

MN DEPT OF NATURAL RESOURCES

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- Explore Minnesota recreation lands



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# RECREATION LANDSCAPES

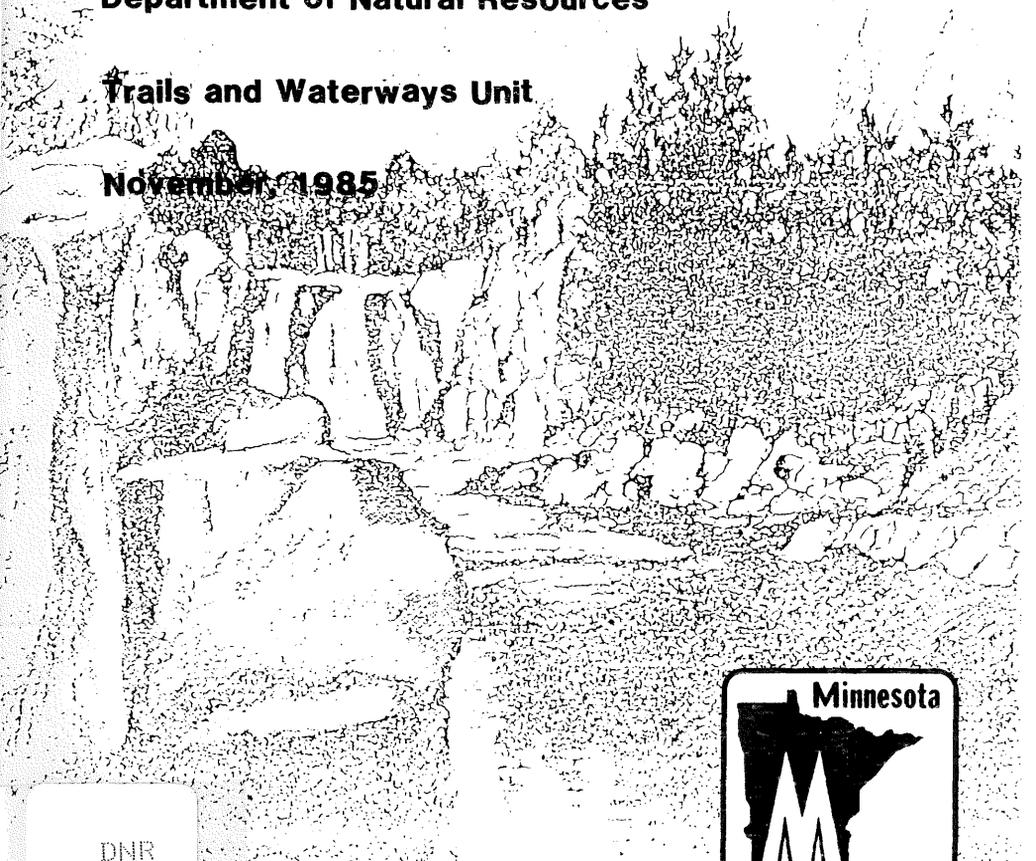
## A Guide to their Appreciation

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### Department of Natural Resources

### Trails and Waterways Unit

### November, 1985



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## INTRODUCTION

Minnesota is the meeting point of landscape features which dominate the continent for 1,000 miles in every direction.

- The Big Woods of southeast and central Minnesota stretch eastward to the Appalachians.
- Our pines, birches, and tamarack bogs form part of a forest reaching to the Canadian tundra and Hudson Bay.
- The prairie lands of the west roll to the Rocky Mountains
- Minnesota's watersheds -- the Mississippi River, Lake Superior, and the Red River -- link oceans on three of four compass points.

This mosaic of land forms provides opportunities for a variety of outdoor recreation. For this reason, the Department of Natural Resources' (DNR) Trails & Waterways Unit has divided the state into 13 landscapes.

These Recreation Landscapes showcase Minnesota's diversity and promote the rich variety of recreational options available to residents and visitors from other states.

Between the Border Lakes Recreation Landscape in the north and Southeastern Blufflands Recreation Landscape, there is a striking contrast. Other landscapes such as the Southern Farmbelt Recreation Landscape and Red River Lake Plain have many similarities. However, each region is unique.

This short manual is designed to give you a taste of Minnesota's subtlety and diversity. We explore each of the State's 13 Recreation Landscapes, introducing you to the geology, vegetation, history and culture of each landscape.

The purpose of this guide is to whet your appetite, getting you out to discover our state through the Explore Minnesota Trail Collections.

The aim of the Explore Minnesota Trail Collection is to help you get to know Minnesota. Explore your State's recreation potential. Enjoy your heritage. Let Minnesota enrich your life!

Rolf L. Larson, Editor





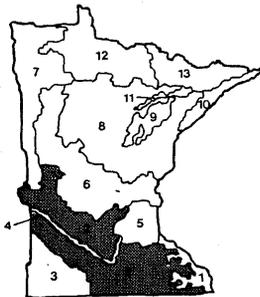
## 1. SOUTHEASTERN BLUFFLANDS

- a. Where: This landscape encompasses most of Houston, Fillmore, Winona and Wabasha counties and parts of Goodhue County.
- b. Historical Significance: Prior to the 1852 Traverse des Sioux Treaty, this area was officially closed to settlement. Until the conclusion of the Sioux Uprising of 1862, this was the only part of Minnesota open to settlement. During the 19th century, commerce developed around a bustling river culture. The hardwood forests were harvested opening the uplands to farming. Numerous saw and grist mills, as well as the State's first railroads, were a feature of this landscape.
- c. The Landscape Today: Dominated by dramatic limestone cliffs overlooking the Mississippi River, this landscape is a network of eroded river valleys (the Cannon, Root and Zumbro rivers) which link the gently rolling hills of the uplands with the Mississippi River Valley. The vegetation at the time of settlement was a dense hardwood forest, the northwestern limit of the "Big Woods" which once dominated the eastern half of the continent. Today, remnants of this forest form part of a mosaic which also includes other forest types, plowed fields, and small towns. This area has the quaint, condensed feel of a land developed at a time when the horse, rather than the auto was the primary source of transportation. Farming, dairy cattle, river shipping traffic, and logging still make up the bulk of modern commerce.
- d. Glacial History: This landscape was largely untouched by the direct forces of the last of the glacial ages. The secondary effects, however, are quite dramatic. The broad basin of the present Mississippi Valley is walled by 500 foot bluffs, attesting to the power and volume of water which flowed through the glacial river Warren as it drained Lake Agassiz.



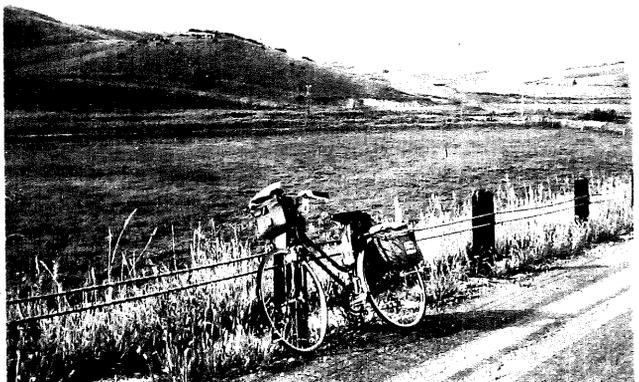
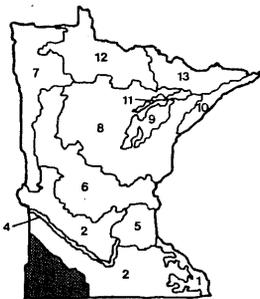
## 2. SOUTHERN FARBELT

- a. Where: This landscape encompasses the south central and portions of western Minnesota.
- b. Historical Significance: Initially this fertile crescent of prairie land was seen as marginally valuable. The first emphasis of economic development was focused on harvesting the abundant forest land to the north. However, following the displacement of the Dakota Indians after the Dakota War, the land was quickly settled filling the patchquilt sections of land offered to settlers through the Homestead Act of 1862. Today this land is one of the most valuable agricultural tracts in the world.
- c. The Landscape Today: This is a level to gently rolling plain with well established drainage patterns. Lakes and hardwood forests are found only in broad upland depressions and river valley bottoms. Originally this was a tall grass prairie with numerous potholes and marshes. Today this land is almost entirely cultivated, the geometric township lines further divided by long, straight rows of corn and soybeans.
- d. Glacial History: This landscape consists largely of four glacial till plains, weathered remnants of early glacial activity in this area. The rugged glacial features have been rounded by the elements, and mature drainage patterns have developed.



### 3. HIGHLAND OF THE PRAIRIES

- a. Where: This landscape occupies the southwestern corner of Minnesota.
- b. Historical Significance: This area is best known for its Native American history. Sites significant to Native Americans are found at Pipestone National Monument, Lake Shetek State Park, and the Jeffers Petroglyphs in Cottonwood County. Prior to the age of the automobile, this area was an important source of hay for the livery stables in the Twin Cities, and the lumber camps to the north. This area shares much the same heritage as the Southern Farmbelt.
- c. The Landscape Today: Open, rolling hills, typical of the Great Western Plains form the divide between the Mississippi and Missouri rivers, contrasting this area to the gentler terrain of the Southern Farmbelt. Originally this was a vast open prairie, with wooded valleys along major streams, flowing either to the Mississippi or Missouri rivers. Today's landscape is dominated by row agriculture and pastureland in the highlands. This area is part of the transition zone separating the drier western prairie from the moister soils of the "Farmbelt" which extends into central Iowa and Illinois.
- d. Glacial History: This highland prairie landscape is actually a substantial wedge-shaped glacial moraine resting upon an ancient Precambrian rock base, including the Dakota's Sacred Pipestone. The river valley systems bordering this long slope are the result of extensive subglacial meltwater streams which have eroded the glacial deposits. Examples of the old bedrock are exposed at Blue Mounds State Park, and Pipestone National Monument.



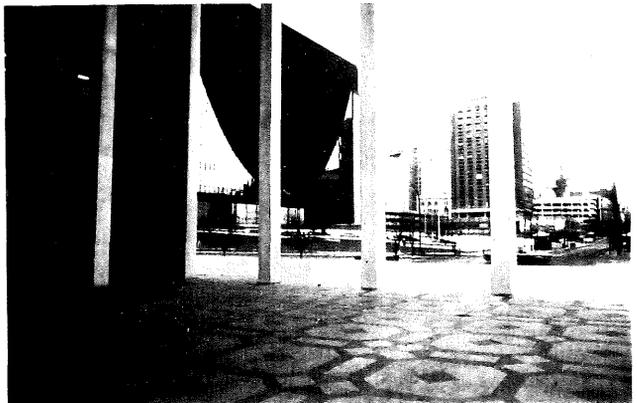
#### 4. MINNESOTA RIVER VALLEY

- a. Where: The Minnesota River Valley Landscape extends in a straight course from its headwaters at Brown's Valley to the big bend at Mankato, where it turns northward to meet the Mississippi near the Twin Cities.
- b. Historical Significance: A major gateway to the western prairie, this river was highway to Native American, trapper, trader, and finally settler. This is where the historic treaty of Traverse des Sioux was signed, the site of the Upper and Lower Sioux Agencies and where Fort Ridgely is located. Both Fort Ridgely and the Upper Sioux Agency were sites of major battles during the Dakota War.
- c. The Landscape Today: This broad bluff enclosed basin, the most striking feature in southern Minnesota, illustrates the transition from the hardwood forest of the east to open prairie in the west. Outcroppings of some of the world's oldest existing rock, including 2.7 billion year old Morton Gneiss, are exposed in the western bottomlands.
- d. Glacial History: The basin of this landscape, much wider than the present river was once occupied by the much larger glacial river Warren which drained glacial Lake Agassiz between 9,000 and 12,000 years ago. Along its course, the modern river cuts through both gentle till plains and rugged hilly moraines.



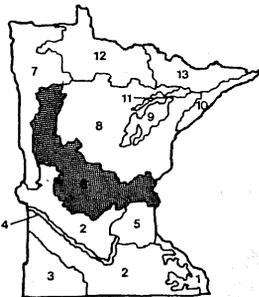
## 5. TWIN CITIES METROPOLITAN AREA

- a. Where: This landscape encompasses the seven county metro region.
- b. Historical Significance: The site of Fort Snelling, this fortress was built to establish an American presence in the struggle for control of the west with the British, and to mediate between the Dakota and Ojibway on the behalf of the fur trade. As such it became the center of government, and developed industrially. By the turn of the century, this area was known as the milling capitol of the world. Largely settled by northern European immigrants around the turn of the century, the Twin Cities still enjoy a strong ethnic flavor, and active ethnic communities. A focal point of the arts, the cities are recognized as a world cultural center with well supported active professional and amateur arts organizations. This area is a natural hub of both commerce and differing landscapes. In the contrast of brick, concrete and rock continues the endless clash of past with future. This region is treated in a somewhat special manner because of the dominance of its urban character.
- c. The Landscape Today: The meeting point of the Minnesota, Mississippi and St. Croix rivers, this is also the meeting point of four recreation landscapes. The vegetation and topography of the Southeastern Blufflands, Southern Farmbelt, Minnesota River Valley, and Central Hills and Lakes Landscapes here combine to endow this urban landscape with a taste of most every feature-type found in the southern half of the state.
- d. Glacial History: To the east and north, this landscape is dominated by the eastern St. Croix moraine. These rugged hills run out into the flat Rochester till plain to the south, the rolling hills of the Owatonna Moraine to the west, and the relatively featureless Anoka Sandplain to the north.



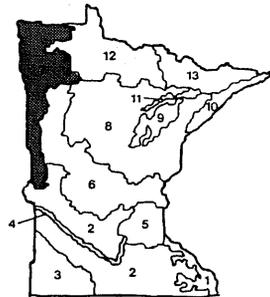
## 6. CENTRAL HILLS AND LAKES

- a. Where: The crescent shaped area of this landscape extends from north central into east central Minnesota.
- b. Historical Significance: Being a transition zone between the North Woods and the Great Prairie, this is a land of diversity in which Native Americans recognized a horn of plenty. Dakota and Ojibway fought fiercely for control of the area until their struggles were superceded by the disruption of european settlement. During the Dakota War, several skirmishes between settlers and Indians occurred in this landscape. At the conclusion of that conflict, this area was quickly settled. The diversity of land use in this landscape is reflected in the number of ethnic groups attracted to this area, and the variety of uses they have found for the land.
- c. The Landscape Today: Typically, this landscape consists of rolling to undulating terrain with abundant lakes, especially in the western portion. To the west are agricultural lands, to the north and east are pine forests. At the center of this transition is found a thin finger of hardwood forest, the western-most remnant of the "Big Woods." This landscape is the gateway to the north. Today, though small farming still persists, this is area is known for its recreation with numerous resorts set against a scenic rural atmosphere.
- d. Glacial History: This landscape has up to 700 feet of glacial till, deposited by all four glacial periods a top this region's bedrock. The hills of the Alexandria moraine, this area's dominant feature, is an end moraine of the most recent glacier, the Wisconsin Ice Age. The Wadena drumlin fields (known for its oval shaped hills), is another feature of that last glacier period. The resulting landscape is a rolling, largely unweathered terrain. This area is characterized by poor drainage. Between glacial hills are nestled countless marshes and lakes.



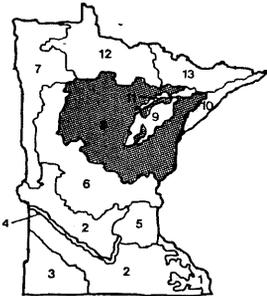
7. RED RIVER LAKE PLAIN

- a. Where: This landscape stretches along the North Dakota Border from the Canadian border to Stevens and Traverse counties in west central Minnesota.
- b. Historical Significance: Prehistoric plains Indians once occupied the area. Early settlers followed the Red River Oxcart Trail, an early route of settlement and supply. From the perspective of that oxcart, the windswept grasses of this ancient lakebed surged like the waves of its long departed glacial ancestor.
- c. The Landscape Today: This is a flat glacial lake plain with numerous streams lazily moving toward the north-flowing Red River. Subtle sand ridges at the eastern edge of this landscape mark the shorelines of now extinct glacial Lake Agassiz. Before settlement, this was a vast prairie with river bottom forests lining the major drainage systems. Today's landscape features waves of grain, potatoes, sugarbeets, sunflowers, and a broad sky.
- d. Glacial History: As the glaciers started receding, better than 10,000 years ago, Lake Agassiz was formed, the melt waters being dammed by moraines to the south. The features of this landscape were formed as deposits settled to the bottom, and were distributed by current and wave action. Sandy ridges were formed along the shorelines during the lake's stable periods.



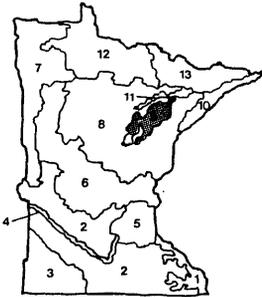
## 8. NORTHERN PINE AND LAKES

- a. Where: This landscape encompasses most of north central Minnesota.
- b. Historical Significance: This is truly Paul Bunyan Country! The meeting points of three major water routes (Savanna, Mississippi and Superior Portage routes), these were largely responsible for bringing the first europeans into this area. After the fur industry had run its course, logging, railroads, and to a lesser extent mining became the dominant early industries.
- c. The Landscape Today: Ranges of glacial hills spotted by countless lakes, ponds and bogs combine to create a rugged landscape mosaic. Originally, this area was dominated by white and red pine, mixed northern hardwoods, jack pine barrens, conifer bogs and fens. As a result of this logging activity, much of the original forest has been replaced by a secondary growth of aspen and birch. Today, logging is still a major source of income, but has been eclipsed in recent times by the tourism and recreation industries.
- d. Glacial History: A combination of several moraine and drumlin areas cover this landscape. All four major glacial ages covered sections, if not all of this recreation landscape. The result is the rugged, varied terrain we enjoy today.



## 9. CENTRAL PEATLANDS

- a. Where: This landscape is located in the southwest portion of St. Louis and the north half of Aitkin counties.
- b. Historical Significance: This area was frequently a battleground between the Dakota and Ojibway Indians in the struggle to control the area's wild rice beds. With European settlement, logging occurred in the uplands. Today, logging, and small scale conventional and sod farming occur in open and drained areas. With the growing interest in peat as a source of fuel, the historical significance of this landscape just may be in its potential to shape our future economy.
- c. The Landscape Today: This extensive network of secluded wetlands and scrub forest is wild country! Nearly flat with some gently rolling terrain (ground moraines) and lakes along its fringes, this land is a botanist's delight, a maze of peat bogs which are home to such diverse plants as wild cranberry, bog rosemary and laborador tea. The lowland areas consist of peatlands interspersed with stands of black spruce, tamarack and white cedar. The uplands are forested by aspen/birch stands and jack pine barrens.
- d. Glacial History: Largely a combination of two glacial lakes (Aitkin and Upham) and an alluvial fan, this landscape was generally missed by the glacial ice flows which periodically covered the state.



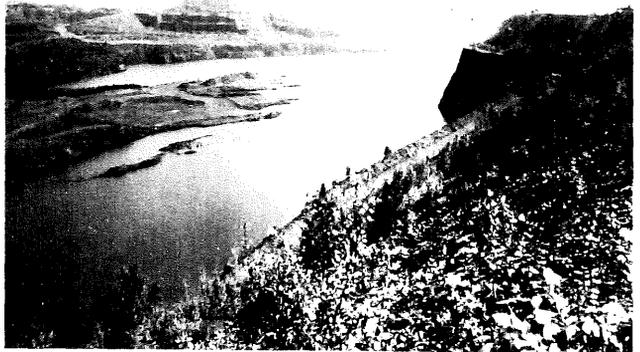
## 10. NORTH SHORE HIGHLANDS

- a. Where: Six to 12 miles in width, this landscape extends along the North Shore of Lake Superior from Duluth to the Canadian border.
- b. Historical Significance: The lake shore was followed as a water route by prehistoric and historic Indians, and was the first route used by explorers and missionaries. It was also the point of entrance for the voyageur using the Grand Portage trading post as their gateway to the Northwest. The logging, shipping, fishing and mining industries have also added color to this distinct landscape.
- c. The Landscape Today: This rugged igneous shoreline separates the world's largest freshwater lake from the remnants of the world's oldest mountain range. An elevation rise of more than 1,500 feet marks the difference between Lake Superior and the range of igneous hills that stand above it. This area is known for exposed cliffs and rugged stream valleys featuring spectacular cascades and waterfalls. The hilly uplands of this Landscape have abundant, clear, shallow lakes. Originally, this was a northern conifer forest of spruce, fir and pine, mixed northern hardwoods and pine, and some conifer bog and swamp. Due to logging activity, much of the original forest has been replaced by an aspen/birch forest. Today, a tourism/recreation based economy prevails in the northern part of this Landscape while taconite processing and shipping prevail to the south.
- d. Glacial History: The basin of Lake Superior was formed when a continental rift valley began to develop between Minnesota and Wisconsin. It was the lava which flowed from the area below the present lake which effectively repaired that rift. During the glacial periods this basin was filled by water and ice. As the waterlevels dropped, the igneous cliffs above the lake were eroded by short, fast moving streams, creating the spectacular cascades and waterfalls which now characterize this landscape.



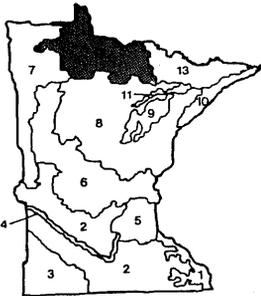
## 11. MESABI RANGE

- a. Where: This landscape is a narrow strip of land which extends from Grand Rapids northeast to Babbitt and Giant's Ridge.
- b. Historical Significance: This region's most recent history is its most dramatic. Once this country's primary source of iron, significant human impact has shaped the land as we see it today. The open pit mines, like miniature "Grand Canyons," and underground mines with their miles of layered tunnels symbolize the rugged individualism of immigrants from north and eastern Europe.
- c. The Landscape Today: This rigid, man-made landscape of deep and often water-filled pits exposes multi-colored rock layers and towering hills of tailings. Range towns and cities are often perched along the edges of pits providing excellent visual perspectives to visitors. Originally dominated by white and red pine communities, today's forest primarily consists of aspen and birch interspersed with mixed northern hardwoods, conifer bogs and fens. This area has a special ethnic flavor. The Iron Range Interpretative Center and Minnesota Ethnic Days during August display and celebrate this rich heritage.
- d. Glacial History: This landscape is enclosed by the Giant's Ridge, a 200 to 400 ft. igneous rock ridge flanking the north and south rims of the Mesabi Range. Glacial action scoured these ridges and covered the area with glacial drift. In places, the ridge is largely buried by that drift.



## 12. AGASSIZ LOWLANDS

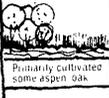
- a. Where: This landscape encompasses all of Lake of the Woods County, most of Koochiching County, the eastern half of Roseau County and northern Beltrami County.
- b. Historical Significance: What we now call the Rainy River Voyageur Route has been a travel route since long before recorded history. Prehistoric cultures, explorers, voyageurs all used it. Today, farming still prevails in the bog's fringe areas and where bogs have been drained. The principal crops are small grains, hay, potatoes, and ditches and dikes of rice paddies. Much of the land is used as pasture, and some logging occurs in the uplands. The Waskish area on the east side of Upper Red Lake is a center of wild rice production.
- c. The Landscape Today: Called "The land of howling wolves," this flat, near-tundra landscape of bog and jack pine to the south of Lake of the Woods is perhaps the best real wilderness we possess. This landscape consists of a level lake plain with two large, slightly elevated islands; Beltrami and Pine Islands, and glacial beach ridges. Presently, two large lakes remain in this basin: Lake of the Woods and Red Lake. The Big Bog, possibly the largest uninterrupted wetland in the world, is a group of conifer bogs, and peatland covering the lowlands. The slightly elevated beach ridges and islands are covered by aspen/birch, and jack pine stands. This area's destiny, like that of the Central Peatlands Recreation Landscape may well be found in the future potential of peat as a fuel.
- d. Glacial History: This landscape is largely made up of the area which was covered by the Beltrami arm of Lake Agassiz. Like the Red River Lake Plain Landscape, the area is relatively featureless, but unlike that landscape, the Agassiz Lowlands has very poor drainage.



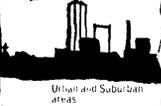
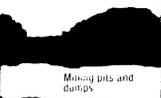
### 13. BORDER LAKES

- a. Where: This landscape stretches along the Canadian border in a band 130 miles long and about 30 miles wide which includes most of Cook and virtually all of northern St. Louis counties.
- b. Historical Significance: This area is famous for the water travel routes that were widely used by Native Americans, and first mapped by such explorers as Verendrye, Brule, and Champlain. This French influence was responsible for bringing the voyageur and his cultural heritage to this area.
- c. The Landscape Today: This is the Native American mystery land of "No-Place Between," a primeval landscape. This area is typified by bare ridges of extremely old rock separated by basins filled with clear lakes and dark bogs, often connected by streams. Originally, this area was a northern conifer forest of mixed pine and spruce/fir. Due to logging, aspen and birch stands cover much of the area. There are, however, significant remnants of the original vegetation. Today this rugged, sparsely populated region is known for the Boundary Waters Canoe Area Wilderness (BWCAW), a national Wilderness Area, and Voyageurs National Park.
- d. Glacial History: In this landscape, glacial activity largely consisted of a scouring erosion of the igneous bedrock. The resulting pattern is one of lakes and ridges which reflect and emphasize the striations in the ancient igneous rock structure.



		<b>LANDFORM</b> (Topography/Water)					
		 <p>Bare rock ridges and cliffs, gorges and waterfalls in the lower reaches of the lakes and bogs in the uplands</p>	 <p>Ranges of hills pocked with countless lakes, ponds and bogs</p>	 <p>Exposed rock cliffs, steep river valleys</p>	 <p>Level lake plains, numerous bogs and marshes, extensive great lands</p>	<p>Developed by glacial erosion</p> <p>Developed by glacial deposition</p> <p>Developed by stream erosion</p> <p>Developed by water action formed by glacial lakes and outwash</p>	
<b>VEGETATION</b>	 <p>Northern conifers and hardwoods</p>	<p>10. North Shore Highlands</p> <p>13. Border Lakes</p>	<p>8. Northern Pine and Lakes</p>			<p>9. Tamarack Bog</p> <p>12. Agassiz Lowlands</p>	
	 <p>Primarily cultivated, some aspen oak</p>		<p>6. Central Hills and Lakes Country</p>	<p>1. Southeastern Blufflands</p> <p>4. Minnesota River Valley</p>			
	 <p>Mostly cultivated with deciduous upland &amp; riverbottom forests</p>	<p>2. Southern Farmbelt</p> <p>3. Highland of the Prairies</p>			<p>7. Red River Lake Plain</p>		

## LANDSCAPES SIGNIFICANTLY MODIFIED BY HUMANS

 <p>Urban and Suburban areas</p>	<p>11. Twin Cities Metropolitan Area</p>
 <p>Mining pits and dumps</p>	<p>5. Iron Range</p>

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