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A Management Plan
for the

781364

Thistledew

ski touring and
hiking trail



State Forest Day Use Sub-Area

FINAL DRAFT
August 1978

Minnesota Department
of Natural Resources

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Foreword

It is the purpose of this document to serve as both a management plan for the development and maintenance of the Thistledeew Ski Touring and Hiking Trail (day use sub-area), and as an environmental assessment of this action. The development and maintenance procedures described in this document will insure that the scenic, historic, scientific and recreational qualities of the trail are properly managed for the use and enjoyment of the citizens of Minnesota. The environmental impacts of this action have also been assessed to measure their effects on the environment. This assessment may be used in the event that the Department of Natural Resources - Division of Forestry decides to seek Land and Water Conservation Funding. (LAWCON).

classification. The eleven classifications are: Natural State Parks; Recreational State Parks; State Trails; Scientific and Natural Areas; State Wilderness Areas; State Forests; State Wildlife Management Areas; State Water Access Sites; State Wild, Scenic and Recreational Rivers; State Historic Sites; and State Rest Areas. Each member of the system is referred to as a "unit".

By passing the ORA, the legislature revealed its awareness of a growing problem in Minnesota: The increasing number of people using state lands each year for more diverse forms of recreation. While some areas could withstand higher levels of use, other areas experienced overcrowding and conflicts between different recreational users.

To insure that the administration of each unit is managed in a manner that is consistent with the purposes for which the unit was authorized, it is required by the ORA that the managing agency prepare a master plan for each unit. The act states:

"No construction of new facilities or other development of an authorized unit, other than repairs and maintenance, shall commence until the managing agency has prepared and submitted to the state planning agency and the state planning agency has reviewed, pursuant to this section, a master plan for administration of the unit in conformity with this section. This requirement shall not apply to an existing unit until August 1, 1977."

The following day use sub-area plan has been prepared by the DNR to fulfill the requirements of this act as it pertains to state forests. This day use sub-area plan will be incorporated into the overall state forest master plan when that plan is prepared.

This day use sub-area plan has been written prior to the state forest master plan so that monies from the Outdoor Recreation Bonding Bill can be utilized this year. (Laws 1977, Chapter 421, Section 13, Subdivision 4)

Under the terms of this bill, the DNR has been allocated \$1,105,000:

"For betterment of public land and improvements needed for trails for skiing, hiking and bicycling within state parks and recreation areas as listed and described in sections 85.012 and 85.013 and state Forests, as listed and described in section 89.021."

The Authority

The authority for establishment of these ski touring-hiking areas (day-use sub-areas) was granted by Minnesota Statutes 86.01 (the Outdoor Recreation Act) subdivision 7 which states:

"Subd. 7. STATE FORESTS AND STATE FOREST SUB-AREAS: PURPOSE; RESOURCE AND SITE QUALIFICATIONS; ADMINISTRATION. (a) A state forest, as established by Minnesota Statutes, Section 89.021, shall be administered to accomplish the purposes set forth in that section, and a state forest sub-area shall be established to permit development and management of specialized outdoor recreation at locations and in a manner consistent with the primary purpose of the forest.

(b) No unit shall be authorized as a state forest sub-area unless it is located within a state forest and contains suitable natural resources to accommodate any of the following uses:

(1) Day use areas. Areas which permit recreational use of the forest in its natural state, not requiring an overnight stay, including but not limited to picnicking, fishing, swimming, boat launching, hiking, interpretation and nature observation.

(2) Campground. Provide minimum facilities to accommodate over-night

camping.

(c) Outdoor recreation sub-areas located within state forests shall be administered by the commissioner of natural resources in a manner which is consistent with the purposes of this subdivision."

Goals and Objectives

The statutes and laws previously cited outline the legislation pertaining to state forest ski touring and hiking trails in regard to funding, planning and establishment. Along with this legislation, it is important to establish a goal for the overall State Forest Ski Touring and Hiking Program.

State Forest Ski Touring and Hiking Program Goal

The goal of the State forest ski touring and hiking program is to provide Minnesotans with the highest possible variety of quality ski touring and hiking trails. These ski touring and hiking trails shall be developed so that they may be enjoyed for years to come.

However, since state forest ski touring-hiking trails are only a part of the program, it is equally important to recognize the overall DNR ski touring-hiking program goal.

Overall Program Goal

The goal of the overall DNR Ski Touring and Hiking Program (which includes natural and recreational State Parks, Recreation Areas, and State Forests), is to provide Minnesotans with the finest ski touring and hiking trails in the nation.

Objectives for Overall State Forest Ski Touring-Hiking Program

* To provide ski touring-hiking opportunities in state forests which are

accessible to all citizens of Minnesota.

- * To improve the 64 miles of existing ski touring-hiking trails in state forests throughout Minnesota.
- * To develop 150 miles of new or additional ski touring-hiking trails where feasible in state forests throughout Minnesota.
- * To provide a variety of ski touring-hiking experiences in state forests taking advantage of scenic, topographic, historic and recreational areas.
- * To involve the governor's appointed ski touring task force and other concerned citizens in the planning and design of state forest ski touring-hiking trails.
- * To provide complementary facilities along each state forest ski touring-hiking trail to insure the rest and comfort of the trail user.
- * To implement a system of signing design and specifications that is consistent along each state forest ski touring-hiking trail which promotes user enjoyment and safety.
- * To disseminate current, accurate literature of each state forest ski touring-hiking trail for public information and use.
- * To provide interpretation on the cultural, historic and vegetative features along state forest ski touring-hiking trails.

Description of the Proposed Action

Purpose of the Action

It is the Department of Natural Resources' intention to upgrade the existing twelve miles of the Thistledew ski touring-hiking trail while developing six miles of additional trail. This action will provide a safer, higher quality trail experience making the trail attractive to Minnesotans throughout the state.

Location of the Project

The Thistledew Ski Touring and Hiking Trail is located in the George Washington State Forest, in northeastern Itasca County, five miles east of Togo, Minnesota (see figure 1).

The project will be located on state, county, and corporation lands and will be a cooperative project.

Magnitude of the Project

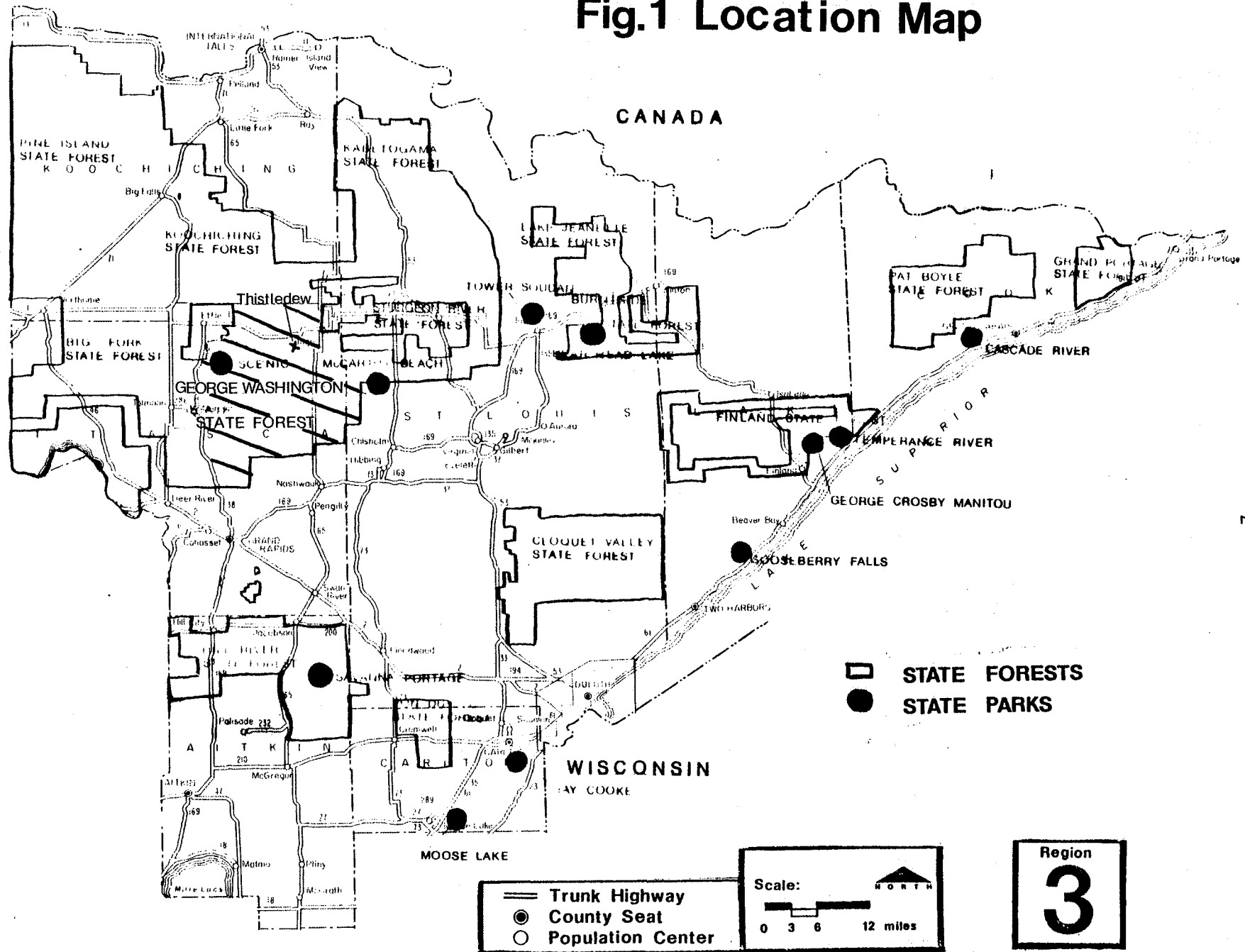
Unit Goal

It is the goal of the Department of Natural Resources to upgrade, develop, and maintain the Thistledew Ski Touring and Hiking Trail for the highest possible ski touring-hiking experience.

Unit Objectives

- * To properly develop and maintain this trail without inhibiting other forest management activities.

Fig.1 Location Map



- * To gain approval of this plan for the development and management of this state forest day use sub-area.

- * To complete the development as outlined in this plan by the winter of 1978-79. (i.e. upgrading the 12 miles of existing trail and complementary facilities and the development of six additional miles.)

- * To further establish this trail for non-motorized recreational use through formal designation as a state forest day use sub-area for ski touring and hiking.¹

- * To develop and implement a maintenance program which will sustain the quality of the trail for the future.

Existing Development

Existing development includes a one-way, 12 mile ski-touring-hiking trail with a parking lot and toilet facilities at Thistledeew Campground (see map in figure 2). The trail is currently maintained by Thistledeew Camp, a youth camp run by the Department of Corrections.

Proposed Development

Planned developments for the Thistledeew Ski Touring Area will involve upgrading of the present ski touring-hiking trail, the addition of six miles of new trail, and the development of rest and parking areas (see map in figure 3, page 10 for preliminary locations and alignments).

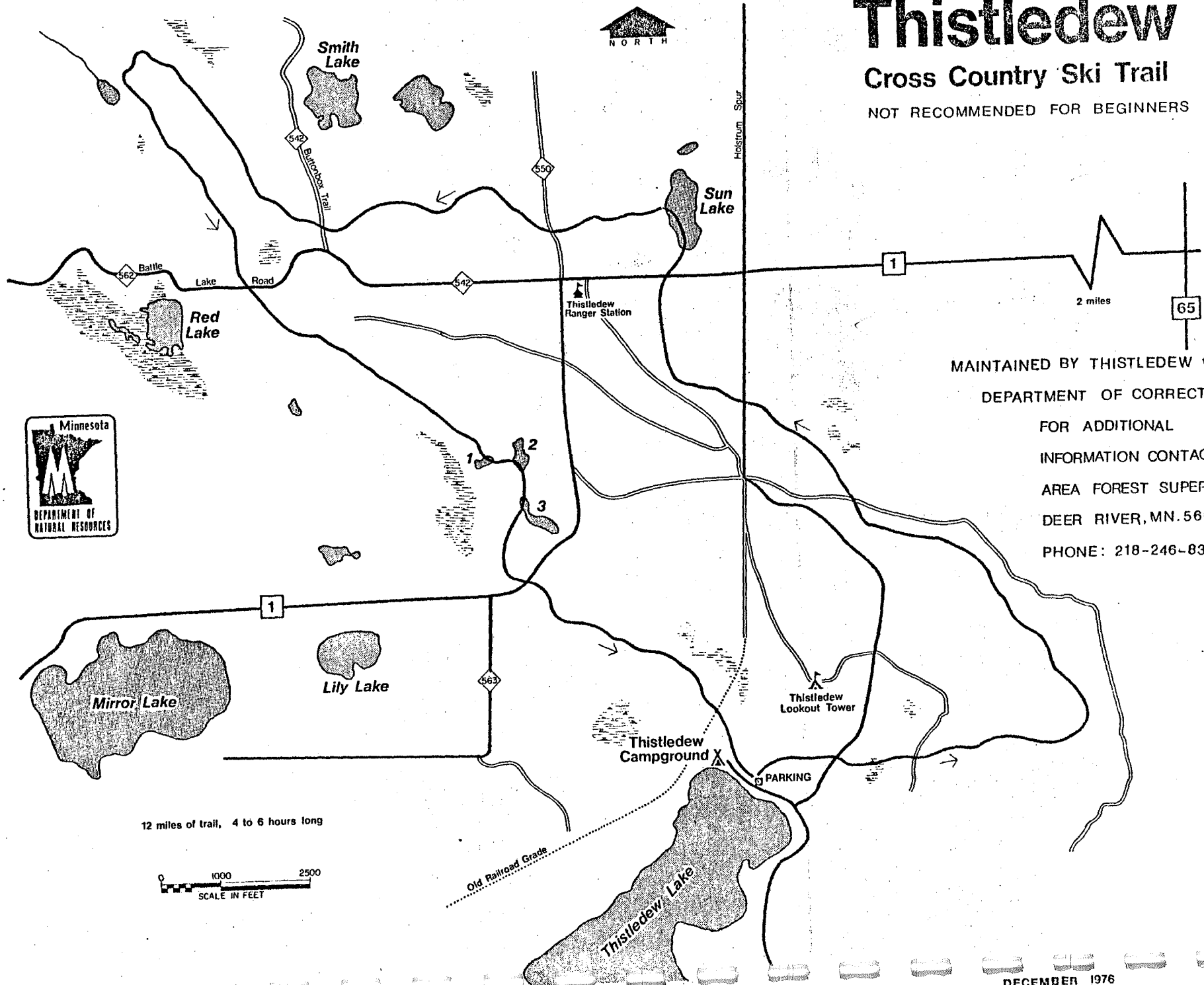
¹Motorized vehicles for administrative purposes and contract services will be allowed.

Fig. 2

Thistledew

Cross Country Ski Trail

NOT RECOMMENDED FOR BEGINNERS



MAINTAINED BY THISTLEDEW CAMP
DEPARTMENT OF CORRECTIONS
FOR ADDITIONAL
INFORMATION CONTACT
AREA FOREST SUPERVISOR
DEER RIVER, MN. 56636
PHONE: 218-246-8343

12 miles of trail, 4 to 6 hours long

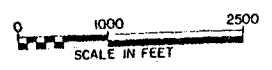
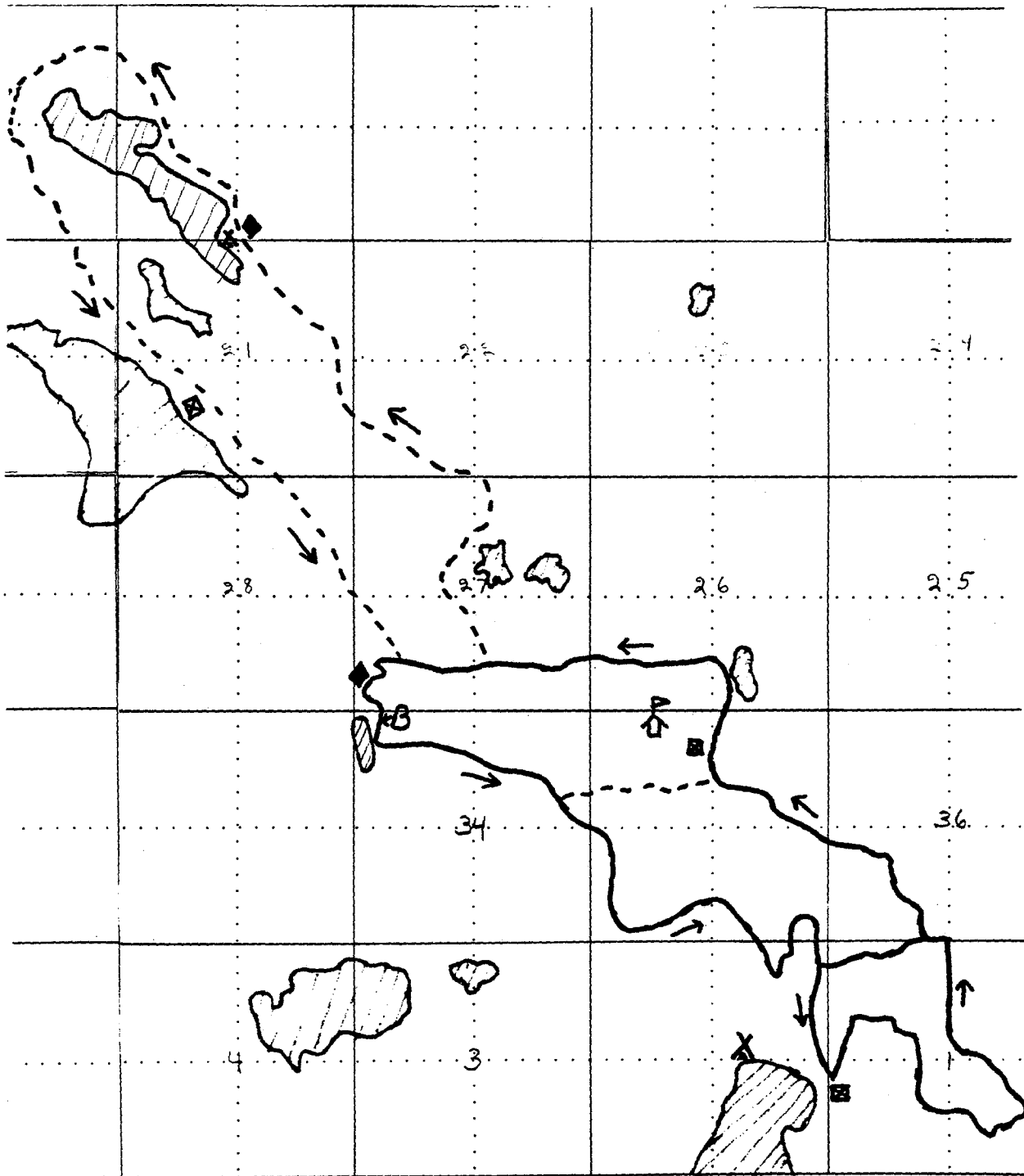


Figure 3

LEGEND

- B Bridge
- ~ Existing Trail
- - - Proposed Trail
- ◇ Rest Area
- ▣ Parking
- ⊗ Campground
- ⌂ Ranger Station
- Lakes

THISTLIDEW SKI TOURING
AND HIKING TRAIL



1 mile

Trailhead Area

Entrance Roads and Parking Lots

No new development is currently planned for the existing parking lot near Thistledeew Campground (see map in figure 2). Surfacing of the lot and entrance drive with class V gravel may be necessary in the future if use increases.

New parking areas capable of handling 5-10 cars will be built in the areas marked on the map in figure 3, page 10. Room will be left for expansion of these lots in the future if use increases. Parking lot design will look similar to the typical in figure 4.

Wood routed entrance signs will be placed on the main access roads to direct users to the parking areas.

Trail Entrances

Wood routed trail signs showing the layout of the trail will be constructed at the trail entrances. An informational bulletin board for posting a printed trail map, emergency phone numbers, trail rules and regulations, and other information will also be constructed here (see figure 12, page 25). Pit toilets will also be constructed near the new trail entrances. Toilets will be constructed according to Bureau of Engineering standards (see typical in figure 4.5).

Existing Trail Treadway

The existing trail treadway will be upgraded and rerouted where necessary. Trail width will vary from 8-12 feet depending on terrain and the difficulty rating of the trail. Overhead clearance will vary from 8-12 feet depending

Fig. 4

PARKING LOT TYPICAL PLAN VIEW

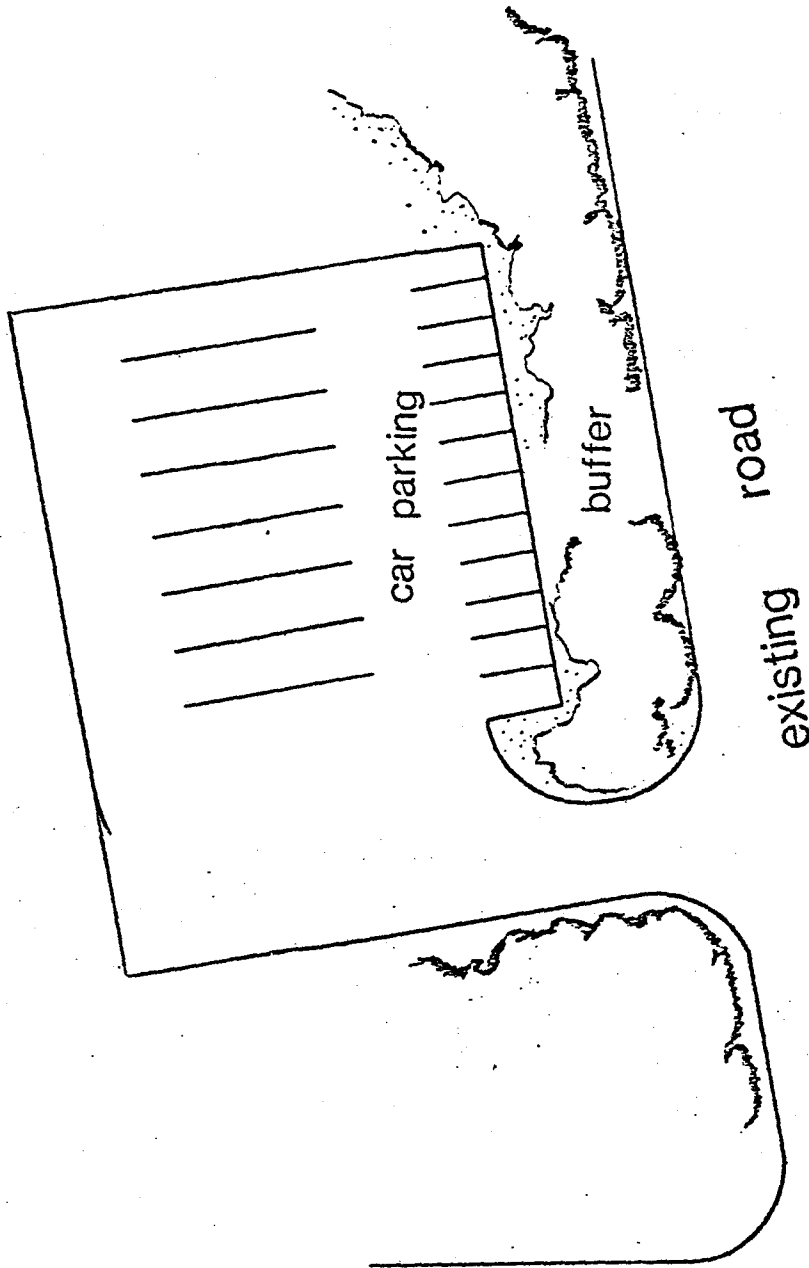
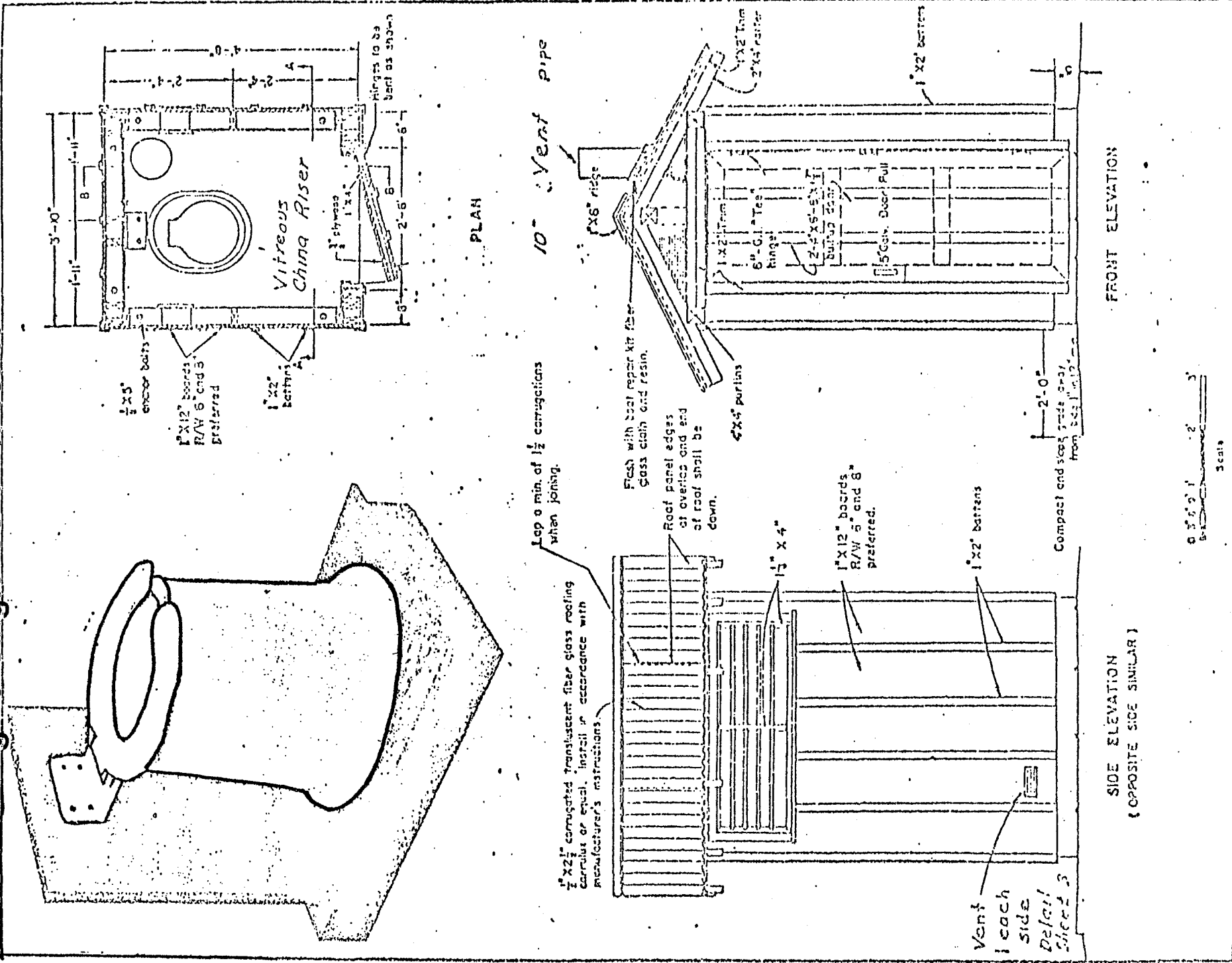


Fig. 4.5 Single Seat Pit Toilet



on expected snow depth (see figure 5). A minimum width of 6-8 feet will be maintained on hills to allow the skier to herringbone or sidestep up hills and to snowplow down hills. Runouts will be cleared at the bottoms of steep hills to allow skiers to slow down safely.

In areas where stumps and rocks are a problem, a crawler tractor will be utilized to clear and level the treadway. All stumps and rocks removed from the trail will be pushed into piles in designated areas which are inconspicuous from the trail right-of-way. Cut and fill techniques will be utilized on steep side hills (see figure 6).

All areas where vegetation is removed or where erosion is currently a problem, will be seeded with a wildlife or other seed mixture to prevent destruction of the trail treadway. Rip-rap, water bars, or diversion structures may be necessary on steep side slopes to prevent erosion (see figure 7).

Wet areas along the trail will require corduroy and/or fill to allow for all season use (see figure 8). Where the treadway is elevated by these methods, culverts may have to be installed to allow for natural drainage.

Bridge Construction

A bridge will be constructed over one of the creeks in the area to allow for year-around passage (see map in figure 3, page 10). Bridge design will be up to the unit manager with help from the Bureau of Engineering. Where possible, bridges should be made of natural materials which blend into the natural setting of the area (see figure 9). Permits will be required from the

Ski Touring Trail Treadways

Fig. 5

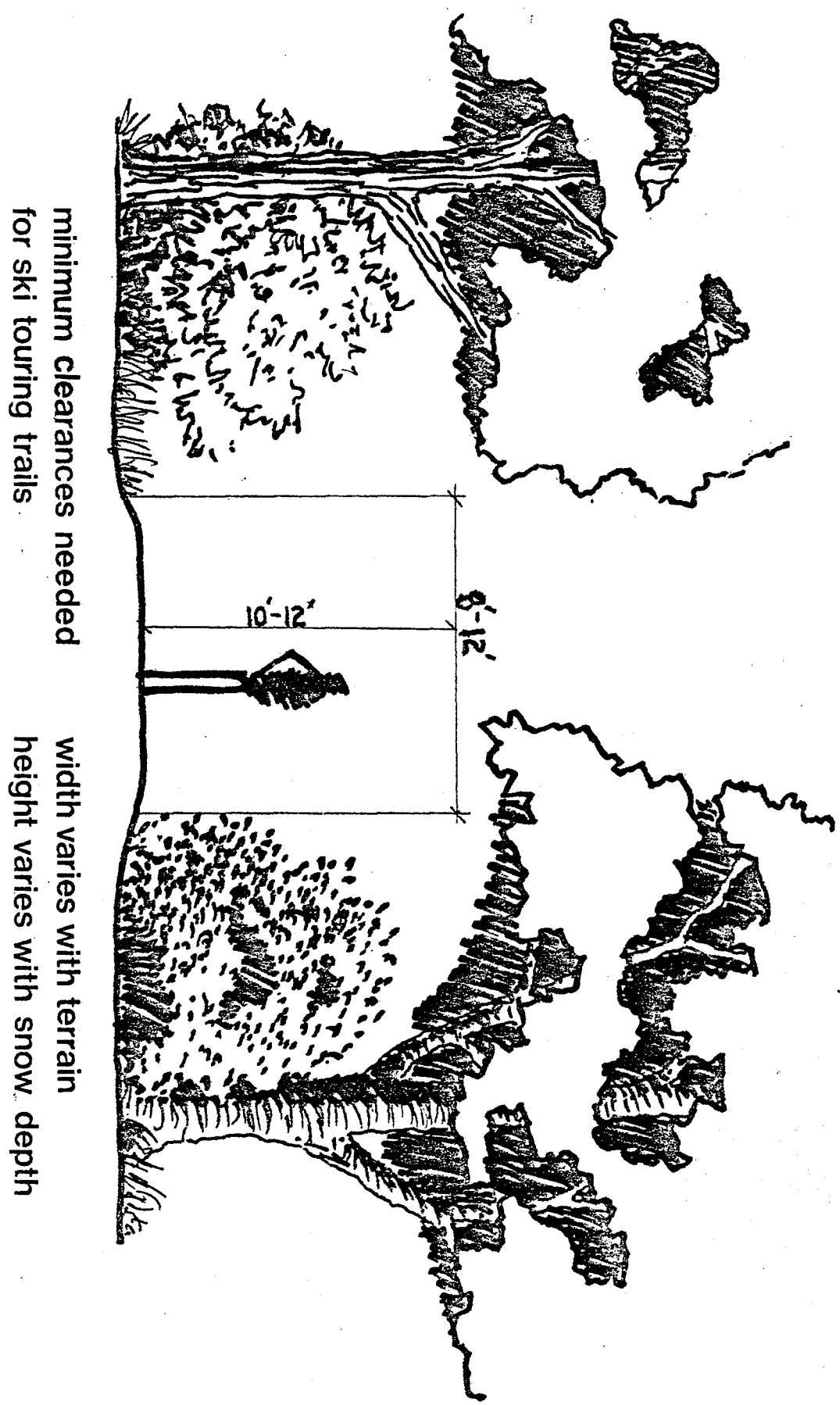
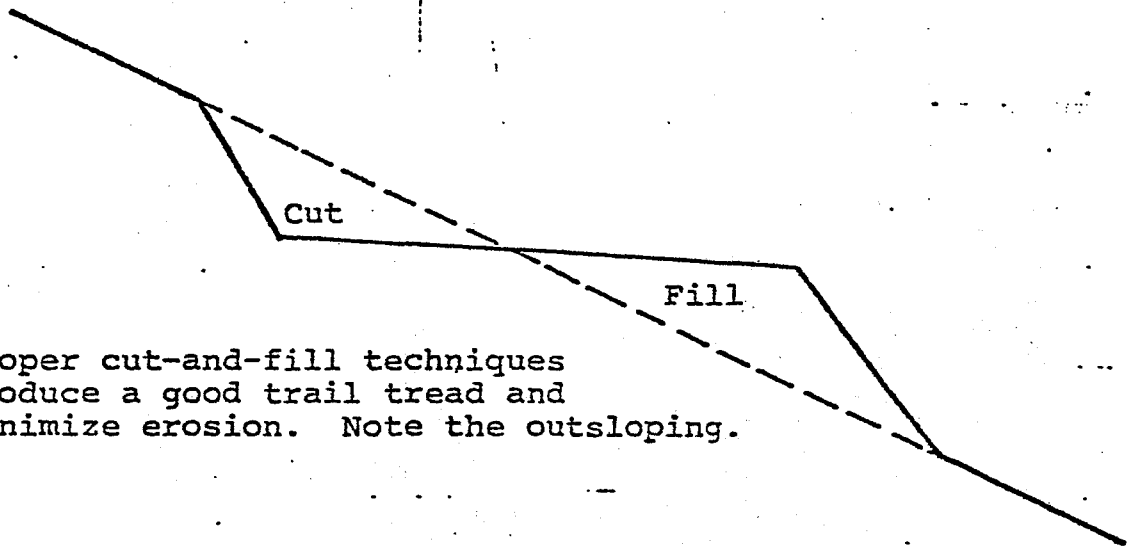
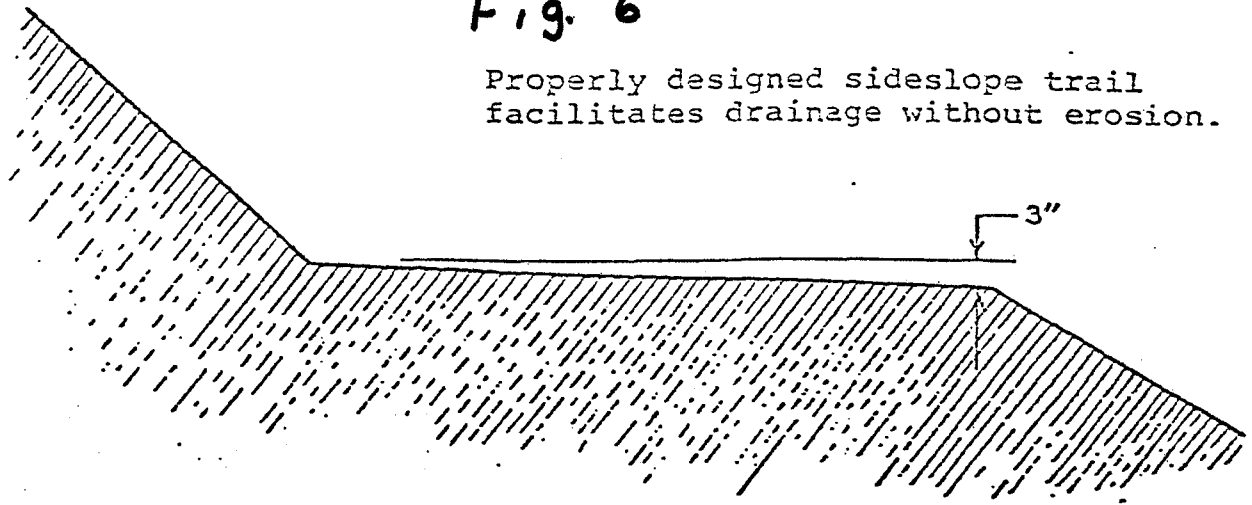


Fig. 6

Properly designed sideslope trail facilitates drainage without erosion.



Proper cut-and-fill techniques produce a good trail tread and minimize erosion. Note the outsloping.

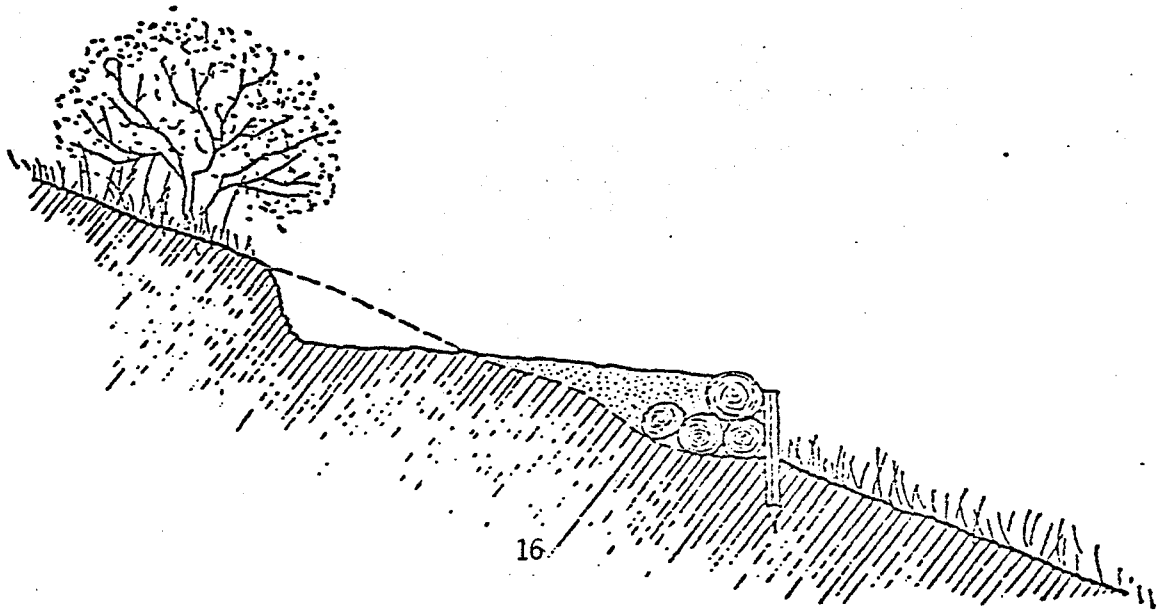
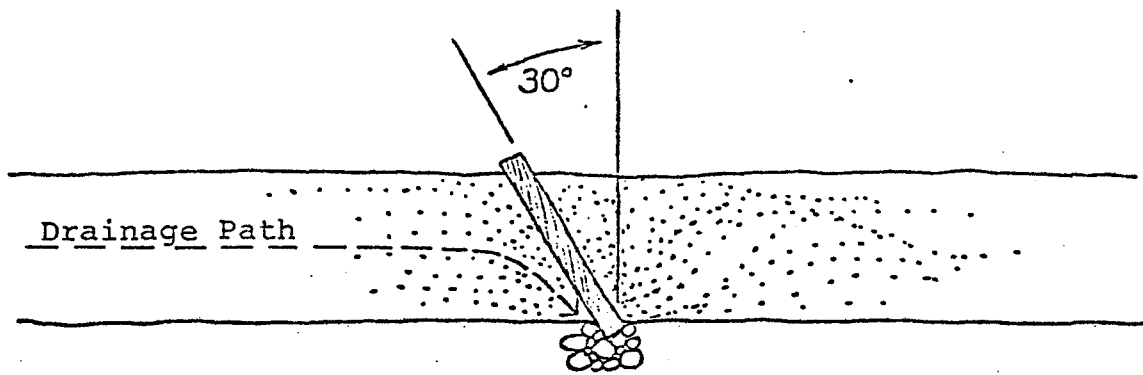
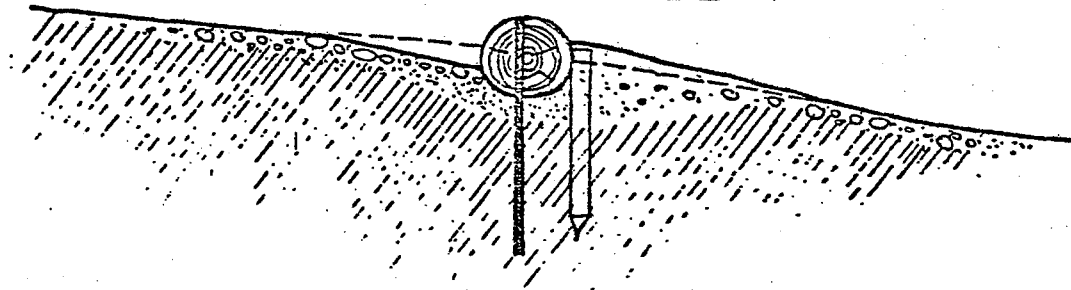


Fig. 7.



Landscape soil to top of water bar
on downhill side.



Water Bars

Note log is held in place by steel
pin and/or wooden stake. Below, stones
are used as a water bar.

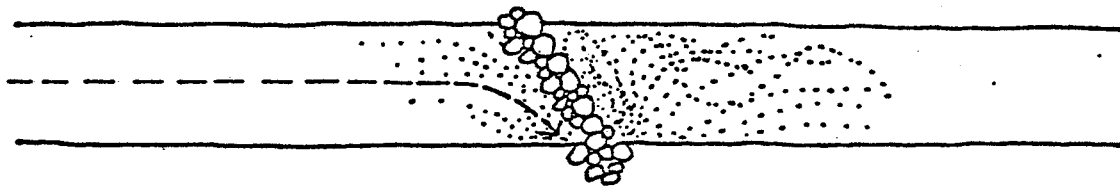
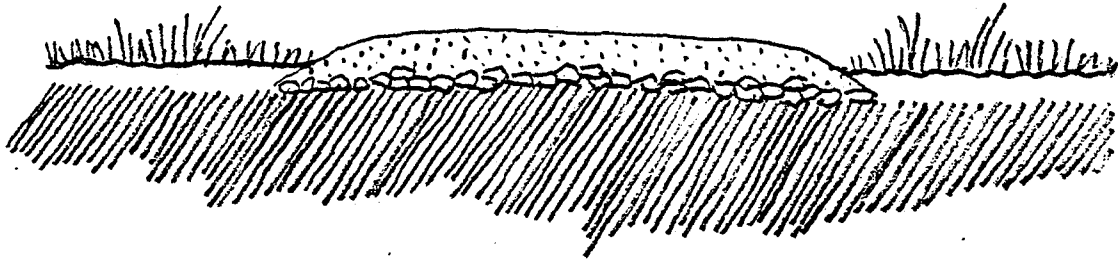
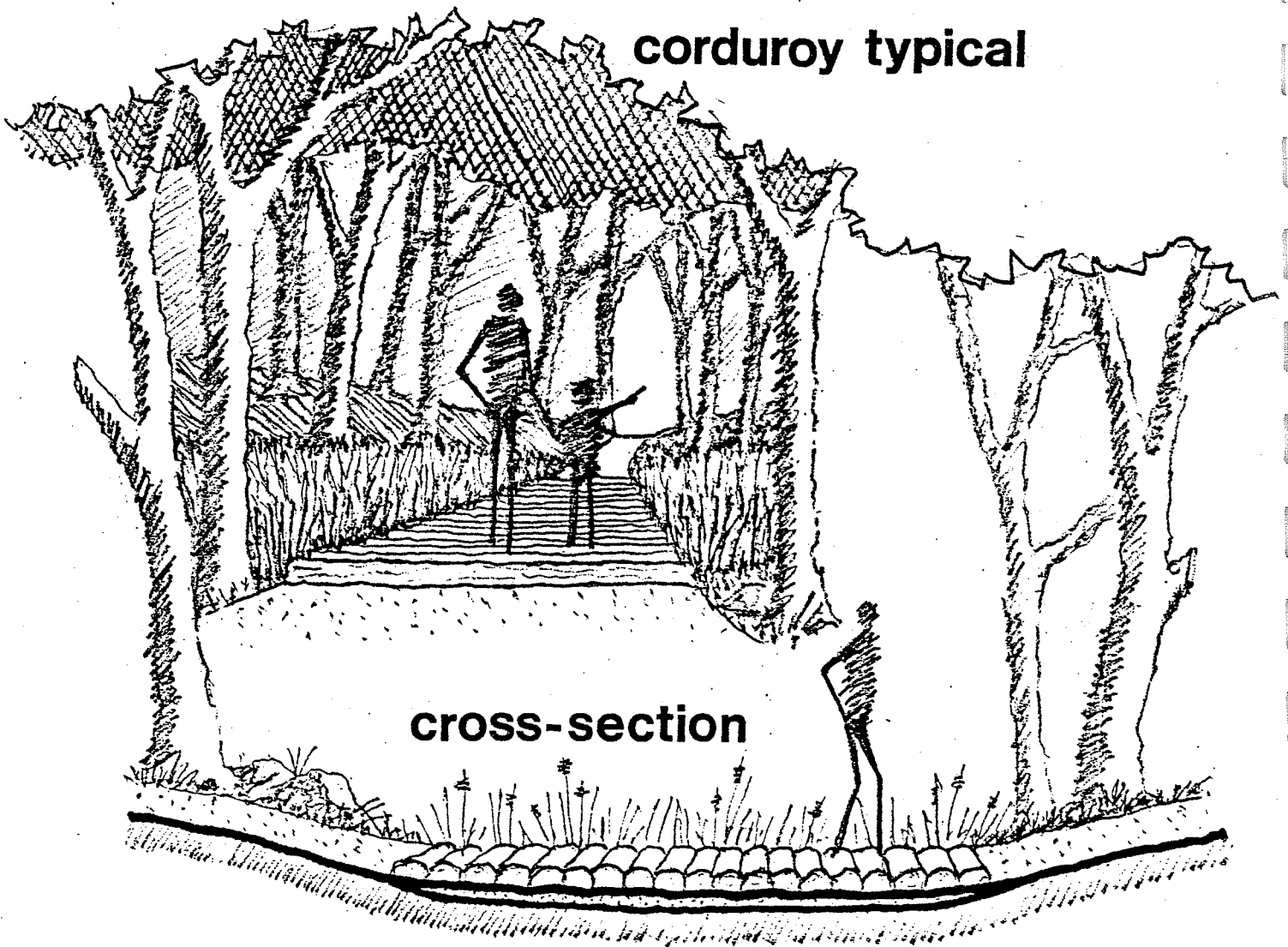


Fig. 8

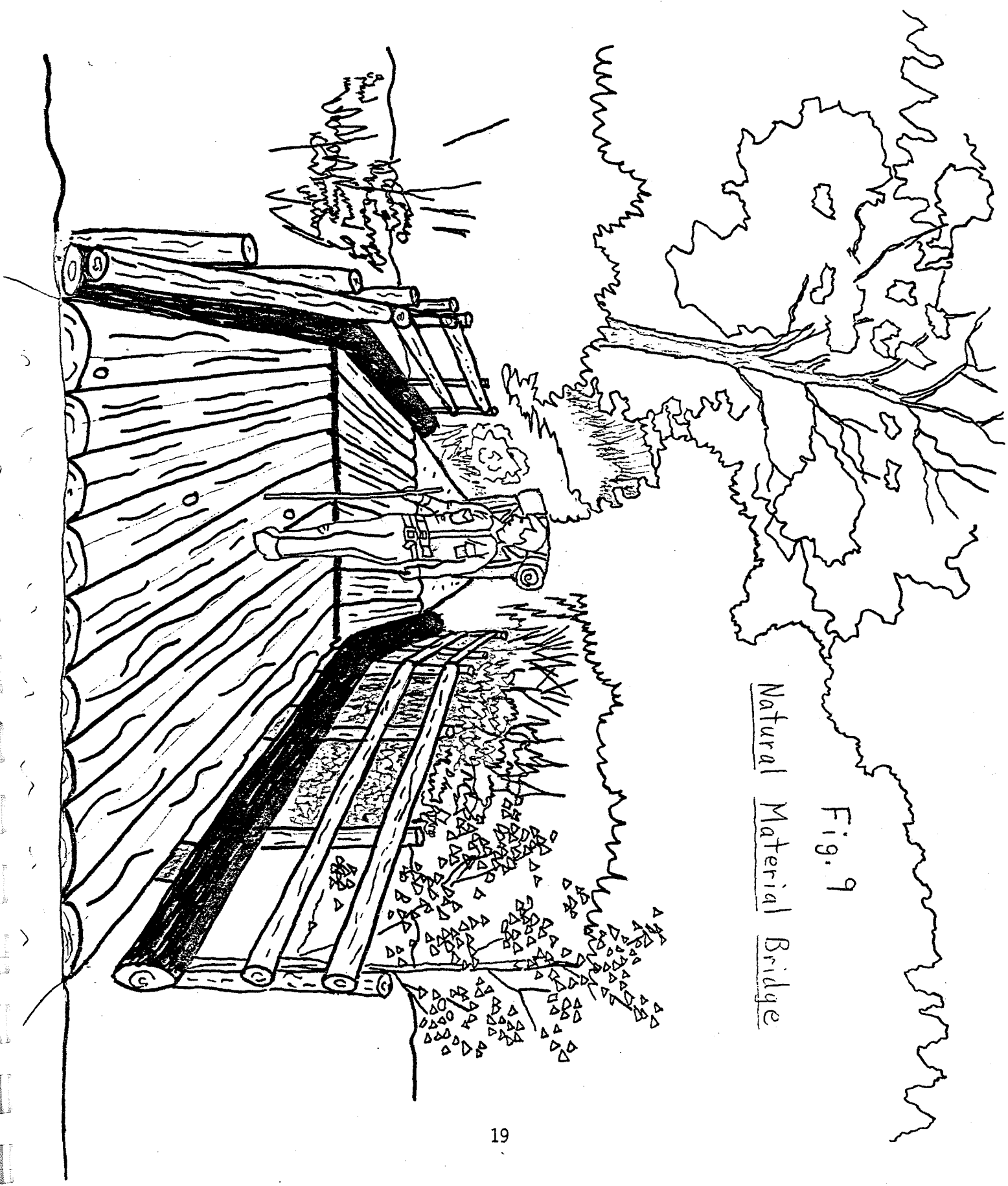
elevated tread



corduroy typical



cross-section



Natural Material Bridge

Fig. 9

Division of Waters before corduroy, culverts, bridges, and other structures which effect waterflow are constructed.

Rest Areas

Two rest area sites have been identified for construction at this time (see map in figure 3, page 10). They will include a trail shelter and fire ring (see figure 10). The rest area near Buttonbox Lake is located near the campground to make use of existing facilities. Pit toilets may be added at these rest areas later, if users feel that they are necessary.

Shelters will be constructed according to Bureau of Engineering standards and will be placed a short distance from the trail in a manner which will block the prevailing wind. Open spaces between logs should be properly filled with natural materials. Bottoms of shelters should be banked to stop windflow.

A fireplace ring will be placed in front of the shelter for warmth and cooking. Firewood should also be provided. The pit toilets will be similar to those found at the parking lots.

Simple log benches every 2 to 3 miles in scenic locations will provide users with an additional chance to stop and enjoy the surroundings. These benches should be of the primitive type and located a short distance off the trail (see figure 11).

New Trail Alignment (Buttonbox Lake Loop)

A preliminary alignment for the new six miles of trail has been laid

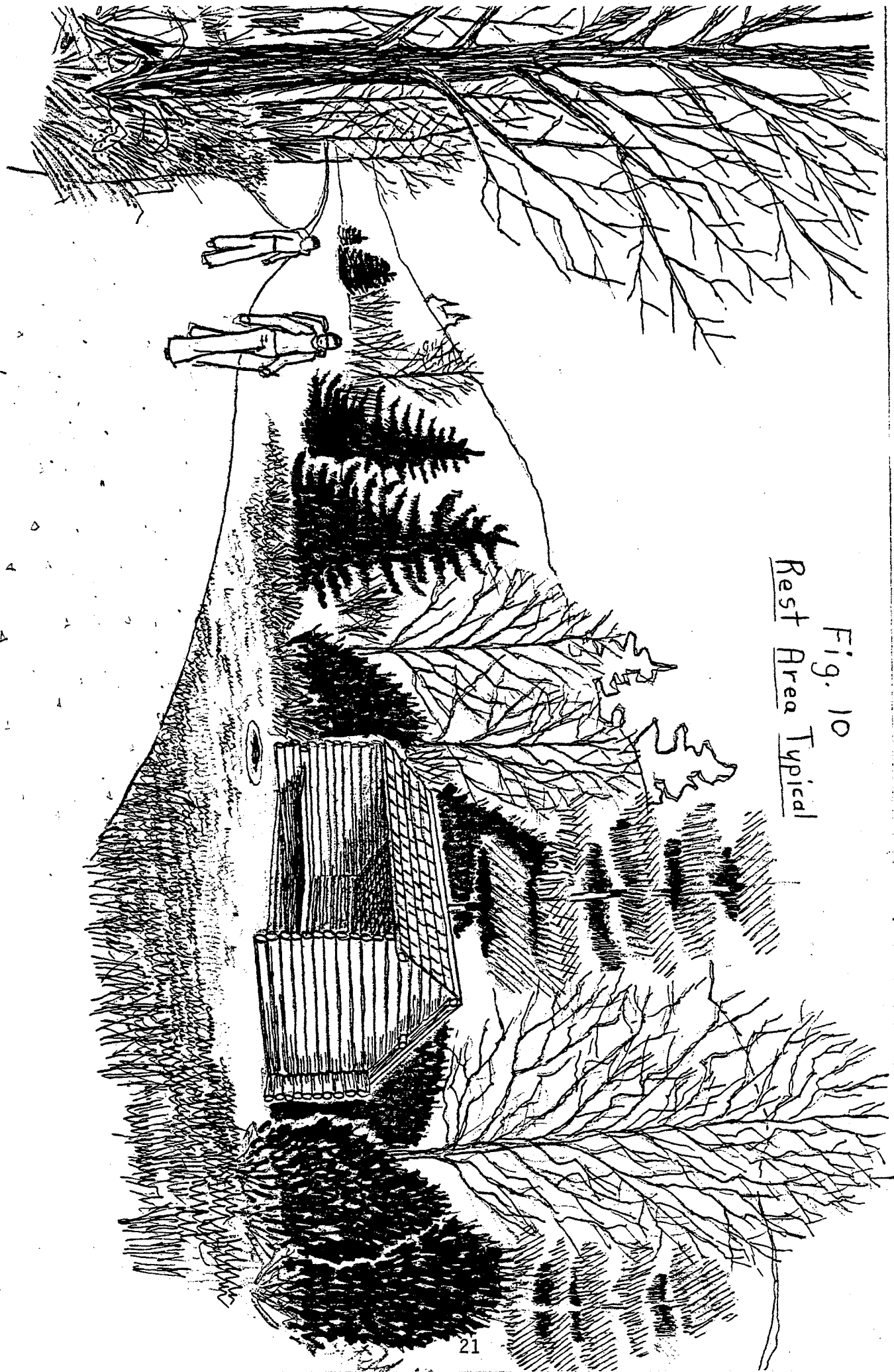
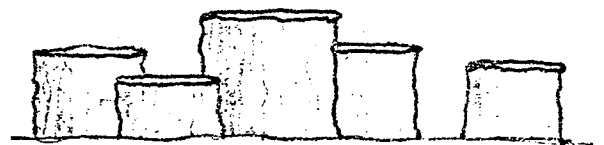
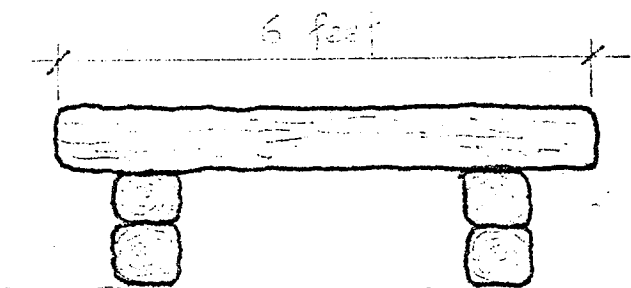
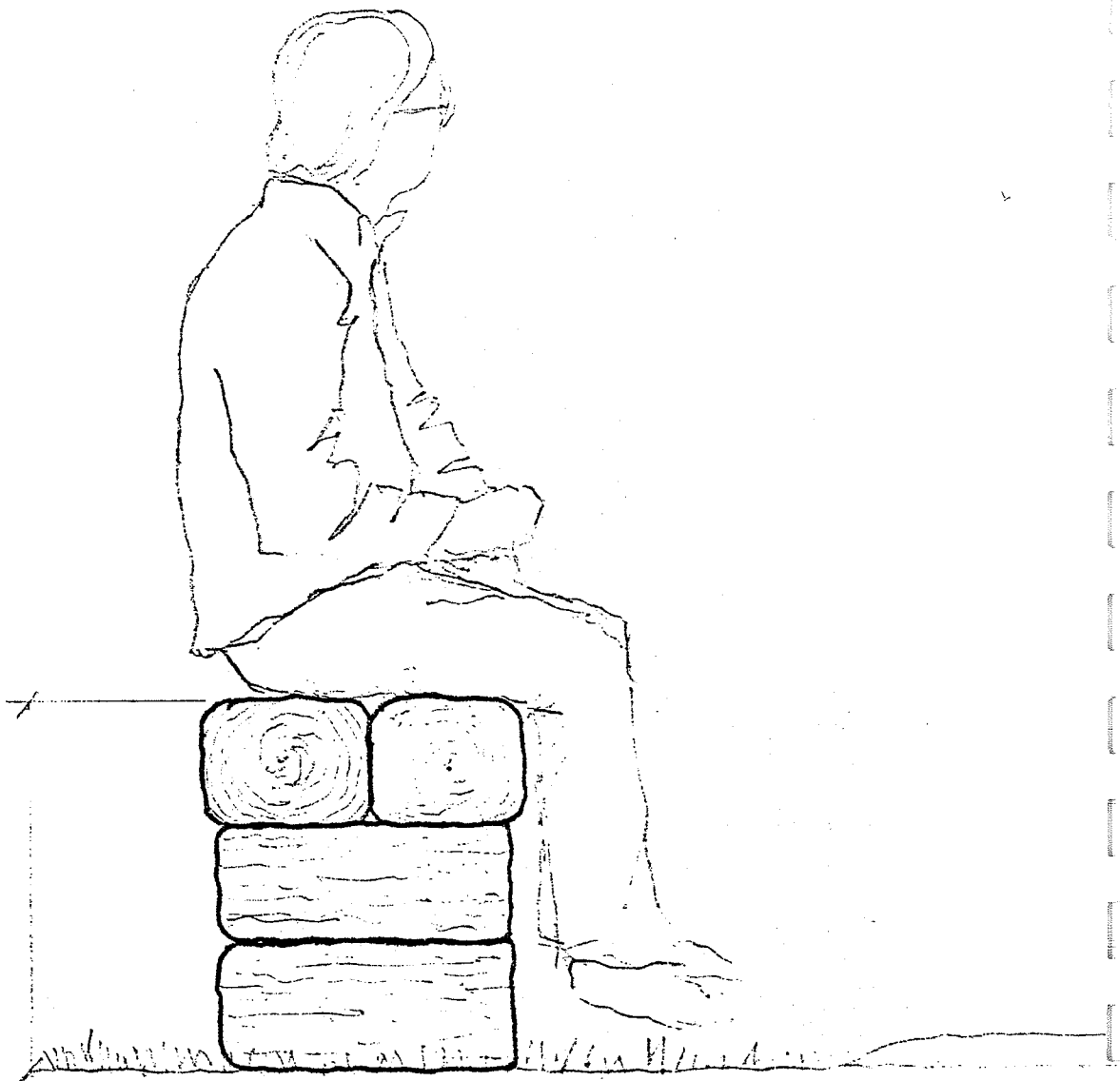


Fig. 10
Rest Area Typical

Fig. 11
Simple Log Bench



out on the map in figure 3, page 10. DNR and Correction's Camp personnel have inspected this preliminary route and made necessary changes. The route has been flagged with plastic ribbon and any alterations have been noted on a map. Drainage problems, bridge sights and other problem areas have also been marked.

The right-of-way for the trail will vary from 8-12 feet depending on terrain and the difficulty rating of the trail. This width is necessary to allow grooming and other maintenance with machinery.

Slopes of not more than 15% are recommended for a novice trail. Gradients up to 25-40% can be utilized for more advanced loops. Rating of the new loop will be determined during field inspection. Runouts will be required at bottoms of steep hills and a minimum width of 6-8 feet is required.

Trail Construction

Trail construction will involve removal of all trees, brush and branches to the desired height and width of right-of-way. Trees should be cut at a height of 2-3 feet if it is determined that a crawler tractor is necessary to clear and level the trail. Cutting at this height will allow for easier removal of stumps by equipment.

Trees and branches removed from the right-of-way should be piled for burning or scattered away from the right-of-way. Stumps and rocks should be piled in designated areas.

All areas where vegetation is removed will be seeded to prevent erosion.

Wet areas should be avoided where possible. Courdoroy and/or fill will be necessary where they cannot. Culverts may be needed in these areas to allow for drainage.

If a bridge crossing is found to be necessary, guidelines outlined earlier will apply.

Natural or constructed barriers will be utilized at trail entrances, road crossings or other problem areas. Narrowing of trail width is the most simple, economical way and should be used whenever possible.

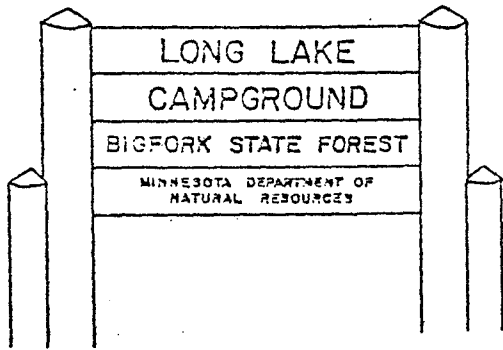
If constructed barriers are necessary, the unit manager should decide what type of barrier will suffice.

Signs

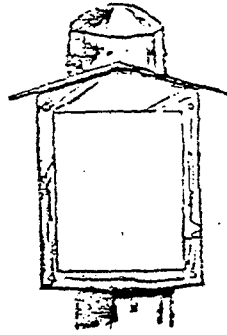
The trail signing system will conform to the State's Standard System when that system has been finalized. The purpose of this signing system is to provide uniform symbols that convey information and direction for the trail user. Sufficient signs will be provided to transmit information, insure user safety, and facilitate enforcement. Signs will be located for maximum visibility and will be kept to a necessary minimum.

A wood routed trailhead sign showing the layout of the ski trail will be constructed at each trail entrance. An informational bulletin board containing a printed trail map, emergency phone numbers, trail regulations, and other information will also be built here (see sign typicals in figure 12).

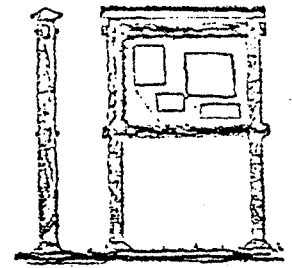
Fig. 12 Sign Typicals



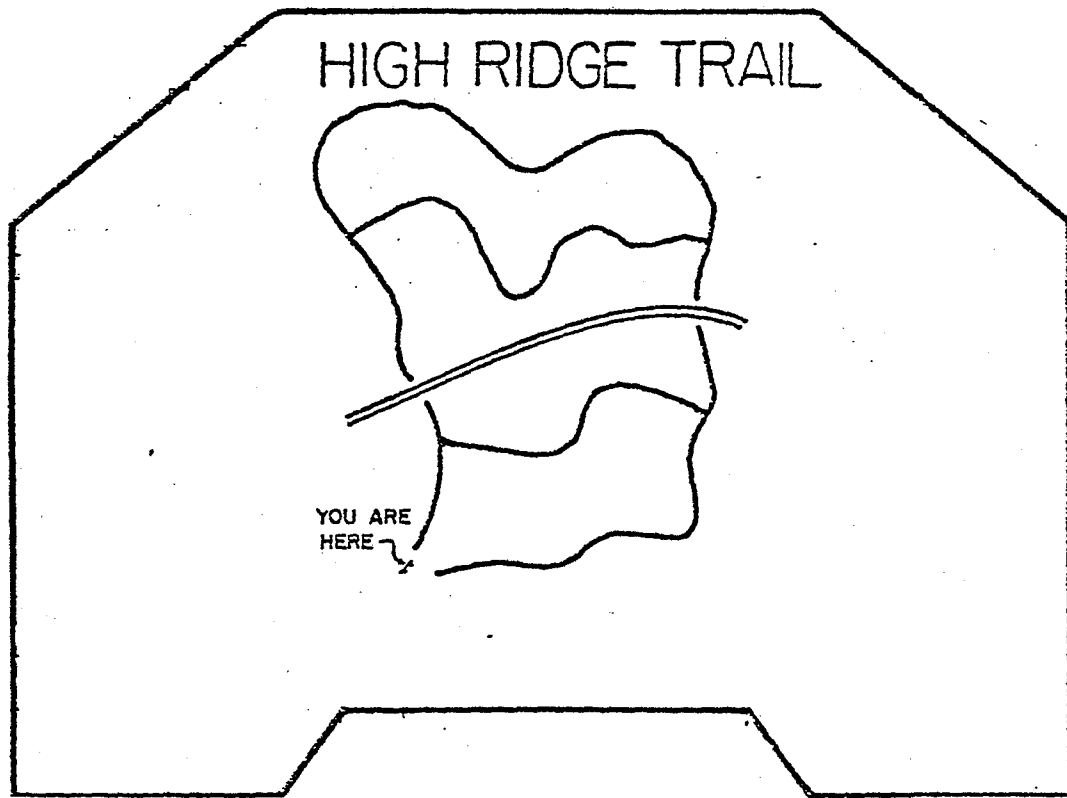
Entrance Sign



**"You are Here"
Sign**



**Information
Bulletin Board**



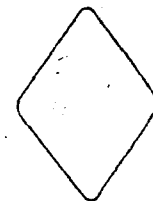
Trailhead Sign



Skier



Hiker



Blazer

"You are Here" signs will be placed at all trail junctions, and trail difficulty markers will be placed in strategic locations. Warning, regulatory, and information signs will also be erected in appropriate locations (see sign typicals in figures 12 and 13). Interpretive signs identifying tree species, management techniques and other special features of the area should also be added.

Maps

User maps are extremely important and will be used in conjunction with the signing system. Maps will show a generalized location of the forest and the trail route with mileages. Interpretive information about the history, development and management of the area will be included on the back. Maps will be the responsibility of the Division of Parks and Recreation to develop and print. Input will be received from the Division of Forestry and Trail Project Planning as to their content and makeup.

Maintenance

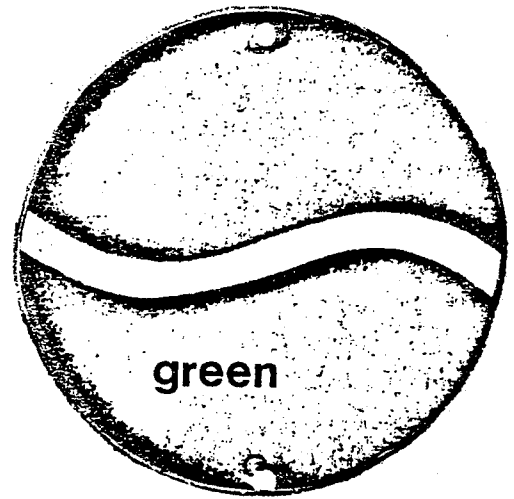
Maintenance of the Thistledeew Ski Touring and Hiking area after development is the most important tool for sustaining its quality. Therefore, maintenance monies are essential if the area is to become a quality ski touring and hiking area.

At present, there are no funds earmarked for maintenance of ski touring and hiking areas developed through the bonding bill program. Therefore, it is a recommendation of this plan that maintenance money be made available through legislation to insure the quality of this unit.

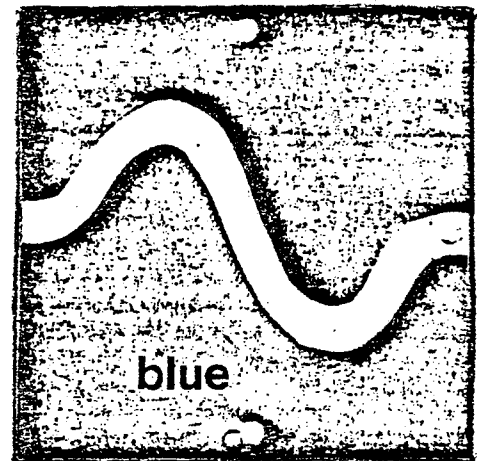
Fig. 13

Trail Difficulty Symbols

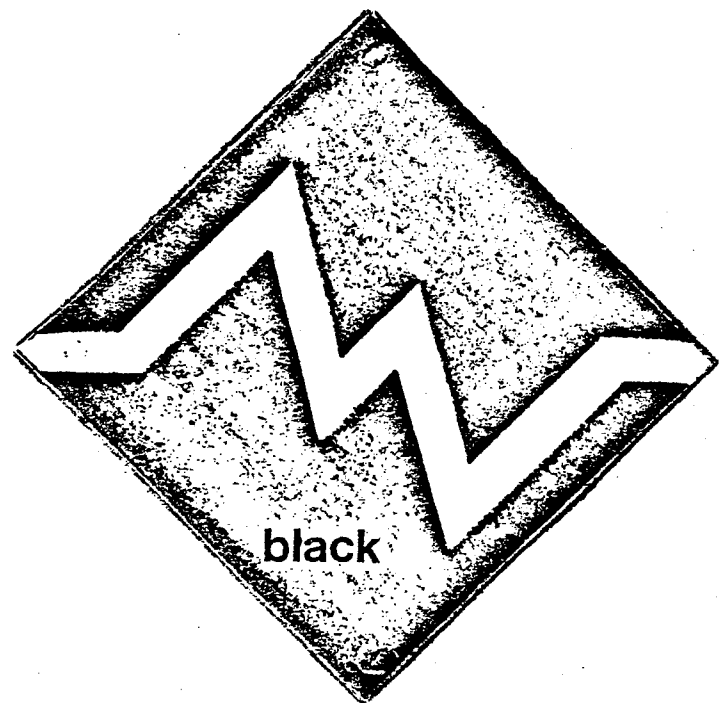
easy



more difficult



most difficult



Maintenance of the Thistledeew Ski touring-hiking trail will require a year-around program. Routine maintenance will include litter pick-up, cleaning shelters and toilets, stacking firewood, sign replacing, and clearing surface vegetation. Major maintenance will involve removal of windfalls, painting and repairing of structures, and controlling erosion where necessary.

Winter grooming of the ski treadway will be done on a contract basis or by state employees using DNR equipment. No equipment is available for state use at this time. Therefore, if a contractor cannot be found to groom the treadway, suitable equipment will have to be purchased. Winter grooming will be set up on a flexible schedule to allow for periods of high and low use.

Periodic inspections will be made throughout the year to evaluate maintenance problems and actions needed. Inspections may be made by the district forester or his designate (i.e., maintenance foreman or by the person in charge of trail grooming). The regional trail coordinator and area forester may also inspect the trail if necessary.

Steps Involved in the Planning Process

1. Project proposal is initiated by district forester and is submitted through the area and regional foresters (at this time, the proposal is evaluated for worthiness and the potential for public support).
2. After proven feasible and consistent with the state forest multi-use concept, the proposal is sent to St. Paul.
3. Proposal is then investigated by the Bureau of Planning and Research with the input of the regional trails coordinator, area and district foresters, and other involved divisions.
4. Area of study is defined and a preliminary plan is prepared based on this study. Regional trails coordinator, and the area and district foresters perform necessary "groundwork" and report information to the Trail Project Planning Staff. Also, input is received from various levels of government, special interest groups and others.
5. Preliminary plan is sent out to DNR divisions involved for review.
6. Plan is revised subject to this input and printed for public hearing.
7. A public hearing is held in the local area of the unit.
8. Plan is revised again taking into account public, departmental, and other agency review.

9. Plan is submitted to State Planning Agency for review for consistency with the Outdoor Recreation Act of 1975.
10. Possible revision subject to State Planning Agency review.
11. Final Review by State Planning Agency.
12. Implementation of the plan by the Division of Forestry and the regional trails coordinator.

Note: Planning is an on-going process which does not stop after final State Planning Agency review. The management plan's built-in flexibility allows for site specific decisions at the time of development. After development is completed, periodic re-evaluation of the management program is required for response to changing conditions.

Implementation

The structure of the Department of Natural Resources is such at the Bureau of Planning - Trail Project Planning is responsible for coordinating the planning process and general implementation monitoring. After the plan is reviewed for consistency with the Outdoor Recreation Act, development can then commence.

The Division of Parks and Recreation - Trails Section has the responsibility for funding the project. They are also responsible for monitoring development and maintenance to insure that funds are spent in compliance with the bonding bill and master plan.

The Division of Forestry implements the plan by assigning the appropriate regional staff to carry out development and maintenance of the trail. This development and maintenance must be in compliance with the bonding bill and master plan.

The regional trails coordinator will coordinate other managers' activities within the region. He will also coordinate the design of the trail and facilities with the area and district foresters. Actual construction and maintenance of the trail will be done by DNR crews, contractors, or other groups such as Corrections Camp Crews or YCC. These crews and contractors will be under the district supervision of the area and district forester. Maintenance schedules and contracts will be worked out by the regional trails coordinator and the area and district foresters.

Changes to the management plan must be cleared through the Bureau of Planning and Research - Trail Project Planning.

Estimated Costs

Parking Lot and Access Road Development	-	\$ 4,000
Entrance Signs, Trailhead Signs and Bulletin Boards	-	\$ 3,000
Trail Treadway Construction and Upgrading	-	\$12,000
Bridge Construction	-	\$ 2,000
Rest Area Construction	-	\$ 3,000
Trail Signs and Maps	-	\$ 1,500
<hr/>		
Total Estimated Cost	-	\$25,000

Maintenance Costs

Maintenance costs will be worked out by the district forester, area forester and regional trails coordinator. A rough estimate of maintenance costs is \$3,000/year.

Timing of the Project

Sixteen state forest ski touring and hiking areas have been identified for development or improvement during 1978. Thistledeew is one of these projects.

The proposed developments are scheduled to be constructed during the summer of 1978 so that they will be ready for use in the winter of 78-79.

The area will be monitored continually by the district forester and other personnel to assess and determine any management problems.

Future Potential Expansion

No future development areas are being studied for the George Washington State Forest at this time. It has been determined through public input

that a loop system consisting of 15-20 miles of trail is adequate for a worthwhile ski touring-hiking facility. However, this system may be linked by a grant-in-aid trail from a private resort. Any future development will be consistent with this plan and the overall state forest plan when it is formulated.

Recreational Needs to be Served by the Project

Ski touring and hiking are two activities that have experienced a tremendous growth in popularity in recent years. The 1974 Minnesota State Comprehensive Outdoor Recreation Plan (SCORP) identified ski touring and hiking as two of the fastest growing recreational activities in the state.

At that time, it was estimated that the number of Minnesotans participating in hiking was 300,000 users and it was projected that over 100,000 Minnesotans would be participating in ski touring by 1975. SCORP also emphasized that these activities would continue to grow in popularity in the future.

Although no figures are presently available showing the number of users of the area. Casual observation by the District Forester has shown that use of the area has been increasing in recent years. Upgrading of the system and the addition of new mileage is expected to draw more users from around the state.

The potential use area for the Thistledew Unit includes Economic Development Regions II, III, V, VII and XI (see map, page 34). Most day use can be expected from local area residents and the Iron Range cities. The map in figure 14 shows the hypothetical area from which day users might be attracted. This area is defined as the distance people would travel to use this area without requiring an overnight stay.

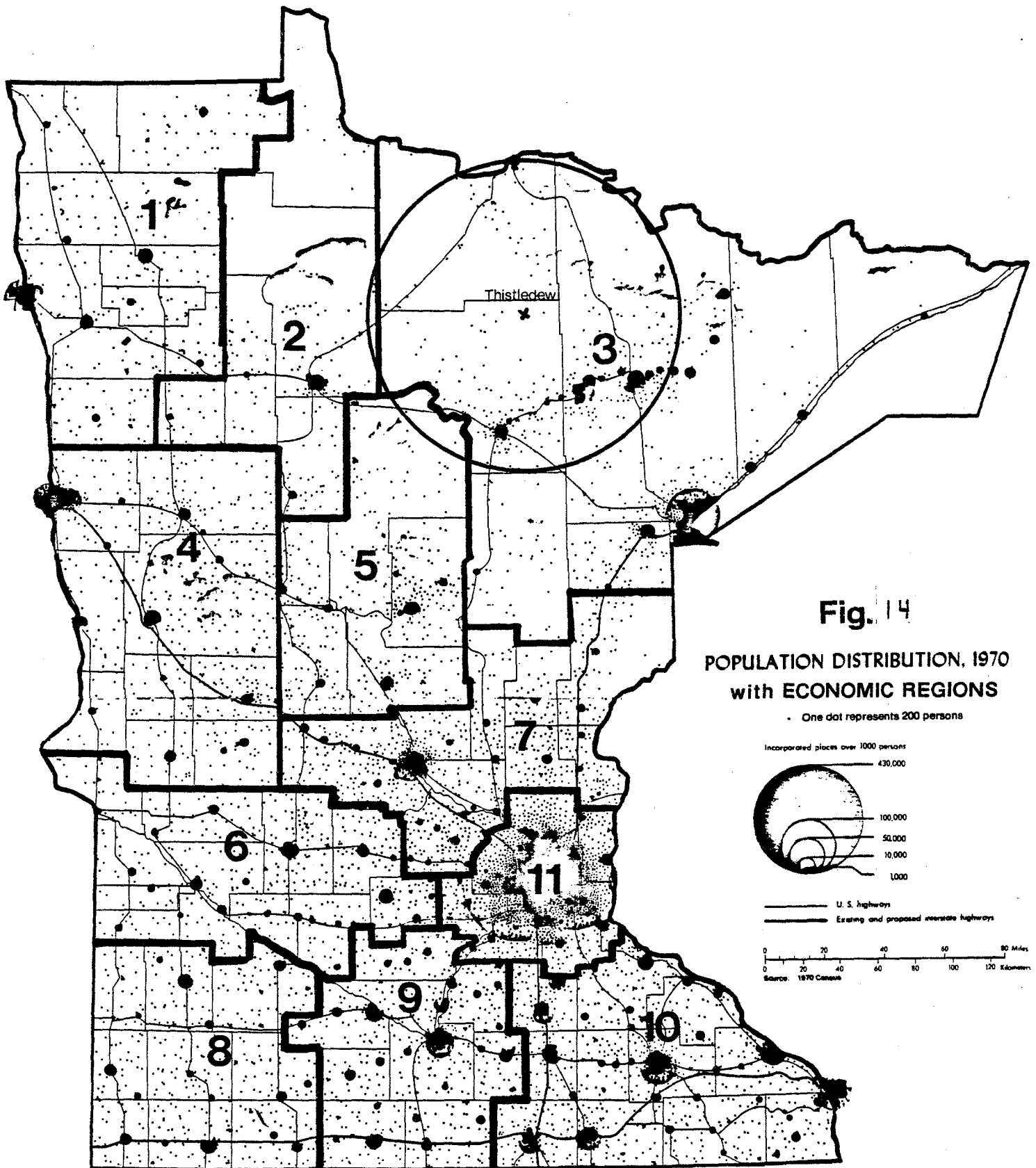


Fig. 14

**POPULATION DISTRIBUTION, 1970
with ECONOMIC REGIONS**

• One dot represents 200 persons

Incorporated places over 1000 persons

- 430,000
- 100,000
- 50,000
- 10,000
- 1,000

— U. S. highways
 — Existing and proposed interstate highways

0 20 40 60 80 Miles
 0 20 40 60 80 100 120 Kilometers

Source: 1970 Census

Present use is predominantly from local residents during the week, with residents from Grand Rapids, other Iron Range cities and Duluth using the area on weekends. Some users do come from as far away as the Twin Cities, but use from this area is not extensive at the present time.

Upgrading of the trail system should draw more users from areas of the state where trails are in short supply. However, no figures are presently available on user demand by region or state.

Description of the Environment

Topography

The topography of the area varies from very irregular terrain with rolling hills, numerous ridges and lakes, to low flat peat swamp areas. Glacial drift overlies the bedrock throughout most of the forest and the area is classified as a glacial moraine.

Elevations range from 1,337 feet at lake levels to 1,450 feet in the hilly areas.

Soils

Detailed soil survey information is not presently available for the George Washington State Forest. Broad soil characteristics show that the forest contains sandy loam and clay soils in the hilly areas, with a poorly drained peat soil in the low flat areas.

Major soil series found in the forest are the Nebish-Rockwood, Indus-Taylor-Peat and Menhga-Marquette. The Nebish-Rockwood series, found in an undulating to hilly area, is characterized by light colored, well drained soils that have developed from loam and sandy loam calcareous buff colored glacial

till. Erosion control is a major problem with this soil series.

The Indus-Taylor-Peat series is found in the level to undulating areas. The mineral soils in this area are light colored and have formed from calcareous lacustrine clay. These mineral soils are intermingled with areas of organic (peat) soils.

The Menahga-Marquette series is found in level to rolling areas and are light colored, droughty soils. Menahga has formed from non-calcareous, fine to medium outwash sand. Marquette has formed in a medium textured material overlying calcareous gravel.

Climate

The George Washington State Forest has an average annual snowfall of 60"-65", with snowcover of 1" or more for normally 130-140 days. Six inches or more of snowcover can normally be expected for 80-100 days. Winter (December, January, February) normal temperature is 9^oF. Mean maximum temperature for January is 14^o with mean minimum temperatures of -10^oF.

Mean annual precipitation averages 26" with summer (June, July and August) normal temperature of 65^o. Mean maximum temperature for July is 80^o with a mean minimum temperature of 52^oF.

Water Resources

Surface water resources in the George Washington State Forest consist of 200 lakes totaling over 15,000 acres. Numerous small to medium sized lakes, marshes and creeks exist adjacent to or near the trail.

These natural lake basins, marshes and creeks are a very important resource which add to the scenic quality of the area.

Mineral Resources

The George Washington State Forest has substantial potential for finding economic concentrations of minerals. These resources however, will not be affected by the development and maintenance of the ski touring-hiking trail.

Vegetative Cover

The uplands of the forest support stands of Norway Pine, jack pine, white spruce, balsam fir, aspen, paper birch, yellow birch and maple, while the lowlands produce black spruce, tamarack, northern white cedar, ash and elm. Aspen and black spruce are the predominant species.

Wildlife

The George Washington State Forest is a home for numerous species of wildlife. The weasel, red squirrel, deer mouse, skunk, porcupine, timber wolf, white-tailed deer, black bear, and moose are but a few of the animals. Birdwatchers will find the yellow warbler, chickadee, loon, mallard duck, Canada jay, the bald eagle and many more. Fishermen will find bass, panfish, trout, walleye and northern pike in the lakes and streams.

Timber Resource

The George Washington State Forest contains a gross land area of 306,000 acres within its boundaries. Of this, 93,000 acres are administered by the Division of Forestry, 120,000 acres are administered by Itasca County, with the remaining 93,000 acres under private control.

There are 63,800 acres of timber producing land in the George Washington State Forest. The Aspen-Birch cover type has the largest acreage consisting of 35% of the total timber producing area, and the swamp spruce cover type is second consisting of 22% of the total.

The forest also contains 15,600 acres of brush and grass, 9,500 acres of stagnant bog and 4,300 acres of non-forest land. (roads and marsh)

Air and Water Quality

The area surrounding the Thistledeew Area is undeveloped and sparsely populated. Industrial air pollution is not a problem in the area. Auto emissions are a minor source of local air pollution.

Surface water quality in the area is good and water pollution is not considered a problem.

Water is available from wells at the District Forest Office, Thistledeew Camp, and at the forestry campground. This groundwater is of reasonably good quality and does meet State Health Department standards for public use.

Historical and Archaeological Resources

The George Washington State Forest is adjacent to the Big Fork River, a route followed by Indians, fur traders, loggers and early settlers.

The original land survey of the area was made between 1867 and 1894.

Logging of old growth pine began about 1880.

Major fires in 1908, 1918, 1925 and 1933, which were started for land clearing purposes, caused more destruction than the loggers. The forest with improved management and protection has slowly recovered from this destruction.

The state legislature created the George Washington State Forest in 1931. State owned lands were withdrawn from sale at this time. The year 1932 was the 200th anniversary of the birth of our first president. This state forest commemorates this anniversary.

The Civilian Conservation Corps program played an important role in the early development of the forest. Many miles of roads, plantations, and other conservation projects were accomplished by this group.

No archaeological sites have been identified within the trail area to date. An archaeological study may have to be conducted before any development begins. If so, the DNR will contract with the Historical Society to do an investigation.

Transportation and Utilities

Access is provided to the area from the north-south direction via State Highway 65 which passes through the forest. Access to the area from the east-west direction is via Highway 1 which intersects highway 65 two miles northeast of the area, and U.S. Highway 169 which intersects highway 65, 33 miles south of the area. Access to the Thistledeew Trail parking lots is via county road 551. (see figure 2, page 9)

No utilities (telephone or electrical) are presently available or needed in the trail area. Utilities are available, however, at the District Forestry Office and Thistledeew Camp which are located adjacent to the trail area.

Socio-Economic Factors

The Minnesota State Planning Agency (SPA) population projections for Itasca County and Economic Development Region 3 show a modest increase in population through 1995 with a decrease in population by 2000.

Population Projections

<u>Year</u>	<u>Itasca County</u>	<u>Region 3</u>
1980	36,600	330,300
1990	37,700	332,400
2000	36,400	325,400

Based on 1970 population data, the SPA estimates an employed labor force of 10,399 persons in Itasca County. Four areas of major employment for Itasca County are: mining (16.5% of the employed labor force), government (10.3%), manufacturing (8.3%) and wholesale and retail trade (7.2%).

Tourist travel expenditures during 1974 totaled \$14,721,273 in Itasca County. These expenditures accounted for 7.2% of gross sales within the county.

Land Use and Development Trends

Itasca County General Land Use Forth Acre Parcels

Forested	-	37,999	Marsh	-	620
Cultivated	-	609	Urban	-	839
Pasture and Open	-	2,539	Extractive	-	459
Water	-	4,027	Transportation	-	6
Total	-	31,887			

Source: 1975 Pocket Data Book - State Planning Agency

Current residential, agricultural, commercial or industrial land uses within the county do not effect the Thistledew ski area. Most of the area is forested and in public ownership. Timber harvesting is permitted in the area.

Facilities in Region III

Economic Region III encompasses a vast portion of northeastern Minnesota that is dotted with outdoor recreation facilities. Two national forests, the BWCA, 16 state parks, four corridor trails, 12 historic sites, 22 state forests, 559 miles of ski trails and 1,800 miles of snowmobile trails can be found there. Over 85% of the land in this region is in public ownership, making it a prime recreation area.

Numerous resorts, motels, hotels and campgrounds can also be found throughout the region. Many of these facilities are open year-around to accommodate the needs of outdoor enthusiasts. Service facilities are also predominant throughout the region.

Facilities in the Forest

The George Washington State Forest offers a wide range of facilities and areas for outdoor recreationists to enjoy. Within its boundaries are 200 lakes totaling over 15,000 acres. Water skiing, fishing, wild rice harvesting and hunting are all possible to enjoy in the area. Trout streams are abundant, and the Big Fork Canoe Route, which lies west of the forest, is available for the canoeist.

The Division of Forestry maintains seven campgrounds and two picnic areas within the forest with 137 campsites and 50 picnic sites. These campgrounds are of the primitive type and are designed to furnish only the basic needs of the camper. Campsites consist of a cleared area, a fireplace and a table. Pit toilets, garbage cans and drinking water are also provided. Two state parks, Scenic to the west and McCarthy Beach to the east, also provide camping and other recreation facilities for the outdoor enthusiast. Complementing these public recreational areas are many private resorts to serve the vacationer.

There are 120 miles of snowmobile trails within the forest, an eight mile grants-in-aid ski trail near Deer Lake, in addition to the Thistledeew Ski Touring Trail.

Management Programs within the Forest

Management of the George Washington State Forest is based on recommendations outlined in the Thistledeew District Forest Management Plan. These plans are formulated for each forestry district throughout the state and are based on the state "Timber Management Guide" and other policy manuals. The management program is based on a ten year period, while necessary adjustments are made to fit local conditions.

The management program includes timber, wildlife, soils, water, and recreation. Management of these resources requires a coordinated program which brings about maximum productivity and protection as well as providing other public benefits such as recreation.

Development of the Thistledeew ski touring and hiking trail has and will be an integral part of this management program and will not inhibit other forest management practices.

Necessary adjustments will be made in the area to avoid conflicts between other management activities and the trail. Development of the ski touring and hiking trail, however, will not exclude use of administrative vehicles and/or contractors who have been assigned to do work in the area. It will also not exclude automobiles from roads which are normally plowed during the winter.

When timber harvest is recommended in the area, cutting and hauling will try to be scheduled between May 1 and November 1 to avoid conflicts between skiers and contractors. In some instances, such as when swamp conifer types are recommended for harvest, logging operations will have to be performed in the winter to take advantage of frozen ground conditions. In these instances, portions of the trail treadway may have to be closed or rerouted temporarily to permit timber harvest operations to be run efficiently.

Timber sale contracts will be adjusted to insure that trees are not felled blocking the treadway. Provisions will be written so that the trail treadway, if damaged, will be returned to its original condition. Provisions will also be written to insure that slash and other debris are scattered away from the trail.

It should be emphasized at this point that some forest trails will not always be permanent. As forests change in age, timber harvest will preclude established trail use in some areas. To adjust for these changing conditions, the trail will be rerouted into other areas in the forest. Thus, while trail use will be an established use in state forests, the trail location may not.

All management decisions concerning the area will be made in a manner that insures that the needs of other management activities and recreation are met with the least possible conflict.

Potential Concerns and Considerations

The Thistledeew Cross Country Ski Trail as presently developed has been relatively free of conflicts from motorized recreationists. This is primarily because of adequate mileages of snowmobile trails which exist around the area.

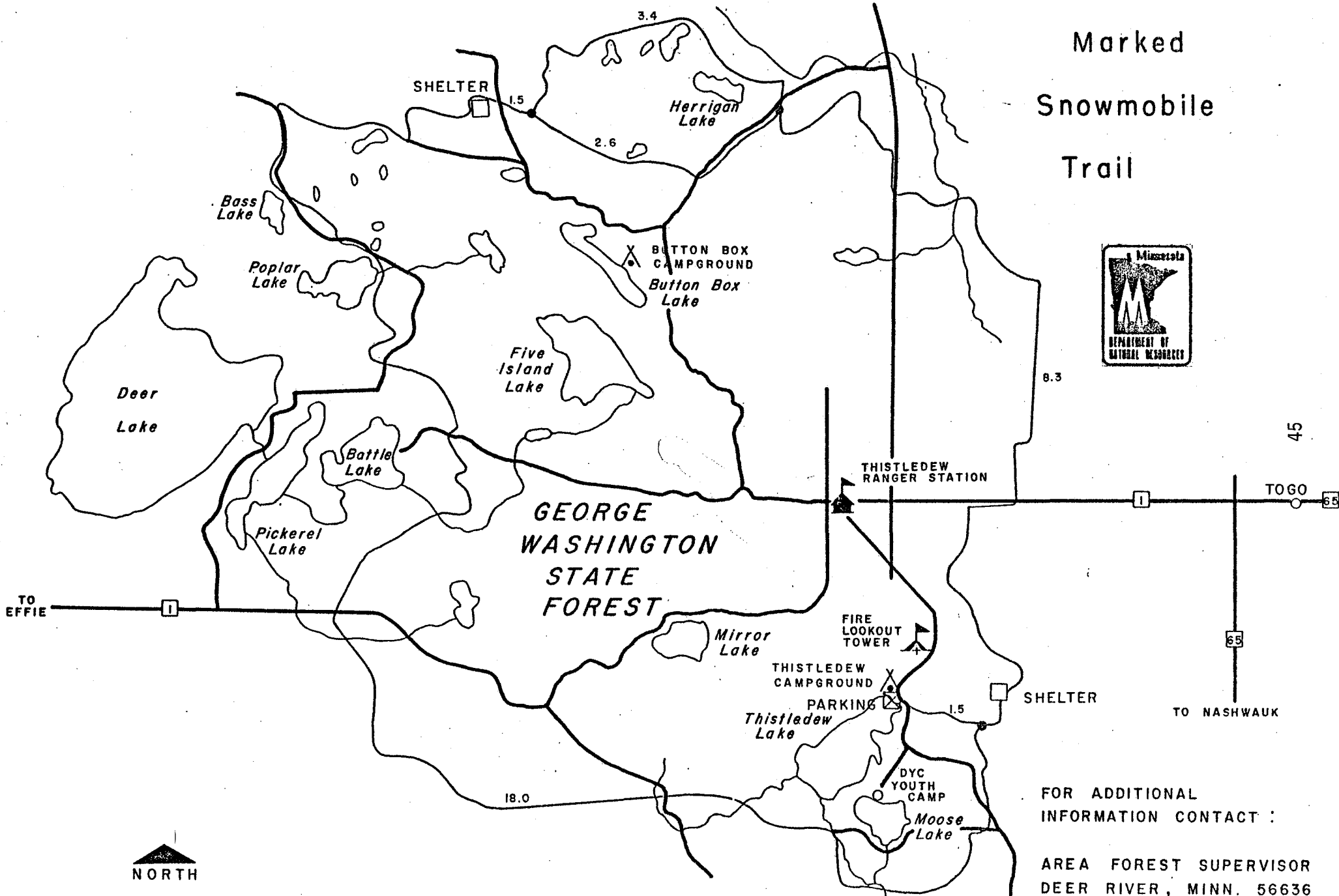
(see map in figure 15) At present, skiers and snowmobilers utilize the same parking lot with little or no conflict. Their trail areas are sufficiently separated to avoid any problems.

No future conflicts are expected because trail design and signing will be utilized in any future development to minimize problems.

Fig. 15

Circle "T"

Marked
Snowmobile
Trail



NORTH

PREPARED SEPTEMBER 1971

FOR ADDITIONAL
INFORMATION CONTACT :
AREA FOREST SUPERVISOR
DEER RIVER, MINN. 56636
PHONE : 218 - 246 - 8343

Environmental Impact of the Proposed Project

Impact on the Physical and Biological Environment

Since the soils in the area are generally coarse to fine textured, some soil compaction may occur in high use areas of the trail treadway. Overuse of such areas may also cause denudation of vegetation from these areas making the soils more susceptible to erosion. Reseeding of the trail treadway after upgrading, however, should help to minimize this problem.

The proposed action will not have a significant impact on the surface or ground water resources. Bridge construction will be undertaken in a manner which will not adversely inhibit streamflow.

No impacts on mineral resources will occur.

Adverse impacts of the proposed action on vegetation will be its loss from trail treadway upgrading and rest area development. These impacts, however, will be offset by reseeding of the trail treadway and rest areas.

Adverse impacts on wildlife will be insignificant. Wildlife will probably benefit from seeding of the treadway with a wildlife mixture.

Increased use will cause some deterioration in air quality as a result of increased auto emissions. Use of heavy equipment in development will have a temporary adverse impact on air quality.

Increased use may have an adverse impact on the water quality. Better methods of controlling erosion in the area, however, should have a beneficial impact.

Impact on the Historical and Archaeological Resources

No impact on these resources has been identified at this time. Further study by the Historical Society may reveal sites which must be avoided during development.

Impact on Transportation and Utilities

Expected increases in use of the area will have a insignificant impact on traffic volumes on the highway access routes to the area. Access to the area via County 551 should not be adversely affected.

No impact on utilities will occur.

Impact on Socio Economic Factors

Since all of the land has already been acquired, no loss from local tax revenue will occur. Beneficial impacts on the local economy will be realized. This will result from increased tourist travel expenditures in the area.

Impacts on Land Use

Upgrading of the trail will not change the land use of the area.

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2. George Washington State Forest Map, DNR - Forestry, St. Paul.

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6. "Soils of Minnesota", H.F. Arneman, University of Minnesota, Agriculture Experiment Station, June 1963.

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7. "The Ski Touring Trail Planner", Timothy B. Knopp and Jack P. Maloney, 1972.
8. "Trail Construction Guidelines", Ontario Ministry of Natural Resources, 1976.

Population

10. SPA/CURA Wall Map Series

11. Population Projections 1970-2000 State Demographer, State Planning Agency.

Socio-Economic

12. Minnesota Socio Economic Characteristics, State Planning Agency.
13. Minnesota Research Bulletin #06, Department of Economic Development.

Land Use

14. Pocket Data Book, 1975, State Planning Agency.

Draft Plan Review: Public Meeting

A public meeting was held on May 28, 1978 at Thistledeew Camp, Toga, Minnesota. Six citizens attended the meeting and asked many questions. The following are the main concerns brought up at the meeting:

1. All citizens in attendance were concerned about trail rules and regulations and how they could be enforced. Some were concerned about snowmobiles using the ski trail, and others felt that rules requiring dogs to be on a leash were necessary.

Comment: At present there are no rules and regulations which would specifically cover state forest ski trails. Therefore, conflicts of the type mentioned above cannot be regulated. The Division of Forestry, however, is currently in the process of updating state forest rules and regulations and will address trail problems. Until such time as these rules and regulations are adopted, we will not be able to regulate forest ski touring - hiking trail problems.

2. Discussion was mixed over whether trails should be groomed or not. Some were in favor of it, others were not. Most agreed tracks should be set up periodically.

Comment: Tracks will be set on trails periodically throughout the winter. Amount of snowfall will be a key factor.

3. A local resident felt that the trail should be left the way it is. But others felt that upgrading and the addition of some beginning - intermediate mileage was necessary, more primitive rest sites such as

log benches were wanted by all persons at the meeting. Primitive campsites were also discussed. Some participants also felt that shelters were not necessary.

Comment: The trail will be upgraded to make it safe and portions of the new trail will be beginner - intermediate mileage. Log benches will be built in scenic locations and users will be permitted to camp near shelters. Since the trail will connect two existing campgrounds more sites were not felt to be necessary. Shelters are felt to be necessary for user safety.

4. All participants felt that better maps for all trails were necessary. Signs were also brought up.

Comment: Maps have been addressed in the plan and will be improved to solve this problem. All agreed that the new signing system should help to alleviate signage problems.

5. All participants expressed the need for maintenance monies to insure a quality trail.

Comments: A recommendation is made in the plan for legislation to provide specific maintenance funds. If this is not possible, maintenance funds will be shifted from other areas. Thistledeew Camp personnel will also be available for maintenance work.

Overall, most participants were satisfied with the plan and were happy the Department was working to upgrade existing ski trails, and developing new ones.