HCR
56

HOUSE COMMITTEE REPORT

(11)

Date referred: 4/20/88 FURTHER REFERRALS:

DATE: 4-25-88

The Finance Committee has considered HCR 56

Relating to a ski resort in the Eagle River Valley.

RECOMMENDS:

[ ] replace with _____ [ ] the same title

[ ] attached amendment(s) [ ] a new title

[X] do pass

[ ] do not pass

[ ] no recommendation

[ ] individual recommendations

[ ] additional referral to the _____ Committee

ADOPTS: [ ] _____ letter of intent

ATTACHES NEW FISCAL NOTE(s):

[ ] fiscal impact

[ ] zero fiscal note

[ ] zero with analysis

[X] same as previous fiscal note published 4/21/88

[ ] same as previous zero fiscal note published _____

SIGNING DO PASS:

Larson

Swack

Boyer

Brown

Davis

Frank

Pourchot

SIGNING OTHER RECOMMENDATIONS:

Goll

Rieger

Wallis

Vice Chair

Chairman's signature

366.

STATE OF ALASKA
1988 LEGISLATIVE SESSION

BILL VERSION: HCR 56
PUBLISH DATE: HOUSE 4/21/88

FISCAL NOTE

REQUEST: AK Industrial Development and Export Authority

Revision Date:
Title: Relating to a ski resort in the Eagle River Valley
Sponsor: Governor
Requester:

Agency Affected:
BRU: Same as above
Components: N/A

EXPENDITURES / REVENUES: (Thousands of Dollars)

OPERATING	FY 88	FY 89	FY 90	FY 91	FY 92	FY 93
PERSONAL SERVICES						
TRAVEL						
CONTRACTUAL						
SUPPLIES						
EQUIPMENT						
LAND & STRUCTURES						
GRANTS, CLAIMS						
MISCELLANEOUS		NO INCREASE IN OPERATING FUNDS				
TOTAL OPERATING						
CAPITAL		150.0	0.0	0.0	0.0	0.0
REVENUE						

FUNDING: (Thousands of dollars)

GENERAL FUND						
FEDERAL FUNDS						
OTHER		150.0	0.0	0.0	0.0	0.0
TOTAL		150.0	0.0	0.0	0.0	0.0

POSITIONS:

FULL-TIME						
PART-TIME		NONE				
TEMPORARY						

ANALYSIS: (Attach a separate page if necessary.)

AIDEA corporate receipts are to be used to finance 50% of the cost of the study.

Prepared by: Bertram L. Wagnon, Executive Director
Division: AK Industrial Development and Export Authority
Phone: 274-1651
Date: 4-20-88

Approved by Commissioner: J. Anthony Smith, Commissioner
Agency: Department of Commerce and Economic Development
Date: 4-20-88

Distribution (by preparer):
- Legislative Finance
- Legislative Sponsor
- Requestor
- Office of Management and Budget
- Impacted Agency(ies)

1486D-1/042088b

Introduced: 4/20/88
Referred: Finance

go00668h

IN THE HOUSE

BY THE RULES COMMITTEE BY REQUEST OF THE GOVERNOR

HOUSE CONCURRENT RESOLUTION NO. 56

IN THE LEGISLATURE OF THE STATE OF ALASKA

FIFTEENTH LEGISLATURE - SECOND SESSION

Relating to a ski resort in the Eagle River Valley.

BE IT RESOLVED BY THE LEGISLATURE OF THE STATE OF ALASKA:

WHEREAS an investor has indicated interest in the development of an international destination ski resort in the Eagle River Valley; and

WHEREAS the commissioner of natural resources has revised the Chugach State Park Master Plan to allow the location of some ski facilities within the park; and

WHEREAS the developer has committed money for a contract to purchase land for development, has stationed personnel in Alaska to work on the project, and has submitted a development proposal to the State of Alaska; and

WHEREAS the developer responded to the request for proposals issued by the Department of Natural Resources and has supplemented this response with material that is expected to lead to the issuance of a first-phase contract for site studies and evaluation; and

WHEREAS the state might be requested and might decide to assist the development by providing loan guarantees, and will need economic feasibility analyses before committing itself to the project in any fashion;

BE IT RESOLVED that the State of Alaska strongly supports the proposal for ski development in Eagle River; and be it

FURTHER RESOLVED that the Alaska Industrial Development and Export Authority is asked to proceed with contracting for the preparation of a feasibility study of the ski development project; and be it

FURTHER RESOLVED that the Alaska Industrial Development and Export

Authority is asked to finance 50 percent of the cost of the feasibility study, with the remaining 50 percent to be financed by the proposed developer or other private interests.

STEVE COWPER
GOVERNOR

HCR 54

STATE OF ALASKA
OFFICE OF THE GOVERNOR
JUNEAU

April 20, 1988

The Honorable Ben Grussendorf
Speaker of the House
Alaska State Legislature
P.O. Box V
Juneau, AK 99811

Dear Representative Grussendorf:

Under the authority of art. III, sec. 18, of the Alaska Constitution, I am transmitting a concurrent resolution relating to the completion of a feasibility study for a proposed ski resort within the Chugach State Park at Eagle River.

The resolution supports the completion by the Alaska Industrial Development and Export Authority of an analysis of the financial feasibility of the proposed project. The Department of Natural Resources has been working with the interested parties and has completed the initial steps in securing a contract through an RFP process. The Alaska Industrial Development and Export Authority has also been working closely with the proposed developer. It is appropriate at this time to proceed to the next step, which is to secure a competent analysis of the proposed development after which the state can assess what would be its appropriate role for completion of the project.

I urge your favorable consideration of this resolution.

Sincerely,

Steve Cowper
Governor

EAGLE RIVER SKI AREA PROJECT STATUS REPORT

April 22, 1988

In January, 1988, the Department of Natural Resources prepared a document to solicit for proposals to plan, develop and operate a downhill ski area and resort in the Eagle River Valley of Chugach State Park. The only proposal that was received came from Eagle Valley Resort, Inc. A Technical Evaluation Committee and a Contract Award Board were established. People from the State, Municipality, and private sector, selected by the Commissioner, comprised the two committees. Their task was to review the proposal and make recommendations.

On March 8, Commissioner Judith M. Brady presented a speech to the Eagle River/Chugiak Chamber of Commerce stating the State could not proceed with the intent to award a contract to Eagle Valley Resort, Inc. until additional information was provided by EVR, Inc.

On March 21, Neil C. Johannsen received the additional information requested from Eagle Valley Resort, Inc.

The Contract Award Board met on April 10, and discussed in detail both the information from Eagle Valley Resort, Inc.; and a memorandum from the Technical Evaluation Committee. Many points were brought to light including: the economic importance of the project, not only in terms of jobs but also the financial gains for both Eagle River and Anchorage; the statement that would be made regarding Alaska's policy to encourage foreign investments; the importance of this project to the tourist industry; the needed attention Alaska as a whole would gain from the world; as well as the many safeguards built into the Phase I portion of the RFP to halt the project without adverse effects to the Department or the State should anything go wrong. The Board decided, by majority vote, to recommend to the Commissioner to accept the proposal and begin negotiations which could lead to a Phase I contract. Further, the board recommended that DNR not sign a Phase I contract until a financial feasibility study is conducted and accepted by all parties involved. This would give the State, any lending institutions and Eagle Valley Resort, Inc.; a much clearer vision of the future regarding this project.

Chugach State Park Master Plan Amendments

The Chugach State Park Master Plan (prepared by the Alaska Division of Parks, DNR, February 1980) is amended to include the following:

Resort Development

Resort development, with proper controls, is compatible with the purposes of Chugach State Park. Resorts shall not be located in the parks' wilderness zone. Prior to allowing for the development of a resort, the division shall conduct appropriate environmental and recreational impact reviews as required by AS 41.21.027 (park concession law). The results of these reviews shall be used to develop mitigation measures to protect other park values.

A downhill ski resort may be developed at the Eagle River site identified in the report by the division titled Comparison of Potential Alpine Ski Areas in Chugach State Park: An Analysis of Terrain Capability provided the requirements of AS 41.21.027 and other measures deemed appropriate by the division are met. Expansion of a resort developed at the Eagle River site into the South Fork of Eagle River or into the Highland Mountain East and West sites also identified in the above study, may not occur until potential conflicts with fish and wildlife, water quality, community growth and development and values, land ownership (i.e. military lands) are adequately dealt with through additional community involvement and environmental/social impact studies. However, the awarding of a park concession contract for the Eagle River site may include an option for the concessionaire to expand into these areas if the above work is completed and found by the division to be in conformance with As 41.21.027 and other standards as determined necessary by the director. Boundaries of the sites identified in the above study may be adjusted by the director. The division may require impact and mitigation studies to be prepared by the bidders or concessionaire.

Alpenglow, an existing ski area in the park formerly called Arctic Valley, may be expanded provided the above conditions are met. Expansion of the area into the Ship Creek Wilderness Zone is expressly prohibited by this plan. Also, future developments at the resort shall be undertaken to minimize visual and noise impacts being projected into the Ship Creek Wilderness Zone.

Up to two additional ski resorts may be allowed in the non-wilderness portions of the Eagle River and Eklutna-Peters Creek

Planning Units. Any sites considered should be among those identified in the division's study of potential ski areas. However, the director may consider other sites if they possess suitable terrain and have a reasonable potential to comply with the requirements of As 41.21.027 and other requirements and standards established by the division. If possible the division should begin snow surveys and wildlife studies of these sites to assist in any future decisions about these areas.

Other types of resorts or recreational facilities, such as an environmental education center or nordic skiing center, may be considered on a case by case basis, according to a set of general compatibility criteria under AS.41.21.027 and summarized as follows:

-implements or is consistent with the park's purposes, as specified in it's enabling legislation and this plan;
-enhances public use and enjoyment of the park while maintaining a high quality environment and recreational opportunities;
-provides services not feasible or appropriate for the state to provide;
-is based on a public need and desire;
-accommodates ordinary uses, at no cost;
-is not more appropriately located on private lands inside the park or on other lands outside the park,
-is not to be located in a wilderness zone,
-will not result in unacceptable impacts on park resources or existing recreational use of the park,
-no substantial impacts to adjoining wilderness areas,
-the facility and its operation is designed to minimize scenic and visual quality impacts,
-meets other requirements of AS 41.21.027 and other requirements as established by the division.

Helicopter Use

The landing of helicopters by private parties for recreational or scenic access or other activities in the park is prohibited. Commercial helicopters may not be chartered for general recreational access to the park.

The director may authorize helicopter landings for management purposes. Management purposes include: conducting or supporting scientific research including wildlife inventories, maintaining communications facilities which have been located in the park under special use permit, search and rescue operations, law enforcement, park ranger patrols, park facility development and maintenance. To the greatest extent possible, fixed wing aircraft should be used for these purposes because of their lower noise impact. Also, non-aircraft methods of accomplishing these projects or activities shall be considered before fixed-wing or

helicopter aircraft are used, particularly in wilderness areas.

The director may authorize helicopter landings for special events such as commercial filming or community festivals. In all cases, special event landings will not be allowed in or within 1 mile of a wilderness zone. The director shall consult with the Chugach State Park Citizens Advisory Board prior to issuing a permit. In issuing a permit for special events, the director shall take reasonable steps to avoid:

-landings in or low level flights over areas or at times of visitor use of the park,

-low level overflights of residential areas,

-disturbance to wildlife,

-landings in or low level flights over park wilderness areas,

-flights that will constitute a significant threat to public safety, or,

-landings that would be more appropriately located on lands outside the park or private lands within the park,

-other impacts which the division or director determines are significant.

The division shall, to the extent staff and budget allows, monitor and record authorized and unauthorized helicopter activities in the park. Flightseeing overflights should also be monitored. This information should be retained to help provide an improved information base for policy development and decision-making concerning helicopter activities in the park.

The division should focus law enforcement efforts on unauthorized landings in the park. Further the division should begin to work with the FAA, military, pilots associations and other land management agencies to resolve or reduce conflicts between aerial and ground users of the park.

Eagle River Greenbelt

The division shall establish a planning team to develop a detailed management plan for the Lower Eagle River Valley (Eagle River Greenbelt) planning unit. The team shall be comprised of representatives from the park's citizen advisory board, local community councils and organizations, state and local agencies, and others. The Lower Eagle River Planning Unit is established from within the existing Eagle River Planning Unit to focus planning and management efforts on this important portion of the park. It is comprised of the lands acquired by the state from Eklutna, Inc., in a land exchange and existing park lands in T13N, R1E, SM. The existing park lands in T13N, R1E, SM that are to be included in the Lower Eagle River Planning Unit include all lands in the valley bottom and a portion of the valley sideslopes from the former Eklutna, Inc., land to the Eagle River Visitor Center. The planning team shall prepare a base map that determines the exact boundaries of the planning

unit. The unit may be renamed by the director after receiving nominations from the park advisory board.

Until such time as a management plan is prepared for the unit, the division shall adopt the Municipality of Anchorages plan for the greenbelt on an interim basis.

Interim management of the unit under the municipality's plan and the development of the management plan shall adhere to the following policies:

1) Trails, shall be developed as determined appropriate in the detailed management plan for the area. Recreational access sites may be developed as identified in the MOA plan or the management plan which is to be prepared. When possible, facilities shall be sited to be buffered or screened from view of the river. The Eagle River Campground may be expanded if appropriate.

2) Facilities will be phased so as to satisfy existing recreational demand and anticipated demands of the near-term future.

3) Motorized recreational activities (including boats, snowmachines and ATV's) are prohibited.

4) Commercial activities shall be limited in number through concession contracts rather than through park use permits. Activities related to the possible development of a downhill ski area may be allowed but shall be controlled to insure that the natural and recreational resource values of the unit are maintained. The management plan shall determine the carrying capacity of the river for both commercial and non-commercial uses.

5) Pursuant to AS 41.21.022, the division shall seek the concurrence of the Board of Game to close the unit to hunting and designate it as a wildlife viewing area. The division and the planning team shall make wildlife viewing and wildlife education a goal of the area.

6) Motorized vehicle access on the existing 1D9 (Homestead Road) right-of-way is allowed for use by local residents and others. The road may be relocated , redesigned and upgraded so long as natural and recreational values of the unit are maintained. Special park use permits may be issued under 11 AAC 18.010 (8) to provide nearby landowners with access to the 1D9 road. Authorizations for public utilities to be located in or across parklands and water shall be under the permitting process authorized by 11 AAC 18.010. The division shall work closely with DOT/PF and the Municipality of Anchorage to insure that the proposed Eagle Loop Road connection to Hiland Road/Glenn Highway crossing of the greenbelt minimizes adverse impacts on the unit.

7) Modification of the river to enhance boater safety or improve whitewater kayaking should only be considered after a thorough

review of impacts and coordination with appropriate agencies (i.e. ADF&G, Corps of Engineers, Municipality of Anchorage, etc.). This issue should be addressed during the development of the management plan.

Approved by:

Neil C. Johannsen, Director
Division of Parks and Outdoor Recreation

01 OCT 87
Date

Concur:

Judith M. Brady, Commissioner
Department of Natural Resources

Date

A COMPARISON OF POTENTIAL ALPINE SKI AREAS IN CHUGACH STATE PARK:

AN ANALYSIS OF TERRAIN CAPABILITY

Alaska Department of Natural Resources
Alaska Division of Parks and Outdoor Recreation

July 1987

A COMPARISON OF POTENTIAL ALPINE SKI AREAS IN CHUGACH STATE PARK:

AN ANALYSIS OF TERRAIN CAPABILITY

I. INTRODUCTION

Staff of the Division of Parks and Outdoor Recreation and the Division of Geological and Geophysical Surveys conducted a reconnaissance-level survey of potential downhill ski sites in Chugach State Park.

The study was conducted as part of a limited review and update of the 1980 Chugach State Park Master Plan. The review and update responds to three current management and development issues which are not adequately treated in the original plan: commercial helicopter operations, Eagle River Greenbelt, and resort development within the park. This study concerns the resort development issue.

The study provides an objective analysis of the Eagle River site proposed by the Rogner Touristik company, using accepted standards and guidelines developed by the ski industry. It also serves as a basis for comparison with other potential sites in the park.

The study will be used as one source of information on the park, to be considered alongside many other information sources. It is not intended to be a complete analysis of ski area suitability, which would necessarily incorporate other information types, such as accessibility, wildlife impacts, displacement of existing park users, etc. It does, however, provide the best information available concerning potential alpine ski terrain in the park. This information is essential to an informed decision on the question of whether, and under what circumstances, ski resort development should be allowed in the park.

If the Division of Parks and Outdoor Recreation decides to proceed with competitive concession contracting for ski resort development in the park, the study would serve as an initial list of potential sites, which would then be subjected to a more rigorous and comprehensive analysis incorporating other factors.

II. METHODOLOGY

The study will be most useful when its methodology is clearly stated and understood. The sections below discuss the terrain characteristics necessary for a good ski area, the study's methodology and the limitations of such an approach.

A. Ski Area Characteristics

Many characteristics constitute a good alpine ski area. The characteristics addressed in this study are: 1) slope aspect, 2) vertical descent of slopes, 3) terrain balance, 4) fall line continuity by ability level, 5) terrain diversity, 6) ground cover, 7) terrain hazards, 8) base area development potential, and 9) potential for other outdoor recreation activities.

1. Slope Aspect

In Chugach State Park, east and, to a lesser extent, west facing slopes provide the most desirable exposure to the sun. At more southerly latitudes, north slopes are needed to protect slopes from solar heat, but at Alaska latitudes it is desirable to expose sun-starved skiers to direct sunlight as much as possible. South facing slopes would be subject to loss of natural or artificial snow during spring skiing season when temperatures may be too warm to permit making more artificial snow. West facing slopes are exposed to sunlight during the warmer part of the day and therefore will be more subject to melting and subsequent icing than east facing slopes.

2. Vertical Descent and Lengths of Ski Slopes

Vertical descents of 3,000 or more feet would compare with the major ski areas of the world. Canada and the United States each have a ski area or two with just over 4,000 vertical feet and there may be areas in Europe with over 5,000 vertical. Areas with 2,000 to 3,000 vertical provide a lot of interesting skiing which would be attractive to a broad clientele. Areas with less than 2,000 vertical provide good day-use skiing for local residents if located within one-half hour driving time of most users.

3. Terrain Balance

Skier market studies indicate that the majority of skiers prefer intermediate terrain, with considerably less demand for novice and advanced/expert slopes. Existing Anchorage ski areas tend to be either predominantly novice slopes (Russian Jack Springs, Hilltop and Hillberg) or advanced (Alpenglow and Alyeska). The greatest need in southcentral Alaska is for an area with long intermediate ski runs and an overall terrain balance of:

Skier Ability Level	Percentage of Area
Novice	20-25%
Intermediate	50-60%
Advanced/Expert	20-25%

Slopes gradients for each are:

Skier Ability Level	Slope Percentage or Degrees
Novice	20-25% or 06°-14°
Intermediate	25-40% or 14°-22°
Advanced	40-55% or 22°-29°
Expert	55-80% or 29°-39°

4. Fall Line Continuity by Ability Level

The desired percentages of acreage by skier ability level are not necessarily indicative of good skiing for all skiers. In addition to the desired balance, there must be continuity of slope gradient for each ability level so that each class of skier can have a continuous ski run.

5. Terrain Diversity

For skiing to be most fun, small variations of terrain are necessary. The physical sensation of changes in terrain over short distances and visual surprises create a sense of adventure which greatly enhances the alpine skiing experience. A potential site may possess the right statistics and slopes which are correctly inclined plains but result in boring skiing.

6. Ground Cover Types

Vegetation rather than rock is preferable, especially in climates with limited snowfalls, and a mixture of vegetation enables a variety of scenery and snow conditions from tree skiing to skiing the open spaces above timberline. The presence of trees as high as possible on the mountain is desirable to protect snow and skiers from windblown conditions.

7. Terrain Hazards

Terrain hazards such as cliffs and boulders could be a major constraint if located along routes likely to be followed by skiers, especially when there is poor visibility.

8. Base Area Development Potential

Adequate level or moderate terrain is necessary at the base of ski slopes for the placement of lift, warm-up, and food service facilities, parking, and storage of maintenance equipment. Twenty to thirty acres with a gradient of less than 20% is adequate for these functions.

9. Other Activity Potential

Commitment of large amounts of land and money for a single activity may not be justified from land use or economic feasibility viewpoints. Therefore, it is desirable to locate alpine ski areas where they can support other outdoor recreation activities such as cross-country skiing, ski jumping, lugeing, bobsledding, skating and dog mushing in winter; hiking, horseback riding, and mountain climbing in summer; and wildlife observation year-round.

B. Study Methodology

This study is similar to others which the Department of Natural Resources has conducted in conjunction with land use plans for the Tanana Basin and Hatcher Pass and which the U.S. Forest Service has conducted in the Chugach National Forest. This study examines much of the area between Chugach National Forest and the Hatcher Pass Management Area, thus filling a major information gap on southcentral Alaska alpine ski sites.

This study entailed the following steps:

1. Research and data collection regarding alpine ski area requirements.

2. Consultation with skiers and park rangers to obtain opinions regarding potential sites.

3. Map reconnaissance through which calculation of slope gradients (based on 100' contour lines) to identify areas with enough intermediate terrain.

   Steps 2 and 3 resulted in the identification of the following sites outside the wilderness zone, listed from north to south: 1) Eklutna North, 2) Eklutna South, 3) Peters Creek - 4 Mile, 4) Peters Creek - 6 Mile, 5) Peters Creek - 8 Mile, 6) Peters Creek - 10 Mile, 7) Little Peters Creek, 8) Mt. Baldy, 9) Highland Mountain West, 10) Highland Mountain East, 11) Eagle River, 12) South Fork Eagle River, 13) Wolverine Bowl, 14) South Fork Campbell Creek, 15) Indian Valley, and 16) Bird Valley.

4. Three helicopter overflights and landings at selected sites (Eklutna South, Highland Mountain, Eagle River, and South Fork Eagle River) to visually verify the capability of the 16 identified sites and obtain slope gradients with inclinometers at landing sites. Still photos, video camera, and field notes were used to record the data. They are available for viewing at the Alaska State Park Anch. office. Step 4 resulted in the elimination of:

   - Eklutna North due to funnel shape of lower third of mountain and resulting absence of a skiable fall line;
   - Peters Creek - 8 Mile due to lack of terrain diversity;
   - Peters Creek - 10 Mile due to precipitous and therefore hazardous areas;

- Little Peters Creek due to the limited useable vertical descent;
- South Fork Campbell Creek due to the limited vertical descent; and
- Bird due to the high proportion of steep terrain and limited opportunity for intermediate skiing.

Step 4 also entailed observation of existing Alpenglow and Alyeska ski areas and the potential Winner Creek ski area in the Chugach National Forest for comparison purposes.

5. Detailed analysis of terrain capability field data was portrayed on maps at a scale of 2 inches to the mile. Application of ski area requirements resulted in delineation of slopes by ability level and written analysis of other information which describes terrain capability.

Participants in this study were Nat Goodhue, who wrote it, Dave Stephens who was responsible for revising the Chugach State Park master plan to deal with resort development and other issues both from the Division of Parks and Outdoor Recreation and Bill Long and Stan Carrick, from the Division of Geological and Geophysical Surveys who helped in the terrain analysis, and Craig Lindh, a ski area consultant, who participated in the field work.

C. Study Limitations

Many factors must be considered in the evaluation of a site for downhill skiing. The scope of this study is limited to an analysis of terrain capability in recreation development and natural zones but not the wilderness zone of Chugach State Park. Is the terrain capable of providing high quality alpine skiing experiences?

This study does not evaluate other factors which influence site capability, such as:

1. depth and duration of naturally produced snow;
2. exposure to wind and sun which determine the retention of snow;
3. adequacy of water supply for producing artificial snow;
4. accessibility (except for the fact that consideration of only the natural and recreation development zones of the park resulted in most sites being within a few miles of existing roads);
5. availability of utilities (electricity, communications, drinking water and sanitary waste disposal); and
6. avalanche danger.

Nor does this study analyze the suitability of the sites for alpine ski area development. A site may be capable of providing high quality alpine ski experience but might not be suitable for that use because of:

1. user conflicts - interference with other types of existing or potential recreation experience determined to be a more important use of a particular site;

2. wildlife conflicts - the displacement of wildlife from critical habitat or loss of wildlife viewing opportunities;

3. detraction from scenic values - unacceptable changes of natural environment caused by public access roads, construction access roads on visible mountainsides, lift towers and cables, base facility development, and lighting for night skiing;

4. noise pollution from ski lift motors, snow grooming equipment, and public automobile traffic;

5. land ownership - the unwillingness of property owners to make their land available for ski area development.

Also, the study does not evaluate the effectiveness of mitigation measures which could:

1. provide opportunities for conversion of private land uses incompatible with public recreation (e.g. "no trespassing" signs) to commercial recreation lands available for public use;

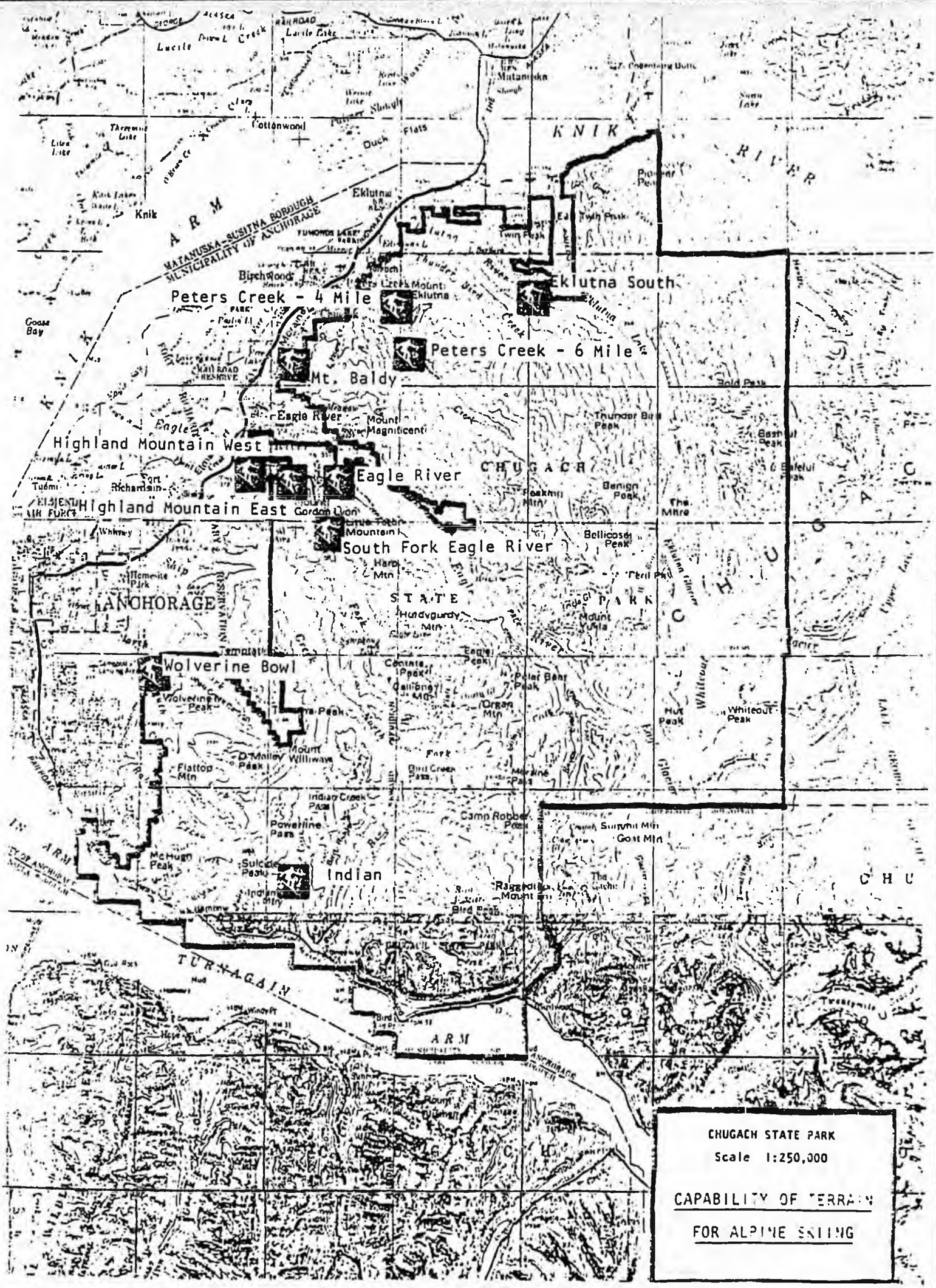
2. enhance recreation opportunities other than alpine skiing, such as improved public access into the Chugach Mountains;

3. provide additional wildlife and scenic viewing opportunities;

4. minimize the visual impacts of alpine ski development on the landscape.

Finally, this study does not address the economic feasibility of the development of an alpine ski area, the cash flow resulting from the cost of facility development, land, roads, and utilities and the probable income from sale of lift tickets, food, beverages, supplies, lodging, and other services.

The terrain capability study, however, is the critical first step in determining alpine skiing potential within Chugach State Park.


Peters Creek - 4 Mile
Eklutna South
Peters Creek - 6 Mile
Mt. Baldy
Highland Mountain West
Eagle River
Highland Mountain East
South Fork Eagle River
ANCHORAGE
Wolverine Bowl
Indian
MATANUSKA-SUSITNA BOROUGH
MUNICIPALITY OF ANCHORAGE
KNIK ARM
KNIK RIVER
TURNAGAIN ARM
CHUGACH STATE PARK
Scale 1:250,000
CAPABILITY OF TERRAIN
FOR ALPINE SKIING

III. CAPABILITY OF TERRAIN FOR ALPINE SKIING

A. Chugach State Park

Topographic factors which are the subject of this study, and other factors which are outside the scope of this study, severely limit the potential for alpine skiing within Chugach State Park. The majority of slopes of the Chugach Range exceed the maximum gradients for alpine skiing. Mountains within the natural zone of Chugach State Park reach heights of 6,000 feet above sea level adjacent to valley floors but those vertical descents of several thousand feet are unusable due to terrain hazards such as cliffs and boulders. Many mountains with some skiable terrain don't offer continuous fall line ski for each ability level because of the transition from steep to moderate. Most Chugach mountain slopes are above timberline and offer little protection to skiers and snow from the wind. Where slopes terminate on lower valley floors there are several hundred vertical feet of forested slopes.

B. Potential Sites

The terrain characteristics of ten sites which appeared to be capable of supporting alpine skiing are described on the following pages. The sites from north to south are:

1. Eklutna South
2. Peters Creek - 4 Mile
3. Peters Creek - 6 Mile
4. Mt. Baldy
5. Highland Mountain West
6. Highland Mountain East
7. Eagle River
8. South Fork Eagle River
9. Wolverine Bowl
10. Indian

SITE #1 - EKLUTNA SOUTH

1. Slope aspect: North

2. Elevations and length of potential lift-served runs:

Highest Usable Elevation	4,000'
Lowest Usable Elevation	1,100'
Usable Vertical Descent	2,900'
Longest Possible Run	8,000'

3. Terrain balance:

Ability	Steepness	Acreage	% of total
Novice	10-25% slope or 06°-14°	512	23
Intermediate	25-40% slope or 14°-11°	720	33
Advanced	40-55% slope or 22°-29°	816	36
Expert	55-80% slope or 29°-39°	192	8
TOTAL		2,240	100

4. Fall line continuity by ability level: Continuous intermediate and advanced terrain for 95% of vertical descent.

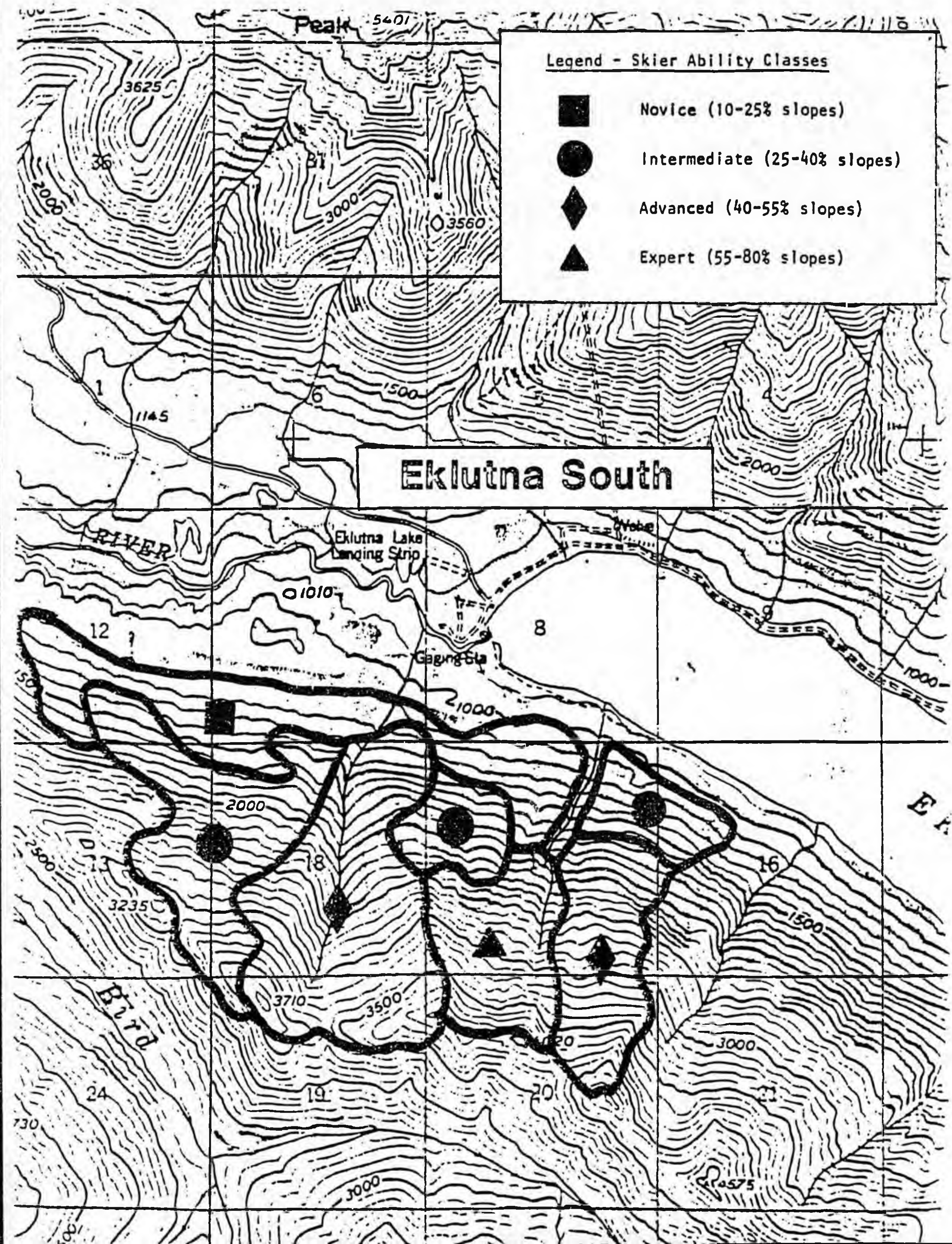
5. Terrain diversity: No major variations of terrain. Except for small variations, it would be smooth skiing and no visual surprises with limited sense of adventure.

6. Ground cover types: Alpine tundra for the upper two-thirds of slopes and interesting birch/spruce forest for the lower one-quarter of slopes.

7. Terrain hazards (cliffs, boulders, etc.): Limited craggy areas.

8. Base area development potential: Ample space on bench near municipal water treatment plant located between bottom of mountain and Eklutna River.

9. Other activity potential: Extensive opportunity for cross-country trail system on the bench to the west of potential base area.


Eklutna South
Legend - Skier Ability Classes
Novice (10-25% slopes)
Intermediate (25-40% slopes)
Advanced (40-55% slopes)
Expert (55-80% slopes)
Peak
5401
3625
3560
3000
2000
1500
1145
RIVER
Eklutna Lake
Landing Strip
1010
Gaging Sta
1000
2000
2500
3235
3710
3500
3000
1500
1000
Bird
4575
730

SITE #2 - PETERS CREEK - 4 MILE

1. Slope aspect: All directions

2. Elevations and length of potential lift-served runs:

Highest Usable Elevation	4,500'
Lowest Usable Elevation	1,200'
Usable Vertical Descent	3,300'
Longest Possible Run	17,000'

3. Terrain balance:

Ability	Steepness	Acreage	% of total
Novice	10-25% slope or 06°-14°	288	13
Intermediate	25-40% slope or 14°-11°	832	38
Advanced	40-55% slope or 22°-29°	1,088	49
Expert	55-80% slope or 29°-39°	--	--
TOTAL		2,208	100

4. Fall line continuity by ability level: Continuous advanced slope 95% of the way to base; intermediate slopes only 50% of the way to base.

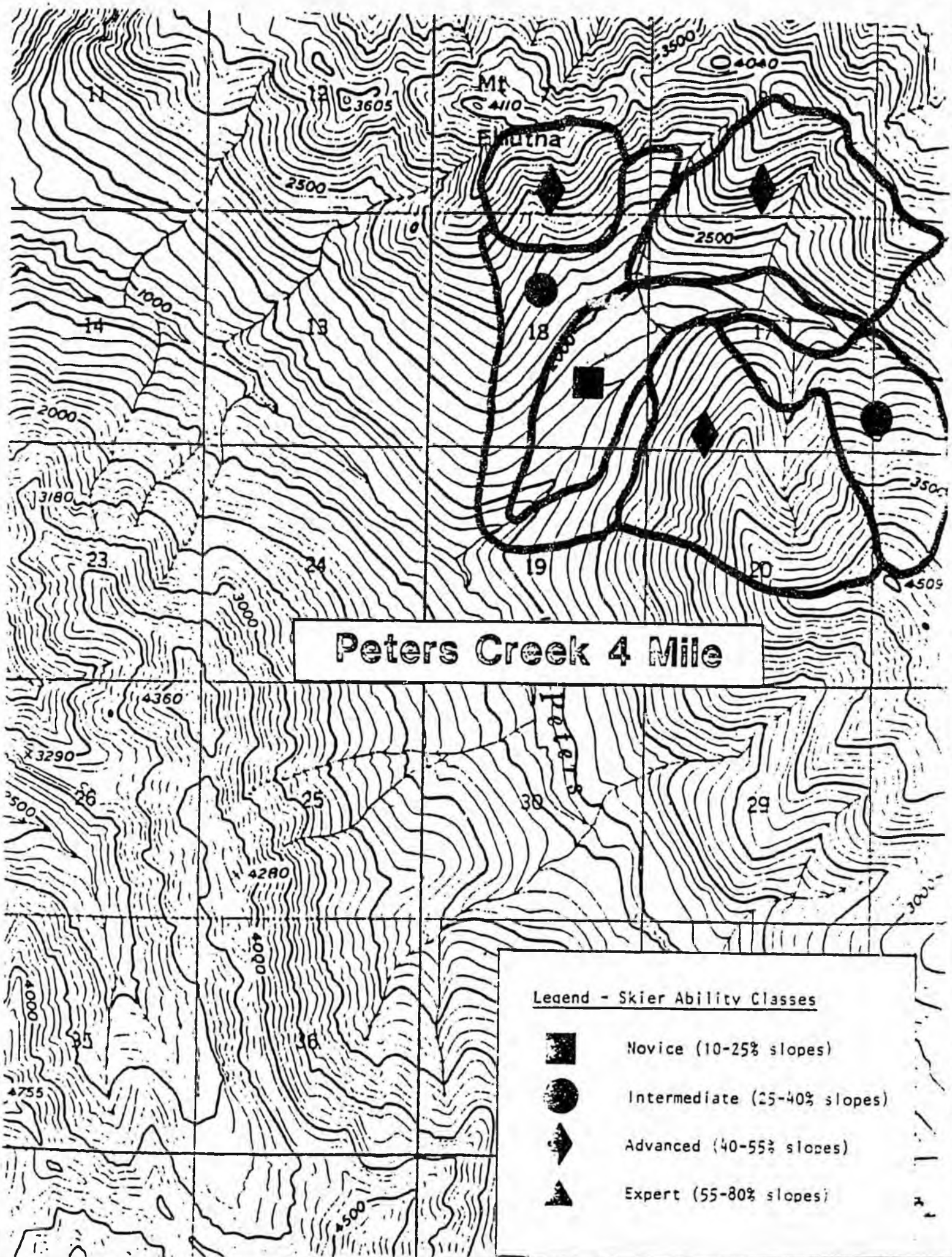
5. Terrain diversity: Even gradient slopes with little diversity with possible exception of some of the steep advanced slopes whose ridges contribute to a sense of adventure and views in many directions.

6. Ground cover types: Alpine tundra for the majority of area; birch and spruce forest and homestead clearing on lower slopes.

7. Terrain hazards (cliffs, boulders, etc.): A few rock faces.

8. Base area development potential: Moderate terrain for compact base development at confluence of slopes.

9. Other activity potential: Trail activity up and down Peters Creek Valley.


Peters Creek 4 Mile
Legend - Skier Ability Classes
Novice (10-25% slopes)
Intermediate (25-40% slopes)
Advanced (40-55% slopes)
Expert (55-80% slopes)

SITE #3 - PETERS CREEK - 6 MILE

1. Slope aspect: North

2. Elevations and length of potential lift-served runs:

Highest Usable Elevation	4,900'
Lowest Usable Elevation	1,400'
Usable Vertical Descent	3,500'
Longest Possible Run	12,000'

3. Terrain balance:

Ability	Steepness	Acreage	% of total
Novice	10-25% slope or 06°-14°	314	28
Intermediate	25-40% slope or 14°-11°	506	45
Advanced	40-55% slope or 22°-29°	236	21
Expert	55-80% slope or 29°-39°	64	6
TOTAL		1,120	100

4. Fall line continuity by ability level: Discontinuous for all ability levels with no ability level run for more than 40% of slope.

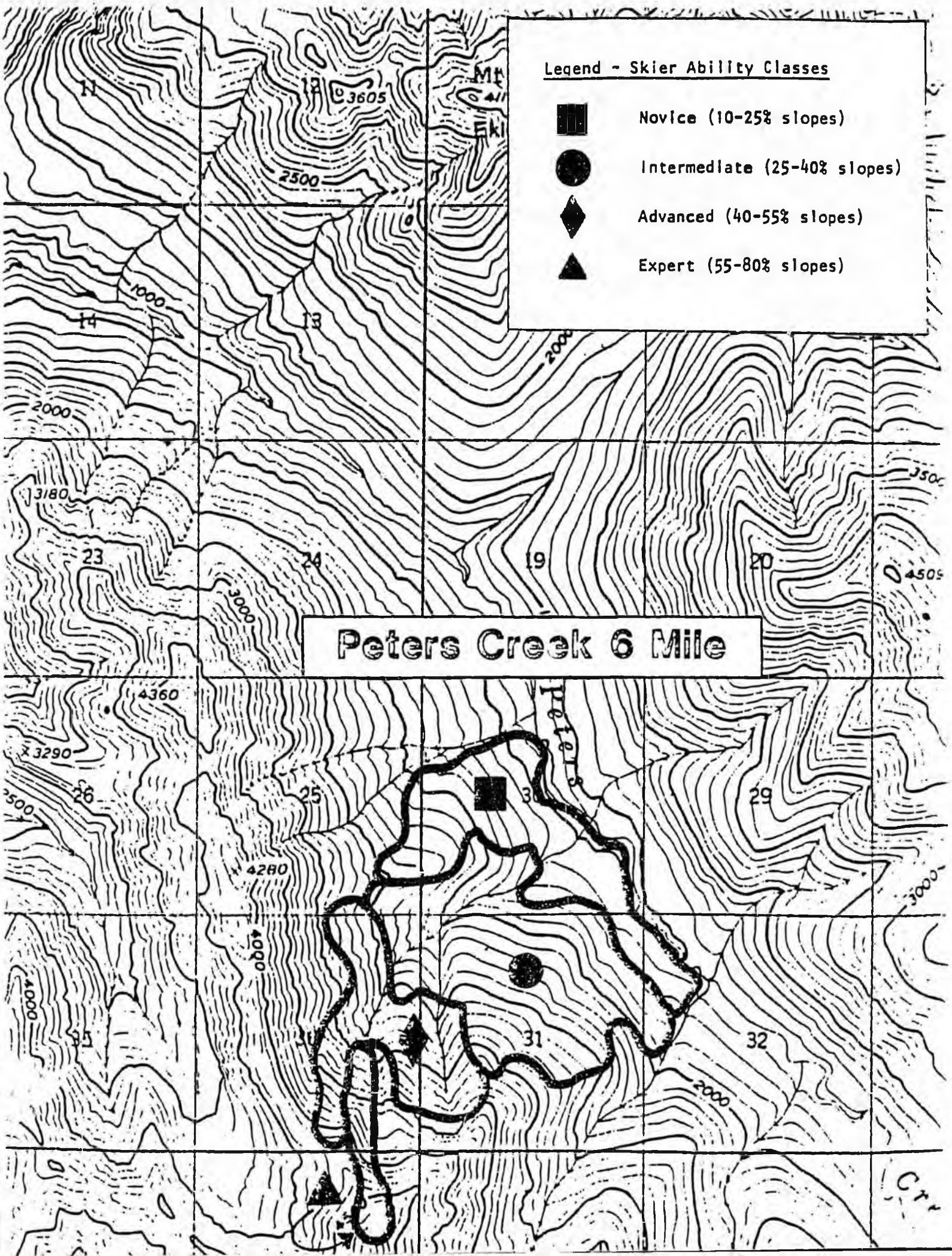
5. Terrain diversity: Not much.

6. Ground cover types: Alpine tundra.

7. Terrain hazards (cliffs, boulders, etc.): Precipitous at top.

8. Base area development potential: Limited.

9. Other activity potential: Trail activity up and down Peters Creek Valley.


Legend - Skier Ability Classes
Novice (10-25% slopes)
Intermediate (25-40% slopes)
Advanced (40-55% slopes)
Expert (55-80% slopes)
Peters Creek 6 Mile
Peters
3605
2500
1000
2000
3180
3000
4360
3290
4280
4000
4500

SITE #4 - MT. BALDY

1. Slope aspect: Northwest

2. Elevations and length of potential lift-served runs:

Highest Usable Elevation	3,000'
Lowest Usable Elevation	500'
Usable Vertical Descent	2,500'
Longest Possible Run	10,500'

3. Terrain balance:

Ability	Steepness	Acreage	% of total
Novice	10-25% slope or 06°-14°	288	26
Intermediate	25-40% slope or 14°-11°	568	51
Advanced	40-55% slope or 22°-29°	264	23
Expert	55-80% slope or 29°-39°	--	--
TOTAL		1,120	100

4. Fall line continuity by ability level: Continuous intermediate slope for 100% of the descent and continuous novice and advanced for 75% of descent.

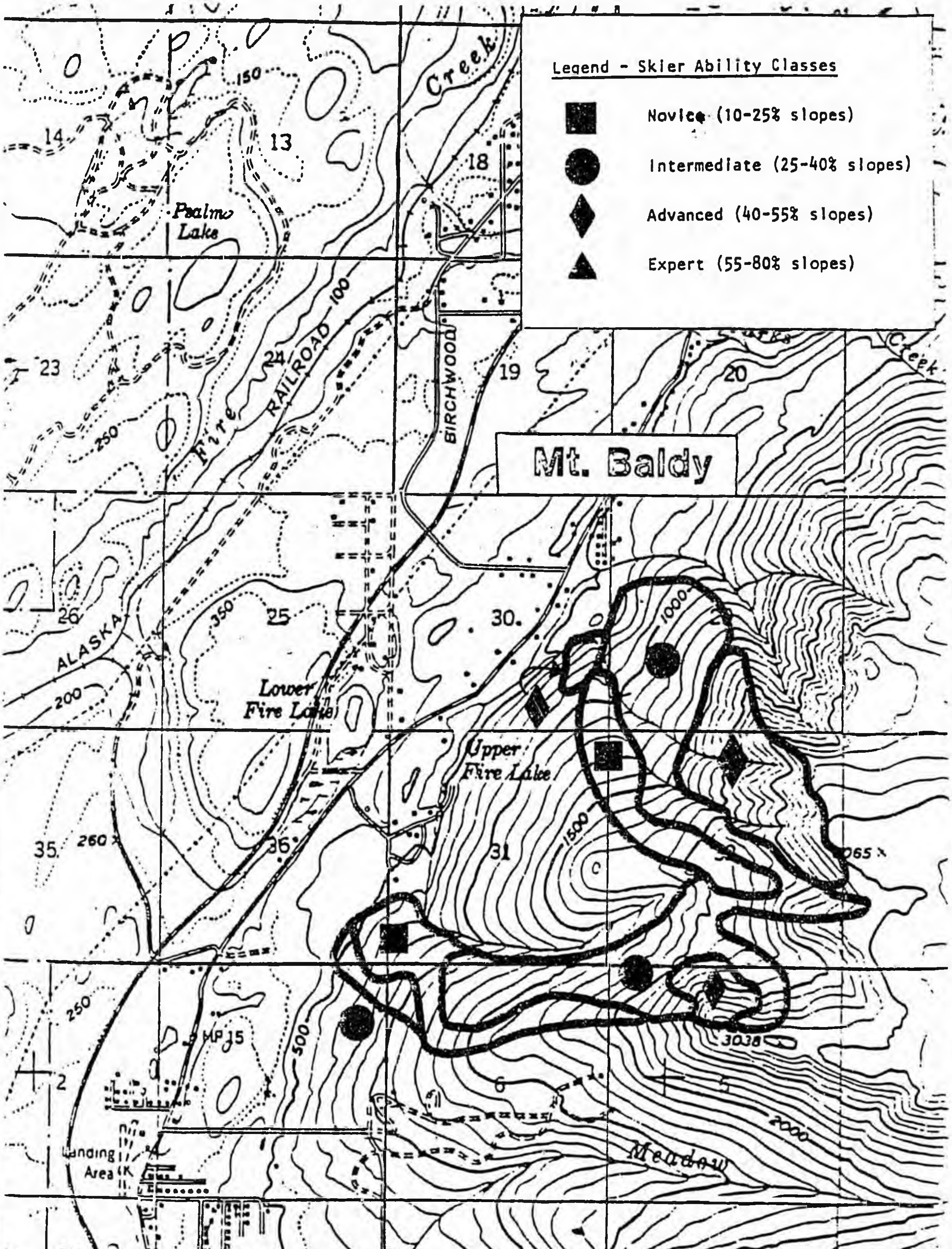
5. Terrain diversity: Little variation on upper slopes; lots of knolls, rolls and hollows on some lower slopes.

6. Ground cover types: Alpine tundra on upper half of mountain; moderately dense spruce forest on lower half of mountain.

7. Terrain hazards (cliffs, boulders, etc.): Bottleneck resulting from steep drop-off at bottom of most promising intermediate slope. Terrain modification might alleviate this constraint.

8. Base area development potential: Moderate terrain constrained by residential development.

9. Other activity potential: Firelake Recreation Center nearby.



Legend - Skier Ability Classes
Novice (10-25% slopes)
Intermediate (25-40% slopes)
Advanced (40-55% slopes)
Expert (55-80% slopes)
Mt. Baldy
Creek
Psalmo Lake
Fire
RAILROAD
BIRCHWOOD
ALASKA
Lower Fire Lake
Upper Fire Lake
Meadow
Landing Area
HP 15
1000
1500
2000
3038

SITE #5 - HIGHLAND MOUNTAIN WEST

1. Slope aspect: West

2. Elevations and length of potential lift-served runs:

Highest Usable Elevation	3,500'
Lowest Usable Elevation	600'
Usable Vertical Descent	2,900'
Longest Possible Run	15,800'

3. Terrain balance:

Ability	Steepness	Acreage	% of total
Novice	10-25% slope or 06°-14°	800	73
Intermediate	25-40% slope or 14°-11°	228	21
Advanced	40-55% slope or 22°-29°	60	6
Expert	55-80% slope or 29°-39°	--	--
TOTAL		1,088	100

4. Fall line continuity by ability level: Continuous novice slope for 95% of the distance.

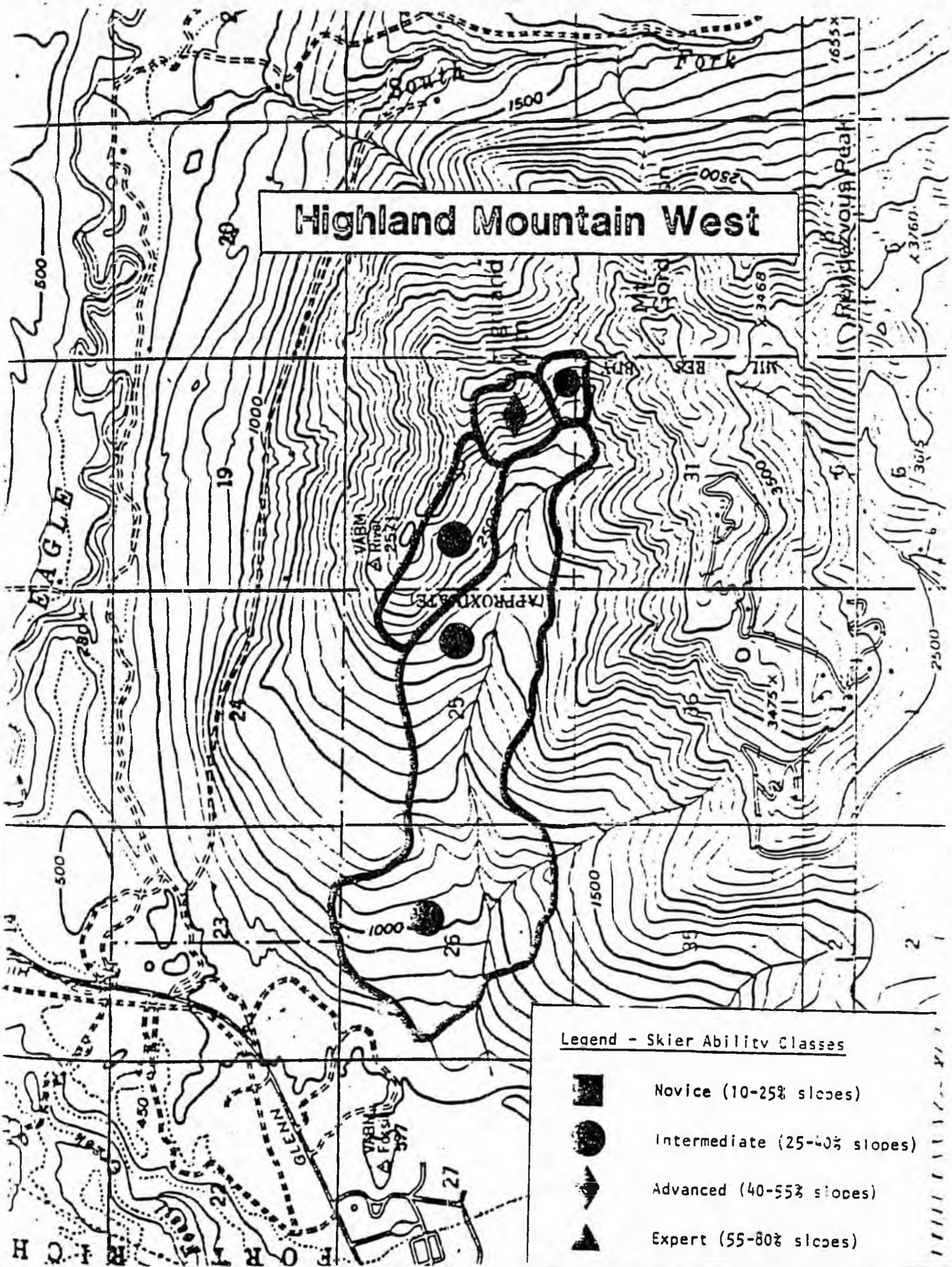
5. Terrain diversity: Little terrain diversity on upper slopes; some interesting draws on lower slopes.

6. Ground cover types: Alpine tundra for upper slopes, brush at mid-level, and second growth birch trees on lower slopes.

7. Terrain hazards (cliffs, boulders, etc.): Precipitous slope with some avalanching alongside upper part of slope.

8. Base area development potential: Extensive flat terrain between base of slope and Glenn Highway - Highland Drive interchange.

9. Other activity potential: Luge, bobsled, ski jumping and biathalon at proposed winter olympic venues.


Highland Mountain West
Legend - Skier Ability Classes
Novice (10-25% slopes)
Intermediate (25-40% slopes)
Advanced (40-55% slopes)
Expert (55-80% slopes)
APPROXIMATE
EAGLE
GLENN
FORT RICH

SITE #6 - HIGHLAND MOUNTAIN EAST

1. Slope aspect: East

2. Elevations and length of potential lift-served runs:

Highest Usable Elevation	3,500'
Lowest Usable Elevation	400'
Usable Vertical Descent	3,100'
Longest Possible Run	13,000'

3. Terrain balance:

Ability	Steepness	Acreage	% of total
Novice	10-25% slope or 06°-14°	48	20
Intermediate	25-40% slope or 14°-11°	104	43
Advanced	40-55% slope or 22°-29°	88	37
Expert	55-80% slope or 29°-39°	--	--
TOTAL		240	100

4. Fall line continuity by ability level: Discontinuous for all ability levels with no ability level run for more than 50% of descent.

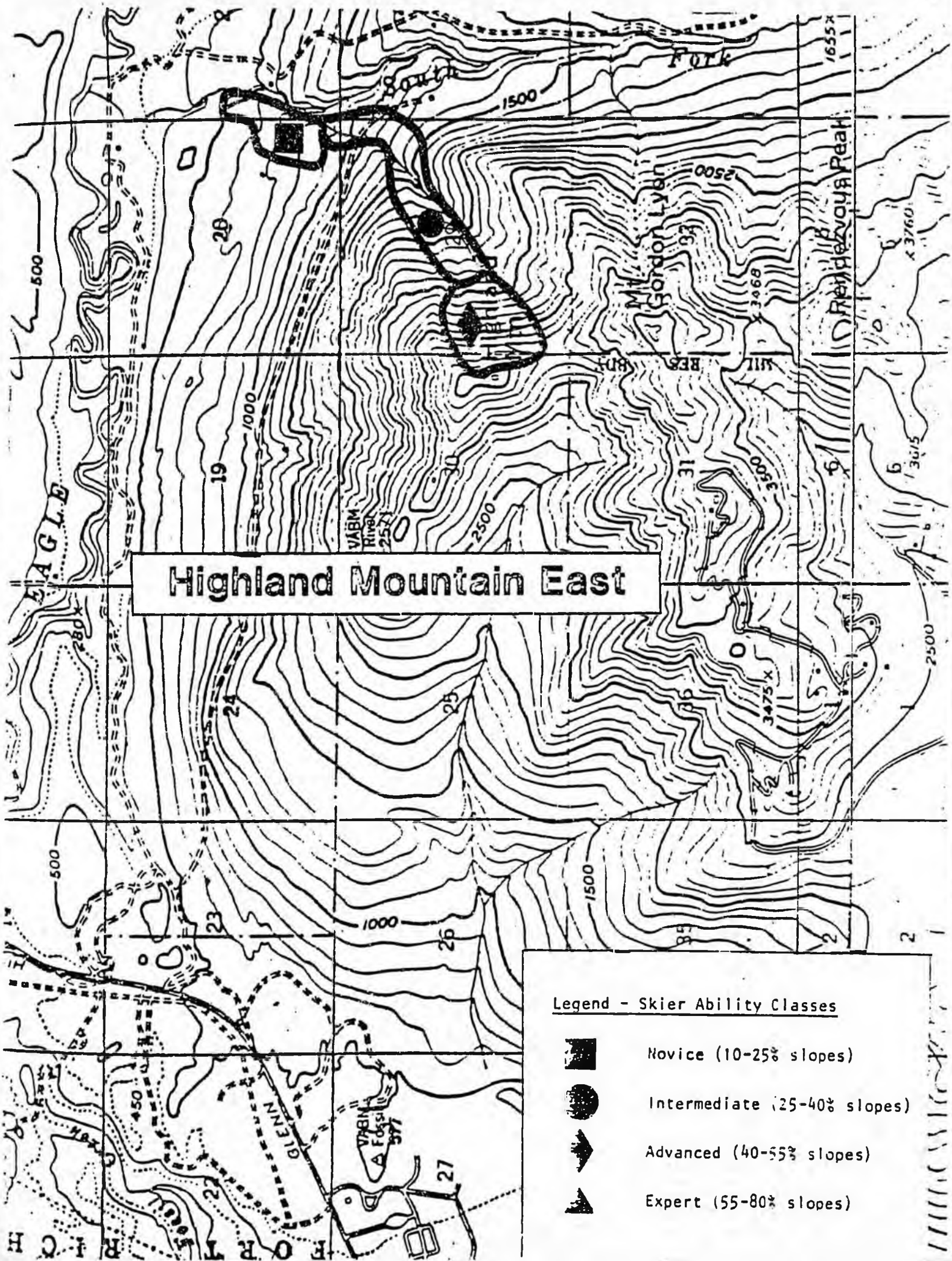
5. Terrain diversity: Major variation would occur at road crossing where a bridge would be required; some variations in gullies.

6. Ground cover types: Alpine tundra on upper slopes, primarily birch forest on lower slopes.

7. Terrain hazards (cliffs, boulders, etc.): Deep, steep ravines and intersection with Hiland Drive.

8. Base area development potential: Severely limited by roads and residences.

9. Other activity potential: Sightseeing at waterfall.


Highland Mountain East
Legend - Skier Ability Classes
Novice (10-25% slopes)
Intermediate (25-40% slopes)
Advanced (40-55% slopes)
Expert (55-80% slopes)
South Fork
Mt. Gordon Lyon
Reynolds Peak
EAGLE
FORTRESS
GLENN
1500
2500
1000
500

SITE #7 - EAGLE RIVER

1. Slope aspect: North

2. Elevations and length of potential lift-served runs:

Highest Usable Elevation	4,600'
Lowest Usable Elevation	350'
Usable Vertical Descent	4,250'
Longest Possible Run	15,800'

3. Terrain balance:

Ability	Steepness	Acreage	% of total
Novice	10-25% slope or 06°-14°	228	15
Intermediate	25-40% slope or 14°-11°	628	41
Advanced	40-55% slope or 22°-29°	504	33
Expert	55-80% slope or 29°-39°	170	11
TOTAL		1,530	100

4. Fall line continuity by ability level: Continuous top to bottom slopes for novice and intermediate skiing; continuous advanced skiing for 25% of descent.

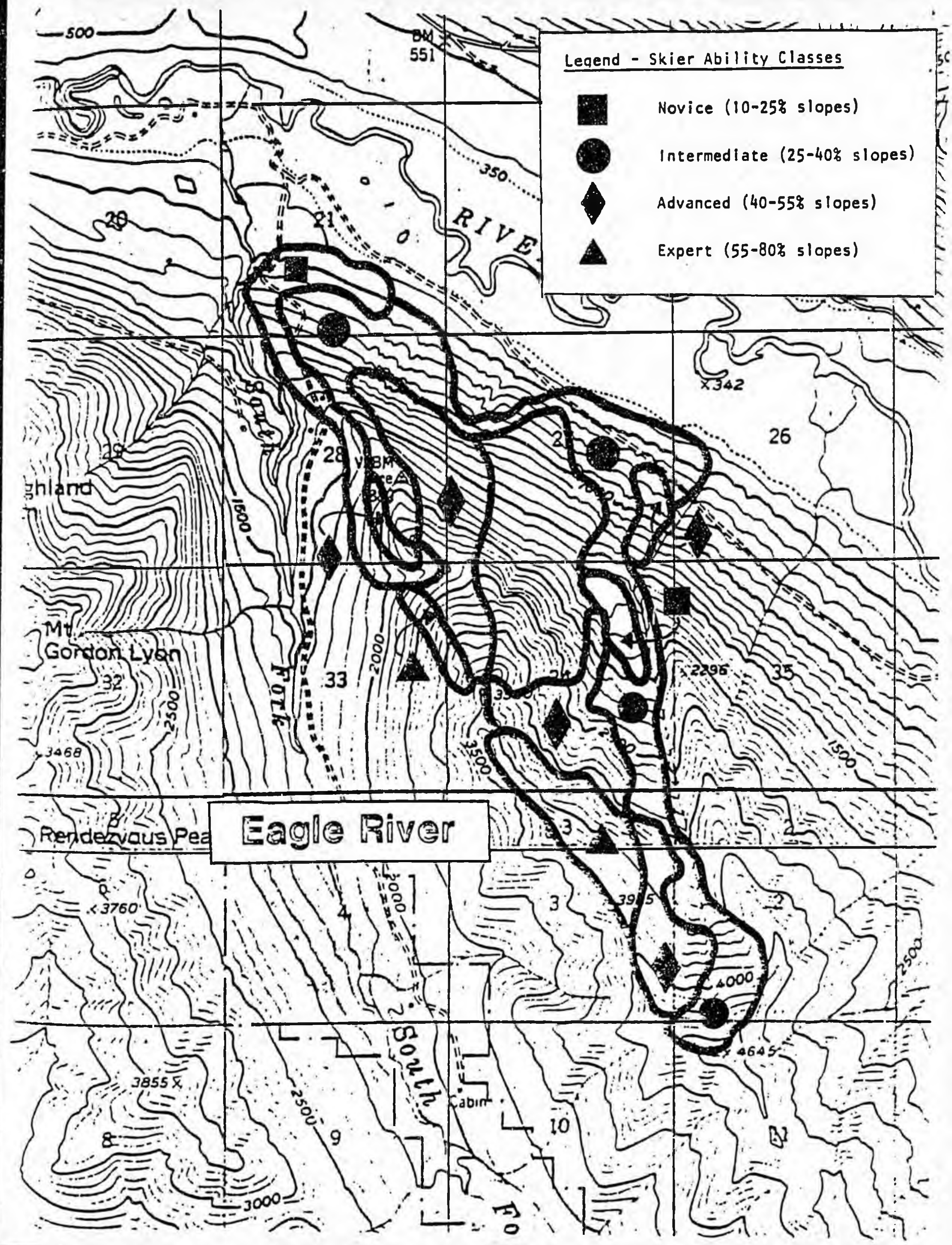
5. Terrain diversity: Little diversity on most slopes, some variety in gullies on lower slopes.

6. Ground cover types: Alpine tundra for majority of area with birch/spruce forest and homestead clearings on lower slopes.

7. Terrain hazards (cliffs, boulders, etc.): Sharp rocks near summit. East valley narrow just above midway creating a bottleneck on somewhat of a sidehill.

8. Base area development potential: Ample flat terrain on floor of main Eagle River Valley.

9. Other activity potential: Hiking into the mountains, cross-country skiing, wildlife observation.



Legend - Skier Ability Classes
Novice (10-25% slopes)
Intermediate (25-40% slopes)
Advanced (40-55% slopes)
Expert (55-80% slopes)
Eagle River
RIVE
Mt Gordon Lyon
Rendezvous Pea
South Fo
Fork
Cabin
500
350
1500
2000
2500
3000
3500
4000
4645
3468
3760
3855
2296
x342
BM 551
20
21
26
28
33
32
35
10
9
8

SITE #8 - SOUTH FORK EAGLE RIVER

1. Slope aspect: West

2. Elevations and length of potential lift-served runs:

Highest Usable Elevation	4,600'
Lowest Usable Elevation	2,000'
Usable Vertical Descent	2,300'
Longest Possible Run	5,000'

3. Terrain balance:

Ability	Steepness	Acreage	% of total
Novice	10-25% slope or 06°-14°	---	--
Intermediate	25-40% slope or 14°-11°	103	32
Advanced	40-55% slope or 22°-29°	177	55
Expert	55-80% slope or 29°-39°	40	13
TOTAL		320	100

4. Fall line continuity by ability level: Advanced skiing for upper two-thirds of slope; intermediate for lower one-third.

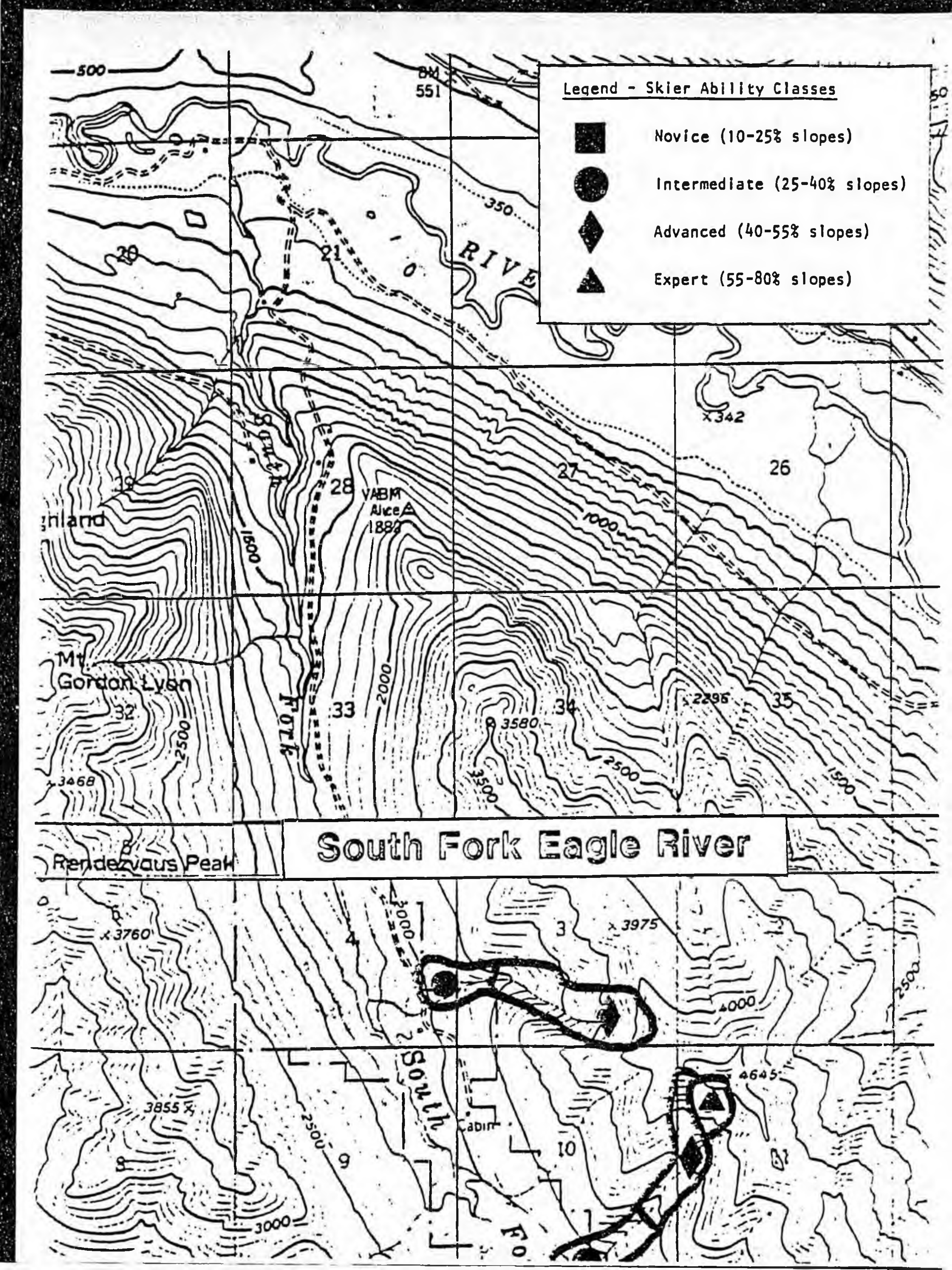
5. Terrain diversity: Slight.

6. Ground cover types: Alpine tundra.

7. Terrain hazards (cliffs, boulders, etc.): Precipitous near the top.

8. Base area development potential: Limited space between road and foot of slope.

9. Other activity potential: Hiking.


Legend - Skier Ability Classes
Novice (10-25% slopes)
Intermediate (25-40% slopes)
Advanced (40-55% slopes)
Expert (55-80% slopes)
South Fork Eagle River
Mt Gordon Lyon
Rendezvous Peak
VABM Alice 1883
RIVE
South Fork
Cabin
500
350
1000
1600
2000
2500
3500
1500
3000
4000
BM 551
x342
x3580
x2296
x3468
x3760
x3975
3855
4645
20
21
26
27
28
29
32
33
34
35
3
4
5
8
9
10

SITE #9 - WOLVERINE BOWL

1. Slope aspect: West

2. Elevations and length of potential lift-served runs:

Highest Usable Elevation	4,000'
Lowest Usable Elevation	1,200'
Usable Vertical Descent	2,800'
Longest Possible Run	12,000'

3. Terrain balance:

Ability	Steepness	Acreage	% of total
Novice	10-25% slope or 06°-14°	368	25.5
Intermediate	25-40% slope or 14°-11°	660	46.0
Advanced	40-55% slope or 22°-29°	364	25.0
Expert	55-80% slope or 29°-39°	48	3.5
TOTAL		1,440	100.0

4. Fall line continuity by ability level: Intermediate skiing continuity for 75% of descent, advanced for 60%, and novice for 40%.

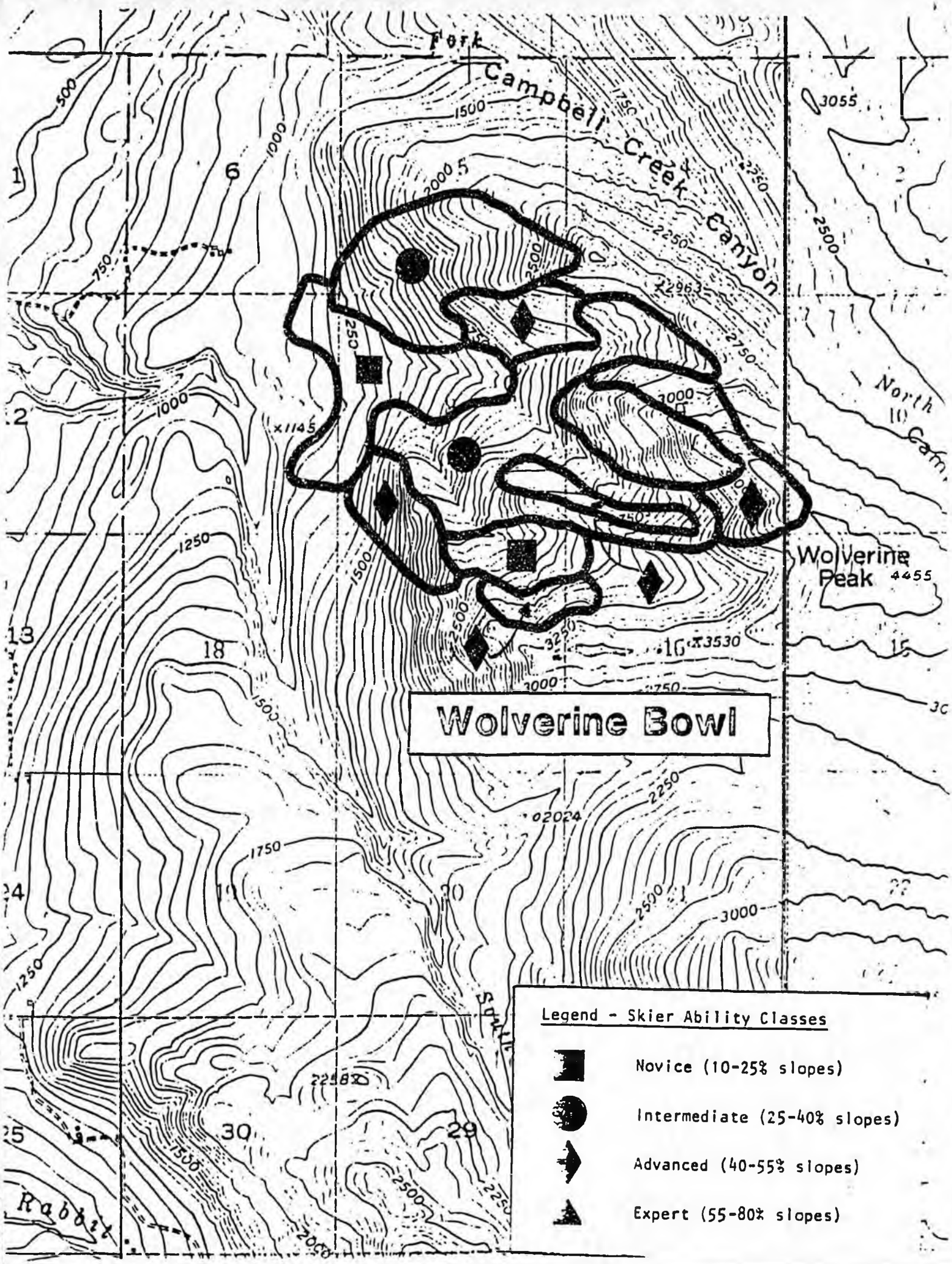
5. Terrain diversity: Mostly even gradient sections with the exception of some incised ravines.

6. Ground cover types: Alpine tundra for 80% of slopes; alder and birch/spruce forest for lower (novice) slopes.

7. Terrain hazards (cliffs, boulders, etc.): Some precipitous areas and boulders on upper slopes.

8. Base area development potential: Moderate terrain in birch/spruce forest at confluence of probable ski slopes.

9. Other activity potential: Cross-country skiing and hiking.


Fork
Campbell Creek Canyon
North
10 Cam.
Wolverine
Peak 4455
Wolverine Bowl
Legend - Skier Ability Classes
Novice (10-25% slopes)
Intermediate (25-40% slopes)
Advanced (40-55% slopes)
Expert (55-80% slopes)

SITE #10 - INDIAN

1. Slope aspect: East and West

2. Elevations and length of potential lift-served runs:

Highest Usable Elevation	2,700'
Lowest Usable Elevation	400'
Usable Vertical Descent	2,300'
Longest Possible Run	6,500'

3. Terrain balance:

Ability	Steepness	Acreage	% of total
Novice	10-25% slope or 06°-14°	640	31
Intermediate	25-40% slope or 14°-11°	624	31
Advanced	40-55% slope or 22°-29°	736	36
Expert	55-80% slope or 29°-39°	40	2
TOTAL		2,040	100

4. Fall line continuity by ability level: Discontinuous slope angles on west side of valley, i.e., upper slopes are advanced, mid-slopes intermediate and lower slopes novice and advanced slopes on east side of valley.

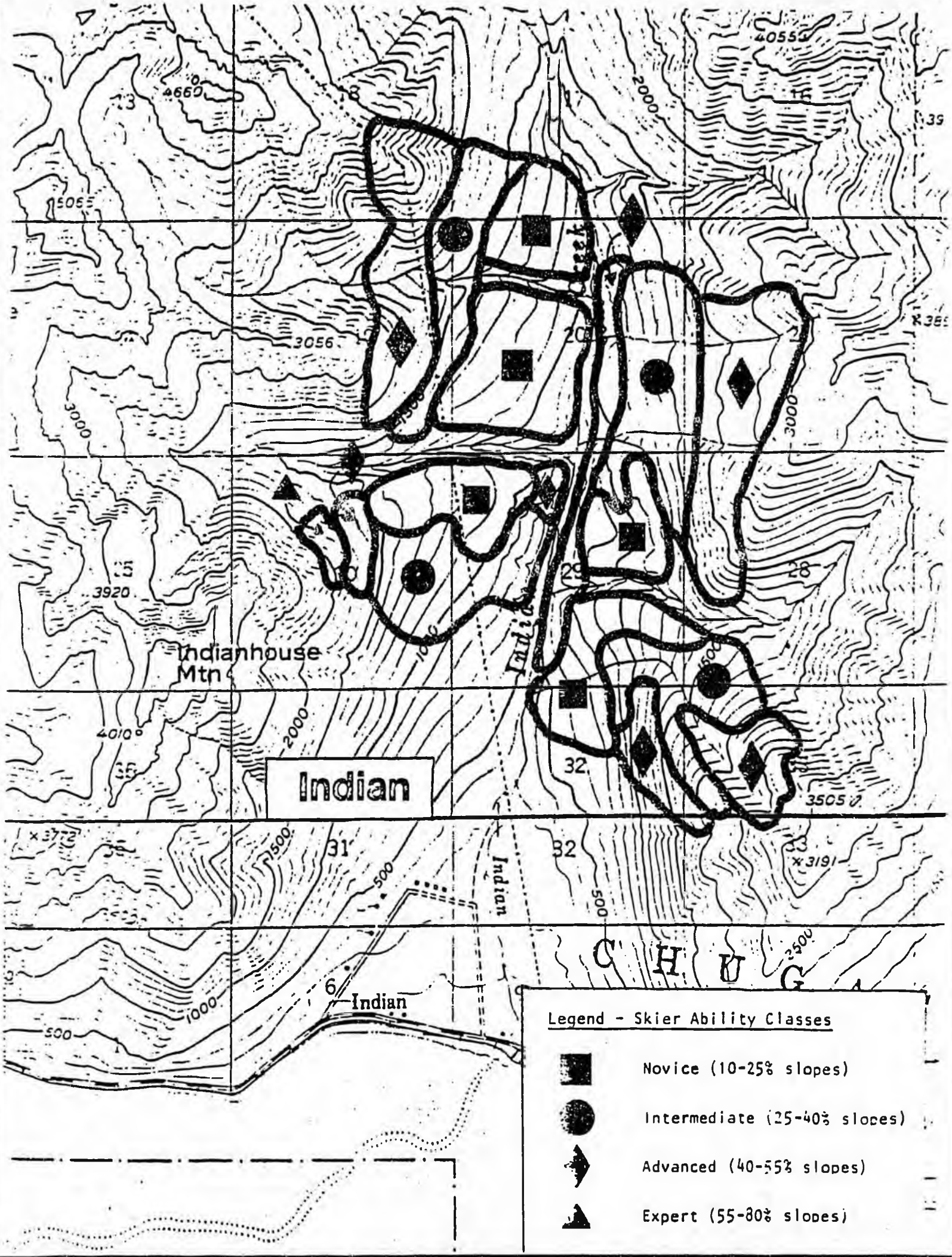
5. Terrain diversity: Variety of drainages, ridges and ravines provide an adventurous setting.

6. Ground cover types: Alpine tundra, shrubs and large spruce/hemlock forest.

7. Terrain hazards (cliffs, boulders, etc.): Rock faces on upper slopes and steeply incised ravines in valleys.

8. Base area development potential: Limited at base of potential lift lines due to steeply incised ravines.

9. Other activity potential: Cross-country trail activity limited to area of moderate slopes in dense forest of lower valley.


Indianhouse Mtn
Indian
Indian
Indian
Legend - Skier Ability Classes
Novice (10-25% slopes)
Intermediate (25-40% slopes)
Advanced (40-55% slopes)
Expert (55-80% slopes)

IV. CONCLUSIONS

No one potential site ranks highest in all of the terrain characteristics. Peters Creek - 4 Mile has the longest run and the most intermediate acreage. Eagle River has the most vertical descent, with top to bottom intermediate skiing. Mt. Baldy also has a continuous top to bottom intermediate ski run. More detailed on-site analysis could result in some reductions in estimates of usable vertical descent.

Mt. Baldy, Eagle River and Indian have the most interesting terrain diversity, and potential for more adventurous skiing.

Eklutna South, Mt. Baldy, Eagle River, Wolverine Bowl and Indian have the advantage of trees growing at higher elevations whereas other sites have little or no forested areas for wind protection and scenic variety.

Terrain hazards were not observed at Eklutna South and Peters Creek - 4 Mile.

Adequate level terrain for base area development is present at Eklutna South, Peters Creek - 4 Mile, Mt. Baldy, Highland Mountain West, Eagle River, and Wolverine Bowl.

Potential for other activities is present at all sites, with perhaps the most noteworthy being Highland Mountain West, where luge, bobsled, and ski jump facilities are being proposed in Anchorage's bid for the 1994 Winter Olympics.

CHUGACH STATE PARK SKI TERRAIN CAPABILITY

Site	Slope Aspect	Vertical Descent	Longest Run	Terrain Balance			Intermediate Continuity*
				Novice	Intermediate	Advanced	
1. Eklutna South	North	2,900'	8,000'	23%	33% (720 ac.)	44%	95%
2. Peters Creek-4 Mile	All directions	3,300'	17,000'	13%	38% (832 ac.)	49%	50%
3. Peters Creek-6 Mile	North	3,500'	12,000'	28%	45% (506 ac.)	27%	40%
4. Mt. Baldy	Northwest	2,500'	10,500'	26%	51% (568 ac.)	23%	100%
5. Highland Mtn. West	West	2,900'	15,800'	73%	21% (228 ac.)	6%	15%
6. Highland Mtn. East	East	3,100'	13,000	20%	43% (104 ac.)	37%	50%
7. Eagle River	North	4,250'	15,800'	15%	41% (628 ac.)	44%	100%
8. South Fork Eagle River	West	2,300'	5,000'	0%	32% (103 ac.)	68%	33%
9. Wolverine Bowl	West	2,800'	12,000'	25.5%	46% (660 ac.)	28.5%	75%
10. Indian	East/West	2,300'	6,500'	31%	31% (624 ac.)	38%	75%

* The degree to which the top to bottom of hill is useable by intermediate skiers measured as a percentage of total vertical descent.

ALASKA VISITORS ASSOCIATION

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A resolution of the

Alaska Visitors Association

Whereas, the State of Alaska is committed to developing a solid base for tourism; and

Whereas, a ski resort is an appropriate and compatible use for the Chugach State Park; and

Whereas, plans for a world-class resort located at Harp Mountain in Eagle River are presently being developed; and

Whereas, this development will bring tourists to Alaska from around the world; and

Whereas, hundreds of jobs will be created as a result of this development;

Now therefore be it resolved that the Alaska Visitors Association supports proposals by the State of Alaska Department of Natural Resources to have built a world-class ski resort and vacation village located in Eagle River.

Approved and adopted by the membership at the annual convention, Saturday, October 17, 1987