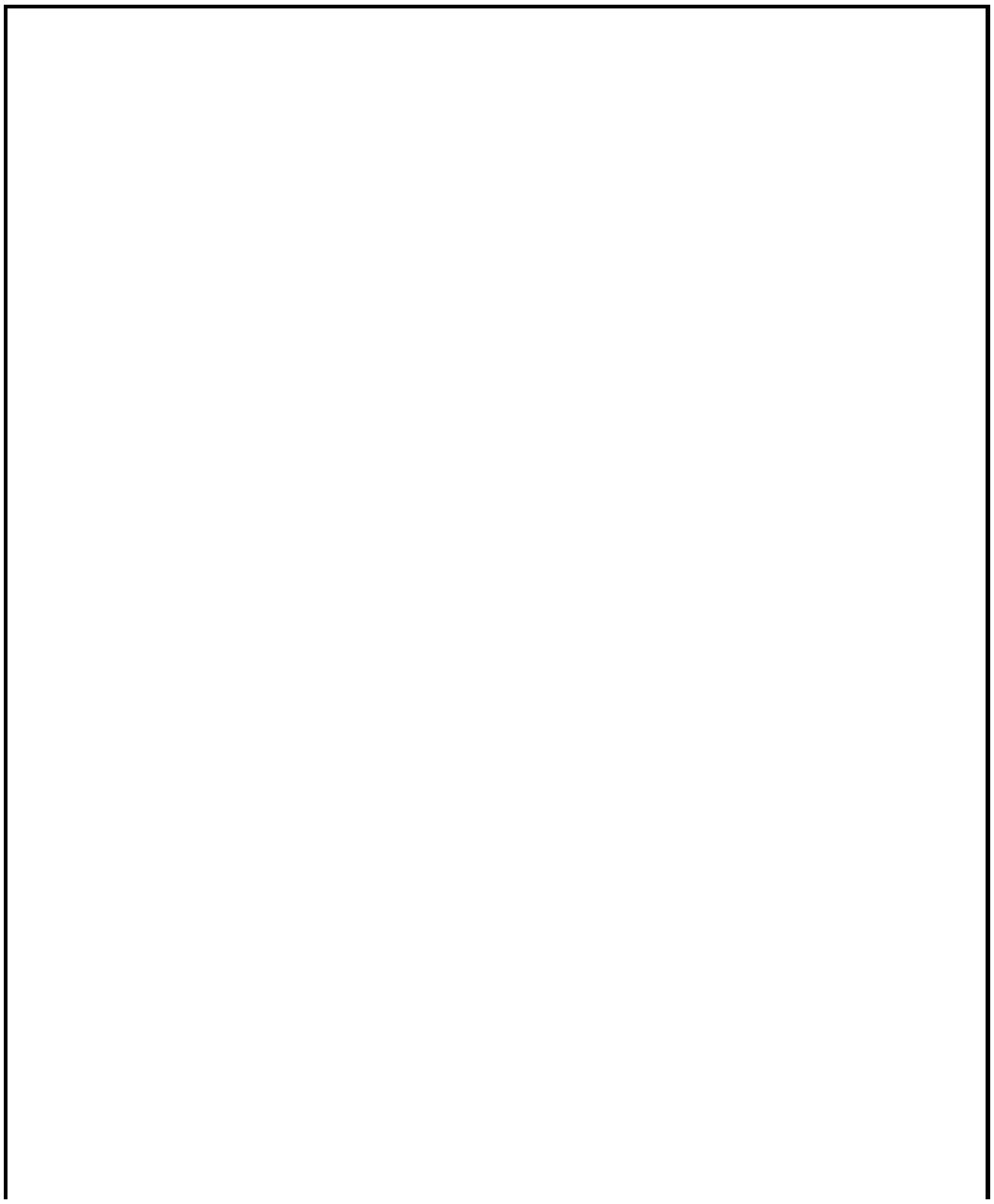
This is an area of some 537,000 acres where the Forest Service will carry out the policy directive of the Secretary of Agriculture issued as part of the 1960 Secretarial designation establishing the Glacier Peak Wilderness Area. The pertinent excerpt from the Secretarial Directive reads as follows:

"Therefore, the policy will be to manage the Cascade Pass-Ruby Creek area primarily for preservation of scenic values and to open up and develop it for the use and enjoyment of the large numbers of people who desire other kinds of outdoor recreation and those who are unable to engage in wilderness travel. Recreation uses, such as camping, picnicking, skiing,

hunting, fishing, and enjoyment of scenery, will be given primary consideration. Roads, vistas, resorts, ski lifts and other developments needed by the public will be planned. Timber harvesting and other resource utilization will be permitted to the extent that they can be properly integrated and harmonized with the recreation and the protection of the outstanding scenic attractions."

Nearly all of this area is classed either as Alpine resource association or landscape management area. As such, recreation and soil and water management are given priority attention. During the past year the Forest Service has been giving local publicity to its plans for this area and has been criticized in some quarters for so doing, on the grounds that (1) the Forest Service is attempting to jump the gun on recommendations of the study team and (2) such publicity would make it difficult for the team to recommend other than what the Forest Service had announced.

The Forest Service has defended its action on the grounds that it needs to plan for management of resources under its administration, it has the responsibility to inform the public as to such plans, and it can only assume that lands currently under its administration will remain so in the future.

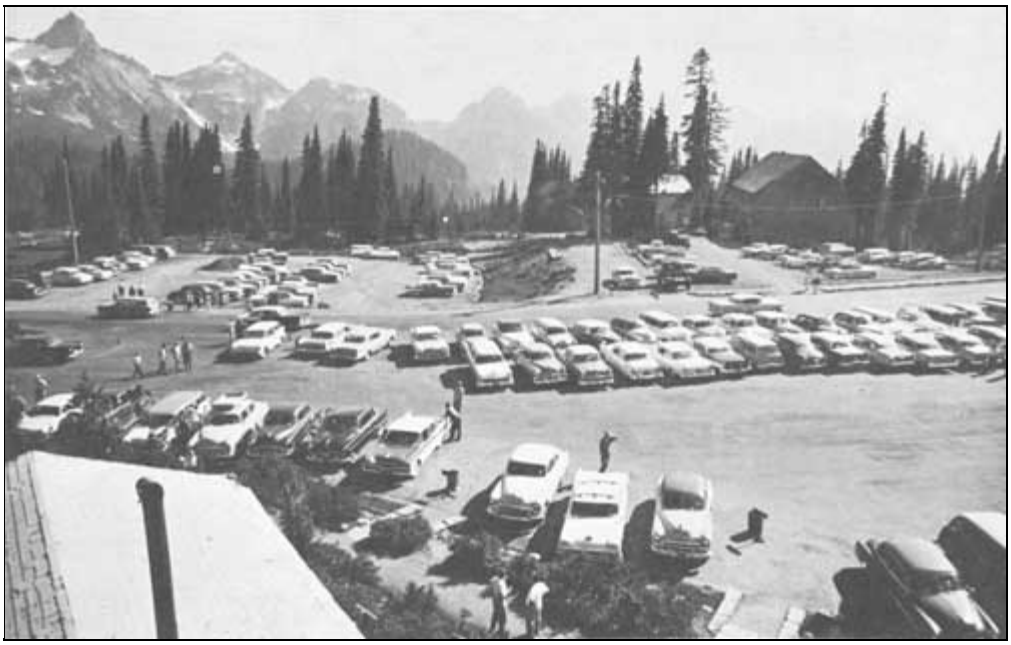




1. In 1962, more than 1,360,000 overnight stays were recorded in National Forests and the National Park in the North Cascades. In the photograph, campers use a self-service entrance ticket vending machine at Salmon la Sac Campground, Wenatchee National Forest. See figure 18, page 52. (photo NPS 4214-386)



2. Winter sports attracted more than 700,000 visitors to North Cascades areas in the 1961-62 season. This ski lift is at Stevens Pass. See figure 18, page 52. (photo FS 495869)



3. Tourists throng Paradise parking lot at Mount Rainier National Park. The park was established in 1899 from lands formerly a part of the Forest Reserves. See figure 5 map, page 22. (photo NPS Y-2)

The study team is fully knowledgeable about Forest Service plans for the Eldorado Peaks and has not been influenced one way or the other by Forest Service publicity.

Recreation Use and Facilities

During 1962, more than 6.6 million public recreation visits were made to the North Cascades. About 30 percent of the visits were to Mount Rainier National Park, and 70 percent to the National Forests.

Of the visitors to Mount Rainier National Park, about 30 percent came from outside the State of Washington, while 70 percent originated from within the State. Assuming that the National Forest areas attracted a larger portion of persons from within the State, it is estimated that perhaps 20 percent of the recreation visitors to the Study Area came from outside of the State.

The major highways across the Cascades through White, Chinook, Snoqualmie, and Stevens passes carried about 6 million vehicles and 15 million persons in 1962. An unknown number of these were driving for pleasure and are not counted in the above estimate of 6.6 million recreation visitors.

In the same year, there were recorded 1,360,000 overnight stays in National Forest and National Park campgrounds. More than 200,000 guest nights were posted in hotels, motels, lodges, and resorts within the area. There were nearly 400,000 picnickers.

Nor do the mountains "close down" in the winter. Winter sports enthusiasts made over 700,000 visits to snow and ski areas during the 1961-62 season.

There were 13,000 wilderness travelers, 187,000 hunters and 345,000 fishermen.

On an average Sunday during the summer season, about 81,000 persons enter recreation areas of the Study Area, and 11,000 persons would have been found using campsites. Scattered throughout the mountain and forest areas are 12,000 picnickers, 55,000 sightseers, 3,500 people hiking and riding, 500 people pursuing scientific studies or hobbies, 3,700 people camping in organized groups, and 450 hardy ones engaged in wilderness travel. Average Sunday use of winter sports areas totaled 18,000 persons in 1962.



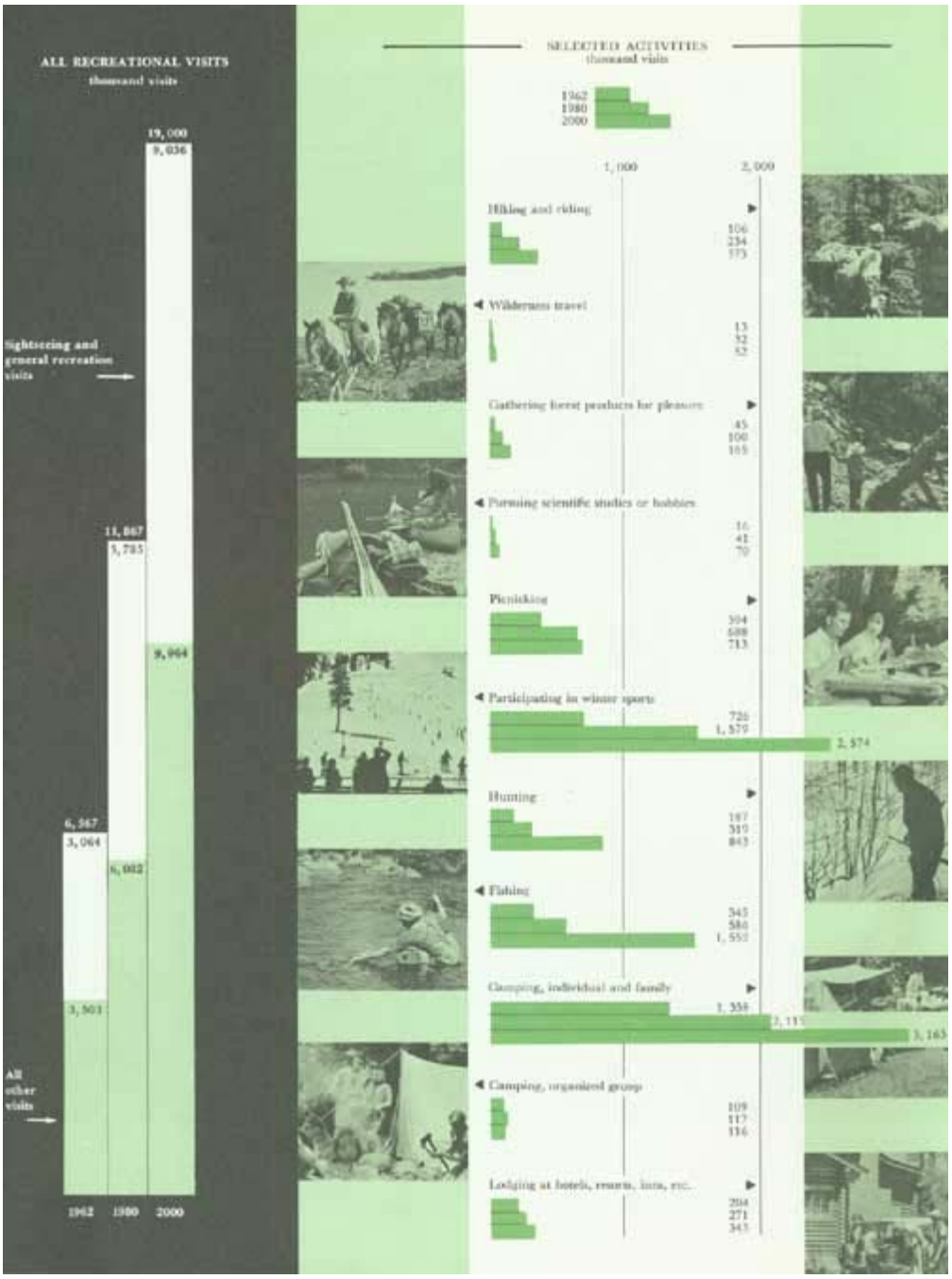
One of many enterprises offering food and other recreation services to North Cascades visitors. This establishment on the upper end of Lake Chelan is accessible only by boat, float plane, and afoot. (photo NPS 4214-572-16).

Past, present, and future recreation activities in the Study Area are summarized in figure 18. The most significant projection is that total recreational activity will about triple by the year 2000. Most activity in creases will vary from two to four times.

Figure 18 Past, current, and projected public recreation use of the North Cascades Study Area, selected years, by primary purpose of visit.

Primary purpose of visit	1952	1957	1962	1980	2000	Percent increase in use between 1962 & 2000
	thousand visits					
Total visits, all purposes—includes (1)	3,544	3,864	6,567	11,867	19,000	189
Sightseeing and general recreation	1,440	1,648	3,064	5,785	9,036	195
Hiking and riding	42	54	106	234	373	252
Wilderness travel	4	7	13	32	52	300
Gathering forest products for pleasure	12	20	45	100	165	267
Pursuing scientific studies or hobbies	3	5	16	41	70	338
Picnicking	382	302	394	688	713	81
Participating in winter sports	228	350	726	1,579	2,574	255
Hunting	80	69	187	319	843	350
Fishing	273	326	345	586	1,552	350
Camping, individual and family (1)	763	779	1,358	2,115	3,163	133
Camping, organized group (1)	149	112	109	117	116	6
Lodging at hotels, resorts, inns, etc. (1)	168	192	204	271	343	68

(1) Overnight stays on the basis of one overnight stay equals one visit.



(click on image for a PDF version)

Economic assessment of outdoor recreation in the Study Area is at best problematical. In 1962, visitors to the area spent an estimated $33 million for activities other than hunting and fishing, and an additional $27 million for those two activities for a total recreation expenditure in the area and immediately surrounding counties of $60 million. Roughly half of these expenditures were made by residents of the State, and half from the 15-30 percent of the visitors who came from outside the State.

It is further estimated that about half of the $60 million expended actually benefited the Study Area and immediate vicinity. The other half eventually found its way outside the area through taxes, wholesale purchases, and other avenues.

Looking into the future, it is reasonable to assume that by the year 2000, recreation expenditures will double or triple.

With respect to developed recreation facilities in the Study Area, there are 255 campgrounds,

3,400 campsites, 53 organization camps with a capacity of 3,900 persons, 23 hotels and lodges with a capacity of 1,500 people, 1,000 picnic sites, and 12 winter sports areas (fig. 19).

Figure 19 Recreation facilities existing in 1962-1963 in the North Cascades Study Area.

Facility	In National Forests	In Mount Rainier National Park	Total Study Area
Public campgrounds	247	8	255
Campsites	2,493	884	3,377
Organization campgrounds	52	1	53
Organization camps, capacity in persons	3,824	72	3,896
Hotels and lodges	21	2	23
Hotels and lodges, capacity in persons	1,246	282	1,528
Picnic sites	880	209	1,089
Winter sports areas	11	1	12
Private recreation residences	832	0	832

In anticipation of a threefold use increase in the next 35 years, it is reasonable to expect that the developed facilities enumerated in figure 19 likewise will need to triple in number.

It will be necessary for the National Park Service and the Forest Service to integrate and co-ordinate their management more effectively than has been the case in the past. During the course of the study the superintendent of Mount Rainier National Park and the supervisor of the Snoqualmie National Forest collaborated in preparing an explanatory joint planning report which includes all of Mount Rainier National Park and surrounding National Forest areas.

Field officers of both agencies estimate that the recreation use in Mount Rainier National Park and surrounding National Forest lands may increase nine fold by the year 2000, with a peak visitation day in the National Park of perhaps 265,000 people. It is physically impossible to accommodate that number of people within the Park and this means that contiguous National Forest lands must be developed with due consideration to National Park needs. This is the heart of the joint planning that is currently under preparation. This effort is commended by the study team.





Youngsters at camp on Lake Whatcom, one of several such camps in the North Cascades, enjoy a horseback ride (photo Bellingham Chamber of Commerce).

Land Classification

Because of the significance of recreation in the North Cascades, and because many of the controversial management issues turn on recreation, the study team felt it desirable to classify Federal lands in accord with the six management classes recommended by the Outdoor Recreation Resources Review Commission. These classes are:

Class I—High-Density Recreation Areas. Areas intensively developed and managed for mass use.

Class II—General Outdoor Recreation Areas. Areas subject to substantial development for a wide variety of specific recreation uses.

Class III—Natural Environment Areas. Various types of areas that are suitable for recreation in a natural environment and usually in combination with other uses.

Class IV—Unique Natural Areas. Areas of outstanding scenic splendor, natural wonder, or scientific importance.

Class V—Primitive Areas. Undisturbed roadless areas characterized by natural wild conditions, including Wilderness areas.

Class VI—Historic and Cultural Sites. Sites of major historic or cultural significance, either local, regional, or national.

Two applications of these classifications were made—one by the National Park Service, and the other by the Forest Service. This was the first major attempt to apply these recreation classifications to a substantial area. The results were different in some major respects. The Forest Service classified over twice as much area as natural environment as did the Park

Service.

Figures 20, 21, and 22 show the classifications made by the National Park Service and the Forest Service in both map and tabular form.

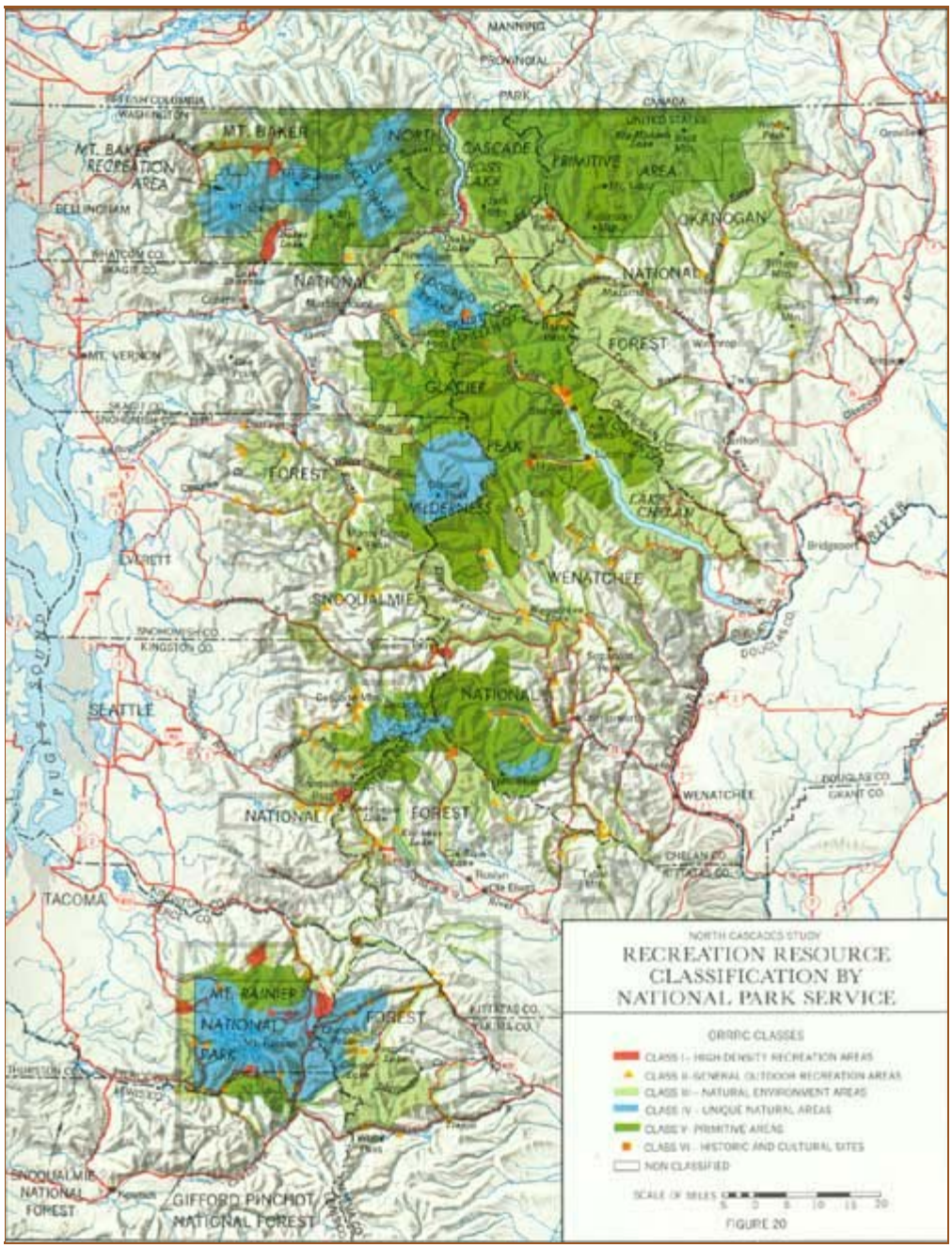


Figure 20. Recreation Resource Classification by National Park Service. *(click on image for a PDF version)*

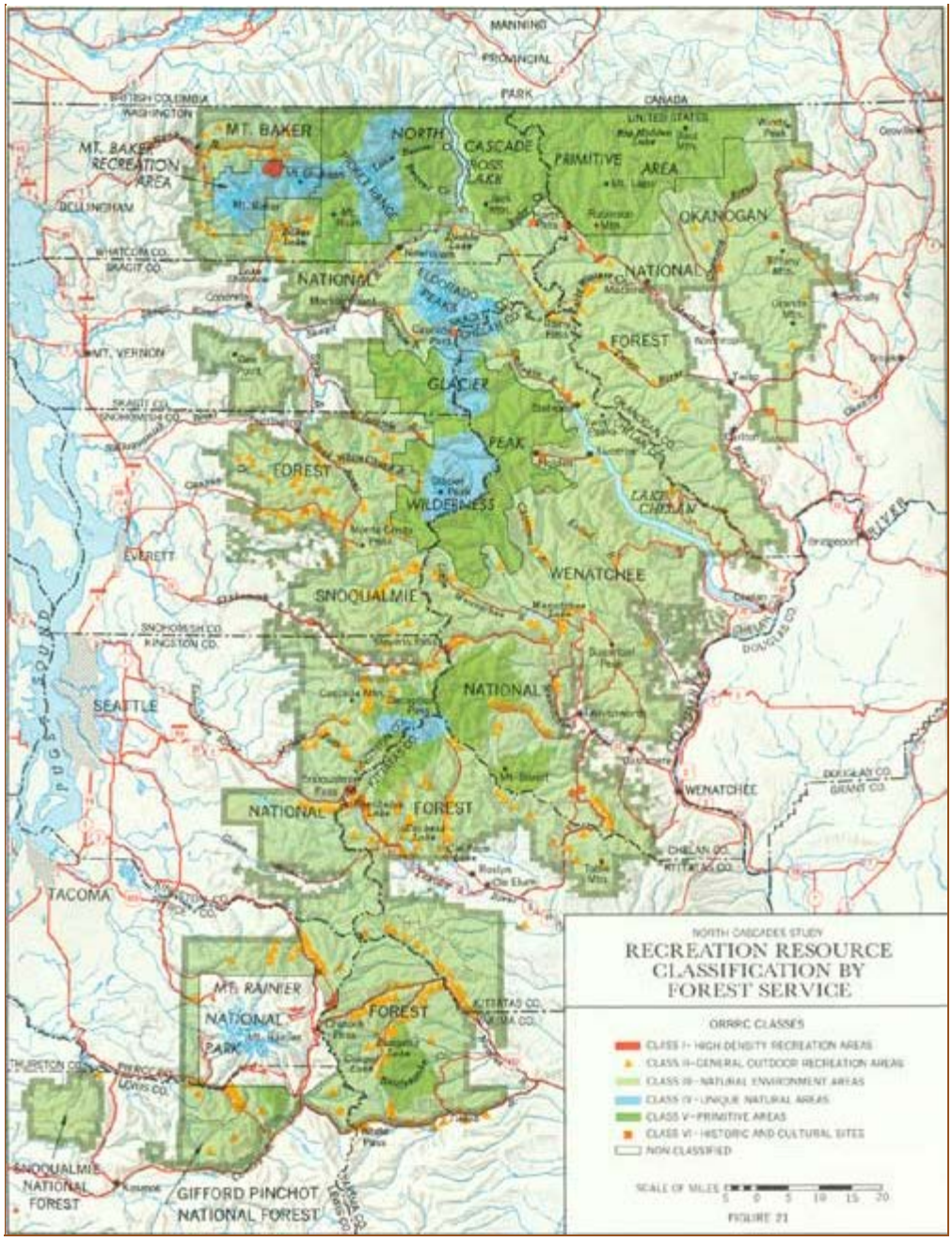


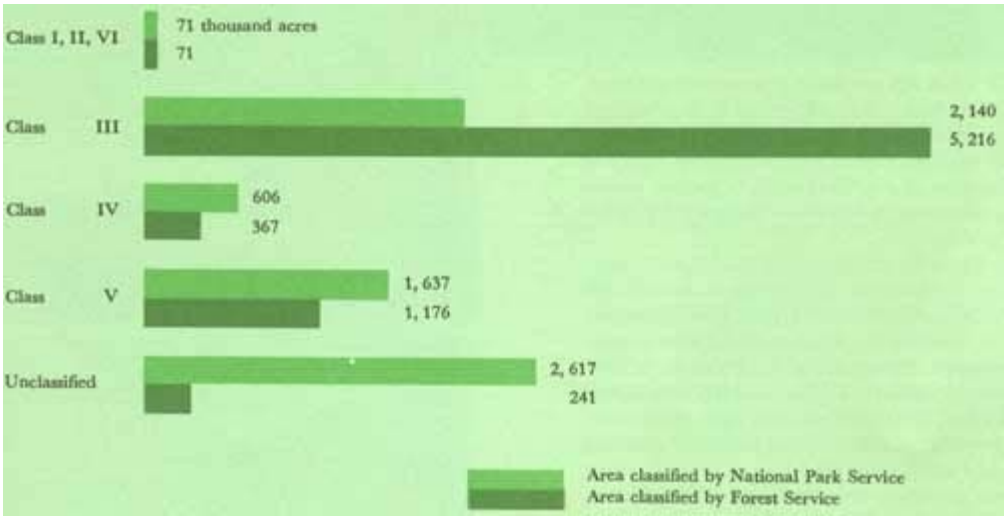
Figure 21. Recreation Resource Classification by Forest Service. *(click on image for a PDF version)*

Figure 22 Outdoor recreation resources of the North Cascades Study Area as separately classified by the National Park Service and the Forest Service according to management classes recommended by the Outdoor Recreation Resources Review Commission.

ORRRC management classes	Area classified by National Park Service		Area classified by Forest Service	
	Thousand acres	Percent	Thousand acres	Percent
Class I High-density recreation areas	(1)	(1)	(1)	(1)
Class II General outdoor				

recreation areas	(1)	(1)	(1)	(1)
Class III Natural environment areas	2,140	30.3	5,216	73.8
Class IV Unique natural areas	606	8.6	367	5.2
Class V Primitive areas	1,637	23.1	1,176	16.6
Class VI Historic and cultural sites	(1)	(1)	(1)	(1)
Unclassified	2,617	37.0	241 (2)	3.4
Total gross area of the Study Area	7,071	100.0	7,071	100.0

(1) Presumably, Classes I, II, and VI combined would amount to 71,000 acres, or one percent of the gross acreage of the Study Area.
(2) Mount Rainier National Park not classified.



The two agencies conferred following their work and came closer to agreement than the maps and table indicate, but certain fundamental differences remained.

The Forest Service interpretation was "based on administrative decisions in their present and future planned multiple-use program." This means that the Forest Service considered other resource uses as well as recreation.

The National Park Service interpretation was "based on optimum management for the recreation resource only, and certain lands were not classified because their recreation values and potentials were not considered important enough to receive major emphasis."

The two Services continue to disagree in principle on the concept of natural environment areas. The National Park Service, while it recognizes that almost all lands have some value for recreation and can be so used, believes that recreational land classification as conceived by the Outdoor Recreation Resources Review Commission demands some positive action beyond permitting incidental recreation, even if furthered by some management action. That Service believes the Commission's recreational classification implies recognition and major emphasis in a master plan for recreational management in which lands are classified formally on a map as areas to be managed in a specified way for recreation, not in general, but in particular.

The National Park Service thus regards the Forest Service's landscape management area designation as an act of classifying lands. It consulted the multiple use plan of the Forest Service in this respect in seeking to identify Class III and other type recreational lands in the

Study Area. But, according to the National Park Service, calling all lands Class III that are not otherwise classified negates the usefulness of the Class III designation as a definitive act to protect recreational environment and provide positively for recreation opportunities.

The Forest Service position is that all lands managed under the multiple use program as now defined by the Multiple Use-Sustained Yield Law, unless recreation is specifically eliminated, have recreation values, planned recreational facilities and use in varying degrees, types and intensities, and therefore should be given some ORRRC recreational land classification. Where no other ORRRC classification is specified, areas would fall in Class III.

There are many types and intensities of recreation planned in the multiple use management program on National Forest lands. In the landscape management areas and the Alpine resource association, recreation receives major emphasis both in the scenic and developed types of uses. In other multiple use management associations, recreation use is planned less intensively. Recreation facilities in these management zones provide for activities such as hunting, fishing, hiking, riding, gathering forest products, sightseeing, picture taking, back country and miscellaneous outdoor mountainous experiences. These are planned, coordinated, and developed through modification of the uses, such as timber harvesting. The Forest Service thinks that even though recreation may not receive major emphasis in these areas, it is a planned use along with the other uses and, therefore, the areas should be recognized as Class III.

It is apparent that the ORRRC classifications have little utility without clear-cut instructions as to their interpretation and applicability.

Regardless of agency differences, it is significant that both agencies classified such large percentages of the area in the unique and primitive classes. The National Park Service classified 606,000 acres and 9 percent as unique areas, and 1,637,000 acres and 23 percent as primitive. Despite the fact that the Forest Service did not classify Mount Rainier National Park, the corresponding classifications by that agency were 367,000 acres or 5 percent as unique, and 1,176,000 acres or 17 percent as primitive. Since much of the 241,000 acres in Mount Rainier National Park is unique, the totals for that category presumably would have been about equal if the Forest Service had classified the lands within the National Park.

These classifications become particularly significant when related to the areas already primarily dedicated to recreation (fig. 5) and to recommendations for subsequent administrative or legislative designations.

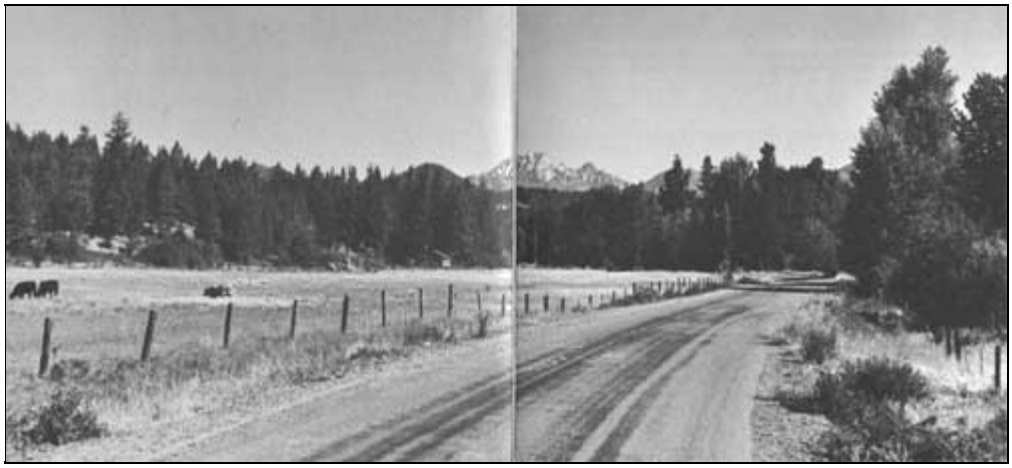
Transportation and Access

Roads, trails, and waterways are the principal means of access to the North Cascades. The Study Area is paralleled north and south by several main highways. It is traversed east and west by four main roads; Stevens Pass, (U.S. 2); Snoqualmie Pass, (U.S. 10 and Interstate 90); Chinook Pass, (U.S. 410); and White Pass, (State 14). In addition, the new North Cross-State Highway is under construction to connect the Skagit River and Methow Valley. This will take about 5 more years to complete.

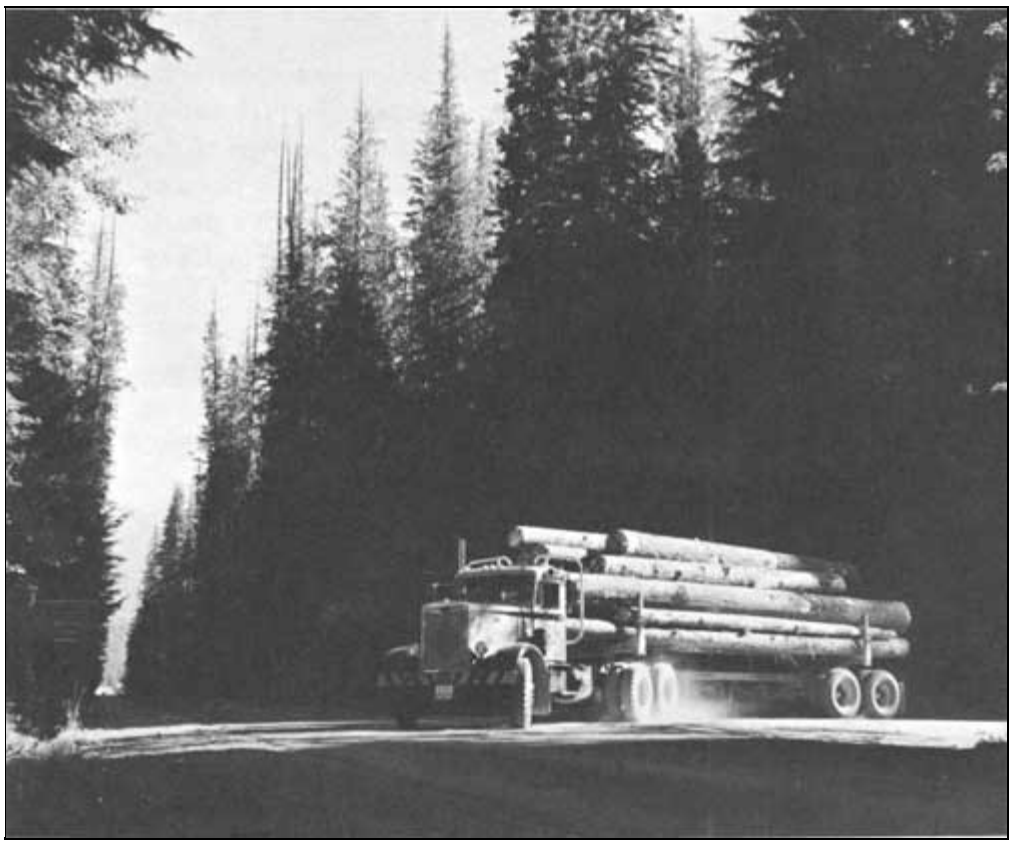
Other secondary roads providing good access to the area are State 1 to Mount Baker, State 16 up the Skagit River, the Methow Valley road, and several good county roads. There is good access to Mount Rainier National Park.

Beyond the secondary State and county roads are forest development roads which penetrate into many remote areas of the North Cascades. Many of these were designed primarily for timber access with other multiple purposes a secondary factor in their location, design, and construction. Many hundreds of miles of these roads, with some reconstruction particularly

for turnouts, could greatly benefit the pleasure-driving public.



Secondary road along Teanaway River, with Mount Stuart in the background. See figure 23, page 60 (photo NPS 4224—700)



Logging roads serve many North Cascades areas. Here a load of logs pulls onto Chinook Pass Highway from a logging road in Snoqualmie National Forest. See figure 23, page 60. (photo FS 2400—1—10)

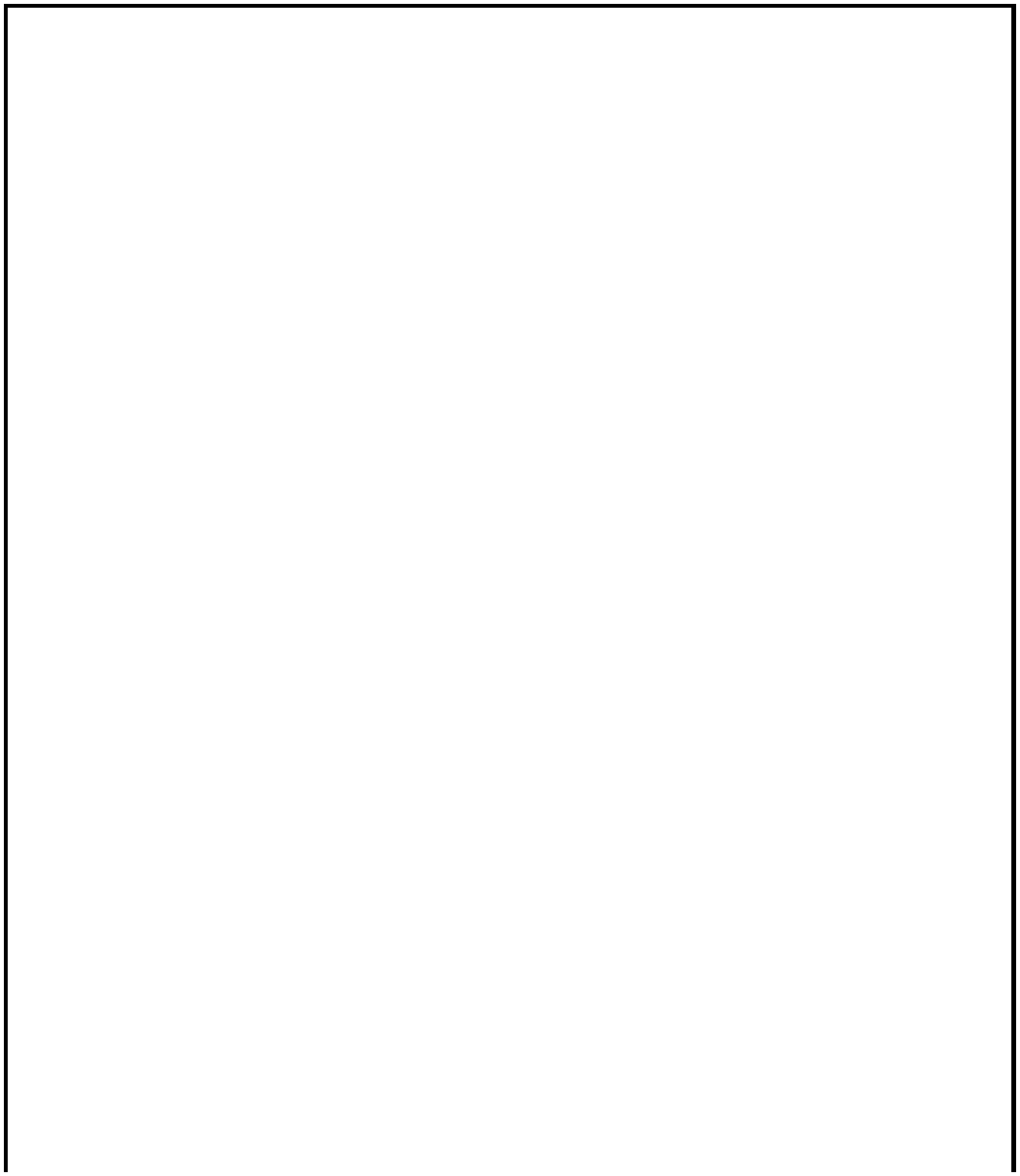
The National Forest transportation system includes 380 miles of forest highways, most of which are surfaced; 4,500 miles of forest development roads, most of which are timber access roads; and 5,500 miles of trails, including 341 miles of the Washington Cascade Crest Trail (fig. 23). About 10 percent of the forest development roads have recreation for their primary

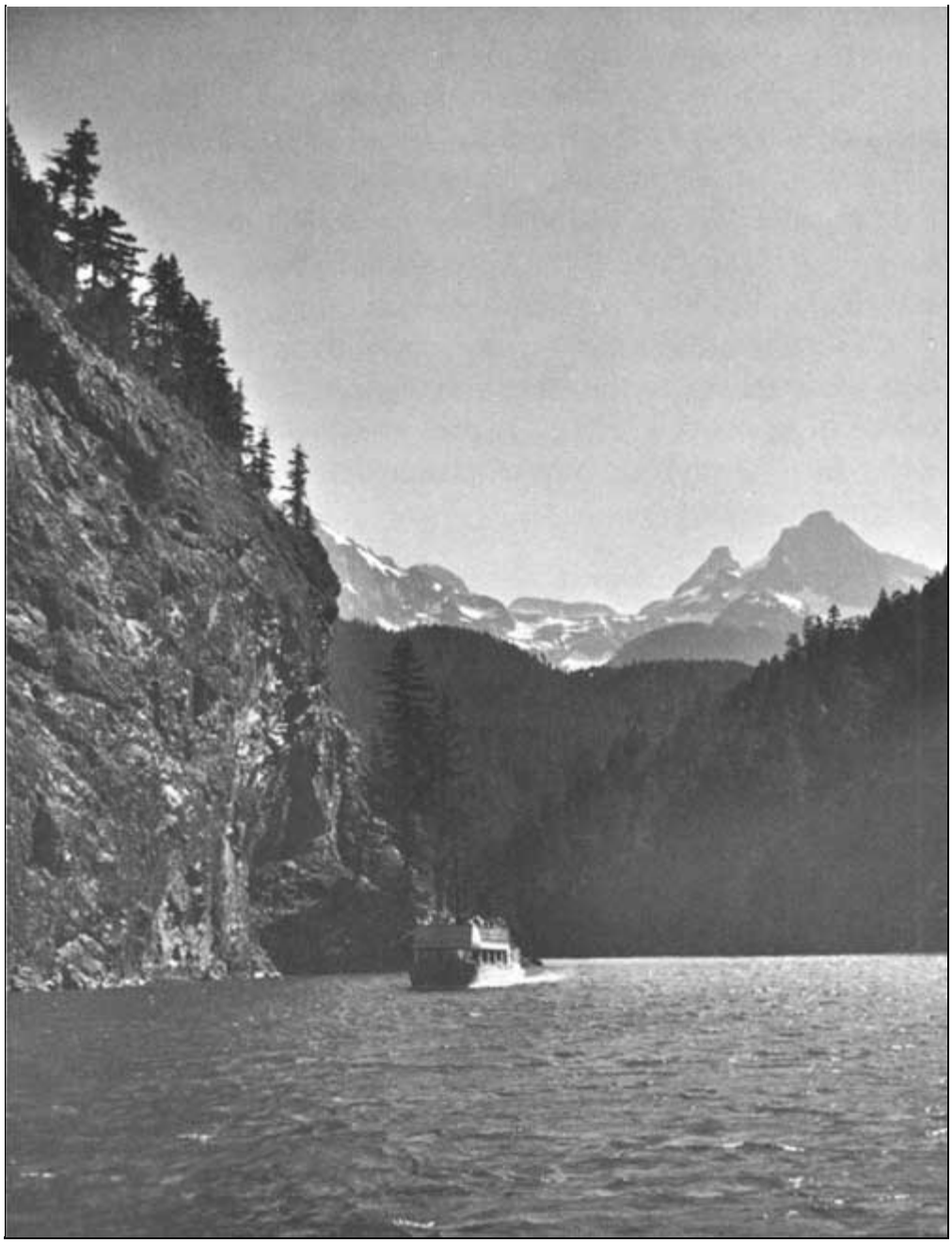
purpose.

Figure 23 Miles of existing and planned forest highways and forest development roads and trails in the National Forests of the North Cascades Study Area.

	Miles existing	Miles planned
Forest highways	380	90
Forest development roads:		
Primary purpose, recreation	490	350
Primary purpose, timber and other (1)	3,950	9,500
All forest development roads	4,440	9,850
Trails (2)	5,500 (3)	430

(1) All development roads contribute to dispersed recreation area uses such as hunting, fishing, riding, and hiking.
(2) Includes 341 miles of the Washington Cascade Crest Trail, a wilderness trail, which is part of the Pacific Crest Trail system which follows the backbone of the Cascade Range for some 850 miles.
(3) Of these trails, 2,275 miles are considered inadequate.





Boat cruise on Diablo Lake to Ross Dam on the Skagit River provides one of the few present access routes into the heart of the North Cascades (photo Seattle City Light and Power Co.)

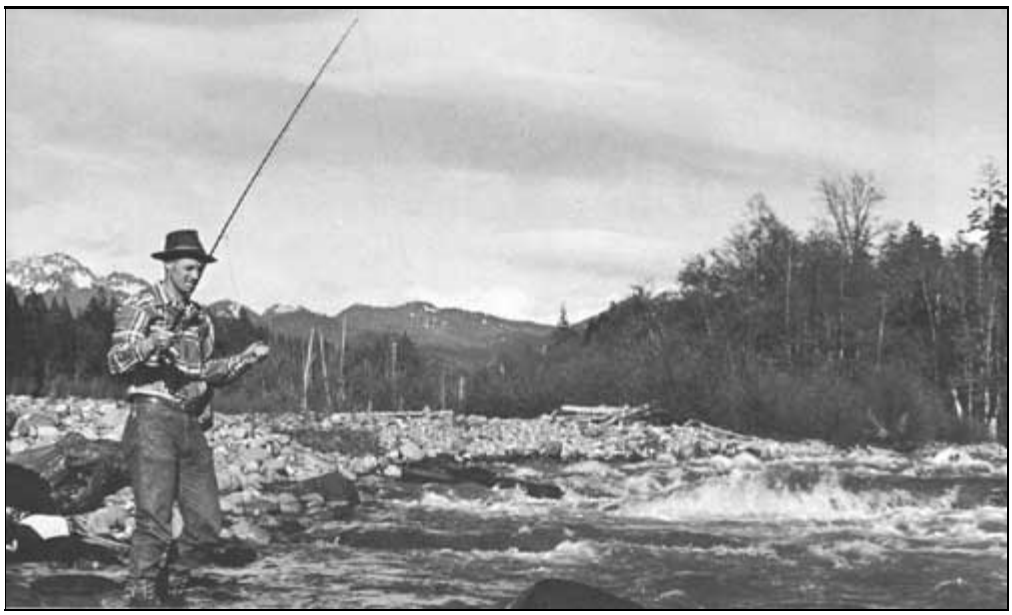
Forest Service road plans call for an additional 9,500 miles of timber and general purpose roads. About 350 miles of roads are planned that would be primarily valuable for recreation. Both existing and planned general purpose roads have recognized recreation values.

There is opportunity here to improve greatly the accessibility of the North Cascades for recreation through adjustment in design and construction of the 9,500 miles of planned timber and general purpose roads. There is a great need from a recreation standpoint to provide an adequate scenic road and highway system.

Large areas within the Study Area are roadless and will probably remain so. Accessibility to some portions is by water through Lake Chelan by boat or float plane, and through Ross and Diablo Lakes. Float planes are landing with increasing frequency on some of the high mountain lakes and helicopters land in numerous places. At present hikers and horsemen use

the same trails and motorized trail equipment is frequently permitted outside Wilderness and Primitive areas.

Three railroads cross the area but do not contribute significantly to recreation use. These are the Great Northern through Stevens Pass, and the Northern Pacific through Stampede Pass and the Chicago Milwaukee, St. Paul and Pacific through Snoqualmie Pass.



The North Cascades provide about a half million days of fishing to visitors each year. This location is on the Nisqually River in Mount Rainier National Park. See figure 18, page 52. (photo NPS Y—1)

FISH AND WILDLIFE RESOURCES

Utilization of fish and wildlife resources for sports purposes obviously is an integral part of the recreation enjoyment of the North Cascades.

In the period from 1958-62, the visitor days of hunting increased from 180,000 to 420,000 and fishing from 430,000 to 530,000. These estimates are considerably more than the number of visits (fig. 18) because the average hunter and fisherman both stayed more than one day. Presently there are probably about 1 million days of combined hunting and fishing use. Figure 24 shows the areas where hunting is the dominant recreation use.

The estimated annual expenditures by hunters and fishermen in the area are $27 million. To that, it is reasonable to add the value of the commercial fish catch originating in the area. This is estimated at $12.5 million.

Perhaps the most significant conclusions from an appraisal of fish and wildlife resources are:

1. These resources are substantial in nature both economically and in terms of enjoyment afforded.

2. All of the Federal lands in the area are currently available for hunting and fishing except that hunting is precluded in Mount Rainier National Park.

3. There is an overpopulation and underharvest of big-game animals along with a deficiency in necessary winter range where there is competition with domestic livestock. For every 20

square miles of summer range, there is only 1 square mile of winter range.

4. One-fourth of the big game harvested in the State comes from the Study Area, as does 18 percent of the U.S. production of salmon.

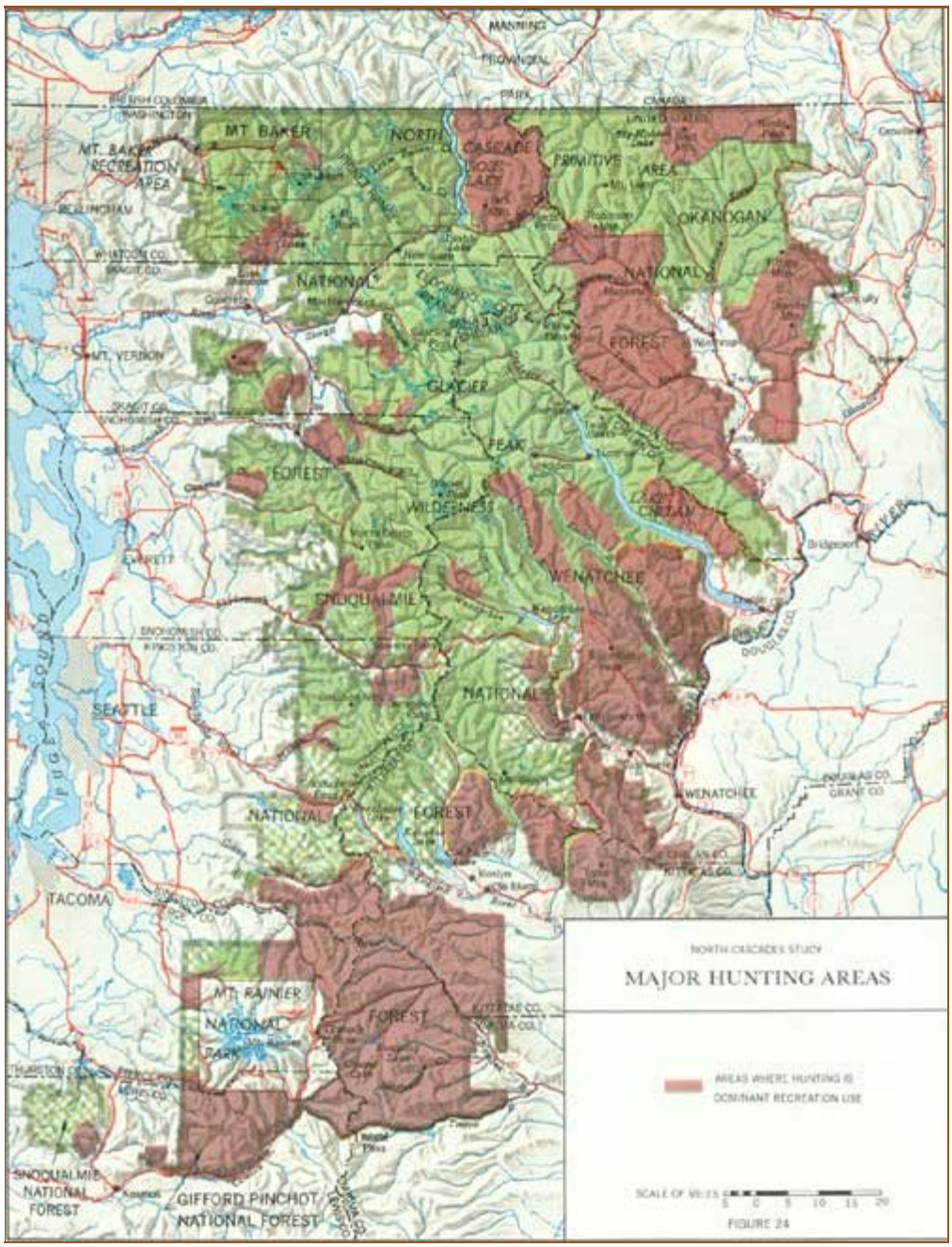
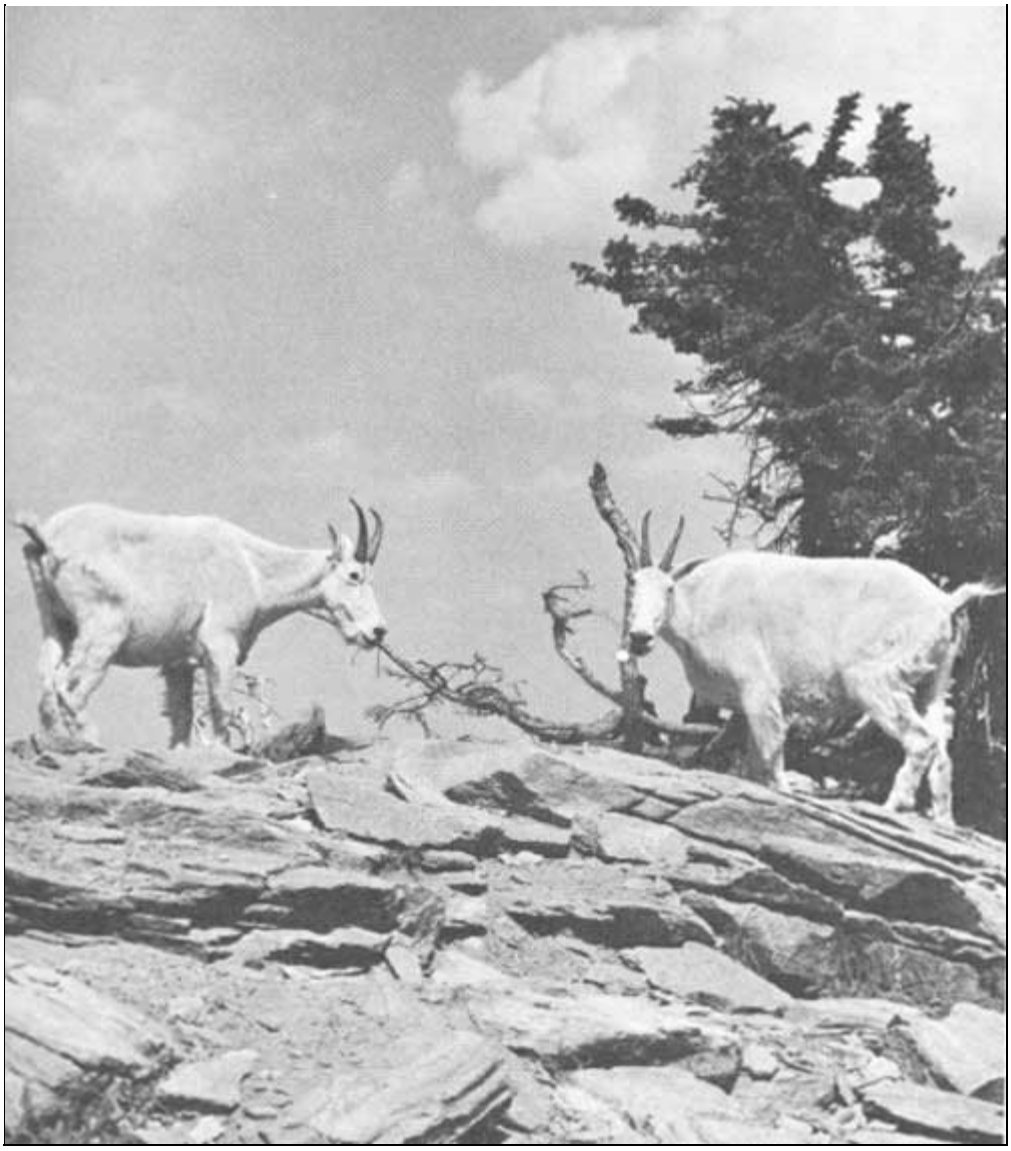


Figure 24. Major Hunting Areas. *(click on image for a PDF version)*



The North Cascades support about 8,000 mountain goats; hunters kill about 300 each year. See figure 18, page 52 (photo: State of Washington, Department of Game 445—A).

5. There are about 600 miles of streams in the area where fish production can be improved by various measures such as channel and stream flow stabilization, abatement of stream pollution, construction of fish ladders, log jam removal, or other habitat measures.

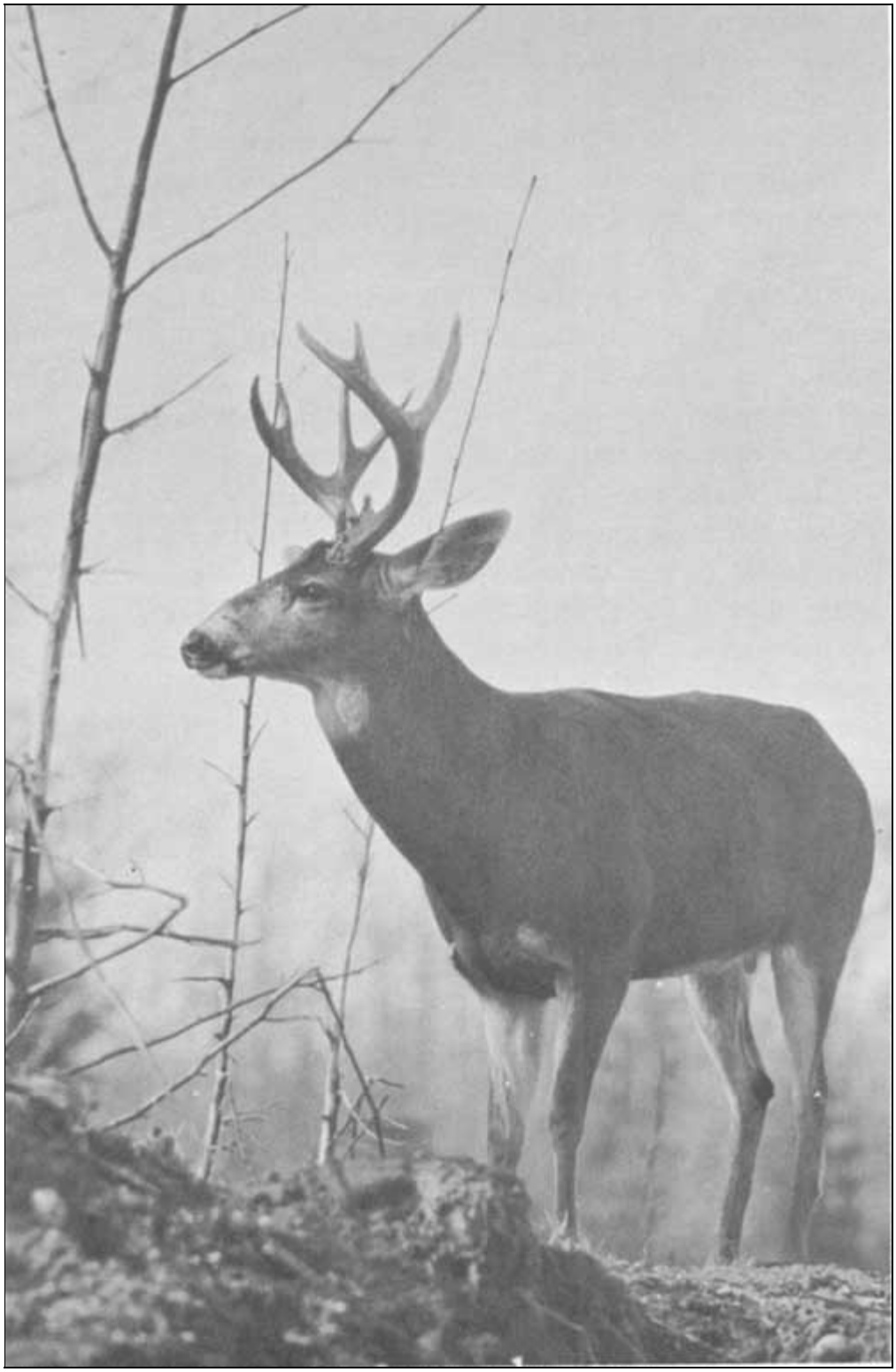
6. Opening of the tree canopy through logging temporarily improves wildlife habitat and big game populations for from 10 to 12 years. A regular program of timber harvesting is effective in maintaining higher game population than would otherwise be the case.

7. Steelhead is the most important fresh water sport fish in the State. Major streams are: Nooksack, Skagit, Stillaguamish, Skykomish, Snoqualmie, Green, Puyallup, Nisqually, Chehalis, Cowlitz, Methow, Entiat, Wenatchee, and Yakima.

8. Major big game and estimated populations are: deer, 140,000; elk, 14,600; bear, 12,000; mountain goats, 8,000. Annual harvest is about 15,800 deer, 2,400 elk, 1,300 bear, and 300 mountain goats.

9. Looking into the future, both fishing and hunting pressures will increase about in proportion to population increases. This will tend to overcome the present overpopulation of

big game and unbalance between summer and winter ranges. Increased fishing pressures can be met only if stream and habitat improvement measures are carned out. It is unquestionable that sports hunting and fishing will continue to be one of the major recreational uses of the Study Area.



Deer in the North Cascades number about 140,000. Hunters kill about 15,800 each year. See figure 24 map, page 62 (photo: State of Washington, Department of Game 2305).

MINERAL RESOURCES

Geology

The part of the North Cascades which is the concern of this study consists of two geologically contrasting areas roughly divided by Snoqualmie Pass and U.S. Highway 10 (Interstate Highway 90).

South of this highway tertiary volcanic rocks of rather simple structure predominate, whereas to the North most of the exposed rocks are structurally complex pre-tertiary igneous and metamorphic rocks. To some extent the geologic differences are reflected in the topography, the area underlain by pre-tertiary rocks tending to greater ruggedness and topographic variety.

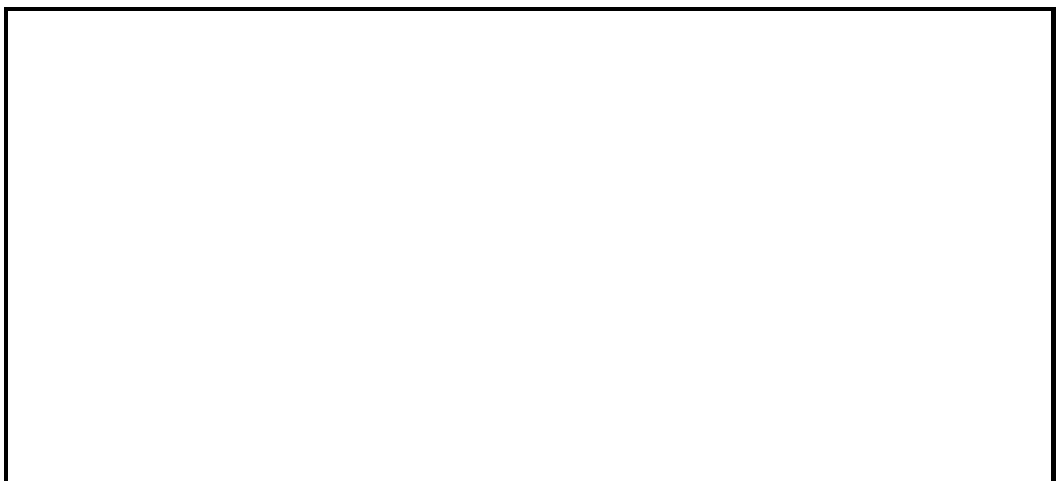
The extremely rugged part of the North Cascades terminates at the International Boundary, and northward in Canada the mountains are lower and more rounded. This change in topography near the border also reflects a change in the underlying bedrock, inasmuch as sedimentary, or but slightly metamorphosed sedimentary, rather than highly metamorphosed rocks, predominate north of the border.

Most of the mineral deposits to be found easily have already been located. This is true even of an area that is as remote and inaccessible as parts of the Study Area. Rocks in the Study Area are mostly well exposed, and, because little time has elapsed since the retreat of the glaciers, they are also fresh.

The value, however, of a deposit generally can not be accurately gauged from its surface exposures. The largest copper deposit mined to date in Washington, that of the Holden Mine on Railroad Creek, has been known for 90 years, although no ore was extracted until 1937. Other deposits in the North Cascades that are now being actively explored and which give promise of being of considerable value have also been known from surface outcrops for a long time, but their true worth can be determined only by underground exploration.

However, for deposits that do not crop out at the surface and hence can be found only by careful and intensive use of modern geological, geophysical, and geochemical techniques, the difficulties of mineral exploration are much greater. In these respects determining the mineral-resource potential of an area differs greatly from determining the resource potential of those other commodities which are on the surface and accordingly, more readily appraised.

Not all rocks or geologic settings are equally favorable for deposits of fuel or minerals. Just as there are many types of rocks and geologic structures in the North Cascades, so there are many kinds of metalliferous and nonmetallic mineral deposits, many of which are closely associated with some particular geologic environment.





1. Volcanic crater at Mount Rainier. The rim is still hot and forms steam caves as the heat melts snow and ice. In this and other areas of the North Cascades lying south of Snoqualmie Pass tertiary volcanic rocks of rather simple structure predominate. In contrast, north of Snoqualmie structurally complex pre-tertiary igneous and metamorphic rocks predominate on the surface. (photo NPS Y—3)



2. Cement company operation on recently patented mining claim in Wenatchee National Forest. See figure 25, page 65. (photo FS X—1)



3. Gold-dredging operation near Liberty in Wenatchee National Forest. Gold has been produced in the North Cascades for over 100 years. See figure 26, page 66. (photo FS X—2)

Mining Exploration and Activity

Gold production in the North Cascades was noted during the search for a railroad route in 1853. The account apparently constitutes the earliest reference to mining in the region. Subsequently, in 1859 during the survey of the International Boundary, gold production again was noted. During the next 20 years a number of the larger gold districts of the Northwest were found and worked. The increase in population in the Northwest resulted in the development of the nonmetal materials, particularly those used in the building trades.

Thirteen nonmetallic minerals or materials have been produced in abundant quantities or have demonstrated a potential for developing into appreciable producers.

Six of these 13 are building materials used in their natural state and altered only physically. These materials are basalt and allied volcanic rocks, building stone, granitic rocks, pumice and pumicite, sand and gravel, and sandstone. Two others of the 13, clay and shale, and limestone, are also used in the building and construction industries after considerable processing. Four of the 13, olivine, massive quartz, silica sand, and talc soapstone, are presently important for industrial use. Coal is the other nonmetallic in the group of 13. The nonmetallic minerals and materials not noted above all have a potential of becoming significant in the economy of the area but for the present cannot compete with other more accessible sources of supply.

Coal was first mined near Bellingham Bay, 1855. A total of 128 million tons valued at over $407 million has been produced from Washington. Reserves are estimated at 6,185 million tons.

Olivine, which is used principally as a foundry sand in the Northwest, has experienced a phenomenal increase in demand for this use. The largest of two sources of the olivine in the United States is located in the Study Area somewhat southwest of Mount Baker. Undoubtedly, olivine will continue to be produced in considerable quantities from this

recently opened deposit.

Figure 25 summarizes the nonmetallic mineral products in the North Cascades area.

Figure 25 Nonmetal mineral production in the North Cascades Area

	Thousand short tons	Value in million $	Years of recorded production
Asbestos		(2)	1919, 1930-34
Cement (million barrels)	117	286.4	1909-62
Clay (common)	2,509	2.1	1933-62
Clay (refractory)	496	1.2	1933-62
Diatomite	54	1.0	1922-48, 1953-57
Gypsum		(2)	1925, 1950-61
Olivine		(3)	1946-62
Peat	215	1.1	1957-62
Pumice	233	1.7	1943-62
Silica		(2)	1953,1943-48
Talc	88	0.6	1933-62
Strontium		(2)	1940-45, 1953, 1959
Coal	128,000	407.3	1900-62
Stone and Aggregates:			
Basalt	27,048	31.1	1937-62
Granite (crushed)	3,866	5.4	1937-62
Granite (dimension)		(2)	1939-62
Marble		(2)	1959, 1960
Marl		(2)	1958, 1959
Oystershell		(2)	1958-60
Limestone	8,661	17.8	1929, 1933, 1937-62
Sandstone (crushed)	304	0.7	1937-62
Sandstone (dimension)	87	4.6	1937-62
Miscellaneous stone	5,407	4.0	1951-62
Sand and gravel	169,000	128.4	1935-62
Undistributed (4)		2.0	
Coal production in Canadian portion of North Cascades area	7,500	37.0	
Total value (5)		933.4	
Limestone in cement	30,000	67.5	

(1) As much as 60 percent of the production of coal and 75 percent of the other nonmetallics tabulated came from areas outside the North Cascades Study Area.
(2) Total value of each commodity was less than $500,000.

(3) Figure withheld to avoid disclosing individual company confidential data.
(4) Includes confidential items and total values indicated by footnote (2)
(5) Figures in columns may not add to total because of rounding.

This is heavily dominated by coal, cement, and sand and gravel, but 60 percent of the production of coal and 75 percent of nonmetallic minerals came from west of the National Forest boundary.

Insofar as metallic minerals are concerned, activity prior to 1904 was limited to production of lode and placer gold. Some production of silver occurred prior to 1909 and the demand for metal during World War I resulted in the production of small amounts of copper, lead, tungsten, mercury, and iron. Silver, lead, gold, copper, and mercury all reached new peaks in the period 1920-40.

The Holden Mine near Lake Chelan, which operated from 1937-57, was the largest producer in the State of copper, gold, and silver. The Gold King Mine near Wenatchee opened in 1949 and took over when the Holden Mine closed as the largest gold producer.

The total value of metallic minerals produced from the Study Area is estimated to be some $87 million (fig. 26). Copper and gold account for most of this production and about half of the gold was produced as a byproduct of the Holden Mining Corporation.

Figure 26 Metal production from mines in the Washington portion of the North Cascades Area, 1904-1962.

	Quantity	Value	Production Years
Antimony	95 Tons	$43,639	1941, 1942, 1951, 1952
Chromite	128 Tons	6,763 (1)	1942, 1955, 1956, 1959
Copper	113,466 Tons	39,770,912	1904-1962
Gold	1,097,685 Ounces	37,081,021	1904-1962
Iron ore	76,504 Long tons	273,968	1907-1910, 1918-1920, 1937-1943, 1958, 1959
Lead	1,403 Tons	300,014	1904-1962
Mercury	6,624 Flasks	711,304	1916, 1926-1938, 1940-1942
Silver	3,837,447 Ounces	3,023,862	1904-1962
Tungsten	7 Tons	15,443	1915-1917, 1940,1942
Zinc	21,623 Tons	5,651,611	1943-1957
Total		$86,878,537	

(1) Excludes value of production for 1942 and 1959.

Six metals—copper, molybdenum, gold, lead, mercury, and nickel—are considered for geologic and other reasons to have a good probability of being produced in significant amounts in the foreseeable future. Nine other metals, although present in significant amounts, are considered to have a low potential of developing into important commercial operations.

Present mining activity for the most part is concentrated in the nonmetallic minerals. The more common industrial minerals and aggregates are present in practically unlimited quantities, and the others are known to be present and available in varying amounts in the area. All are important to the present and future industrial requirements of the country. Metallic minerals have not fared as well as the nonmetallic. There has been a decline in metallic production from the area since the 1940-49 period when the main producer, the

Holden Mine, was in its heyday. In recent years a new 300-ton mill has been constructed at the Gold King Mine near the Study Area. Also, the Bear Creek Mining Co. and Phelps Dodge Corp. are making detailed examinations of three separate areas and have invested several million dollars in exploration.

The most thorough study and exploration of the North Cascades may never reveal a major mining district. The area has been thoroughly combed by prospectors for nearly a hundred years. There is hardly a ridge or peak that has not at some time been walked over by some prospector. On the other hand, like the geology, only a very small part of the area has been prospected in the modern sense, using newly developed tools of geology, geochemistry, and geophysics that are now available.

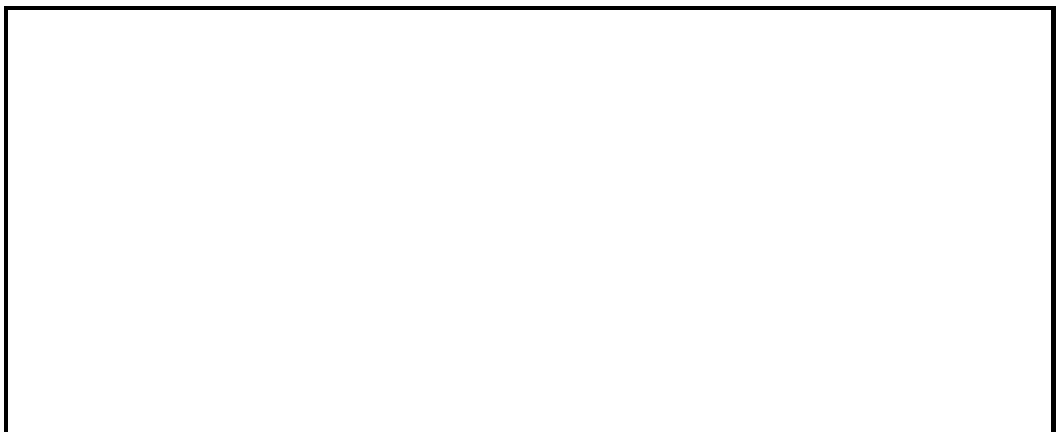
It is likely that most of the mineral deposits in the North Cascade Mountains that can be found easily—i.e., those that are readily visible at the surface—have already been discovered. This is probably true even in the more remote and inaccessible parts of the area. This does not mean, however, that no potential remains for discovery of new mineral deposits in the North Cascade Mountains, or that there is no possibility of bringing into production deposits that are already known. Mineral deposits of various kinds are scattered throughout the length and breadth of the Cascade Mountains.

Limitations on Mining

Mining on Federal lands in the area is conducted under a number of acts including the act of 1872, the Mineral Leasing Act of 1920, Multiple Use Mining Act of 1955, and the Wilderness Act of 1964. The 1955 act prohibited future location and removal, under the mining laws, of common varieties of sand, stone, gravel, pumice, etc. It also prohibited the use of mining claims for other than prospecting, mining and processing. It established a procedure whereby the administrators of surface resources could obtain the right to utilize and manage such resources provided this did not interfere with mineral development.

The Forest Service has completed the procedures provided under the 1955 act to clarify surface rights to the estimated 91,000 mining claims within the Study Area. This means the Forest Service has regained the right to manage the surface resources on 1-1/2 million acres or more in the Study Area. Over the years, 590 claims have been patented, totaling about 11,750 acres.

Under the Wilderness Act of 1964, mining may continue in areas that are part of the Wilderness System until the end of 1983, after which no patent shall be issued except for valid claims existing prior thereto. However, prospecting in National Forest Wilderness areas may continue and the Secretary of the Interior through the Geological Survey and the Bureau of Mines is directed to survey these areas on a planned recurring basis to determine their mineral values.





Land along Railroad Creek which the Federal Power Commission has withdrawn for a potential power reservoir. This canyon is a popular recreation travel route into the Glacier Peak Wilderness Area. (photo NPS 4214—312)

Following are further restrictions on prospecting or development:

1. Federal Power Commission withdrawals. Mining claims are permitted in Federal Power withdrawals under certain conditions. In the Study Area about 187,000 acres of land is in Federal Power withdrawals. On one-third of this, mineral exploration is not permitted.

2. There are about 31,000 acres of Reclamation withdrawals in the area that are not open to mineral entry.

3. About 30,000 acres of National Forest lands have been withdrawn from mineral entry to protect administrative and public service sites.

4. Mount Rainier National Park is closed to all mineral location.

5. Rattlesnake Watershed, 75,000 acres, was withdrawn from location and entry under Presidential order in 1923.

6. Cedar River (23,000 acres), Green River (42,000 acres), and Sultan River (17,800 acres) watersheds are open to mineral entry but prospecting is difficult if not impossible because access is prohibited or limited.

It is the feeling of the study team in evaluating the mineral situation, that minerals have been locally important in parts of the Study Area, that old-time prospecting has been carried out over most if not all the area, that there is a possibility of developing deposits at some time in the future in the North Cascades which will contribute significantly to meeting domestic needs, and that mineral potential must be considered in overall management of the resources of the Study Area.

WATER AND POWER

For the purposes of considering the water and power resources, the study team used not only

the defined Study Area, but also a so-called "influence zone" including 12 counties; namely, Whatcom, Skagit, Snohomish, King, Pierce, Thurston, and Lewis, west of the Cascades, and Okanogan, Chelan, Kittitas, Yakima, and Benton, on the east side.

The Study Area consisted of parts of the following river basins: On the west side; Chilliwack, Nooksack, Skagit, Stillaguamish, Snohomish, Cedar, Green, Puyallup, Nisqually, Cowlitz; and on the east side, Pasayten, Okanogan, Methow, Chelan, Entiat, Wenatchee, and Yakima.

The basic assumption in considering water and power resources is that there will be continued population explosion and urban concentrations, particularly in the Puget Sound area, during the next century. The population is estimated to more than double by 2010, reaching a figure of 5.8 million.[1] This is higher than the national rate due to transportation advantages of the area and the present under-utilization of its natural resources.

---

[1]The population assumptions in the water and power discussion are similar to, but slightly different from, those used in the earlier section on the area economy.

It is assumed that (1) the Gross National Product will increase more than five times between 1960 and 2010 and (2) heavy industry will be encouraged to locate in the area because of a combination in part of low-cost electric power, large supplies of high quality water, inland and marine water transportation, and favorable recreation and climatic features.

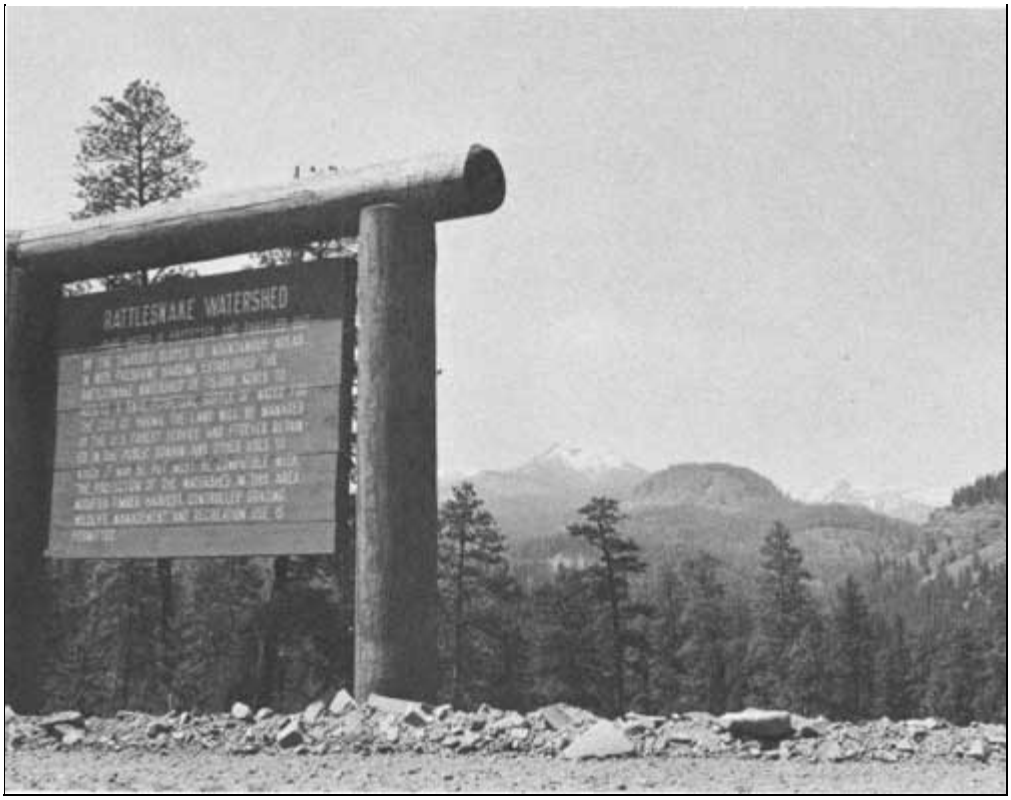
The area has one of the largest low-cost electric supplies in the country, exceptional supplies in quantity and quality of fresh water, and it is available to the sea from Puget Sound and the Columbia waterway.

Water Supply

Much of the large water supply of the influence zone orginates in the North Cascades. The many glaciers, snow fields, and lakes of the Study Area constitute a gigantic storage reservoir which releases water via the stream channels to the influence zone and maintains a considerable supply during the summer periods of low precipitation.

Most of the heavy moisture carried by passing storms is precipitated on the western, or windward, slopes of the North Cascades, a large share of it falling in the form of snow. Although winter precipitation is often heavy in restricted areas on the east side, most of that slope lies in the "rain shadow" of the mountains. As a result, the west-side basins produce more than three times the runoff of those on the eastern side. Over the 10-year period from 1953 to 1962, the streams draining the western slope had an estimated mean annual runoff of about 40 million acre feet, while the eastern streams produced a mean annual yield of about 11 million acre-feet.





Rattlesnake Watershed area in the Snoqualmie National Forest, dedicated by Presidential order to protect the water supply of the City of Yakima. (photo FS 1660—1—2)





Glaciers, snowfields, and lakes of the North Cascades constitute a gigantic water storage reservoir. Here a snow surveyor gauges snowdepth in the Snoqualmie National Forest. (photo FS 2500—1—9)

In addition to surface water, large and relatively undeveloped supplies of groundwater exist in the influence zone. On the east side, groundwater aquifers are recharged largely from the flow of streams coming from the Study Area. On the west side, recharge of groundwater in the flood plains of the rivers depends to a considerable extent on streamflow; but most of the recharge in the larger expanses of uplands intervening between the rivers comes directly from precipitation.

A very favorable water demand and supply relationship exists in the influence zone, especially on the west side. About one-third of the available supply is withdrawn. However, this favorable relationship cannot continue indefinitely without conservation measures such as artificial upstream storage, protection of quality, and economies in water use.

The estimated supply-withdrawal situation in 2010 is shown below:

	United States	Pacific Northwest	Influence Zone
Population, millions	375	15.5	5.8
Gross national product, $ billions	3,000		
Total water supply, billion gpd[1]		270	42
Available water supply, billion gpd	1,100*	143	20-25
Water withdrawals billion gpd	1,000*	70	10-11
Water losses billion gpd	170*	18	2
Storage capacity, million acre-ft.	900*	80	9-10

[1] Gallons per day.
*Contiguous (48-state) U.S.

One of the outstanding water features is the abundance of glaciers and lakes. Of the roughly 1,000 glaciers in the United States south of Alaska, over one-half, or 600, are in the 13 drainage basins in which the Study Area is located. About 270 of these are in the Skagit River Basin alone. The area covered by glaciers in the 13 basins is about 140 to 145 square miles.

In the Study Area, there are about 33,000 acres of lakes or reservoirs, 25 acres or larger in size (fig. 6). However, there are hundreds of other lakes smaller than this. A rough estimate is that the Study Area has about 5,000 lakes which are an acre or more in size. These may cover as much as 100,000 acres.

Water Quality

Users of North Cascades water enjoy a standard of water quality far better than most of the Nation's population. The trend in the past has been to develop surface water supply sources in upstream watersheds where human usage is held to a minimum. Such restricted use watersheds are the source of supply for Everett, Seattle, and Tacoma, for example.

A rough measure of the high quality to which the influence zone has been accustomed is the fact that of 221 municipal water facilities listed in the area by the Public Health Service, only 12 filter the water, 72 disinfect it, and 137 give it no treatment at all.

It is probable that as population and utilization of resources increase, it will be necessary in the future to resort to filtration and disinfecting measures as has been the case in most other parts of the country.

Water Needs

Water needs will increase markedly between 1960 and 2010. Municipal and industrial needs will triple and there will probably be substantial new needs for thermal power. There may be about a 25 percent increase in irrigation withdrawals. Irrigation and thermal power uses both may be substantially greater than munipical and industrial needs. These water withdrawals are estimated as follows:

	Influence Zone	
	1960	2010
Fresh water withdrawals, millions of acre-feet	3.9	10.6
Municipal and industrial	.7	2.3
Irrigation	3.1	4.1

Mining	.1	.2
Thermal power		4.0
Usable storage, all purposes	3.5	9.0
Gross annual streamflow, millions of acre-feet:		
Total—Influence Zone	46	
Study Area only	31	

Bellingham, Everett, Seattle, Tacoma, and Yakima will need additional municipal and industrial water. In some cases it will come from impoundments in the Study Area.

Expansion of irrigation on the east side will be relatively small, since most of the irrigable land is already being served, but on the west side there will be increased use for sprinkler irrigation, probably requiring increased storage.

Power Needs and Supply

The expanding economy in the influence zone will greatly increase the demand for electric power. Power loads in the zone will increase from 3 million kilowatts at present to about 15 million in 1985, and to 45 million in 2010 as shown below:

	CONTIGUOUS U.S.		PACIFIC NORTHWEST		INFLUENCE ZONE	
	1960	2010	1960	2010	1960	2010
Electric power loads in thousand megawatts:						
Peak load	138	2,000	9	137	3	45
Average energy	87	1,200	6	87	2	27

Although part of the demand of the influence zone is supplied from local facilities, the bulk of the power consumed in the area comes from the larger Pacific Northwest system. The Pacific Northwest is served on a coordinated basis through a number of interconnected generating and transmissions systems in which the Federal regional transmission grid of the Bonneville Power Administration provides the backbone lines. At present the system is almost entirely hydro supplied, but a shift to a mixed thermal and hydro system will be well underway by 1980 when the bulk of the economical hydro-capacity will have been developed. It is believed, however, that economic hydro peaking capacity may be under development for a considerable period after that time. Most future hydro development will be in connection with multiple-purpose water projects.

The hydro-capacity of the Study Area will meet only a minor and diminishing fraction of the energy needs of the influence zone. The zone's present hydro capability of about 0.7 million average kilowatts might be expanded to about 2 million. Thermal energy plants using fossil fuels and petroleum can take up the slack with powerplants located near deposits near the Cascades but largely outside the Study Area. Petroleum-fired plants are likely to be located at tidewater on Puget Sound.





1. Water in the North Cascades is so pure that 137 of 221 municipal water facilities in the area give it no filtration prior to use. The City of Leavenworth is one of the 137. (photo Wenatchee Daily World)



2. Irrigation canals carry water no apple orchards in the Naches River Valley. Some irrigation

increase is expected east of the Cascades Crest, more in the west. (photo FS 485654)



3. Industrial water needs are on the increase in the North Cascades. This mill pond at Darrington uses water from a western drainage of the area. (photo NPS 4214—654)

Power Transmission

Transmission capacity will approximately triple by 2010. This will mean additional lines and replacements in the belts of present trans-Cascade crossings in the vicinity of Stevens, Stampede, and Snoqualmie Passes. Most of the routes north of Stevens Pass, including that along the new North Cross-State Highway, are relatively undesirable for transmission purposes because high elevations and steep terrain make construction and maintenance costly and difficult.

Twenty-six water resource development projects now exist either within the Study Area or close to it. Eighteen of those are non-Federal. Seven are Bureau of Reclamation projects.

Eighty-one potential projects in or near the Study Area have been identified as technically feasible. This does not mean they are economically feasible, and most of the potential projects are relatively small. The water development projects, existing and potential, are identified by river basins in figure 27.

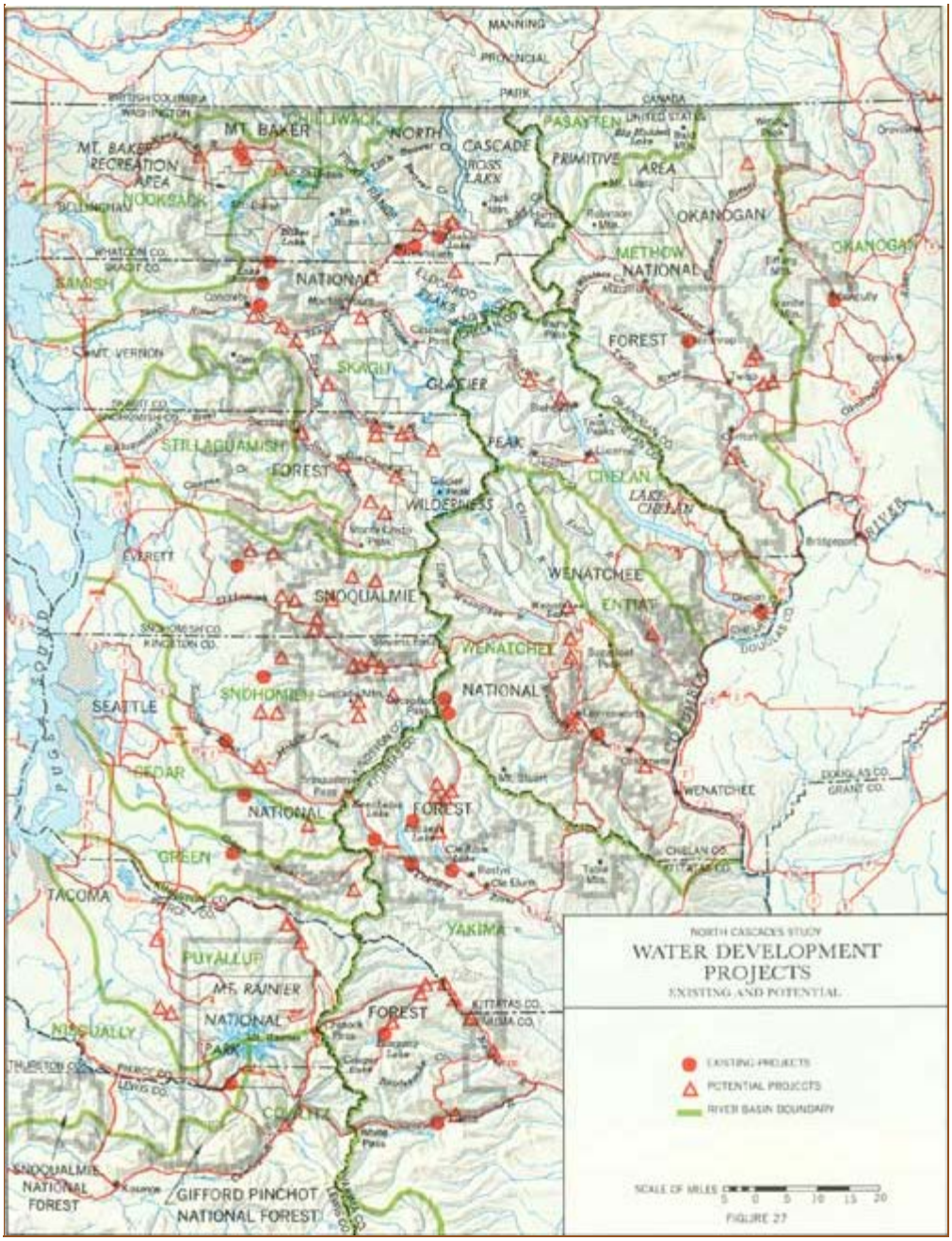


Figure 27. Water Development Projects. *(click on image for a PDF version)*

Although the Study Area and surrounding zone presently enjoy favorable water and power conditions, future needs are such that these can be met only by further development and careful management.

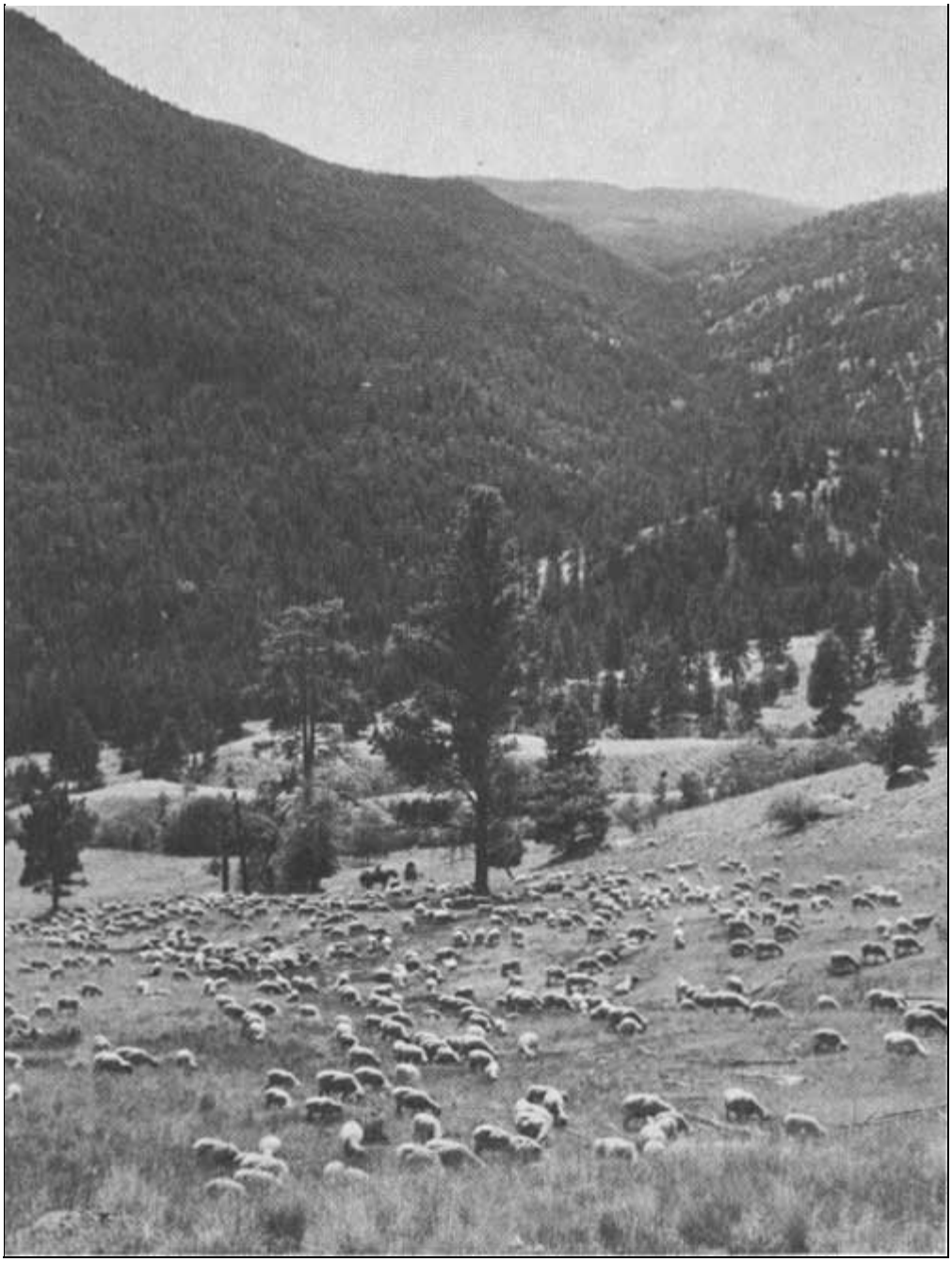
The analysis of the water and power situation, coupled with the recognized value of free-flowing streams for both sport and commercial fishing and canoeing, indicates the importance of preserving a segment of at least one of the rivers in the Study Area for Wild River status in order to protect its natural condition. This conclusion is supported by the prospect of additional reservoirs and dams in the Study Area, by the 81 potential reservoir sites already identified, by the 187,000 acres in Federal power withdrawals and by the 31,000 acres in Reclamation withdrawals.

RANGE RESOURCES

About 150 stockmen run cattle and sheep on National Forest ranges in the Study Area during the summer. Most of the grazing permits are for east side summer range and the available summer feed is about 50 percent short of meeting present demands.



1. Cattle being driven to range on Rattlesnake allotment, Snoqualmie National Forest. About 150 ranchers hold grazing permits on Federal lands in the North Cascades. See figure 28 map, page 74. (photo FS 2200—1)



2. Sheep on range in Horseshoe Basin, Okanogan National Forest. Domestic livestock have grazed the North Cascades since before establishment of the Forest Reserves in 1893. See figure 28 map, page 74. (photo FS 2200—5)

The North Cascades have been grazed by domestic livestock since prior to the establishment of the Forest Reserves in 1893. Mount Rainier National Park was grazed during the World War I years of 1918, and in 1919-20. There has been no grazing of cattle or sheep in the National Park since that time.

In 1962, about 7,600 cattle and 14,300 sheep were under paid permits for 3-1/2 months on National Forest ranges, making up a total feed utilization of some 37,000 animal unit months. In addition, 6,280 recreation horses utilized 1,600 animal unit months of forage. The balance of the available feed was utilized by big game.

There are roughly 2.7 million acres of coniferous range and about 800,000 acres of sub-

Alpine grass lands in the area. Studies show that over 85 percent of the range is in poor to fair condition.

The number of permittees and the number of livestock grazed is small. Nevertheless, for those stockmen who do utilize National Forest ranges, this activity is an important and integral part of their operations. For the 150 operators involved, the cattlemen depend on National Forest range for 35 percent of their annual value of production, and the sheepmen for about 50 percent. The value of feed utilized totals about $500,000 per year.

In summation, it may be said the utilization of National Forest summer feed on the east side of the Cascades is important to about 150 stockmen, that the ranges are not in good condition, and that there is a deficiency of summer range. Considerable forage is utilized under exchange permits, by horses used by recreationists in wilderness and other travel, and by big game. Sheep and cattle allotments in the Study Area in 1962 are shown in figure 28.

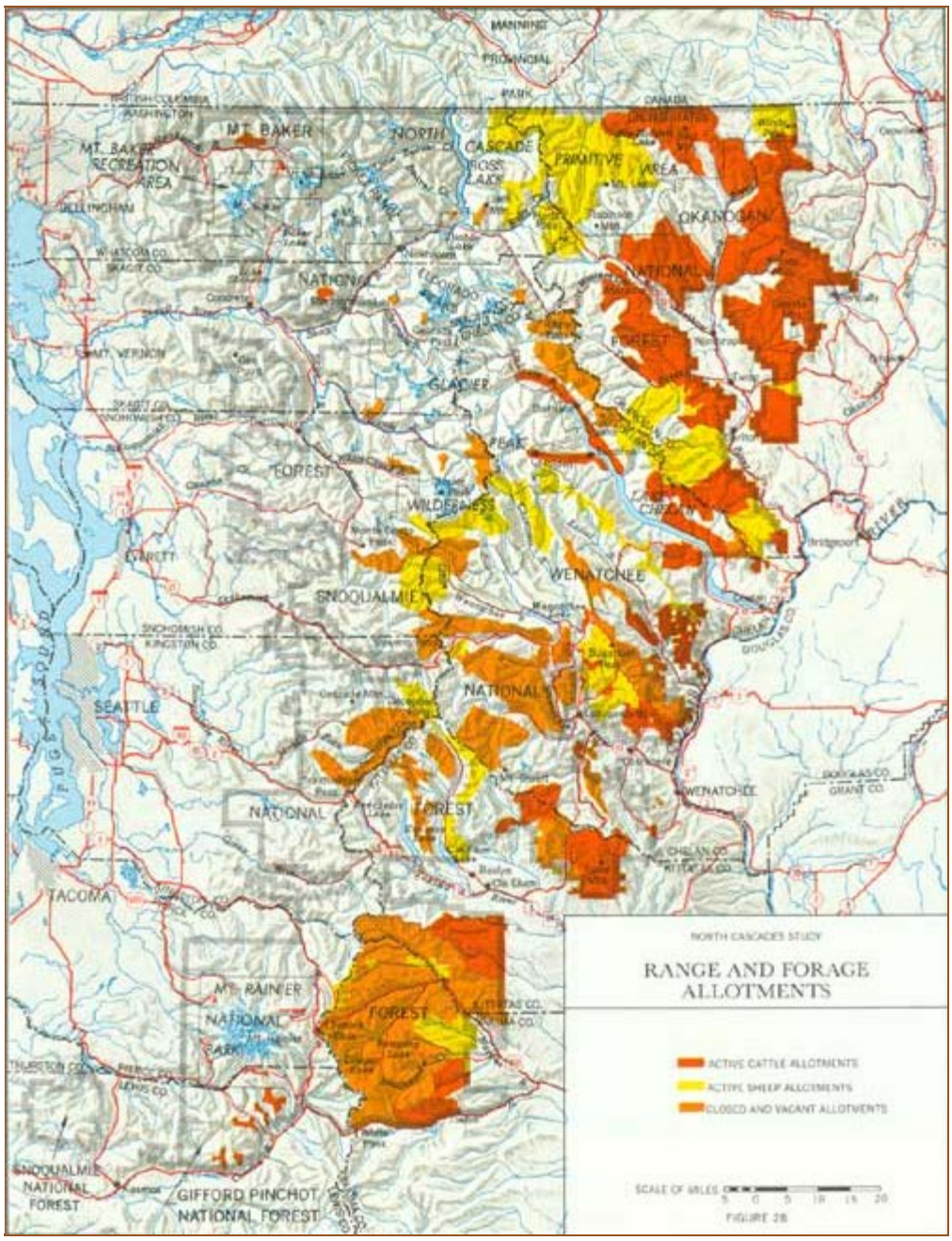


Figure 28. Range and Forage Allotments. *(click on image for a PDF version)*

<<< Previous <<< Contents>>> Next >>>

study_report/sec2.htm
Last Updated: 26-Mar-2010

III

RECOMMENDATIONS

The directive to the North Cascades Study Team from the Secretaries of the Interior and Agriculture states,

> "Your report should include recommendations as to both management and administration, including jurisdictional responsibility. We recognize there may not be unanimous agreement among the study team, although we hope that agreement may be reached as to basic facts. If there is disagreement as to recommendations, we believe it would be appropriate for this dissent to be shown and recommendations of individual members of the team included where they differ from group viewpoint. It would be appropriate to include in your recommendations more than one action alternative."

The recommendations are obviously the key part of the report. These are based on the various resource reports, all the other background information and personal experience and judgment available to the study team, individual agency recommendations of both the National Park Service and the Forest Service, and by the public hearing record.

Prior to enumeration of the recommendations and a discussion of them, there are first summarized the separate proposals of both the National Park Service and the Forest Service. Also, as preliminary to the recommendations, the results of the hearing record are summarized.

At the conclusion of the recommendations, there is an appraisal of their economic impact and, also, the individual views of the team members are stated to the extent each individual decided to offer them. These views were necessarily addressed to the review draft of August 30, 1965, which immediately preceded this final report. To the extent that the chairman felt able to accept these comments, they have been incorporated in, or are reflected in, this report. To the extent that this has been done, therefore, the comments of the study team members are not applicable. Nevertheless, they are of real value.

Among the major issues confronting the study team were: (1) Should there be a new National Park; (2) How much Wilderness is enough; (3) How best to provide for the more conventional types of recreation desired by the great mass of people; (4) How to reconcile national and local interests when the two appear to conflict; (5) How to utilize and manage the timber resource in harmony with other multiple uses of the area; and (6) The extent to which scenic roads should be an essential ingredient in making the North Cascades available to large numbers of people.

AGENCY RECOMMENDATIONS

The individual agency recommendations are given in full in the appendices. They are summarized here. The purpose of this is to make available in both complete and summary form the separate views of the two agencies directly concerned in management of the Federal lands in the area. Obviously these recommendations were given careful consideration by the study team.

NATIONAL PARK SERVICE

The statement by the National Park Service appears in complete form as Appendix C. That service made the following eight recommendations:

"1. The Service proposes an enlarged Mount Rainier National Park to provide an eastside environment with visitor facilities and interpretive services developed as an integral part of the park complex. An extension to the south to include the remainder of the Tatoosh Range is also proposed.

"2. The National Park Service recommends the magnificent heartland of wild country in the Alpine Lakes and Mount Stuart and Enchantment Lakes region as a Wilderness area, which could be the core of a larger surrounding recreation region.

"3. The National Park Service recommends a National Park surrounding Glacier Peak.

"4. National Park status should be accorded that climatic Cascade country occurring from the Skagit Valley to the Canadian boundary, west of Ross Lake, embracing Mount Baker, Mount Shuksan, the Picket Range, and adjacent mountain country.

"5. East of Ross Lake a North Cascade Wilderness Area should be established to protect a primitive region that is ideal for wilderness travel and experience.

"6. In the region north and east of Glacier Peak the recreation lands are so outstanding, having, as they do, major water resources and scenic values of their own complementary to the area qualifying as a park that National Recreation Area designation is recommended there.

"7. Design and development of a system of scenic drives and parkways in the Cascades region should receive high priority.

"8. The recreational lands around Baker and Ross Lakes; those surrounding the wilderness heartland of the Alpine Lakes and Mount Stuart, and the land to the east of Mount Rainier National Park and its proposed eastward extension, are also of especial value in serving both State and out-of-State needs, and offer a wide variety of recreation opportunity. This is also true of the Okanogan Country. These areas should be given special protection and management for recreational use."

Figure 29 illustrates the following recommendations of the National Park Service in relation to existing areas dedicated for recreation:

1. Recommended extensions on the south and east sides of Mount Rainier.

2. A proposed new Wilderness area in the Alpine Lakes-Mount Stuart region.

3. A proposed extension of the Glacier Peak Wilderness Area on the western boundary.

4. A proposed new Eldorado Peaks-Lake Chelan National Recreation Area, encompassing the Eldorado Peaks High Country, a segment of the eastern shore of Lake Chelan, and extending south and west to border the north and east boundaries of the Glacier Peak Wilderness Area.

5. A proposed Okanogan Wilderness which would be essentially the same as that part of the North Cascades Primitive Area east of Ross Lake.

6. A proposed Mount Baker National Park which would embrace Mount Baker, Mount Shuksan, the Picket Range, and extending from roughly the Skagit River Valley on the south to the Canadian boundary, and east to Ross Lake.



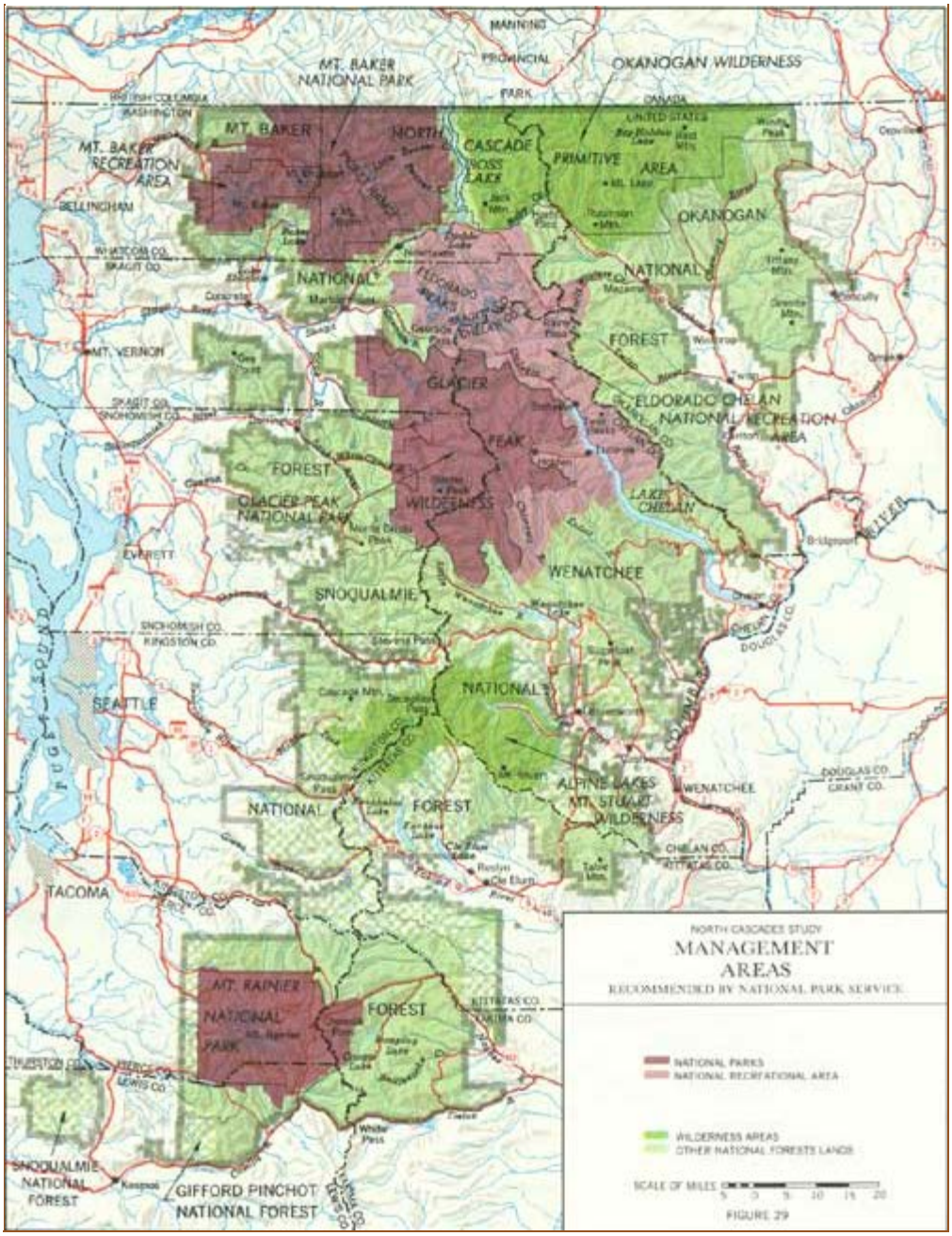


Figure 29. Management Areas Recommended by National Park Service *(click on image for a PDF version)*

FOREST SERVICE

The Forest Service views and recommendations are given in complete form in Appendix B.

The resource and land management plans of that agency call for the following 11 actions:

"1. Adding some 237,000 acres to the area of dedicated Wilderness areas as well as reclassifying the 801,000-acre North Cascades Primitive Area to Wilderness area status;

"2. Continuing the present intensive pattern of wildlife habitat management to support expanded levels of big and small game population;

"3. Maintaining and increasing levels of fishing use;

"4. Substantially expanding the number and location of developed recreation sites, including winter sports areas, organization camps, and resort facilities as well as the more numerous small camp and picnic areas;

"5. Greatly expanding the opportunity for outdoor-type mountain recreation by significant new developments in areas where main roads are projected but are not yet built;

"6. Continuing emphasis on maximum freedom of opportunity for individual recreation users to follow their recreation pursuits with the least possible limitation or restraint;

"7 Continuing to harvest the sustainable allowable annual cut of timber, with intensified cultural treatment on the good timber growing sites, and following modified principles of designating the timber to be cut adjacent to recreation areas and on all other acres where the management of the landscape is as important as the management of the timber.

"8. More water impoundment reservoirs where they are needed in the normal course of supplying water for use of Washington State residents, and intensifying efforts to manipulate vegetative cover so as to produce more water in the areas where water supplies comprise a future problem;

"9. Continued use of appropriate areas of National Forest land for domestic livestock grazing;

"10. Opportunity to continue and expand mining and mineral development in accordance with the laws Congress has enacted on this subject;

"11. Expansion of the present road system in the National Forest area to be managed for commodity production, and provision of recreation trails and some recreation-way type roads on which the road location and use will emphasize scenery and the desire of people to see it from an automobile."

The details of the Forest Service plans with respect to Wilderness areas are given in Appendix B. These include enlargement of the Glacier Peak Wilderness Area, reclassification and enlargement of the North Cascade Primitive Area, establishment of three additional Wilderness areas—Alpine Lakes, Enchantment, and Mount Aix.

In addition, the Forest Service proposes to manage certain areas with special emphasis on recreation, including Eldorado Peaks High Country, the Mount Baker Recreation Area, Mather Memorial Parkway, and the Cougar Lake Area. It proposes four recreation ways: Curry Gap, Cady Pass, Harts Pass, and Austin Pass.

With respect to the Eldorado Peaks, the Forest Service proposes:

1. To name this unit "The Eldorado Peaks High Country."

2. To manage this "High Country," the boundaries of which are shown in figure 30, in accordance with the policy directive established by the Secretary of Agriculture and referred to above.

3. To develop a system of public access and recreation use facilities.

4. To perform only such timber removal as public interest and the resource importance of the area clearly justifies, by selective cutting methods except as other systems of cutting may be required for mining, for road construction, for salvaging diseased, insect-infested, or dying timber, or for other authorized activities such as water impoundments or rights-of-way.

5. To do no additional road construction utilizing funds on authority of the Forest Service in Bridge Creek or in the Stehekin Valley.

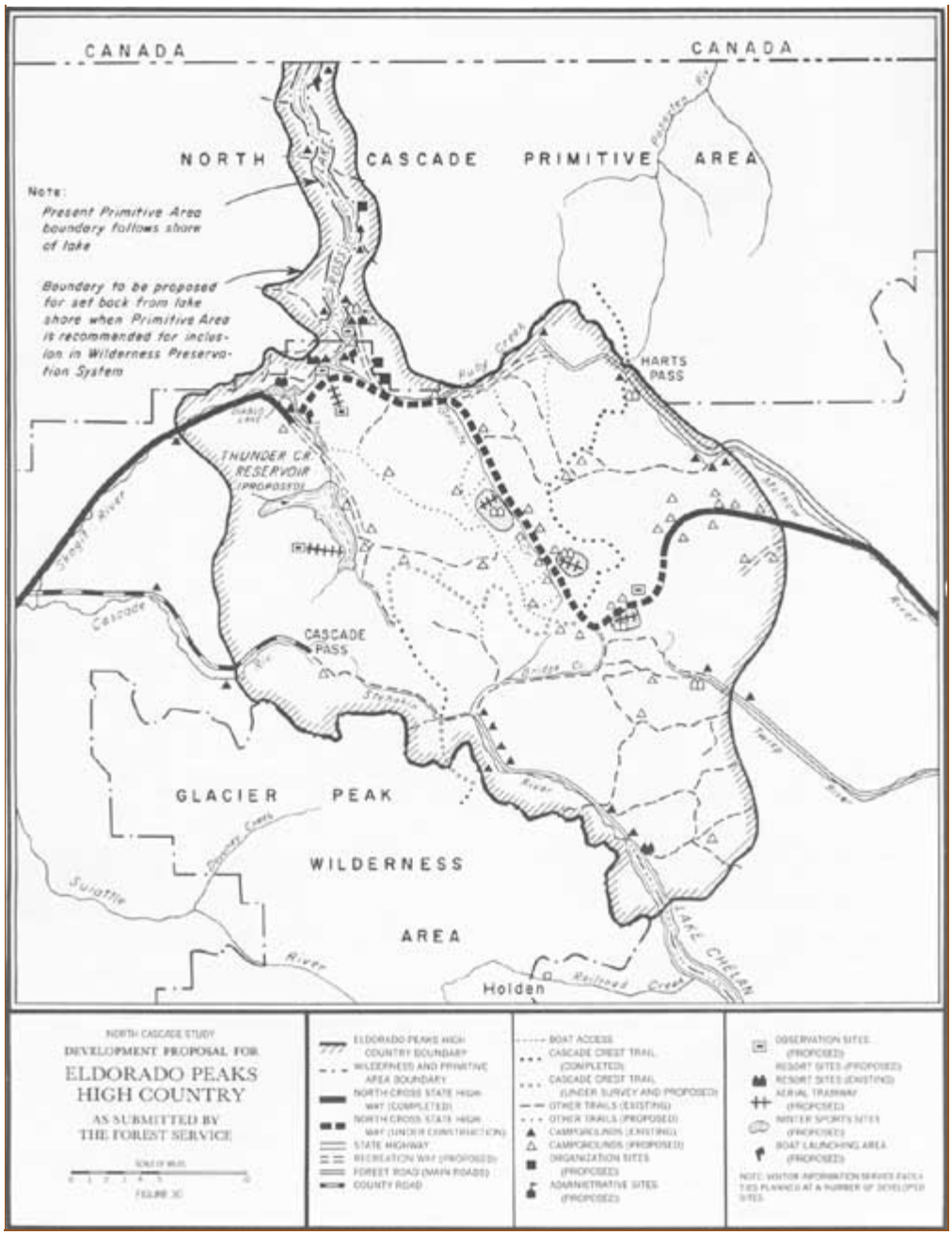


Figure 30. Development Proposal for Eldorado Peaks High Country *(click on image for a PDF version)*

Figure 31 shows Forest Service proposals in relation to existing dedicated recreation areas. These include:

1. A proposed southerly extension of Mount Rainier National Park to include 7,000 acres.

2. A new Mount Aix Wilderness Area of 45,000 acres.

3. A new Alpine Lakes Wilderness Area of 150,000 acres.

4. A new Enchantment Wilderness Area of 30,000 acres.

5. Small westerly extension of the Glacier Peak Wilderness Area in the Suiattle and White Chuck River Valleys, which would include about 10,000 acres.

6. A northeasterly extension of the Glacier Peak Wilderness Area of about 20,000 acres extending from Riddle Creek up the Stehekin Valley to Cascade Pass.[1]

---

[1]The planimetered acreages of items 5 and 6 add to 39,000 rather than 30,000 acres.

---

7. An Eldorado Peaks High Country area of 537,000 acres.

8. A new North Cascades Wilderness Area of 813,000 acres, which would be approximately the same size as the present North Cascade Primitive Area, and

9. Maintenance of the existing Mount Baker Recreation Area.

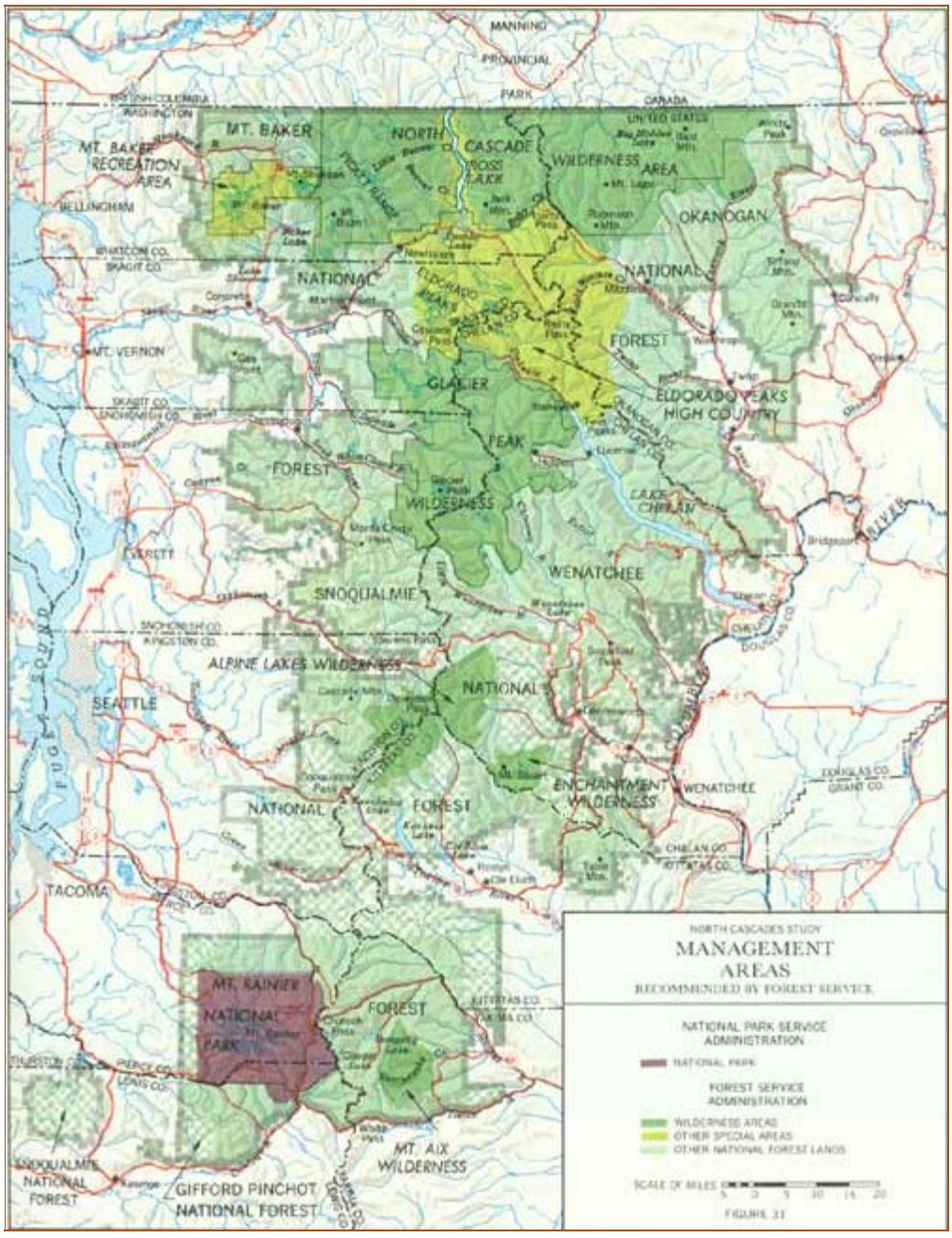


Figure 31. Management Areas Recommended by Forest Service *(click on image for a PDF version)*

HEARING RECORD

The record of public hearings that were held in October 1963 had a consequential impact on views of the study team.

After the first day of testimony at Wenatchee, it was readily apparent that as far as those appearing were concerned only two issues were involved. These were (1) whether existing administration by the Forest Service and its policy of multiple use should be endorsed and (2) in contravention to this should there be another National Park in the North Cascades and additional areas preserved in Wilderness classification.

The bulk of the testimony at Mount Vernon and Wenatchee favored continuation of Forest Service management and administration. The reasons most commonly given were that the local and State economy would be adversely affected if additional National Forest lands were put in Wilderness areas or given National Park status; that the counties would be adversely affected with regard to their portion of the 25 percent fund which they receive from National Forest revenues; and that hunting opportunities would be lost to sportsmen under National Park status.

During the hearings in Wenatchee and Mount Vernon there was testimony favoring Wilderness area and a National Park but the bulk of such views were expressed at the Seattle hearings. Substantial numbers of conservationists, professional people and individual citizens favored a park proposal, recommended protection and preservation of the scenic qualities of the North Cascades, or expressed the view that the Forest Service could not withstand the economic pressure that might be brought to bear by industry and local communities.

Despite the presence of both Forest Service and National Park Service in the area for many years, it was evident throughout the hearings that a great many citizens do not understand the management policies of the two agencies.

Of the 216 witnesses who gave oral testimony, 126 endorsed Forest Service management, whereas 87 recommended a change in policy or administration generally favoring either more Wilderness areas or creation of a National Park.

The record was held open following the hearings until November 15. Of the 2,375 statements received following the close of the hearing and before the close of the record, the ratio was about four to one in favor of establishing a National Park in the North Cascades.

Figure 32 summarizes the views received during and following the hearings.

Figure 32 Summary of testimony, both oral and written statements, including petitions, submitted for the record during and after the public hearings of October 7-11, 1963, relating to the North Cascades Study Area.

	Oral statements	Written statements	Petitions Number	Petitions Signatures
Position favoring:				
A change in policy or administration:				
A new National Park	32	1,643	2	46
North Cascades Conservation Council proposal (1)	33	156	1	67
Additional Wilderness areas	12	100		
Better protection of the area, but no specific proposal	10	68		

Total	87	1,967	3	113
A study of the potential for a National Park in the central or northern Cascades Region of Washington (2)			1,269	22,000
Continuation of present Forest Service management	126	408	6	1,875
Miscellaneous proposals	3			
All testimony	216	2,375	1,278	23,988

(1) Includes a 1,038,665-acre North Cascades National Park, and a Lake Chelan National Mountain Recreation Area of 269,521 acres contiguous with the eastern boundary of the park, both areas to be administered by the Secretary of the Interior.
(2) Petitions are dated January 1960 through May 1961.

Some 1,278 petitions carrying about 23,000 signatures were submitted to the study team. The great bulk of these, however, were petitions that were processed in 1960 and 1961 and simply recommended that a study of the potential of a National Park be made in the North Cascades. This of course is within the purview of the study team. Six petitions with some 1,875 signatures favored Forest Service management.

Of the 2,591 written or oral statements, about 90 percent were by individuals speaking for themselves. About 10 percent were on behalf of a large variety of organizations, local, State, and national. Some of these organizations have memberships running into the thousands. An indication of the kind, number, and general position of various organizational groups follows:

Classification	Number of organizations	General position
Associations of County Officials and County and Local Governmental Bodies	22	Generally favored multiple use, opposed change in administration. Some opposed more Wilderness area. Others did not. The Department of Lighting of the City of Seattle felt a National Park could be established in the backbone of the Cascades that would not violate multiple use.
Chambers of Commerce (Local)	31	Opposed creation of a North Cascades National Park and favored Forest Service administration.
Civic Clubs (Local)	7	Favored current multiple use management practices in the Study Area.
Conservation Organizations and Related Groups. Included nine national organizations, and 16 Statewide organizations. Included are the Federation of Western Outdoor Clubs; National Parks Association; Sierra Club; Garden Club of America; Wilderness Society; the Mountaineers; the North Cascades Conservation Council; the Mazamas; numerous mountain and hiking clubs, garden clubs, ski clubs, and a physicians' committee for a North Cascades National Park. State and local chapters of the national organizations sometimes testified.	49	Generally favored a National Park and additional Wilderness area.

Professional Societies Included the Society of American Foresters, plus four of its chapters, and the Pacific Northwest Section of the Society of Range Management.	2	Generally favored multiple use management and opposed limited use.
Public Utility, Irrigation and Soil Conservation Districts, and Granges	15	Generally favored a flexible program encouraging the utilization of natural resources and diversification of the State's economic base. Generally interpreted to oppose a National Park.
Schools and PTA Associations (Local)	18	Opposed a North Cascades National Park, feeling it would cut down revenues from National Forest receipts coming to schools. A few opposed conversion of the North Cascade Primitive Area to Wilderness area status.
Sportsmen's Organizations Among those going on record were the National Rifle Association, 600,000 members, 15,000 in Washington State; the National Four-Wheel Drive Association, membership not known, but about 250,000 four-wheel drive owners; the U.S. Ski Association, 4,000 members in the Pacific Northwest Division; Washington State Sportsmen's Council, 9,000 members in 115 clubs; Northwest Sportsmen's Club, 3,000 members in 26 clubs; and the Puget Sound Chapter of the Izaak Walton League.	76	Generally opposed to a North Cascades National Park and favored present Forest Service administration. A few favored additional Wilderness area. Others specifically opposed any more Wilderness area.
Trade and Industrial Associations, and Individual Businesses.	34	Trade associations, plus a few individual timber and mining companies, and a few local labor organizations favored multiple use principles of land management and generally opposed a National Park.
Units of State Government Included Washington State Game Commission, Department of Fisheries, and Power Advisory Committee of the Department of Conservation.	3	Endorsed multiple purpose development of Federal lands and expressed opposition to possibility of curtailment of hunting and fishing.
All Organizations	257	
Individuals Included individuals speaking or writing for themselves and not representing any organization.	2,334	
Grand total		

A great variety of views are expressed in the testimony, written statements and petitions. Among other things, the hearings demonstrated:

1. Widespread and deep-seated interest in the assignment of the study team and its recommendation.

2. Popular feeling that the issue could be over-simplified into a National Park or not a National Park.

3. Recognition of the controversial nature of the resource issues, but not of their complexity.

4. Most individuals who expressed themselves favored a National Park, whereas most organizations and groups with an economic interest in the resources did not.

5. The center of support for a National Park was found in the urban areas and the center of opposition in the rural areas.

TEAM RECOMMENDATIONS

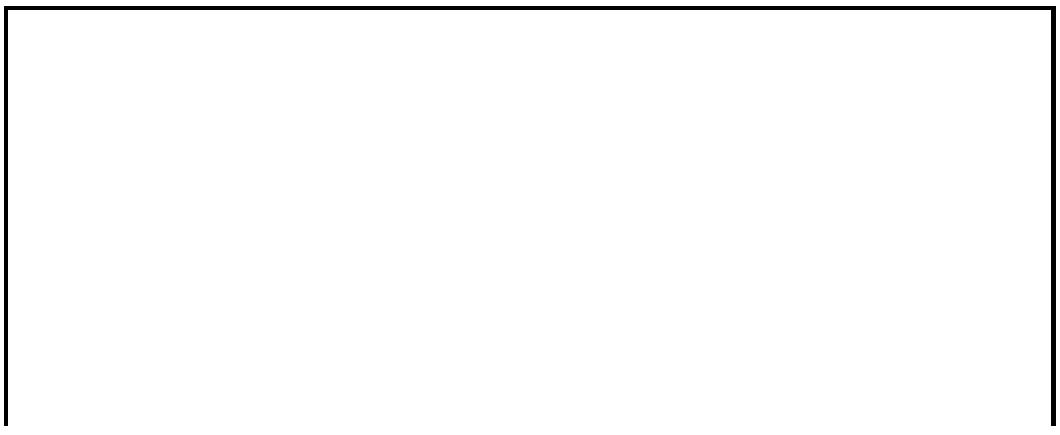
The following recommendations are grouped into seven categories: (1) Wilderness Areas, (2) North Cascades National Park, (3) Mount Rainier National Park, (4) Other Recreation Areas, (5) Scenic Roads and Trails, (6) Timber Management, (7) Other.

The following recommendations reflect the views of the chairman of the study team. Views of the other members of the team differ in some major respects and in numerous minor respects. To the extent the other team members desired to express their differing views, they appear later in the report in the individual statements prepared by the other team members. To properly evaluate the recommendations or alternative possibilities, there should be careful study of these individual views.

There are 21 recommendations. Five deal with Wilderness areas; one with a North Cascades National Park; two with Mount Rainier National Park; four with other recreation areas; two with scenic roads and trails; one with timber management; and six on other aspects of the area, including fish and wildlife, and water and power developments.

Of the 21 recommendations, 10 will require action by the Congress, and 11 may be implemented by administrative decision. Those recommendations requiring congressional action are Nos. I, II, III, IV, V, VI, VII, XIII, XVI, XVIII.

Figure 33 shows recommended new and revised management areas in relation to existing designations. This is a key map and summarizes visually a number of the major recommendations, including those relating to Alpine Lakes, Enchantment, Glacier Peak and Okanogan Wilderness areas, the North Cascades and Mount Rainier National Parks, Mount Baker Recreation Area, and the Skagit Wild River.



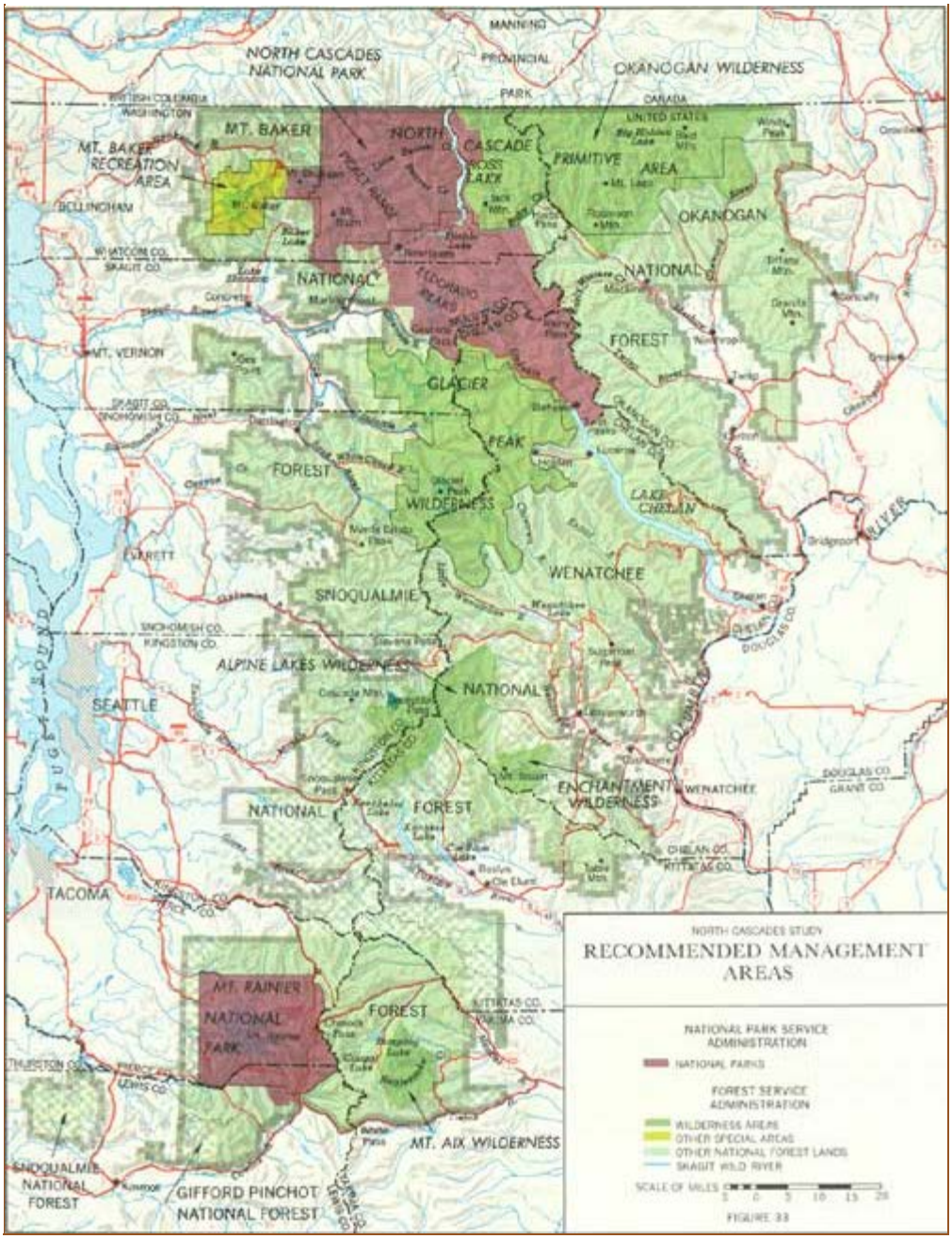


Figure 33. Recommended Management Areas *(click on image for a PDF version)*

Figure 34 shows the proposed system of scenic roads recommended by the study team. It also shows the Cascade Crest Trail.

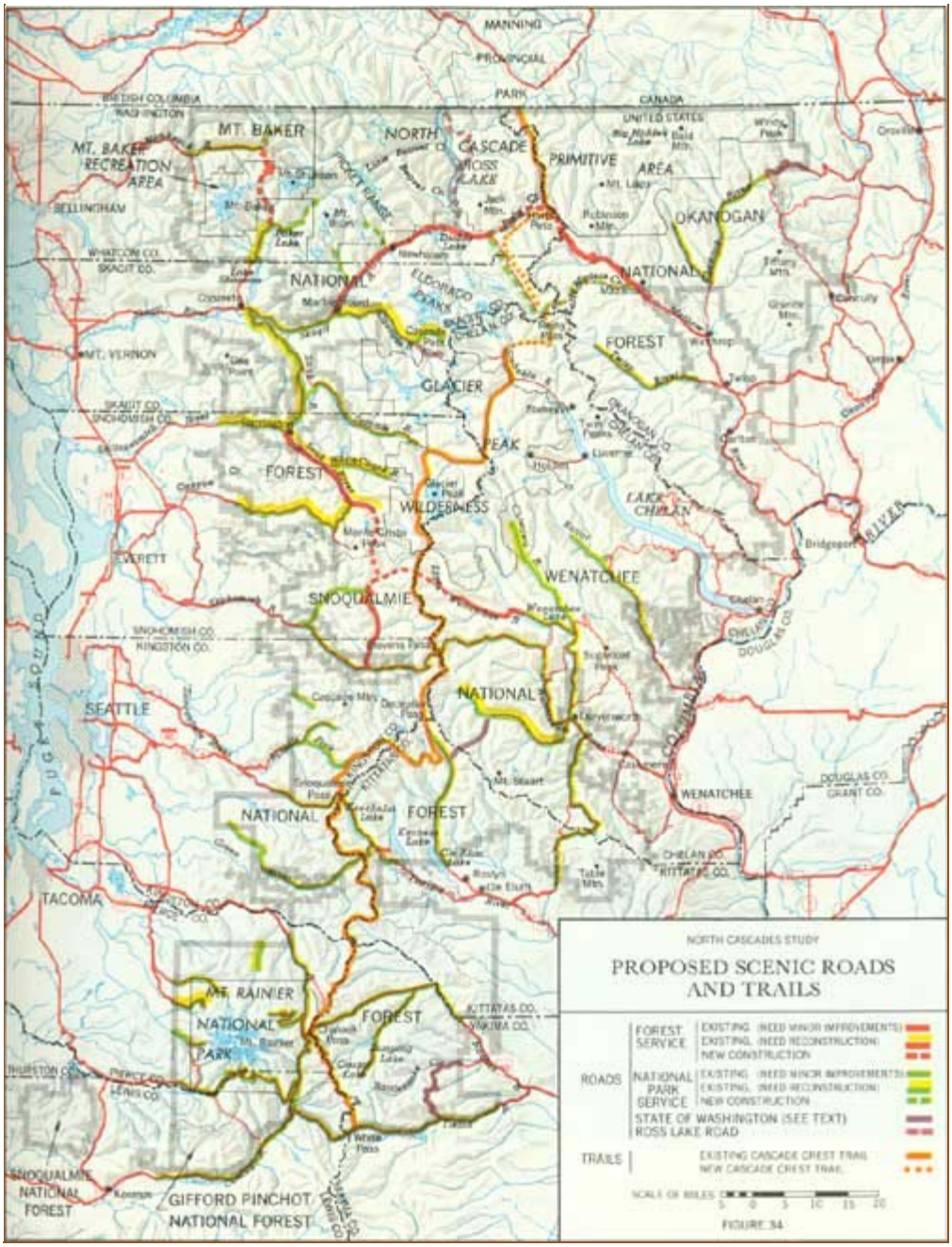


Figure 34. Proposed Scenic Roads and Trails *(click on image for a PDF version)*



Looking south to Otter, Angeline, Chetwood, Delta and Heart Lakes in the proposed Alpine Lakes Wilderness Area. See figure 33 map, page 86. (photo NPS 4214—668A)

WILDERNESS AREAS

Recommendation I. *An Alpine Lakes Wilderness Area should be established.*

On the crest of the Cascade Mountains, between Snoqualmie and Stevens Pass, is an extremely beautiful area of high mountain lakes and peaks believed to be unmatched elsewhere in the country. Much of this area has been in limited area status under Forest Service management.

The team concurs with the Forest Service proposal to create a Wilderness area of some 150,000 acres. The area clearly meets the standards for classification as Wilderness. Some additional miles of low standard trails should be developed for camping, hiking, riding, hunting, and similar wilderness pursuits.

Recommendation II. *An Enchantment Wilderness Area should be established.*

This is an area of about 30,000 acres in the Mount Stuart Range lying east of the recommended Alpine Lakes Wilderness Area. It is an area of outstanding scenic qualities, of sharp contrasts in elevation and topography, of challenging mountain climbing, and without roads.

The National Park Service recommended that the Alpine Lakes and Enchantment areas be combined into one, but the Forest Service recommended that the two areas be kept separate in order to permit better access and the development of a connecting road between Leavenworth and Cle Elum Lake via Icicle Creek, Jack Creek and the pass northwest of Ingalls Peak to Fortune Creek and down the Cle Elum River. The study team agreed with the Forest Service and recommends two separate Wilderness areas.

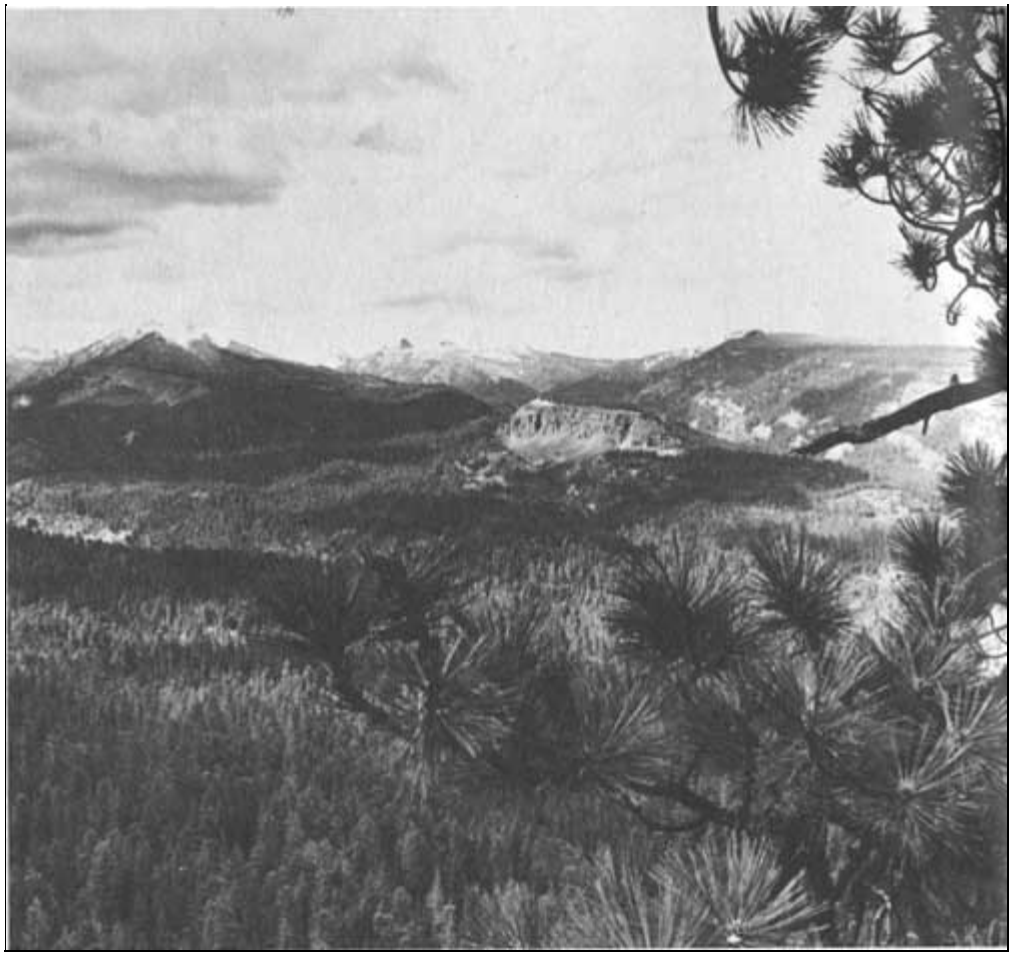


Proposed Enchantment Wilderness Area, looking west over Enchantment Lakes, Snow Creek and the Stuart Range and Mount Stuart. See figure 33 map, page 86. (photo NPS 4214—524)

Recommendation III. *A Mount Aix Wilderness Area should be established.*

About 10 miles east of Mount Rainier is an isolated group of rough ridges and clustered mountain peaks with sharp elevational contrasts, rugged beauty, and spectacular scenery. The main peaks are: Mount Aix, Bismark Peak, Rattlesnake Peaks, Timberwolf Mountain, and Ironstone Mountain. This area is located southeast of Bumping Lake.

The study team concurs in the Forest Service proposal to establish in this area a Wilderness unit of about 45,000 acres. The approximate boundaries are shown in figure 33.



Looking west from the Devil's Table across Meek's Table toward the proposed Mount Aix Wilderness Area. Mount Aix is the higher mountain to the left in the background. See figure 33 map, page 86. (photo FS 449666)

Recommendation IV. *The present boundaries of the Glacier Peak Wilderness Area should be extended in three respects: (1) the northeast perimeter should be extended to the Stehekin River, (2) the Suiattle River corridor should be adjusted, and (3) the White Chuck River corridor should be adjusted.*

The team agrees that it would be desirable to extend the boundary of the northeast perimeter of the Glacier Peak Wilderness Area to the shore of Lake Chelan in the vicinity of Riddle Creek, thence along the general vicinity of the west shore of Lake Chelan and the west side of the Stehekin River to the vicinity of Cascade Pass, thence south along the Cascade Summit to the present boundary at Trapper Mountain.

It is also recommended that the Suiattle and White Chuck River corridors into the Wilderness area be reduced by adjusting the present boundary of the Wilderness as shown in figure 33. The revised boundary in the Suiattle corridor would run from the Suiattle River at the mouth of Milk Creek north a short distance, then generally parallel to the river to a point on Sulphur Creek about a half mile upstream from the Suiattle River, then north to Downey Mountain and then west to the present boundary at Green Mountain.



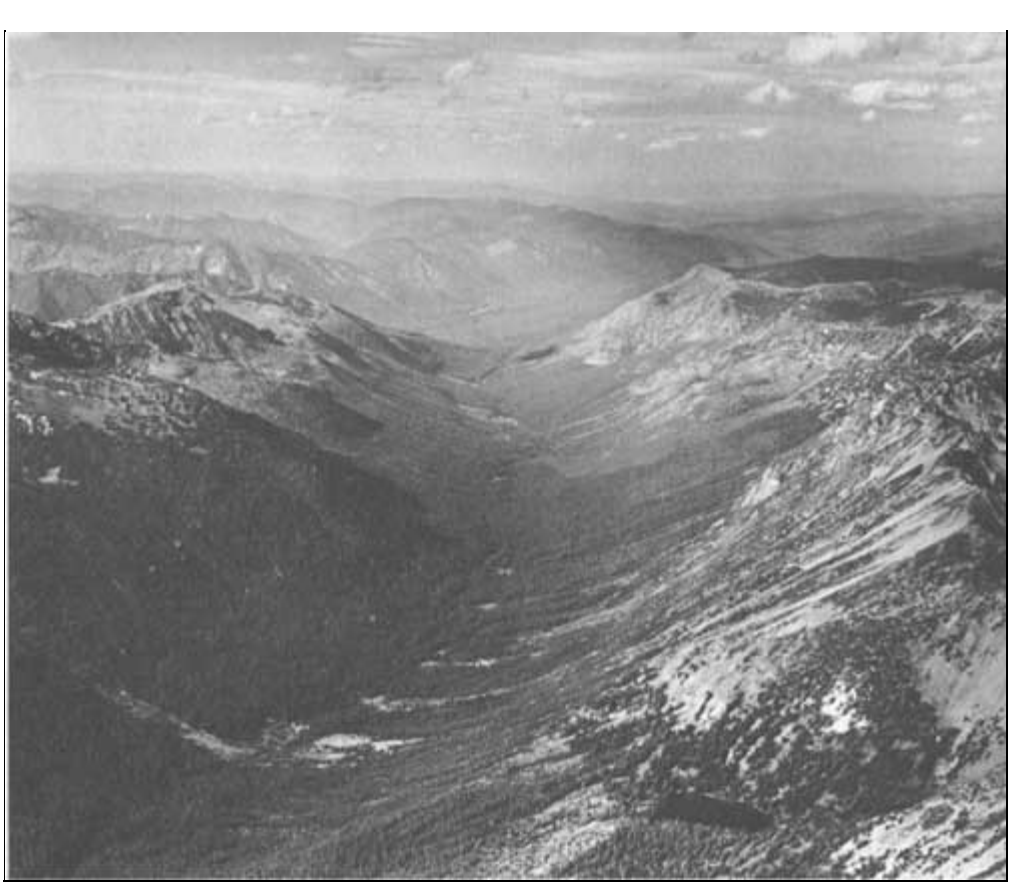
View west toward Cascade Pass across rugged country over looking the Stehekin River drainage. The area to the left is one of three proposed additions to the Glacier Peak Wilderness Area. See figure 33 map, page 86. (photo FS 64—393)

In the White Chuck River Valley, the change would move the Wilderness area boundary west about 2 miles to an irregular north-south line roughly coinciding with the mouth of Pumice Creek.

The three extensions in the Glacier Peak Wilderness Area boundary would roughly add about 39,000 acres to the present Wilderness area.

Recommendation V. *An Okanogan Wilderness Area should be established.*

This area would consist of about 495,000 acres and follow approximately the boundaries of that portion of the North Cascade Primitive Area which lies east of Ross Lake. About a township on the extreme east end of the Primitive area would be eliminated.



Aerial view looking north down the Pasayten River in the proposed Okanogan Wilderness Area. Canada is in the background. See figure 33 map, page 86. (photo NPS 421-481)

NORTH CASCADES NATIONAL PARK

Recommendation VI. *There should be established a North Cascades National Park extending from a few miles below the head of Lake Chelan, northwestward including the Eldorado Peaks area, Thunder Creek and Granite Creek drainages, Ross and Diablo Lakes, the Picket Range, and generally that part of the North Cascade Primitive Area lying west of Ross Lake, and Mount Shuksan. A condition of the recommendation is that adequate access be developed by road, trail, water, and air, including aerial tram and helicopter. A second condition is that the enabling legislation retain the status quo with respect to distribution of National Forest receipts between affected counties.*

This recommendation is not unanimous among the team. Representatives of the Department of Agriculture do not favor establishment of another National Park in the area. Representatives of the Department of the Interior favor a new National Park, but propose different boundaries and would include Mount Baker. The varying views of the team members are subsequently expressed.

The recommendation to establish a North Cascades National Park is conditioned upon development of adequate facilities and means of entry so that the large numbers of park visitors can have access to the spectacular and majestic mountain scenery, snow fields, glaciers, and other attractions of the North Cascades. Means of access must not be limited by the National Park Service to the traditional roads and trails. This area calls for more imaginative and creative treatment, utilizing helicopters, trains, perhaps funiculars and narrow-gage railroad. The recommendation is also conditioned upon noninterference with the needs of Seattle City Light on Ross and Diablo Lakes.

Enabling legislation should include provisions to maintain the status quo of the present proportionate distribution of National Forest receipts among affected counties.

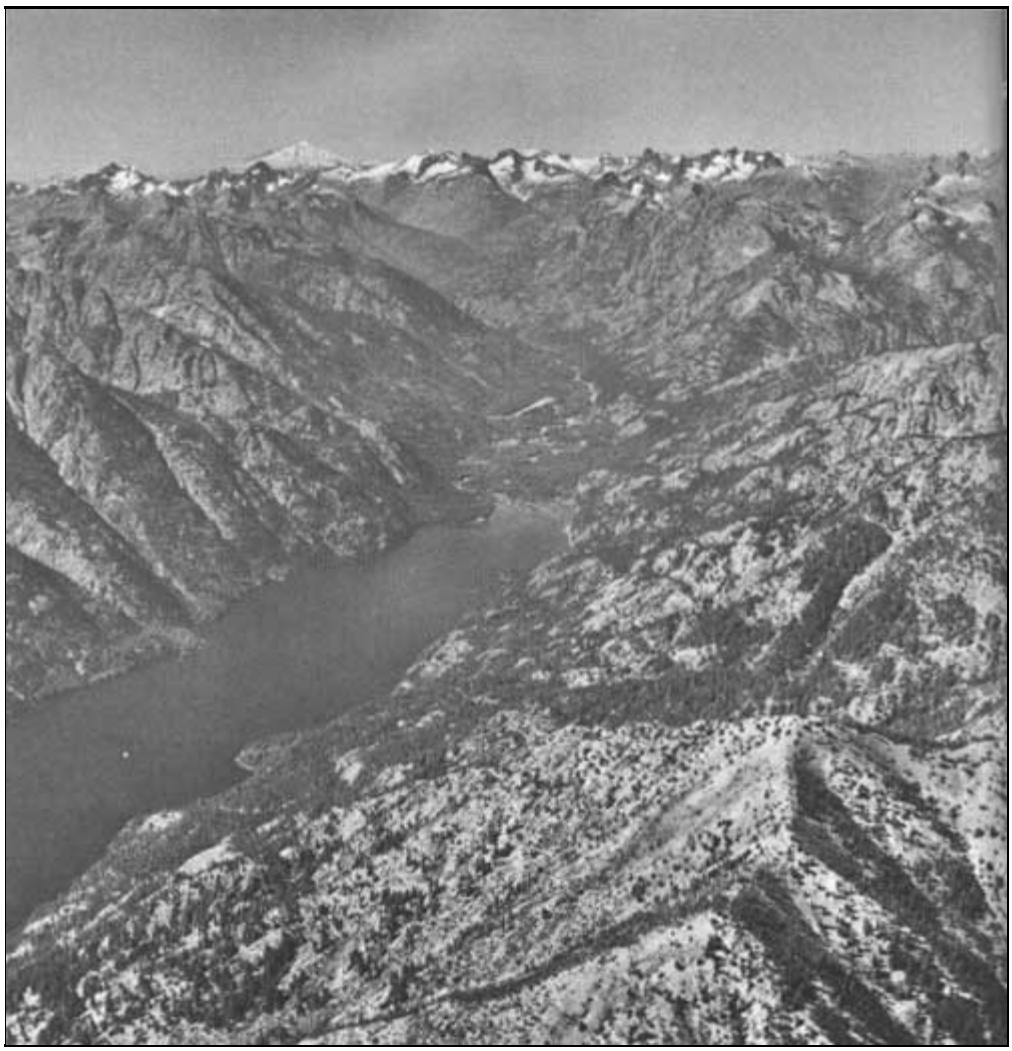
The question of a National Park in the North Cascades has recurred for many years and is undoubtedly the most controversial of the issues involved. A park, or not a park, is the crux of the questions which have faced the study team.

Description of Area

There is no question as to the physical qualifications of the area for National Park status. This is not at issue. The Eldorado Peaks area, the Picket Range, Mount Shuksan, the upper part of Lake Chelan, the Stehekin River, and Thunder and Granite Creek valleys are undisputed as to their uniqueness and scenic grandeur.

The recommended area is not the same as any previous National Park proposal. Yet, it is recommended by both the Forest Service and the National Park Service as primarily of value for recreation.

The recommended North Cascades National Park would encompass about 698,000 acres, of which 15,000 acres would be water surface, primarily Ross and Diablo Lakes and a portion of Lake Chelan. Of the total area, 658,000 acres, 94 percent, is already dedicated primarily to recreation: 314,000 acres are in the North Cascade Primitive Area, 329,000 acres in the Eldorado Peaks High Country, and 15,000 acres in Mount Baker Recreation Area (fig. 36).



The upper end of Lake Chelan. The center and right background areas lie in the proposed North Cascades National Park. The steep slopes on the left are in the proposed extension to Glacier Peak Wilderness Area. See figure 33 map, page 86. (photo FS 64—388)



Spectacular Eldorado Peaks in the proposed new National Park. These peaks currently are in the Eldorado Peaks High Country, managed by the Forest Service for general recreation purposes. See figure 35 map, page 92. (photo NPS 4214-507)



Portion of proposed North Cascades National Park, taken from above Ross Lake. Silver Lake, the Chilliwack Range, Mount Redoubt, and Mount Shuksan can be identified. See figure 35 map, page 92. (photo NPS 5307—47)



Rugged Picket Range peaks north of the Skagit River in the proposed north Cascades National Park. The Pickets are now in the North Cascade primitive Area. See figure 35 map, page 92. (photo NPS 5307—53)



Glacial formations blanket the top of Mount Shuksan, part of the area proposed for the North Cascades National Park. Lakes in the distance are on the Baker River outside the proposed National Park. See figure 35 map, page 92. (photo FS 64—426)

The proposed National Park would be created from portions of the Mount Baker and Wenatchee National Forests. Eighty-two percent is presently part of the Mount Baker National Forest, and 18 percent is part of the Wenatchee National Forest. Sixty percent of the land is in Whatcom County, 22 percent in Skagit County, and 18 percent in Chelan County (fig. 36).

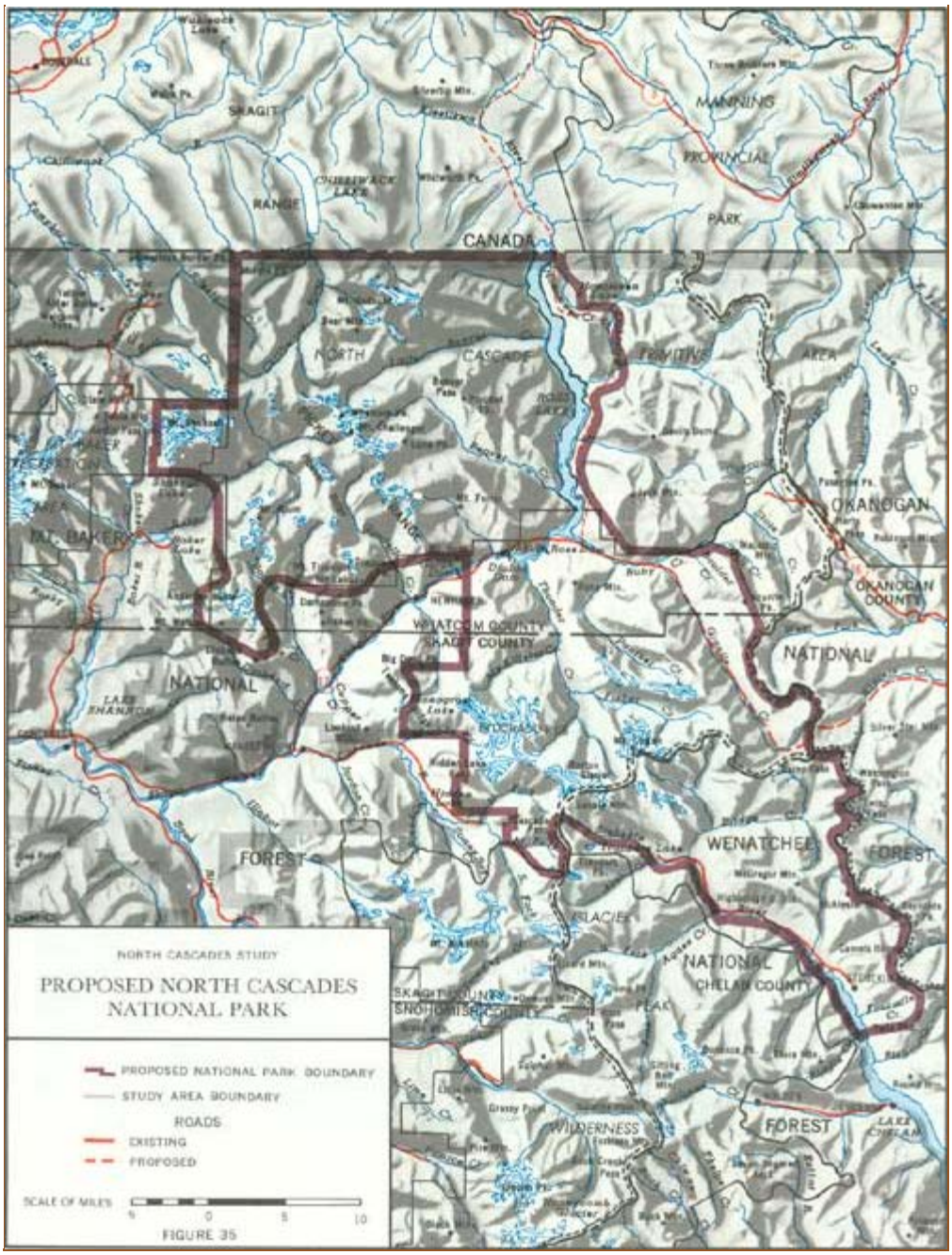


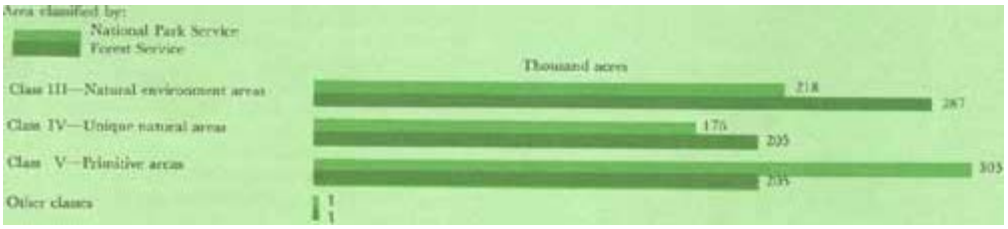
Figure 35. Proposed North Cascades National Park. *(click on image for a PDF version)*

Figure 36 Area of the proposed North Cascades National Park, by land and water areas, by National Forest by county, by present land status.

	Thousand acres	Percent
Water area	15	2
Land area	683	98
Total gross area	698	100
National Forest and county:		
Mount Baker National Forest:		
Whatcom County	416	60

Skagit County	160	22
Wenatchee National Forest:		
Chelan County	122(1)	18
Total	698	100
Present status of lands in proposed National Park:		
Eldorado Peaks High Country	329	47
North Cascade Primitive Area	314	45
Mount Baker Recreation Area	15	2
Other National Forest land	40	6
Total	698	100

(1) This acreage is in the Chelan Ranger District which was made a part of the Wenatchee National Forest as of July 1, 1965, by Executive Order 11220 of May 6, 1965. Prior to that time it was part of the Okanogan National Forest.



The specific area proposed is shown in figure 35. It is described in more detail as follows, but it should be made clear that the indicated boundaries and description are reasonable approximations and are not necessarily firm as to detail.

> Start at the mouth of Riddle Creek on Lake Chelan. Thence northwestward along the west shore of Lake Chelan and following the Stehekin River drainage up to High Bridge Guard Station, thence on up the Stehekin River to Cascade Pass along the line of the proposed revised Glacier Peak Wilderness Area boundary, southward along the new Wilderness area boundary from Cascade Pass to Spider Mountain.
>
> Thence, northwest along the Wilderness area boundary approximately to the South Fork of the Cascade River, northward about 2-1/2 miles, then west 3 miles across the North Fork of the Cascade River, northward 3 miles along a line 1 mile west of Hidden Lake and Hidden Lake Peaks, continuing north across the head of Sibley Creek, thence west 4 miles down and across Marble Creek, north 2 miles and just west of Monogram Lake, thence following Teebone Ridge to Big Devil Peak, east 4 miles and thence north 6 miles to junction with the Skagit River east of the Gorge Dam, continuing north 1 mile.
>
> Thence west to Mount Ross, continuing southwest to Trappers Peak, just south of Thornton Lakes to Damnation Peak, thence west to the headwaters of Bacon Creek, south along Falls Creek to Diobsud Buttes, thence northwest along Diobsud Creek to just east of Mount Watson, thence north about 9 miles to a point about 1-1/2 miles northeast of Shuksan Lake, thence west to Shuksan Creek, thence north 5 miles across the west slope of Mount Shuksan.
>
> Thence east 5 miles to the west boundary of the North Cascade Primitive Area; thence north 9-1/2 miles to the Canadian boundary, thence east to about 1/2 mile east of Ross Lake, thence south approximately 1 mile; thence easterly and southerly about 1/2 mile east of Hozomeen Creek and Hozomeen Lake; then east about 2-1/2 miles to Lightning Creek; thence southerly and westerly about 1/2 mile east and south of Lightning Creek to a point about 1/2 mile east of

Ross Lake.

Thence south along a line approximately 1/2 mile east of Ross Lake to Ruby Creek, east along the present boundary of the North Cascade Primitive Area to the junction of Mill Creek and Ruby Creek, thence south along the Majestic Mountain dividing Mill Creek and Boulder Creek to junction just west of Azurite Pass with the Okanogan and Skagit County line, thence southward following this line to its junction with the Chelan County line.

Thence generally southward following the Okanogan-Chelan County line, crossing Twisp Pass, McAlester Mountain, Reynolds Peak, Camels Hump, War Creek Pass to Splawn Mountain, then generally westward along the ridge between Fourmile Creek and Fish Creek, crossing Twin Peaks and westward to Lake Chelan and crossing the Lake to the point of beginning at Riddle Creek.

If suitable administrative facilities for the northwest portion of the National Park cannot be found within the proposed park boundary, a small additional area should be made available in the Nooksack Valley west of the proposed park boundary.

Over 99 percent of the land area is federally owned. There are small acreages of private lands at the lower end of the Stehekin River Valley. These should be acquired by the National Park Service. There are some privately owned lands, largely patented mining claims, at the head of Thunder Creek just north of Boston Glacier and other small areas in the vicinity of Cascade Pass.

Diablo and Ross Dams would be within the recommended park. The Gorge Dam and powerhouse are outside the area. Any bill to create a National Park should permit the continued operations of the Seattle City Light on the main stem of the Skagit River within the park boundaries, including Ross and Diablo Lakes.

Resources

In considering the National Park proposal, it is essential to understand what resources would be included within the park.

The proposed park area of 698,000 acres has been classified by both the Forest Service and the National Park Service according to the recreation management classes recommended by the Outdoor Recreation Resources Review Commission (fig. 37). Although the agencies differ somewhat in their application of these criteria, there is general agreement upon classification of 25-30 percent of the proposed park as unique natural areas, 30-45 percent as Primitive areas, and 30-40 percent as natural environment areas.

Figure 37 Area of proposed North Cascades National Park, by ORRRC outdoor recreation resource management classes, Forest Service Landscape Management classes, and forest and non-forest areas.

ORRRC outdoor recreation resource class	Area classified by National Park Service		Forest Service	
	Thousand acres	Percent	Thousand acres	Percent
Class III—Natural environment areas	218	31	287	42
Class IV—Unique natural areas	176	25	205	29
Class V—Primitive areas	303	44	205	29
Other classes	1	(1)	1	(1)
Total	698	100	698	100

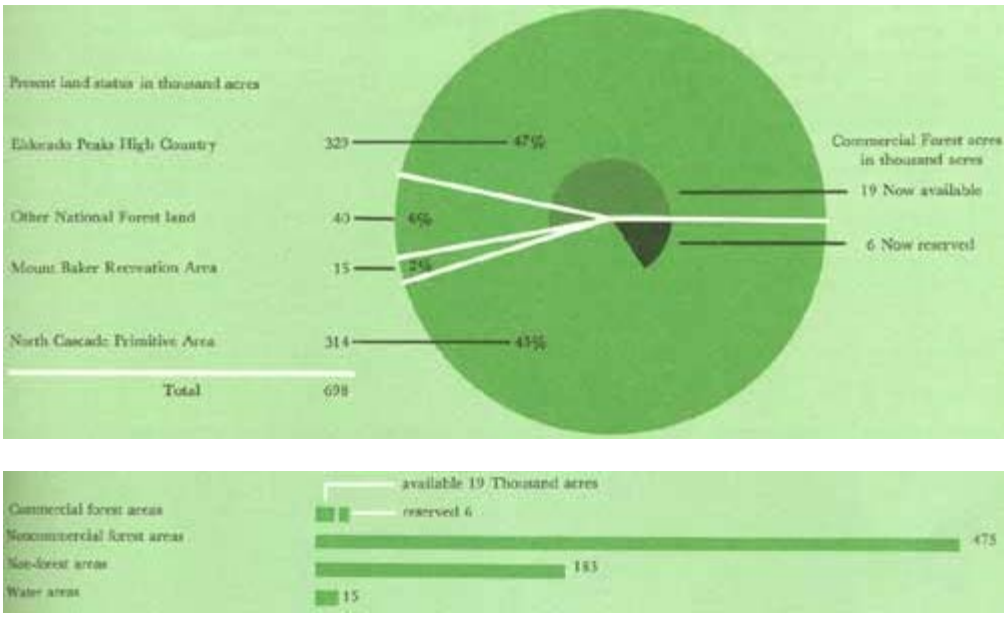
(1) Less than 0.05 percent.

Forest Service Primitive, Landscape Management, and other areas

	Thousand acres	Percent
North Cascade Primitive Area	314	45
Landscape Management Areas and Alpine Resource Association	327	47
Other land areas	42	6
Water area	15	2
Total	698	100

Forest and non-forest areas

	Thousand acres	Percent
Commercial forest land areas:		
Area open to commercial timber cutting	19	3
Area closed to commercial timber cutting	6	1
All commercial forest land areas	25	4
Noncommercial forest land areas	475	68
Non-forest land areas	183	26
Water area	15	2
All areas	698	10



The classifications by the two agencies are shown graphically in figures 38 and 39.

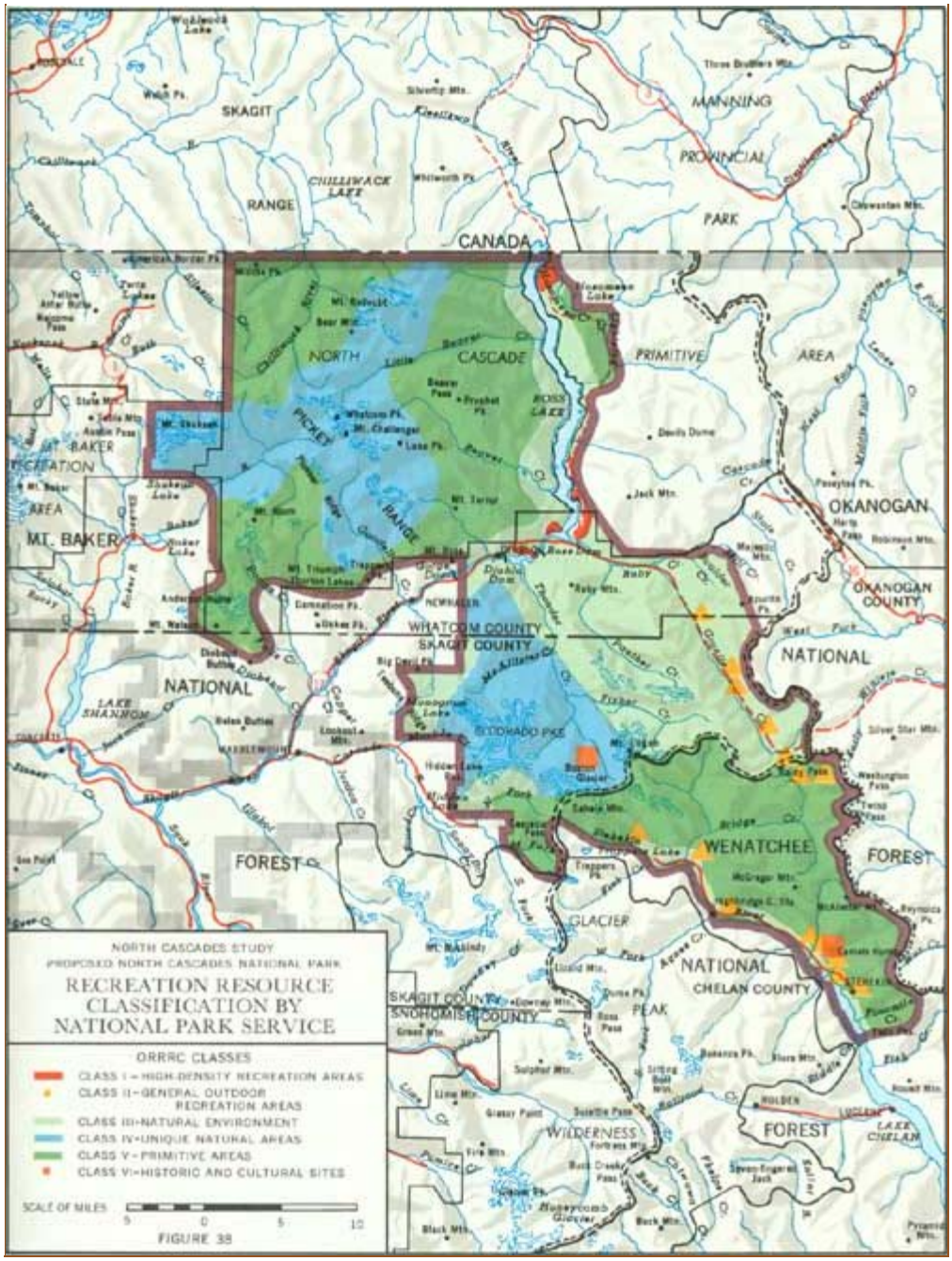


Figure 38. Recreation Resource Classification by National Park Service. *(click on image for a PDF version)*

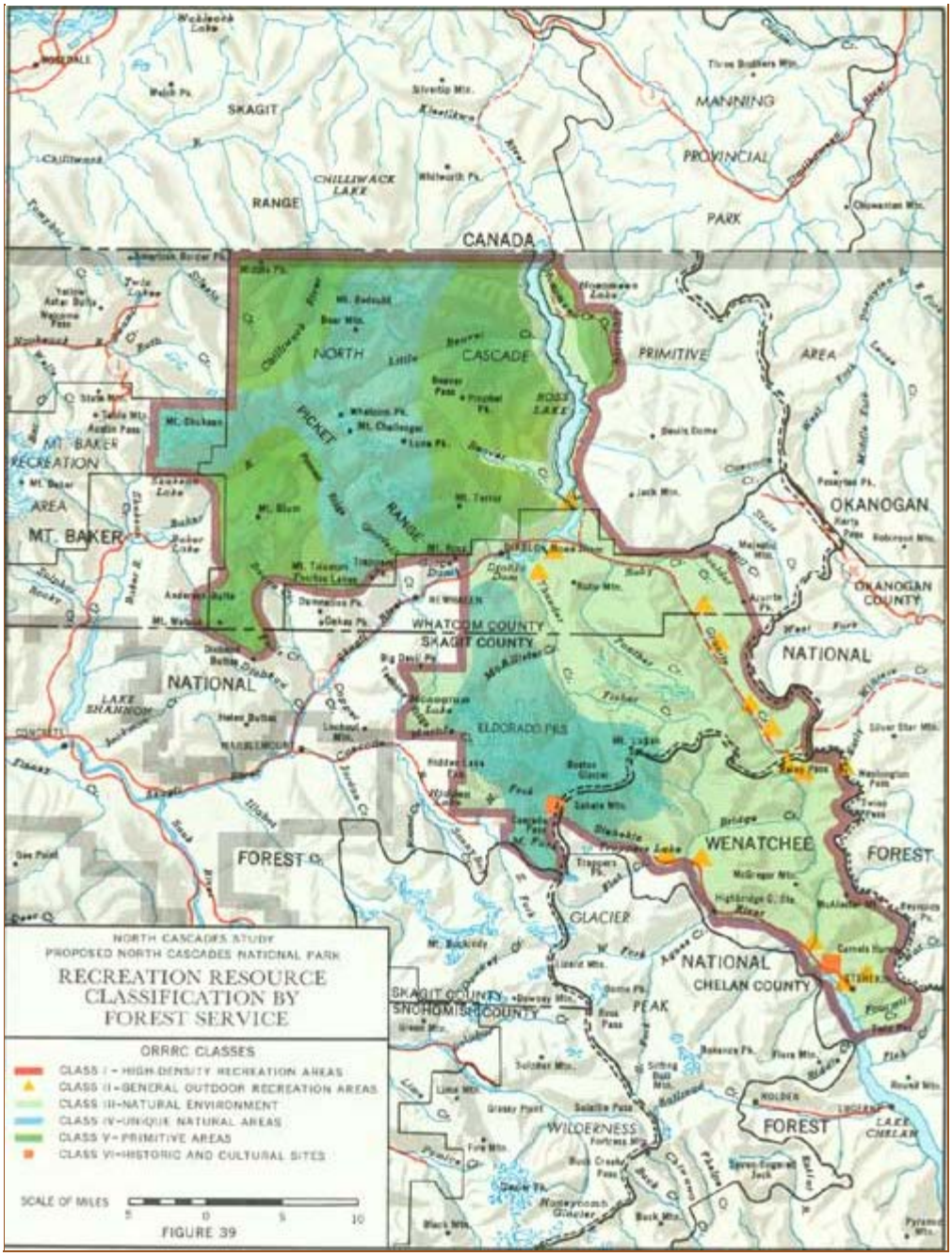


Figure 39. Recreation Resource Classification by Forest Service. *(click on image for a PDF version)*

A further classification of the resources has been made according to the Forest Service high mountain policy statement. This shows that in addition to the 314,000 acres now in the North Cascade Primitive Area, some 327,000 acres are classified either in the landscape management areas under all four associations, or in the residual portion of the Alpine association. This leaves only 42,000 acres not subject to the special type of management applied by the Forest Service to Alpine and to landscape management areas. The classification of the proposed park according to the resource management associations of the Forest Service appears in figure 40.

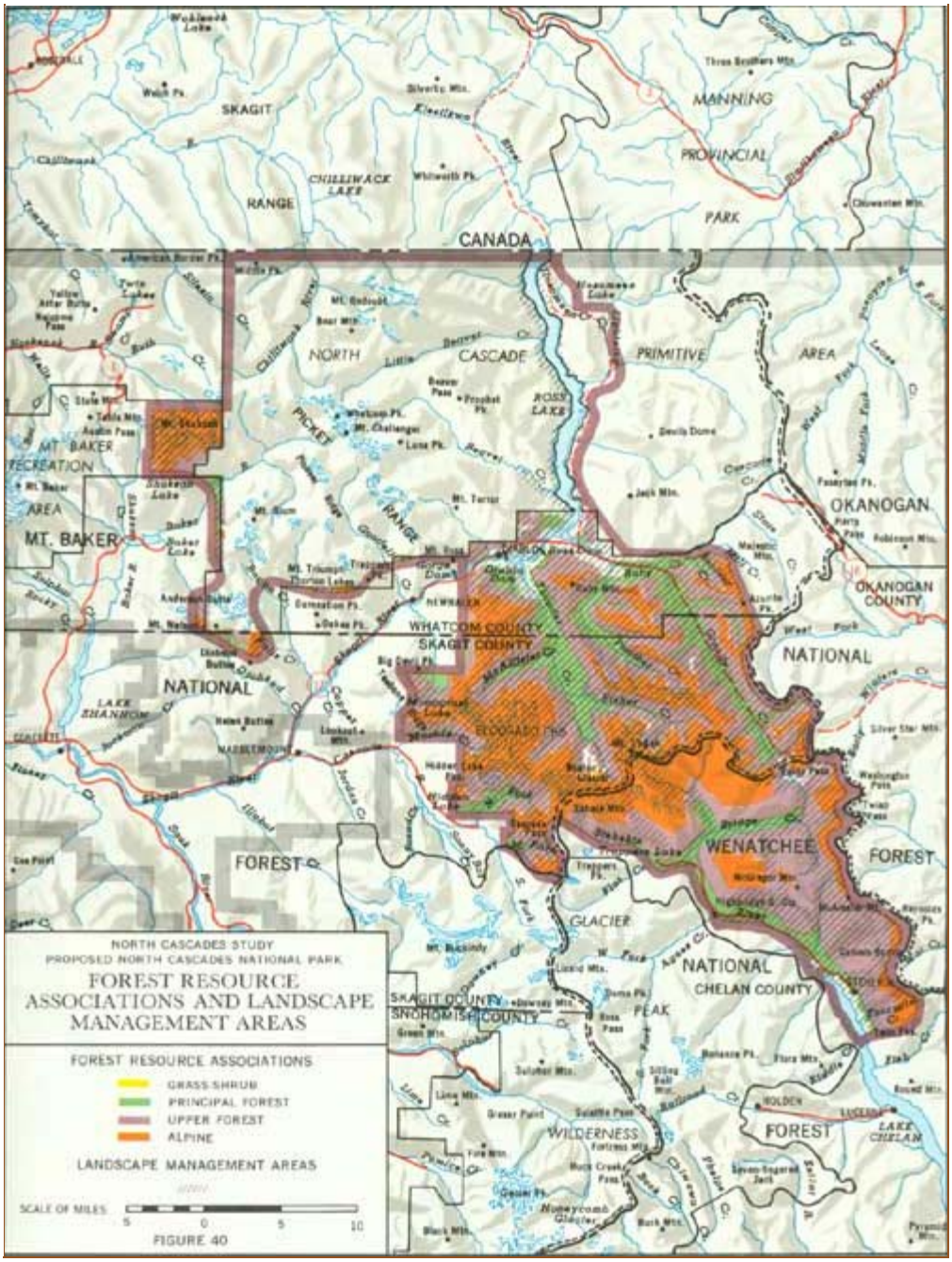


Figure 40. Forest Resource Associations and Landscape Management Areas. *(click on image for a PDF version)*

The significance of this is that 92 percent of the proposed park area is already classified by the Forest Service as having primary recreation, soil and watershed values (fig. 37).

Of the 683,000 acres of land in the proposed park, only 3 percent, or 19,000 acres, is commercial timber land now available that would be reserved. Some 6,000 additional acres of commercial forest land is included in that portion of the North Cascade Primitive Area which would be made part of the park. This is already reserved (figs. 37 and 41).



Landscape management area in State Creek Valley classified by the Forest Service as having primary recreation, soil and watershed values. The valley lies within the proposed National Park. Of 683,000 acres of land in the proposed park, only 3 percent is now commercial timber land available for harvest. See figure 40 map, page 99. (photo FS 64—402)

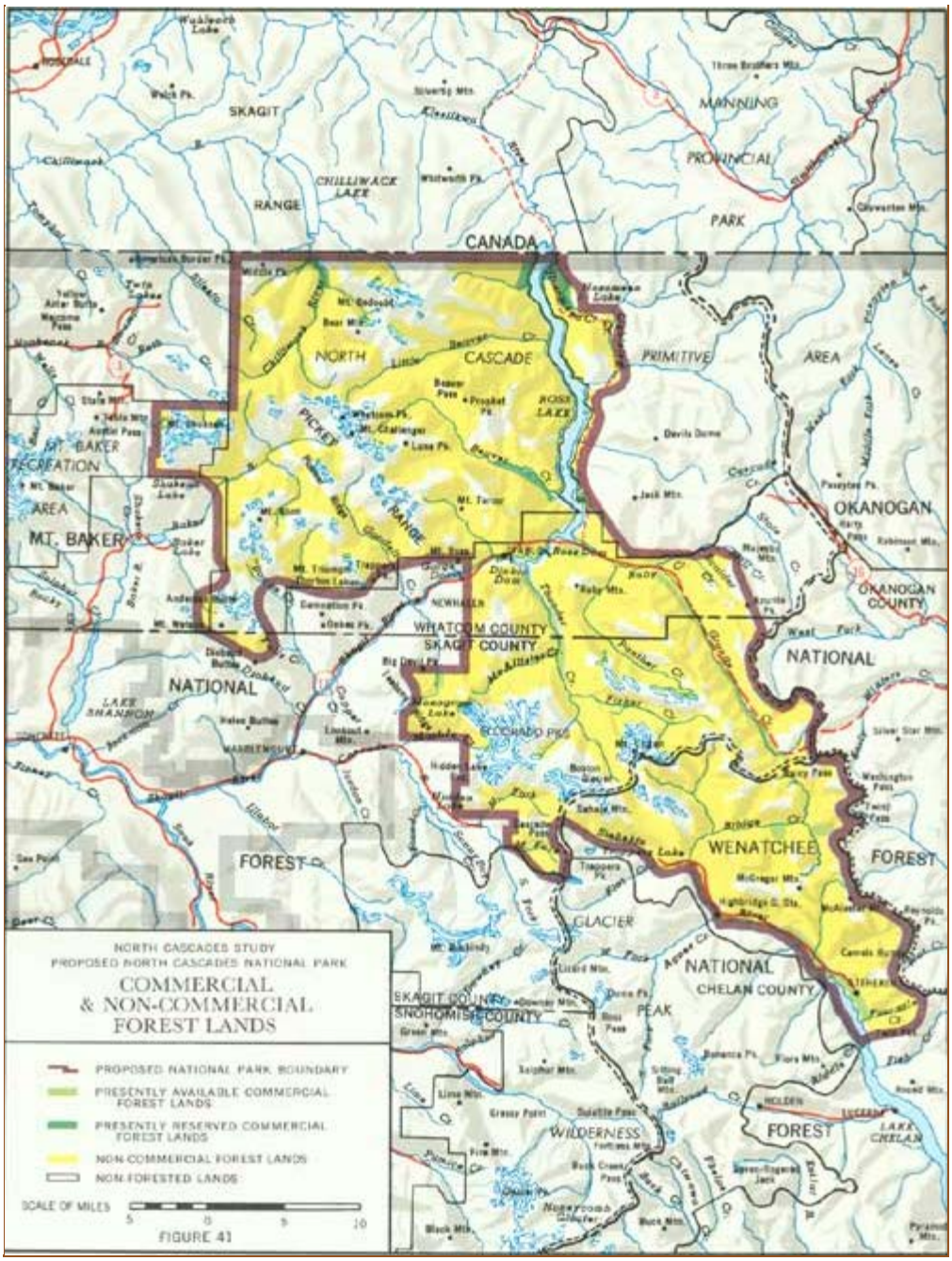


Figure 41. Commercial & Non-Commercial Forest Lands. *(click on image for a PDF version)*

The available commercial forest land consists of narrow stringers located primarily in three localities: along Granite Creek, Thunder Creek, and the Stehekin River. The reserved commercial forest land is in small parcels bordering Ross Lake and near the Canadian line along the Chilliwack River.

If the average stand per acre of currently available commercial forest land is estimated at about 19,000 board feet per acre, this means that about 355 million board feet would be included in the park that would otherwise be available. This is less than half of 1 percent of the total sawtimber volume available in the Study Area.[1]

---

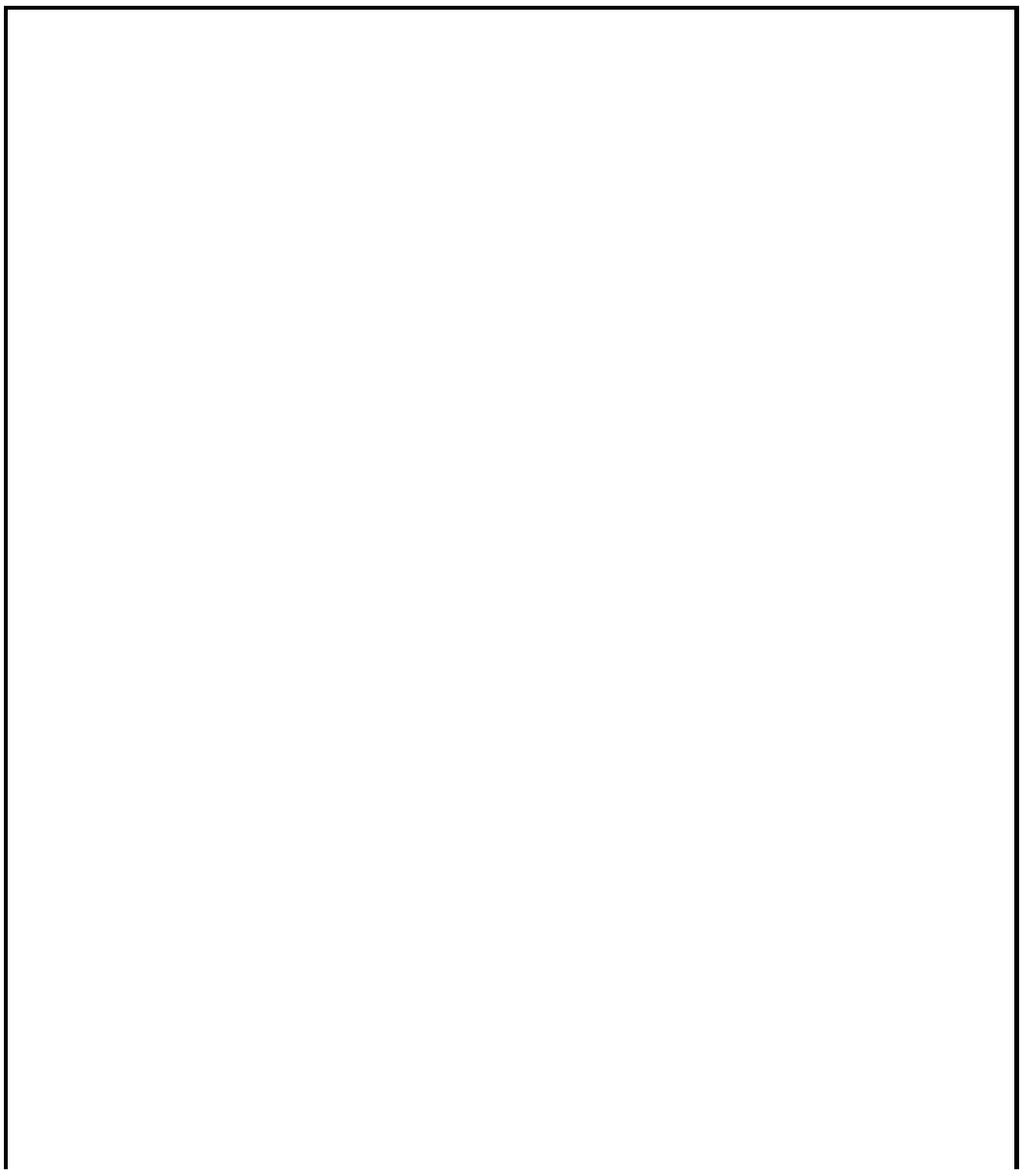
[1]More complete discussion of recommended changes in reserved areas in relation to acreages involved, commercial forest land, and sawtimber volumes is included in the section on economic impacts.

Two-thirds of the recommended park, 475,000 acres, is noncommercial forest land and about 28 percent is nonforest, meaning grasslands, Alpine meadows, bare rock and snow and ice fields (figs. 37 and 41). The large acreage of noncommercial forest is so classed due to steep slopes, fragile soils, poor quality, or inaccessibility.

A very few—less than 10—small timber sales have been made in the Stehekin River drainage by the Forest Service, but these have either been completed or are inactive at the present. No additional sales are planned. No timber sales are planned in Thunder Creek, Granite Creek or Panther Creek through fiscal year 1967. There are no other timber sale plans in the area.

All of the available commercial timberland in the proposed park falls within the landscape management classification of the Forest Service and in the Eldorado Peaks High Country area wherein, according to the Forest Service, only such timber removal would be performed "as public interest and the resource importance of the area clearly justifies by selective cutting methods except as other systems of cutting may be required for mining, for road construction, for salvaging diseased, insect-infested, or dying timber, or for other authorized activities, such as water impoundments and rights-of-way."

The proposed National Park would include seven grazing allotments and parts of two others. However, all of these allotments are closed except part of the Stehekin River Cattle Allotment. About 14,000 acres of this one allotment are in the proposed park. The closed or vacant allotments total about 45,000 acres (fig. 42).



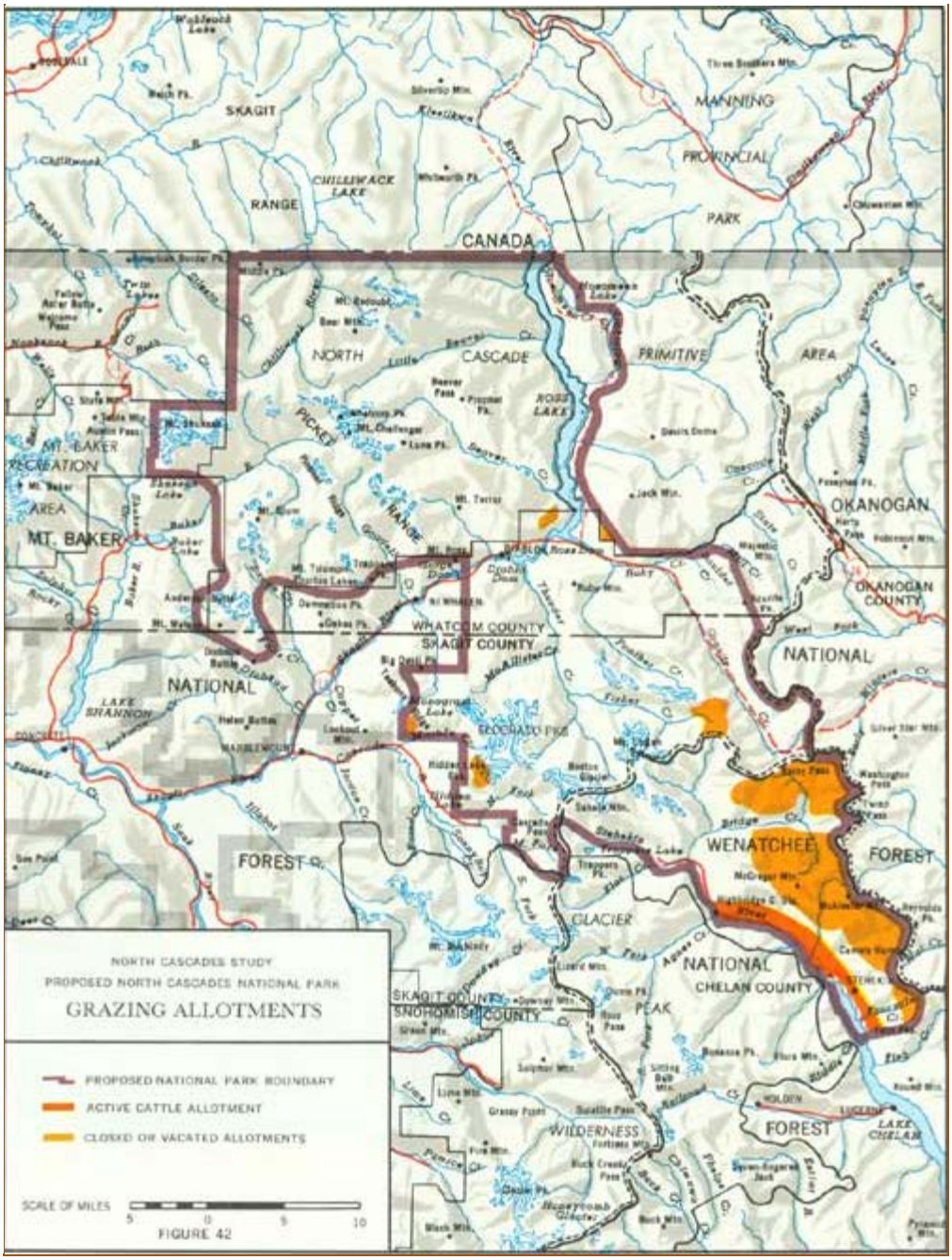


Figure 42. Grazing Allotments. *(click on image for a PDF version)*

With respect to potential reservoir sites, the most significant one in the proposed park is the Thunder Creek dam and power site. This dam, if constructed by Seattle City Light, would inundate about 1,500 acres, most of which is commercial timberland. The Copper Creek proposal of the same company is well outside the proposed park and above the recommended Wild River segment of the Skagit. A proposal to raise the height of Ross Dam by 125 feet would inundate a substantial additional acreage but would not significantly affect in an adverse manner the National Park proposal if drawdowns are minimized or controlled. Existing and potential reservoir development projects within the park are shown in figure 43.

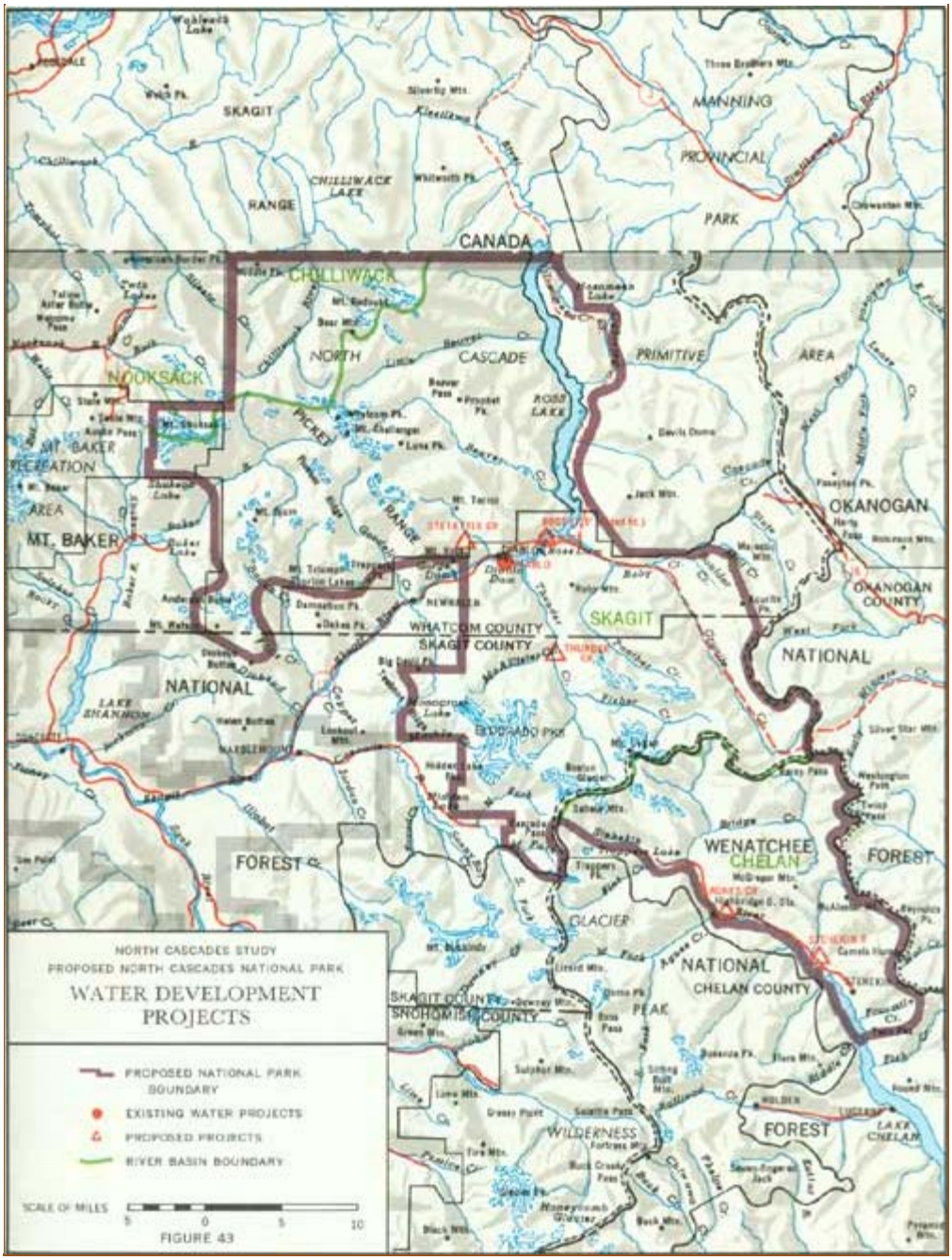
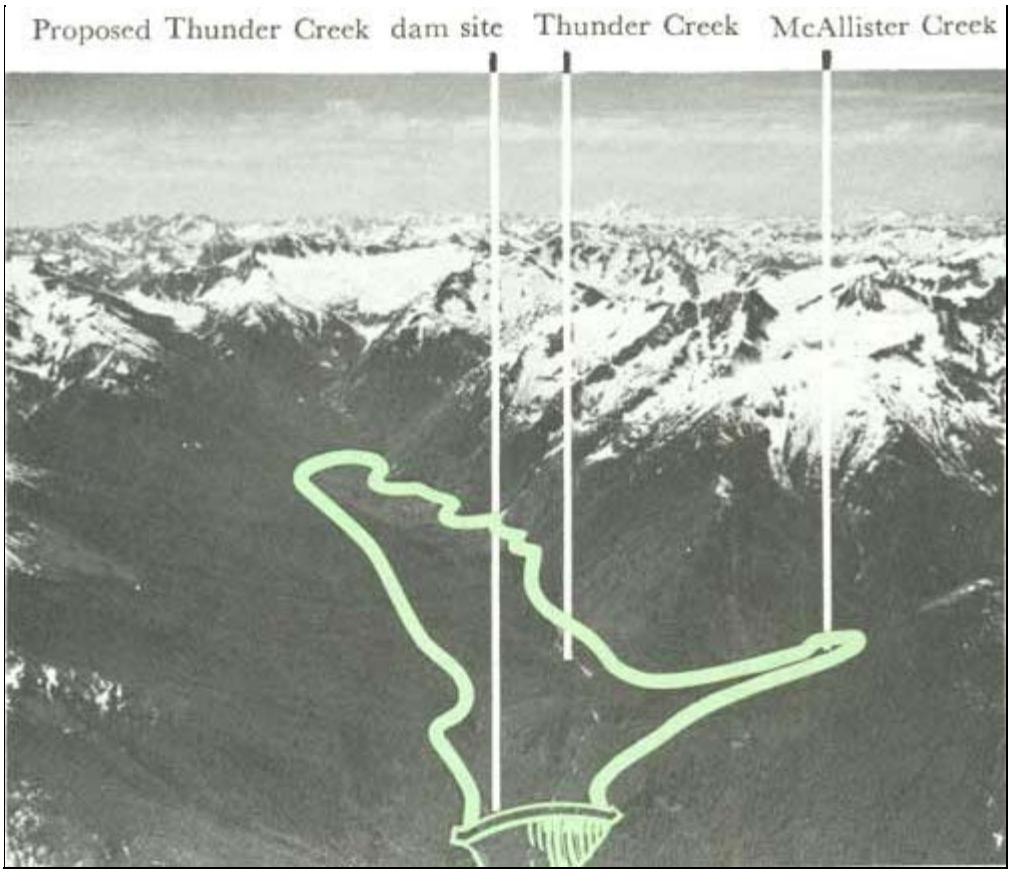


Figure 43. Water Development Projects. *(click on image for a PDF version)*

There is no real way to assess the mineral potential in the proposed National Park. It is known that there are a large number of mining claims, both within the North Cascade Primitive Area portion and the southeastern portion in the Cascade Pass-Stehekin River-Ruby Creek area. Many of the claims are very old and have never been active.



A potential dam site on Thunder Creek just below its junction with McAllister Creek, shown on the right. If constructed, the project would inundate about 1,500 acres of commercial timberland. See figure 43 map, page 103. (photo FS X—7)

Fishing would not be affected because fishing, habitat development, and stocking are allowed in a National Park.

The proposed park includes substantial areas of deer and elk winter range along the shores of Ross and Diablo Lakes and up Thunder Creek. There is also a substantial acreage of deer and elk winter range in the area between Mount Redoubt and Whatcom Peak in the North Cascade Primitive Area.

The area proposed for a park is mountain goat range. There is no question but that hunting of deer, elk, and mountain goats would be adversely affected. Figure 44, based on the study team's fish and wildlife resources report indicates, however, that there are no major hunting areas within the proposed park.

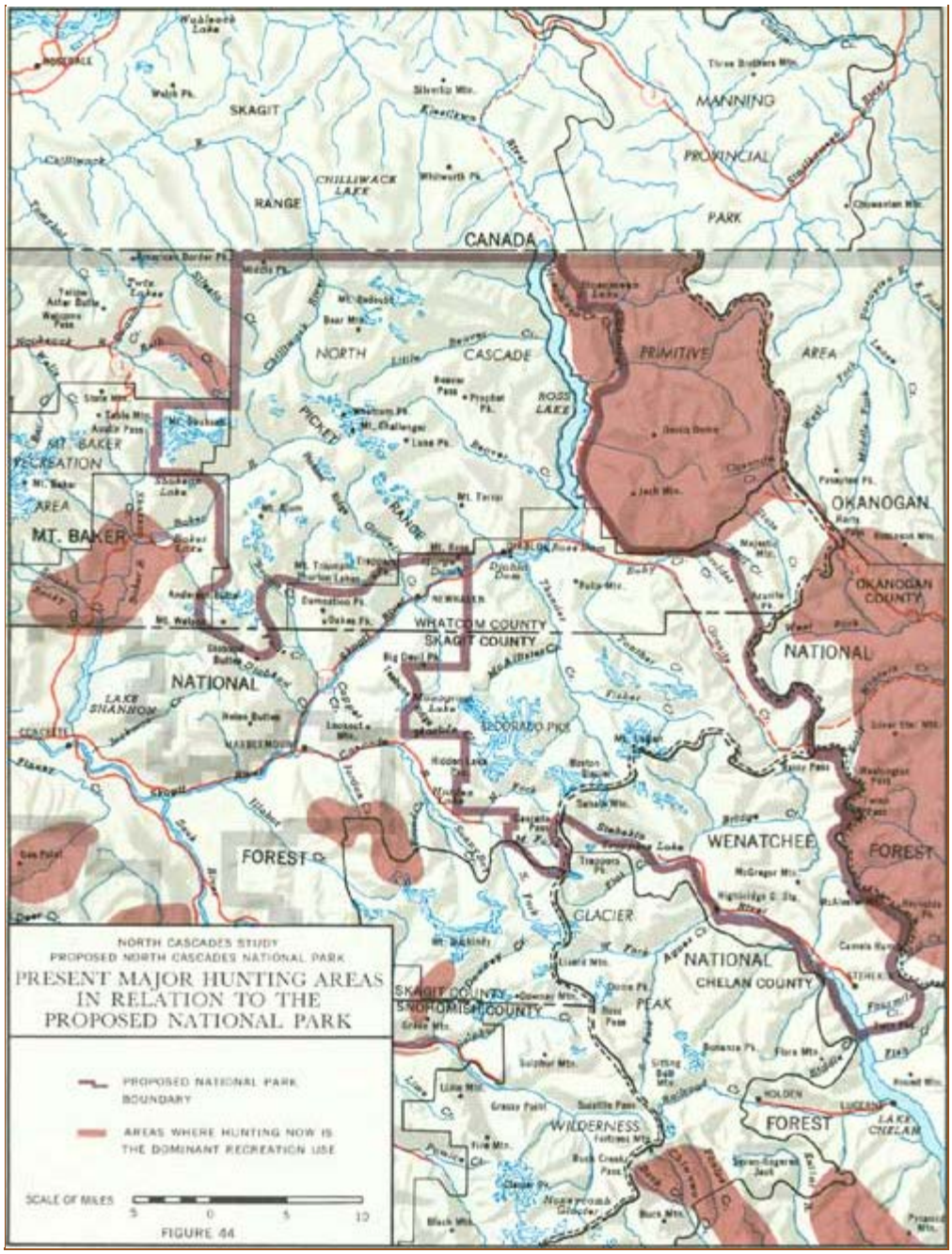


Figure 44. Present Major Hunting Areas in Relation to the Proposed National Park. *(click on image for a PDF version)*

Of the 285,000 Washington State big game hunters, about 25 percent, or 70,000—75,000, hunt in the total Study Area. Eighty percent of these are deer hunters. Perhaps 500 to 600 are goat hunters.

There is no known way of estimating what proportion of the hunters who use the Study Area would cease to hunt because of establishment of the park. The probable effect would be to increase the hunting load in the remainder of the Study Area, rather than to reduce the number of hunters. Since the number of big game is greater than the supply of summer feed, the effect might be to accelerate the over-utilization of summer feed by big game in the proposed National Park and thus create feed supply problems similar to those which have occurred in some other National Parks.



Trout fishing on Ross Lake, one of the key recreation resources of the proposed North Cascades National Park. Plans to raise its dam by 125 feet, while backing water up over substantial additional acreage, would not significantly affect the park proposal if drawdowns were minimized or controlled. See figure 43 map, page 103. (photo NPS Y—4)

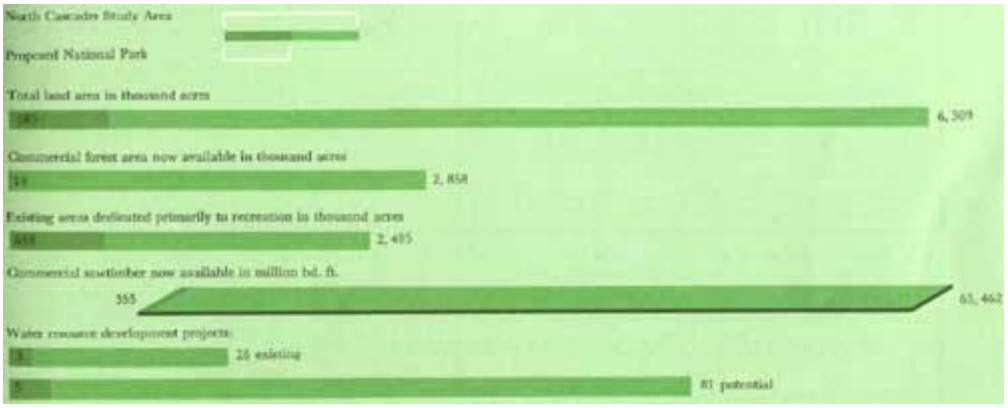
The relationship of some significant features of the proposed National Park to the total Study Area is shown statistically and by chart in figure 45.

Figure 45 Relation of the proposed North Cascades National Park to the North Cascades Study Areas by total land area, available commercial forest areas and sawtimber, ORRRC recreation resource classes, area dedicated primarily to recreation, and existing and potential water resource development projects.

	Unit of Measure	North Cascades Study Area		Proposed North Cascades National Park		Percent of Study Area in proposed Park	
Total land area	Thousand acres	6,309		683		11	
Commercial forest area now available	Thousand acres	2,858		19		(1)	
Commercial sawtimber now available	Million bd. ft.	65,462		355		(2)	
ORRRC outdoor recreation resource classes: (3)		NPS	FS	NPS	FS	NPS	FS
Class III—Natural environment areas	Thousand acres	2,140	5,457	218	287	10	5
Class IV—Unique natural areas	Thousand acres	606	367	176	205	29	56
Class V—Primitive areas	Thousand	1,637	1,176	303	205	19	17

	acres						
All other classes or unclassified	Thousand acres	2,688	71	1	1	(4)	1
Existing areas dedicated primarily to recreation	Thousand acres	2,495		658		26	
Water resource development projects:							
Existing Number		26		3		12	
Potential Number		81		5		6	

(1) Two-thirds of one percent.
(2) One-half of one percent.
(3) As classified by the National Park Service (NPS) and the Forest Service (FS). Acreage includes non-Federal areas.
(4) Less than 0.05 percent.



The park would include about 11 percent of the Study Area, but less than 1 percent of the available forest land and less than 1 percent of the available sawtimber. It would include about one-fourth of the areas presently dedicated to recreation and very significant proportions of the unique natural and primitive areas found in the Study Area.

Agency Plans for the Area

Neither the Forest Service nor the National Park Service has specific plans applying precisely to the the area recommended for inclusion in a National Park because the proposal is not one that has been previously advanced. However, both agencies do have plans that apply to some extent.

Forest Service

About 314,000 acres of the recommended park are in what is presently the North Cascade Primitive Area. Under Forest Service plans, this portion would continue to be administered by the Forest Service as Wilderness area in accordance with provisions of the Wilderness Act. A detailed discussion of this area concerning its natural resource features, its timber and cover types, its recreation use, grazing, mineral and wildlife resources, and proposed boundary adjustments appears in a "Report on Proposed North Cascades Wilderness Area of February 6, 1962," prepared for administrative use only by the Pacific Northwest Region of the Forest Service.

About 329,000 acres is included in what the Forest Service would define as the Eldorado Peaks High Country. This area plus roads, trail, and development facilities is shown in figure 30. Forest Service plans for the administration of the area are described in some detail in Appendix B, including statistics on highways, trails, recreation, fish and wildlife, timber, forage and water power.

National Park Service

The National Park Service recommends a Mount Baker National Park which is quite different from the recommendation contained herein for a North Cascades National Park. Preliminary plans for visitor access include roads, helicopter areas, trains, boats, trails, visitor centers, lodges, and major campgrounds. These plans are shown diagrammatically in figure 46.

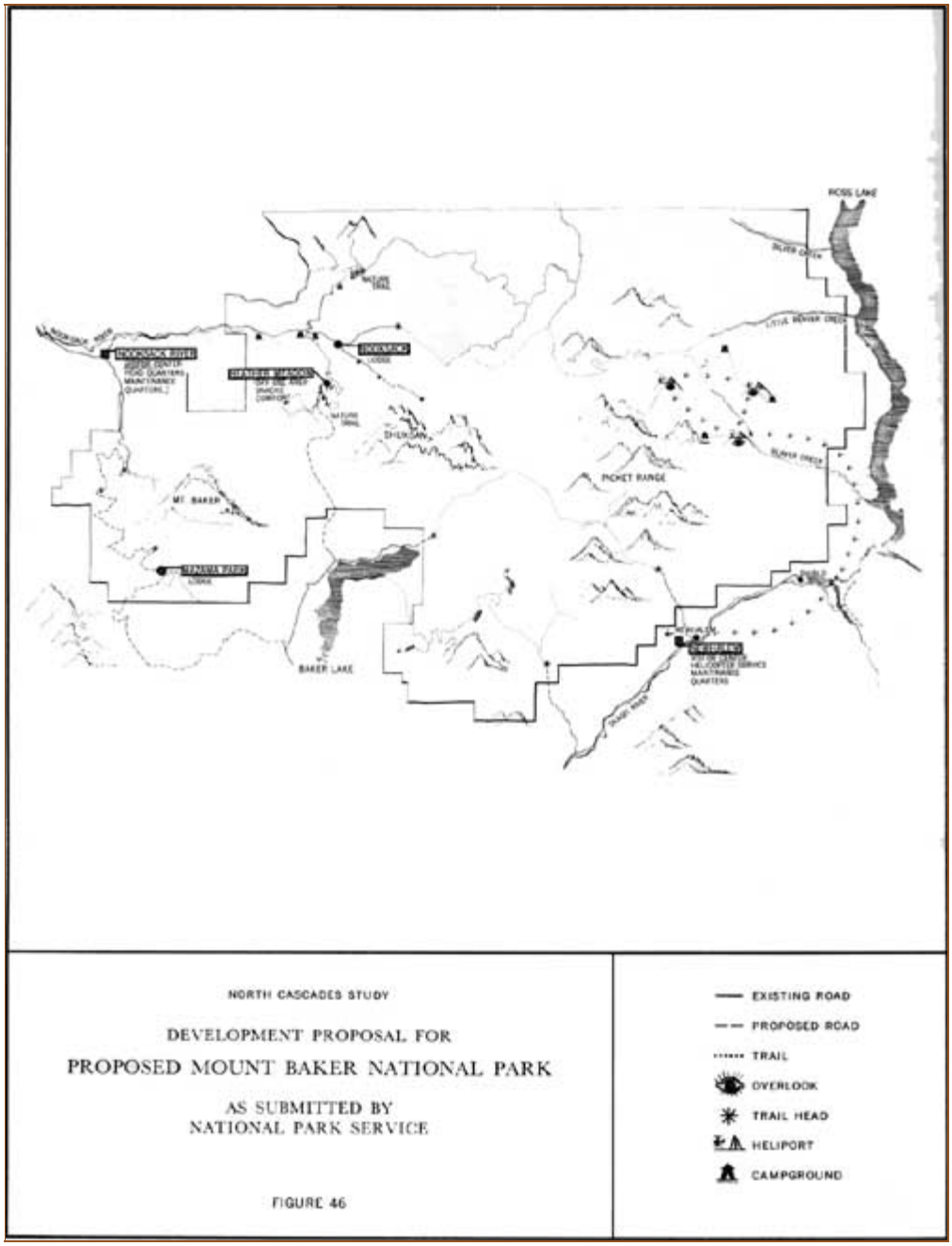


Figure 46. Development Proposal for Proposed Mount Baker National Park. *(click on image for a PDF version)*

One of the conditions prerequisite to recommending a North Cascades National Park is that adequate access and use facilities be developed by the National Park Service in the area. This is intended to include that portion of the proposed park which is now within the North Cascade Primitive Area. Figure 46 does not adequately reflect this concept. The National Park Service development plans for the park should contemplate better access into the northern part of the park.

Major Considerations in Recommending a National Park

A great many factors were considered in arriving at the conclusion to recommend a National Park. Among these were the physical characteristics of the area, the need for making the area available to significant numbers of people, the minimal adverse impact on resources such as timber, the economic benefits that would accrue from the establishment of a Park, the value of a National Park name, and the relationship of the park proposal to the other recommendations.

The sum total of the recommendations needs to be evaluated as a package rather than simply as a question of having a National Park or not. The recommendations are interrelated and interdependent.

Insofar as physical features are concerned, the question of whether the North Cascades area meets National Park criteria is not debatable. The area obviously includes the unique physical, natural or geological features necessary to qualify for National Park status. More than this, the proposed park would become one of the outstanding units of the whole National Park System because of its superlative mountain features.

One of the key considerations was that the recommendation for a park be conditioned upon its being developed for mass recreation use and that adequate access be provided by road, trail, water and air. The North Cross-State Highway under construction will provide main access from both east and west. Lake Chelan will provide a unique avenue of access. Ross and Diablo Lakes will provide unique access to certain portions of the Park. Side roads are contemplated where feasible. A scenic road is recommended down the east side of Ross Lake to provide major highway access from Canada.

One of the most significant justifications for a National Park is that under Forest Service management about one-half of the area would be in Wilderness status where now only about 1,000-2,000 people visit per year. Under the National Park proposal, this area would be made available to large numbers of people who either do not wish, are unable, do not have the time, or cannot afford wilderness-type travel.

The volume of wilderness area use in the Study Area indicates that despite the very large area devoted to Wilderness, relatively few people make use of these areas.

It is also important to bear in mind that additional Wilderness areas are proposed, such as the Alpine Lakes, Enchantment, Mount Aix, and some expansion of the Glacier Peak Wilderness. It is felt that there will be sufficient area dedicated to Wilderness in the North Cascades and that it is more important to dedicate the superlative and unique character of this area for National Park use and development, rather than to place more lands into the Wilderness category.

The establishment of a park would have little or no adverse effect on the utilization of timber, grazing of domestic livestock, or fishing. There is very little commercial timber in the area and it is not being operated at present.

There is no significant mineral development in the proposed park area.

With respect to water and power, it is recommended that the park be established in such a way that it will not interfere with the development of the water and power potential of the affected portion of the main stem of the Skagit River.

The question of a Thunder Creek dam and reservoir should be determined by the Congress either at the time the park is created or at a later time when and if the project becomes imminent.

The creation of a National Park by act of Congress not only would give the area statutory protection for park purposes but also could, if the Congress so wished, provide status quo with respect to distribution of National Forest receipts among counties, assure that modern means of aerial access would be utilized by the Park Service to get people into the area for day or weekend trips, and protect foreseeable needs for water and power development.

The Forest Service could continue its administration of the area as it has in the past and in accord with its

plans for the future. However, under Forest Service administration, there would not be the statutory assurance that there would be under creation of a park by the Congress.

Likewise, under Forest Service administration, much of the area is planned for continued Wilderness area use and would be inaccessible to most people.

Both the Forest Service and the National Park Service are competent, highly respected, and dedicated agencies. Despite the great advances made by the Forest Service in recent years in recreation matters, the National Park Service properly is recognized as the agency which should administer and develop the extraordinary, unique and outstanding National Park-type areas of the Nation.

With the establishment of the proposed National Park, the area would be transferred to the administration of the National Park Service. This loss of jurisdiction by the Forest Service should not be a controlling factor in Forest Service evaluation of the recommendation. However, the study team recognizes that jurisdictional questions may be a controlling factor in influencing agency position. Despite possible jurisdictional feelings because both agencies are aggressive and jealous of the areas under their control the fact remains that there would still be a Mount Baker National Forest of 1,255,000 acres even with the creation of a National Park. Likewise, there would still be a Wenatchee National Forest of 1,607,000 acres.

In summation, it would appear that the major factors favoring establishment of a North Cascades National Park are the statutory assurance of protection and continuity of the Park if created by Congress, the obvious natural characteristics of the area for a National Park, the economic benefits that could be expected from, increased tourism to the area, the opening of much of the area to mass recreation use rather than continued dedication of nearly half of it for Wilderness area use, the economic advantages that would accrue to the area through its having the benefit of National Park stature, and the fact that all of this can be done without adversely affecting tax rolls, utilization of timber, or other natural resources of the area.

MOUNT RAINIER NATIONAL PARK

Recommendation VII. *The southern boundary of Mount Rainier National Park should be extended to include about 11 sections of National Forest land in the vicinity of Tatoosh Ridge.*

This proposed extension has been agreed to by both the Forest Service and the National Park Service. It is described as follows:

Starting at the junction of the Tatoosh Mountain Range and the National Park boundary in the northwest quarter of Section 4, T. 14 N., R. 9 E., and continue in a southeasterly direction following the crest of the Tatoosh Range to the north quarter corner of Section 22, T. 14 N., R. 9 E., from which point continue east along the section line on the north side of Sections 22, 23, and 24 to the northeast corner of Section 24, T. 14 N., R. 9 E.; from that point continue 1/2 mile north along the section line to the west quarter corner of Section 18, T. 14 N., R. 10 E., from which point continue due east across Ohanapecosh River to State Highway No. 14, in the eastern portion of Section 19, T. 14 N., R. 10 E.; from which point continue in a northerly direction along the western edge of the right-of-way for State Highway No. 14, to the existing National Park boundary in the eastern portion of Section 8, T. 14 N., R. 10 E.

The Study Team concurs in this recommendation of the two agencies.

Recommendation VIII. *There should be effective coordination and management between Mount Rainier National Park and surrounding National Forest lands executed through inter-bureau arrangements or cooperative agreements.*

A start has been made in this direction. The superintendent of the Mount Rainier National Park and the concerned National Forest supervisors have collaborated in initiating coordinated planning to care effectively for the large number of expected visitors to the National Park. National Forest lands and facilities bordering the park will need to be used in a manner that is coordinated with park administration.

The study team commends the "Coordinated Planning Report for Mount Rainier National Park and Snoqualmie and Gifford Pinchot National Forests, January, 1965" that the two agencies have initiated and recommends that this be continued and made an effective management instrument by both agencies. Master planning for the National Park should be carried forward aggressively.

The two agencies have a common management problem in their need to not destroy the fragile wilderness conditions of certain areas under their administration while at the same time making these areas available for the use and enjoyment of people. These problems involve the natural fragility of Wilderness areas, problems of sanitation, abuse of terrain, and utilization of pack stock. The two agencies should coordinate their expertise in the management of Wilderness areas.



View across Paradise Valley to the Tatoosh Range. The range is proposed for addition to Mount Rainier National Park. See figure 33 map, page 86. (photo NPS Y-5)

OTHER RECRATION AREAS

Recommendation IX. *Mount Baker and most of the surrounding Recreation Area should continue to be administered by the Forest Service and managed in accord with its plans for the area as described in Appendix B.*

An all-year highway leads to Heather Meadows by way of the Nooksack River from Bellingham. Trails lead from the end of the road to Mount Baker on the west and Mount Shuksan on the east. A recreation way is proposed from Heather Meadows across Austin Pass and south to connect with the present road at Baker Lake. This will provide am outstanding scenic loop year long. Heather Meadows is developed for summer and winter use and receives about 100,000 visitors for winter sports alone each year. Two new chair lifts for the ski slopes are contemplated. A new lodge is in the planning stage. Mount Baker and the Heather Meadows area should not be included in a National Park.

Recommendation X. *The Cougar Lake and Monte Cristo Peak Limited Areas should be declassified as such and administered by the Forest Service in accord with its normal multiple-use management policies.*

The Cougar Lake Limited Area is close to the eastern boundary of Mount Rainier National Park. It is a prospective location for campgrounds and other developed recreation facilities and could take some of the pressure off Mount Rainier National Park. The area should be managed primarily for recreation use in

coordination with the needs of Mount Rainier National Park. It is not recommended that it be classified under the Wilderness Act.



1. Cougar Lake, just outside Mount Rainier National Park. Forest Service multiple-use management for the area with emphasis on recreation is recommended. See figure 5 map, page 22. (photo FS 64-460)



2. The Monte Cristo Peak Limited Area should be "declassified" by the Forest Service and given standard multiple-use management. The buildings in the photo are part of a private recreational development in the Monte Cristo area. See figure 5 map, page 22. (photo NPS 4224—746)

A substantial acreage and volume of commercially valuable National Forest timber will be transferred from the reserved to the available category by declassifying the Cougar Lake area.

Recommendation XI. *The Eldorado Peaks High Country should continue to be developed by the Forest Service for recreation pending establishment of the North Cascades National Park.*

The recommended park would include a substantial portion of the Eldorado Peaks High Country. The recreation potential, opportunities, and needs in the area are such that it would be unwise for the Forest Service to cease development of the area as contemplated pending Congressional decision on establishment of the recommended park.

Recommendation XII. *The Forest Service and the National Park Service, in anticipation of increased recreational load in the Study Area for camping, picnicking, driving for pleasure, winter sports and other normal outdoor recreation pursuits, should aggressively pursue their respective plans to provide needed facilities to accommodate the prospective demand as foreseen for the next 20 years.*

SCENIC ROADS AND TRAILS

Recommendation XIII. *Because of the relative inaccessibility of the Study Area, the great popularity of driving for pleasure as a recreation pursuit, and the importance of making much more of the North Cascades available to large numbers of people, high priority should be given to the construction of an adequate system of scenic roads.*

The study team was supplied with the independent recommendations of the Forest Service, National Park Service, and the State of Washington. The latter was in connection with a report on a national system of scenic roads or parkways being prepared for the Recreation Advisory Council under the leadership of the Department of Commerce.

The National Park Service recommendations included those of the Forest Service, plus numerous others. The State of Washington overlapped many of the Federal proposals and also included some that were not made by either Federal agency.

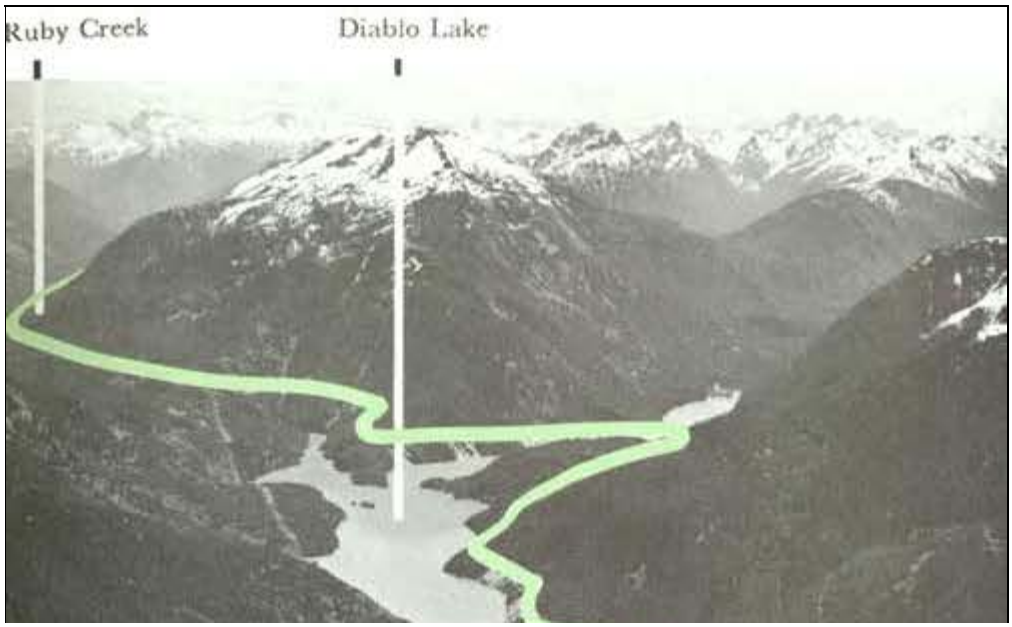


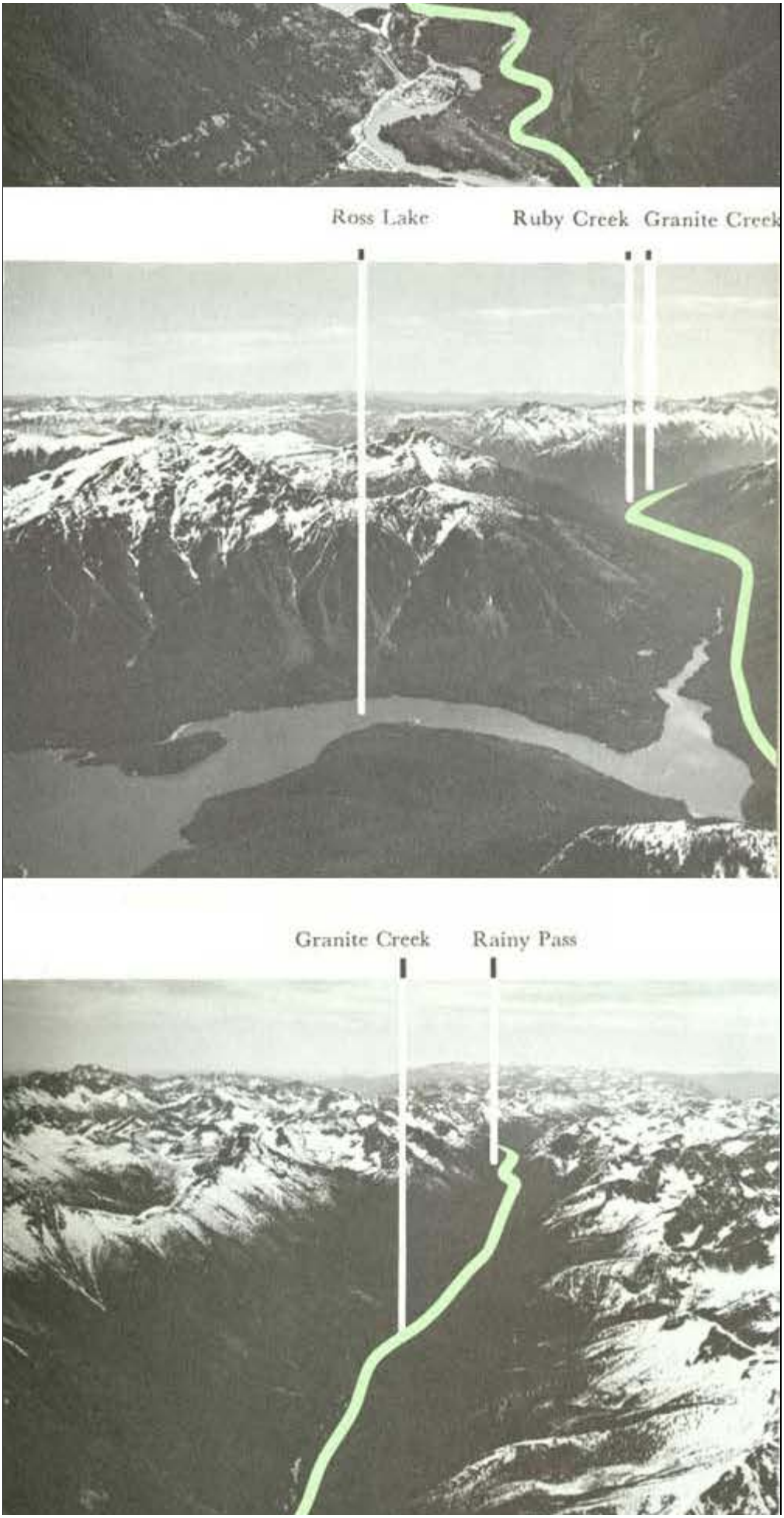
1. The Eldorado Peaks High Country would continue to be developed for recreation by the Forest Service pending Congressional authorization of the proposed North Cascades National Park. This view looks north down Thunder Creek. See figure 30 map, page 80. (photo NPS

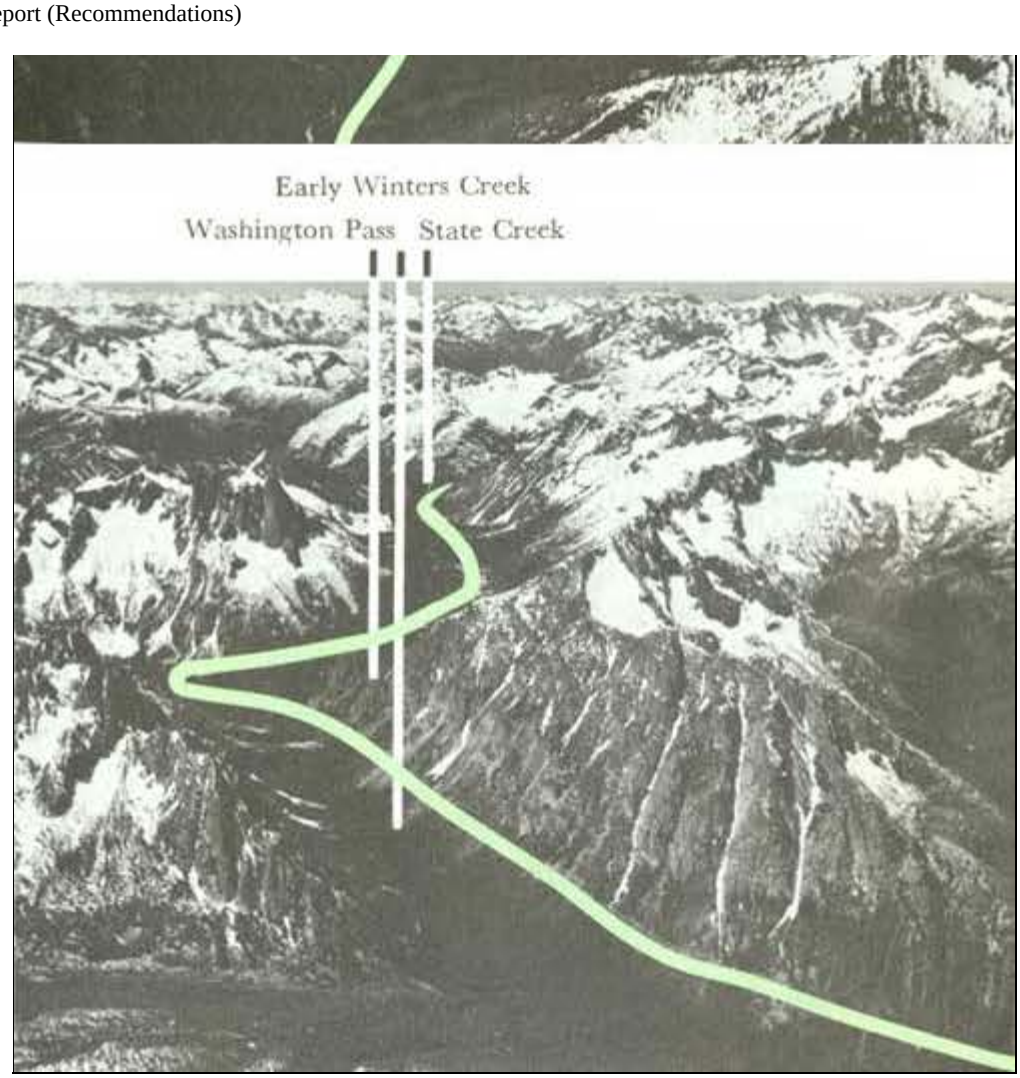
5307—30)



2. The North Cascades need more picnicking, driving, camping, winter sports and other recreational facilities if coming needs are to be met. This group is picnicking near Austin Pass. See figure 18, page 52. (photo FS 470723?)




Ross Lake
Ruby Creek
Granite Creek
Granite Creek
Rainy Pass



Development of an adequate scenic road network is a high priority recommendation. These pictures show the North Cross-State Highway route. Diablo Lake-Ruby Creek section (FS X—3); Ruby Creek-Ross Lake area (FS X—4); Granite Creek-Rainy Pass sector (FS X—5); Early Winters Creek-Washington Pass-State Creek area (FS X—8). See figure 34, page 87.

There is considerable mileage of low-class roads in the area, much of which has been constructed either by the Forest Service or by timber contractors for log hauling purposes. These roads need improvements in the way of surfacing and/or turnouts to make them suitable for scenic use. The total mileage of forest highways and forest development roads is 5,500.

Figure 34 shows a proposed scenic road network largely as contemplated by the National Park Service. It distinguishes between (1) existing roads, (2) roads where improvements are recommended to make them meet scenic road standards, (3) roads under construction, and (4) potential new roads. The map also shows roads recommended by the Forest Service and additional roads proposed by the State of Washington, and a recommended road down Ross Lake from Canada.

The Forest Service gives the highest priority to routes through Curry Gap, Cady Pass, Harts Pass, and Austin Pass.

The Curry Gap road would extend from the Stevens Pass highway up the Beckler River, over Curry Gap and down the Sauk River to Darrington. It would rise through timber, sub-Alpine and Alpine-type terrain and provide magnificent vistas of mountain scenery.

The Cady Pass route would start at Curry Gap Recreation Way, climb to the Cascade Summit at Cady Pass,

and down the Little Wenatchee River to U.S. Highway 2 near Lake Wenatchee.

The Harts Pass route would leave the North Cross-State Highway near Ross Lake, climb through timber and Alpine terrain to the Harts Pass crest, and then go down the east slope to the Methow River near Washington State Highway No. 20, formerly No. 16.

The Austin Pass route would tunnel from Heather Meadows under Austin Pass and down Baker River to tie with the present road system at Baker Lake.

The team gave special attention to the advisability of a north-south highway along the crest of the North Cascades. It was persuaded that such a road would be undesirable because of the land scarring, erosion, severe weather conditions and terrific costs. It was concluded also that a cut-off route from the Cascade River up to the crest of the Hidden Lake Peaks along Boston Peak, and connecting with the North Cross-State Highway at the upper end of Granite Creek would likewise be unfeasible.

Consideration should be given to the desirability and practicality of road access from Canada down the east side of Ross Lake, connecting the North Cross-State Highway to Highway No. 3 in British Columbia. Highway 3 in turn joins Highway No. 1 at Hope on the Fraser River. There is already a private logging road in British Columbia down the Skagit River to the north end of Ross Lake. Such a route connection would provide easy access to the North Cascades National Park from Vancouver and also from Banff and Jasper National Parks in British Columbia.

In summation, there appear to be reasonable possibilities of a scenic road network of about 920 miles in the Study Area of which, over two-thirds are existing roads and the remainder need either improvements or construction (fig. 47). The development of an adequate scenic road network is one of the highest priority proposals of the study team.

Figure 47 Proposals for scenic roads and parkways in the North Cascades Study Area, by agencies

Agency and kind of proposal	Approximate mileage
Recreation Ways proposed by the Forest Service: (1)	
Existing	60
Proposed new construction	37
Scenic roads and parkways proposed by the National Park Service: (2)	
Existing (3)	589
Existing, but needing major improvements or reconstruction	118
Proposed new construction (3)	54
Scenic roads (new construction) proposed by Washington State (4)	40
Proposed Ross Lake scenic road (new construction)	23
All scenic roads and parkways	921

(1) Also proposed by the National Park Service.
(2) In addition to the proposed "recreation ways" shown above.
(3) Includes the North Cross-State Highway, of which there are 36 miles existing and 34 miles under construction. The latter includes the Granite Creek-Early Winters Creek section.
(4) In addition to the proposals made by the Forest Service and the National Park Service.

There are two waterway access routes to the North Cascades that are unique and deserving of special mention. One is by boat or float plane from Chelan on the east side, up the length of 55-mile long Lake Chelan into the heart of the area. The other is from existing Highway 20, formerly No. 17 to Diablo Lake and north through Diablo and Ross Lakes about 25 miles to the Canadian line.



Consideration of construction of a road along the east side of Ross Lake connecting the North Cross-State Highway with Highway No. 3 in British Columbia is recommended. The view is to the north into Canada. See figure 34 map, page 87 (photo FS 64—415)



Lake Chelan, penetrating 55 miles into the North Cascades, provides a unique access route to an area of few roads and trails. (photo NPS Y—6)

Recommendation XIV. *An adequate recreation trail system is needed in the North Cascades. The Cascade Crest Trail in particular should be adequately developed, maintained and equipped with signs.*

Within the Study Area, there are 5,500 miles of trails in the Forest Service Transportation System, 40 percent of which is currently considered inadequate. In addition, there are more than 300 miles of trails in Mount Rainier National Park.

A great many miles of Forest Service trails were constructed initially for fire protection and suppression, or other administrative purposes. Most of these trails, however, have recreational value. The Forest Service goal is to make needed improvements for recreational purposes on 2,275 miles of trails and to construct 430 additional miles.

Within the Study Area, there are 341 miles of the Cascades Crest Trail. The Forest Service and National Park Service propose different locations for the Cascade Crest Trail from Harts Pass to the Glacier Peak Wilderness. The Park Service proposal is shown in figure 34. The Forest Service proposal is shown in figure 30.

Trails are closed to motorized traffic in National Parks, Wilderness, and Primitive areas. Outside these areas, the use of motorscooters on trails is a matter of administrative discretion and the study team believes properly so.

TIMBER MANAGEMENT

Recommendation XV. *With respect to timber management, the Forest Service should: (a) systematically apply the policy directives and guidelines described in "Management Objectives and Policies for the High Mountain Areas of National Forests of the Pacific Northwest Region"; (b) keep clear-cut blocks as small as practicable; (c) in or near areas proposed for special attention to recreation, use clear-cutting only where other silvicultural systems clearly are not feasible; (d) assure prompt regeneration by planting if adequate natural regeneration does not occur promptly; (e) artifically revegetate road banks and other areas where there are similar disturbances in order to minimize impacts on landscape and soil erosion following timber harvesting operations; (f) provide adequate scenic strips and roadside improvements consistent with landscape management principles; (g) in areas recommended for Wilderness classification or National Park status, timber harvesting should not be permitted for a period of 5 years to provide time for congressional consideration and action on the recommendations, except necessary tree cutting operations of the Seattle City Light and Power Co. should be permitted, as should essential insect or disease protection cuttings; (h) continue to carry on research on both the silviculture and economics of Douglas-fir, including the practicality of methods of harvesting and regeneration other than clear-cutting; and (i) in the design and construction of timber management roads, give appropriate consideration to the needs of other multiple resources of the National Forests.*

The recommendations speak largely for themselves. In some instances they are an endorsement of existing Forest Service policy. The study team was favorably impressed with and endorses the Forest Service high mountain policy. That agency has been criticized both for not moving aggressively enough in applying the policy, and for moving too fast. The team felt that the policy should be firmly applied.

There is considerable nonstocked or partially-stocked acreage of cut-over timberlands and it was felt that steps should be taken to assure regeneration promptly following cutting.

Block cutting in the principal forest association has tended in the past to be unduly large. Smaller blocks would lessen the adverse effects of this type of silviculture.

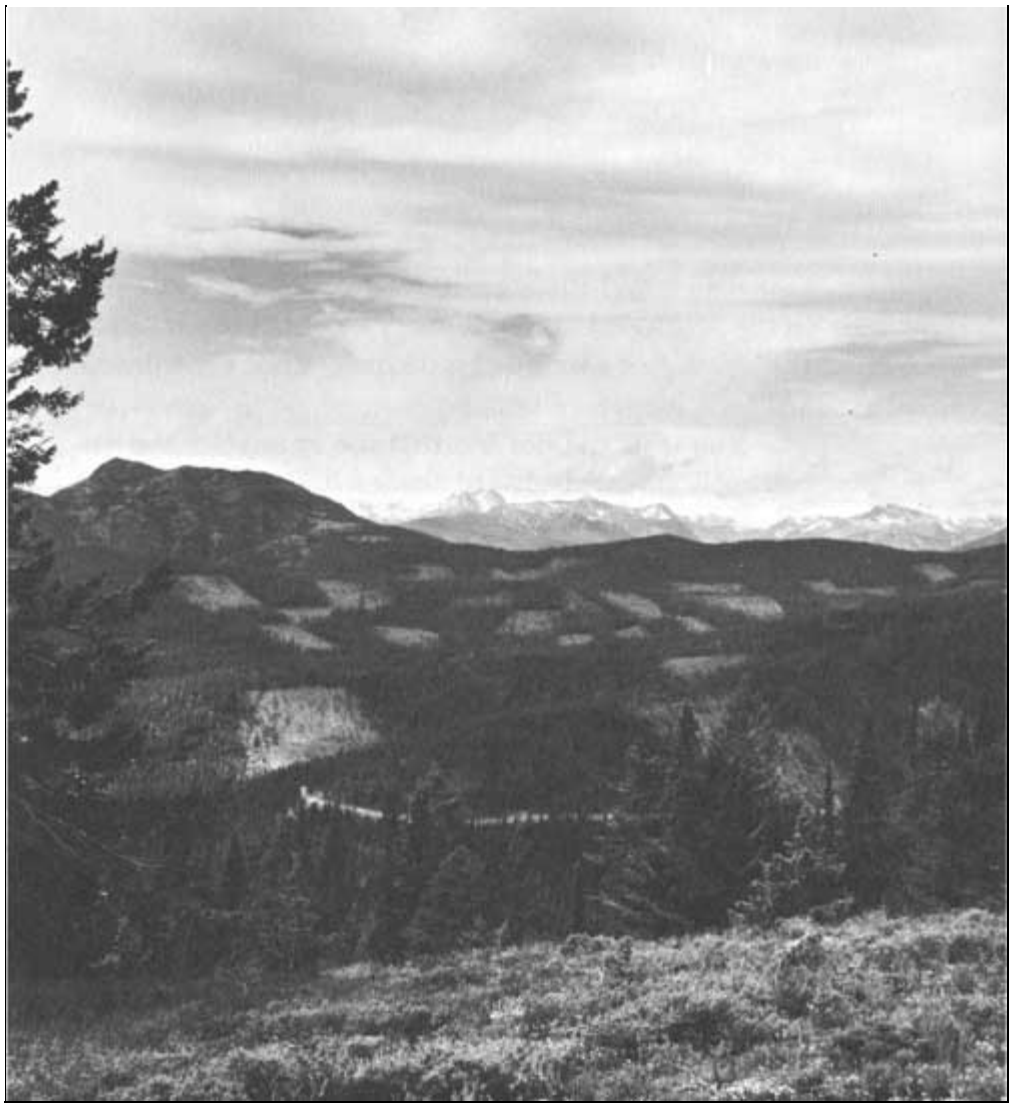
Effective research has been carried on by the Forest Service for many years in both Douglas-fir and ponderosa pine types. The application of the high mountain policy and the equality of resources as provided in the Multiple Use-Sustained Yield Act both indicate the need for continued economic and silvicultural research in these forest types.



Trails in the North Cascades need more adequate development, maintenance, and marking. This portion of the Cascade Crest Trail lies at White Pass below White Mountain. See figure 34 map, page 87. (photo NPS 4214—638)



1. The Forest Service High Mountain Policy concerning timber harvest in the North Cascades drew favorable comment from the North Cascades Study Team. Here ponderosa pine is being scaled. (photo FS 470763)



2. Patch-cut area in Okanogan National Forest west of Sweet Grass Butte. It is recommended that clear-cut blocks be kept as small as practicable. (photo NPS 4214-468)



3. North Cascades forest development roads should be designed for multiple purposes to provide recreation and minimize soil erosion and other destructive effects on natural beauty. (photo FS 2400—1—7)



4. Replanting of cut-over timber areas is recommended where prompt natural regeneration does not occur. The photo shows Forest Service replanting work in Snoqualmie National Forest. (photo FS 2400—1—1)

The team did not feel that the Forest Service was primarily oriented toward timber harvesting nor that the management and utilization of other multiple resources of the National Forests were secondary considerations. This may have been true in the past, but there has been a major reorientation, adjustment, and modernization of Forest Service thinking and policy within the past decade, particularly since enactment of the Multiple Use-Sustained Yield Act. The large acreages of land dedicated by the Forest Service to Wilderness, limited, or primitive status is one indication of its awareness of the recreation and aesthetic values of the North Cascades.



Portions of the Skagit River and its Sauk, Suiattle, and Cascade tributaries should be accorded Wild River status. The picture looks east up the Suiattle toward the Glacier Peak Wilderness Area. Wild River status would emphasize management for recreation purposes. See figure 33 map, page 86. (photo FS 64-451)

OTHER RECOMMENDATIONS

Recommendation XVI. *Certain portions of the Skagit River and its tributaries within the Study Area should be given Wild River status in accord with the provisions of S. 1446, 89th Congress. Pending such status, the National Forest lands adjacent to designated portions should be managed in accord with the Wild River concept.*

This would include the Skagit River upstream from the Mount Baker National Forest boundary to its junction with Copper Creek; the Cascade River up stream from the National Forest boundary to its junction with its north and south forks and up the South Fork to the boundary of the Glacier Peak Wilderness Area; the Suiattle River upstream from the National Forest boundary to the Glacier Peak Wilderness Area boundary at Milk Creek; the Sauk River upstream from the National Forest boundary to its junction with Elliott Creek, and the North Fork of the Sauk River from its junction with the South Fork of the Sauk to the Glacier Peak Wilderness Area boundary.

These river stretches total about 60 miles and are only a small portion of the total length of the Skagit River recommended for examination for Wild River status outside the Study Area. In general, the river shore and not more than a quarter of a mile back from the shore on each side should be managed by the Forest Service as a Wild River.

Recommendation XVII. *The Secretary of Agriculture should support the intervention of the Secretary of the Interior of July 22, 1965, with respect to Federal Power Commission project No. 2151 relating to the Wenatchee River. The Secretary of the Interior should seek the views of the Secretary of Agriculture and should carefully assess the recreation impacts, both favorable and unfavorable, before acting on the proposed replacement dam on Bumping River below the existing Bumping Lake Reservoir.*

The Federal Power Commission project application offers a plan for improvement and utilization of water, power, and development of the Wenatchee River. The proposed development by Public Utility District No. 1 of Chelan County should consider the fish, wildlife, and recreational resources as well as utilization of water and power. The study team feels that the plan of development of the Wenatchee River and its tributaries proposed by the applicant should be adapted to a comprehensive plan of development of the Wenatchee River and its upstream tributaries within the Study Area as a headwaters subbasin of the Columbia River basin.

The proposed Bumping Lake project is an enlargement and replacement of the existing Bumping Lake Reservoir on Bumping River. The new structure would be a few miles downstream from the existing reservoir and would have a storage capacity of 458,000 acre-feet, compared to the present capacity of 33,000. Surface acreage would increase from 1,400 to 4,100. The recreation effect of such construction would be to push high density recreation lands around the reservoir into an area that is now classed as natural environment lands. This might not be consequential, but should have careful consideration before the Departments of Agriculture and Interior take a position on this matter.

Recommendation XVIII. *The enactment of legislation to create a North Cascades National Park should include provisions that would protect the present installations and plans of the Seattle City Light on the main stem of the Skagit River.*

Recommendation XIX. *The Forest Service should continue to work with cities having closed municipal watersheds in order to develop satisfactory plans and procedures by which these watershed areas can be made available to help meet the expanding future recreational needs of the Study Area.*

Recommendation XX. *The State of Washington and concerned Federal agencies should take all reasonable measures to protect and manage the fisheries resource, to improve habitat, and to increase levels of fishing use.*

Recommendation XXI. *The State of Washington and concerned Federal agencies should intensify wildlife, wildlife habitat, and range management with a view to increasing available forage supplies and bringing the numbers of big game and livestock into balance with the grazing capacity that can be sustained.*





The State of Washington and Federal agencies should take all reasonable measures to improve fishing in the North Cascades, the study team has recommended. Here State Department of Game workers stock fish. (photo FS 2200—1—8)

ECONOMIC IMPACT OF RECOMMENDATIONS

Present and projected population and employment of the Study Area and surrounding counties and cities have been previously summarized, as has, to some degree, the economic significance of the various resources.

The purpose of this section is twofold: (1) To review the effect of existing and proposed recreation dedications on the availability, or lack of it, of commercial forest land and sawtimber volumes. The combined effect of the recommendations with respect to recreation dedications is evaluated in terms of their effect on the timber industry. (2) To appraise the net economic impacts of the three basic recommendations concerning a North Cascades National Park, Glacier Peak Wilderness Area, and a scenic road system.

There is no attempt to describe the total present or potential economic significance of the Study Area, either with or without the recommendations of the study team, because many of the recommendations will be carried out by the Forest Service and the National Park Service independently of this report. In contrast, the purpose is to focus attention on the effects of the recommendations on timber and the net impact of the more controversial or costly proposals.

EFFECT OF RECREATION DEDICATIONS ON TIMBERLANDS AND VOLUMES

In order to appraise fairly the effect of present and proposed recreation dedications, it is necessary to consider them as a group. This is because in some instances, such as the North Cascades National Park proposal, land would be removed from multiple use administration. In other cases, such as the Cougar Lake Limited Area, land would go from a reserved status to normal National Forest management. The net effect in the Study Area can only be realized when the recommendations for change or status quo are considered

as a package for the 15 areas summarized in figure 48.

Figure 48 Net difference within the North Cascades Study Area between existing and proposed areas managed wholly or primarily for recreation, by total area, sawtimber volume and area of available commercial forest land, by kind of area.

	Total area			Available commercial forest land			Estimated sawtimber volume on available commercial forest land (3)		
					Proposed			Proposed	
	Existing	Proposed	Net change (1)	Existing	Net additional area to be withdrawn	Net area to be made available (2)	Existing	Net volume on area to be withdrawn	Net volume on area to be made available (4)
	Thousand acres	Thousand acres	Thousand acres	Thousand acres	Thousand acres	Thousand acres	Million bd. ft.	Million bd. ft.	Million bd. ft.
Mt. Rainier National Park	241.6	248.7	+7.1	0	5.1	0	0	189	0
North Cascades National Park	----	698.0	+698.0	----	19.0	0	----	355	0
North Cascade Primitive Area (5)	801.0	----	—801.0	0	----	12.0	0	----	96
Okanogan Wilderness Area	----	494.6	+494.6	----	19.0	0	----	152	0
Glacier Peak Wilderness Area	458.1	497.4	+39.3	0	6.9	0	0	207	0
Eldorado Peaks High Country	537.6	----	—537.6	62.7	----	(6)	1,172	----	(6)
Alpine Lakes Limited Area (5)	256.0	----	—256.0	0	----	54.3	0	----	1,357
Alpine Lakes Wilderness Area	----	150.0	+150.0	----	3.1	0	----	77	0
Cougar Lake Limited Area (5)	90.0	----	—90.0	0	----	68.5	0	----	1,575

Monte Cristo Peak Limited Area	11.5	----	—11.5	0	----	0	0	----	0
Enchantment Wilderness Area	----	30.0	+30.0	----	0	0	----	0	0
Mt. Aix Wilderness Area	----	45.0	+45.0	----	25.6	0	----	578	0
Skagit Wild River	----	19.2	+19.2	----	0	0	----	0	0
Mt. Baker Recreation Area	74.9	59.9	—15.0	2.9	0	(6)	54	0	(6)
Mather Memorial Parkway	24.3	24.3	0	18.3	0	(6)	421	0	(6)
All dedicated areas	2,495.0	2,267.1	—227.9	83.9	78.7	134.8	1,647	1,558	3,028

(1) If the proposed area is larger than the existing one, the change is preceded by a plus symbol, if smaller, a minus symbol is used. (2) Except as noted in footnote (4), the acreage in this column is now closed to commercial timber cutting, but if the proposed areas were established this acreage would become available for commercial timber cutting. (3) Based on an estimated average stand per acre for a general broad area. (4) This is the volume of sawtimber on the area described in footnote (2). (5) Name to be eliminated and the area to be included in other proposals. (6) Commercial timber area and sawtimber volume now available for commercial timber cutting which will remain available: Eldorado Peaks High Country, 41,000 acres with 767 million bd. ft.; Mt. Baker Recreation Area, 2,900 acres with 54 million bd. ft.; and Mather Memorial Parkway, 18,300 acres with 421 million bd. ft.; totalling 62,200 acres with 1,242 million bd. ft.

This is one of the most significant comparisons in the entire report. It shows that on all the areas involved, the net effect despite establishment of a National Park and the designation of several new Wilderness Areas would be to add 228,000 acres to undedicated status and place them in normal multiple use management. The main reasons for this are the declassification of the Cougar Lake Limited Area, the reduction of the Alpine Lakes Limited Area to a considerably smaller Alpine Lakes Wilderness Area, and the elimination of substantial acreage from the Eldorado Peaks High Country which is not placed in the proposed National Park.

With respect to commercial forest land, the net effect is to increase the availability of commercial forest land and to decrease the acreage in reserved status. For example, on the 2-1/2 million acres involved in the dedicated areas there are now 84,000 acres of available commercial forest land. If the recommendations in this report are carried out, the amount of available commercial forest land from these same areas would be increased by 56,000 acres to a total of 140,000 acres. The reserved commercial forest land acreage of 356,000 acres would be decreased accordingly.

In terms of sawtimber volumes, the areas in question now have an available sawtimber stand of 1.6 billion board feet. This would be roughly doubled to 3.1 billion board feet. The reserved timber volume of 11.2 billion board feet would be reduced accordingly, to 9.7 billion. Again, the reasons are the substantial timber volumes that would be made available from land that is now in the Alpine Lakes and Cougar Lake Limited areas plus the fact that the North Cascades National Park would withdraw only minimum acre age and volumes of commercial timber; namely, 19,000 acres and 355 million board feet.

The net effect of the recommended actions is:

ITEM	EXISTING SITUATION	RECOMMENDED	CHANGE
	Thousand acres		
Area of recreation dedications	2,495.0	2,267.1	—227.9
Commercial forest land			
Available	83.9	140.0	+56.1
Reserved	356.2	300.1	—56.1
Sawtimber volume	Million bd. ft.		
Available	1,647	3,117	+1,470
Reserved	11,197	9,727	—1,470

To put it succinctly, implementation of the recommendations would mean creation of a National Park, creation of four new Wilderness areas and a Wild River, elimination of two limited areas, and at the same time nearly doubling the amount of sawtimber that would be available for commercial operations from the areas involved.

The relationship between the existing and proposed 15 dedicated areas and the total Study Area with respect to acreage involved, commercial forest area and timber volumes is also significant. Recognition of these same relationships between the proposed North Cascades National Park and the total Study Area, as well as between the park and all dedicated areas, is important to have in mind in order to place these proposals in proper perspective. These relationships are shown in Figure 49.

Figure 49 Relation of existing and proposed areas dedicated wholly or primarily to recreation and the proposed North Cascades National to the existing Study Area, in terms of total land area, available and reserved commercial forest area and sawtimber volume.

	Study Area as it now exists	All existing and proposed dedicated areas		Proposed North Cascades National Park		
		Area	Percent of Study Area	Area	Percent of Study Area	Percent of all dedicated areas
Total land area in thousand acres	6,309	2,267	36	698	11.1	30.8
Commercial forest area in thousand acres:						
Available	2,858	140.0	5	0	0	0
Reserved	356	300.1	88	25	7.0	7.9
Total	3,214	440.1	14	25	.8	5.7
Commercial sawtimber in million bd. ft.:						
Available	65,462	3,117	5	0	0	0
Reserved	11,197	9,727	87	467	4.2	4.8
Total	76,659	12,844	17	467	0.6	3.6

For example, the recommended North Cascades National Park would include 11 percent of the total acreage in the Study Area, but only 0.8 percent of the commercial forest area and 0.6 percent of the commercial timber volume. It is obvious that the establishment of the park would have no significant adverse effect on the timber industry.

Of far more significance to the timber industry is the fact that by implementing the recommendations, about 1,470,000,000 board feet presently reserved will be made available for commercial operations. This is a reduction of 13 percent in the amount of reserved sawtimber. Most of the remaining reserved timber occurs in Mount Rainier National Park and the Glacier Peak Wilderness Area.

GLACIER PEAK WILDERNESS AREA

The recommendation to enlarge Glacier Peak Wilderness Area by 39,000 acres would add about 7,000 acres of commercial timber land supporting 207 million board feet of sawtimber to this area.

There would be no land acquisition costs. Land taxes would not be affected, because only Federal lands are involved. The formula for distribution of National Forest receipts would not be affected although the amount of receipts might be reduced slightly because of the reduction of prospective timber sales. There are no presently active timber sales in the affected area.

The number of visitors to the Glacier Peak Wilderness Area probably would not be significantly altered because of the proposed extensions; nor would payrolls or expenditures for employment in recreation or tourism be changed appreciably.

In summation, there will be few, if any, appreciable economic effects either pro or con from the proposed Glacier Peak Wilderness Area boundary extensions.

NORTH CASCADES NATIONAL PARK

The establishment of the recommended 698,000-acre National Park would result in certain economic benefits stemming from an increase in visitor use, from capital development and from maintenance and operation.

There would be no significant effect on land taxes nor on acquisition costs, because 99 percent or more of the area is already Federal lands. Only a small acreage of private lands would be subject to acquisition.

There would be an estimated annual visitation of about 1.3 million persons, of which perhaps 35 percent would be from out of State. Visitor days are estimated at 2.4 million, annual visitor expenditures at $20.8 million (fig. 50).

Figure 50 Estimated annual expenditures, wages, and employment which would be generated by visitors to and development of recreation facilities in the proposed North Cascades National Park, and by visitor use and development of scenic roads in the North Cascades Study Area.

	Proposed North Cascades National Park		Proposed scenic roads in the Study Area	
	Estimated total annual use	Construction of recreation facilities	Estimated total annual use	Construction of scenic roads
Visitors	1,300,000			
Visitor-days	2,410,000		500,000	
Visitor expenditures	$20,800,000 (1)		$8,500,000 (2)	
Development costs (3)		$7,400,000		$7,500,000
Wages paid (4)	$5,400,000	$2,000,000	$2,300,000	$2,500,000 (5)
Employment	1,100	400	460	500 (6)

(1) State sales tax on these expenditures estimated at $800,000.

(2) Including $5,500,000 of vehicle costs (11¢/mile).
(3) Average annual during the first five-year period.
(4) Estimated at about 27 percent of expenditures (after sales taxes) and of construction costs.
(5) Including expenditures for operation and maintenance amounting to $500,000.
(6) Including 100 employees for operation and maintenance work.

This is translatable in terms of wages paid to $5.4 million per year and estimated annual year-long employment of 1,100 persons.

To this economic impact of visitations should be added an average annual benefit from capital construction of $7.4 million for the first 5 years. This would result in an estimated $2 million in wages and 400 persons employed.

No estimates have been made for maintenance or operation of the proposed park. This would be an additional benefit which has not been included.

In summary, the economic impact of both visitations and capital construction would be an annual employment of about 1,500 persons, visitor expenditures of $20.8 million and capital development costs of $7.4 million.

If the area were managed as the Forest Service proposes, rather than as a National Park, about half the area would be in the Eldorado Peaks High Country and about half in Wilderness status. Assuming that: (1) the National Park Service would develop the portion south of the Skagit River to about the same degree of intensity or greater than would the Forest Service; (2) developments would extend northward into the present Primitive area and not be limited to that portion south of the Skagit River; and (3) giving some recognition to the added visitations that would result from National Park status, it would seem reasonable to assume that under continued Forest Service management (rather than National Park Service), the estimates would be about 60 percent of those given above for employment, capital development and visitor expenditures.

It should be recognized that there would be a very minor adverse economic impact from the creation of the park due to removing some timber from the market. About 19,000 acres of commercial timberland which support an estimated 355 million board feet of sawtimber would be reserved in the National Park. This can be roughly converted to an allowable annual cut of 3.5 million board feet. In turn, this could mean National Forest receipts of about $70,000, returns to counties of about $17,500 annually and a dependent employment of 30-35 persons.

In other words, there would he a net gain of perhaps 600 people employed in the park against the loss of 35 persons employed in the timber industry, a revenue of $70,000 lost in timber annually against a net annual increase in visitor expenditures of roughly $8 million and a capital investment per year for 5 years of $3 million.

One of the conditions of recommending a National Park is that the enabling legislation retain the status quo with respect to distribution of National Forest receipts between affected counties. Gross revenues to the Mount Baker and Wenatchee National Forests would not be appreciably affected by creation of the National Park because the area involved currently returns no appreciable income from timber sales or other sources.

However, unless the status quo condition were met in the enabling legislation, the distribution of revenue between counties would necessarily be adjusted in accordance with the formula under prevailing law. The effect would be that Whatcom and Chelan Counties each would suffer an annual revenue loss of $50,000-$90,000 and Snohomish and Kittitas Counties could benefit accordingly. It is recommended that the present pattern to which the counties are accustomed should continue.

SCENIC ROADS

The recommendation for a scenic road system of about 920 miles would have a substantial economic benefit in terms of the cost of construction, maintenance, and operation, and the estimated net increase in driving for pleasure.

If the scenic road system is phased over a 15-year period, the total cost of construction, reconstruction, and minor improvements is estimated at $110 million or $7.5 million per year as shown below and in figure 50:

Kind of Construction	Approximate mileage	Approximate cost per mile	Estimated total cost of program
Existing (but needing minor improvements)	649	$75,000	$50,000,000
Existing (but needing major improvement or reconstruction)	118	175,000	20,000,000
New Construction	154	260,000	40,000,000
Total	921	120,000	110,000,000

If to these capital road costs are added an allowance for maintenance and operation, this will mean about $2.5 million annually in terms of wages paid, and the employment of about 500 persons.

It is estimated that this scenic road system may result in a half a million visitor days use on the roads each year. This could mean a visitor expenditure of $8.5 million, most of which would be vehicle operation costs. Translated into wages, this could be $2.3 million annually and 400-500 persons employed.

It should be mentioned also that the roads in the proposed scenic road system would serve multiple purposes, not just recreation use alone. They would be valuable for timber hauling, for some inter-State use, and for normal commercial and trade use.

Within the Study Area it is believed that there would be no significant adverse economic results from the creation of this road system. Inasmuch as the land is primarily in Federal ownership, there would be only minor right-of-way acquisition costs.

CONCLUSIONS

The net effect of the recommendations is to:

1. Establish four new Wilderness areas—Alpine Lakes, Okanogan, Enchantment, and Mount Aix—totaling 720,000 acres;

2. Enlarge the Glacier Peak Wilderness Area by 39,000 acres;

3. Establish a North Cascades National Park totaling 698,000 acres;

4. Enlarge Mount Rainier National Park by 7,000 acres and provide for coordinated management between the park and surrounding National Forest lands;

5. Declassify three limited areas—Alpine Lakes, Cougar Lake, and Monte Cristo Peak;

6. Provide for an increase of 228,000 acres of National Forest land to be placed under normal multiple-use administration by the Forest Service;

7. Increase the available commercial forest land by 56,000 acres and increase the available commercial sawtimber by 1.5 billion board feet, thus providing a net benefit to the timber industry despite the creation of new Wilderness areas and a new National Park;

8. Provide for a 900-mile system of scenic roads; and several thousand miles of trails;

9. Establish a Wild River in the Skagit Basin;

10. Provide for adequate camping, picnicking, winter sports, boating and other conventional recreation facilities, including fishing and hunting opportunities, in anticipation of much greater population pressure and use;

11. Provide for timber management and necessary research to minimize erosion, land scarring, adverse effects on the natural beauty of the landscape, and accomplish prompt regeneration.

12. Involve practically no land acquisition costs and little removal of lands from the tax rolls, no change in distribution of National Forest receipts, no impairment of operations of Seattle City Light on the Skagit River, and no significant adverse effects on the livestock industry, or on commercial or sport fishing. There would be some adverse effects on hunting and there could be some on mining if there were significant future mineral discoveries in the area proposed for a National Park.

13. Provide for substantial net economic advantages from creation of a North Cascades National Park by an increase in tourism and the expenditures, wages, and employment generated thereby, and by capital outlays to develop the National Park with resulting employment and wages;

14. Provide substantial economic benefits through the construction, development, maintenance, and employment required to establish the recommended scenic road system, and from the expenditures and employment generated by driving for pleasure.

The overall conclusion is that there will be an economic benefit to the timber and tourism industries, little or no significant adverse effect on other resource based activities, substantial economic advantages from the creation of the scenic road system and the establishment of a new National Park, and very great intangible benefits to the population of the State, region and Nation through new opportunities for general recreation, through creation of a park, and through creation of new Wilderness areas.

Finally it is believed the recommendations are responsive to national needs, would benefit the local economy, protect economic uses of the Study Area, prevent further erosion of needed Wilderness areas, provide proper balance between multiple use forest management, mass recreation, Wilderness areas, and National Parks, and add a superlative sample of the North Cascades to our national gallery of natural beauty.

IV

INDIVIDUAL VIEWS OF STUDY TEAM MEMBERS

Following are comments of the various members of the study team other than the chairman. These comments relate to the last review draft of the report which immediately preceded the final draft. They appear here chronologically in the order received.

The comments are in the form of

(1) a letter from Dr. Owen S. Stratton of September 27,
(2) a letter and attachment from Dr. George A. Selke of October 12,
(3) a letter from George B. Hartzog, Jr., of October 19,
(4) a letter from Arthur W. Greeley of October 27, and
(5) a letter from Arthur W. Greeley and Dr. George A. Selke of December 3.

These letters should be carefully studied in order to fully understand the views of the study team.

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF THE SECRETARY
WASHINGTON, D.C. 20240

September 27, 1965

Mr. Edward C. Crafts
Chairman, North Cascades Study Team
Department of the Interior
Washington, D.C.

Dear Mr. Chairman:

I find myself in disagreement with some of the recommendations made in the North Cascades Study Team Report, and I should like to have my views included in the Report at the proper point.

My disagreement relates to Recommendations III, IV, VI, and XIII, which recommend, respectively, the establishment of a Mt. Aix Wilderness Area, extension of the boundaries of the Glacier Peak Wilderness Area, establishment of a North Cascades National Park, and construction of a road south from the Canadian boundary along the east side of Lake Ross.

The Mt. Aix Wilderness Area

The Forest Service proposes to eliminate the existing Cougar Lakes Limited Area, to return the bulk of it to multiple use management, and to recommend to Congress the establishment of a wilderness area of about 45,000 acres surrounding Mt. Aix and to be named the Mt. Aix Wilderness Area. Report of the Study Team in Recommendation III concurs in the Forest Service proposal.

I have not had an opportunity to see the Cougar Lakes area, but I have read descriptions of it that indicate that it has superlative scenic qualities. The Park Service classified a considerable part of the area west of Bumping Lake as Class IV or a unique natural area. A guide testified in the public hearings in Seattle in October 1963 that in his opinion the Cougar Lakes Country was one of the most beautiful regions in the North Cascades. And several outdoor clubs have drawn attention to the importance of preserving the area as wilderness.

All this suggests strongly to me that it is unwise for the Study Team Report to concur in the Forest Service proposal to return all but the Mt. Aix area of the present Cougar Lakes Limited Area to multiple use management, which can and probably will include the construction of roads and logging in a good deal of the area west of Bumping Lake.

The Forest Service describes the proposed Mt. Aix Wilderness Area as "an isolated group of rough ridges and clustered mountain peaks . . . with grand scenery on a small scale. . . . The area is isolated and relatively arid. Access is comparatively difficult. Only a person with a real desire for solitude will be attracted to go into this area."

The Forest Service omits any description of the area in the more immediate vicinity of Cougar Lakes; but my understanding of this area is that it is quite different in character —less rugged, easier to get into, more beautiful, and generally much more attractive than the Mt. Aix area. It also appears to contain commercial timber.

In the last three sentences of its description of the proposed Mt. Aix Wilderness Area, the Forest Service seems to me to be saying, in effect, that it is alright to put Mt. Aix and its immediately surrounding area in wilderness status since it is the kind of country that only some eccentric in superb physical condition would go into. It is good for nothing else, the Forest Service seems to say, so let's put it in wilderness.

Perhaps I am unfair to the Forest Service, but I do think it important that our wilderness system include some areas of superlative beauty that are relatively easy of access and relatively easy to travel and live in. I suspect, although I cannot be sure as a result of my own observation, that the area around Cougar Lakes is of this kind; and I believe that the Forest Service should re-examine its decision to return the area to multiple use and should recommend the bulk of it, particularly that generally west of Bumping Lake, for wilderness status. I believe that this could be done and still leave a strip along the eastern boundary of Mt. Rainier National Park that the Park Service, in cooperation with the Forest Service, could use to give the Park some needed elbow-room.

Extensions of the Glacier Peak Wilderness Area

I am in agreement with the recommendation of the Report that the boundaries of the Glacier Peak Wilderness Area be extended and that the Suiattle and White Chuck corridors be reduced. My disagreement comes with respect to the amount of reduction that is recommended for these west-side corridors.

I believe that there is no disagreement by anyone that the magnificent old-growth douglas firs in these corridors provide the most impressive kind of entrance to the

Wilderness Area that is conceivable.

I commend the Forest Service for volunteering to recommend extension of the Wilderness Area to include more of these beautiful trees, but I believe that an even greater extension is in the public interest. In my view, the corridors should be eliminated completely.

I am aware that there has already been some clear-cutting in these corridors. I am also aware that the timber involved is very valuable and that elimination of the corridors would have some adverse economic effects. The clear-cutting that has already occurred cannot be helped and must be accepted until regeneration can occur; but the fact that some clear-cutting has already taken place is no argument in favor of additional clear-cutting. The adverse economic impact of eliminating the corridors will not be great and will be short-lived; and I believe that the benefits to the entire country of preserving these magnificent stands for the longest possible time will far outweigh the economic costs of refraining from logging them.

The North Cascades National Park

I want to express one disagreement with the boundaries proposed for the North Cascades National Park under Recommendation VI, to express my understanding of the kind of access that is proposed for the Park, and to raise a question with respect to the road that is proposed for consideration under Recommendation XIII to run from the Canadian boundary down the east side of Ross Lake to connect with the North Cross-State Highway.

The North Cascades National Park Boundaries. In my view, the boundaries of the proposed park should be extended on the northwest along the lines suggested by the Park Service in its proposal for a Mt. Baker National Park. Such an extension would include the Mt. Baker area within the proposed park.

There is no doubt, I suppose, in anyone's mind that Mt. Baker and the area surrounding it are of national park caliber. Mt. Baker and Mt. Shuksan make a unit that should be included within the proposed park along with the Primitive Area west of Lake Ross and the Eldorado Peaks area.

In addition, in my opinion, the Mt. Baker area would benefit from Park Service administration. The Park Service can operate winter sports facilities as well as anyone else; and if I understand present Park Service policy correctly, it would try to get the bulk of visitor accommodation facilities set up outside the Park and would do something to remedy the present rather dilapidated state of the Heather Meadows area.

In short, I can see no reason for leaving the Mt. Baker area out of the proposed North Cascades National Park, and I can see two compelling reasons for including it.

Means of Access to the Proposed Park. Perhaps the report makes clear enough what is intended, but I want to record my understanding that the mass access features that are recommended will provide access to the high wilderness country only by helicopter and such devices as aerial tramways. I have seen trains and funiculars in Europe, and I am impressed with the skill and ingenuity that Europeans have shown in transporting large numbers of people to spectacular vantage points where they can be controlled and where none but a few mountaineers do anything as far as the mountains go but look at them. These devices are a way of making it possible for large numbers of people to see the wilderness without destroying it, and, although I would agree that the trains will not add to the beauty of the mountains, they will be relatively inconspicuous, as will the

facilities at the overlooks at the ends of the trains and helicopter routes. The importance of providing a sort of vicarious wilderness experience for large numbers of people outweighs any disadvantages that are involved.

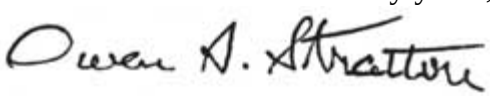
The Ross Lake Road. I have serious doubts about the advisability of a road along the east side of Ross Lake from the Canadian boundary to the North Cross-State Highway. One of the advantages of Ross Lake is that it, like Lake Chelan, offers an unusual, beautiful, and convenient means of access to the park. A road along the eastern side would, in a sense, be a duplication of the access facilities, made possible by the lake, and any access to the proposed wilderness area to the east that a road would provide is also provided by the lake. Inevitably a road will involve a long stretch of unsightly scars that will be visible from the lake and from the park on the other side. Finally, such a road will be costly; and if it is judged to be important for Canadians to bring their cars directly from Canada to the North Cross-State Highway, this could be arranged far more cheaply by the provision of ferry service on the lake.

The Glacier Peak Wilderness Area

In conclusion, I want to make a comment about the Glacier Peak Wilderness Area. It is my view that this should remain in wilderness status under Forest Service administration and should not be converted into a national park because the fragile character of the area does not lend itself to the mass use which is an important justification for a park.

I also want to observe that the protection of the Glacier Peak Wilderness and the other wilderness areas recommended in the Report, with the possible exception of the less fragile area west of Lake Ross, will probably require before very long a degree of administration that wilderness areas have not received until now. Not only must measures be taken to disperse use and to provide for minimum sanitation, but my guess is that wilderness users, if they are not to destroy the wilderness they love, will have to accept some kind of rationing of wilderness area use. Rationing is now used to control the hunting of mountain goats, and relatively untrampled wilderness is coming to be almost as scarce a commodity as mountain goats. This scarcity will be increasingly conspicuous in the North Cascades because of their proximity to large population centers and main travel routes. If the time comes, as I believe it will, when the Forest Service is compelled to ration access to the North Cascades wilderness in order to preserve the qualities that make these areas attractive, I hope that the wilderness users will cooperate.

Sincerely yours,



OWEN S. STRATTON

UNITED STATES DEPARTMENT OF AGRICULTURE
FOREST SERVICE
PACIFIC NORTHWEST REGION
POST OFFICE BOX 3623
PORTLAND. OREGON 97208

October 12, 1965

Dr. Edward C. Crafts, Director
Bureau of Outdoor Recreation
Department of the Interior
Washington, D.C.

Dear Ed:

I enclose two copies of comments regarding your Report of the North Cascades Study, and of my reactions to the twenty recommendations that it contains.

Sincerely yours,



GEORGE A. SELKE, *Member,*
North Cascades Study Team.

Enclosure.

COMMENTS AND RECOMMENDATIONS
Pertaining to
THE CRAFTS' REPORT OF AUGUST 27, 1965,
to the
SECRETARIES OF AGRICULTURE AND OF THE INTERIOR

George A. Selke
October 12, 1965

Because of commitments made regarding important obligations which preempted most of September, I asked permission for additional time to review what you and your staff prepared during the summer months. I reiterate my contention that what has been under consideration for thirty months should be considered carefully when the time ultimately comes to review essential issues and to make important recommendations. I accept responsibility for the tardiness of this statement because of my obligations during the past few weeks of September, but for none of the many other delays prior to that month over the preceding 2 years.

As I review the Crafts' Report of August 27, 1965, there are many commendable statements that I should like to make about the chairman and other members of the Study Team, the chief of staff and his associates, the representatives of various Federal and State agencies, and the many fine men and women it was our pleasure to meet in connection with our assignments. Their courtesies and helpfulness are most sincerely acknowledged. I should be derelict had I failed to include this statement.

I attach recommended improvements in the part of the Crafts' Report dealing with Mineral Resources, pages 92-102. There are a few minor changes which make that statement more accurate and more understandable. Several copies are attached.

In considering the future administration and use of the extensive region under review by the North Cascades Study Team, it is well to keep in mind that it comprises an area of 7,071,000 acres, of which 7,038,200 acres are land, and 32,800 acres are water surface. The land is divided as follows:

Federal	6,309,400 acres
State	37,000 acres
County	200 acres
Municipal	51,600 acres
Private	639,700 acres
Total	7,038,200 acres

Since the establishment of the U.S. Forest Service, and the U.S. Park Service, all of the Federal land has been managed by these two agencies: 6,067,800 acres by the Forest Service as National Forests, and 241,600 acres—all in Mount Rainier National Park—by the Park Service.

The Forest Service has a somewhat different pattern of administration because its overall programs are much more a full-year operation, dealing directly with more of the natural resources such as water, timber, wildlife, and forage. It also has had many years of contact with various forms of outdoor recreation, hunting, fishing, hiking, skiing, and the like.

On the other hand, the operations at Mount Rainier National Park tend to be centered upon the summer seasons when open roads provide accessibility to the wonderful high mountain with its mammoth summit which attracts so many people annually.

It is my contention that the administration of the Forest Service and the Park Service in the North Cascades has been sound and efficient; in fact, outstandingly so—in terms of the means that have been made available to carry out the programs. Moreover, the programs are improving constantly. This applies as much to the National Forests as it does to the National Parks.

Because my knowledge of the North Cascades, with its forests and mountains, its streams and lakes, began a half century ago and because I see better and greater use of its natural resources and more positive assurance of the renewal and retention of its marvellous resources today than ever before, I am reluctant to recommend changes in its administration. I realize that the use of the land and water may receive different and varying phases of emphasis. Methods and processes may change as research and experience reveal more efficient and effective ways of doing things. The emphasis should be upon the kind of management that makes best use of the renewable resources, protects those which must never be lost, and appropriately controls and directs the people who use them. It has taken a long time to sense that the greatest danger to our natural resources are the people who use them—whether it is the farmer who "wears out" the fields, the community that fails to control its waters from flood or pollution, the camper who forgets to put out his fire, or the entourage into the mountains whose trail is obvious for the next century.

It appears to me that the report deals inadequately with the economical implications of the entire area. I feel that with the exception of hydro-power, the study fails to stress adequately the importance of water, its control and its use. Perhaps this is intentional because water, including flood control, irrigation, and hydro-power, is not correlated

intimately with the recommendations except as water deals with recreation.

I am inclined to sense a bias for proposals of what could be done by Park Service and a prejudice toward what has been done in the past by Forest Service. The area has been preserved, largely because it was designated as National Forest land and was administered by the Forest Service for over sixty years. The present condition of the Forest Service lands in comparison with most lands outside of the National Forests speaks for itself.

While my college training provided but a minor in economics, my many years in responsible administrative positions has kept me keenly alert to economical implications. I confess to a keen disappointment in the comparative economic evaluations of alternative proposals of land use in the study area. I confess that it may be difficult to estimate the worth of wilderness with hydro-power in terms of dollars. I assume that with your excellent training and responsible experience in the field of economics you share in a sense my feeling regarding the inadequacy of the material presented in this field.

I also believe that too high an estimate has been made of the value that accrues when land is shifted from one agency to another to be used for fairly similar purposes. I agree with John Fedkov, Chief, Branch of Production Economics, U.S. Forest Service, in his review of the manuscript "VI Economic Analysis of Proposals":

> "It is my personal impression that the author of this manuscript has need of competent supervision in application of the method of analysis and in making judgments about values, relationships and data qualities involved in the appraisal. It is also my impression that the author has had a tendency to favor the National Park proposal in manner of presentation, through lack of adequate or correct qualifications, in judgments about content of analysis and omissions or oversights. This may have been inadvertent but the pattern is there."
>
> "The analysis as presented in the report is inadequate for a COMPETENT judgment about the economic merits of the alternatives proposed."

The Report seems to assume that the Park Service somehow attracts people for outdoor recreational purposes more readily and successfully to its operations than does the Forest Service. The facts do not show this.

The record shows that recreation use (visits) trend is increasing at a faster rate on the National Forests than on National Parks.

Visits (1000's)

	1950	1955	1960
NPS	33,253	50,009	77,229
USFS	27,368	45,713	92,592

While at the same time the acreage administered by the two agencies was:

Acreage (1000's)

	1950	1955	1960
NPS	23,882	23,899	25,705
USFS	181,205	188,120	185,772

(The above figures are from the ORRRC Report "Outdoor Recreation For America" page 50.)

This certainly does not support the statement that there would be greater economic benefits from the establishment of a National Park.

Marion Clawson in "Statistics on Outdoor Recreation" April 1958 states that, using 1920 as a base, National Park use has increased at an average rate of about 8-1/2 percent per year. For the National Forests the increase was 7-3/4 percent prior to the war and slightly more than 10 percent per year since the war. He also states, "Rate of growth in recreation use for National Parks shows no clear signs of slowing down; for National Forests it seems to show some acceleration."

The Crafts' Report deals harshly at times with forest management, and also occasionally so with timber industry practices. Knowing the long service and the important and excellent contributions that the author of the statement made in an honorable career as a prominent and responsible forester, it is indeed a surprise to find unwarranted criticisms of the policies that he long administered. I think he is unfair to himself.

There have been unnecessarily slovenly and unacceptable operations. That logging and roadbuilding methods and procedures have been improved and should continue to be improved, we all agree. The intimation that clear-cutting, especially in connection with the regeneration of Douglas-fir, has had no research attention is incorrect. It has long been studied by the Pacific Northwest Forest and Range Experiment Station. Our mutual friend, former Director Thornton Munger, has told me of the researches in this field that were sponsored beginning early in his administration of the Station. Of course, the research must continue.

On page 28 of the Crafts' Report is an unfair and ominous heading: "The North Cascades—Resource Policy at the Crossroads." Certainly, the work of the Study Team is important but it is far-fetched to assume that we are on the "verge of a great crisis." It sounds too melodramatic to suit me. A number of alternate decisions could be made without creating a calamity.

One of the resources that is not stressed sufficiently is that of wildlife. In the present surge of outdoor activity fishing and hunting—the latter much more so than fishing—is apparently being crowded to the side. With the several hundred thousand men and youth right now hunting in Washington—and this is similarly true in many other States—one cannot help but be conscious of hunting as not only an ancient outdoor sport but still very much a popular activity. A good statement about wildlife was submitted to the Study Team but it apparently has received relatively little attention. It is my opinion that we have overlooked the possibilities of both hunting and fishing, but especially hunting, in planning for the future. These are two of the finest of our traditional sports that appeal especially to youth approaching manhood. It is my strong opinion that hunting and fishing should receive more attention as we consider our outdoor recreation responsibilities. These fine diversions have honorable traditions of their own and each has enriching concomitants that are wholesome for our youths. We simply must see that they are continued as an important part of posterity's heritage. The establishment of a million-acre park will not help.

According to the plans of the Craft's Report, the section of the North Cascades Primitive Area which lies west of Ross Lake is to be included in a proposed North Cascades National Park. This is indeed a surprise. It is general knowledge the Forest Service is now preparing information supporting a recommendation to be made to

Congress in the relatively near future that all of the North Cascades Primitive Area, with the possible exception of adjustments along the shores of Ross Lake, be designated as permanent wilderness. I heartily endorse such action and strongly oppose the proposition advanced in the Crafts' Report.

I object most vigorously to the recommendation that the Pickett Range be made available for easy access to the multitudes by trains or other mechanical means. Most of the region lying west of Ross Lake, in the general proximity of Mount Challenger, possesses the greatest potential in the Northwest for the people who wish to find true wilderness experience. This is because of the rigorous climate and the rugged topography. The district is intimately known only to the relatively few hardy explorers and mountaineers who are willing to penetrate such a formidable terrain. The names given to the peaks reflect the reaction of the intrepid souls who first viewed the region. Names that range from Mt. Redoubt and Mt. Challenger to Terror, Fury, Triumph and Despair give some indication of the challenges caused by the towering peaks and pinnacles overhead, and the narrow, rocky gorges and jungle-dense creek bottoms between and below.

The maintenance of the single trail through Whatcom Pass has been a costly item, difficult to maintain. To attempt to develop more than a simple system of foot trails would be extremely expensive. Heavy growth in the creek bottoms, solid rock and avalanche chutes above, and the vagaries of much rough weather, make construction of safe trails for any except truly competent mountaineers exceedingly difficult. It should be preserved for those who have the spirit and perseverance to develop the physical condition and also the skills and disciplines required of those who become expert mountain climbers.

Because of this and for the very obvious purpose of retaining some undeveloped and pristine areas, the Pickett Range and environs should be preserved in its wilderness state. It is an area that has and will successfully continue to resist man's encroachment. Nothing should be done to encourage its development for more conventional and convenient types of recreational uses. Such action would constitute a desecration of what should remain posterity's continuing heritage. It should be kept in a permanent wilderness.

Why not an additional, extensive new National Park in the North Cascades?

Consideration should be given to the very short season when visitors in large numbers would tend to visit the area. The North Cascades has an extremely abbreviated summer. Early in autumn we usually have cloudy, foggy weather, with extended periods of precipitation. The higher altitudes have heavy falls of snow and at the levels where scenery becomes outstanding, the temperature tends to drop to low levels. Vigorous people enjoy the active sports and the rigorous weather but those who prefer the California, Florida, or even southern Appalachian climates like the sunshine and mildness.

For the better part of a decade the State parks of Minnesota were under my administration. The overhead to maintain these attractive areas for a twelve-week season made a lasting impression on me. To provide accommodations for the thousands from the humid cornbelt who rushed to the cool Minnesota lakes for the brief "tourist season" was quite a different administrative problem from that in the southern states where facilities had full-year patronage. It is financially unprofitable to have extensive accommodations that draw revenues for but a few months of the year.

Certainly, the Mount Baker and Mt. Shuksan area has National Park quality. But would it serve the State and Nation better as a National Park than it does now as a full-year outdoor recreation area? There are a dozen peaks in the North Cascades that have outstanding quality and undoubtedly would be National Parks if in Iowa or Kansas. The North Cascades has the most outstanding mountain park in North America—namely, Mount Rainier National Park. It has never realized its potential from the viewpoint of education, research, scenery, and recreation. The massive summit, the glaciers, the variation in vegetation at different altitudes, the opportunities for art, these should not only be fully developed in a master plan but also fully in its program.

The administrators of this splendid park have wished for decades for opportunities for appropriate development.

The Olympic National Park does *not* lie in the Study Area. However, it should be pointed out that this magnificent area might be affected by the establishment of a third large National Park in Washington. With the large population of the State east of Puget Sound, would this mean that the Olympic National Park, even now much underfinanced for desirable development, would become third on the list for support?

My contention is that the extreme northern part of the North Cascades, even Mt. Baker and Mt. Shuksan, have too short a season and too much inclement weather during three-fourths of the year to become a heavily patronized National Park. To become an outstanding recreation area, which it is now and was set aside to be 50 years ago, with year round active outdoor recreation is still a wiser proposal. With its "deep-snow" possibilities, its long skiing season, its appeals for activities which appeal to many different and some unusual interests, it is just now entering a new period of development and appeal that assures good patronage for different seasons of the year.

I favor rather the establishment of National recreation areas which have Congressional approval and whose status can only be changed by similar Congressional action, to the establishment of additional National Parks in such areas. This would not disturb special activities like hunting, but would guarantee reasonable stability of purposeful use. It would obviate the necessity of bringing in a new Federal agency with additional personality, new building programs, new rules, regulations, and restrictions, and accomplish unhampered opportunities for outdoor recreation as new needs and objectives develop over the decades.

In a memorandum (Management of the National Park System) issued in July 1964, Mr. S. L. Udall, Secretary of the Interior, made an excellent statement. He indicated that the National Park responsibilities and activities could be listed under three headings, namely: natural areas, historical areas, and recreational areas.

To the memorandum, Secretary Udall appended an interesting "Summary of Legislative Landmarks Affecting the National Park System." In succinct fashion it presents Congressional action which assigned special and general responsibilities to the Secretary and to the Department of the Interior. It is indeed well that a definite agency is made responsible for National monuments, memorials, parkways, seashores, and the like. I am glad, too, that through the Bureau of Outdoor Recreation the Secretary of the Interior has the responsibility to promote the coordination and development of effective programs relating to outdoor recreation. The Act of May 28, 1963, states:

> "That the Congress finds and declares it to be desirable that all American people of present and future generations be assured adequate outdoor recreation resources, and that it is desirable for all levels of government and

> private interests to take prompt and coordinated action to the extent practicable without diminishing or affecting their respective powers and functions to conserve, develop, and utilize such resources for the benefit and enjoyment of the American people."

The statement quoted does not mention the National Park Service. It definitely leaves responsibility for the administration of outdoor recreation wide open, even at the Federal level.

For example, within the Department of the Interior, the National Park Service is not the only agency that deals with the administration of outdoor recreation. Neither is Interior the only Department that does so. This is common to a number of Departments and agencies; in fact, to nearly every agency that has official charge of Federal lands. This is as it should be. Of course, Congress can determine which agency should assume responsibility for such programs on particular Federal tracts. That, too, is as it should be.

I am strongly inclined to agree with a statement recently made by Mr. Joseph Penfold:

> "We must be prepared to think and act objectively in *National* terms, even if that does mean the agony of seeing some local project dear to our hearts slip away from us—and as we all know, choice areas are slipping away." * * *
>
> "Certainly we should concentrate our attention and action for authorization of new projects on those most immediately threatened with destruction. * * * We shall need to consider carefully whether it makes sense to try to push authorization for proposed park areas already in Federal ownership ahead of the proposed areas which are threatened with immediate engulfment by industrial or other development."

There is judgment and wisdom in Mr. Penfold's remarks. For one agency to covet the land of another when both plan to use it for outdoor recreation, even to take some out of wilderness or primitive status, in obtaining it, is indeed the height of folly. Instead, let the agencies help each other in obtaining those priceless areas that can be and will soon be forever lost. There are populous sections of the country where action is required immediately. By concentrating on the issues there we need all the strength and support we can muster.

I indicate herewith my reactions, whether approval or opposition, to the twenty recommendations that begin on page 131. For the sake of general convenience, I follow the numerical order used rather than my opinion of the order of importance.

> Recommendation I. An Alpine Lakes Wilderness Area should be established.
> I approve this recommendation which is an endorsement of a Forest Service proposal.
>
> Recommendation II. An Enchantment Wilderness Area should be established.
> I approve the recommendation which endorses the Forest Service proposal.
>
> Recommendation III. A Mt. Aix Wilderness Area should be established.
> I approve the recommendation which approves the Forest Service proposal.

Recommendation IV. The present boundaries of the Glacier Peak Wilderness Area should be extended.
I might wish the extensions to be increased somewhat along certain valleys, slopes and divides. More intimate, personal acquaintance with the proposed boundaries on my part is necessary to indicate any exact extensions. However, I agree with the recommendation.

Recommendation V. An Okanogan Wilderness Area should be established.
I strongly oppose the proposal to change the boundary of the North Cascades Primitive Area. The part that lies west of Ross Lake should not be placed into a proposed National Park. I have covered this matter fairly definitely in another part of my comments. I am against any decrease of wilderness area.

Recommendation VI. There should be established a North Cascades National Park.
I am opposed to the establishment of a new, extensive National Park in the State of Washington, especially in the area designated in the Crafts' Report. I am particularly opposed to the inclusion of the Pickett Range, and also against the inclusion of some of the river valleys and mountain ranges. The major purpose of the park is to provide outdoor recreation facilities. This can be done more appropriately by the establishment of a National Forest recreation area. It would then not outlaw hunting and still insure permanence of status. There are many reasons why a single agency should be responsible for general land management in this rather than have two agencies from two different Departments do so.

Recommendation VII. The Southern boundary of Mt. Rainier National Park should be extended.
I heartily endorse this recommendation.
I recommend in addition that a park of the Mt. Rainier superlative resources should receive support comparable to its potential. I urge that a master plan indicating its possibilities be made available for public distribution. The management of this wonderful part of the North Cascades is limited by inadequate financial support. This should be corrected.

Recommendation VIII. Coordination between Forest Service and Park Service at Mt. Rainier Area.
I approve this recommendation most heartily and commend the Bureaus that have so successfully developed inter-Bureau arrangements and cooperative agreements.

Recommendation IX. The Mt. Baker Recreation Area should be administered by the Forest Service.
I approve this recommendation.

Recommendation X. The Cougar Lake and the Monte Cristo Peak Limited Areas should be declassified as such and administered by the Forest Service in accord with its normal multiple-use management policies.
I concur with this recommendation but wish to emphasize that the Cougar Lake Area has qualities of primitive nature that should be respected as having permanent value. These features merit special management consideration so that the unusual characteristics are retained.

Recommendation XI. The Eldorado Peaks High Country should continue to be developed by the Forest Service for recreation pending establishment of the North Cascades National Park.
I would approve the recommendation provided the statement be amended by placing a period after "recreation" and the remainder of the sentence deleted. The quotation from the discussion or explanation, "It is believed that the Forest Service development plans are not considered inconsistent with the type of development that will be carried forward in a National Park" is eloquent evidence that a park is not needed to carry on an outstanding outdoor recreation program. This is now in process of development at Mount Baker.

Recommendation XII. The Forest Service and the National Park Service * * * should * * * pursue their respective plans * * * over the next 20 years.
I approve this somewhat superfluous recommendation.

Recommendation XIII. Scenic Roads.
The recommendation covers too much territory for general approval. The North Cross-State Road certainly must be a transportation route through northern Washington, a highway connection between eastern and western Washington. It will, of course, be used also by tourists and sightseers. The Austin Pass route will provide quite limited purposes, in comparison.

I strenuously object to a scenic parkway along either side of Ross Lake. If British Columbia builds a road to its end of Ross Lake, autos should be ferried the length of the Lake to the North Cross-State Road. Roads are anathema to wilderness. I shudder to think of the cuts and fills—the eyesore they would create and the erosion they would start—were the road constructed. It is far better to keep Ross Lake itself as the only north-south travel route. I use these illustrations to indicate why I oppose an overall approval. Each road should be considered separately.

Recommendation XIV. There should be developed and maintained an adequate recreation trail system in the North Cascades.
The limiting adjective "adequate" induces me to endorse this recommendation although I do so with fear and trepidation. Trails, like roads, can be overbuilt but usually with less danger to an area. Experts, of course, must determine the kind of trail needed and its location.

Recommendation XV. Timber Management.
Instead of acting on this recommendation, I make the obvious recommendation that it be reconsidered and rewritten. It reads too much like a sackcloth-and-ashes admonition.

Recommendation XVI. Certain portions of the Skagit River and its tributaries should be given wild river status.
I endorse this recommendation although I should like to know the exact portions of the river and its tributaries which are to be so considered.

Recommendation XVII. The Federal Power Commission should subscribe to the intervention of the Secretary of the Interior of July 21, 1965, with respect to Federal Power Commission Project No. 2151.
Mr. J. Herbert Stone, Regional Forester, Region Six, has reported that Project No. 2151 is not compatible with the purposes for which the

Wenatchee National Forest was created or acquired and is being managed. The matter has been referred to the Chief of the Forest Service for transmittal to the Secretary of Agriculture who will then, through regular procedures and channels, present it to the Federal Power Commission.

I recommend that the Secretaries of Agriculture and of the Interior oppose Project No. 2151.

I recommend that the Bumping Lake Reservoir Project be considered by both the Departments of Agriculture and of the Interior for appropriate action.

Recommendation XVIII. Protection of rights of Seattle City Light and Power.
This would of necessity be provided for should the proposed North Cascades National Park be authorized.

Recommendation XIX, and XX. Wildlife and fish protection and management.
I approve the intent of these two recommendations.

Respectfully submitted,

George A. Selke

George A. Selke, *Member,*
North Cascades Study Team.

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
WASHINGTON, D.C. 20240

OFFICE OF THE DIRECTOR

October 19, 1965

Dr. Edward C. Crafts
Chairman, North Cascades Study Team
Department of the Interior
Washington, D.C.

Dear Dr. Crafts:

I have now had an opportunity to review and discuss with you the draft of report on the North Cascades Study transmitted to the team members with your memorandum of August 30.

This has been a very difficult and complex study. It has been, also, a most challenging and stimulating study. You and your staff are to be commended for the masterful manner in which you have prepared this proposed final report. Moreover, I congratulate you, personally, on the skill with which you have served as chairman of this study team.

The Resources Study Reports indicate considerable agreement between the representatives of this Service and the Forest Service in the identification of the

recreational values of lands under Classes 1, 2, 4, 5, and 6 of the Bureau of Outdoor Recreation land classification system. The major land classification difference between our two Agencies relates to Class 3 (natural environment) lands. This difference arises, principally, out of the interpretation by the Forest Service of lands classified for its recreational program under its Multiple Use Act. The agreement of our Services, with respect to lands identified in Classes 4, 5, and 6, is especially significant since these are the classes of lands requiring a high degree of preservation in order to conserve their scenic, scientific and historic values.

A review of the land classification map indicates that, in general, Mount Rainier National Park and an area immediately adjacent to it on the south; Alpine Lakes-Mount Stuart area; Glacier Peak; Okanogan Highlands; and the Mount Baker-Mount Shuksan-Picket Range-Eldorado Peaks Areas are identified as Class 4, 5 and 6 lands.

It is the purpose of the National Park System through its National Parks to preserve and interpret for the benefit and enjoyment of our citizens those areas of superlative scenic grandeur and scientific significance representative of the natural heritage of our Nation.

In the light of this long-recognized purpose of the National Park System and the unquestioned significance of the lands for National Park status, this Service recommended two National Parks—one in the Glacier Peak area; and another in the Mount Baker-Mount Shuksan-Picket Range area.

Your recommendation is that, with certain boundary adjustments, the Glacier Peak area continue as a part of the Wilderness Preservation System under Forest Service management. I believe still that this area qualifies as a National Park. However, since continued classification and proper management as wilderness will preserve the values here, since the area in many respects is quite similar to Mount Rainier, and in a final effort to compose the many points at issue, I reluctantly recede from my original recommendation and support your recommendation.

With respect to our Mount Baker-Mount Shuksan-Picket Range Park proposal, you recommend a National Park which eliminates Mount Baker and essentially all of the Nooksack Valley, and which adds the Eldorado Peaks area to the south. The area you have proposed for addition is dominated by Eldorado, Forbidden and Boston Peaks, all above 8,800 feet in elevation. It is the most massive collection of giant peaks and living glaciers in the entire North Cascades—in fact, in the entire continental United States. As such, it is unquestionably of National Park caliber. It likewise provides a needful area for the development of park visitor use facilities. I agree with you, moreover, that this area is more appropriate for inclusion in a National Park than it is for inclusion in a National Recreation Area, as originally recommended by this Service. My belief in this regard is strengthened by the fact that the remainder of the area recommended by us as a National Recreation Area is not now proposed by you for National Recreation Area status. Accordingly, I recede from my previous recommendations for this area and concur in your recommended addition of the Eldorado Peaks area to our National Park proposal.

I must, however, object strongly to your deletion of the Nooksack Valley. Especially, do I object strenuously to your deletion of Mount Baker.

The Nooksack Valley area is badly needed for development of administrative and park visitor use facilities on the western edge of the proposed National Park.

My objection to the deletion of Mount Baker is more fundamental. Mount Baker affords a splendid area for development of visitor use facilities. More importantly, Mount

Baker, with Mount Shuksan and the Picket Range, is the only sector of the Cascade Range where features illustrating all chapters in the geological story of the Cascade Range from pre-Tertiary times to the present can be presented. Mount Baker and its immediate vicinity are indispensable to the completion of this geological record. To tear it out of our recommendation, as you propose, is to rupture the basis on which the interpretive story of this unique area may be told to its fullest scientific value and in its most dramatic manner.

Your failure to include Mount Baker as we have recommended is even more startling and confusing when one realizes that, as long ago as 1926, the Secretary of Agriculture recognized the national significance and park-like character of Mount Baker by designating it the Mount Baker Park division of the Mount Baker National Forest. Thus, for almost 40 years, by Secretarial Order, the Forest Service has given Mount Baker a special and unique management in recognition of its superlative scenic and scientific values.

As I have repeatedly pointed out in our committee discussions, the question of including Mount Baker in a National Park does not involve the issue—as sometimes suggested—of whether this Service or the Forest Service can do the better management job there. In fact, as we have discussed, this argument demeans the respective missions assigned by the Congress to our organizations and the talented and devoted employees of our respective Services. My principal objection to your deletion of Mount Baker is that, recognizing the park values of Mount Baker, it violates the Congressional missions assigned our respective Services to continue the management of this park area in the Forest Service.

A principal purpose of our study is to clarify the management responsibilities of the Federal Agencies in the North Cascades. Thus, to continue the management of the Mount Baker Park division as a part of the Mount Baker National Forest, as suggested in your recommendation, is as incongruous as would be a recommendation that the timber resources of one of the National Forests be assigned to this Service for commercial, sustained yield management.

Throughout the report, you have emphasized the need for visitor access in the proposed National Park. Of course, I concur that National Parks should be available for reasonable public access. I do not believe, however, that they should be so thoroughly emasculated with roads and trails that their basic values are impaired. I am particularly pleased to see that you have recognized the need for careful planning of roads and trails and that such roads and trails should be supplemented by other means of access, such as helicopters and mechanical devices as discussed in the report. The rugged country of the North Cascades lends itself especially to the use of these less destructive means of access, and I agree that in this proposed National Park we should utilize these innovations in park transportation. Moreover, the suggested development plan discussed during the May meeting of the study team indicated that several heliports with accompanying high chalet overnight accommodations in the Picket Range area were desirable for visitor access and accommodation. I believe that such developments are appropriate in this proposed National Park and concur in your view that they should be provided.

As a part of the overall access system of the proposed National Park, I concur also in your recommendation for a road in the vicinity of Ross Lake. This is a prime public use area that should be made available with a park-like road for visitor use and enjoyment.

With the foregoing comments, I concur in the report.

Sincerely yours,



GEORGE B. HARTZOG, JR.
Director.

cc:
Dr. Selke
Dr. Stratton
Mr. Greeley

UNITED STATES DEPARTMENT OF AGRICULTURE
FOREST SERVICE
WASHINGTON 25, D.C.

IN REPLY REFER TO
2150

October 27, 1965

Dr. Edward C. Crafts
Director, Bureau of Outdoor Recreation
Room 5356 Department of the Interior Building

Dear Dr. Crafts:

Herewith my comments on the Report of the North Cascades Study Team and the major items concerning which the Report makes recommendations.

This Study turned out to be primarily centered on outdoor recreation. I suppose this was inevitable. Most of the recommendations deal with recreation aspects of this area. And later on the Study will be thought of as mostly concerned with reaching conclusions about use of outdoor recreation resources of this part of Washington State. We, in the Forest Service, have lived in this area for a long time. We have struggled through its various phases. And we lived through a long period of time when few people were very interested in this area, when funds for adequate fire protection were limited, and when just the imagination and great heart of a large number of very dedicated public servants succeeded in giving this area enough protection from fire and from other hazards to protect it and to hand it down to the present generation as the highly attractive area which it now is.

The present surge of interest in recreation use of the North Cascades Study Area should not be a reason for anyone to overlook the importance of the other resources. The harvest of timber is important in this area, even though some folks who live outside of it would like to imagine that timber harvesting is not a particularly necessary activity here. There are people with jobs, and families, and homes who are dependent upon the continuing flow of raw material from National Forest timber being harvested in the Study Area. And this is an important segment of the local and State economy.

Whether there are 5,000 people, or 20,000 people, whose livelihood is directly dependent on resources from this area, his job is important to each one of those individuals. And each job is important to the man's family, and to his community. We live in a society and a political climate which recognizes the worth of each individual, and of his opportunity to support his family through gainful employment. In our political climate, we do not tell the people of a community, such as Darrington and others, that a third of the people now working there will have to go find jobs some??? place else because the resources on which their jobs depend are needed immediately for some other purpose.

People who observe from the sidelines, and those who come to the Study Area as seasonal guests during the pleasant months in the valleys and the high mountains, are not able to look at this part of the country as do the people who live there. Those who live there see timber-harvest roads, and the appearance of a clearcut area during the short interval before natural regeneration comes in, not as bleak blotches on the landscape. They see them in the same way that a farmer cultivating rich farmland sees plowing and cultivating—as part of a process of harvest, cultivation and renewal.

And this is the way we, in the Forest Service, see the resources of the Study Area.

So it goes for hunting. We see game management, the manipulation of game populations, and hunting under a State-controlled system as a very necessary part of managing the total environment of this area. We see water developments, like that of the City Light Department of the City of Seattle, as a necessary part of the total complex of this area. Water production needs to be supported by things such as snow fences at appropriate places in the mountains to influence the pattern of snow accumulations.

And so, too, we see range use by domestic livestock in the relatively small portions of this area which can properly be so used. In total, this use is not important in the economy of the State of Washington. But for the individuals whose stock run in this Study Area, the grazing permits are important. An abrupt upset is a serious upset to the families and the livelihood of the individuals involved.

In short, we see this North Cascades Study Area as an important part of the State of Washington having significant resources. Its use is of great importance locally. Its management on the basis of making good use of all the resources continues to be as important now as it has been during the 60 years that the Forest Service has intimately known this entire area.

Now, about recreation. The Report properly points out the recreation importance of this general area. By its actions, the Forest Service has long recognized the importance of the recreation resource here. Attention in the Report has been mostly focused on the management of the high elevation heartland. But the whole area is important for outdoor recreation and is extensively used for this purpose. It is, perhaps, a little unfortunate that so much attention has fallen in recent years on what areas should be wilderness, or national park, for these areas receive very light use compared with the Study Area as a whole. In 1964, less than six-tenths of one percent of National Forest recreation visits were in the present primitive and wilderness areas.

Nevertheless, there has been much attention to urgings that more area be classed as wilderness. The people who began to agitate for a national park in the late '50's did so before the Wilderness Act was passed. There now is a Congressional statement of direction about how wilderness areas are to be managed. Congress has also stated the

steps and the timing by which areas now classed as primitive areas are to be acted on for reclassification as wilderness areas. For areas that are now, or which are to be in the National Wilderness Preservation System, there no longer is an argument that the management of these areas may be changed by "the whim" of an appointed officer of the Government. The Congress has said how they are to be managed, and Congress has said what procedure must be followed to bring about a change in this management.

So right in the heart of the Study Area there now are more than 1,300,000 acres of National Forest land for which the management direction has been set by Congress under the Wilderness Act.

As you know, the Forest Service has recommended to the Study Team that another 267,000 acres or so in new areas or in proposed additions to present areas be added to the National Wilderness Preservation System. And you also know that the Secretary of Agriculture decided in 1960 to manage for the recognition of its recreation potential an area of over half a million acres lying between the Glacier Peak Wilderness Area and the North Cascades Primitive Area. I mention this Eldorado Peaks high country in a little more detail later.

The sum total of these various recommendations, all of which were in being or had been openly discussed prior to the appointment of the North Cascades Study Team, means that the Forest Service has recognized to the extent of more than 2 million acres the importance of outdoor recreation in this part of the Cascade Mountains in the State of Washington. We have, by these various proposals and existing arrangements, dedicated in excess of 2 million acres in the heartland of the North Cascades of the State of Washington to outdoor recreation use, either in wilderness form or in a form suitable for mass recreation use.

To merely shift some of this area from Forest Service administration to National Park Service administration does not add any area for the public to use for outdoor recreation. Nor does it significantly change the nature of the country. As long as the North Cascades area of the State of Washington is protected from fire and insects and disease, the general nature of the country will remain just what it is—an attractive, highly scenic, desirable outdoor piece of country. But to shift some of it from Forest Service administration to National Park Service administration does add cost. There would necessarily be duplication in organization, duplication in administrative facilities, and, consequently, duplication in annual costs of administration and servicing.

About the Eldorado Peaks high country. We have laid out a proposal for the way this area should be managed. It is discussed in considerable detail on pages 28 to 37 of the Appendix of the Study Report. We have proposed that this area be developed for outdoor recreation use by the winter sports enthusiasts and the summer recreation seekers to whom this country will appeal. We have proposed a combination of winter sports facilities, of campgrounds, of organization camps and concession-operated resorts, and a moderate program of roadbuilding to make the country more accessible for recreation. This is all as described in the Appendix of the Study Team Report.

As I told the Team in the Meeting in June of 1963, the Forest Service would be willing to have this area designated in some special way, such as by its being made a National Recreation Area by Act of Congress. We did not formally so recommend to the Team because we were advised by Bureau of Outdoor Recreation Staff that under the guidelines adopted by the Recreation Advisory Council this area would be considered as capable of having a recreation program without designation as a National Recreation Area. Therefore, the BOR Staff thought that it would not be eligible to be a National

Recreation Area. We, in the Forest Service, think it would be suitable to be a National Recreation Area, and would have no objection to its being so-classed.

It is alleged that people of the Nation do not know about the North Cascades Area. This is true compared with Yellowstone and Yosemite and Mt. Rainier. We think this is not due to lack of publicity by the Forest Service, but to lack of good road access. We have been working with the State of Washington, in the use of State highway funds and Federal highway funds, to get a good highway constructed which opens up this part of the North Cascades for the general traveling public. And once this cross-state highway is opened up, this part of the State of Washington will become well known whether there is a National Park or a National Recreation Area or no such special designation. It has been the lack of road access which has kept people out of this country and kept them from knowing about it, not the lack of designation as a national park.

It is difficult for me to see the justification for proposals to make a national park out of Mt. Baker. Mt. Baker does not compare with Mt. Rainier in geologic and scenic attractiveness as a mountain mass. Mt. Baker is now a well-known, popular winter sports area. It has an International reputation. The present pattern of management has been highly satisfactory to the residents of the State of Washington. Again, it seems to me, that simply to transfer the administration of this area from one agency to another in order to accord to it the name "national park" would not add anything to the recreation resource base available to the American people. It would add cost of duplicating administration; and it would remove this attractive area from availability for hunting. Unless there is a change in policy by the Park Service about winter sports development, it would also cloud the continued use of this established winter sports area for this purpose.

Here are my comments on the recommendations. As you know, the Forest Service is in agreement that an Alpine Lakes Wilderness Area should be established. We are in agreement that an Enchantment Wilderness Area should be established. We are in agreement that a Mt. Aix Wilderness Area should be established. We are in agreement that the present boundaries of the Glacier Peak Wilderness Area should be somewhat extended in three respects; i.e., along the northeast perimeter, a small addition in the Suiattle River corridor, and a small addition in the White Chuck River corridor. These proposed new areas, and proposed additions to existing areas, would add about 255,000 acres to the areas classified as wilderness.

Regarding the North Cascades Primitive Area, I want to set forth our position so that it will be clear. We think the North Cascades Primitive Area should be reclassified to a wilderness area under the provisions of the Wilderness Act. We think that in the reclassification, the boundaries should be slightly changed so that the total area would be enlarged from 801,000 acres to about 813,000 acres. In this boundary change, a somewhat wider corridor adjacent to Ross Lake would result, so there would be some land on both sides of the lakeshore which would not be included in the wilderness area. We feel very strongly that the portion of the North Cascades Primitive Area west of Ross Lake, and which in the Study Team discussions was referred to as the Pickett Range area, should remain a wilderness area. We think this piece of country cannot be developed for heavy recreation use, or even for accelerated recreation use, except with a loss of wilderness values which should not be lost. I want it to be perfectly clear. We feel very strongly this area, which has been in primitive area status for about 30 years, should continue to be wilderness.

We do not agree that there should be a national park.

We agree with the recommendation to make a change on the southern boundary of Mt. Rainier National Park. And we also agree that much can be gained by both the National Park Service and the Forest Service through effective coordination and management of activities along the boundary between Mt. Rainier National Park and the surrounding National Forest lands.

We agree with the recommendation that the Mt. Baker Recreation Area should continue to be administered for recreation purposes. And we agree with the recommendation that the Cougar Lake and the Monte Cristo Peak Limited Areas, which involve a classification action made within Region 6 of the Forest Service but never reviewed, accepted, nor formally acted on by the Chief of the Forest Service should be discontinued and the area now delineated by these lines on maps should be administered as other National Forest land.

We agree that the recreation load will increase in the Study Area, and that all agencies, including the Forest Service should have, and aggressively pursue plans to provide additional recreational facilities. We also agree there should come into existence a system of scenic roads, and a good system of trails. Some work still remains to be done in working out the details of what the routes would be, and what the priorities should be.

We agree that management of timber in portions of the Study Area needs to be done in such a way that recognition is given to the needs of areas that are important for recreation. The Forest Service is now using a zoning-type approach. We designate landscape management areas, which are similar to roadside zones, to denote areas where the maintenance of scenic attractiveness in the vicinity of developed campgrounds and in the vicinity of roads and waterfronts is an objective of management just as important as is the production of timber. This concept is applied in a selective manner, depending upon the timber type involved, the elevation, the steepness of slope, and other matters of local condition. We have been using this approach for four operating seasons now. We feel that the application of this approach provides an important answer to many of the things in our timber cutting which have, in the past, been rather severely criticized. We agree that the prompt securing of regeneration is important. And we agree that it is important to artificially revegetate roadbanks and other bare areas resulting from logging which, if not revegetated, produce unsightliness and may also be a cause for soil washing.

We are in agreement that the Skagit River should receive wild river status and that the recreation impacts of the proposed water power project on the Wenatchee River should be carefully assessed and fully presented when the decisions are being made on this project. We agree that it is desirable to improve fish habitat and wildlife habitat, and, to the extent possible, to increase levels of fish production and to obtain balance between range capacity and numbers of big game and livestock.

As you are aware, this letter is written before the final draft of the Report is completed. I have commented on the recommendations we have discussed. I think the comments are clear, even though they may not appear in the same order as do the recommendations in the final Report. Subject to these comments, I concur in the recommendations section of the Report.

Sincerely yours,



A. W. GREELEY,
Member, North Cascades Study Team,
Deputy Chief, Forest Service, USDA.

cc—All other Members of Study Team
George B. Hartzog, Jr.
Dr. Owen S. Stratton
Dr. George A. Selke
cc—Region 6

UNITED STATES DEPARTMENT OF AGRICULTURE
FOREST SERVICE
WASHINGTON 25, D.C.

IN REPLY REFER TO
2150

December 3, 1965

Dr. Edward C. Crafts, Director
Bureau of Outdoor Recreation
Room 4115
U.S. Department of the Interior

Dear Dr. Crafts:

The two sets of comments which we submitted as individual members of the North Cascades Study Team range over the full set of recommendations contained in the draft report transmitted with your memorandum of August 30. They cover points on which there is agreement among Team members as well as points on which there is disagreement. And they attempted to express shades of meaning in some of the comments.

In order to summarize the two longer statements, and to make the position of the Department of Agriculture representatives on the Study Team perfectly clear, the representatives from the Department of Agriculture want this further statement included in the report.

Our summarized recommendations, and the supporting reasons are:

> I. We recommend the establishment of a North Cascades National Recreation Area to include the area between Glacier Peak Wilderness Area and the present North Cascades Primitive Area, including Ross Lake.
>
> II. We recommend keeping the Glacier Peak Wilderness Area in its present status, with some boundary extensions.

III. We recommend reclassifying the North Cascades Primitive Area to a Wilderness Area with some boundary changes, and giving appropriate separate names to the portions west and east of Ross Lake. The west portion should be called the Pickett Range Wilderness Area, and the east portion the Pasayten Wilderness Area.

IV. We recommend keeping the Mt. Baker-Mt. Shuksan area as it now is, a part of the Mt. Baker National Forest where recreation values are specially emphasized.

These four recommendations cover the major points about classifying areas of land concerning which there is disagreement between members of the Study Team.

We also recommend:

V. Establish new wilderness areas as follows:
a. Alpine Lakes Wilderness Area;
b. Enchantment Wilderness Area;
c. Mt. Aix Wilderness Area;

and that the regional designation of certain "Limited Areas" be discontinued.

VI. An extension on the southern boundary of Mt. Rainier National Park.

VII. Construction of the following scenic roads:
a. Curry Gap
b. Cady Pass
c. Harts Pass
d. Austin Pass

VIII. The designation of certain parts of the Skagit River and tributaries as Wild River sections.

Comments on other recommendations, which deal with management practices, road use and standards, the need for trails, and the need for additional recreation plans and facilities are not repeated here since they do not bear on the commitment of land for different uses.

The central issue of the study and the report is on the question, should there be a National Park in the North Cascades in addition to Mt. Rainier. We believe strongly that it is neither necessary nor desirable to have an additional National Park. We think national emphasis can be given to the recreation and scenic values of this area without establishing a duplicating organization and unit of administration.

To do this, we recommend a North Cascades National Recreation Area covering the portion of the Study Area that lies between the Glacier Peak Wilderness Area and the to-be-reclassified North Cascades Primitive Area, including a strip of land on both sides of Ross Lake. This is an area of about 537,000 acres. It is the area which an earlier statement refers to as the Eldorado Peaks High Country.

A North Cascades National Recreation Area, including Ross Lake and all of the main mountain area south to the Glacier Peak Wilderness Area would:

1. Earmark the resources of this area as nationally important for recreation,

without setting up what otherwise is necessarily a duplicating organization to administer the area.

2. Permit making the additional water impoundments which the City of Seattle needs and plans, without the necessity of an exception to longstanding National Park Service policy.

3. Permit hunting as a recognized and desirable use. This recreation area and the adjacent wilderness areas make a very unusual, rugged-terrain hunting area for deer, black bear, mountain goats, and to a lesser extent for birds. The State of Washington has been emphasizing this traditional, American, outdoor sport by featuring an early hunting season in this part of the Cascade Mountains. This kind of hunting has a place as part of the heritage to be handed on to future generations.

4. Permit the Cross-State Highway which is now being built through the North Cascades to function as a through artery of commercial transport. It is needed as an artery of transport. If this were a National Recreation Area, a through State highway could exist without raising questions as to whether commercial use constitutes an additional exception to longstanding National Park Service policy.

5. Permit carrying out a recreation development plan that includes several tramways and several substantial winter sports areas, for which comparable facilities do not exist now within National Parks, and which present Park policy does not encourage.

6. Permit the recreational pastime of "gathering," which includes berry picking, rockhounding, gathering weathered and washed wood and use of other minor components of the forest environment that is not now permissible within National Parks.

7. Permit the commercial use of products that become available in the normal course of managing the area for its recognized values of recreation, scenic beauty, wildlife habitat, forage use, water development and production, and forest insect or disease protection.

8. Provide a "national" name and "national" identification for this area.

9. Permit the present formula for sharing National Forest receipts with the counties to operate without changes that would be adverse to some counties and favorable to others.

Special provision should be made for mining. We believe it would be proper to incorporate in the authorizing legislation a provision similar to that in the Whiskeytown-Shasta-Trinity National Recreation Area legislation, to withdraw public lands from location, entry, and patent under the mining laws but to permit removal of nonleasable minerals in the manner prescribed for leasable minerals. We also believe that all mineral activities should be subject to a cut-off date similar in effect to that contained in the Wilderness Act, which is December 31, 1983.

The Forest Service has plans for recreation development of the area which can be adapted intact to a National Recreation Area.

Designating this area as the North Cascades National Recreation Area will give this

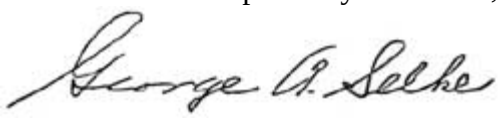
recreation resource congressional recognition and a national name without setting up a duplicating organization and necessarily duplicating costs. Management as a National Recreation Area makes possible some attention to resources, use for the virile sport of hunting, use for water developments, and for incidental harvesting and "gathering." And as a National Recreation Area there could be full development for winter sports and organization camps, which are not encouraged under existing Park policy.

Forest Service plans for the Study Area call for designating over 1,500,000 acres outside of this recreation area for special attention to recreation values, mostly as wilderness areas. Wilderness classification means some restrictions on use. We believe it is appropriate, proper, and necessary that this area of over 500,000 acres be managed under a philosophy that permits some flexibility in kind and amount of resource use as well as giving permanent recognition to recreation values.

A Pickett Range Wilderness Area will retain in wilderness status this remote and inaccessible area which is wilderness in character if any spot in the United States is. We think it cannot be developed for accelerated recreational use without a loss of wilderness values that should not be sacrificed. We believe the Nation would experience a tangible loss if this area were to be changed to some use other than wilderness.

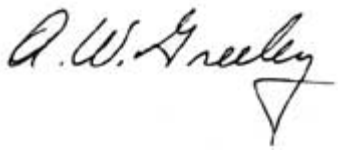
Establishment of a Pasayten Wilderness Area, consisting of the present North Cascades Primitive Area east of Ross Lake, with some modification of boundaries, is consistent with its long-continued classification as a primitive area. On this point, we understand, there is not disagreement among the Team members.

Respectfully submitted,



GEORGE A. SELKE,
Consultant to the Secretary of Agriculture.

ARTHUR W. GREELEY,



Deputy Chief,
Forest Service,
U.S. Department of Agriculture.

APPENDIX A
LETTERS INITIATING THE STUDY

Letter of January 28, 1963, from Secretary of the Interior and Secretary of Agriculture to President Kennedy

Response of January 31, 1963, from President Kennedy

Letter of March 5, 1963, from the Secretary of the Interior and the Secretary of Agriculture establishing the Study Team

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF THE SECRETARY
WASHINGTON 25, D. C.

January 28, 1963

Dear Mr. President:

We are pleased to advise you that the Department of Agriculture and the Department of the Interior have developed a new conservation policy to help implement the outdoor recreation program of the Administration.

We have reached agreement on a broad range of issues which should enable our Departments to enter into "a new era of cooperation" in the management of Federal lands for outdoor recreation. This agreement settles issues which have long been involved in public controversy, we have closed the book on these disputes and are now ready to harmoniously implement the agreed-upon solutions.

The decisions reached will do much to further development of Federal recreation resources, eliminate costly competition, promote cooperation, and recognize the major role that the Departments of Agriculture and the Interior both have in administering Federal lands under their jurisdiction for recreation purposes. We have agreed upon the following principles of cooperation.

1. Mutual recognition is accorded the distinctive administrative functions and land management plans used by the Forest Service and the National Park Service in administering lands under their jurisdiction.

2. Except for existing Administration proposals, those covered in our agreement, or routine boundary adjustments, jurisdictional responsibility will not be disturbed among the agencies of our two Departments which are managing and developing lands for public recreation.

3. Neither Department will initiate unilaterally new proposals to change the status of lands under jurisdiction of the other Department. Independent studies by one Department of lands administered by the other will not be carried on. Joint studies will be the rule.

4. Likewise, each Department, with the support and cooperation of the other, will endeavor to fully develop and effectively manage the recreation lands now under its administration.

In furtherance of the above principles of cooperation, and in recognition of the growing demand for outdoor recreation, we plan to recommend to you the establishment of two new Federally administered National Recreation Areas. These areas are planned to help meet existing and foreseeable outdoor recreation needs.

The Recreation Advisory Council, established by Executive Order 11017, has been considering the need for National Recreation Areas and criteria for their selection and establishment. We expect that the Recreation Advisory Council will soon recommend to you the creation of a limited system of National Recreation Areas along with criteria to guide their selection and establishment. The proposals for National Recreation Areas contained in this letter have been reviewed and are concurred in by the other members of the Recreation Advisory Council.

National Recreation Areas would be established only by Act of Congress and would be administered by the Department of the Interior, the Department of Agriculture, or other Federal agencies or departments having responsibility in outdoor recreation as may be recommended by the Executive Branch and determined by the Congress. National Recreation Areas would be administered primarily for recreation but with utilization of other resources permitted, provided such use is not incompatible with and does not unduly interfere with the basic recreation purpose. Advice of the Recreation Advisory Council will be sought with regard to qualification of particular areas, priority for establishment, and jurisdictional responsibility.

National Recreation Areas will be in addition to national parks, national monuments, or other special categories of land administered by the National Park Service, and to the wilderness system or other special categories of land having recreation significance now administered by the Forest Service. In our judgment as well as in the judgment of the other members of the Recreation Advisory Council, these two areas will conform fully with the National Recreation Area criteria, now in the final stages of formulation.

Subsequent to the adoption of these criteria, we shall recommend to you that the Administration submit legislation to establish:

1. Whiskeytown-Shasta-Trinity National Recreation Area of about 280,000 acres in north central California. This area will consist of three-non-contiguous units, surrounding reclamation reservoirs. The areas around Shasta Lake and the Trinity-Lewiston Reservoirs are within the exterior boundaries of the Shasta-Trinity National Forests. These will be recommended for administration by the Forest Service. The 50,000 acre Whiskeytown unit lying outside the National Forest will be recommended for National Park Service administration.

2. The Flaming Gorge National Recreation Area in Wyoming and Utah. This is an area of about 160,000 acres lying upstream on the Green River from the Bureau of Reclamation dam under construction at Flaming Gorge within the Ashley National Forest in northeastern Utah. The two Departments have agreed that the 40,000 acre area within the National Forest boundary will be administered by the Forest Service, and the

larger area of about 120,000 acres lying primarily in Wyoming and outside the National Forest boundary will be administered by the National Park Service.

We have agreed further that:

An Oregon Dunes National Seashore should be recommended consisting of about 35,000 acres primarily of sand dunes along the central Oregon coast. This land for the most part has been under the protection and management of the Forest Service. Administration would be by the National Park Service under the same criteria as for National Recreation Areas.

2. A joint study should be made of Federal lands in the North Cascade Mountains of Washington to determine the management and administration of those lands that will best serve the public interest. These lands for the most part have been under the administration of the Forest Service as national forests for many years. A study team should explore in an objective manner all the resource potentials of the area and the management and administration that appears to be in the public interest. The study team will consist of representatives of the two Departments and will be chaired by an individual jointly selected by us.

Recommendations of the study group will be submitted to us and we in turn will make our recommendations to you.

We believe these agreements represent a major improvement in National Conservation policy. We earnestly hope you will approve them.

Respectfully yours,



Secretary of Agriculture



Secretary of the Interior

THE WHITE HOUSE
WASHINGTON

January 31, 1963

Dear Mr. Secretaries:

I was greatly pleased by your joint letter describing the new conservation policy your Departments are adopting to help implement our outdoor recreation programs. This is an excellent statement of cooperation representing a milestone in conservation progress.

I know that there have been many vexing problems over the years in relationships between the Departments of Agriculture and Interior but your joint statement indicates that these are well on the way to resolution. This achievement in settling major

jurisdictional issues between the two Departments, in outlining the principles of cooperation that will guide them in the future, and in proposing joint exploration of the North Cascade Mountains in Washington is most significant—it is clearly in the public interest.

Sincerely,



The Honorable Orville L. Freeman
The Secretary of Agriculture

The Honorable Stewart L. Udall
The Secretary of the Interior

DEPARTMENT OF AGRICULTURE
OFFICE OF THE SECRETARY
WASHINGTON

March 5, 1963

Mr. Edward C. Crafts, Director
Bureau of Outdoor Recreation
Department of the Interior
Washington 25, D.C.

Dear Ed:

On January 28, 1963, we jointly advised the President that the Departments of the Interior and Agriculture had developed a new conservation policy to help implement the outdoor recreation program of the Administration.

In our letter to the President we wrote:

"A joint study should be made of Federal lands in the North Cascade Mountains of Washington to determine the management and administration of those lands that will best serve the public interest. These lands for the most part have been under the administration of the Forest Service as National Forests for many years. A study team should explore in an objective manner all the resource potentials of the area and the management and administration that appears to be in the public interest. The study team will consist of representatives of the two Departments and will be chaired by an individual jointly selected by us.

"Recommendations of the study group will be submitted to us and we in turn will make our recommendations to you."

By this letter, you are being notified of your selection by us to be chairman of the study team. By copies of this letter to the other four members, two from the Department of

Agriculture, and two from the Department of the Interior, we are notifying them of their selection. Members of the study team may draw on their assistants as needed, but are not privileged to designate alternates. In the event any presently designated member of the study team, including the chairman, is prevented from completing this assignment for reasons of health, or accident, or other unforeseen event, we will jointly name a successor.

The two members of the team representing the Department of the Interior are Henry Caulfield, Assistant Director, Resources Program Staff, and George Hartzog, Associate Director of the National Park Service. The two members representing the Department of Agriculture are George Selke, Consultant to the Secretary of Agriculture, and Arthur Greeley, Deputy Chief of the Forest Service.

We consider this matter of high priority and urge the Committee to initiate its studies promptly. Facilities, files, and records of both the National Park Service and the Forest Service, as well as other facilities of the two Departments, are hereby made available to you and other members of the study team.

Your Committee should handle this assignment in the way it deems best. We suggest, however, that as an initial step, agreement be reached on the specific area to be included in the study. Certainly there should be a review of past studies and recommendations, current use and management of the area, proposals for change, and an inventory and evaluation of all resource potentials, including a weighing of the economic and social impact of various alternatives.

Your report should include recommendations as to both management and administration, including jurisdictional responsibility. We recognize there may not be unanimous agreement among the study team, although we hope that agreement may be reached as to basic facts. If there is disagreement as to recommendations, we believe it would be appropriate for this dissent to be shown and recommendations of individual members of the team included where they differ from group viewpoint. It would be appropriate to include in your recommendations more than one action alternative.

There will be great interest in this study and the Committee may, in order to evaluate public opinion and obtain views and recommendations, find it desirable to hold public hearings. The citizens of the State of Washington will be greatly interested in this study. We ask that you arrange to receive from the Governor of the State of Washington a written statement setting forth the recommendations of the State.

We know that this is a complex, difficult and controversial assignment. We are most anxious that the recommendations of the study team be soundly based and in the interest of the people in the area, the State of Washington, the region, and the United States.

Because of the history and complex issues involved, we are not placing a deadline on the Committee for its report. We do urge, however, that you proceed with due deliberation and haste.

We believe that membership of the study team is the best that could be chosen and have every confidence in it. From time to time, we would like to have a progress report and we would be glad to consult with you and the team during the course of your studies as the occasion may arise.

Sincerely yours,



Secretary of the Interior



Secretary of Agriculture

<<< **Previous** <<< **Contents**>>> **Next** >>>

study_report/appa.htm
Last Updated: 26-Mar-2010

APPENDIX B

POSITION STATEMENT BY FOREST SERVICE

I. Present Resource Use

II. Planned Resource Use in the Future

III. What is Multiple Use

The High Mountain Policy—A Multiple Use Management
Guide for the North Cascades Study Area
Landscape Management Areas
The Grass-Shrub Resource Association
The Principal Forest Resource Association
The Upper Forest Resource Association
The Alpine Resource Association

IV. What Are Wilderness Areas

V. Special Management Areas

Present and Proposed Areas of Wilderness
Glacier Peak Wilderness
North Cascades Primitive Area
Proposed Alpine Lakes Wilderness
Proposed Enchantment Wilderness
Proposed Mount Aix Wilderness
Areas to be Managed with Special Emphasis on Recreation
Eldorado Peaks High Country
The Mount Baker Recreation Area
The Mather Memorial Parkway
The Cougar Lake Area
Proposed Recreation Ways
Curry Gap
Cady Pass
Harts Pass
Austin Pass

VI. The Recreation Resource in the Rest of the Study Area

VII. Landscape Management Areas

VIII. Timber Harvesting Methods and Limitations

IX. Cooperation with Mount Rainier National Park

(2 ACCOMPANYINB MAPS.)

The purpose of this section is to present in a highly condensed form the plans of the U.S. Forest Service for managing the public lands now in National Forests in the North Cascades Study Area. These are plans which have been developed in the normal process of planning for National Forest administration of these four National Forests. They have not been prepared as a special project for this North Cascades study. As summarized here, they are backed up by numerous detailed field inventories and on-the-ground studies.

1. PRESENT RESOURCE USE

The National Forest lands in this great area are now the locale for a land-use mix composed of the following main ingredients:

1. recreation use by nearly 3 million people a year to picnic, camp, ski, hunt, and fish;

2. 1,259,000 acres formally established by act of Congress as Wilderness or Primitive areas which are held and managed to retain wilderness environment for use by the lovers of solitary-type recreation;

3. hunting use of the entire 6 million acres of the Study Area for deer, elk, goat, small game, upland birds, and some waterfowl under an effective program of cooperation with the State of Washington game officials and with the State exercising ownership and control of the game;

4. fishing use, under similar arrangements with State officials, of many hundreds of miles of sparkling mountain streams and numerous lakes;

5. controlled timber harvesting on a sustained basis that directly provides employment in timber harvesting and manufacturing amounting to about 5,500 jobs each year, and to which another 14,500 jobs in directly affiliated activities can be attributed;

6. water supply for domestic consumption, and irrigation and power which is significant to half the communities in the western part of the State of Washington;

7. forage production used by about 8,000 head of cattle, about 14,000 head of sheep, and some 27 percent of the State's population of deer, elk, goat, and other big-game animals; and

8. active or prospective extraction of at least 15 metallic minerals and a large number of nonmetallic miner materials.

II. PLANNED RESOURCE USE IN THE FUTURE

Forest Service resource and land management plans call for:

1. adding some 237,000 acres to the area of dedicated Wilderness areas as well as reclassifying the 801,000-acre North Cascades Primitive Area to Wilderness area status;

2. continuing the present intensive pattern of wildlife habitat management to support expanded levels of big and small game population;

3. maintaining and increasing levels of fishing use;

4. substantially expanding the number and location of developed recreation sites, including winter sports areas, organization camps, and resort facilities as well as the more numerous small camp and picnic areas;

5. greatly expanding the opportunity for outdoor-type mountain recreation by significant new developments in areas where main roads are projected but are not yet built;

6. continuing emphasis on maximum freedom of opportunity for individual recreation users to follow their recreation pursuits with the least possible limitation or restraint;

7. continuing to harvest the sustainable allowable annual cut of timber, with intensified cultural treatment on the good timber growing sites, and following modified principles of designating the timber to be cut adjacent to recreation areas and on all other acres where the management of the landscape is as important as the management of the timber;

8. more water impoundment reservoirs where they are needed in the normal course of supplying water for use of Washington State residents, and intensifying efforts to manipulate vegetative cover so as to produce more water in the areas where water supplies comprise a future problem;

9. continued use of appropriate areas of National Forest land for domestic livestock grazing;

10. opportunity to continue and expand mining and mineral development in accordance with the laws Congress has enacted on this subject;

11. expansion of the present road systems in the National Forest areas to be managed for commodity production, and provision of recreation trails and some recreation-way type roads on which the road location and use will emphasize scenery and the desire of people to see it from an automobile.

III. WHAT IS MULTIPLE USE

Congress has directed by P.L. 86—517 that "it is the policy of the Congress that the national forests are established and shall be administered for outdoor recreation, range, timber, watershed, and wildlife and fish purposes . . . The establishment and maintenance of areas of wilderness are consistent with the purposes . . . of this act. . . . 'Multiple use' means:

"The management of all the various renewable surface resources of the national forests so that they are utilized in the combination that will best meet the needs of the American people; making the most judicious use of the land for some or all of these resources or related services over areas large enough to provide sufficient latitude for periodic adjustments in use to conform to changing needs and conditions; that some land will be used for less than all the resources; harmonious and coordinated management of the various resources, each with the other, without impairment of the productivity of the land, with consideration being given to the relative values of the various resources, and not necessarily the combination of uses that will give the greatest dollar return or greatest unit output."

The concept of multiple use is put into action through multiple use plans that are based on inventories of the resources involved. The effort in such planning is to coordinate the several uses that may be appropriate in an area, each at the level that will best meet present and future needs of the American people, and will at the same time be commensurate with the capacity of the land and resources to sustain these uses.

Multiple use planning applies to areas of land . . . not usually to the individual acre, but to areas sufficiently large to allow for coordination of the various resources and uses. The planning area may be a Region, a Ranger District, or a still smaller management unit. At each planning level conclusions from careful analyses result in policies for coordinated management, broad for the Service as a whole, more detailed as the unit to which they apply

becomes smaller.

The High Mountain Policy—A Multiple Use Management Guide for the North Cascades Study Area

In 1961, the Forest Service formalized a management guide for making multiple use decisions in the National Forests of Washington and Oregon, including all of the North Cascades Study Area. It does not apply to areas classed as either Wilderness or Primitive areas, and has been withheld from application in certain areas being studied for such classification. This guide was approved by Secretary Orville Freeman in April of 1962.

The High Mountain Policy is based on a recognition that in the mountainous parts of the Pacific Northwest there are four broad resource management associations: *Grass-Shrub, Principal Forest, Upper Forest, and Alpine.* Each is a product of environmental factors that give it reasonably homogeneous resource values, and make it susceptible to common resource and use objectives and management policies. Cutting across or located within all of these natural associations is another land classification category, the *Landscape Management Areas,* which are areas along streams and travel routes now or prospectively of special significance because of high recreational value.

Landscape Management Areas are planned to provide for public use which is known to be expanding. They are designated mainly along streams and recreation travel routes, and around lakes, including that part of the scenic foreground seen from these areas. They are considered separate management units. They require a type of management different from that applied to the association in which they occur. Aesthetics and recreation are recognized as major objectives of management in Landscape Management Areas. Management practices for timber, wildlife, watershed, and other recreation values which may be of key importance outside a landscape management area are varied as or if necessary to weave them into the coordinated use pattern developed for a landscape management area.

The Grass-Shrub Resource Association is characterized by grass, scattered pine, juniper and sagebrush groundcover and is located at relatively low elevations. The Association is usually found on the drier east side of the Cascade Mountains and is the smallest (area-wise) of the four associations. Its principal resource value is the production of forage for livestock and game. In addition it has watershed value and is used for big game hunting and some fishing.

The Principal Forest Resource Association starts near sea level on the west side of the mountains and above the Grass Shrub Association on the east side of the Cascade Mountains. It is the more heavily forested area, supporting Douglas-fir, ponderosa pine, lodgepole pine, and associated species. Major streams and travel routes cut across this Association. It is the most accessible of the four associations to population concentrations. In addition to providing the bulk of the Region's timber, the area embraced by this Association must also provide outdoor recreation for large numbers of people. The management objective is sustained production of high quality timber in a manner which appropriately recognizes associated values and protects the water and recreational features of the intermingled Landscape Management Areas. Big game and domestic livestock graze in this Association. *Landscape Management Areas* are laid out within this Association as conditions and resource use require.

The Upper Forest Resource Association is located immediately above the Principal Forest Association and extends upward in elevation almost to timberline. It has numerous lakes and meadows and moderately sloping mountainsides. It is characterized by true fir-hemlock stands and other high elevation species. Timber is generally of poorer quality and value than in the Principal Forest Association. Landscape Management Areas occur within this

Association. The rest of the Upper Forest usually can be harmoniously managed for most National Forest purposes: watershed, wildlife and fish, and all categories of recreational use. Hunting and fishing are popular recreational activities.

The Alpine Resource Association extends from near timberline to the crest of the mountains. Much of the area is above 5,000 feet. It contains high-elevation lakes, open Alpine meadows, glaciers and other outstanding scenic features. Soils are fragile, and precipitation heavy. Access is often by trail. Most of the existing and potential winter sports areas are located within this Association. Management objectives emphasize retention of natural conditions, and also provide for other types of recreation. Management to produce optimum yields of water, fish, wildlife, and forage (including forage for packstock) are concurrent uses.

A specific *policy for managing the "High Mountains" Area* is set forth in the guide. This "High Mountain Policy" applies to all of the Alpine Resource Association and the Landscape Management Areas of the Upper Forest Resource Association. Classified Wilderness areas are exempted from the policy, since they are managed under policies now outlined by act of Congress. Most of the Study Area's winter sports developments are, or will be, located in the High Mountain Area. Located here also are some roads, campgrounds and picnic areas that permit large numbers of people to enjoy high mountain scenery. Numerous potential recreational sites are also found here. Dispersed hunting and fishing use is common.

Basic management objectives in the *High Mountain Area* call for protection and improvements of soil, watershed, wildlife, fish, and varied recreation resources under near-natural conditions with minimum modification of the landscape.

Valid demands for public use of water are to be recognized, with the condition that facilities which are required be developed to serve several uses, that they blend with the natural setting, and they not hamper coordinated use of related resources.

Specialized recreation facilities will be developed to give a greater number of people the opportunity to enjoy high mountain scenery and activities. This includes roads, trails, campgrounds, picnic areas, scenic vistas, winter recreation sites, mountain resorts, and shelters. These facilities will be designed to retain scenic qualities, recognizing peoples' needs for both developed and primitive type recreation.

Wildlife habitat will be maintained and improved to provide an adequate food supply for a predetermined level of wildlife population. Game harvest will be used to keep wildlife and food supply in balance. In "key" wildlife areas, wildlife will be given preference for available forage. Domestic livestock, including pack and saddle animals, will be permitted to graze in numbers and on areas as are found to be suitable for that use. Revegetation will be undertaken where needed.

Timber in the Alpine Association may be harvested only for development of recreation, wildlife and water resources; public safety; control of insect and disease epidemics; salvage of extraordinary losses and reduction of fire hazard; research in watershed management; and necessary occupancy or administrative use. Timber in the Landscape Management Areas of the Upper Forest Association will be managed to produce a thrifty forest that is aesthetically pleasing. The degree of modification of timber harvest in these areas may vary from the cutting of only dead, dying or diseased trees in occupancy areas to small clear-cuts in mature and overmature stands on the fringes of scenic foreground areas. Timber outside the Landscape Management Areas of the Upper Forest Association will generally be managed as it is in the Principal Forest Association. In practice, very substantial portions of the Upper Forest Association within the Study Area have now been classified as falling within Landscape Management Areas.

The Forest Service has no control over prospecting nor over mining on valid claims filed under the General Mining Laws. It will, however, alleviate as much as possible detrimental impacts on other resources and uses, including those handled under the Materials Act.

Commercial developments (lodges, resorts), rights-of-way, administrative facilities and other necessary occupancies will be provided for when in the public interest. They will be designed and located to harmonize with management objectives of the Landscape Management Areas and the Alpine Resource Association.

Areas possessing rare or unique species of wildlife and plant life, geologic phenomena, or historical or archeological features will be managed for preservation and public enjoyment.

IV. WHAT ARE WILDERNESS AREAS

The Wilderness Act, approved September 3, 1964 (P.L. 88—577) provides that units of the National Wilderness Preservation System are to be "administered for the use and enjoyment of the American people in such manner as will leave them unimpaired for future use and enjoyment as wilderness, and so as to provide for the protection of these areas, the preservation of their wilderness character, and for the gathering and dissemination of information regarding their use and enjoyment as wilderness;"

It also provides:

"Definition of Wilderness—A wilderness, in contrast with those areas where man and his own works dominate the landscape, is hereby recognized as an area where the earth and its community of life are untrammeled by man, where man himself is a visitor who does not remain. An area of wilderness is further defined to mean in this act an area of undeveloped Federal land retaining its primeval character and influence, without permanent improvements or human habitation, which is protected and managed so as to preserve its natural conditions and which (1) generally appears to have been affected primarily by the forces of nature, with the imprint of man's work substantially unnoticeable; (2) has outstanding opportunities for solitude or a primitive and unconfined type of recreation; (3) has at least 5,000 acres of land or is of sufficient size as to make practicable its preservation and use in an unimpaired condition; and (4) may also contain ecological, geological, or other features of scientific, educational, scenic, or historical value."

The act further provides:

"Except as otherwise provided in this act, each agency administering any area designated as wilderness shall be responsible for preserving the wilderness character of the area and shall so administer such area for such other purposes for which it may have been established as also to preserve its wilderness character. Except as otherwise provided in this act, wilderness areas shall be devoted to the public purposes of recreational, scenic, scientific, educational, conservation, and historical use.

"Except as specifically provided for in this act, and subject to existing private rights, there shall be no commercial enterprise and no permanent road within any wilderness area designated by this act and, except as necessary to meet minimum requirements for the administration of the area for the purpose of this act (including measures required in emergencies involving the health and safety of persons within the area), there shall be no temporary road, no use of motor vehicles, motorized equipment or motorboats, no landing of aircraft, no other form of mechanical transport, and no structure or installation within any such area.

"Nothing in this act shall be construed as affecting the jurisdiction or responsibilities of the

several States with respect to wildlife and fish in the national forests."

Reiteration of these main policy guides as they have now been established by Congress is important to a presentation of Forest Service plans for the North Cascade Area, for about 1,260,000 National Forest acres of the approximately 6 million acres in the Study Area are now covered by these legislative policy guides. And, Forest Service plans contemplate adding some 237,000 acres in areas which, up to this time, have been managed in accordance with these principles and which the Forest Service expects to propose under the procedures of the Wilderness Act, for addition to the National Wilderness Preservation System.

The units involved are as follows:

1. The Glacier Peak Wilderness—458,105 acres.

2. The North Cascades Primitive Area—801,000 acres. (The Wilderness Act requires that this Area be studied and a proposal made to either declassify it or reclassify it as Wilderness. The Forest Service proposes to reclassify it as Wilderness, with some boundary modifications, discussed in a following section. The reclassification proposal would increase the acreage to about 813,000 acres.)

3. A proposed Alpine Lakes Wilderness—150,000 acres. (Not now a part of the National Wilderness Preservation System. Tentative boundaries suitable for proposal under the Wilderness Act have been established.)

4. A proposed Enchantment Wilderness—30,000 acres. (Not now a part of the National Wilderness Preservation System. Tentative boundaries suitable for proposal under the Wilderness Act have been established.)

5. A proposed Mount Aix Wilderness—45,000 acres. (This unit is not a part of the National Wilderness Preservation System. Tentative boundaries suitable for proposal under the Wilderness Act have been established in a preliminary way.)

As part of the Wilderness System management activities of the Forest Service, individual administration plans are to be prepared for each area included in the National Wilderness Preservation System. These plans are to set forth in writing the way in which the Forest Service will redeem the responsibility "for preserving the wilderness character of the area . . . for the public purposes of recreational, scenic, scientific, educational, conservation, and historical use." Each unit administration plan will detail the way in which, for that area, the general Wilderness policies now being followed are to be applied to provide for dispersal of recreational use; to meet requirements for sanitation and fire protection; to identify areas of special scientific interest; and to provide, where appropriate, for parts of these areas to be without trails to meet the objective of "opportunities for solitude." Prospecting and mining activities will be regulated in the manner provided for in the Wilderness Act. Other commodity or commercial uses will be permitted only as authorized by the Wilderness Act.

V. SPECIAL MANAGEMENT AREAS

Within the National Forests in the Study Area, there are certain areas which will be managed according to special management principles to reflect some special adaptability of the area for a particular type of use. Areas of Wilderness comprise one such type of special management area, and there are others. In this part of this report, the major special management areas now recognized, or to be recognized in the plans the Forest Service now has under preparation, are set forth and briefly described.

A. Present and Proposed Areas of Wilderness

1. *Glacier Peak Wilderness Area.* This area is covered under the Wilderness Act, and is a part of the National Wilderness Preservation System. It includes 458,105 acres of National Forest land, and was established by the Secretary of Agriculture in 1960. Glacier Peak is a major landmark. There are some 30 other peaks in the close vicinity. Some 90 glaciers are dispersed throughout this locale of superb scenery.

This fragile area should remain as a Wilderness, and will continue to be so managed. As is true of other National Forest units of the National Wilderness Preservation System, it is to be covered by an administration plan defining objectives of management and the means by which they will be achieved. Immediate management objectives are to bring up to an acceptable construction standard, commensurate with normal anticipated use levels, a skeleton system of the main trails such as the Cascade Crest Trail. Any other trails believed to be necessary will be low-standard trails, intended primarily to provide a means for dispersing users. Other immediate objectives include: boundary and trails signing; the minimum necessary attention to sanitation needs; and implementing a system of seasonal recreation guards for supervision, cleanup, and information to users to secure dispersal of use and cooperation with restrictions on use (such as persuading people to carry their garbage back out of the Wilderness).

Boundary changes have been proposed by a number of interested groups. Because the Wilderness Act has been pending ever since this Wilderness area was formally established, the Forest Service has not given detailed on-the-ground study to all of the major proposals that have been made. Such study would be necessary prior to seeking legislation to change boundaries at any point.

Provided that a careful examination on the ground can establish a clear identification for a boundary so as to avoid problems of administration caused by an indefinite boundary, the Forest Service is willing to seek legislation for a boundary extension along the northeast perimeter of the present Glacier Peak Wilderness Area extending to the shore of Lake Chelan in the vicinity of Riddle Creek; thence along the general vicinity of the west shore of Lake Chelan and the west side of the Stehekin River to the vicinity of Cascade Pass; and thence south along the Cascade summit to the present boundary at Trapper Mountain.

Such an extension would add about 20,000 acres to the Glacier Peak Wilderness.

The Forest Service is also willing to seek relatively small boundary changes in the so-called corridors of the White Chuck River Valley and the Suiattle River Valley. In the White Chuck River Valley the change would move the boundary west about 2 miles to an irregular north-south line about coinciding with the mouth of Pumice Creek. In the Suiattle River Valley, the boundary change would also move the boundary west. The revised boundary would run from the Suiattle River at the mouth of Milk Creek north a short distance, then generally parallel to the Suiattle River to a point on Sulphur Creek about a half mile upstream from the Suiattle River; thence north to Downey Mountain; and thence west to the present boundary at Green Mountain. These two changes would add about 10,000 acres to the Glacier Peak Wilderness Area.

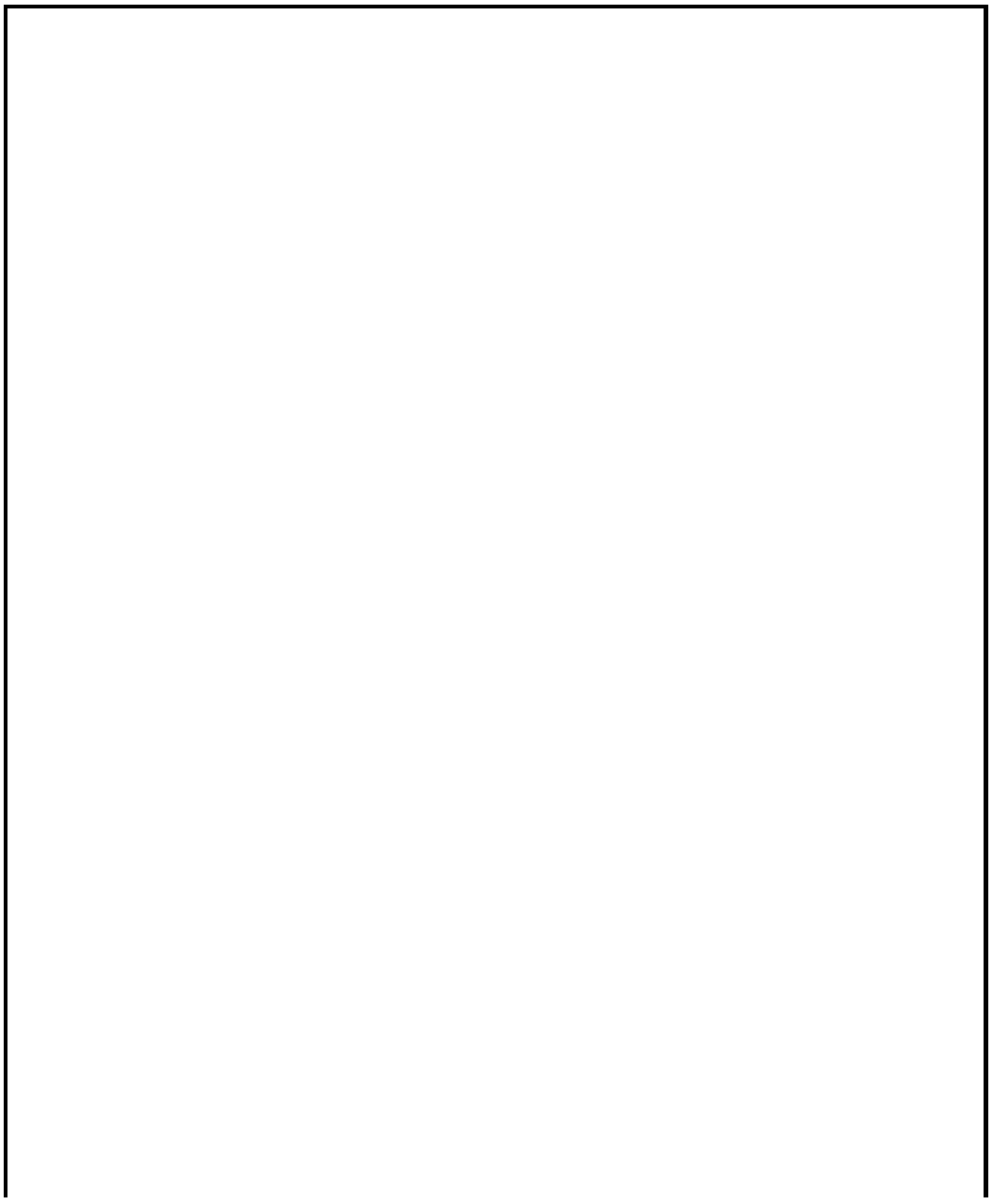
2. *North Cascade Primitive Area.* The Forest Service proposes to: (1) reclassify this to a Wilderness Area; (2) change the boundaries so as to have them coincide with natural features of topography rather than with straight lines on a map; (3) exclude from the Wilderness Area the shorelines of Ross Lake and the lower end of Beaver Creek; and (4) exclude about a township on the extreme east end of the present Primitive area. The net effect of the changes would be to increase net acreage from about 801,000 acres to about 813,000 acres.

The Wilderness Act provides that the North Cascade Primitive Area shall continue to be

administered "under the rules and regulations affecting such areas on the effective date of this act until Congress has determined otherwise." The rules and regulations in effect on the date of the act provide that primitive areas "shall be administered in the same manner as Wilderness areas and with the same restrictions on their use."

Plans for the protection of this Primitive area, and for its administration as an area which is primarily wilderness in character now exist. These are to be revised to bring them into full agreement with the provisions of the Wilderness Act and the implementing regulations thereunder. A modest extension of the existing trail system is needed; and facilities to care for sanitation needs of users will also need to be provided. Recreation guards have been assigned to parts of this Primitive area for several years. Extension of this system, and an intensified program of user contacts to secure cooperation in protecting wilderness values will likewise be needed and will be arranged for.

The Forest Service believes that both the segment of this area lying to the west of Ross Lake, which includes the Pickett Range, Mount Triumph, Mount Blum, and Mount Redoubt, and the segment lying east of Ross Lake can best serve the long range public interest by being held and managed as formally dedicated areas of wilderness.





North Cascades Mountains Study Area. *(click on image for a PDF version)*

3. *Proposed Alpine Lakes Wilderness Area.* Along the crest of the Cascade Mountains, between Snoqualmie Pass and Stevens Pass is an area of high lakes of unusual charm and attractiveness for seekers of solitude and solitary-type recreation. An area of some 150,000 acres embracing the most attractive portion of this area is now without roads and possesses little in the way of resource values which would, in the future, tend to bring on pressure for road construction. This area clearly meets the standards for classification as a wilderness.

The Forest Service proposes to recommend this area, under the Wilderness Act, for classification as a unit of the National Wilderness Preservation System. The area has been studied. Decisions about boundary locations, sufficiently firm to be the basis for public hearings, have been decided upon. This area will make a fully acceptable addition to the National Wilderness Preservation System. It will be developed with some additional mileage of low-standard trails for camping, hiking, riding, scientific study, hunting, and other such pursuits.

4. *Proposed Enchantment Wilderness Area.* The Mount Stuart Range is a geological and scenic unit to the east of and separate from the area embraced within the proposed Alpine Lakes Wilderness Area. An area of about 30,000 acres has been delineated, as a result of on-the-ground studies, as being highly suitable for inclusion as a unit of the National Wilderness Preservation System. It is an area of outstanding scenic qualities, of sharp contrasts in elevation and topography, of challenging mountain climbing, and it is without roads and with only a minor mileage of trails.

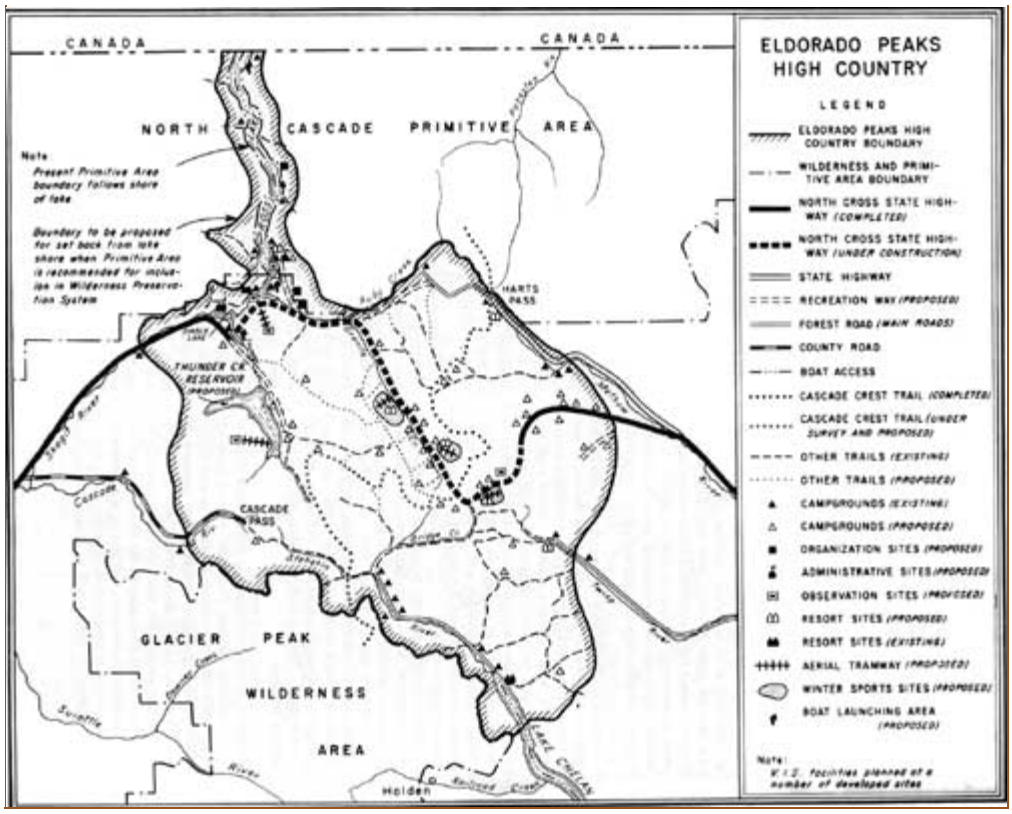
The Forest Service proposes to recommend this area under the Wilderness Act, as the Enchantment Wilderness Area. Boundaries suitable for presenting a proposal at a public hearing have been decided upon. The unit will have no significant amount of further trail construction, so that it will retain its present illusion of being a "lost world" above the valleys to be reached only by those hardy enough to come in without use of trails. Existing trails, including that up Ingalls Creek, will be retained.

5. *Proposed Mount Aix Wilderness Area.* Some 10 miles east of Mount Rainier National Park is an isolated group of rough ridges and clustered mountain peaks in an area which abounds with unusual geological features, sharp contrasts of elevational difference, and with grand scenery on a small scale. Rugged beauty characterizes this area. Main mountain peaks are: Mount Aix, Bismark Peak, Rattlesnake Peaks, Timberwolf Mountain, and Ironstone Mountain. The area is isolated and relatively arid. Access is comparatively difficult. Only a person with a real desire for solitude will be attracted to go into this area.

The Forest Service proposes to recommend classification of this area of about 45,000 acres as a unit of the National Wilderness Preservation System. On-the-ground studies have identified in a reasonably adequate manner the boundaries of the isolated wilderness associated with the Mount Aix complex. The proposal is not yet firm enough to propose at public hearings, as some more clearcut decisions still are needed concerning management of part of the area lying to the west of the mountain complex.

In the Mount Aix complex itself little additional development would be undertaken. The main effort needed is to be certain that trails are safe for horse and human use; and that needed sanitation precautions are arranged for. The area, when established, will need an administration plan, boundary signing, and an appropriate level of attention from Forest Service (recreation) guards.





Eldorado Peaks High Country. *(click on image for a PDF version)*

B. Areas To Be Managed With Special Emphasis on Recreation

Under the Multiple Use-Sustained Yield Act (P.L. 86—517) outdoor recreation is one of several major land uses which Congress has defined as an objective of management of the National Forests. Recreation needs, as with watershed protection needs, are taken into consideration in plans for managing all the resources. There are some areas, however, where recreation use is of greater importance and significance than is use of other resources. There are four such areas in the North Cascades not including those in the category of Wilderness. This portion of this report briefly describes the plans for giving emphasis to recreation management for these four areas.

1. *Eldorado Peaks High Country.* When the Secretary of Agriculture formally established the unit now called the Glacier Peak Wilderness Area, the establishment order specified the type of land use and management to be accorded to the National Forest lands in the area lying between the Glacier Peak Wilderness Area and the North Cascades Primitive Area. The order provides:

. . . the policy will be to manage the Cascade Pass-Ruby creek area primarily for preservation of scenic values and to open up and develop it for the use and enjoyment of the large numbers of people who desire other kinds of outdoor recreation and those who are unable to engage in wilderness travel. Recreation uses, such as camping, picnicking, skiing, hunting, fishing, and enjoyment of scenery, will be given primary consideration. Roads, vistas, resorts, ski lifts, and other developments needed by the public will be planned. Timber harvesting and other resource utilization will be permitted to the extent that they can be properly integrated and harmonized with the recreation and the protection of the outstanding scenic attractions.

The area covered by this policy has not heretofore been given a specific place name.

The Forest Service proposes:

1. To name this unit "The Eldorado Peaks High Country."

2. To manage this "High Country," the boundaries of which are shown on the map (page 166) in accordance with the policy directive established by the Secretary of Agriculture and quoted above.

3. To develop a system of public access and recreation use facilities as outlined in the plan which follows.

4. To perform only such timber removal as public interest and the resource importance of the area clearly justifies by selective cutting methods except as other systems of cutting may be required for mining, for road construction, for salvaging diseased, insect-infested, or dying timber, or for authorized other activities such as water impoundments or rights-of-way.

5. To do no additional road construction utilizing funds or authority of the Forest Service in Bridge Creek or in the Stehekin Valley.

Trails are the principal means for general public access to most of the area now. There are dead-end roads to Diablo Lake; up the Cascade River; to Harts Pass and Slate Creek; part way up Early Winters Creek; and in the Stehekin Valley at the head of Lake Chelan. There is boat access on Lake Chelan and Ross Lake. Airplanes fly in and out of Ross Lake, Lake Chelan, and Trapper Lake. The north portion of the area is now being opened up by construction of the North Cross-State Highway. Once this main artery of transportation is completed, additional facilities for public access and use can be developed which are not feasible now.

Parts of the area are mineralized and may be of economic significance. Sites for water impoundments may be of future significance. These possible uses of the area will be permitted to develop as future course of events may dictate, but with an effort by the Forest Service to make such possible events helpful for recreation use—as by recreation development of the shoreline of reservoirs, or similar use of roads made necessary with future mining activity. Grazing will be continued and so will close cooperation with the State of Washington to maintain a desirable environment and habitat for the fish and game resource in order to insure good hunting and fishing.

The Forest Service has developed multiple use management plans to carry out the policy set by the Secretary of Agriculture. These plans give major emphasis to recreation.

The following discussion presents Forest Service views of the potential for recreation development in this area of 537,600 acres which lies north and northeast of the Glacier Peak Wilderness Area.

The general areas for developed recreation sites will be along the main routes of access-Skagit River, Thunder Creek, Ross Lake, Ruby Creek, Granite Creek, Slate Creek, Harts Pass, Methow River, Early Winters Creek, Lake Chelan, the lower Stehekin River, and the upper Cascade River.

Roads, primarily designed for recreation use, will be planned. Tramways, or lifts for winter sports activities, are feasible in half a dozen locations. These will be supplemented by an improved system of trails.

Sightseeing and general enjoyment will undoubtedly be one of the greatest uses, dependent as they are on good roads. The North Cross-State Highway will form a connection for loop

trips. Dead-end forest roads to Ross Lake, and up Thunder Creek will provide additional access during the summer. The North Cross-State Highway will be an all-year road. Significant vista points and spots of interest will be signed, provided with short trails, or unattended displays to interpret the geologic, human history, and management activities of the area.

Aerial tramways will greatly enhance the opportunities for sightseeing and access to some of the higher peaks. These are being planned for Ruby Peak just south of Ross Lake, Thunder Creek above the proposed dam, Granite Creek, and Early Winters Creek near Rainy Pass, and there are potential sites for others.

Boat tours are currently available on Diablo Lake, Ross Dam, and Lake Chelan. The Seattle City Light Company provides the popular Diablo Lake boat trip and a tour of the dams. There is a potential for similar tours on Ross Lake when the highway is completed.

Camping and picnicking will be very popular recreation activities in this area. The Forest Service recreation plan projects 149 sites available for camping and picnicking; 28 are now existing. Many of these would be along the North Cross-State Highway, Harts Pass road, Ross Lake, Lake Chelan, and the spur roads in Thunder Creek and the Cascade River. Only picnic areas will be developed in and around alpine meadows that are too fragile for concentrated camping use.

Fishing is quite good in this section of the North Cascades. Ross Lake and Lake Chelan offer some of the State's best trout fishing. The high lakes are also popular fishing haunts with stream fishing ranking third. Completion of the North Cross-State Highway will greatly increase the fishing use on Ross Lake, and close cooperation with the Washington State Game Department will be required to keep this Lake and others adequately stocked.

Hunter use will increase with better access. Good big game hunting can be maintained for deer, bear, and mountain goats. Some grouse and waterfowl hunting may be made available for the first time with the additional access.

There are good potential winter sports areas. One such area is adjacent to the North Cross-State Highway just north of Rainy Pass. A combination of west-side snow depths and and the east-side weather makes this one of the outstanding potential sites in the Northwest. Planned facilities will provide for skiing and ice skating in winter; hiking, riding, climbing, hunting, and supervised camping in summer and fall; and swimming the year around. Another good area is in Granite Creek. There are six or seven other good sites suitable for later development as they are needed, such as Thunder Creek.

Boating, swimming, and water skiing are now concentrated on Lake Chelan. Completion of the planned road system will increase the need for resorts, boat ramps, stores, and camping facilities to handle this activity, especially on Ross Lake. Ross Lake has a big potential for water sports development. A reservoir in Thunder Creek will create another water sports and fishing area. In addition it will provide camping and picnicking sites.

Hiking and riding in connection with pack trips are very popular and will be more so. The Cascade Crest Trail winds along the backbone of the North Cascade Mountains, linking the North Cascade Primitive Area and the Glacier Peak Wilderness Area. Feeder trails climb to the crest from side drainages. The Rainy Pass-Washington Pass area may become a main trailway, linking the new highway with the Stehekin River and Lake Chelan. Commercial facilities would be needed here to cope with the increased hiking and riding use; also, additional trails are planned and will probably be needed. Mountain climbing, photography, and rock hounding are typical of the relatively small, but interesting, recreation uses that can be expected to increase. Overnight accommodations and other resort service will be

developed with the ski developments and other sites as the need demands.

Below is a tabulation of the existing and planned developments, and the uses and benefits that will follow.

The Eldorado Peaks High Country will be made available to untold thousands of people. This will be accomplished under the multiple use management program designed to carry out the policy and objectives of the Secretary of Agriculture. This part of the North Cascade Mountains will become increasingly popular for the many types of recreation opportunities and facilities it will offer.

Cascade Pass—Ruby Creek Area
Mt. Baker & Okanogan National Forests
Summary of Resource and Resource Development Information

TRANSPORTATION

NORTH CROSS-STATE HIGHWAY AND CONNECTING ROADS	Miles existing	Miles proposed (1) Now non-existing	Total
1. North Cross-State Highway Mazama to Marblemount	45	37	82
2. Harts Pass Highway Mazama to Granite Creek	22	9	31
3. Thunder Creek Road Thunder Arm to McAllister Dam	0	7	7
4. Cascade Pass Road Marblemount to vicinity Cascade Pass	22	0	22
5. Stehekin Road (Access by boat only) Stehekin to Bridge Creek	14	0	14
6. Ross Lake Road Ruby Arm—Roland Point	0	6	6
Total	103	59	162
TRAILS			
Trails within the Cascade Pass-Ruby Creek Area	323	85	408

(1) To year 2000

RESOURCE DEVELOPMENT

RECREATION	Existing	Proposed (1)	Total Potential
1. Campgrounds and picnic areas	28	121	149
Acres	81	1146	1227
Number of family units	131	2907	3038 (2)
2. Boat Launching areas	1	2	
3. Organization camps and lodges	0	4	
4. Resorts (boats, ski lifts, aerial trains, horses, etc.)	2	7	
5. Boat tours	2	1	
6. Visitor information centers	0	3	
7. Overlooks and observation sites with interpretive signing and displays	1	15	

(1) To year 2000.
(2) Based on 2-1/2 family units per acre.

FISH AND WILDLIFE

1. Fishing—200+ miles fishing streams. Over 90 lakes, 15,280 acres

1966(1)	Present use	9,300 visitor days
2000	Potential use	72,000
Lakes include:	Ross Lake	11,532 acres
	Lake Chelan (within recreation area)	2,000
	Diablo Lake	910
	Gorge Lake	210
	and some 90 small lakes totaling	630

Principal fish species: Rainbow trout, Eastern brook trout, Cutthroat trout, Dolly Varden trout

2. Hunting—400,000 acres

1966 (1)	Present use	1,900 visitor days
2000	Potential use	14,800

Big game species: Mule deer, blacktail deer, mountain goats, black bear Game birds: Blue grouse, ruffed grouse, ptarmigan

(1) Based on projections from the National Forest Recreation Survey the North Cross-State Highway area will have 24,000 visitor-days use in 1966, and 185,000 by 2000. Of these visitors, it is estimated that 39% will come for fishing and 8% for hunting.

WATER

1. Hydroelectric power production	Surface acres	Acre-feet storage	Generating capacity
a. City of Seattle, Dept. of Lighting. Skagit Project			
Copper Creek Dam (proposed) (1)	1,625		
Gorge Dam	210	9,000	175,000 KW
Diablo Dam	910	90,000	159,000
McAllister Dam-Thunder Creek (proposed)	1,480		
Ross Dam	11,532 (U.S.)	1,405,000	450,000
High Ross Dam (proposed)	14,700 (U.S.)		
Total present generating capacity			784,000
b. Chelan County PUD—Lake Chelan (1)			
Chelan River Dam capacity			52,000
2. Irrigation			
a. Chelan River (1)			
Acres irrigated 3200 acres			

(1) Outside area but receiving water from it.

TIMBER	MBM allowable cut
Mount Baker National Forest	750
Okanogan National Forest	330

Total	1,080

Timber harvesting to be done under prescription for cutting in Landscape Management Areas, with first priority for maintenance of recreation and scenic values.

FORAGE

Cattle	No present use
Sheep	No present use
Recreation horses	300 animal months (estimated) 1964

RECREATION AND OTHER RESOURCE USES ON THE MOUNT BAKER NATIONAL FOREST USES

Summer Chairlift Operation	Mountain Climbing	Hiking
Resorts Within the Area	Organization Camping and Lodges	Berry Picking
Ski Resorts	Rockhounding	Mushroom Picking
Boat Tours	Photography	Riding Horses
Tramways	Painting	Wilderness Travel
Camping and Picnicking (Extensive)	Mining	Scientific Study (Botanical, zoological, geological)
Fishing	Gold Panning—Rec.	
Hunting—Reg. by State	Use of Other Resources (Water power, irrigation, timber, grazing)	
Skiing	Sightseeing and General Enjoyment with Visitor Information Service and Interpretation	
Watersports (Boating, swimming and waterskiing)		

2. *The Mount Baker Recreation Area.* Secretary of Agriculture W. M. Jardine, on September 24, 1926, established this area as the Mount Baker Park Division of the Mount Baker National Forest. Management of the area was clearly stated in the Land Classification Order.

"Pursuant to an Act of Congress directing the Secretary of Agriculture to select, classify, and segregate lands within the boundaries of National Forests that may be opened to homestead entry, certain lands aggregating 74,859 acres within the Mount Baker National Forest, surrounding Mt. Baker and Mt. Shuksan, as indicated upon the diagram hereto attached, have been duly examined, and, being found to comprise natural resources susceptible of many public uses and possessing such scenic beauty which should be available to the public, were classified and segregated on October 2, 1915, as not chiefly valuable for agriculture and therefore not subject to segregation under the Act of August 10, 1912.

"It appears that these lands are not only of great value for National Forest purposes but should also be permanently retained in Government ownership in order to provide for their protection, development, use and enjoyment by the general public, and can be so administered by the Forest Service with out additional expense to the Government.

"Now, Therefore, I, W. M. Jardine, Secretary of Agriculture, do hereby give public notice that the above-mentioned area, surrounding Mt. Baker and Mt. Shuksan and reached by a recently constructed extension to the Pacific highway, is hereby designated as the Mount Baker Park Division of the Mount Baker National Forest, and that all National Forest lands

therein are held for the use and enjoyment of the general public for recreation purposes, coordinately with the purposes for which the Mount Baker National Forest was established. A proper and orderly utilization of timber, forage, water power and other economic resources shall be allowed within the area, but such utilization shall not be permitted to impair the value of the area as a site for public campgrounds, municipal or health camps, sanitarium, club houses, hotels, summer homes, or public utilities requisite for the comfort and convenience of the people using the area for recreational purposes. The administration, development and use of this area shall be governed by the spirit of this order, and no use shall be allowed or permitted that will interfere with the broad public purposes herein set forth."

The area has been managed since that date with major emphasis on the recreational value.

An all-year highway leads to Heather Meadows by way of the Nooksack River from Bellingham. From Heather Meadows a low-standard road leads to Kulshan Ridge. It is open in the summer only. From Heather Meadows and the end of the road only trails lead to Mount Baker on the west and Mount Shuksan on the east. It is planned that only trails will lead out from these recreation centers to the higher country. A Recreation Way is proposed from Heather Meadows across Austin Pass and south to connect with a present road at Baker Lake. This will make an outstanding scenic loop both summer and winter.

Heather Meadows is developed for summer and winter use. Some 100,000 people visit the area each year for winter sports. This use is increasing each year. The present chair lift is being supplemented with two new ones being completed now. A new lodge to supplement the present one is in the planning stage.

During the summer the area is very popular for camping, picnicking, hiking, mountain climbing, berry picking, rock-hounding, sightseeing, hunting and some fishing.

Timber harvesting in the lower areas and other resource management is carried on within the coordination requirements of the Landscape Management Areas.

The Mount Baker-Mount Shuksan Area is very popular and well-known in Canada as well as the United States. The management practices are well accepted. The Forest Service proposes that this area remain in its present status.

3. *The Mather Memorial Parkway.* A half-mile strip on either side of this highway as it traverses the Snoqualmie National Forest has been designated for maintenance of scenic attractiveness. This is in accordance with a 1931 joint designation by the Secretaries of Agriculture and the Interior. The strip of land covered by this designation will continue to be managed primarily as a scenic strip along this highway.

4. *The Cougar Lake Area.* East of Mount Rainier National Park is an attractive area which the Forest Service now manages with recreation as a principal value. Parts of it have been proposed by outdoor clubs for classification as a wilderness but in the opinion of Forest Service people who have studied it carefully on the ground there is reason to question whether it may properly be proposed for such classification under the Wilderness Act. The area involved lies between Mount Rainier National Park and the area the Forest Service expects to recommend as the proposed Mount Aix Wilderness. The area is already quite accessible by means of spur roads and a trail system. It is a prospective locale for developed recreation facilities such as campgrounds intended to take some camping pressure off of Mount Rainier National Park. There will be a need within this area for campgrounds and perhaps some other developed recreation facilities that cannot be established within an area of wilderness. Parts of the area will probably have rather heavy use.

The Forest Service plans to manage this area primarily for recreation use, with routine-type timber harvest operations excluded from large parts of it. Firm decisions on all the key points of management objectives have not been worked out. The Forest Service proposes to call this "The Cougar Lakes Country."

C. Proposed Recreation Ways

The Forest Service proposes that four routes in the North Cascades be developed as Recreation Ways:

1. *Curry Gap.* This proposed road will extend from the Stevens Pass highway, up the Beckler River, over Curry Gap and down the Sauk River to Darrington. It will rise from either end through timber, subalpine and alpine-type terrain providing vistas of rugged mountain peaks, magnificent glaciers, and tumbling white water—glacial streams. It will provide a 1-day trip from Seattle, Wash., via U.S. Highway No. 2 and Forest Highway No. 7.

2. *Cady Pass.* This route will leave the Curry Gap Recreation Way south of Curry Gap and climb to the Cascade Summit at Cady Pass, thence follow down the Little Wenatchee River to Highway 15C near Lake Wenatchee. The entire route affords vistas of rugged mountain terrain including many glaciers, streams, and alpine meadows. It will provide a 1-day trip from Seattle, Wash., or Wenatchee, Wash., via U.S. Highway 2 and Highway 15C.

3. *Harts Pass.* This proposed route will leave Washington Forest Highway No. 32 (North Cross-State Highway) near Ross Lake and climb through timber, sub-Alpine, and Alpine-type terrain to the summit of the North Cascades at Harts Pass, thence descending the east slopes of the Cascades to the Methow River and Washington State Highway No. 16. This will offer an inspiring view of rugged mountains and glaciers. The panorama from the Harts Pass vicinity will be an outstanding attraction.

4. *Austin Pass.* The road will extend from Heather Meadows, tunnel under Austin Pass, then down Baker River to tie with the present road system at Baker Lake. It will open up grand views of Mount Baker, Mount Shuksan, and the Baker-Skagit River country. It will form an excellent loop drive up the Nooksack River, then down the Baker and Skagit rivers. It will also form an alternate route to Bellingham and Cascade from the North Cross-State Highway.

These high-standard Recreation Ways will open some parts of this country to automotive transportation for the first time. Several tracts of commercial timber, mineral deposits—such as the Monte Cristo area—will be readily accessible. A few privately owned lands will be more accessible also. Access to parts of the high country will be less difficult. Under these circumstances there will be a demand and need to use parts of the scenic roads for some commercial use. The commercial hauling will be generated, mostly, within the area itself. Use of the roads for cross-country commercial hauling will probably be very light, if any. In addition to commercial hauling there will be a demand and need to use the roads for heavy recreation-equipment traffic. This will be trucks and trailers for hauling riding and pack stock, camp and house trailers, and camper trucks. These types of traffic can be accommodated on such roads by implementing a system of traffic controls when and where necessary.

The routes will open top quality sites for overlooks, picnicking and camping areas. The Forest Service will develop these along with information centers, and other features to add to the enjoyment of the visitors.

VI. THE RECREATION RESOURCE IN THE REST OF THE STUDY AREA

Recreation is an important use of all the National Forest lands in the Study Area. Preceding portions of the report have discussed recreation emphasis in the special areas, in the primitive areas, and in the areas of wilderness. This portion discusses recreation use of the rest of the National Forest lands.

Recreation use of these National Forest lands has more than doubled in the last 10 years. It can be expected to more than double again in the next 10. The Forest Service now has 525 developed camp, picnic, and other recreation sites, including 7 winter sports sites. Recreation use accommodated in these sites, and for sightseeing, now runs about 3 million persons. In order to accommodate the expected doubling of recreation use in the next 10 years the Forest Service has plans to about double the existing number of recreation sites in the various categories of use. Sites for this expansion have been selected; generalized plans for most of it have been prepared; and detail plans covering work projected in the next 3 to 4 years have been worked out.

The Forest Service recognizes that people differ in what they want to satisfy their needs for outdoor recreation. Some feel that for a camping trip to be satisfying to them they should "rough it" to a considerable degree. They want only a minimum of development of the camping area. They prefer low-standard, little-traveled roads, or even only trail access. Other people are happier with more highly developed areas. They want surfaced roads and trails and modern toilet and water facilities. Many of them prefer camping near other people, where they can associate closely with fellow-campers.

The plan is to provide opportunities for different levels of experience and to guide visitors to the areas that will best satisfy their individual needs. The North Cascades Area offers opportunities for all levels of experience. The opportunities for wilderness or back-country experiences are outstanding and are being planned for. At the same time there are many opportunities for developments, for ordinary forest recreation, and for winter sports, and these also are being planned and developed.

Forest Service plans for recreation development and use are built around the idea of maximum freedom of opportunity for individual recreation users to follow their recreation pursuits with the least possible limitation or restraint. This is true of hunting and fishing as well as berry picking, rock hunting, wildlife photography, and other pleasurable pursuits. Limitations on use, such as closing some trails to motor scooters, or limiting use by pack stock, will be invoked where protection of the resource, or its enjoyment and use cannot be satisfactorily arranged for without such limitations.

VII. LANDSCAPE MANAGEMENT AREAS

The land which lies adjacent to campground, lakeshores, major streams, and major recreation travel routes is managed differently than is land not so located. On such land, maintaining an environment that is attractive to recreation users is a main purpose of management. So they are called Landscape Management Areas. And they are managed so as to maintain an attractive landscape.

This concept recognizes that in the foreground, immediately adjacent to a campground, shoreline or road, maintaining an attractive landscape may require great differences in timber harvest or other resource management activities. Further back, the differences can be less.

The means used to manage these landscape areas vary with the conditions as found on the ground. Parts of a Landscape Management Area may be heavily timbered, while other sections may have open scattered tree cover. Some parts may be in the high, open country, and other parts along lake and river shores. These greatly differing situations require various management treatments to meet the objective of an attractive landscape.

In landscape management areas, the main management objectives are:

1. Management of all resources will be planned to keep soil in place, to maintain or improve its productivity, and its ability to absorb and store precipitation.

2. Watershed values will be given primary consideration by managers to promote optimum yields and deliveries of usable water in stable streamflows or subsurface supply.

3. Lands will be managed to maintain or enhance opportunities for more people to have both conventional outdoor recreation and wilderness experience with minimum modification of the landscape so as to maintain a near-natural, scenic appearance. Fish and wildlife management will be emphasized because of its importance in recreation pursuits.

In these areas, timber harvesting methods are designed to avoid large openings in the forest canopy, and to minimize logging disturbance. In foreground areas, timber removal may be limited to little more than removal of dead, dying, hazardous, and diseased trees. Farther in the background areas, more timber may be justifiably removed. Where a landscape management area lies in the Alpine Resource Association, only such timber is removed as is necessary for public safety, for recreation and water developments, for control of insect and disease epidemics, for salvage of extraordinary losses, and for needed administrative or occupancy improvements. Of course there is no timber harvest in areas of wilderness.

In these areas, recreation facilities to give people an opportunity to enjoy mountain scenery and activities, such developments may include roads, trails, campgrounds, picnic areas, scenic vistas, winter recreation sites, mountain resorts, tramways, and visitor information services. These facilities are designed to retain scenic qualities, recognizing the needs for both concentrated family recreation and more primitive-type recreation use.

Commercial facilities, such as lodges, resorts, and public service sites are permitted when there is a demonstrated public need which cannot be satisfied on private land. Other land occupancy will be permitted as needed to serve resource and administrative use. These facilities are to be located outside and back from the recreational developments along roads and streams and around lakes except for public service facilities which, because of their nature, must be in these areas. Rights-of-way such as for installation of powerlines, gaslines, ditches, and flumes are located out of the area, or designed to harmonize with the management objective.

Domestic livestock is permitted to graze in areas of suitable range and when this can be done to meet the management objective of the area.

The Forest Service has no control over prospecting and mining on valid claims filed under the General Mining Laws. However, miners and prospectors are encouraged to conduct their activities in a manner designed to maintain aesthetic values. Mineral materials permits are issued for commercial development of common materials, not subject to location under the mining laws, only when compatible with basic management objectives of the area. Sites to be developed for recreation or administrative use are recommended for withdrawal for mineral entry. Areas containing special interest materials, such as geodes, agate, jasper, and crystals, not in commercial quantity, are managed for public use and enjoyment.

The land which is within the range of vision of persons on the water surface of large areas of water, such as the surface of Lake Chelan, is usually within a landscape management area. Management prescriptions for the landscape management area adjacent to upper Lake Chelan will provide for only limited salvage-type cutting, and no clear cutting, visible from the lake surface.

VIII. TIMBER HARVESTING METHODS AND LIMITATIONS

The growing and harvesting of trees for lumber, pulp, and other wood products is one of the important industries in the study area. The growing of continuous crops of trees on a high-level production is science that ranks with scientific farming. Many conifer trees, especially Douglas-fir, grow best in stands of even age. Douglas-fir is classified as an intolerant species. This means that it does not readily reproduce itself in shaded areas. Trees that are more tolerant of shade, such as hemlock and fir, will replace Douglas-fir if left undisturbed over a long period of time. Douglas-fir is best reproduced in clear-cut areas where the ground following logging is cleaned up and the area seeded or planted immediately. In full sunlight, the young Douglas-fir grows rapidly and soon covers the area with healthy, attractive trees that are on their way to developing a new crop. This is, in a brief statement, the scientific way of growing continuous crops of Douglas-fir trees.

Old-growth stands may be handled on an individual tree selection basis providing it is possible to care for the stand by thinning the undergrowth and removing shade and competition from the young Douglas-fir trees. This is an expensive procedure unless markets are available for these products. It is justified in some areas such as planned and carried out in Landscape Management Areas.

Multiple use can only be accomplished on the ground in some sort of action program—timber sale, roadbuilding, revegetation, wildlife habitat projects, and others. In much of the North Cascades the big action programs are timber harvesting and roadbuilding. The two are closely tied together and many of the roads are built in connection with timber sales.

Multiple use planning provides for coordination of uses at different levels of emphasis in each of the Resource Management Associations in the North Cascades. This means that in merchantable timbered areas the harvesting practices are blended into a coordinated program providing for some wildlife habitat, scenery, watershed protection, and some range forage considerations. This coordination is accomplished on the ground through timber sales—the big action program.

Roads are built which serve recreation and other uses as well as timber. Timber is harvested by individual tree selection in some areas, and in small clear-cut patches in others. This type of patch cutting is of great benefit to wildlife. There are many deer and other wildlife on the timbered areas of the west slopes of the Cascades due to these prescribed timber harvesting practices. The aesthetic requirements in the Landscape Management Areas and Alpine Resource Association require individual tree selection and small, scattered patch cutting which are good watershed protection measures and make good wildlife habitat.

The entire multiple use management program is designed to give the greatest value to the people of America. It is a planned pattern of use of the available and potential resources that does not give maximum return for any one resource but which does give the greatest overall benefit. The timber harvesting program is an important phase of accomplishing this planned multiple use program.

IX. COOPERATION WITH MOUNT RAINIER NATIONAL PARK

Park Service personnel of Mount Rainier National Park and Forest Service personnel of the adjoining Snoqualmie and Gifford Pinchot National Forests work together closely in coordinating overall and detailed planning and operational phases of their activities. It is the policy of the Forest Service to continue these close working relationships and coordination.

2. A joint Park Service-Forest Service study of the boundary situation around Mount Rainier

might be desirable in the near future. The objective of such a study should be to:

a. Determine areas needed for a fully coordinated development program that will best and most efficiently serve the overall public need; and

b. Utilize the available sites and resources for the types of recreation and other uses for which they are best suited.

Data and reasons that have been discussed for changes in the boundaries have not been jointly studied and reviewed to the point where any recommendations or concurrence can be made by the Forest Service at this time.

<<< Previous <<< Contents>>> Next >>>

study_report/appb.htm
Last Updated: 26-Mar-2010

APPENDIX C

POSITION STATEMENT BY NATIONAL PARK SERVICE

NATIONAL PARK SERVICE MANAGEMENT PROPOSALS FOR THE NORTH CASCADE MOUNTAINS STUDY AREA

The North Cascade Mountains Study Area comprises some of the finest scenic, scientific and recreation resources we have in the United States. Considering the entire region, the National Park Service suggests a grand design based on ideal approaches aimed toward proper use, development and preservation of these outstanding resources.

When one looks at the study area, it becomes apparent that there are four major targets for scenery, scientific interest and recreational opportunities.

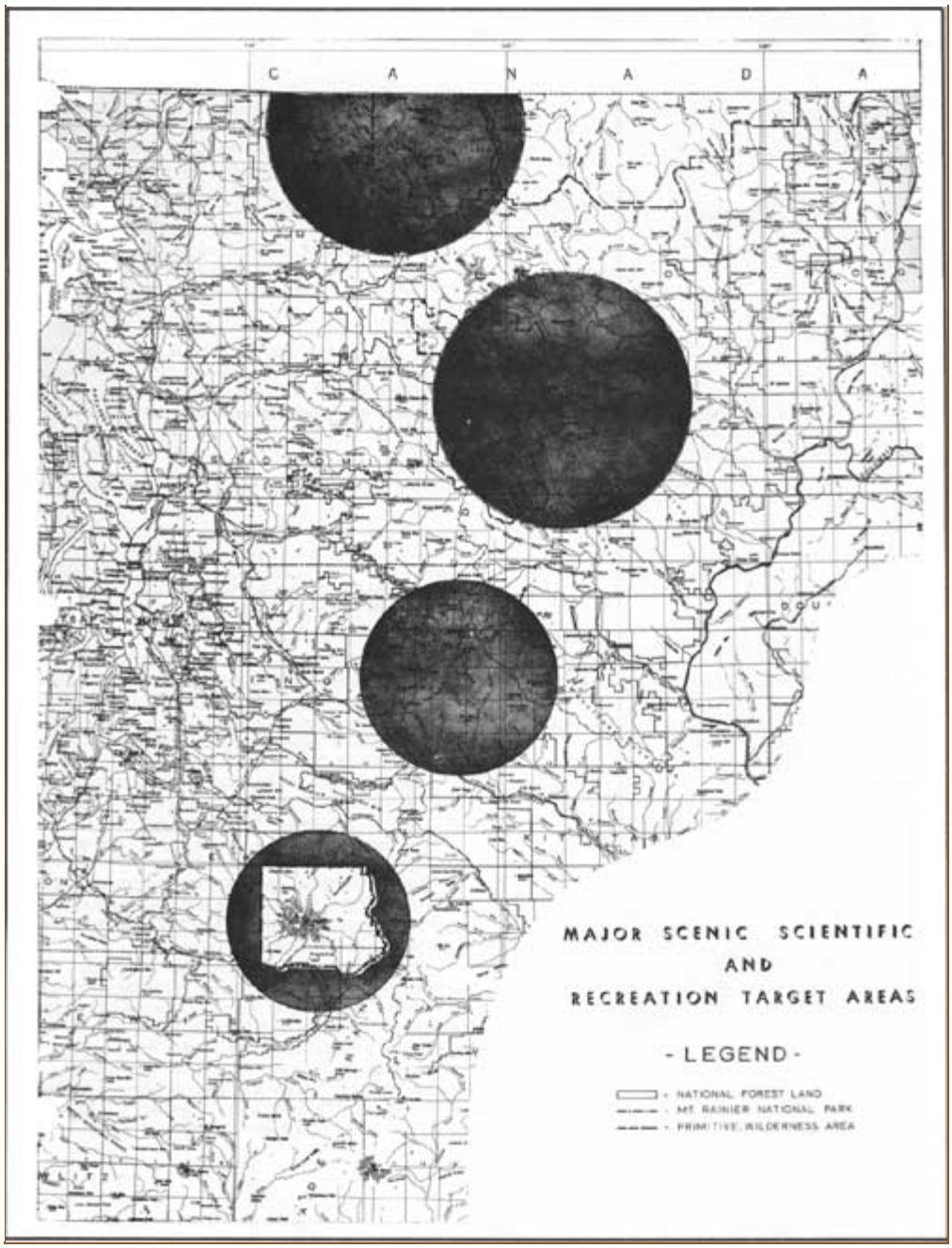
First, there is the target of Mount Rainier and the surrounding country to the east.

Second, there is the wild scenic Alpine Lakes and Mount Stuart region. It is also encircled with a recreational landscape of exceptional variety and potential, and close to the major population centers of Puget Sound.

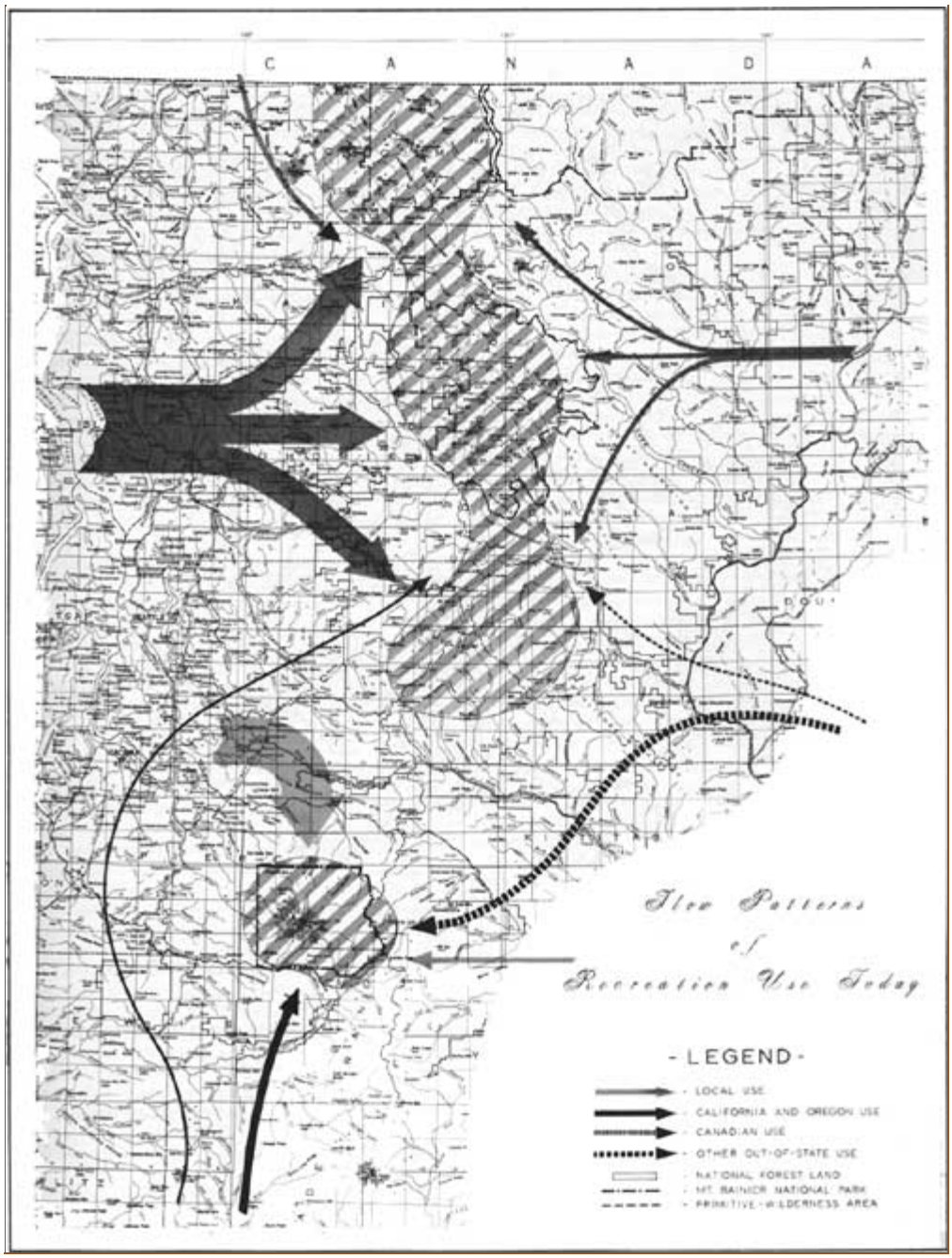
Third, there is the renowned wild beauty of Glacier Peak and the snowy Cascade Crest north to Eldorado. Here again it is enfolded by country of enormous recreational potential, perhaps the best of its kind in the Cascades. Recreational development possibilities there are exciting, to say the least.

And to the North, next to Canada, the crescendo of North Cascade Mountain scenery and scientific interest occurs in the Mount Baker-Shuksan-Picket Range region. These are recreational lands of the highest inspirational quality.

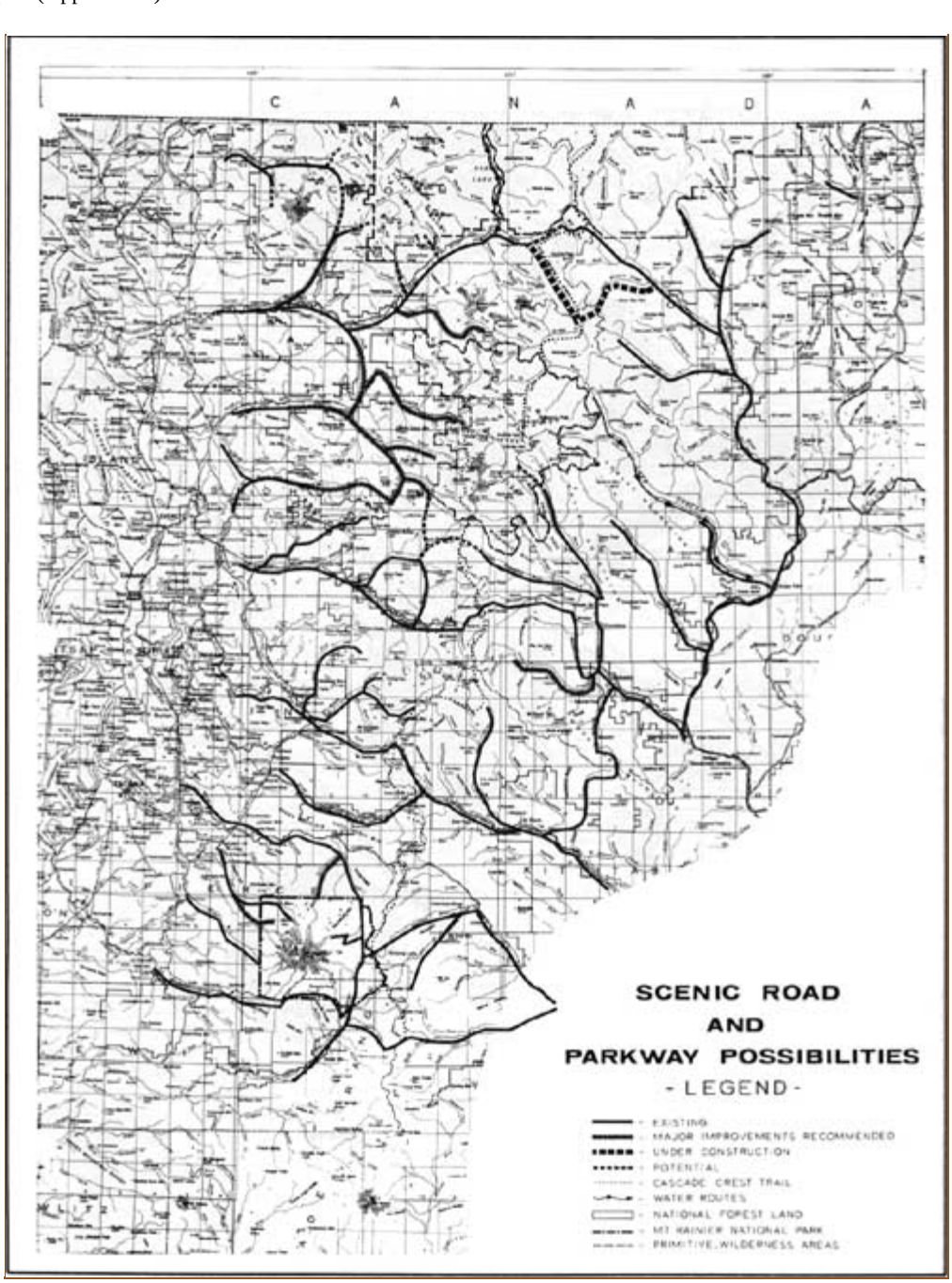




Major Scenic Scientific and Recreation Target Areas. *(click on image for a PDF version)*



Flow Patterns of Recreation Use Today. *(click on image for a PDF version)*



Scenic Road and Parkway Possibilities. *(click on image for a PDF version)*

A recreational area of less scenic but nonetheless impressive potential lies to the east in the Okanogan country. It has important wilderness values and a climate and topography that is ideal for outdoor activities.

The flow of use in the study area today indicates that the bulk of recreation use now is local, emanating from the centers of population nearby. But it should be noted also that the pattern of out-of-State use is now mainly directed at Mount Rainier because of its international reputation. It is significant, too, that out-of-State travel to the Cascades from Canada is increasing.

A very noticeable pattern of use today, marked by the recreation substudy team in its report, is the sun-chasing movement of recreationists back and forth from the cooler, more spectacular west side to the sunny and drier slopes east of the Cascade Crest. This pattern of

use relates closely to the target areas mentioned earlier. The country east of Mount Rainier, south and east of Mount Stuart, the Lake Chelan country and the Okanogan country all provide sunny complements to the more splendid but also more frequently inclement country farther west. It is indeed a collaboration of nature in behalf of recreation.

One should always remember that many more people see this region from the windows of an automobile than in any other way. It is, therefore, in order to examine the road system that serves the study area. Much more could be done with the major existing roads to make them more enjoyable to the visiting public and the local motorists. It is reassuring to see that progress is being made to improve this situation with the forethought being given the trans-Cascade Highway now under construction and in a number of Forest Service road projects.

New road possibilities are interesting. The Cascades could be made more accessible and more enjoyable by such projects, especially if they are truly scenic roads or parkways. In addition to the trans-Cascade Highway, already under construction, there is another possibility from the Stevens Pass route up through Cady and Curry gaps into the Glacier Peak country.

It does not seem feasible to contemplate a linear north-south parkway along the Cascades, desirable as this might seem at first consideration. Terrific scarring of landscape and severe weather conditions appear to preclude such a road. An improved Cascade Crest Trail offers a partial substitute for it; moreover, there are many loops into the Cascade country which can provide great recreational opportunity in large capacity. A prime example is the loop highway up the Sauk and down the Stillaguamish Valleys from a route that is now only a secondary road. These should be of scenic road quality.

There are a number of feasible routes for spur and loop roads that can be developed for access to the threshold of the mountains. Roads and overlooks such as at Buck Creek Pass up the Chiwawa River appear to offer excellent opportunities for scenic viewing on a grand scale. Another possibility might be the linking of Heather Meadows and Baker Lake.

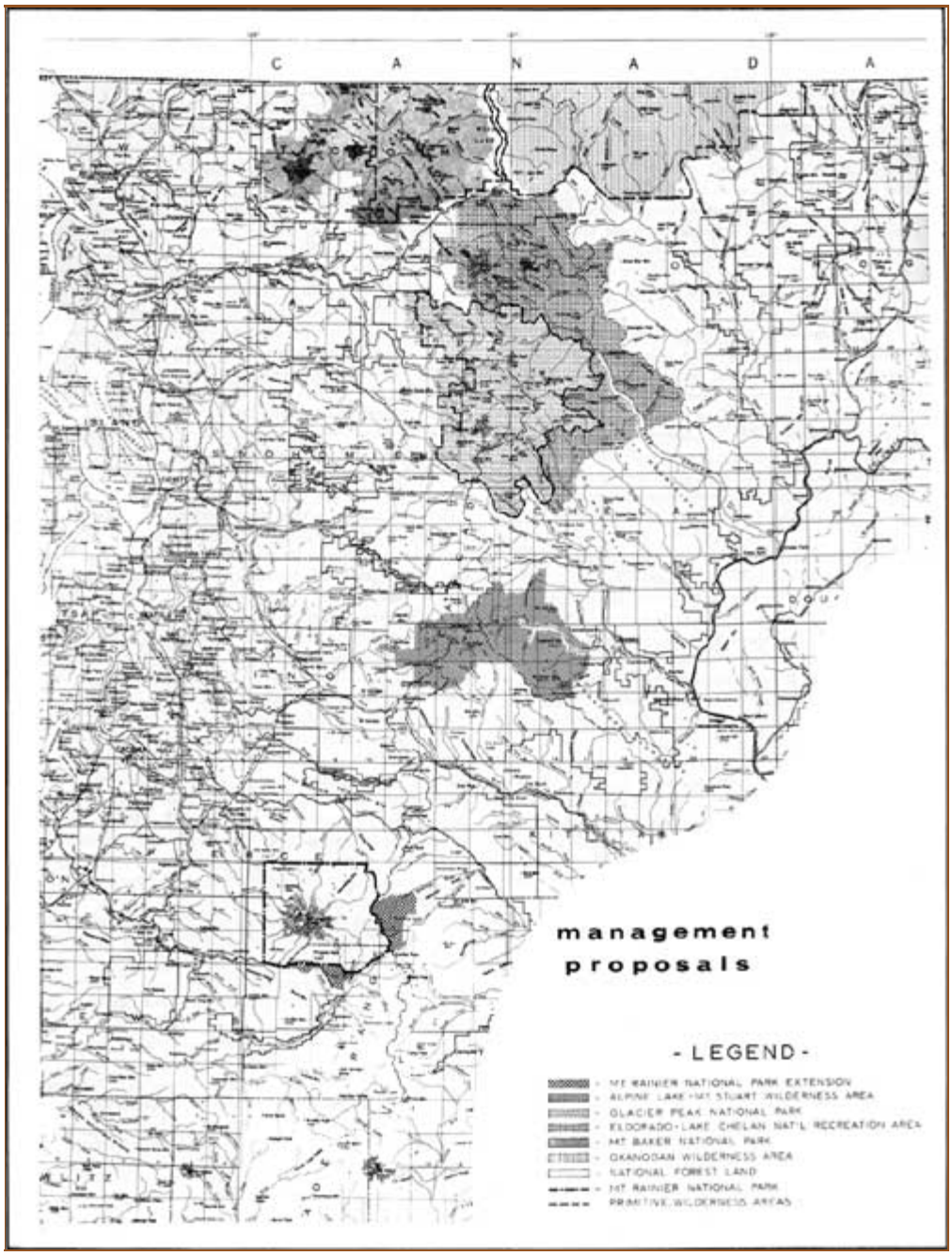
Travel along the mountain crest will certainly become an increasingly popular trail experience, and the Cascade Crest Trail is a very significant part of the North Cascades access concept. In fact, development of more and better trails throughout the region is very important to the enjoyment and use thereof.

In studying the accessibility potentials of the Cascades, one cannot but be excited over the unique travel opportunities of two great waterways into the heart of the region, Lake Chelan and Ross Lake. Here is a different sort of travel experience—by water—which, if developed and managed with imagination, could give a unique and memorable form of recreational access to thousands of visitors. For this reason, the National Park Service believes that water should be the only access to these heartland areas, offering an additional dimension of travel opportunity in the Cascades.

In developing recreation opportunities in the area, management might well borrow from the imaginative mass transit approach of European recreation managers who have utilized—perhaps for different economic reasons but with very successful results—the funicular, the monorail, the tramway and other dramatic but relatively inconspicuous means of access up into the mountains.

With these patterns in mind, consider again the four target areas mentioned at the outset. Among them today the goal that is by far the best known and most attractive to the Nation as a whole is Mount Rainier. The importance of protecting scenic and recreation resources for future enjoyment; the growing need and demand for them; the pronounced increase in out-of-State travel—in many states, to the point of being a leading industry; the impressive future of the Puget Sound country as a population center and as a recreation center (and the two are

inter-related) all lead to the question what shall be done with and for these targets? How should they be managed for optimum benefit to the Nation as a whole and to the State of Washington in particular?



Management Proposals. *(click on image for a PDF version)*

The recommendations of the National Park Service for management are as follows:

1. The Service proposes an enlarged Mount Rainier National Park to provide an eastside environment with visitor facilities and interpretive services developed as an integral part of the Park complex. An extension to the south to include the remainder of the Tatoosh Range is also proposed.

2. The National Park Service recommends the magnificent heartland of wild country in the Alpine Lakes and Mount Stuart and Enchantment Lakes region as a Wilderness area, which

could be the core of a larger surrounding recreation region.

3. The National Park Service recommends a National Park surrounding Glacier Peak.

4. National Park status should be accorded that climactic, Cascade country occurring from the Skagit Valley to the Canadian boundary, west of Ross Lake, embracing Mount Baker, Mount Shuksan, the Picket Range and adjacent mountain country.

5. East of Ross Lake a North Cascade Wilderness Area should be established to protect a primitive region that is ideal for wilderness travel and experience.

6. In the region north and east of Glacier Peak the recreation lands are so outstanding, having, as they do, major water resources and scenic values of their own complementary to the area qualifying as a park that National Recreation Area designation is recommended there.

7. Design and development of a system of scenic drives and parkways in the Cascades region should receive high priority.

8. The recreational lands around Baker and Ross Lakes; those surrounding the wilderness heartland of the Alpine Lakes and Mount Stuart, and the land to the east of Mount Rainier National Park and its proposed eastward extension, are also of especial value in serving both State and out-of-State needs, and offer a wide variety of recreation opportunity. This is also true of the Okanogan Country. These areas should be given special protection and management for recreational use.

<<< **Previous** <<< **Contents**>>> **Next** >>>

study_report/appc.htm
Last Updated: 26-Mar-2010

APPENDIX D

HIGHLIGHTS IN THE HISTORY OF THE NORTH CASCADES, INCLUDING SELECTED KEY EVENTS, ACTS OF CONGRESS, LEGISLATIVE PROPOSALS, AND ADMINISTRATIVE DECISIONS

1891 Act of March 3 (26 Stat. 1103) authorized the President to set aside forest reserves from the public domain. The act did not provide for forest management and the reserves were simply closed areas until 1897. See entry under 1897.

1893 Presidential Proclamation of February 20 (27 Stat. 1063) established the Pacific Forest Reserve, Washington.

1897 Presidential Proclamation of February 22 (29 Stat. 896) combined the Pacific Forest Reserve with other lands to establish the Mount Rainier Forest Reserve. It also established the Washington Forest Reserve.

1897 The Organic Administration Act of June 4 (30 Stat. 35) provided for management of the forest reserves under the administration of the General Land Office in the Department of the Interior. This is one of the basic acts, with amendments, under which the National Forests have been administered since 1905 by the Forest Service, Department of Agriculture.

1899 Act of March 2 (30 Stat. 993) established the Mount Rainier National Park from a part of the Mount Rainier Forest Reserve.

1904 Act of December 21 (33 Stat. 595) transferred an additional portion of the Mount Rainier Forest Reserve to the Mount Rainier National Park.

1905 Act of February 1 (33 Stat. 628) transferred forest reserves from the Department of the Interior to the Department of Agriculture. The Agricultural Appropriation Act of March 3 (33 Stat. 872) provided funds for the administration of the 60 forest reserves aggregating 56 million Government-owned acres. The present Forest Service stems from these two acts.

1906 A North Cascades National Park, consisting of Lake Chelan region and surrounding mountains, proposed by the Mazamas, the Cascades' oldest alpine club.

1907 Presidential Proclamation of March 2 (34 Stat. 3296) changed the name of the Mount Rainier Forest Reserve to the Rainier Forest Reserve.

1907 Act of March 4 (34 Stat. 1269) changed the name of the Forest Reserves to the National Forests.

1908 A Mount Baker National Park reportedly proposed for the first time.

1908 Executive Order 820 of June 18 established the Columbia National Forest from a part of the Rainier National Forest; Executive Order 822 transferred a part of the Washington National Forest to the Rainier National Forest; and Executive Order 823 established the Chelan National Forest from still another part of the Washington National Forest. On the same date, Executive Order 824 established the Snoqualmie National Forest from another part of the Washington National Forest and Executive

Order 825 established the Wenatchee National Forest from another part of the Washington National Forest.

1911 Presidential Proclamation of June 30 (37 Stat. 1701) established the Okanogan National Forest from part of the Chelan National Forest.

1914 Agreement entered March 27 by the Secretary of Agriculture and the Mayor of the City of Tacoma for the management of the National Forest lands within the Green River watershed. This agreement was in effect until November 23, 1964.

1916 Act of August 25 (39 Stat. 535) established the National Park Service and assigned to it the administration of all National Parks.

1916 S. 3775 by Jones and S. 3982 by Poindexter, each to establish a Mount Baker National Park in the State of Washington, received no action by the Public Lands Committee or by the 64th Congress, 1st Session. The same year, H.R. 9805 was introduced by Hadley to establish the Mount Baker National Park in the State of Washington. This bill was reported by the House Committee with amendment on January 29, 1917.

1917 A National Park in the North Cascades area was endorsed by Mary Roberts Rinehart in a serialized account of her trip from Lake Chelan to Marblemount which appeared in the Cosmopolitan Magazine.

1917-1919 Four bills were introduced in the 65th Congress, S. 312 by Poindexter, H.R. 6066 by Hadley, S. 3662 by Jones, and S. 4014 by Poindexter to establish the Mount Baker National Park in the State of Washington. They received no congressional action. Two bills were re-introduced in the 66th Congress, S. 371 by Poindexter and S. 626 by Jones. These also received no congressional action.

1919 Yakima and Spokane Chambers of Commerce and neighboring communities called for creation of a North Cascades Park including Mount Adams, Glacier Peak and Mount Baker.

1919-1921 Three bills were introduced by Senator Jones to create the Yakima National Park in the State of Washington in this period. These were S. 5612, in the 65th Congress, 3d Session, S. 623 in the 66th Congress, 1st Session and S. 2676 in the 67th Congress, 1st Session. They received no congressional action.

1920 Trails Club of Oregon proposed Cascade Range be established as a National Park.

1920 Executive Order 3380 of December 31 transferred entire Okanogan National Forest to the Chelan National Forest and discontinued the Okanogan name. See entry under 1955.

1922 Mount Baker Construction Company formed to start construction of the Mount Baker Lodge.

1923 Recreation development in the Mount Baker area began with the construction of a road from the town of Shuksan to Austin Pass and Heather Meadows. The Austin Pass Recreation Area Plan was approved by Forest Service calling for development on broad lines since the area would become a large center of recreation.

1924 Executive Order 3943 of January 21 changed name of the Washington National Forest to the Mount Baker National Forest.

1925 The Austin Pass Recreation Area was renamed the Heather Meadows Recreation Unit and a new plan for the area"s development was approved by the Forest Service.

1926 Mount Baker Development Company completed construction of the Mount Baker Lodge. While the main Lodge was destroyed by fire in 1931, an annex remains today as a popular recreation and skiing center.

1926 The Mount Baker Park Division of the Mount Baker National Forest, comprising 74,859 acres, was established by Secretary of Agriculture. Logging, mining, and water development projects were permitted, if such utilization would not impair values of

the area for recreational purposes.

1926 The Glacier Peak Association reportedly proposed a National Park to surround Glacier Peak. The idea was later abandoned in favor of continued management by the Forest Service.

1929 Forest Service adopted "L-Regulations" providing for a system of primitive areas with minimal road and construction developments.

1931 Forest Service established the Glacier Peak-Cascade Recreation Unit embracing 233,600 acres around Glacier Peak.

1931 Whatcom Primitive Area, comprising 172,800 acres adjacent to Mount Baker Recreation Area, established by the Chief of the Forest Service.

1931 The Secretary of Agriculture, by a land classification order, designated as the Mather Memorial Parkway an area embracing the Naches Pass Highway consisting of 24,300 acres within the Rainier National Forest to be held "for the use and enjoyment of the general public for scenic and recreation purposes."

1931 By act of January 31, Mount Rainier National Park was enlarged by the addition of approximately 35,000 acres of National Forest lands (46 Stat. 1047).

1933 Congress enacted legislation for the establishment of Emergency Conservation work, later called the Civilian Conservation Corps.

1933 Executive Orders 6333, 6334, and 6335 of October 13 divided the entire Rainier National Forest among the Columbia, Snoqualmie, and the Wenatchee National Forests.

1934 Land Planning Committee of the National Resources Board proposed National Park status for several of the most scenic volcanic peaks. The Northwest Conservation League actively supported this proposal.

1935 North Cascade Primitive Area (801,000 acres) was established by the Forest Service. This area included all of the Whatcom Primitive Area and extended from the Mount Baker Recreation Area easterly to include the summit of the Cascade Range and the more rolling mountain country of the Chelan National Forest.

1936 Forest Service considered possible southern expansion of North Cascade Primitive Area by outlining a 794,400 acre area between the Primitive area and Stevens Pass for study and possible classification as the Glacier Peak Wilderness Area. Such consideration was renewed in 1939.

1937 Director of the National Park Service appointed a special committee to investigate the park potential of the North Cascades. This committee recommended (Tomlinson Report) National Park status for Mounts Baker, Glacier Peak, Rainier, St. Helens and Adams, an area comprising about a 5,000 square mile area or over 3 million acres. (Later references to this report often call it the "Ice Peaks National Park proposal.")

1938 Heather Meadows Recreation Unit Plan of development was revised by the Forest Service because of completion of highway, the addition of a winter sports area and improvements located in the unit.

1938-1939 National Park Service studied mines and mineral claims, timber, grazing, and wildlife resources in the North Cascades region.

1939 Secretary of Agriculture adopted "U—1" and "U—2" Regulations, providing for a system of Wilderness areas, more restricted than primitive areas, and revoked Regulation "L—20."

1939 Washington State Planning Council began study of area from Mount Baker to Mount Adams. Seven public hearings held by Council during winter of 1939-40.

1939 Joint National Park Service-Forest Service-Washington State Investigation Committee examined Mount Baker and other ice peaks of Washington.

1940 National Park Service submitted its report to the Washington State Planning Council

advocating a Cascades National Park encompassing the high, glacier bearing peaks of the Cascades.

1940 On April 27, Forest Service preliminary report on North Cascades Joint Study was approved by Regional Forester endorsing continued Forest Service management, and opposing National Park status for area.

1940 Washington State Planning Council completed its report, which opposed creation of National Park and affirmed multiple use management of North Cascades area.

1940 Secretary of the Interior Harold L. Ickes, advised the Mining World Magazine that "the scenic wilderness areas of the high Cascades should be administered as National Recreation Areas" by the National Park Service.

1940 Glacier Peak Limited Area of approximately 350,000 acres was reserved by the Forest Service for further study.

1946 A 90,000-acre Cougar Lake Limited Area, a 256,000-acre Alpine Lakes Limited Area, and a 15,000-acre Monte Cristo Peak Limited Area were set aside administratively by Regional Forester for further study of their recreation potential.

1949 Presidential Proclamation of June 15 (63 Stat. 1277) renamed the Columbia National Forest as the Gifford Pinchot National Forest. See entry under 1908.

1950 Bellingham Chamber of Commerce formed a committee to consider development of Mount Baker Recreation Area. Establishment of the Mount Baker Recreation Area as a National Monument was also suggested. Later in the year, the Bellingham Committee recommended against the Monument proposal and supported then current appropriation legislation as a source of funds for National Forest recreation.

1955 Public Land Order 1101 of March 23 renamed the Chelan National Forest as the Okanogan National Forest. See entries under 1911 and 1920.

1955 The Multiple-Use Mining Act of July 23 (69 Stat. 367) was an important step toward preventing abuses of the mining laws and interference between mining claims and the management of resources of National Forests and other public lands and at the same time safeguarded legitimate development of mineral resources on such lands.

1955 A Waptus Lake National Park of about 77,000 acres in the Wenatchee National Forest was proposed.

1956 "Mission 66," a 10-year program to develop, expand, and improve the recreation resources of the National Park System was initiated by the National Park Service. It was aimed at bringing up to standards by 1966 a National Park System which would adequately meet the needs of the American people.

1957 Forest Service presented preliminary proposals for Glacier Peak Wilderness Area of about 434,000 acres.

1957 North Cascades Conservation Council, a private organization, was established.

1957 Only large mine in North Cascades, Holden Mine, closed.

1957 Operation Outdoors, a five-year program to improve and expand recreation facilities in the National Forests, was started by the Forest Service.

1958 In a report prepared for the Sierra Club, David Simons recommended the creation of a Lake Chelan-Glacier Peak National Park comprising 1,300,000 acres.

1958 The National Parks Association, the North Cascades Conservation Council, and the Sierra Club adopted resolutions advocating establishment of a National Park in the Glacier Peak area of the North Cascades. The Federation of Western Outdoor Clubs recommended a joint study by the Interior and Agriculture Departments to determine how the area's wilderness, scenic, wildlife and recreational resources might best be protected by law.

1959 In March, Representative Thomas Pelly proposed that the National Park Service make a recreation evaluation in the Glacier Peak area. He contacted the Forest Service,

which recommended against such a study.

1959 In February, the Forest Service announced its proposal to establish a Glacier Peak Wilderness Area of approximately 422,000 acres, and conducted hearings thereon at Bellingham and Wenatchee during October.

1959 A "Program for the National Forests," a comprehensive, long-range plan for improvement and development of public forests, was submitted to the Congress by the Secretary of Agriculture.

1959 Construction was started on the North Cross-State Highway.

1960 86th Congress, 2d Session, H.R. 9342 and H.R. 9360, introduced January 6 by Magnuson and Pelly, respectively, and S. 2980, introduced February 4 by Magnuson, to provide that the Secretary of the Interior, in cooperation with the Secretary of Agriculture, shall investigate and report to the Congress on the advisability of establishing a National Park or other unit of the National Park System in the central and North Cascades region of the State of Washington. Referred to Committee on Interior and Insular Affairs. These bills received no congressional action.

1960 The Multiple Use-Sustained Yield Act of June 12 (74 Stat. 215) declared that the National Forests are to be administered for outdoor recreation, range, timber, watershed, and wildlife and fish purposes. It gave congressional confirmation of the long-established policy of developing and administering renewable surface resources of the National Forests for multiple use and sustained yield of their several products and services. It stressed that consideration be given relative values of resources in particular areas and declared that the establishment and maintenance of areas of wilderness is consistent with purposes and provisions of the act.

1960 In a decision of September 6, the Glacier Peak Wilderness Area (458,505 acres) was established by Secretary of Agriculture. The Secretary also provided in the decision that the Cascade Pass-Ruby Creek Area would be managed for preservation of scenic values and general types of recreation.

1961 Secretary of Agriculture directed that no further logging development be undertaken in 20 specified areas in the North Cascades pending preparation of a high mountain policy statement for Oregon and Washington.

1961 Columbia Basin Inter-Agency Recreation Subcommittee released its report on recreation survey of Pacific Northwest Region.

1961 87th Congress, 1st Session, H.R. 2056, introduced January 6 by Pelly. To provide that the Secretary of the Interior, in cooperation with the Secretary of Agriculture, shall investigate and report to the Congress on the advisability of establishing a National Park or other unit of the National Park System in the central and North Cascades region of the State of Washington. Referred to the Committee on Interior and Insular Affairs. This bill received no congressional action.

1962 In its report to the President and the Congress, the Outdoor Recreation Resources Review Commission recommended, among other things, a land classification system for outdoor recreation resources.

1962 Secretary of Agriculture directed that no new developments, including building of new roads or making of new timber sales, would be undertaken until 1967 in 10 specified areas in the North Cascades.

1962 Basic multiple use management objectives for the high mountain areas of the National Forests in Oregon and Washington were approved by Secretary of Agriculture.

1963 Washington State Forest Area Use Council released a report recommending declassification of Cougar Lake Limited Area and suggesting the area be managed under regular multiple-use practices.

1963 Forest Service adopted policy on National Forest Recreation Ways.

1963 North Cascades Conservation Council's report, "A North Cascades National Park," called for a 1,038,665-acre National Park and a 269,521-acre Chelan National Mountain Recreation Area.

1963 A "new era of cooperation" between the Department of Agriculture and the Department of the Interior was announced in a joint letter of understanding sent to the President by the two Secretaries. This called for, among its several specific proposals, a joint study "of the Federal lands in the North Cascade Mountains of Washington to determine the management and administration of those lands that will best serve the public interest."

1963 North Cascades Study Team was appointed by the Secretaries of the Interior and Agriculture. Later that year, the team inspected the area and conducted public hearings.

1964 The Wilderness Act of September 3 (78 Stat. 890) provided for the establishment of a National Wilderness Preservation System. The Glacier Peak Wilderness Area became a part of that System.

1965 The Eldorado Peaks High Country of some 537,000 acres in the Cascade Pass-Ruby Creek area was given publicity by the Forest Service. It was announced that this area would be managed for mass recreation purposes in accord with the directive contained in the 1960 Secretary of Agriculture designation of the Glacier Peak Wilderness.

1965 "Wild Cascades: Forgotten Parkland" released by the Sierra Club to promote a National Park in the North Cascades.

<<< **Previous** <<< **Contents**>>> **Next** >>>

APPENDIX E
SELECTED BIBLIOGRAPHY

(This bibliography has been selected from a much larger assembly of references and represents a listing of those which appeared to be the most substantive.)

Albright, Horace M. *More Park or All Forest: Highest Use vs. Multiple Use.* Sierra Club Bulletin, April-May, 1960. 5 pp., illustrated.

American Forests. *Western Pine Association Denounces Glacier Peak Wilderness Area.* October, 1960. 1 p., illustrated.

Bonneville Power Administration. *An Economic Appraisal of the North Cascades Area—Preliminary Draft.* March 17, 1964. 23 pp. (Processed.)

Brower, David R. *Crisis in the Northern Cascades: The Missing Million.* Sierra Club Bulletin, February, 1959. 6 pp., illustrated.

Brower, David R. *Scenic Resources for the Future.* Sierra Club Bulletin, December, 1956. 11 pp.

Case, Robert Ormond and Virginia. *Last Mountains: The Story of the Cascades.* Doubleday, Doran and Company, Garden City, New York. 1945. 236 pp., illustrated.

Collins, Bernard C. *Land Use Conflict in the North Cascades Wilderness of Washington State.* Thesis, University of Michigan. 1962. 149 pp., illustrated. (Typed.)

Columbia Basin Inter-Agency Committee, Recreation Subcommittee. *Recreation Survey of the Pacific Northwest Region. Part One: Existing Recreation Areas.* March, 1961. 58 pp., maps and tables. (Processed.)

Part Two: Potential Recreation Areas. 84 pp. illustrated. October 1964.

Douglas, William O. *America's Vanishing Wilderness.* Ladies Home Journal, July, 1964. 6 pp., illustrated.

Douglas, William O. *My Wilderness: The Pacific West.* Doubleday and Company, Garden City, New York. 1960. 206 pp., drawings.

Fager, Don., M.D. *Figures Support Northern Cascades Conservationists.* Sierra Club Bulletin, April 1959. 1 p.

Forest Service, Department of Agriculture: *Forest Service Manual, Title 2100, Multiple Use Management. Forest Service Manual, Title 2300, Recreation and Management. Establishment and Modification of National Forest Boundaries, A Chronologic Record 1891-1962.* September, 1962. 96 pp., tables.

Highlights in the History of Forest Conservation. (Agriculture Information Bulletin No. 83), Revised. June, 1961. 29 pp.

Historical List of National Forest Names, with An Explanation of the Disposition of Former National Forests and Names. Revised. June 1, 1957. 11 pp. (Processed.)

Management Objectives and Policies for the High Mountain Forests of the Pacific Northwest Region. April, 1962. 8 pp.

National Forest Recreation Ways, A Development Opportunity. December, 1963. 20 pp., illustrated. (Processed.)

Official Report of Proceedings before the USDA in the Matter of the Proposed Establishment of Glacier Peak Wilderness. Volume 1, October 13, 1959, Bellingham, Washington. 217 pp. (Processed.)

Volume 2, October 16, 1959, Wenatchee, Washington. 294 pp. (Processed.)

Principal Laws Relating to the Establishment and Administration of the National Forests and to Other Forest Service Activities, The. (Agriculture Handbook No. 20), Revised. July, 1964. 127 pp.

Timber Resources for America's Future. January 1958. 713 pp., illustrated.

Forest Service, Pacific Northwest Region: *Analysis of National Forest Lands Included in a Proposal for a Northern Cascades National Park—Preliminary.* December, 1962. 67 pp., and appendices. (Processed.)

Cascade Crest Trail, Washington, Pacific Crest Trail System. 1961. 15 pp., illustrated and maps.

Historical Data—Mount Baker National Forest. 1950. 151 pp. (Processed.)

Multiple Use Plan for the North Cascades Study Area. July, 1963. Approximately 265 pp., illustrated. (Processed.)

Preliminary Report on North Cascade National Park Study Area. April, 1940. 27 pp. (Typed.)

Report on Proposed North Cascade Wilderness Area—Mt. Baker and Okanogan National Forests, Washington. February 6, 1962. 31 pp., and appendices. (Processed.)

Report on the Recreation Resources of the National Forests in the North Cascades, A. (2 parts: Part 1, text. Part 2, maps.) December, 1963. 51 pp., illustrated.

Study and Reclassification of the North Cascade Primitive Area, Mt. Baker and Okanogan National Forests. 1960. (Brochure.)

Forest Service, Pacific Northwest Forest and Range Experiment Station. Various Forest Survey Reports, 1940 through 1962.

Freeman, Otis Willard, and Martin, Howard H., editors. *The Pacific Northwest: An Overall Appreciation.* John Wiley & Sons, New York. 1954. 540 pp., illustrated.

Goldsworthy, Patrick D. *The North Cascades on the Witness Stand.* Sierra Club Bulletin,

November, 1963. 2 pp.

Heald, Weldon F. *The Undiscovered Cascades.* National Parks Magazine, October, 1959. 4 pp., illustrated.

Heald, Weldon F. *The Wilderness Alps of Washington.* Summit Magazine, November, 1959. 7 pp., illustrated.

Held, Burnell. *An Economic Analysis of Proposed Changes in the Use and Management of the National Forest Lands in the North Cascades.* November, 1964. 47 pp., and appendices. (Typed.)

Hessey, Charles D., Jr. *Across the North Cascade Primitive Area.* The Living Wilderness, Autumn-Winter, 1961. 5 pp., illustrated.

Hogan, J. B., and Mitchell, J. R. *North Cascade Wilderness Area.* The Living Wilderness, Autumn, 1953. 2 pp., map.

Horn, Huston. *There Are No Wet Blankets at Snoqualmie.* Sports Illustrated, January 6, 1964. 9 pp., illustrated.

Interior, U.S. Department of:

Highlights in the History of Forest and Related Natural Resource Conservation. (USDI Conservation Bulletin 41), 1959. 35 pp., illustrated.

United States Department of the Interior Forest Conservation. (USDI Conservation Bulletin 42), 1960. 86 pp., illustrated.

Pacific Northwest: Needs, Resources and Development. Proposal for An Integrated Program for the Department of the Interior in the Pacific Northwest. Pacific Northwest Field Committee. 1949. 59 pp., and appendices. (Processed.)

Irwin, Robert A. *Call to the Wilderness: A Family's Hike into the Northern Cascades.* 1965 World Book Year Book. 16 pp., illustrated.

Izaak Walton Magazine. *Motor Scooter vs. Forest Service Recreation Use.* July, 1965. 1 p.

Joint Forest Service-National Park Service Report. *"Exploratory Coordinated Planning Report—Mt. Rainier National Park, Snoqualmie National Forest and Gifford Pinchot National Forest."* Laurence O. Barrett, Forest Supervisor, Snoqualmie National Forest; and John A. Rutter, Superintendent, Mount Rainier National Park. January, 1965. 47 pp., and map. (Processed.)

Living Wilderness, The. *North Cascades Park.* (Endorsed by Wilderness Society) Winter-Spring, 1964. 1 p., and map.

Manning, Harvey. *The Wild Cascades: Forgotten Parkland.* Sierra Club, San Francisco. 1965. 128 pp., illustrated.

McConnell, Grant. *The Cascades Wilderness.* Sierra Club Bulletin, December, 1956. 8 pp.

McConnell, Grant. *The Multiple Use Concept in Forest Service Policy.* Sierra Club Bulletin, October, 1959. 16 pp.

Miller, Tom (photographs), and Manning, Harvey (text). *The North Cascades.* The

Mountaineers, Seattle. 1964. 95 pp., illustrated.

Mountaineers, The. *Recommended Glacier Peak Wilderness Area.* Living Wilderness, Autumn, 1959. 11 pp., illustrated.

National Parks Association. *Northern Cascades and the Need for Unity.* (Editorial) Anthony Wayne Smith. National Parks Magazine, January, 1961. 1 p.

National Parks Association. *Policy Report of the President and General Counsel.* Pacific Northwest. November 19, 1963. 1 p.

National Parks Association. *Your NPA at Work.* (Endorsement of Glacier Peak Wilderness Area larger than that proposed by Forest Service.) National Parks Magazine, November, 1959. 1 p.

National Park Service, Department of the Interior:

Mount Rainier. (Illustrated fold-out brochure.) Revised. April 1964. Map.

National Park Potentialities in the Cascade Mountains of Washington. National Park Service Cascades Committee, O. A. Tomlinson, Chairman. 1940. 27 pp. (Typed.)

Our Heritage—A Plan for Its Protection and Use—Mission 66. Undated. 32 pp., illustrated.

Organization Volume, Part 5—Policies. (National Park Service Release No. 61). June 10, 1965. 35 pp. (Processed.)

Report of Committee, Northern Cascades Area Investigation. O. A. Tomlinson and others. 1937. 40 pp. (Typed.)

North Cascades Conservation Council:

Critique of North Cascade Resource Reports and Commentary by Washington Forest Area Use Council. June, 1964. 8 pp. (Processed.)

Prospectus for A North Cascades National Park. Edited by J. Michael McCloskey. July, 1963. 130 pp., illustrated. (Processed.)

The Wild Cascades. (Issues released between September, 1962, and March, 1965.) Edited by Harvey Manning. Seattle.

North Cascades Study Team Resource Subcommittee Study Reports:

Fish and Wildlife Study Report. Arthur W. Greeley,

Chairman, Fish and Wildlife Subcommittee Team. February, 1964. 82 pp., and maps.

Minerals and Geology Study Report. George A. Selke, Chairman, Minerals and Geology Subcommittee Team. February, 1964.

Part I: Report. Approximately 265 pp.

Part II: Maps and Supplementary Material. Range Resource Study Report. Arthur W. Greeley,

Chairman, Range Resource Subcommittee Team. January, 1964. 22 pp., map.

Recreation Study Report. George B. Hartzog, Chairman, Recreation Resource Subcommittee Team. 1963.

Part I: Outdoor Recreation in the Northern Cascades Today and Tommorrow. 95 pp.

Part II: Statistical Compendium Socio-Economic Analysis. 192 pp.

Timber Resource Study Report. Arthur W. Greeley, Chairman, Timber Resource Subcommittee Team. January, 1964. 17 pp., and appendices.

Water and Power Resources Report. Columbia Basin Inter-Agency Committee. January 31, 1964.

Part I: Summary. 41 pp., maps and tables.

Part II: Specific Investigations. Approximately 215 pp., illustrated.

Summary Statement. Owen Stratton, Chairman, Water and Power Resources Subcommittee Team. 31 pp.

Oberteuffer, Margaret. *A Northern Cascades Wilderness Trek.* Living Wilderness, Autumn, 1959. 9 pp., illustrated.

Onthank, Karl W. *Last Stand in Western Wilderness: A Report on Limited Areas.* Western Outdoor Quarterly, Summer, 1957.

Osseward, John. *Land Laws and Land Usage in Washingington State.* The Mountaineer, 1961. 26 pp., illustrated.

Outdoor Recreation Resources Review Commission. *Outdoor Recreation for America: A Report to the President and to the Congress.* January, 1962. 246 pp., illustrated.

Park, Edwards and Revis, Kathleen. *Washington Wilderness, The North Cascades.* National Geographic Magazine, March, 1961. 34 pp., illustrated.

Peattie, Roderick (editor). *Cascades: Mountains of the Pacific Northwest.* Vanguard Press. 1949. 417 pp., illustrated.

Rettie, James. *Resource Reports of the North Cascades Study: Assessment of Their Economic Features.* June, 1964. 15 pp., and map. (Processed.)

Rinehart, Mary Roberts. *A Pack-Train in the Cascades.* Cosmopolitan Magazine, August, 1917. 9 pp., illustrated. September, 1917, 9 pp., illustrated. October, 1917. 11 pp., illustrated.

Sainsbury, George R. *Climbers Guide to the Cascade and Olympic Mountains of Washington.* American Alpine Club. 1961. (Based on previous edition by Fred Beckey.) 386 pp., illustrated.

Sierra Club Bulletin. *The Last Chance for A Northern Cascades National Park.* December, 1964. 17 pp., illustrated.

Sierra Club Bulletin. *Recommendations on Wilderness.* April, 1957. 1 p.

Simons, David R. *The Need for Scenic Resource Conservation in the Northern Cascades of Washington.* Sierra Club. 1958. 36 pp. (Processed.)

Stone, J. Herbert. *Glacier Peak Wilderness Proposal.* Living Wilderness, Autumn, 1959. 4 pp., illustrated.

Sunset Magazine. *Goat-Watching in the Cascades.* February, 1963.

Sunset Magazine. *Our Wilderness Alps.* June, 1965. 14 pp., illustrated.

Ulrichs, Hermann F. *The Cascade Range in Northern Washington.* Sierra Club Bulletin, February, 1937. 11 pp.

Van Name, Willard Gibbs. *Vanishing Forest Reserves: Problems of the National Forests and National Parks.* The Gorham Press. 1929. 190 pp., illustrated.

Warth, John F. *Cascade Mountain Study—Waptus.* (Preliminary) 1955. 44 pp., including map. (Typed.)

Washington, I. *Our National Forests Wilderness.* Living Wilderness, Autumn, 1953. 5 pp., illustrated.

Washington, State of: *Cascade Mountains Study.* Washington State Planning Council. 1940. 56 pp., illustrated.

Cougar Lake Limited Area. Washington Forest Area Use Council. May, 1963. 28 pp., illustrated. (Processed.)

Directory of Washington Mining Operations. Division of Mines and Geology.

Governor's Report on Outdoor Recreation in Washington. Inter-Agency Committee on Outdoor Recreation. 1963. 36 pp., illustrated.

Introduction to Washington Geology and Resources. (Information Circular No. 22), Revised. 1962. 44 pp.

Mineral Rights and Land Ownership in Washington. (Information Circular No. 36), Wayne Moen, Division of Mines and Geology. 1962. 23 pp.

Non-Resident Travel in Washington, 1959-60. Business and Economic Research Division. 1961. 87 pp.

North Cascades Report. Washington Forest Area Use Council. May, 1964. 36 pp., illustrated. (Processed.)

Proceedings of the Industrial and Economic Development Conference. Department of Commerce and Economic Development, and Washington State University. 1959.

Washington State Highways: An Engineering Study and Evaluation of State Highway Needs for the Period July 1, 1959, to July 1, 1965, and for Subsequent Ten-year Period of July 1, 1965 to July 1, 1975, to Serve Present and Future Traffic. 1960. 38 pp.

Wild Rivers Study Team. *Draft Study Report on the Skagit River and Its Cascade, Sauk and Suiattle Tributaries, State of Washington.* Northwest Regional Task Group of the Wild Rivers Study Team. July 1, 1964. 163 pp., map and appendices. (Processed.)

Wilke, Rosemary. *A Broad Bold Ledge of Gold.* Historical Facts of Monte Cristo. Seattle Printing and Publishing Company. 1958.

Wills, Robert H. *High Trails: A Guide to the Cascade Crest Trail.* University of Washington Press, Seattle. 1962. 157 pp., illustrated, and 21 maps.

Woodward, Walt. Series of articles appearing in Seattle Times between June 13, 1965, and July 5, 1965, regarding controversy in the North Cascades.

Zalesky, Philip H. and Butler, Founta. *Economic Potential of Wilderness in the Northern Cascades.* Sierra Club Bulletin, October, 1959. 8 pp.

Films:

Hessey, Charles D. *From East to West in the North Cascade Primitive Area.* Star Route, Naches, Washington.

Glacier Peak Holiday.

North Cascades National Park?

Skiing Cascade Wilderness.

KING—TV. *Wind in the Wilderness.* Seattle. (Bob Schulman, writer; Ralph Umbarger, color photography.)

Sierra Club. *Wilderness Alps of Stehekin.* San Francisco.

NOTE—Maps in this report should have used "Kittitas" in spelling the name of that county.

<<< **Previous** <<< **Contents**>>>


VANCOUVER
MANNING PROVINCIAL PARK
CANADA
UNITED STATES
BELLINGHAM
VICTORIA
STUDY AREA
Twisp
EVERETT
Chelan
SPOKANE
SEATTLE
WENATCHEE
TACOMA
Cle Elum
OLYMPIA
YAKIMA
WASHINGTON
PASCO
COLUMBIA RIVER
VANCOUVER
PENDLETON
PORTLAND
PACIFIC OCEAN
SALEM
EUGENE
BEND
BOISE
OREGON
COOS BAY
MEDFORD
KLAMATH FALLS
CRESCENT CITY
REDDING
NORTH CASCADES STUDY
VICINITY MAP
NATIONAL PARKS
STUDY AREA
NATIONAL FORESTS
25 0 25 50 75 100

FIGURE 1

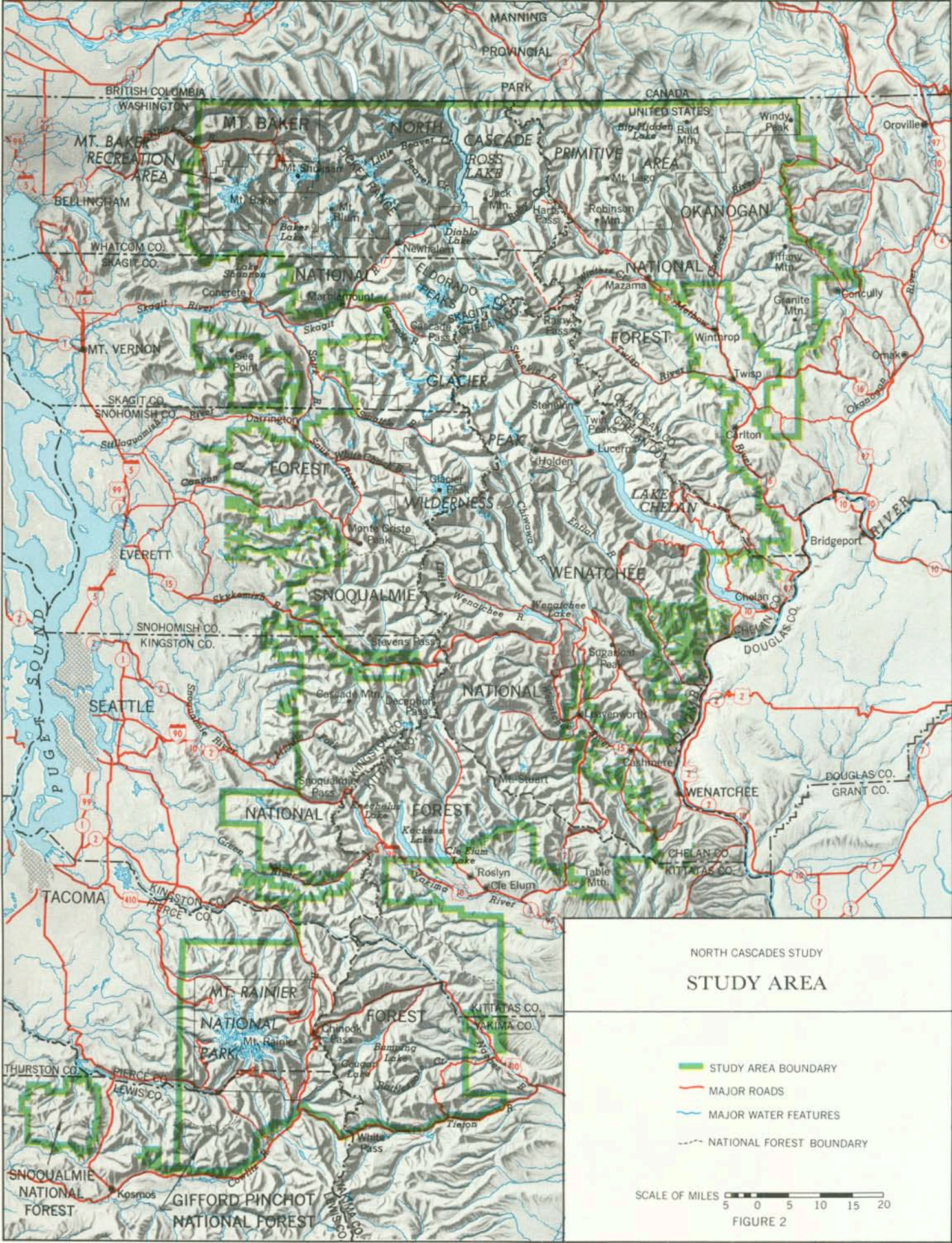
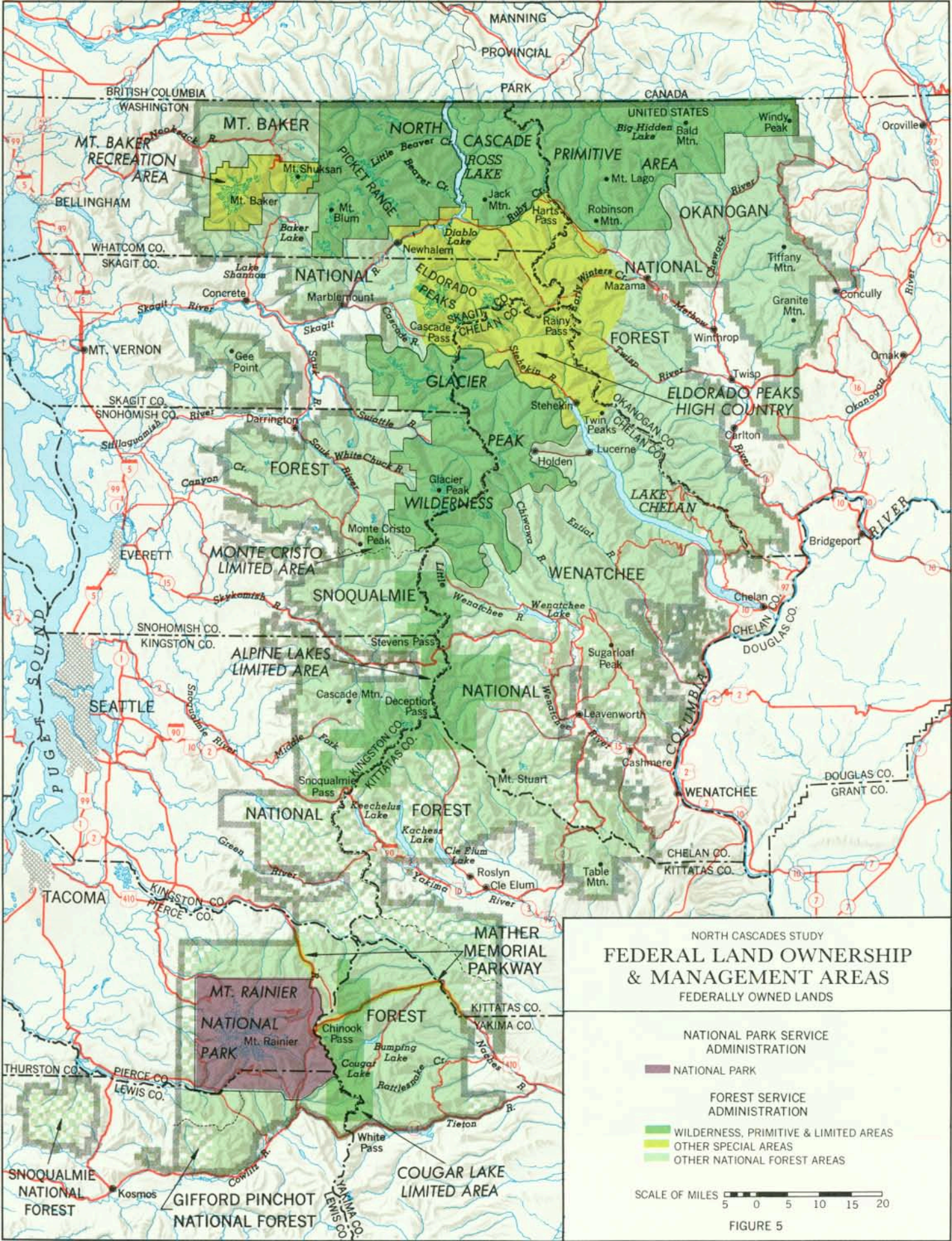

MANNING
PROVINCIAL
PARK
BRITISH COLUMBIA
WASHINGTON
CANADA
UNITED STATES
MT. BAKER
NORTH
CASCADE
MT. BAKER
RECREATION
AREA
PICKET RANGE
ROSS
LAKE
PRIMITIVE
AREA
Mt. Shuksan
Mt. Baker
Mt.
Blum
Jack
Mtn.
Harts
Pass
Mt. Lago
Robinson
Mtn.
OKANOGAN
BELLINGHAM
WHATCOM CO.
SKAGIT CO.
Baker
Lake
Diablo
Lake
Newhalem
NATIONAL
FOREST
ELDORADO
PEAKS
Concrete
Marblemount
Rainy
Pass
Mazama
Winthrop
Twisp
Granite
Mtn.
Tiffany
Mtn.
Conconully
Omak
MT. VERNON
Gee
Point
GLACIER
PEAK
WILDERNESS
Cascade
Pass
SKAGIT CO.
SNOHOMISH CO.
Darrington
Stehekin
Twin
Peaks
Lucerne
Holden
Carlton
OKANOGAN CO.
CHELAN CO.
FOREST
Glacier
Peak
LAKE
CHELAN
Monte Cristo
Peak
Bridgeport
EVERETT
WENATCHEE
SNOQUALMIE
NATIONAL
FOREST
Wenatchee
Lake
Chelan
CHELAN CO.
DOUGLAS CO.
SNOHOMISH CO.
KINGSTON CO.
Stevens Pass
Sugarloaf
Peak
SEATTLE
Cascade Mtn.
Decaption
Pass
Leavenworth
Cashmere
Mt. Stuart
Snoqualmie
Pass
Alpine
Lakes
Kachess
Lake
Cle Elum
Lake
Roslyn
Cle Elum
Table
Mtn.
WENATCHEE
DOUGLAS CO.
GRANT CO.
CHELAN CO.
KITTITAS CO.
TACOMA
KINGSTON CO.
PIERCE CO.
MT. RAINIER
NATIONAL
PARK
FOREST
Mt. Rainier
Chinook
Pass
Bumping
Lake
Cougar
Lake
KITTITAS CO.
YAKIMA CO.
THURSTON CO.
PIERCE CO.
LEWIS CO.
Tieton
R.
White
Pass
SNOQUALMIE
NATIONAL
FOREST
Kosmos
GIFFORD PINCHOT
NATIONAL FOREST
SKAMANIA CO.
LEWIS CO.
NORTH CASCADES STUDY
STUDY AREA
STUDY AREA BOUNDARY
MAJOR ROADS
MAJOR WATER FEATURES
NATIONAL FOREST BOUNDARY
SCALE OF MILES
5 0 5 10 15 20

FIGURE 2



NORTH CASCADES STUDY

FEDERAL LAND OWNERSHIP & MANAGEMENT AREAS

FEDERALLY OWNED LANDS

NATIONAL PARK SERVICE ADMINISTRATION

NATIONAL PARK

FOREST SERVICE ADMINISTRATION

WILDERNESS, PRIMITIVE & LIMITED AREAS

OTHER SPECIAL AREAS

OTHER NATIONAL FOREST AREAS

SCALE OF MILES 5 0 5 10 15 20

FIGURE 5

POPULATION DISTRIBUTION WASHINGTON: 1961

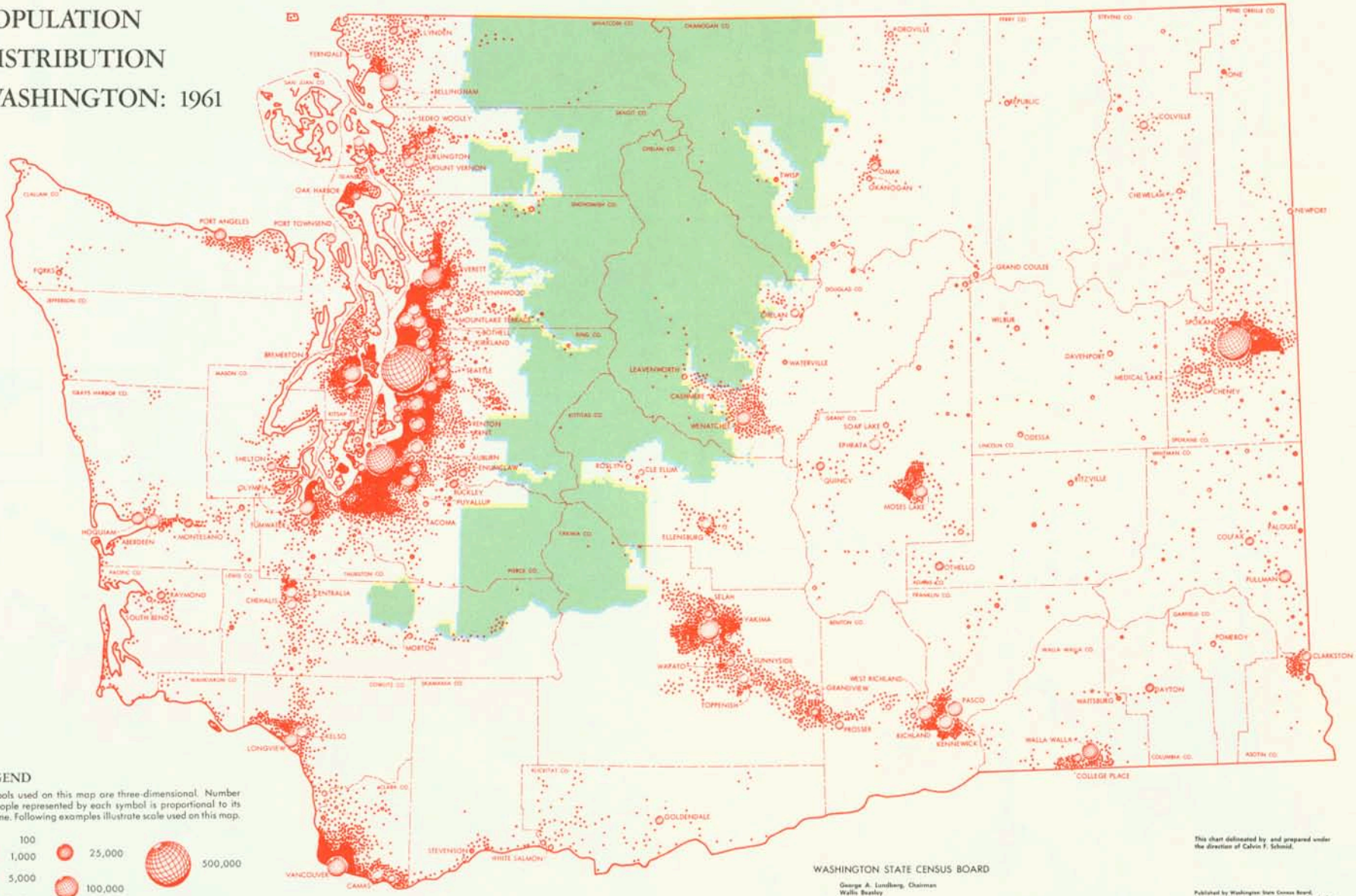


FIGURE 8

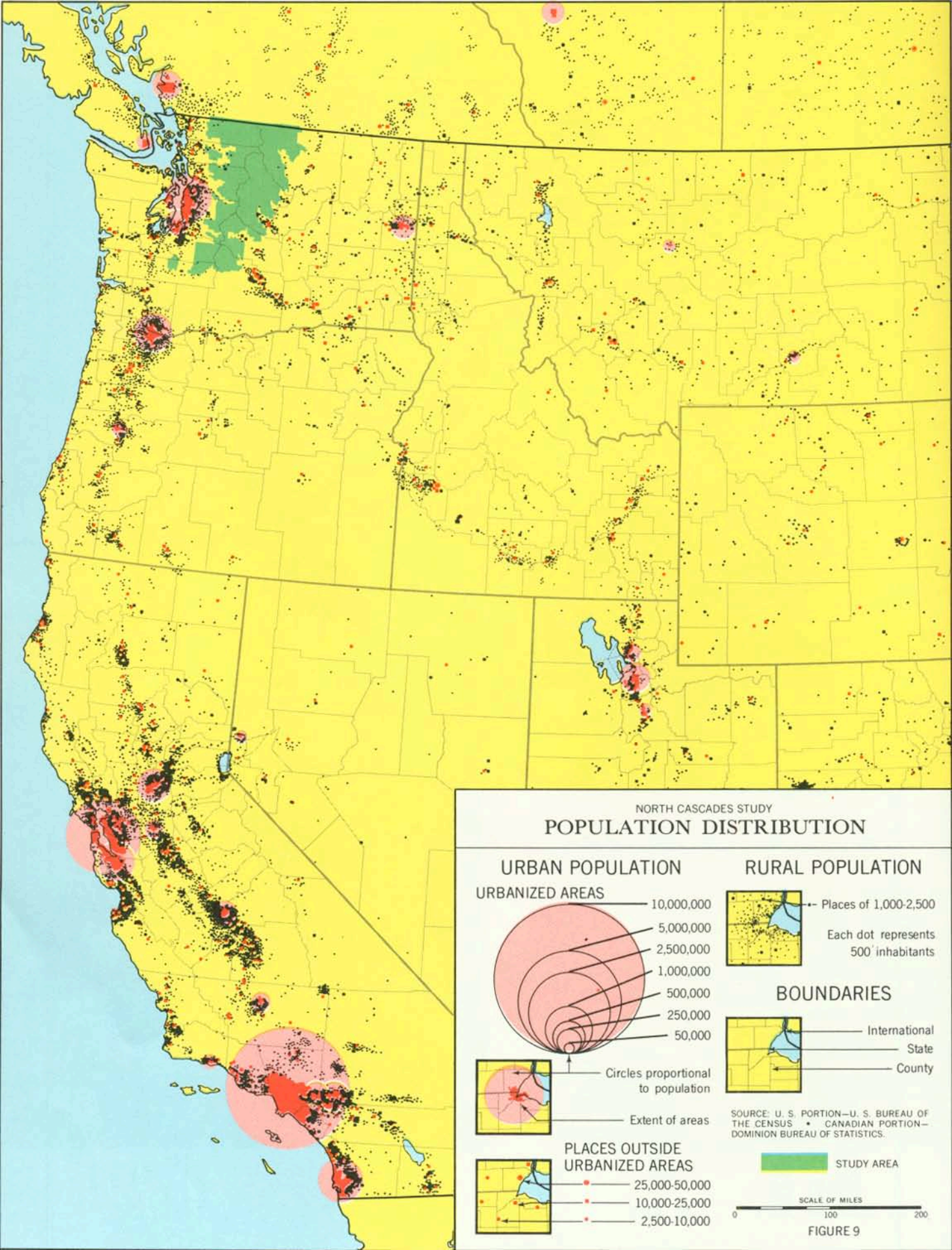
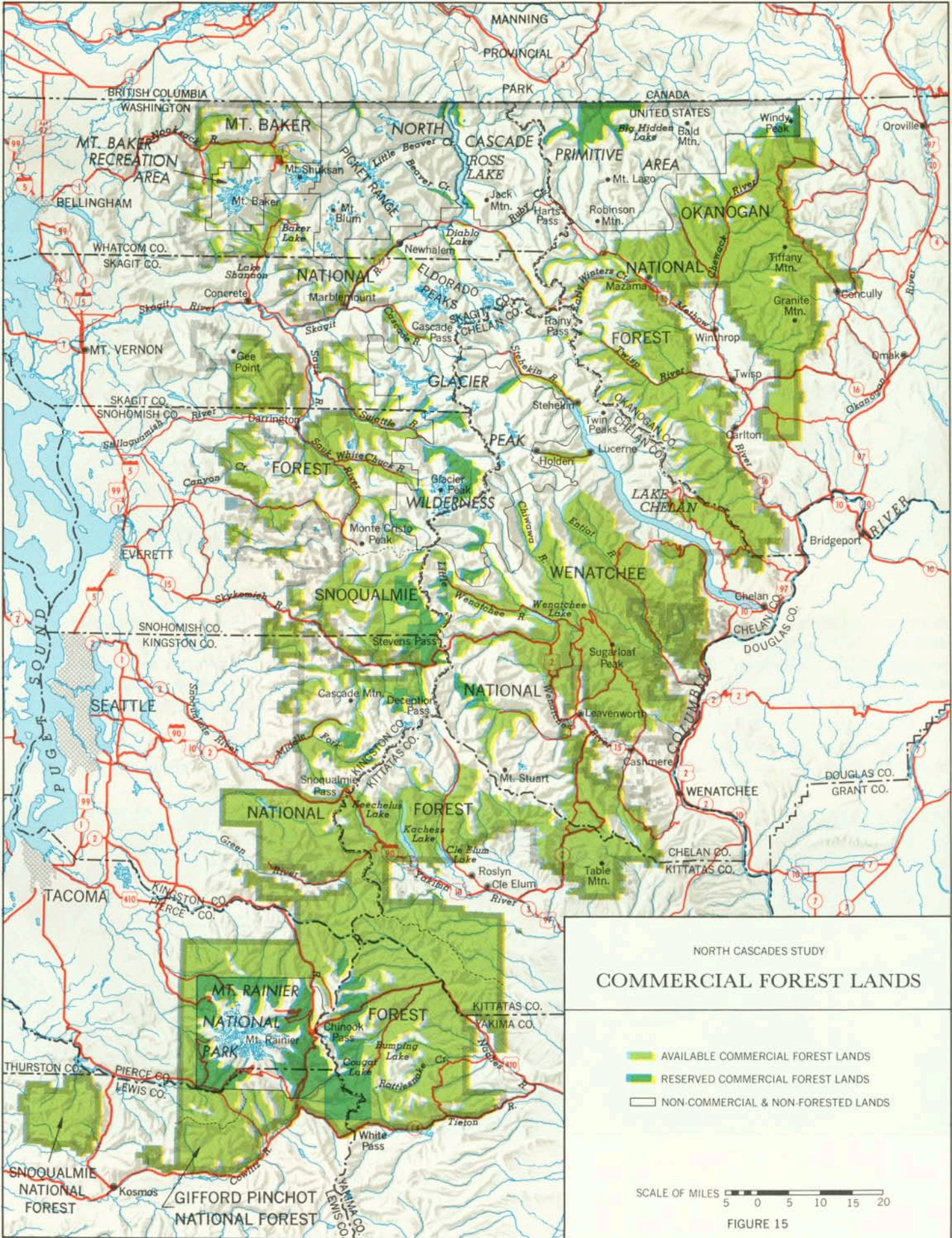

NORTH CASCADES STUDY
POPULATION DISTRIBUTION
URBAN POPULATION
URBANIZED AREAS
10,000,000
5,000,000
2,500,000
1,000,000
500,000
250,000
50,000
Circles proportional to population
Extent of areas
PLACES OUTSIDE URBANIZED AREAS
25,000-50,000
10,000-25,000
2,500-10,000
RURAL POPULATION
Places of 1,000-2,500
Each dot represents 500 inhabitants
BOUNDARIES
International
State
County
SOURCE: U. S. PORTION—U. S. BUREAU OF THE CENSUS • CANADIAN PORTION—DOMINION BUREAU OF STATISTICS.
STUDY AREA
SCALE OF MILES
0
100
200

FIGURE 9



NORTH CASCADES STUDY

COMMERCIAL FOREST LANDS

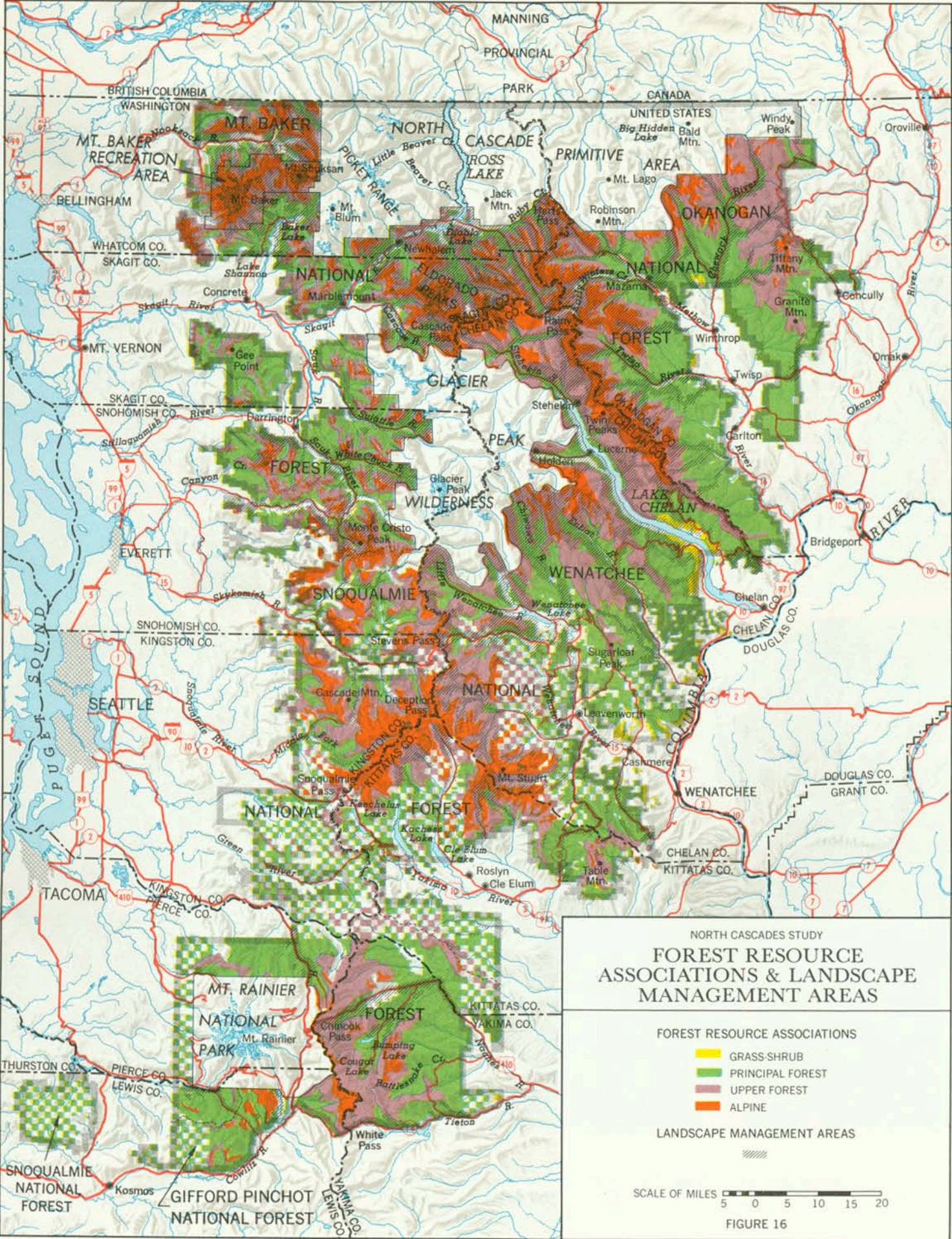
AVAILABLE COMMERCIAL FOREST LANDS

RESERVED COMMERCIAL FOREST LANDS

NON-COMMERCIAL & NON-FORESTED LANDS

SCALE OF MILES 5 0 5 10 15 20

FIGURE 15



NORTH CASCADES STUDY

FOREST RESOURCE ASSOCIATIONS & LANDSCAPE MANAGEMENT AREAS

FOREST RESOURCE ASSOCIATIONS

- GRASS-SHRUB
- PRINCIPAL FOREST
- UPPER FOREST
- ALPINE

LANDSCAPE MANAGEMENT AREAS

SCALE OF MILES 5 0 5 10 15 20

FIGURE 16

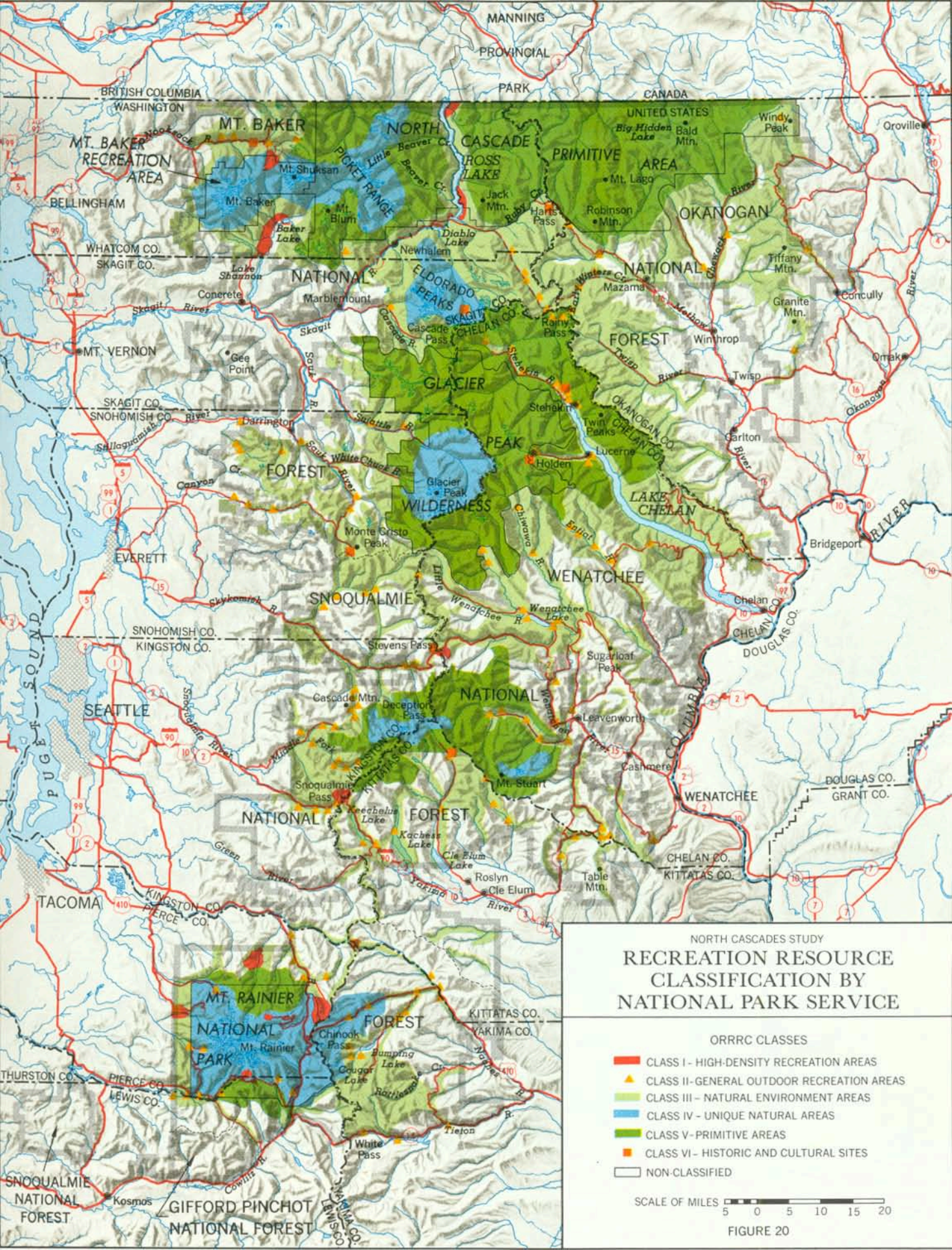

MANNING
PROVINCIAL
PARK
BRITISH COLUMBIA
WASHINGTON
CANADA
UNITED STATES
MT. BAKER
MT. BAKER RECREATION AREA
NORTH CASCADE
PRIMITIVE AREA
ROSS LAKE
Big Hidden Lake
Bald Mtn.
Windy Peak
Oroville
Mt. Shuksan
Mt. Baker
Mt. Blum
Baker Lake
Lake Shannon
Jack Mtn.
Harts Pass
Robinson Mtn.
Mt. Lago
BELLINGHAM
WHATCOM CO.
SKAGIT CO.
Newhalem
Diablo Lake
OKANOGAN
NATIONAL
FOREST
Tiffany Mtn.
Granite Mtn.
Concully
Mazama
Winthrop
Twisp
Omak
Conconully
Concrete
Marblemount
Rainy Pass
Cascade Pass
Methow
Chewuch
Okanogan
MT. VERNON
Gee Point
GLACIER
PEAK
WILDERNESS
Stehekin
Twin Peaks
Lucerne
Holden
Glacier Peak
Darrington
SNOHOMISH CO.
Monte Cristo Peak
Canyon Ck.
Chiwawa R.
Entiat R.
LAKE CHELAN
Carlton
Bridgeport
EVERETT
SNOQUALMIE
WENATCHEE
Chelan
Wenatchee Lake
Skykomish R.
Stevens Pass
SNOHOMISH CO.
KINGSTON CO.
CHELAN CO.
DOUGLAS CO.
Sugarloaf Peak
SEATTLE
Cascade Mtn.
Deception Pass
Leavenworth
Cashmere
Snoqualmie Pass
Mt. Stuart
KITTITAS CO.
Keechelus Lake
Kachess Lake
Cle Elum Lake
Roslyn
Cle Elum
Table Mtn.
WENATCHEE
DOUGLAS CO.
GRANT CO.
CHELAN CO.
KITTITAS CO.
TACOMA
KINGSTON CO.
PIERCE CO.
MT. RAINIER
NATIONAL PARK
Mt. Rainier
Chinook Pass
Bumping Lake
Cougar Lake
Rattlesnake Cr.
Tieton R.
White Pass
KITTITAS CO.
YAKIMA CO.
THURSTON CO.
PIERCE CO.
LEWIS CO.
SNOQUALMIE NATIONAL FOREST
Kosmos
GIFFORD PINCHOT NATIONAL FOREST
SKAMANIA CO.
LEWIS CO.
PUGET SOUND
COLUMBIA RIVER
NORTH CASCADES STUDY
RECREATION RESOURCE CLASSIFICATION BY NATIONAL PARK SERVICE
ORRRC CLASSES
CLASS I - HIGH-DENSITY RECREATION AREAS
CLASS II - GENERAL OUTDOOR RECREATION AREAS
CLASS III - NATURAL ENVIRONMENT AREAS
CLASS IV - UNIQUE NATURAL AREAS
CLASS V - PRIMITIVE AREAS
CLASS VI - HISTORIC AND CULTURAL SITES
NON-CLASSIFIED
SCALE OF MILES
5 0 5 10 15 20

FIGURE 20

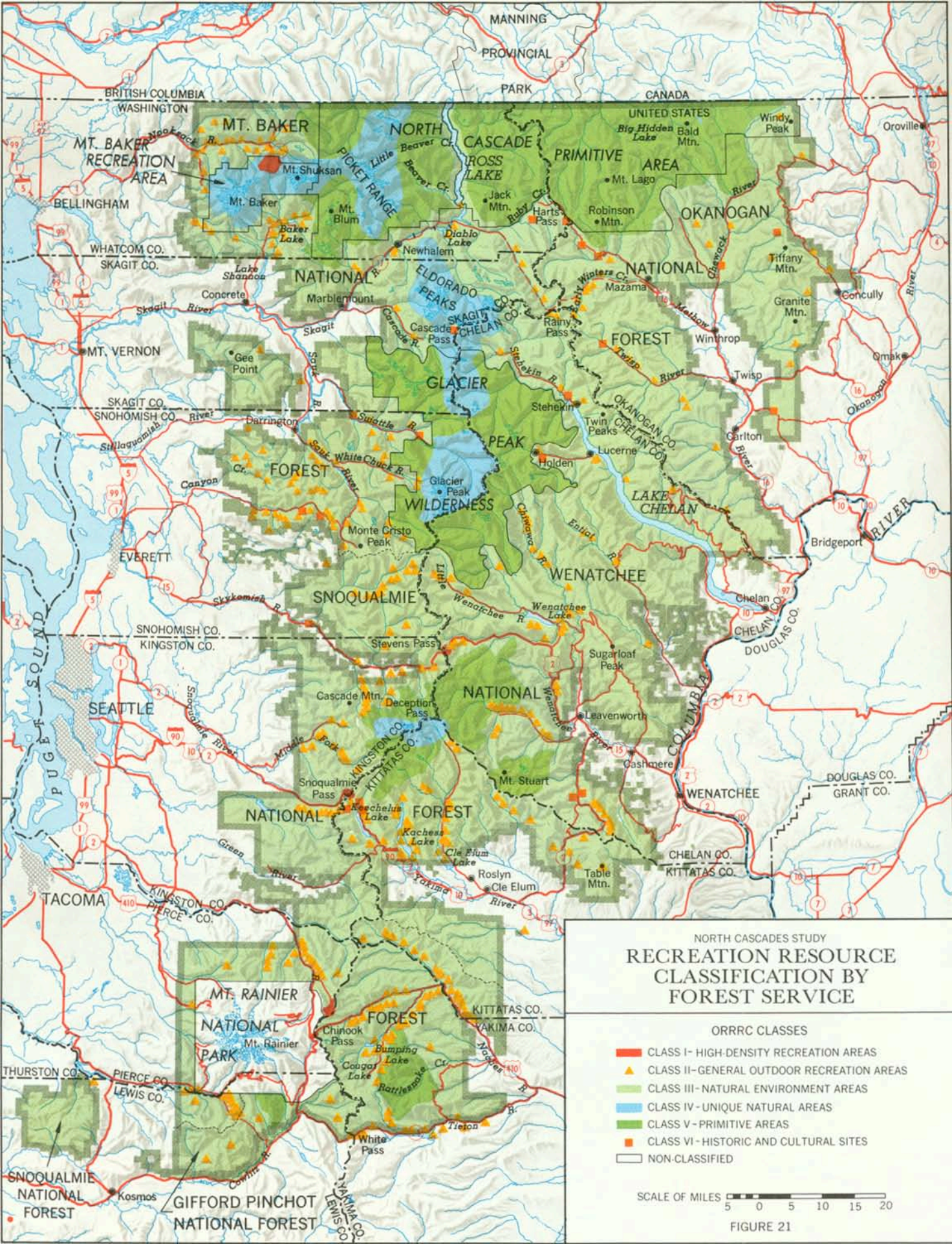
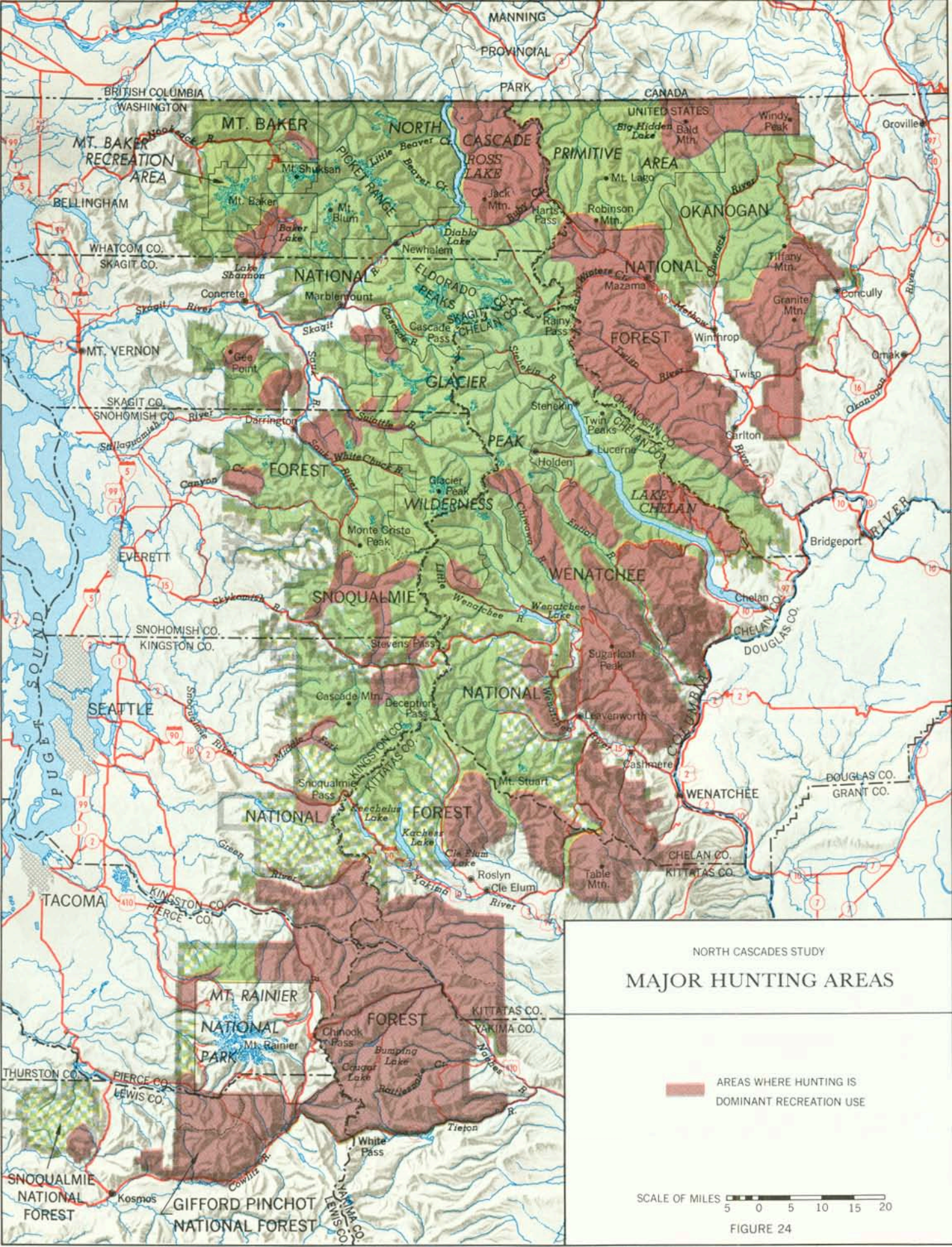

MANNING
PROVINCIAL
PARK
BRITISH COLUMBIA
WASHINGTON
CANADA
UNITED STATES
MT. BAKER
MT. BAKER RECREATION AREA
NORTH CASCADE
ROSS LAKE
PRIMITIVE AREA
Big Hidden Lake
Bald Mtn.
Windy Peak
Oroville
Mt. Shuksan
Mt. Baker
Mt. Blum
Mt. Lago
Jack Mtn.
Harts Pass
Robinson Mtn.
OKANOGAN
BELLINGHAM
PICKET RANGE
Little Beaver Cr.
Beaver Cr.
Ruby Cr.
Baker Lake
Diablo Lake
Newhalem
WHATCOM CO.
SKAGIT CO.
Lake Shannon
NATIONAL
ELDORADO PEAKS
Concrete
Marblemount
Skagit River
Cascade R.
Cascade Pass
SKAGIT CO.
CHELAN CO.
Rainy Pass
Early Winters Cr.
Mazama
Chewack River
Tiffany Mtn.
Granite Mtn.
Concully
Methow
Winthrop
FOREST
MT. VERNON
Gee Point
Sauk R.
GLACIER
PEAK
Twisp
Twisp River
Omak
Okanogan
Stehekin R.
Stehekin
SKAGIT CO.
SNOHOMISH CO.
Darrington
Suiattle R.
Twin Peaks
OKANOGAN CO.
CHELAN CO.
Carlton
Lucerne
Holden
Sauk River
White Chuck R.
Glacier Peak
WILDERNESS
LAKE CHELAN
Canyon Cr.
FOREST
Chiwawa R.
Entiat R.
Bridgeport
RIVER
Monte Cristo Peak
EVERETT
WENATCHEE
SNOQUALMIE
Skykomish R.
Little Wenatchee R.
Wenatchee Lake
Chelan
Chelan Co.
CHELAN CO.
DOUGLAS CO.
SNOHOMISH CO.
KINGSTON CO.
Stevens Pass
Sugarloaf Peak
SEATTLE
Cascade Mtn.
Deception Pass
NATIONAL
Wenatchee River
Leavenworth
Snoqualmie River
Middle Fork
KINGSTON CO.
KITTITAS CO.
Cashmere
COLUMBIA
PUGET SOUND
Snoqualmie Pass
Mt. Stuart
DOUGLAS CO.
GRANT CO.
WENATCHEE
NATIONAL
FOREST
Keechelus Lake
Kachess Lake
Cle Elum Lake
Green River
Roslyn
Cle Elum
Table Mtn.
CHELAN CO.
KITTITAS CO.
Yakima River
TACOMA
KINGSTON CO.
PIERCE CO.
MT. RAINIER
NATIONAL
PARK
FOREST
KITTITAS CO.
YAKIMA CO.
Chinook Pass
Mt. Rainier
Bumping Lake
Cougar Lake
Naches R.
Rattlesnake Cr.
THURSTON CO.
PIERCE CO.
LEWIS CO.
Tieton R.
White Pass
SNOQUALMIE NATIONAL FOREST
Kosmos
Cowlitz R.
GIFFORD PINCHOT NATIONAL FOREST
YAKIMA CO.
LEWIS CO.
NORTH CASCADES STUDY
RECREATION RESOURCE CLASSIFICATION BY FOREST SERVICE
ORRRC CLASSES
CLASS I - HIGH-DENSITY RECREATION AREAS
CLASS II - GENERAL OUTDOOR RECREATION AREAS
CLASS III - NATURAL ENVIRONMENT AREAS
CLASS IV - UNIQUE NATURAL AREAS
CLASS V - PRIMITIVE AREAS
CLASS VI - HISTORIC AND CULTURAL SITES
NON-CLASSIFIED
SCALE OF MILES
5 0 5 10 15 20

FIGURE 21



NORTH CASCADES STUDY

MAJOR HUNTING AREAS

AREAS WHERE HUNTING IS DOMINANT RECREATION USE

SCALE OF MILES 5 0 5 10 15 20

FIGURE 24



NORTH CASCADES STUDY

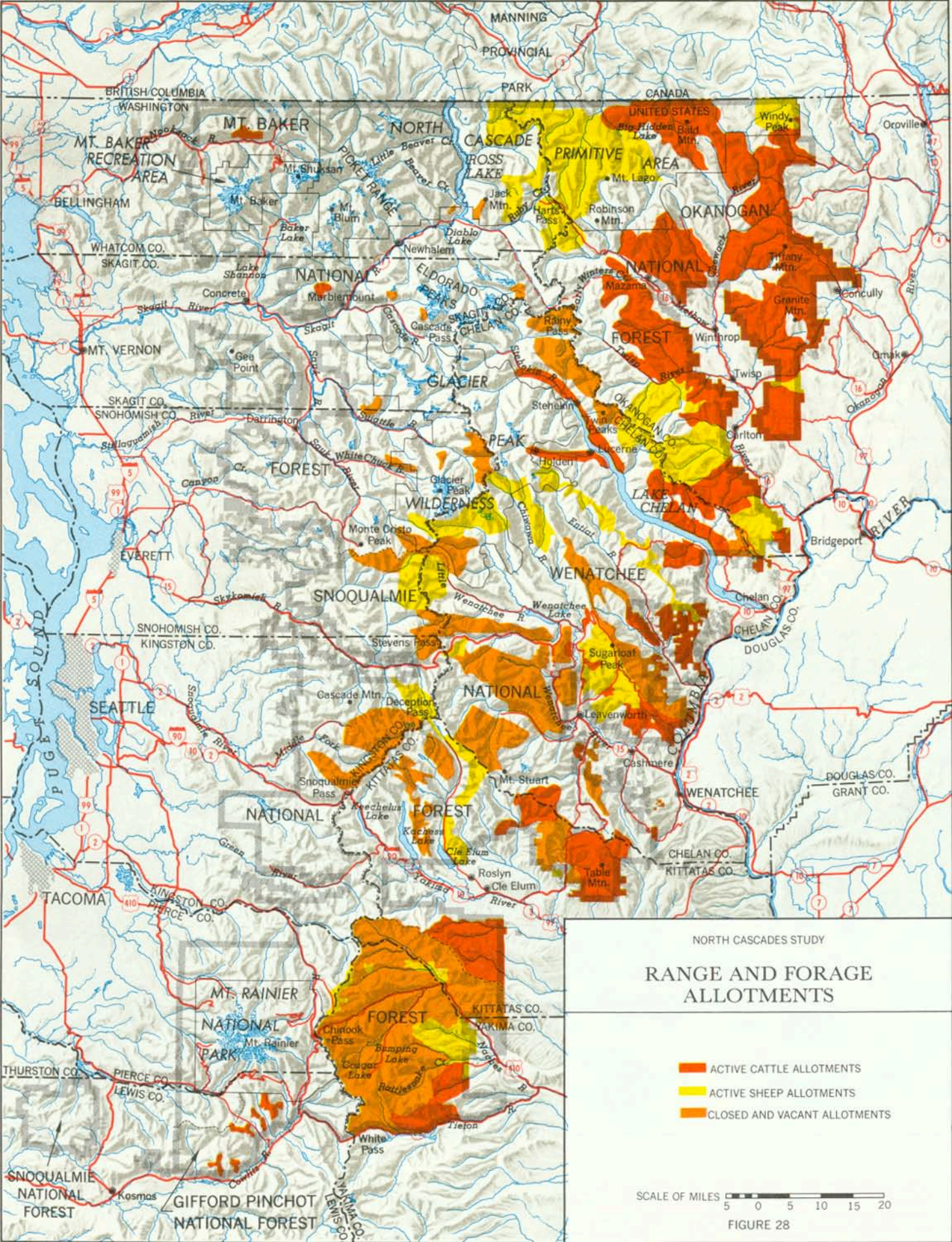
WATER DEVELOPMENT PROJECTS

EXISTING AND POTENTIAL

- EXISTING PROJECTS
- POTENTIAL PROJECTS
- RIVER BASIN BOUNDARY

SCALE OF MILES 5 0 5 10 15 20

FIGURE 27



NORTH CASCADES STUDY

RANGE AND FORAGE ALLOTMENTS

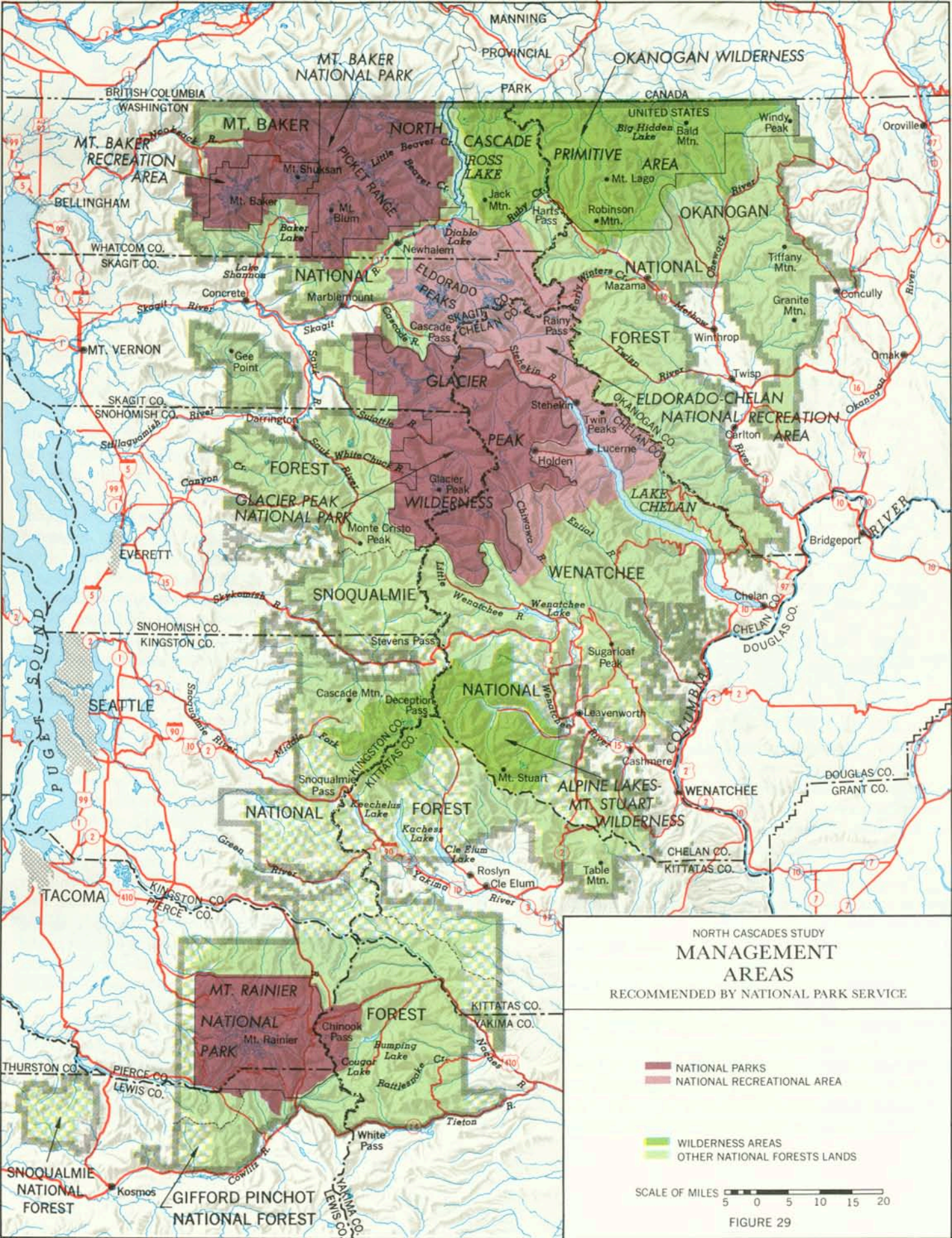
ACTIVE CATTLE ALLOTMENTS

ACTIVE SHEEP ALLOTMENTS

CLOSED AND VACANT ALLOTMENTS

SCALE OF MILES 5 0 5 10 15 20

FIGURE 28



NORTH CASCADES STUDY

MANAGEMENT AREAS

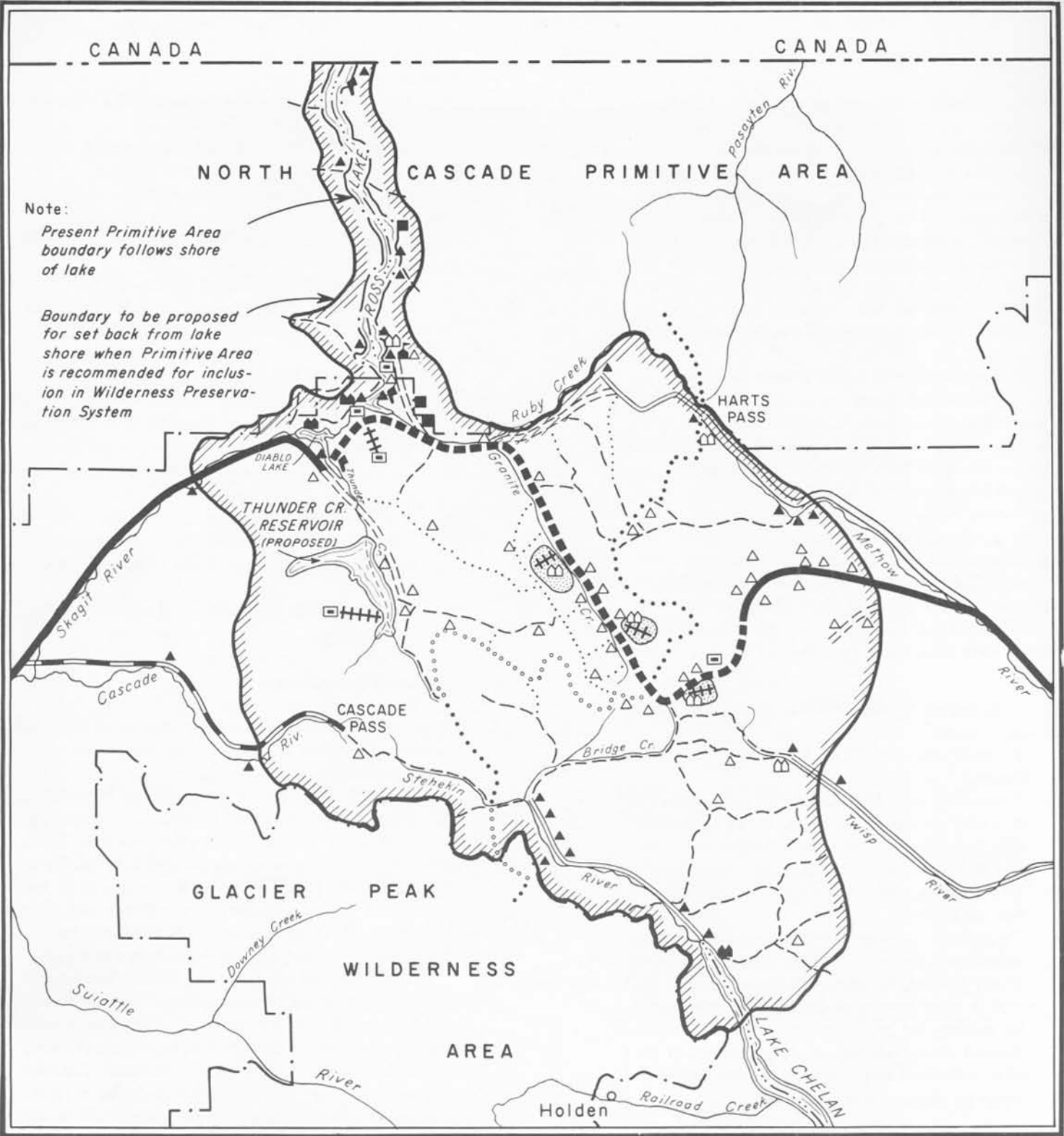
RECOMMENDED BY NATIONAL PARK SERVICE

NATIONAL PARKS
NATIONAL RECREATIONAL AREA

WILDERNESS AREAS
OTHER NATIONAL FORESTS LANDS

SCALE OF MILES 5 0 5 10 15 20

FIGURE 29



NORTH CASCADE STUDY

DEVELOPMENT PROPOSAL FOR

ELDORADO PEAKS HIGH COUNTRY

AS SUBMITTED BY THE FOREST SERVICE

SCALE OF MILES

0 1 2 3 4 5 10

FIGURE 30

- ELDORADO PEAKS HIGH COUNTRY BOUNDARY
- WILDERNESS AND PRIMITIVE AREA BOUNDARY
- NORTH CROSS STATE HIGHWAY (COMPLETED)
- NORTH CROSS STATE HIGHWAY (UNDER CONSTRUCTION)
- STATE HIGHWAY
- RECREATION WAY (PROPOSED)
- FOREST ROAD (MAIN ROADS)
- COUNTY ROAD

- BOAT ACCESS
- CASCADE CREST TRAIL (COMPLETED)
- CASCADE CREST TRAIL (UNDER SURVEY AND PROPOSED)
- OTHER TRAILS (EXISTING)
- OTHER TRAILS (PROPOSED)
- CAMPGROUNDS (EXISTING)
- CAMPGROUNDS (PROPOSED)
- ORGANIZATION SITES (PROPOSED)
- ADMINISTRATIVE SITES (PROPOSED)

- OBSERVATION SITES (PROPOSED)
- RESORT SITES (PROPOSED)
- RESORT SITES (EXISTING)
- AERIAL TRAMWAY (PROPOSED)
- WINTER SPORTS SITES (PROPOSED)
- BOAT LAUNCHING AREA (PROPOSED)

NOTE: VISITOR INFORMATION SERVICE FACILITIES PLANNED AT A NUMBER OF DEVELOPED SITES.

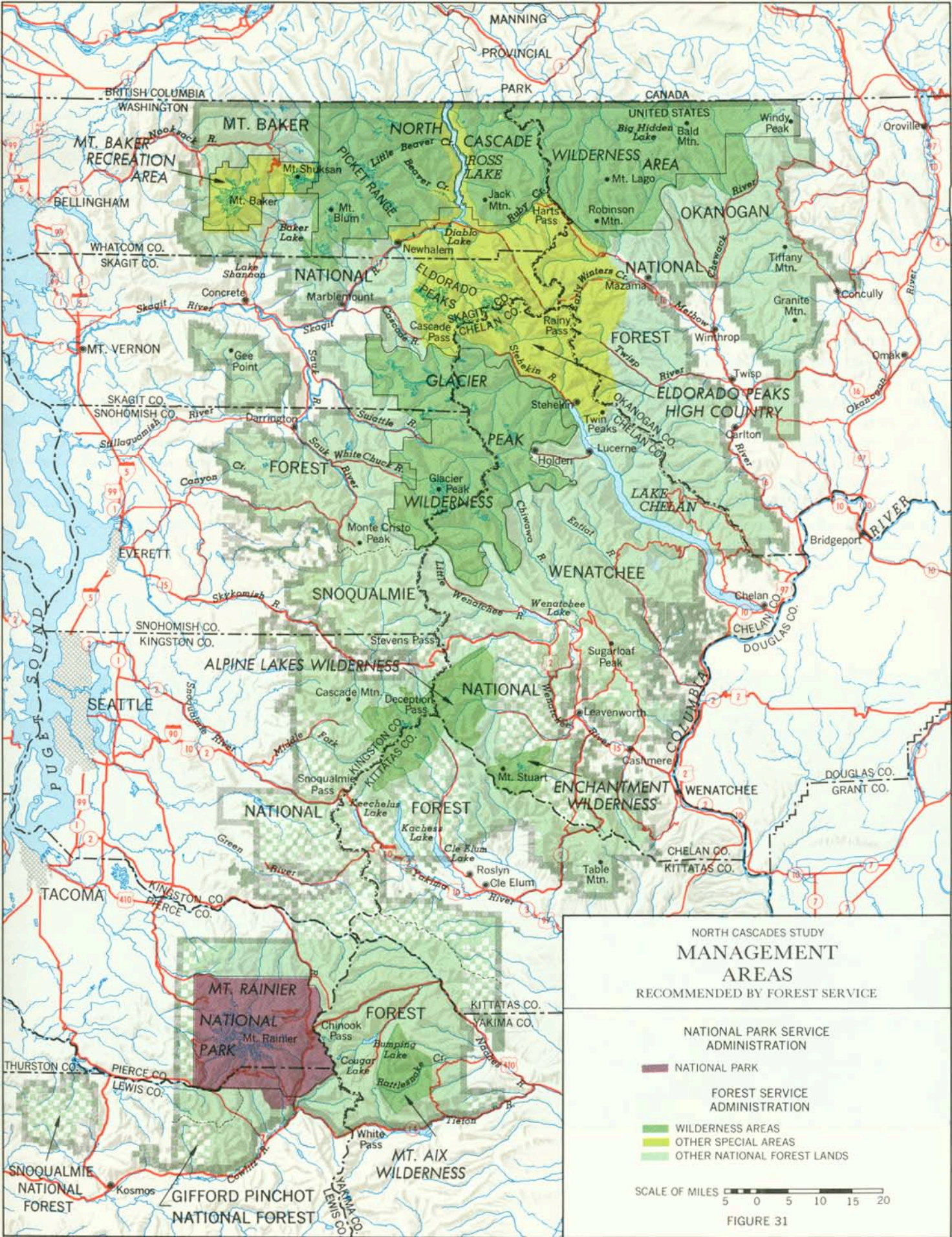

MANNING
PROVINCIAL
PARK
BRITISH COLUMBIA
CANADA
WASHINGTON
UNITED STATES
MT. BAKER
NORTH CASCADE
MT. BAKER RECREATION AREA
Nooksack R.
Little Beaver Cr.
Beaver Cr.
PICKET RANGE
ROSS LAKE
WILDERNESS AREA
Big Hidden Lake
Bald Mtn.
Windy Peak
Oroville
Mt. Shuksan
Mt. Lago
BELLINGHAM
Mt. Baker
Jack Mtn.
Ruby Cr.
Harts Pass
Robinson Mtn.
OKANOGAN
Mt. Blum
Baker Lake
Diablo Lake
Newhalem
WHATCOM CO.
SKAGIT CO.
Lake Shannon
NATIONAL FOREST
ELDORADO PEAKS
Early Winters Cr.
Mazama
Chewack River
Tiffany Mtn.
Concrete
Marblemount
SKAGIT CO.
CHELAN CO.
Granite Mtn.
Concully
Skagit River
Cascade R.
Rainy Pass
Methow
MT. VERNON
Gee Point
Cascade Pass
FOREST
Winthrop
Stehekin R.
Twisp River
Omak
Twisp
GLACIER
Stehekin
ELDORADO PEAKS HIGH COUNTRY
SKAGIT CO.
SNOHOMISH CO.
Darrington
Suiattle R.
Twin Peaks
OKANOGAN CO.
CHELAN CO.
Carlton
Stillaguamish River
Sauk River
White Chuck R.
PEAK
Holden
Lucerne
Canyon Cr.
FOREST
Glacier Peak
LAKE CHELAN
WILDERNESS
Chiwawa R.
Entiat R.
Monte Cristo Peak
Bridgeport
EVERETT
WENATCHEE
SNOQUALMIE
Skykomish R.
Little Wenatchee R.
Wenatchee Lake
Chelan
CHELAN CO.
DOUGLAS CO.
SNOHOMISH CO.
KINGSTON CO.
Stevens Pass
Sugarloaf Peak
ALPINE LAKES WILDERNESS
NATIONAL FOREST
Cascade Mtn.
Deception Pass
Wenatchee River
Leavenworth
SEATTLE
Snoqualmie River
Middle Fork
KINGSTON CO.
KITTITAS CO.
COLUMBIA RIVER
Cashmere
Mt. Stuart
ENCHANTMENT WILDERNESS
DOUGLAS CO.
GRANT CO.
Snoqualmie Pass
WENATCHEE
NATIONAL FOREST
Keechelus Lake
Kachess Lake
Cle Elum Lake
Green River
Roslyn
Cle Elum
Table Mtn.
CHELAN CO.
KITTITAS CO.
Yakima River
TACOMA
KINGSTON CO.
PIERCE CO.
MT. RAINIER NATIONAL PARK
FOREST
KITTITAS CO.
YAKIMA CO.
Chinook Pass
Mt. Rainier
Bumping Lake
Yakima R.
THURSTON CO.
PIERCE CO.
LEWIS CO.
Cougar Lake
Rattlesnake Cr.
Tieton R.
White Pass
MT. AIX WILDERNESS
SNOQUALMIE NATIONAL FOREST
Kosmos
Cowlitz R.
GIFFORD PINCHOT NATIONAL FOREST
YAKIMA CO.
LEWIS CO.
NORTH CASCADES STUDY
MANAGEMENT AREAS
RECOMMENDED BY FOREST SERVICE
NATIONAL PARK SERVICE ADMINISTRATION
NATIONAL PARK
FOREST SERVICE ADMINISTRATION
WILDERNESS AREAS
OTHER SPECIAL AREAS
OTHER NATIONAL FOREST LANDS
SCALE OF MILES
5 0 5 10 15 20

FIGURE 31

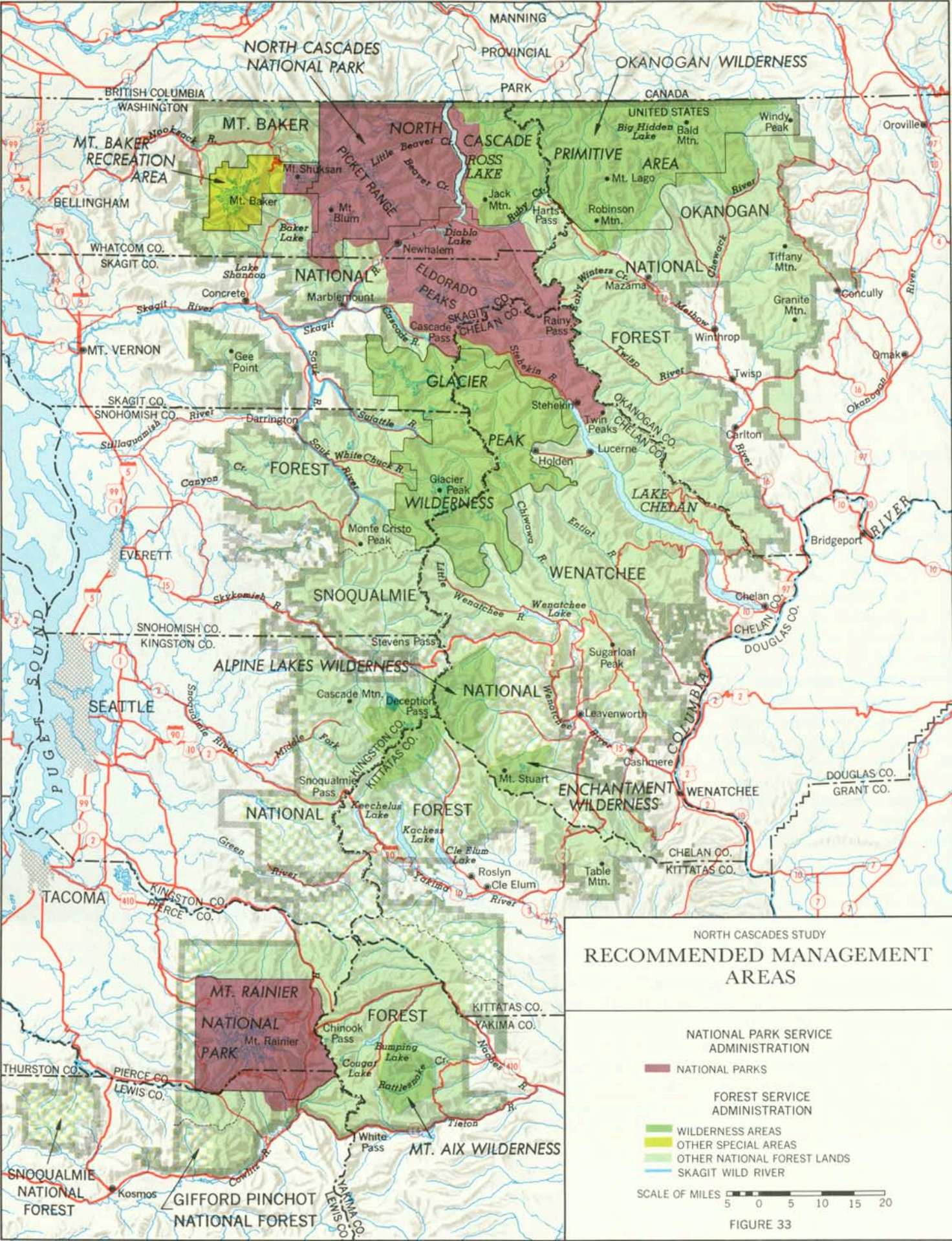
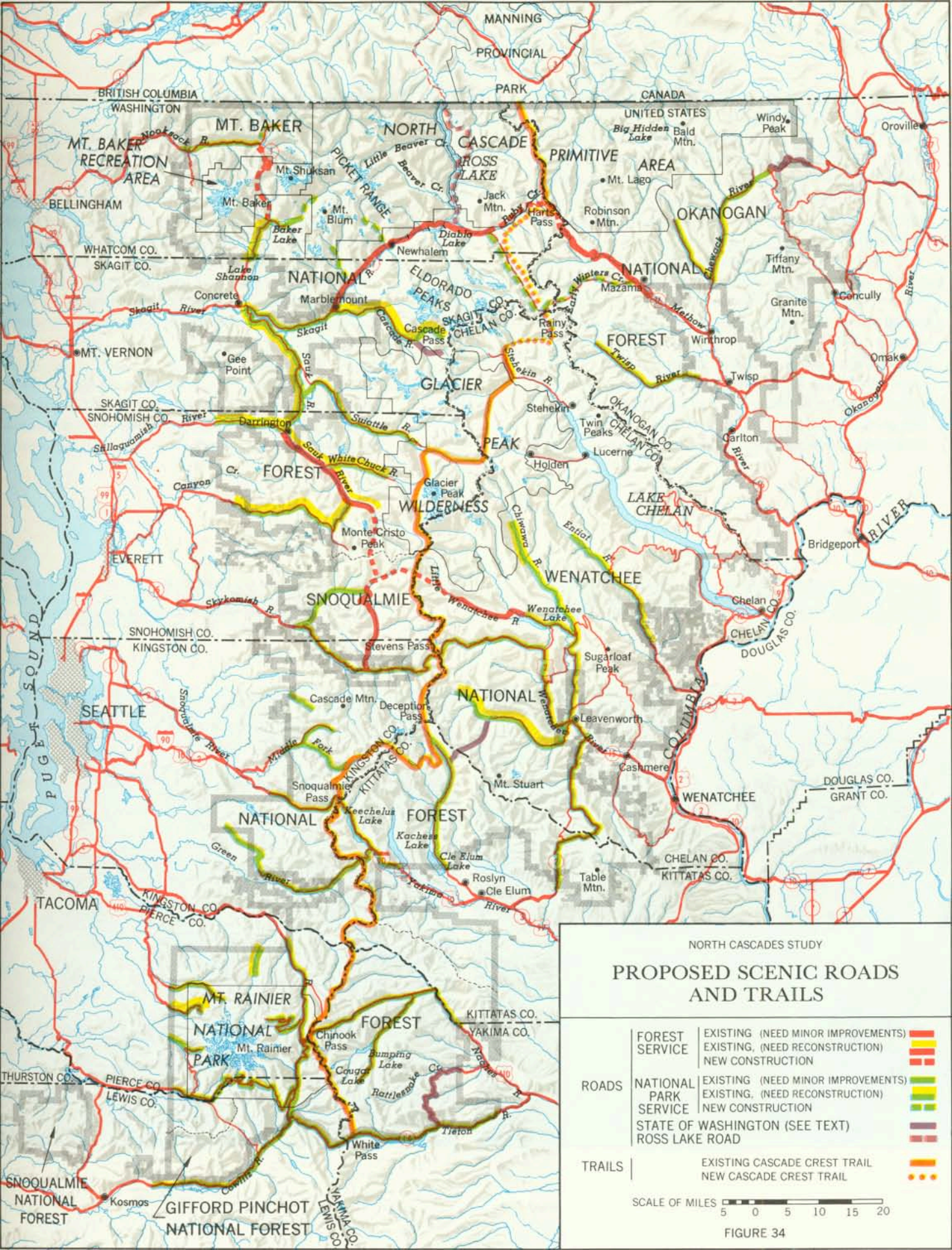

MANNING
PROVINCIAL
PARK
NORTH CASCADES NATIONAL PARK
OKANOGAN WILDERNESS
BRITISH COLUMBIA
WASHINGTON
CANADA
UNITED STATES
MT. BAKER
NORTH CASCADE
MT. BAKER RECREATION AREA
PICKET RANGE
Little Beaver Cr.
Beaver Cr.
Nooksack R.
Mt. Shuksan
Mt. Baker
Mt. Blum
Baker Lake
ROSS LAKE
PRIMITIVE AREA
Big Hidden Lake
Bald Mtn.
Windy Peak
Oroville
Mt. Lago
Jack Mtn.
Ruby Cr.
Harts Pass
Robinson Mtn.
OKANOGAN
Okanogan River
BELLINGHAM
WHATCOM CO.
SKAGIT CO.
Newhalem
Diablo Lake
Lake Shannon
NATIONAL
ELDORADO PEAKS
SKAGIT CO.
CHELAN CO.
Early Winters Cr.
Mazama
Chewack
Tiffany Mtn.
Concrete
Marblemount
Skagit River
Granite Mtn.
Concully
Methow
Cascade R.
Cascade Pass
Rainy Pass
FOREST
Winthrop
MT. VERNON
Gee Point
South R.
Stehekin R.
Twisp River
Twisp
Omak
Okanogan River
GLACIER
SKAGIT CO.
SNOHOMISH CO.
Darrington
Sauk R.
Sullaguamish River
Stehekin
Twin Peaks
OKANOGAN CO.
CHELAN CO.
PEAK
Lucerne
Holden
Carlton
Sauk White Chuck R.
Canyon Cr.
FOREST
Glacier Peak
WILDERNESS
LAKE CHELAN
Chiwawa R.
Entiat R.
Monte Cristo Peak
Bridgeport
COLUMBIA RIVER
EVERETT
WENATCHEE
SNOQUALMIE
Little Wenatchee R.
Wenatchee Lake
Skykomish R.
Chelan
Chelan Co.
CHELAN CO.
DOUGLAS CO.
SNOHOMISH CO.
KINGSTON CO.
Stevens Pass
Sugarloaf Peak
ALPINE LAKES WILDERNESS
NATIONAL
PUGET SOUND
SEATTLE
Cascade Mtn.
Deception Pass
Snoqualmie River
Middle Fork
Wenatchee River
Leavenworth
KINGSTON CO.
KITTITAS CO.
Cashmere
COLUMBIA
Mt. Stuart
Snoqualmie Pass
ENCHANTMENT WILDERNESS
WENATCHEE
DOUGLAS CO.
GRANT CO.
NATIONAL
FOREST
Keechelus Lake
Kachess Lake
Cle Elum Lake
Green River
CHELAN CO.
KITTITAS CO.
Roslyn
Cle Elum
Table Mtn.
Yakima River
TACOMA
KINGSTON CO.
PIERCE CO.
MT. RAINIER
NATIONAL PARK
Mt. Rainier
FOREST
Chinook Pass
KITTITAS CO.
YAKIMA CO.
Bumping Lake
Cougar Lake
Rattlesnake Cr.
Naches R.
THURSTON CO.
PIERCE CO.
LEWIS CO.
Tieton R.
White Pass
MT. AIX WILDERNESS
SNOQUALMIE NATIONAL FOREST
Kosmos
Cowlitz R.
GIFFORD PINCHOT NATIONAL FOREST
YAKIMA CO.
LEWIS CO.
NORTH CASCADES STUDY
RECOMMENDED MANAGEMENT AREAS
NATIONAL PARK SERVICE ADMINISTRATION
NATIONAL PARKS
FOREST SERVICE ADMINISTRATION
WILDERNESS AREAS
OTHER SPECIAL AREAS
OTHER NATIONAL FOREST LANDS
SKAGIT WILD RIVER
SCALE OF MILES
5 0 5 10 15 20

FIGURE 33



NORTH CASCADES STUDY

PROPOSED SCENIC ROADS AND TRAILS

ROADS	FOREST SERVICE	EXISTING (NEED MINOR IMPROVEMENTS)
		EXISTING, (NEED RECONSTRUCTION)
		NEW CONSTRUCTION
	NATIONAL PARK SERVICE	EXISTING (NEED MINOR IMPROVEMENTS)
		EXISTING, (NEED RECONSTRUCTION)
		NEW CONSTRUCTION
	STATE OF WASHINGTON (SEE TEXT)	
	ROSS LAKE ROAD	
TRAILS		EXISTING CASCADE CREST TRAIL
		NEW CASCADE CREST TRAIL

SCALE OF MILES 5 0 5 10 15 20

FIGURE 34

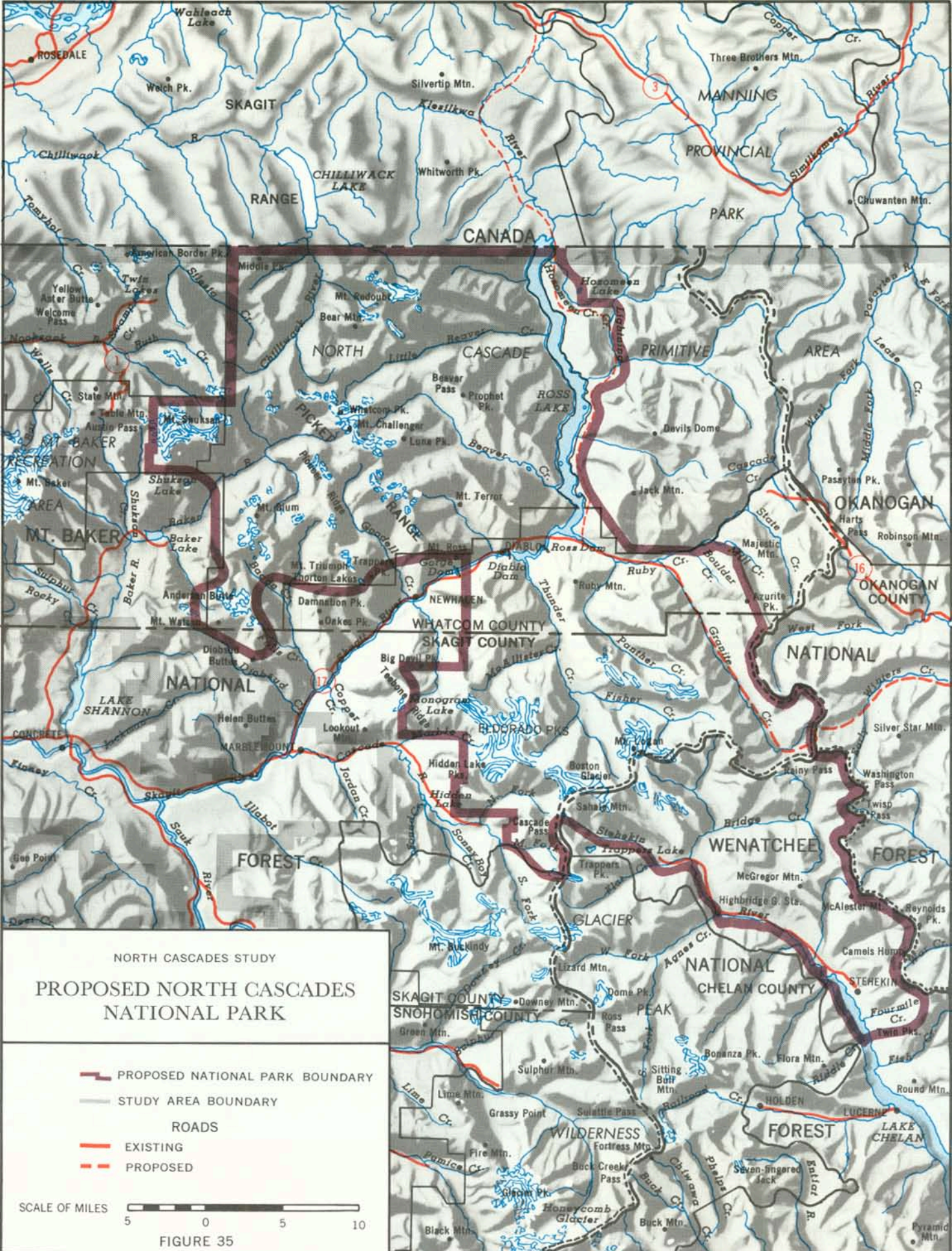
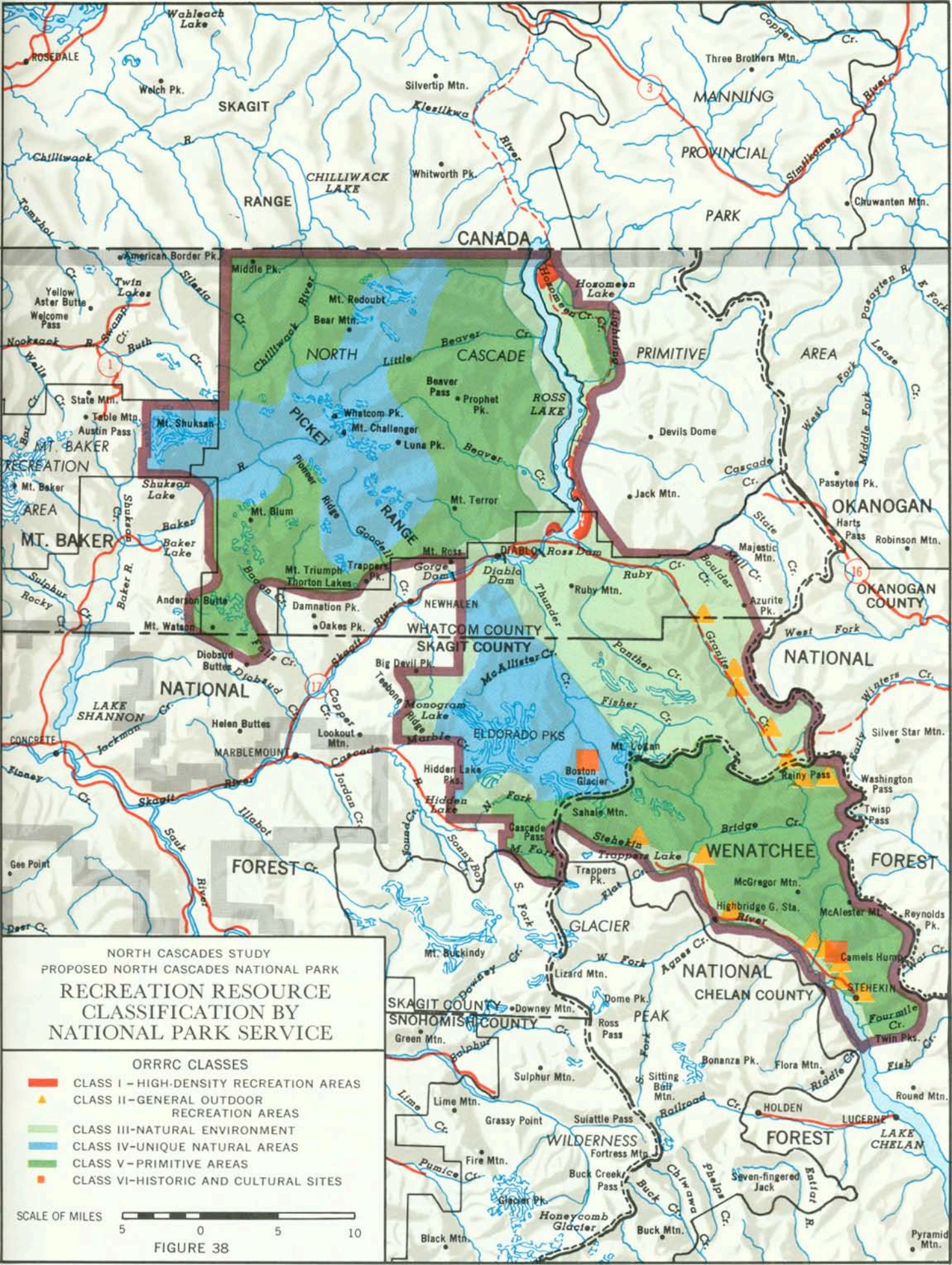
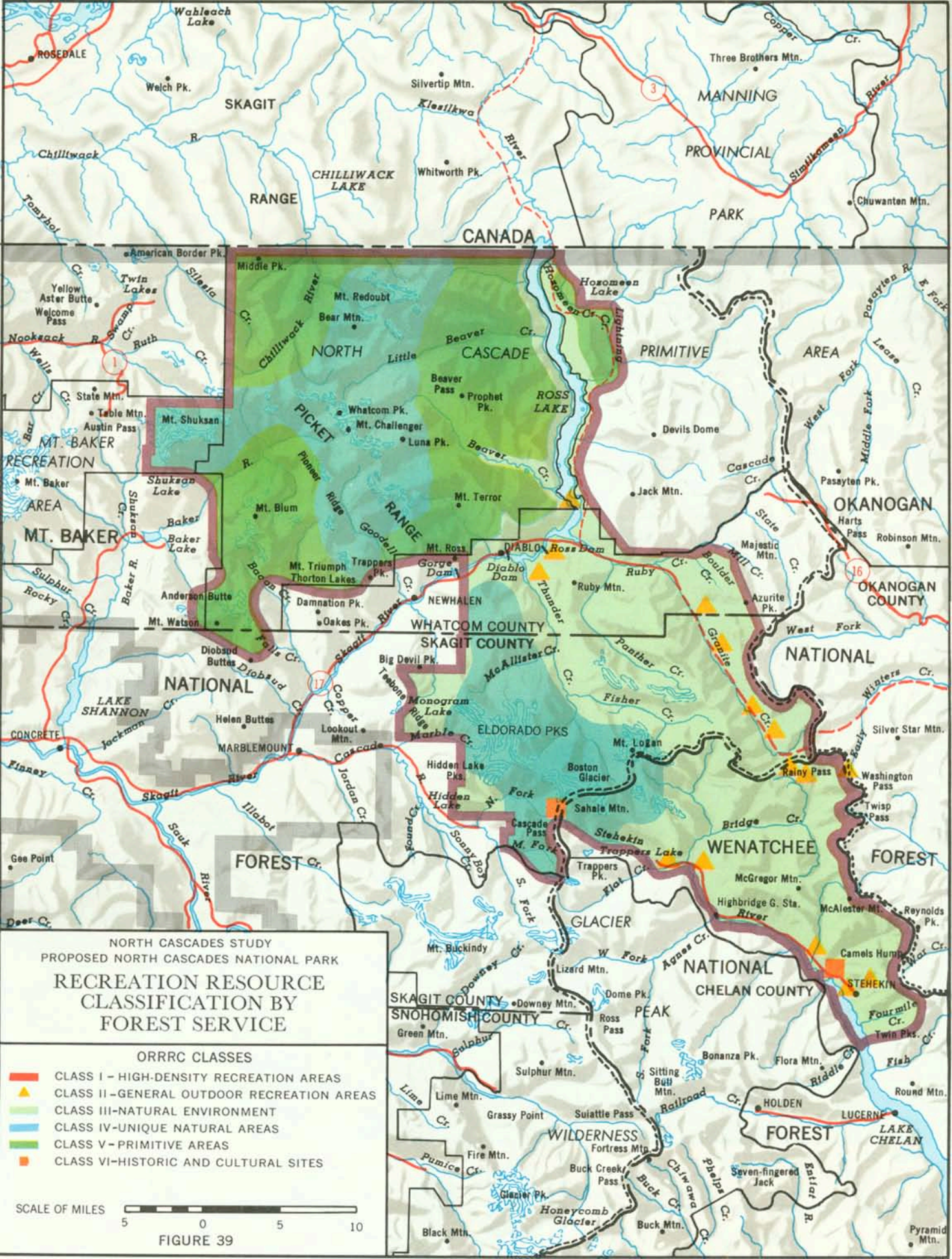

NORTH CASCADES STUDY
PROPOSED NORTH CASCADES NATIONAL PARK
PROPOSED NATIONAL PARK BOUNDARY
STUDY AREA BOUNDARY
ROADS
EXISTING
PROPOSED
SCALE OF MILES
5 0 5 10
CANADA
SKAGIT
RANGE
CHILLIWACK LAKE
MANNING PROVINCIAL PARK
NORTH CASCADE PRIMITIVE AREA
PICKET RANGE
ROSS LAKE
DIABLO
NEWHALEM
WHATCOM COUNTY
SKAGIT COUNTY
MT. BAKER RECREATION AREA
MT. BAKER
NATIONAL FOREST
LAKE SHANNON
OKANOGAN
OKANOGAN COUNTY
NATIONAL FOREST
WENATCHEE FOREST
GLACIER PEAK
WILDERNESS
SNOHOMISH COUNTY
CHELAN COUNTY
LAKE CHELAN
ROSEBALE
Wahleach Lake
Welch Pk.
Silvertip Mtn.
Three Brothers Mtn.
Whitworth Pk.
Chuwanten Mtn.
American Border Pk.
Yellow Aster Butte
Welcome Pass
Twin Lakes
Middle Fk.
Mt. Redoubt
Bear Mtn.
Hozomeen Lake
Hozomeen Cr.
Eightmile Cr.
Beaver Pass
Prophet Pk.
Whatcom Pk.
Mt. Challenger
Luna Pk.
Devils Dome
Jack Mtn.
Pasayten Pk.
Harts Pass
Robinson Mtn.
State Mtn.
Table Mtn.
Austin Pass
Mt. Shuksan
Mt. Baker
Shuksan Lake
Mt. Terror
Mt. Glum
Baker Lake
Mt. Triumph
Thorton Lakes
Trapper Pk.
Mt. Ross
Gorge Dam
Diablo Dam
Ross Dam
Ruby Mtn.
Majestic Mtn.
Azurite Pk.
Anderson Butte
Damnation Pk.
Oakes Pk.
Mt. Watson
Diobsud Butte
Big Devil Pk.
Monogram Lake
Eldorado Pks
Mt. Logan
Silver Star Mtn.
Helen Buttes
Lookout Mtn.
Hidden Lake Pks.
Hidden Lake
Boston Glacier
Sahale Mtn.
Cascade Pass
Trappers Lake
Trappers Pk.
McGregor Mtn.
Highbridge G. Sta.
McAlester Mtn.
Reynolds Pk.
Camels Hump
Mt. Buckindy
Lizard Mtn.
Dome Pk.
Downey Mtn.
Ross Pass
Green Mtn.
Bonanza Pk.
Flora Mtn.
Sulphur Mtn.
Sitting Bull Mtn.
Round Mtn.
Lime Mtn.
Grassy Point
Suiattle Pass
Fortress Mtn.
Fire Mtn.
Buck Creek Pass
Seven-fingered Jack
Glacier Pk.
Honeycomb Glacier
Buck Mtn.
Black Mtn.
Pyramid Mtn.
Gee Point
Deer Cr.
Silver Fir Mtn.
Rainy Pass
Washington Pass
Twisp Pass
STEHEKIN
Fourmile Cr.
Twin Pks.
Holden
Lucerne

FIGURE 35


NORTH CASCADES STUDY
PROPOSED NORTH CASCADES NATIONAL PARK
RECREATION RESOURCE CLASSIFICATION BY NATIONAL PARK SERVICE
ORRRC CLASSES
CLASS I – HIGH-DENSITY RECREATION AREAS
CLASS II – GENERAL OUTDOOR RECREATION AREAS
CLASS III – NATURAL ENVIRONMENT
CLASS IV – UNIQUE NATURAL AREAS
CLASS V – PRIMITIVE AREAS
CLASS VI – HISTORIC AND CULTURAL SITES
SCALE OF MILES
5 0 5 10
FIGURE 38
CANADA
MANNING PROVINCIAL PARK
NORTH CASCADE PRIMITIVE AREA
PICKET RANGE
CHILLIWACK RANGE
CHILLIWACK LAKE
SKAGIT R.
ROSS LAKE
DIABLO Ross Dam
Diablo Dam
Gorge Dam
NEWHALEN
WHATCOM COUNTY
SKAGIT COUNTY
SNOHOMISH COUNTY
OKANOGAN COUNTY
CHELAN COUNTY
MT. BAKER RECREATION AREA
MT. BAKER NATIONAL FOREST
LAKE SHANNON
ELDORADO PKS
GLACIER PEAK WILDERNESS
WENATCHEE NATIONAL FOREST
LAKE CHELAN
STEHEKIN
MARBLEMOUNT
CONCRETE
ROSEDALE
OKANOGAN NATIONAL FOREST
Wahleach Lake
Welch Pk.
Silvertip Mtn.
Three Brothers Mtn.
Whitworth Pk.
Chuwanten Mtn.
American Border Pk.
Middle Pk.
Yellow Aster Butte
Welcome Pass
Twin Lakes
Mt. Redoubt
Bear Mtn.
Horseshoe Lake
Hozomeen Lake
Pasayten R.
Devils Dome
Jack Mtn.
Pasayten Pk.
Harts Pass
Robinson Mtn.
State Mtn.
Table Mtn.
Austin Pass
Mt. Shuksan
Whatcom Pk.
Mt. Challenger
Luna Pk.
Beaver Pass
Prophet Pk.
Mt. Terror
Mt. Blum
Shuksan Lake
Baker Lake
Mt. Baker
Mt. Ross
Trappers Pk.
Thorton Lakes
Anderson Butte
Damnation Pk.
Oakes Pk.
Mt. Watson
Ruby Mtn.
Majestic Mtn.
Azurite Pk.
Diobsud Buttes
Big Devil Pk.
Monogram Lake
Marble Cr.
Helen Buttes
Lookout Mtn.
Hidden Lake Pks.
Boston Glacier
Mt. Logan
Sahale Mtn.
Cascade Pass
Trappers Lake
Rainy Pass
Washington Pass
Twisp Pass
Silver Star Mtn.
McGregor Mtn.
Highbridge G. Sta.
McAlester Mt.
Reynolds Pk.
Camels Hump
Gee Point
Mt. Buckindy
Lizard Mtn.
Dome Pk.
Downey Mtn.
Ross Pass
Green Mtn.
Sulphur Mtn.
Sitting Bull Mtn.
Bonanza Pk.
Flora Mtn.
Round Mtn.
Lime Mtn.
Grassy Point
Suiattle Pass
Fortress Mtn.
Fire Mtn.
Buck Creek Pass
Seven-fingered Jack
Glacier Pk.
Honeycomb Glacier
Buck Mtn.
Black Mtn.
Pyramid Mtn.
Twin Pks.
HOLDEN
LUCERNE



NORTH CASCADES STUDY
PROPOSED NORTH CASCADES NATIONAL PARK

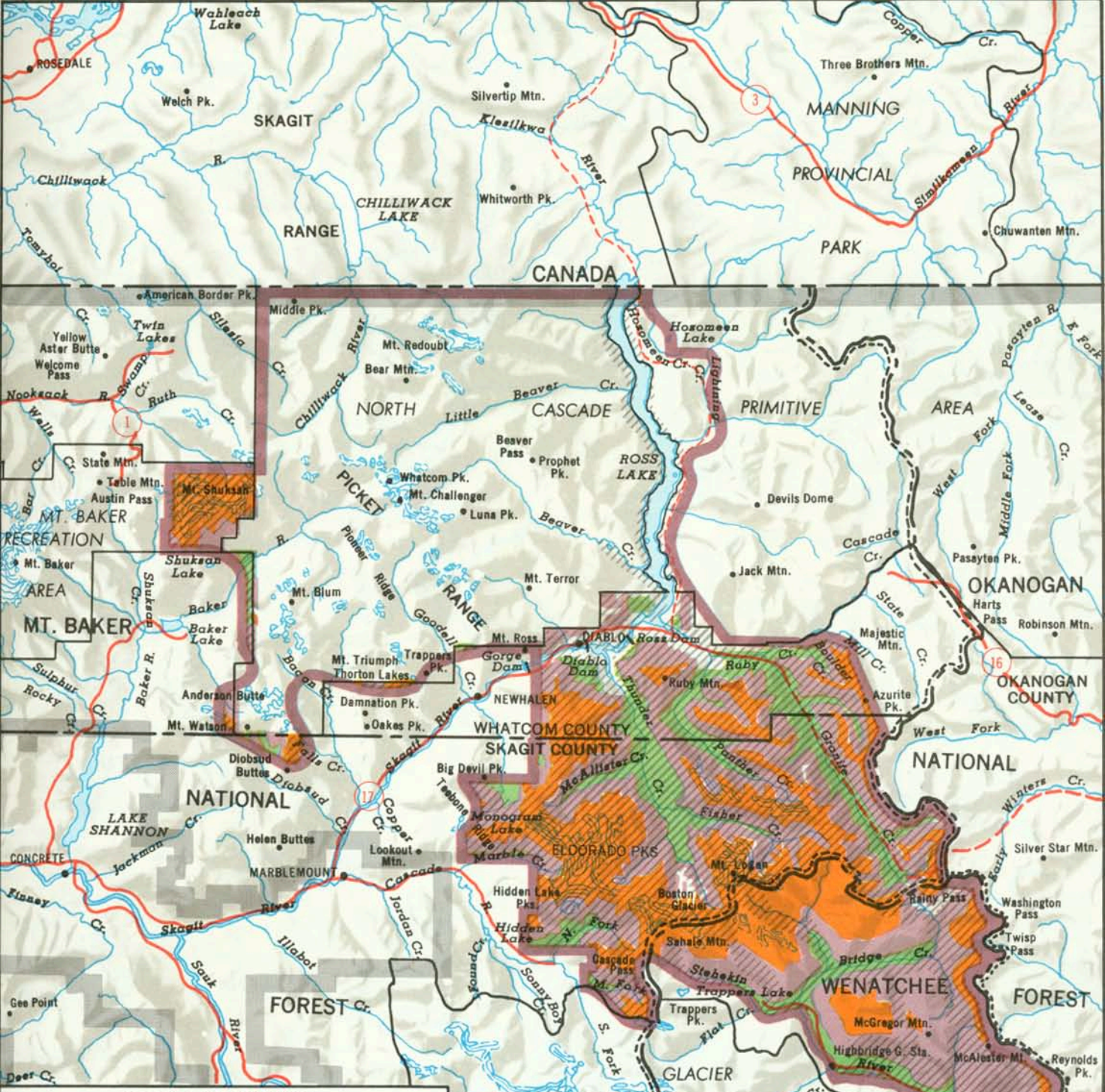
RECREATION RESOURCE CLASSIFICATION BY FOREST SERVICE

ORRRC CLASSES

- CLASS I – HIGH-DENSITY RECREATION AREAS
- CLASS II – GENERAL OUTDOOR RECREATION AREAS
- CLASS III – NATURAL ENVIRONMENT
- CLASS IV – UNIQUE NATURAL AREAS
- CLASS V – PRIMITIVE AREAS
- CLASS VI – HISTORIC AND CULTURAL SITES

SCALE OF MILES
5 0 5 10

FIGURE 39



NORTH CASCADES STUDY
PROPOSED NORTH CASCADES NATIONAL PARK

FOREST RESOURCE ASSOCIATIONS AND LANDSCAPE MANAGEMENT AREAS

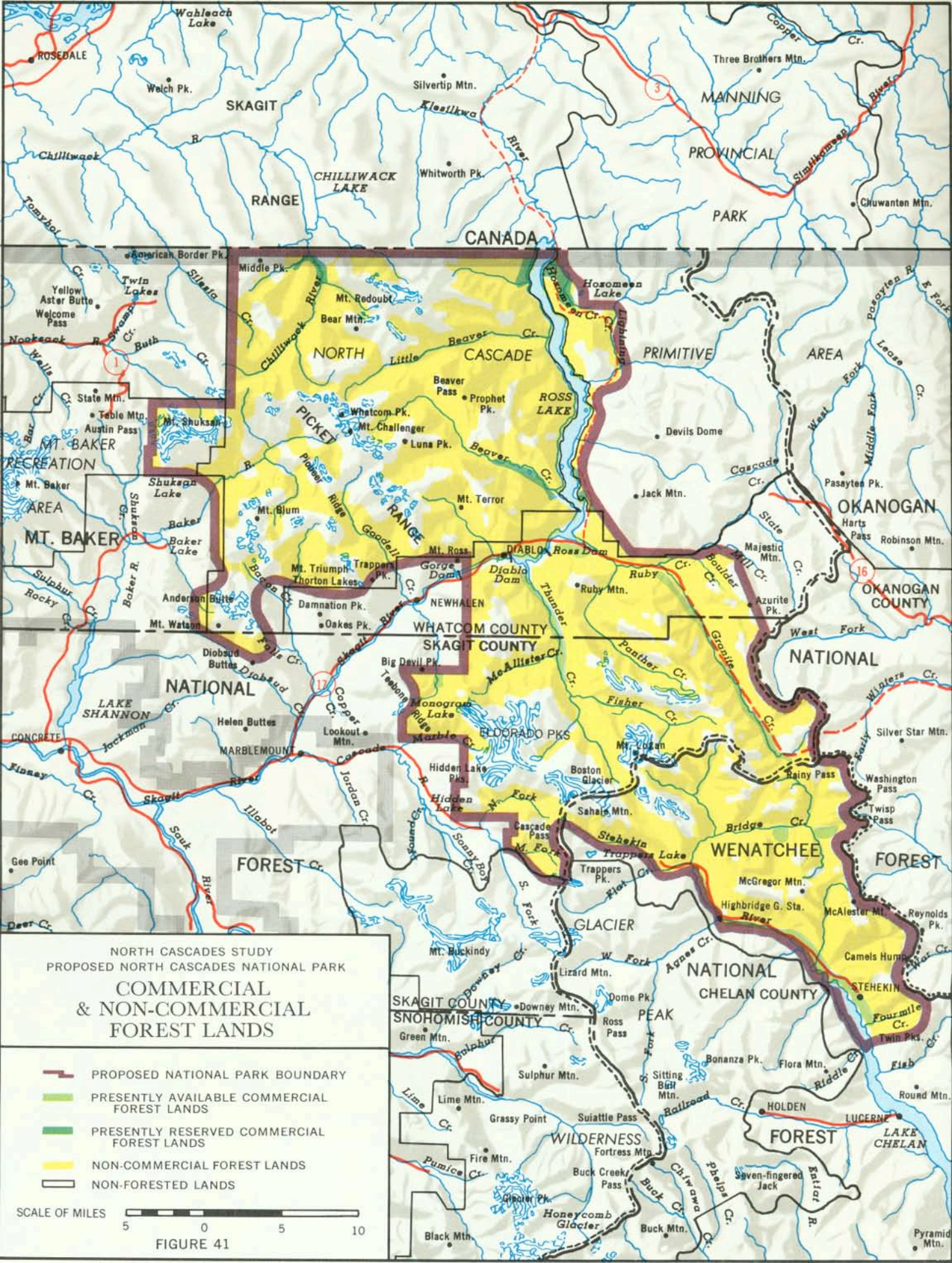
FOREST RESOURCE ASSOCIATIONS

- GRASS-SHRUB
- PRINCIPAL FOREST
- UPPER FOREST
- ALPINE

LANDSCAPE MANAGEMENT AREAS

SCALE OF MILES 5 0 5 10

FIGURE 40


NORTH CASCADES STUDY
PROPOSED NORTH CASCADES NATIONAL PARK
COMMERCIAL & NON-COMMERCIAL FOREST LANDS
PROPOSED NATIONAL PARK BOUNDARY
PRESENTLY AVAILABLE COMMERCIAL FOREST LANDS
PRESENTLY RESERVED COMMERCIAL FOREST LANDS
NON-COMMERCIAL FOREST LANDS
NON-FORESTED LANDS
SCALE OF MILES
5 0 5 10
CANADA
SKAGIT
MANNING PROVINCIAL PARK
CHILLIWACK RANGE
CHILLIWACK LAKE
NORTH CASCADE PRIMITIVE AREA
PICKET RANGE
ROSS LAKE
MT. BAKER RECREATION AREA
MT. BAKER
OKANOGAN
OKANOGAN COUNTY
WHATCOM COUNTY
SKAGIT COUNTY
NATIONAL FOREST
LAKE SHANNON
ELDORADO PKS
WENATCHEE FOREST
GLACIER PEAK WILDERNESS
SNOHOMISH COUNTY
CHELAN COUNTY
LAKE CHELAN
NEWHALEN
DIABLO
MARBLEMOUNT
CONCRETE
STEHEKIN
HOLDEN
LUCERNE
ROSEBALE
Wahleach Lake
Welch Pk.
Silvertip Mtn.
Three Brothers Mtn.
Whitworth Pk.
Chuwanten Mtn.
American Border Pk.
Middle Pk.
Hozomeen Lake
Yellow Aster Butte
Welcome Pass
Twin Lakes
Mt. Redoubt
Bear Mtn.
Beaver Pass
Prophet Pk.
Whatcom Pk.
Mt. Challenger
Luna Pk.
Devils Dome
Jack Mtn.
Pasayten Pk.
State Mtn.
Table Mtn.
Austin Pass
Mt. Shuksan
Mt. Baker
Shuksan Lake
Mt. Blum
Mt. Terror
Baker Lake
Mt. Ross
Ross Dam
Majestic Mtn.
Harts Pass
Robinson Mtn.
Mt. Triumph
Thorton Lakes
Trappers Pk.
Gorge Dam
Diablo Dam
Ruby Mtn.
Ruby Creek
Azurite Pk.
Anderson Butte
Damnation Pk.
Oakes Pk.
Mt. Watson
Diobsud Buttes
Big Devil Pk.
Monogram Lake
Lookout Mtn.
Helen Buttes
Hidden Lake Pks.
Boston Glacier
Sahale Mtn.
Cascade Pass
Mt. Logan
Rainy Pass
Washington Pass
Twisp Pass
Silver Star Mtn.
Gee Point
Trappers Lake
McGregor Mtn.
Highbridge G. Sta.
McAlester Mt.
Reynolds Pk.
Mt. Buckindy
Lizard Mtn.
Camels Hump
Dome Pk.
Downey Mtn.
Ross Pass
Green Mtn.
Bonanza Pk.
Flora Mtn.
Sulphur Mtn.
Sitting Bull Mtn.
Round Mtn.
Lime Mtn.
Grassy Point
Suiattle Pass
Fortress Mtn
Fire Mtn.
Buck Creek Pass
Seven-fingered Jack
Glacier Pk.
Honeycomb Glacier
Black Mtn.
Buck Mtn.
Pyramid Mtn.
FIGURE 41

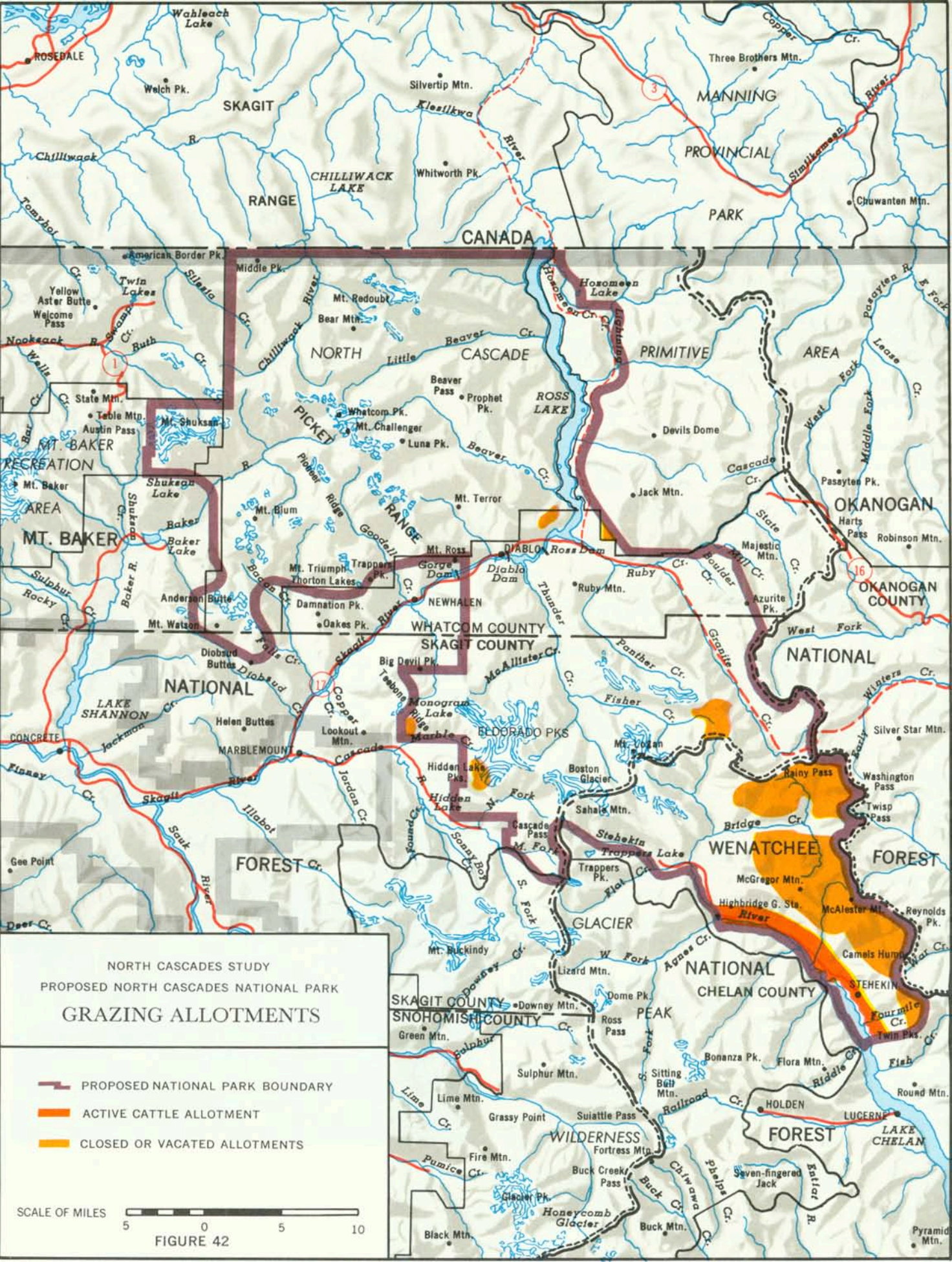
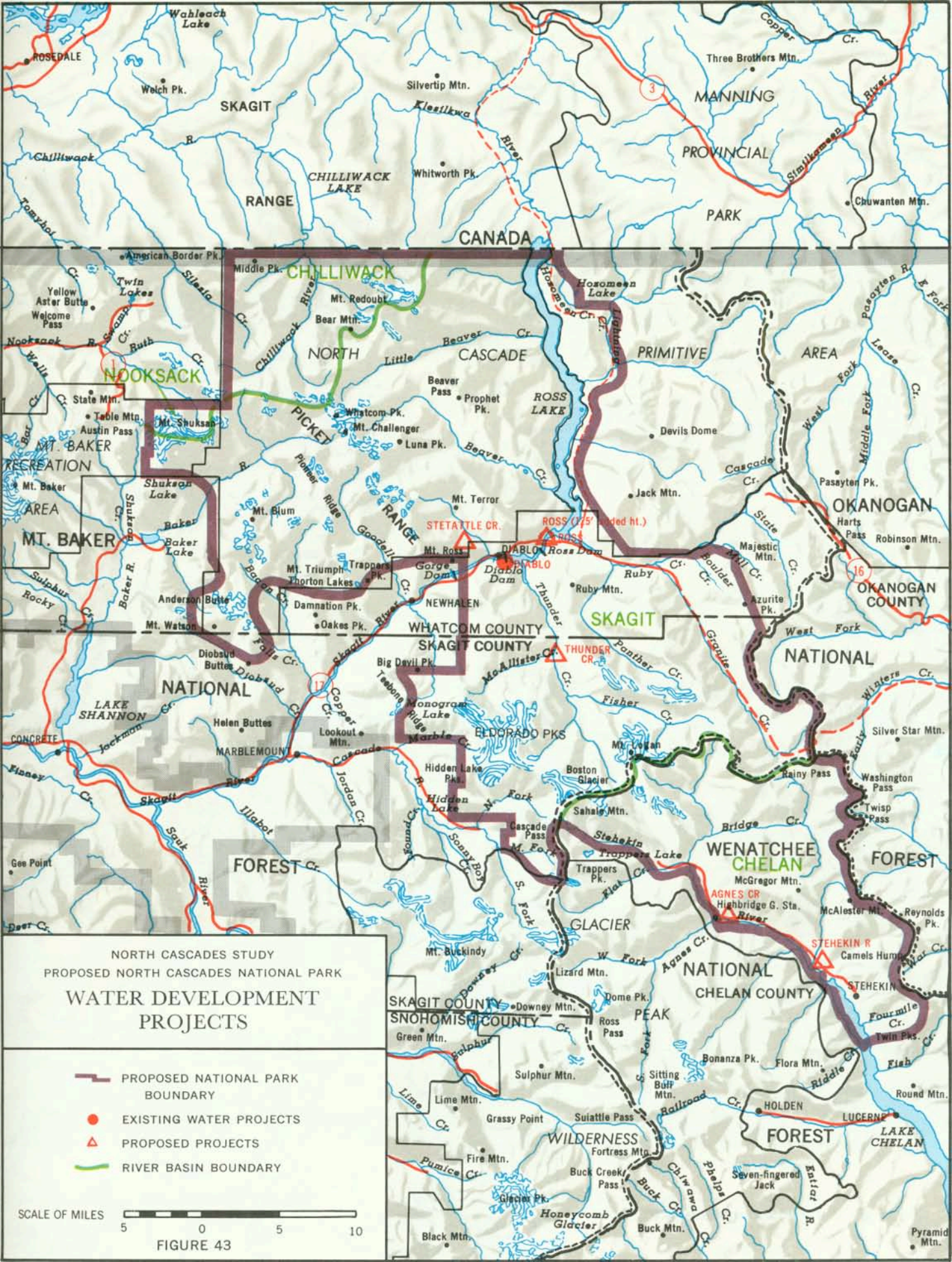
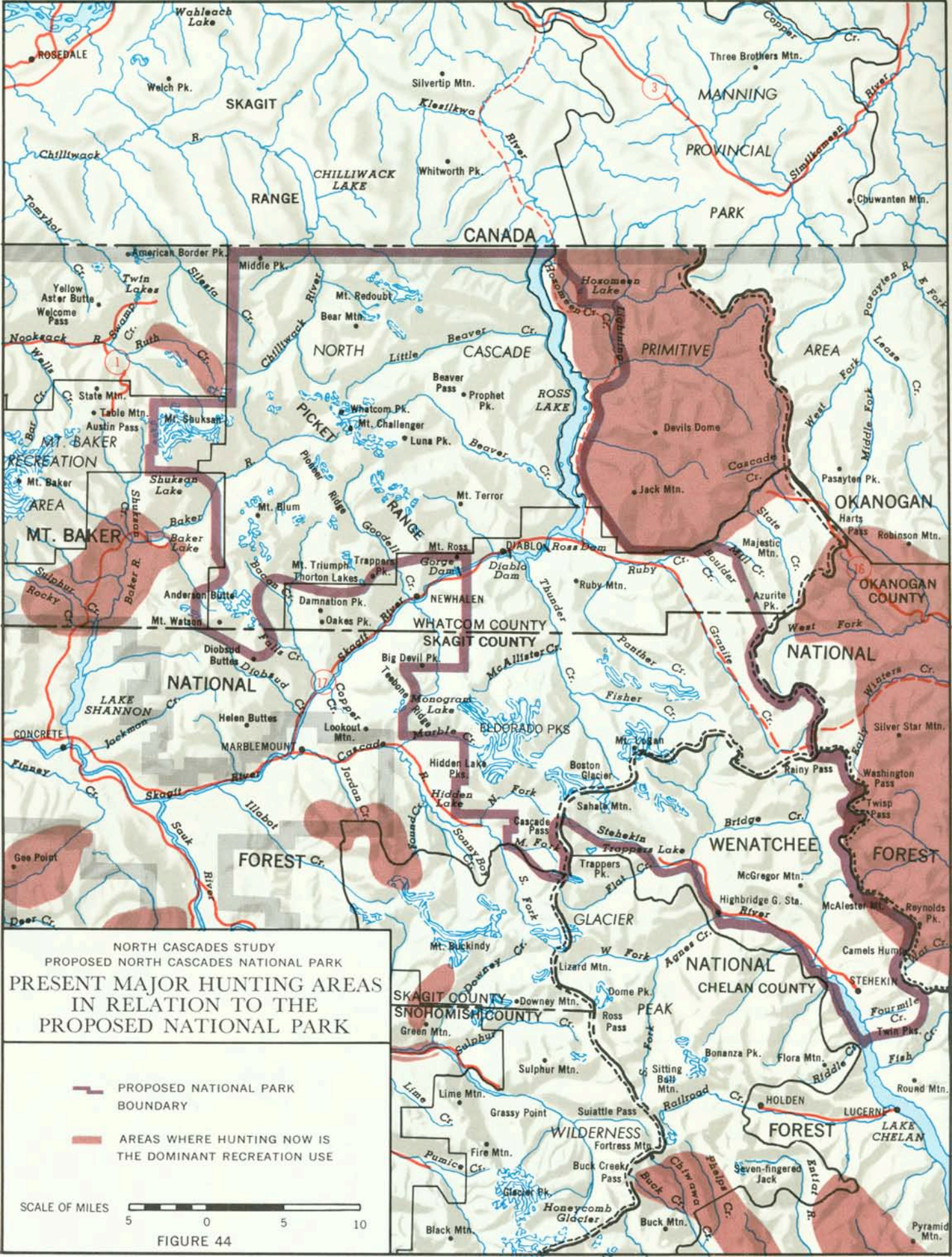
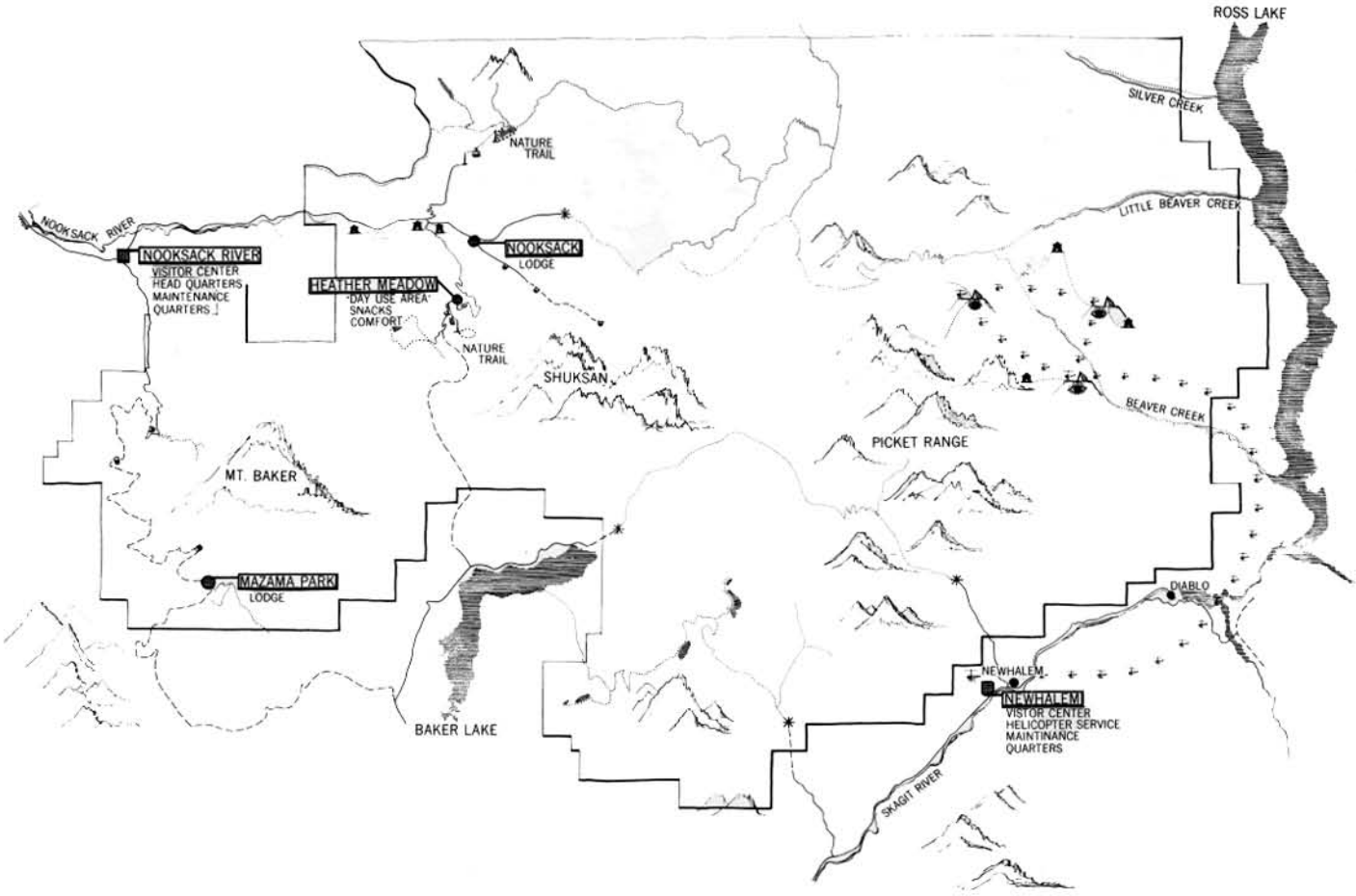

NORTH CASCADES STUDY
PROPOSED NORTH CASCADES NATIONAL PARK
GRAZING ALLOTMENTS
PROPOSED NATIONAL PARK BOUNDARY
ACTIVE CATTLE ALLOTMENT
CLOSED OR VACATED ALLOTMENTS
SCALE OF MILES
5 0 5 10
CANADA
SKAGIT
RANGE
CHILLIWACK LAKE
MANNING PROVINCIAL PARK
NORTH CASCADE PRIMITIVE AREA
PICKET RANGE
ROSS LAKE
DIABLO
MT. BAKER RECREATION AREA
MT. BAKER
NATIONAL FOREST
LAKE SHANNON
EL DORADO PKS
GLACIER PEAK WILDERNESS
WENATCHEE NATIONAL FOREST
OKANOGAN NATIONAL FOREST
OKANOGAN COUNTY
WHATCOM COUNTY
SKAGIT COUNTY
SNOHOMISH COUNTY
CHELAN COUNTY
LAKE CHELAN
ROSEDALE
CONCRETE
MARBLEMOUNT
NEWHALEN
STEHEKIN
HOLDEN
LUCERNE
Wahleach Lake
Welch Pk.
Silvertip Mtn.
Whitworth Pk.
Three Brothers Mtn.
Chuwanten Mtn.
American Border Pk.
Middle Pk.
Yellow Aster Butte
Welcome Pass
Twin Lakes
Mt. Redoubt
Bear Mtn.
Hozomeen Lake
Hozomeen Cr.
Lightning Cr.
Pasayten R.
Lease Cr.
West Fork
Middle Fork
State Mtn.
Table Mtn.
Austin Pass
Mt. Shuksan
Whatcom Pk.
Mt. Challenger
Luna Pk.
Beaver Pass
Prophet Pk.
Devils Dome
Pasayten Pk.
Harts Pass
Robinson Mtn.
Shuksan Lake
Baker Lake
Mt. Blum
Mt. Terror
Jack Mtn.
Mt. Ross
Ross Dam
Majestic Mtn.
Azurite Pk.
Mt. Triumph
Thorton Lakes
Trappers Pk.
Gorge Dam
Diablo Dam
Ruby Mtn.
Ruby Cr.
Boulder Cr.
Anderson Butte
Damnation Pk.
Oakes Pk.
Mt. Watson
Diobsud Buttes
Big Devil Pk.
McAllister Cr.
Panther Cr.
Granite Cr.
Winters Cr.
Silver Star Mtn.
Monogram Lake
Marble Cr.
Fisher Cr.
Lookout Mtn.
Helen Buttes
Mt. Logan
Hidden Lake Pks.
Boston Glacier
Rainy Pass
Washington Pass
Twisp Pass
Sahale Mtn.
Cascade Pass
Trappers Lake
McGregor Mtn.
Highbridge G. Sta.
McAlester Mt.
Reynolds Pk.
Camels Hump
Gee Point
Mt. Buckindy
Lizard Mtn.
Dome Pk.
Downey Mtn.
Ross Pass
Green Mtn.
Sulphur Mtn.
Bonanza Pk.
Flora Mtn.
Round Mtn.
Lime Mtn.
Grassy Point
Suiattle Pass
Sitting Bull Mtn.
Fortress Mtn.
Fire Mtn.
Buck Creek Pass
Seven-fingered Jack
Glacier Pk.
Honeycomb Glacier
Black Mtn.
Buck Mtn.
Pyramid Mtn.

FIGURE 42


NORTH CASCADES STUDY
PROPOSED NORTH CASCADES NATIONAL PARK
WATER DEVELOPMENT PROJECTS
PROPOSED NATIONAL PARK BOUNDARY
EXISTING WATER PROJECTS
PROPOSED PROJECTS
RIVER BASIN BOUNDARY
SCALE OF MILES
5 0 5 10
FIGURE 43
CANADA
MANNING PROVINCIAL PARK
CHILLIWACK RANGE
CHILLIWACK LAKE
NORTH CASCADE PRIMITIVE AREA
PICKET RANGE
NOOKSACK
MT. BAKER RECREATION AREA
MT. BAKER NATIONAL FOREST
LAKE SHANNON
ROSS LAKE
DIABLO
NEWHALEM
WHATCOM COUNTY
SKAGIT COUNTY
SKAGIT
OKANOGAN COUNTY
OKANOGAN NATIONAL FOREST
EL DORADO PKS
GLACIER PEAK WILDERNESS
WENATCHEE CHELAN NATIONAL FOREST
CHELAN COUNTY
SNOHOMISH COUNTY
LAKE CHELAN
STETATTLE CR.
THUNDER CR.
AGNES CR
STEHEKIN R
ROSS (175' added ht.)
Ross Dam
Diablo Dam
Gorge Dam
Mt. Baker
Mt. Shuksan
Whatcom Pk.
Mt. Challenger
Luna Pk.
Prophet Pk.
Beaver Pass
Mt. Redoubt
Bear Mtn.
Middle Pk.
American Border Pk.
Yellow Aster Butte
Welcome Pass
Austin Pass
State Mtn.
Table Mtn.
Shuksan Lake
Baker Lake
Mt. Blum
Mt. Terror
Jack Mtn.
Devils Dome
Pasayten Pk.
Harts Pass
Robinson Mtn.
Majestic Mtn.
Azurite Pk.
Ruby Mtn.
Ruby Cr.
Boulder Cr.
Mill Cr.
Granite Cr.
Thunder Cr.
Panther Cr.
McAllister Cr.
Fisher Cr.
Winters Cr.
Early Cr.
Silver Star Mtn.
Rainy Pass
Washington Pass
Twisp Pass
Bridge Cr.
Stehekin
Trappers Lake
Trappers Pk.
Flat Cr.
McGregor Mtn.
Highbridge G. Sta.
McAlester Mt.
Reynolds Pk.
Camels Hump
War Cr.
Fourmile Cr.
Twin Pks.
Fish
Riddle Cr.
Round Mtn.
Bonanza Pk.
Flora Mtn.
Sitting Bull Mtn.
Railroad Cr.
HOLDEN
LUCERNE
Seven-fingered Jack
Entiat R.
Pyramid Mtn.
Chiwawa R.
Phelps Cr.
Buck Cr.
Buck Mtn.
Buck Creek Pass
Fortress Mtn.
Suiattle Pass
Grassy Point
Lime Mtn.
Fire Mtn.
Pumice Cr.
Glacier Pk.
Honeycomb Glacier
Black Mtn.
Sulphur Mtn.
Green Mtn.
Downey Mtn.
Dome Pk.
Ross Pass
Lizard Mtn.
Mt. Buckindy
Dowsay Cr.
Agnes Cr.
Lookout Mtn.
Helen Buttes
MARBLEMOUNT
CONCRETE
Gee Point
Finney Cr.
Jackman Cr.
Diobsud Buttes
Anderson Butte
Damnation Pk.
Oakes Pk.
Mt. Watson
Mt. Triumph
Thorton Lakes
Trappers Pk.
Big Devil Pk.
Monogram Lake
Marble Cr.
Hidden Lake Pks.
Hidden Lake
Cascade Pass
Sahale Mtn.
Boston Glacier
Mt. Logan
Found Cr.
Sonny Boy Cr.
Jordan Cr.
Cascade R.
Skagit River
Sauk River
Illabot
Deer Cr.
Sulphur Cr.
Rocky Cr.
Baker R.
Swamp Cr.
Nooksack R.
Wells Cr.
Bar Cr.
Ruth Cr.
Twin Lakes
Silesia Cr.
Chilliwack River
Tomyhoi
Wahleach Lake
ROSEDALE
Welch Pk.
SKAGIT R.
Chilliwack R.
Silvertip Mtn.
Klesilkwa River
Whitworth Pk.
Three Brothers Mtn.
Copper Cr.
Similkameen River
Chuwanten Mtn.
Hozomeen Lake
Hozomeen Cr.
Pasayten R.
E. Fork
Lease Cr.
West Fork
Middle Fork
Cascade Cr.
Beaver Cr.
Little Beaver Cr.
Pioneer Ridge
Goodell Cr.
Baker R.
Falls Cr.
Skagit River
Copper Cr.
Teebone Ridge
Jackman Cr.
Cascade R.
Jordan Cr.
Found Cr.
Sonny Boy Cr.
Hidden Lake N. Fork
Cascade Pass S. Fork
Trappers Lake
Flat Cr.
Agnes Cr.
W. Fork
Dowsay Cr.
Sulphur Cr.
Lime Cr.
Pumice Cr.
Railroad Cr.
Riddle Cr.
Fish
Fourmile Cr.
Twin Pks. Cr.
War Cr.
Stehekin River
Lake Chelan
Chiwawa R.
Phelps Cr.
Buck Cr.
Entiat R.
Pyramid Mtn.
Honeycomb Glacier
Glacier Pk.
Black Mtn.
Fire Mtn.
Pumice Cr.
Lime Cr.
Grassy Point
Suiattle Pass
Fortress Mtn.
Buck Creek Pass
Seven-fingered Jack
Buck Mtn.
Sulphur Mtn.
Green Mtn.
Downey Mtn.
Dome Pk.
Ross Pass
Lizard Mtn.
Mt. Buckindy
Dowsay Cr.
Agnes Cr.
Lookout Mtn.
Helen Buttes
MARBLEMOUNT
CONCRETE
Gee Point
Finney Cr.
Jackman Cr.
Diobsud Buttes
Anderson Butte
Damnation Pk.
Oakes Pk.
Mt. Watson
Mt. Triumph
Thorton Lakes
Trappers Pk.
Big Devil Pk.
Monogram Lake
Marble Cr.
Hidden Lake Pks.
Hidden Lake
Cascade Pass
Sahale Mtn.
Boston Glacier
Mt. Logan
Found Cr.
Sonny Boy Cr.
Jordan Cr.
Cascade R.
Skagit River
Sauk River
Illabot
Deer Cr.
Sulphur Cr.
Rocky Cr.
Baker R.
Swamp Cr.
Nooksack R.
Wells Cr.
Bar Cr.
Ruth Cr.
Twin Lakes
Silesia Cr.
Chilliwack River
Tomyhoi
Wahleach Lake
ROSEDALE
Welch Pk.
SKAGIT R.
Chilliwack R.
Silvertip Mtn.
Klesilkwa River
Whitworth Pk.
Three Brothers Mtn.
Copper Cr.
Similkameen River
Chuwanten Mtn.
Hozomeen Lake
Hozomeen Cr.
Pasayten R.
E. Fork
Lease Cr.
West Fork
Middle Fork
Cascade Cr.
Beaver Cr.
Little Beaver Cr.
Pioneer Ridge
Goodell Cr.
Baker R.
Falls Cr.
Skagit River
Copper Cr.
Teebone Ridge
Jackman Cr.
Cascade R.
Jordan Cr.
Found Cr.
Sonny Boy Cr.
Hidden Lake N. Fork
Cascade Pass S. Fork
Trappers Lake
Flat Cr.
Agnes Cr.
W. Fork
Dowsay Cr.
Sulphur Cr.
Lime Cr.
Pumice Cr.
Railroad Cr.
Riddle Cr.
Fish
Fourmile Cr.
Twin Pks. Cr.
War Cr.
Stehekin River
Lake Chelan
Chiwawa R.
Phelps Cr.
Buck Cr.
Entiat R.
Pyramid Mtn.


NORTH CASCADES STUDY
PROPOSED NORTH CASCADES NATIONAL PARK
PRESENT MAJOR HUNTING AREAS IN RELATION TO THE PROPOSED NATIONAL PARK
PROPOSED NATIONAL PARK BOUNDARY
AREAS WHERE HUNTING NOW IS THE DOMINANT RECREATION USE
SCALE OF MILES
5 0 5 10
FIGURE 44
CANADA
MANNING PROVINCIAL PARK
SKAGIT
CHILLIWACK RANGE
CHILLIWACK LAKE
NORTH CASCADE
PRIMITIVE AREA
PICKET RANGE
ROSS LAKE
MT. BAKER RECREATION AREA
MT. BAKER
NATIONAL FOREST
WHATCOM COUNTY
SKAGIT COUNTY
OKANOGAN COUNTY
OKANOGAN NATIONAL FOREST
WENATCHEE NATIONAL FOREST
CHELAN COUNTY
SNOHOMISH COUNTY
GLACIER PEAK WILDERNESS
LAKE CHELAN
ALPINE LAKES WILDERNESS
LAKE SHANNON
DIABLO Ross Dam
Gorge Dam
Diablo Dam
NEWHALEN
MARBLEMOUNT
CONCRETE
STEHEKIN
HOLDEN
LUCERNE
Rainy Pass
Washington Pass
Twisp Pass
Cascade Pass
Stehekin
Trappers Lake
Hidden Lake
Hidden Lake Pks.
Eldorado Pks
Monogram Lake
Marble Cr.
Big Devil Pk.
Diobsud Buttes
Helen Buttes
Lookout Mtn.
Damnation Pk.
Oakes Pk.
Mt. Watson
Anderson Butte
Mt. Triumph
Thorton Lakes
Trappers Pk.
Mt. Ross
Mt. Blum
Mt. Terror
Jack Mtn.
Devils Dome
Ruby Mtn.
Azurite Pk.
Majestic Mtn.
Harts Pass
Robinson Mtn.
Pasayten Pk.
Silver Star Mtn.
Boston Glacier
Sahale Mtn.
Mt. Logan
McGregor Mtn.
Highbridge G. Sta.
McAlester Mt.
Reynolds Pk.
Camels Hump
Dome Pk.
Ross Pass
Downey Mtn.
Mt. Buckindy
Lizard Mtn.
Green Mtn.
Sulphur Mtn.
Lime Mtn.
Grassy Point
Suiattle Pass
Sitting Bull Mtn.
Bonanza Pk.
Flora Mtn.
Round Mtn.
Fortress Mtn.
Buck Creek Pass
Glacier Pk.
Honeycomb Glacier
Black Mtn.
Buck Mtn.
Seven-fingered Jack
Pyramid Mtn.
Fire Mtn.
Three Brothers Mtn.
Silvertip Mtn.
Whitworth Pk.
Welch Pk.
ROSEDALE
Wahleach Lake
Chilliwack R.
Tomyhoi
American Border Pk.
Middle Pk.
Yellow Aster Butte
Welcome Pass
Twin Lakes
Silesia
Swamp Cr.
Nooksack R.
Ruth Cr.
Wells Cr.
Bar Cr.
State Mtn.
Table Mtn.
Austin Pass
Mt. Shuksan
Shuksan Lake
Baker Lake
Baker R.
Sulphur Cr.
Rocky Cr.
Bacon Cr.
Thunder Cr.
Ruby Cr.
Boulder Cr.
Granite Cr.
Panther Cr.
Fisher Cr.
McAllister Cr.
Tenbone Ridge
Falls Cr.
Copper Cr.
Jackman Cr.
Finney Cr.
Jordan Cr.
Found Cr.
Sonny Boy Cr.
Flat Cr.
Agnes Cr.
Downey Cr.
Lime Cr.
Pumice Cr.
Railroad Cr.
Riddle Cr.
Fish Cr.
Twin Pks. Cr.
Fourmile Cr.
Chiwawa R.
Phelps Cr.
Entiat R.
Lightning Cr.
Hozomeen Lake
Hozomeen Cr.
Pasayten R.
Lease Cr.
Cascade Cr.
Ruth Cr.
Beaver Cr.
Little Beaver Cr.
Prophet Pk.
Beaver Pass
Whatcom Pk.
Mt. Challenger
Luna Pk.
Pioneer Ridge
Goodell Cr.
Shuksan Cr.
Baker R.
Skagit R.
Illabot Cr.
Souk River
Gee Point
Deer Cr.
Copper Cr.
Three Brothers Mtn.
Klesilkwa River
Simlkameen River
Chuwanten Mtn.
Cr.
R.
River
Mt.
Pk.
Lake



NORTH CASCADES STUDY

DEVELOPMENT PROPOSAL FOR

PROPOSED MOUNT BAKER NATIONAL PARK

AS SUBMITTED BY
NATIONAL PARK SERVICE

FIGURE 46

EXISTING ROAD

PROPOSED ROAD

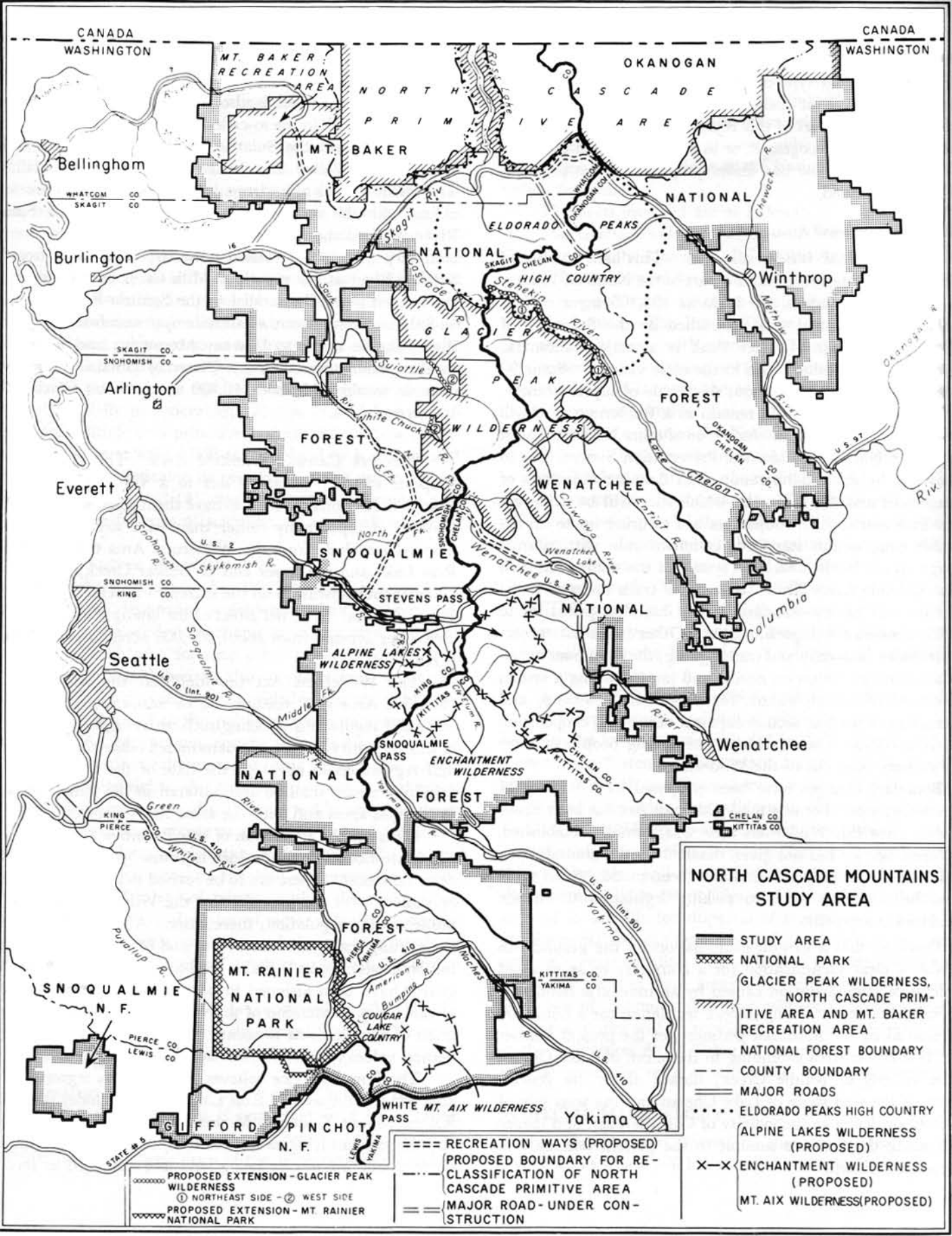
TRAIL

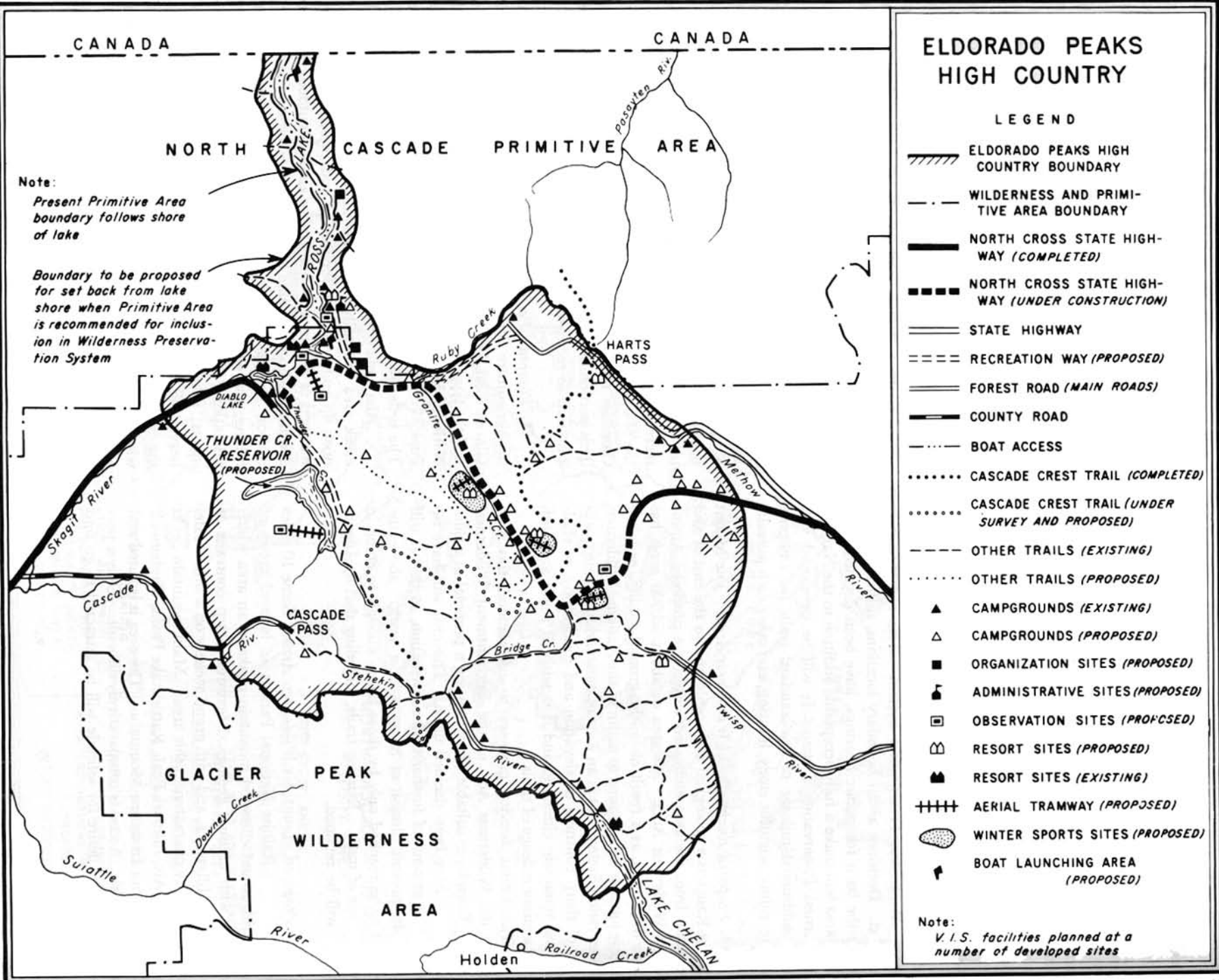
OVERLOOK

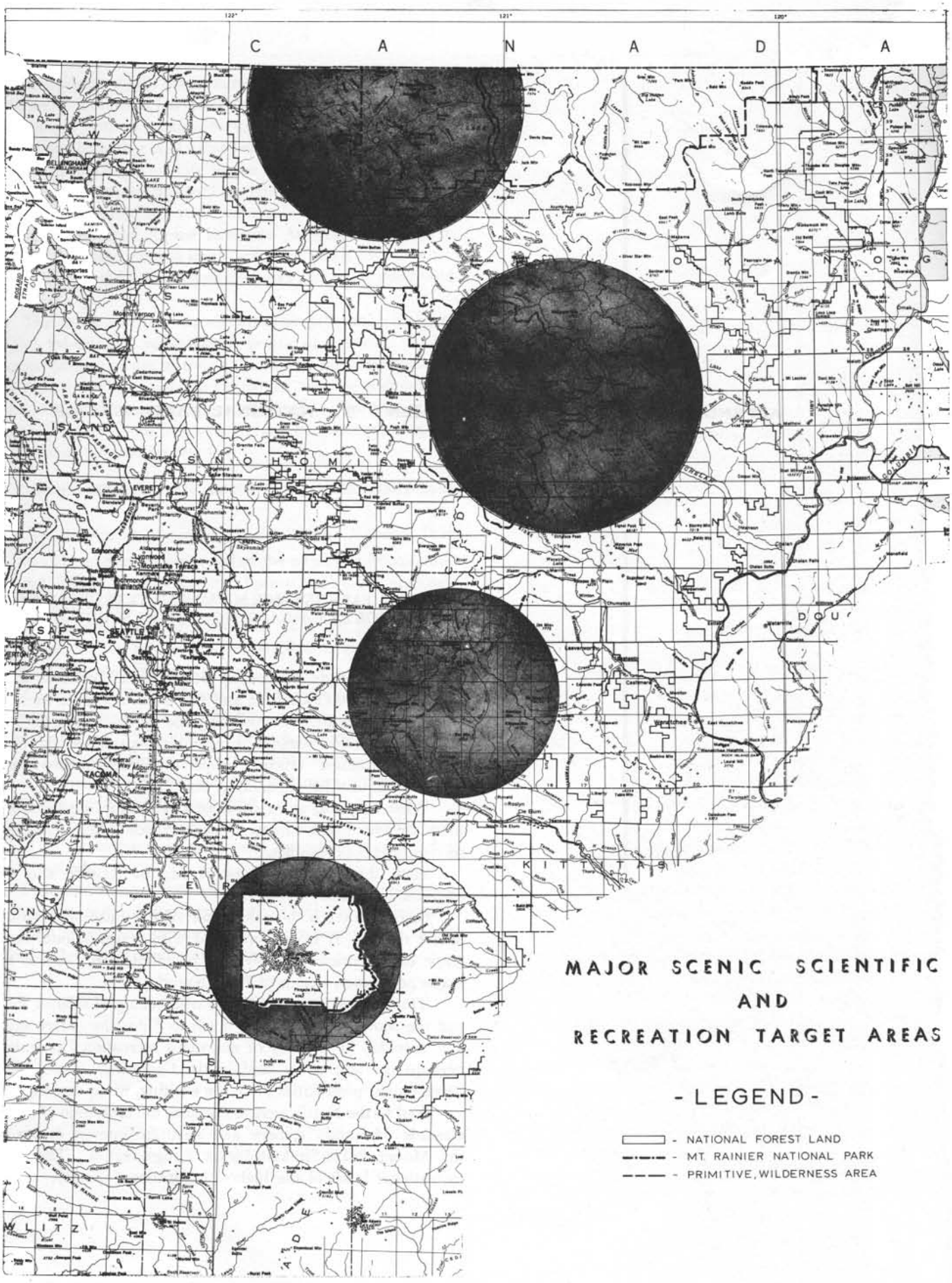
TRAIL HEAD

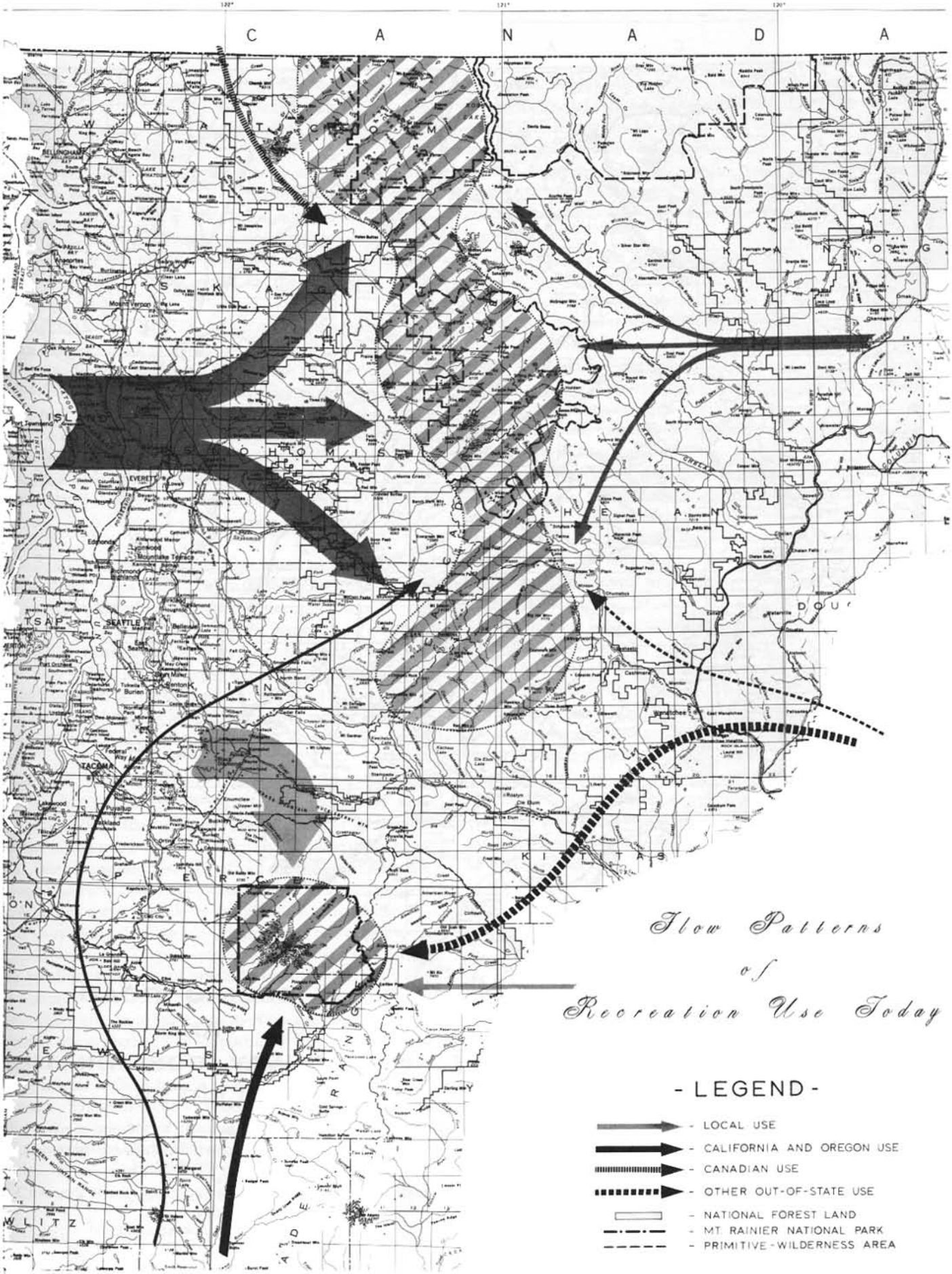
HELIPORT

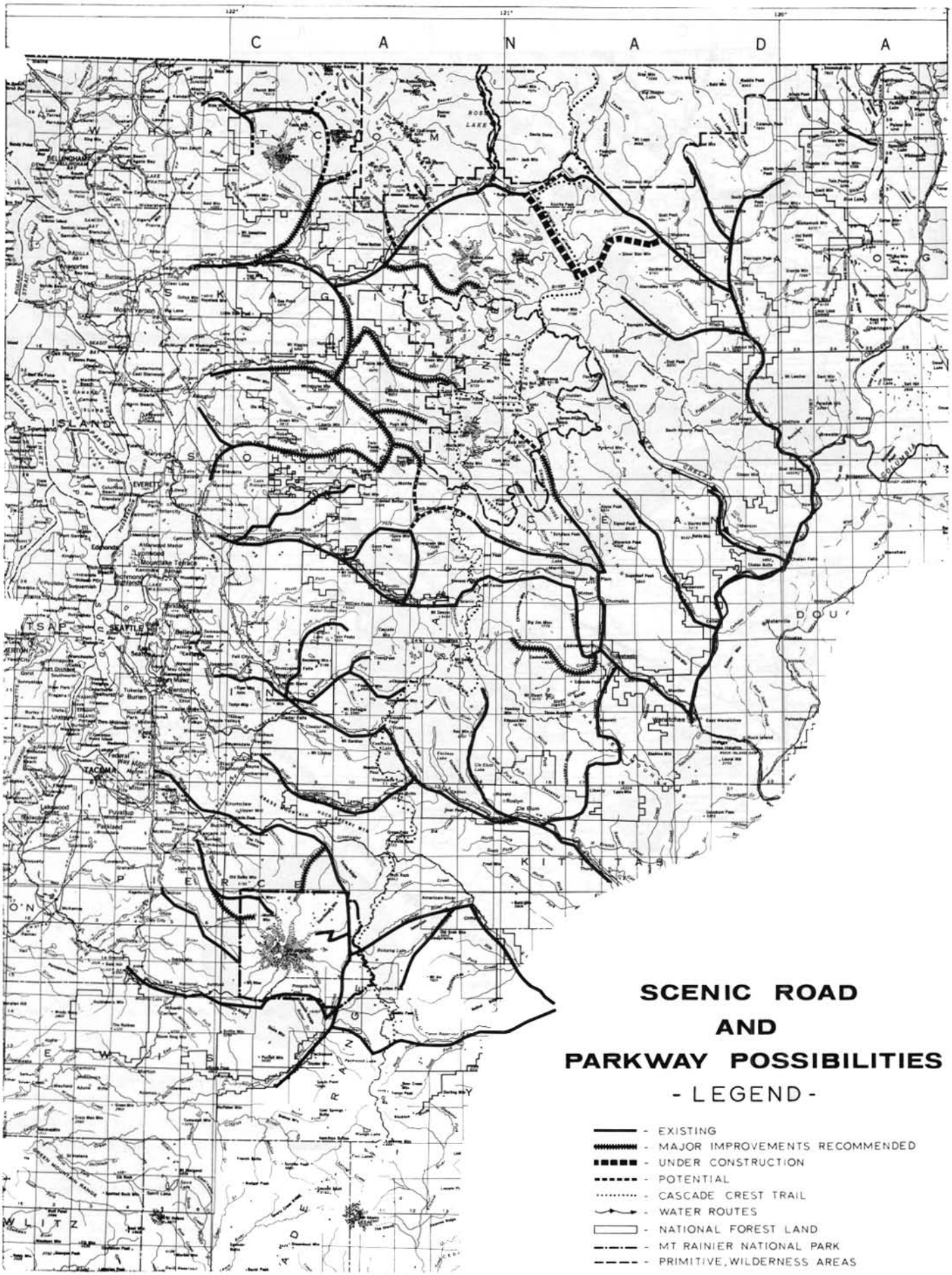
CAMPGROUND

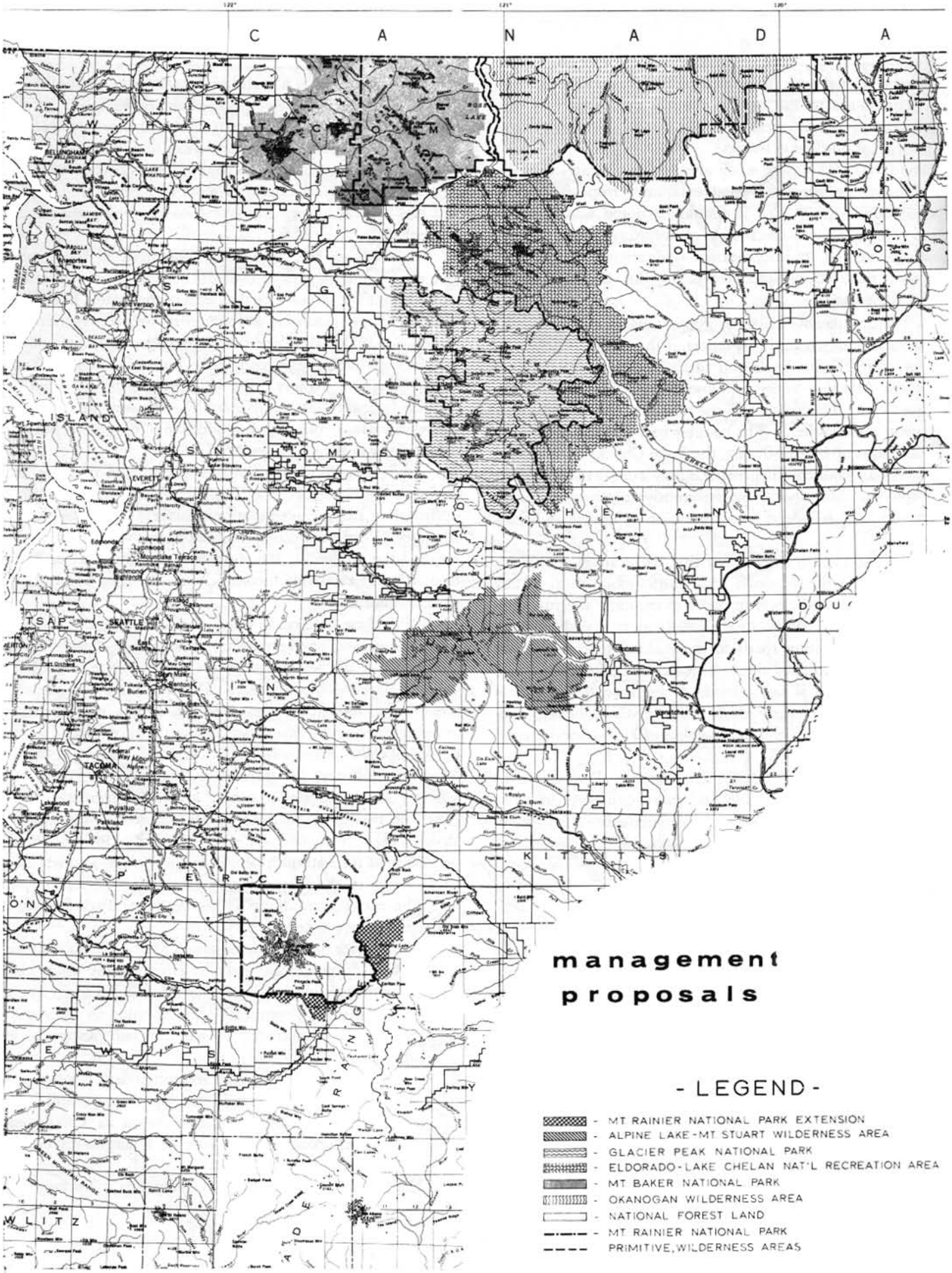

CANADA
WASHINGTON
CANADA
WASHINGTON
MT. BAKER RECREATION AREA
NORTH CASCADE PRIMITIVE AREA
OKANOGAN
MT. BAKER
Bellingham
WHATCOM CO
SKAGIT CO
NATIONAL
ELDORADO PEAKS
Skagit Riv
Chewack R
Burlington
Skagit
NATIONAL
SKAGIT CHELAN CO
HIGH COUNTRY
Winthrop
Cascade R
Stehekin River
GLACIER PEAK
Methow River
SKAGIT CO
SNOHOMISH CO
Arlington
Suiattle Riv
White Chuck R
WILDERNESS
FOREST
FOREST
OKANOGAN CHELAN CO CO
U.S. 97
Lake Chelan
Everett
WENATCHEE
Entiat R
Chiwawa River
Snohomish R
U.S. 2
North Fk
SNOQUALMIE
Wenatchee River
Wenatchee Lake
Skykomish R
SNOHOMISH CO
KING CO
STEVENS PASS
NATIONAL
Columbia
Seattle
ALPINE LAKES WILDERNESS
Snoqualmie R
U.S. 10 (Int 90)
KING CO
KITTITAS CO
Middle Fk
Teanaway R
River
Wenatchee
SNOQUALMIE PASS
ENCHANTMENT WILDERNESS
CHELAN CO
KITTITAS CO
NATIONAL
FOREST
Green River
KING CO
PIERCE CO
U.S. 410
White Riv
CHELAN CO
KITTITAS CO
U.S. 10 (Int 90)
Yakima River
FOREST
Puyallup R
PIERCE CO
YAKIMA CO
U.S. 410
Naches R
MT. RAINIER NATIONAL PARK
American R
Bumping R
KITTITAS CO
YAKIMA CO
SNOQUALMIE N. F.
COUGAR LAKE COUNTRY
PIERCE CO
LEWIS CO
WHITE PASS
MT. AIX WILDERNESS
Yakima
GIFFORD PINCHOT N. F.
STATE #5
LEWIS CO
YAKIMA CO
PROPOSED EXTENSION - GLACIER PEAK WILDERNESS
① NORTHEAST SIDE - ② WEST SIDE
PROPOSED EXTENSION - MT. RAINIER NATIONAL PARK
RECREATION WAYS (PROPOSED)
PROPOSED BOUNDARY FOR RE-CLASSIFICATION OF NORTH CASCADE PRIMITIVE AREA
MAJOR ROAD - UNDER CONSTRUCTION
NORTH CASCADE MOUNTAINS STUDY AREA
STUDY AREA
NATIONAL PARK
GLACIER PEAK WILDERNESS, NORTH CASCADE PRIMITIVE AREA AND MT. BAKER RECREATION AREA
NATIONAL FOREST BOUNDARY
COUNTY BOUNDARY
MAJOR ROADS
ELDORADO PEAKS HIGH COUNTRY
ALPINE LAKES WILDERNESS (PROPOSED)
ENCHANTMENT WILDERNESS (PROPOSED)
MT. AIX WILDERNESS (PROPOSED)


CANADA
CANADA
NORTH CASCADE PRIMITIVE AREA
Note:
Present Primitive Area boundary follows shore of lake
Boundary to be proposed for set back from lake shore when Primitive Area is recommended for inclusion in Wilderness Preservation System
ROSS LAKE
Pasayten Riv.
Ruby Creek
HARTS PASS
DIABLO LAKE
Thunder Cr.
Granite Cr.
THUNDER CR. RESERVOIR (PROPOSED)
Skagit River
Methow River
Cascade Riv.
CASCADE PASS
Stehekin River
Bridge Cr.
Twisp River
GLACIER PEAK WILDERNESS AREA
Downey Creek
Suiattle River
Railroad Creek
Holden
LAKE CHELAN
ELDORADO PEAKS HIGH COUNTRY
LEGEND
ELDORADO PEAKS HIGH COUNTRY BOUNDARY
WILDERNESS AND PRIMITIVE AREA BOUNDARY
NORTH CROSS STATE HIGHWAY (COMPLETED)
NORTH CROSS STATE HIGHWAY (UNDER CONSTRUCTION)
STATE HIGHWAY
RECREATION WAY (PROPOSED)
FOREST ROAD (MAIN ROADS)
COUNTY ROAD
BOAT ACCESS
CASCADE CREST TRAIL (COMPLETED)
CASCADE CREST TRAIL (UNDER SURVEY AND PROPOSED)
OTHER TRAILS (EXISTING)
OTHER TRAILS (PROPOSED)
CAMPGROUNDS (EXISTING)
CAMPGROUNDS (PROPOSED)
ORGANIZATION SITES (PROPOSED)
ADMINISTRATIVE SITES (PROPOSED)
OBSERVATION SITES (PROPOSED)
RESORT SITES (PROPOSED)
RESORT SITES (EXISTING)
AERIAL TRAMWAY (PROPOSED)
WINTER SPORTS SITES (PROPOSED)
BOAT LAUNCHING AREA (PROPOSED)
Note:
V. I. S. facilities planned at a number of developed sites


C A N A D A
MAJOR SCENIC SCIENTIFIC
AND
RECREATION TARGET AREAS
- LEGEND -
- NATIONAL FOREST LAND
- MT. RAINIER NATIONAL PARK
- PRIMITIVE, WILDERNESS AREA


C A N A D A
Flow Patterns
of
Recreation Use Today
- LEGEND -
- LOCAL USE
- CALIFORNIA AND OREGON USE
- CANADIAN USE
- OTHER OUT-OF-STATE USE
- NATIONAL FOREST LAND
- MT. RAINIER NATIONAL PARK
- PRIMITIVE - WILDERNESS AREA


C A N A D A
SCENIC ROAD
AND
PARKWAY POSSIBILITIES
- LEGEND -
- EXISTING
- MAJOR IMPROVEMENTS RECOMMENDED
- UNDER CONSTRUCTION
- POTENTIAL
- CASCADE CREST TRAIL
- WATER ROUTES
- NATIONAL FOREST LAND
- MT RAINIER NATIONAL PARK
- PRIMITIVE, WILDERNESS AREAS


CANADA
management
proposals
- LEGEND -
- MT RAINIER NATIONAL PARK EXTENSION
- ALPINE LAKE-MT STUART WILDERNESS AREA
- GLACIER PEAK NATIONAL PARK
- ELDORADO-LAKE CHELAN NAT'L RECREATION AREA
- MT BAKER NATIONAL PARK
- OKANOGAN WILDERNESS AREA
- NATIONAL FOREST LAND
- MT RAINIER NATIONAL PARK
PRIMITIVE, WILDERNESS AREAS