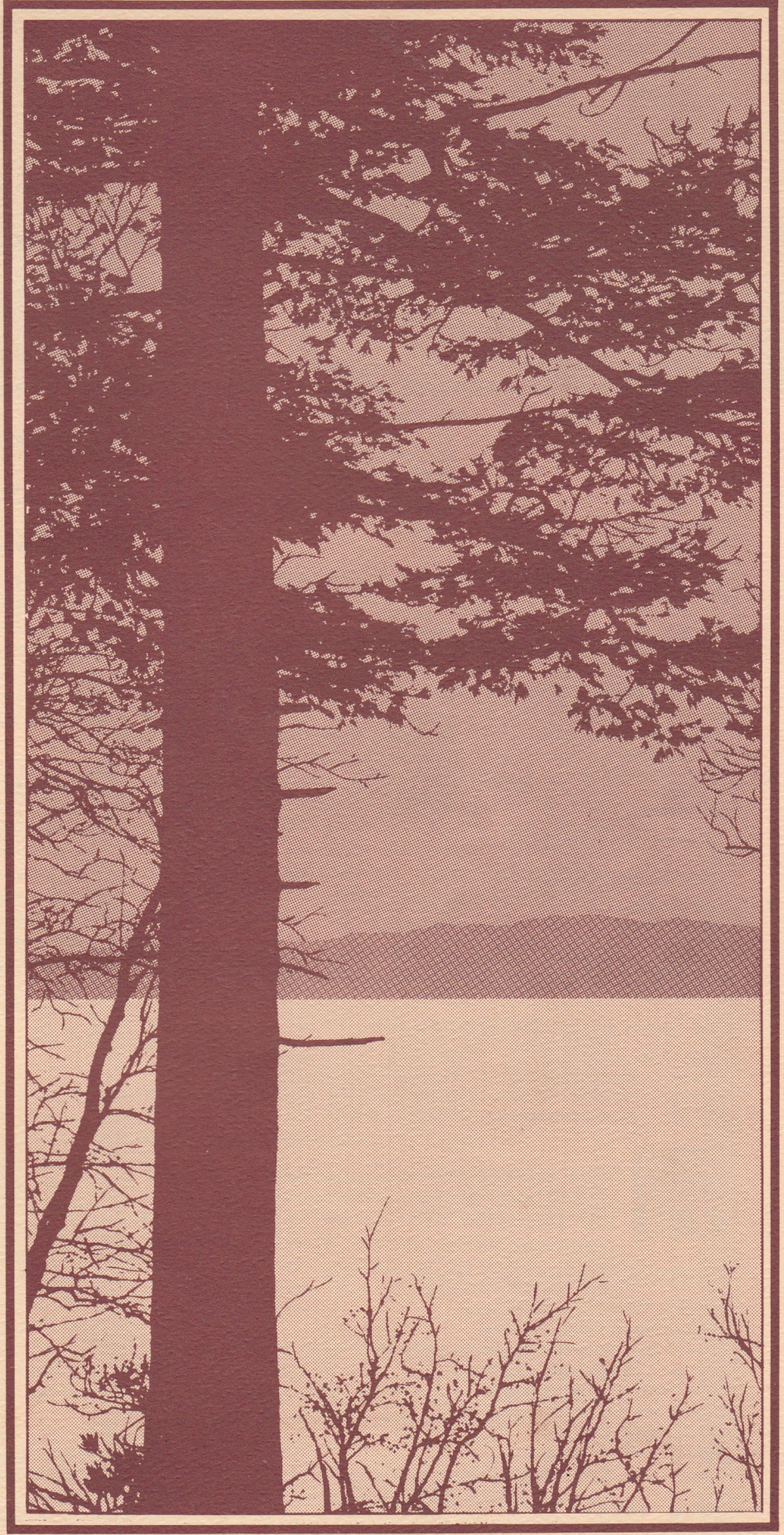


**COMPREHENSIVE GUIDE PLAN — PINE COUNTY, MINNESOTA**





**ACKNOWLEDGEMENTS**

The following persons and agencies contributed valuable information and assistance for this report and to the Pine County Comprehensive Planning Program in general.

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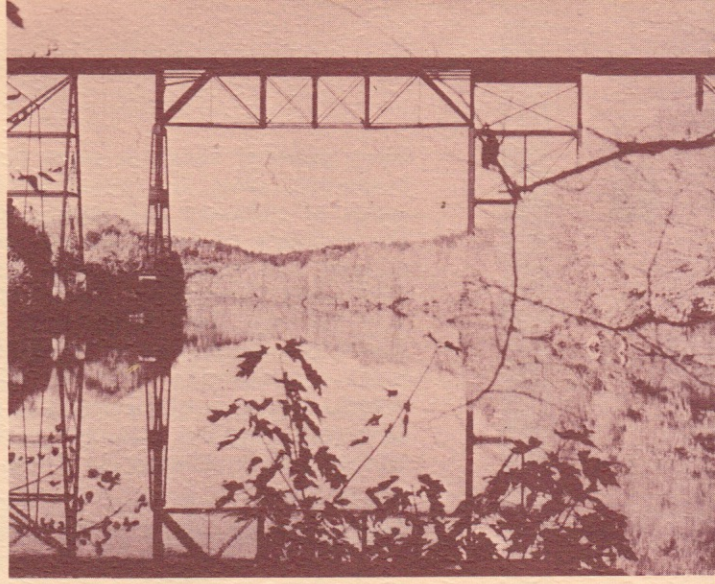
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Hinkley Fire, 1894.



Kettle River and Bridge at Sandstone.

## PINE COUNTY DEVELOPMENT

Long before the coming of the white man, the region now including Pine County was well-known to northern Indian tribes whose villages dotted the shores of the area's many lakes and streams. Known by the Indians for centuries, these same waterways were also used by the first explorers and traders who entered the area.

Among the earliest white men to enter the region were fur traders of the British North West Company. As early as 1804 a semi-permanent "wintering post" was built by Northwesterner Thomas Connor on the banks of the Snake River. Connor's Fur Post has recently been reconstructed by the Minnesota Historical Society and will be discussed more fully in another section of this report. Pine County's role in the fur trade of the late Eighteenth and early nineteenth centuries represented the first organized economic activity to be carried on in the region.

By 1850 the demand for furs had slackened, and the supply had decreased. New types of economic activity in the forms of agriculture and lumbering became dominant. As timber cruisers searched along the St. Croix and its tributaries, they found tremendous stands of white pine which could be used to furnish lumber to build homes for the thousands of settlers who were seeking to establish themselves on the middle western frontier. Millions of board feet of lumber were cut and floated downstream to the mills along the lower St. Croix River. Most of Pine County's early development came as a result of lumbering.

Between 1870 and 1872 Pine County was given a boost by the construction of the Northern Pacific Railroad. The boom was cut short by the financial panic of 1873, and it was nearly

1880 when settlement and lumbering began in earnest.

The decades of the 1880's and 1890's saw Pine County pushed to the peak of its economic development. The county's towns and villages were founded during this period as sawmilling centers or supply depots for the multitude of logging camps operating in the vicinity. Annual log drives also took millions of feet of white pine logs downstream to the huge sawmills of the lower St. Croix and Mississippi Rivers. Logging railroads crisscrossed the county, and many small communities such as Rock Creek and Rutledge had as many as five sawmills.

In 1894 a great forest fire devastated much of Pine County, but complete towns were rebuilt from the ashes. By 1905 nearly all of the county's pine forests had been cut off or destroyed by fire. Often forest land was deliberately burned by farmers who believed it would be better suited for agricultural purposes. Many of these farmers were immigrants from Scandinavian countries.

Even as lumbering was at its peak in Pine County, a demand for building stone led to the opening of several quarries along the Kettle and Snake Rivers. Large quarrying operations were carried on for a number of years before the use of structural steel became popular.

Copper mining was also attempted in several places. Remains of one such attempt can still be seen near the Snake River at Chengwatana where nearly \$300,000 was spent trying to develop a vein.

By World War I, however, agriculture had fully emerged as the backbone of the county's economy although the region's lakes have long



been popular vacation spots for Twin Cities residents. Only in recent years have new types of industry and partial realization of the region's recreational potential begun to change and move economic activity in new directions. Completion of the interstate freeway through the county, for example, has meant the bypassing of all towns, but several local communities, such as Hinckley, have taken advantage of the freeway and provided new auto service stations, restaurants and motels which cater to travelers.

During the 1960's Pine County reached an important crossroads in its long and significant historical development. Growth during most of the twentieth century has been slow or even stagnant. The county's population has diminished even since 1960.

The absence of growth and economic "progress" during recent decades has not necessarily been bad. While other places throughout Minnesota and the nation as well have grown bigger and attracted large industrial developments, they have not necessarily become better places in which to live and work. Pine County, on the other hand, has emerged in 1971 as a place where residents and visitors alike can still feel a strong sense of identity with the countryside.

Pine County is already feeling the pressures of growth and development being placed upon it by the rapidly-expanding Twin Cities Metropolitan Area. Many Pine County residents already commute daily to work in Minneapolis or St. Paul, and the day is not far off when real estate developers will be wanting to develop housing subdivisions and mobile home parks adjacent to Interstate Highway 35 in Pine County. The purchase of county lands by Twin City firms for use as caustic industrial dumps has caused considerable discord. Thousands of additional acres have been sold to absentee landowners for recreational purposes with no controls over the placement or construction of "hunting shacks." Nearly all of the county's valuable lakeshore is developed with cabins and permanent homes. The recent designation of the St. Croix as a National Wild River focuses nationwide attention on Pine County as a tourist and recreational area.

How will Pine County meet these challenges?

The answer, for the most part, is up to the local residents to decide. There is little doubt that Pine County will change during the 1970's just as change has occurred for the past century. In 1858, for example, no one thought that the county's vast white pine forest would ever be cut off. By 1900 they were virtually gone.

While it is impossible to predict exactly the type of changes that will occur in the future, much can be done to guide these inevitable changes. But before guidelines can be set, the people of Pine County must first decide that they want to guide change within their county. They also must decide for themselves what kind of changes and development they wish to have occur.

If, on the one hand, they want more industrial dumps, huge real estate developments, crowded lakeshore development and tarpaper hunting shacks scattered throughout their beautiful forest lands, then their answer should be to do nothing at all.

If, on the other hand, the people of Pine County wish to respect those amenities which make for pleasant and healthful living, efficient use of public facilities and services, responsible housing and industrial development, and reasonable taxation, then they are going to have to choose a path that will require imagination, planning and cooperation on the part of many people.

Some persons may have to sacrifice short-term profits in order to promote greater long-range gains. Reasonable restrictions will probably also be needed on the way land is used, where buildings are located and how services are provided. In the past restrictions were not needed because there were fewer people, more room and the impact of development was not considered critical. In our modern world, however, uncontrolled development could easily destroy the very qualities that make Pine County attractive in the first place.

Over time, planned growth can actually be less expensive because of better land utilization and lower utility and public service costs. The greatest savings, however, cannot be measured in dollars. These savings are those factors that result in an improved environment for both Pine County's residents and visitors alike.



## LAND USE PATTERNS

A basic part of Pine County's comprehensive planning program was the completion of a detailed field survey of land use and development patterns. During the course of this survey every road in the county was traveled over, land uses were noted on large-scale maps and principal building conditions were analyzed.

What emerged from this extensive study was a detailed outline of how the county's land is used, where development problems already exist as well as what areas may be suitable for various types of future development.

### PINE COUNTY LAND USE SUMMARY, 1968

| CATEGORY                          | NO. OF ACRES | PERCENT OF COUNTY AREA |
|-----------------------------------|--------------|------------------------|
| Agricultural                      | 349,053      | 38%                    |
| Public                            | 38,447       | 4                      |
| Residential                       | 1,442        | *                      |
| Seasonal                          | 395          | *                      |
| Commercial                        | 12           | *                      |
| Industrial                        | 1,151        | *                      |
| Semi-Public                       | 171          | *                      |
| Area of Incorporated Communities  | 13,680       | 1                      |
| Other Forest Lands and Open Space | 499,329      | 55                     |
| Total Land Area                   | 903,680      | 99                     |
| Total Water Area                  | 9,600        | 1                      |
| Total County Area                 | 913,280      | 100                    |

\*Less than 1 per cent

Source: Consultant's Field Survey, 1968.

### Agriculture

Of Pine County's total area, 38 per cent is in agricultural uses. Although widespread throughout the county, farming is especially predominant in the lower one-half.

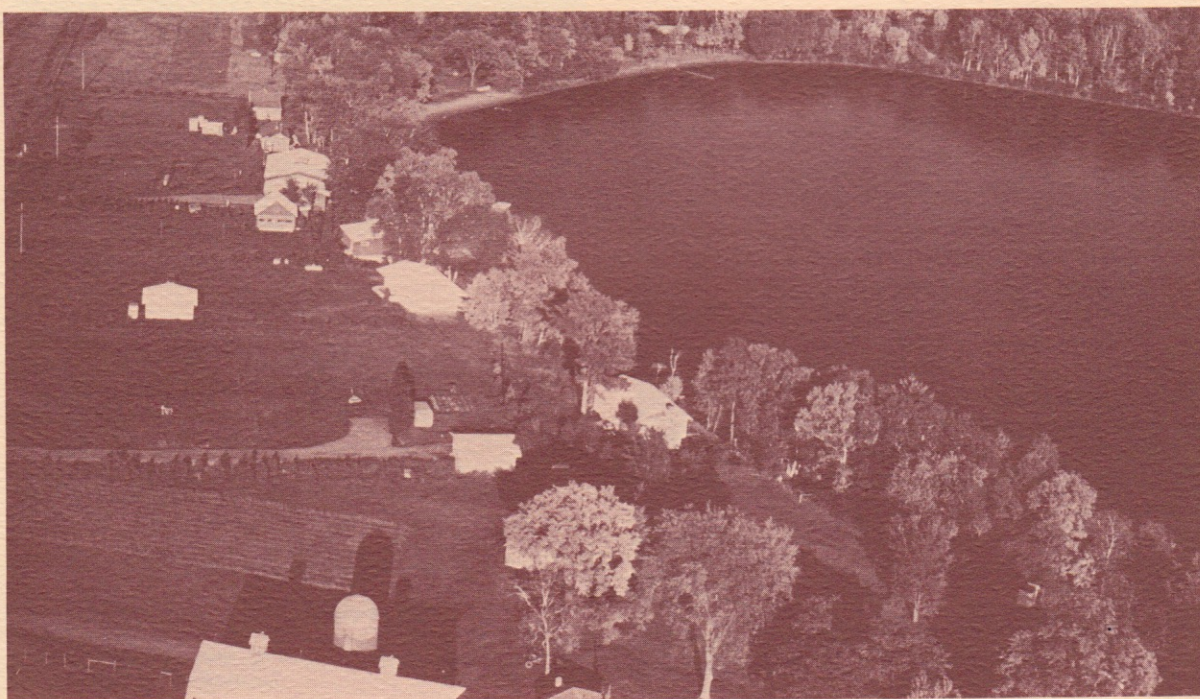
The 1964 United States Census of Agriculture reported the total number of county farms as down from 2,082 in 1959 to 1,792 in 1964. In 1968 there were 1,486 farms in Pine County. In 1959, 375,289 acres of land in the county were in agricultural use, while in 1964, 354,094 acres were devoted to farming.

### Public Lands

Four percent of the total area of Pine County is devoted to public uses. Two large state parks are located within the county. St. Croix State Park encompasses 32,700 acres bordering along the St. Croix River in the southeastern portion of the county. Near Sandstone in northern Pine County is Banning State Park (5,440 acres). Both of these scenic parks attract large numbers of visitors every year.

Small cemeteries, several maintenance garages, town halls, and ranger stations are scattered throughout the county. Within the communities are school facilities, village halls, utility services, and hospitals. Near Sandstone is a federal correctional institution of considerable size.

Typical Pattern of Lakeshore Development in Pine County.





## Residential Development

A total of 1,442 acres, or less than one-half of one per cent of the developed area outside of Pine County's incorporated communities, are devoted to residential land uses. Rural residential development in Pine County has been widespread.

During the 1968 field survey, only 6 basement dwellings and 114 mobile homes were found in Pine County. Most of these units were scattered throughout the county, but concentrations were found near some communities. As the demand for inexpensive housing increases, more mobile home parks where auxiliary services can be provided will be needed. These should be attractively laid out and landscaped with proper utilities installed.

## Structural Conditions

As part of the land use field investigation a survey was made of the structural condition of each principal building in the county.

Over half (58 per cent) of Pine County's structures are in satisfactory condition. A total of 680 buildings or 19 per cent of the total were found to be in need of some repairs while 389 or 11 per cent were in dilapidated condition. An additional 411 were abandoned.

## Structural Conditions, Pine County, 1968

| CATEGORY             | NO. OF UNITS | PERCENT OF TOTAL |
|----------------------|--------------|------------------|
| Sound (fair or good) | 2,046        | 58               |
| Deteriorating (poor) | 680          | 19               |
| Dilapidated (bad)    | 389          | 12               |
| Abandoned            | 411          | 12               |
| Total                | 3,526        | 100              |

Source: Consultant's Field Survey.

## Seasonal Home and Resort Development

Extensive seasonal development has occurred in Pine County. In 1968 there were 1,467 summer homes or cabins and 24 resorts in the

county. Popular lakes include Grindstone, Big Pine, Bass, Long, Passenger, Sturgeon, Island, Sand, Pokegama, and Cross Lakes. Crowded conditions have already appeared in several areas. In future years careful consideration will have to be given to the problems of overcrowding, pollution, and public access development.

## Commercial Development

Only 12 acres outside of the county's communities are developed commercially. Examples include small gas stations, cafes, country stores, home businesses such as TV repair shops and carpenter shops, and farm equipment sales.

Most of the commercial activity in Pine County is carried on within its communities. According to the 1963 Upper Midwest Economic Study Pine City and Sandstone were classified as "partial shopping centers" which means they offer all the necessary basic goods and services plus some more specialized functions. Hinckley is classified as a "minimum convenience center" while the other communities in the county are classified as "hamlets" and offer only minimal goods and services.

## Industrial Land Uses

Three-tenths of one per cent of all developed land in the county consists of industrial land uses. Some of these uses include sawmills, automobile junk yards, large industrial dumps, manufacturing plants, and gravel pits.

## Semi-Public Land Uses

During the field survey 37 semi-public uses totaling 171 acres were counted. Examples include several camps for youngsters, numerous rural churches and denominational cemeteries, archery clubs and sportsmen clubs.

## Other Forest Lands and Open Space

There were 499,329 acres of additional forest and undeveloped lands in Pine County. An important part of the consultant's study is



to assess the capability of this land for more intense future development. Using data gathered from aerial photographs, topographic maps and the field survey, a three-part classification was used to categorize this land.

### Undeveloped Land Classification

| CATEGORY  | ACRES   | PERCENT OF TOTAL |
|-----------|---------|------------------|
| Prime     | 67,424  | 14%              |
| Secondary | 79,808  | 16               |
| Marginal  | 352,097 | 70               |
| TOTAL     | 499,329 | 100%             |

Source: Consultant's Field Survey and Research, 1968.

Large blocks of prime land exist in nearly every portion of the county. Much of this land adjoins parcels already in active uses and could easily be developed in a variety of ways as conditions warrant.

Hunting and other recreational uses as well as timber production are important uses for so-called secondary lands much of which adjoin low-lying areas or follow stream courses.

Very large areas of marginal lands are found in northeastern Pine County as well as elsewhere throughout other regions.

Marginal lands are important for recreational uses. Wildlife habitat areas are most likely found within this classification as are hunting, hiking and more recently, snowmobiling activities. Wherever possible, marginal lands should be preserved as permanent open space. Some are now in State Parks, State Forests, and other publicly owned tracts.

The State Forests in Pine County, for example, are receiving extensive use under multiple-use management policies. Within these forests there are approximately 8,000 acres of established tree plantations, 3 active campgrounds, several wildlife habitat areas, 2 picnic areas, 3 recreational trail systems, a canoe route, 70 hunting cabin leases, and 60 miles of maintained forestry roads. Up to 2,000 acres per year of timber are also harvested.



**TOP: Nord Manufacturing Company, Hinckley.**

**CENTER: Bicycling in St. Croix State Park.**

**BOTTOM: Nearly 40% of Pine County's total Area is Devoted to Agriculture.**



# NATURAL RESOURCES

## WEATHER AND CLIMATE

Pine County's weather is characterized by a humid continental climate with warm summers and cold winters.

Summers are usually quite pleasant with short periods of hot weather interspersed with periods of cool and rainy weather. About two-thirds of the annual 29 to 30 inches of rainfall comes in summer. Average summer temperatures range from 66 to 70 degrees.

Winter is a period of northwest winds and cold, high pressure systems which often drop the temperature far below zero. The average January temperatures range from 8 to 10 degrees. About 45" of snow accumulates each winter and remains on the ground until April.

The growing season varies considerably because of topography and climate factors, but ranges from 110 to 130 days. The last killing frost of spring is usually around May 20th and the first killing frost of autumn occurs around September 25th.

The climate of the Pine County area is quite favorable for outdoor recreation. Although winter temperatures are occasionally quite low, there are many clear and moderate days when ice fishing, skiing or snowmobiling are appropriate. Summer temperatures are ideal for fishing and camping, and attract many persons seeking to escape the heat of other areas.

## BEDROCK GEOLOGY

In most of the counties surrounding Pine County, bedrock is rarely exposed at the surface and is known mainly from well or mine drillings. The three major streams of Pine County, however, have cut down through the glacial drift to the bedrock providing an ample opportunity to survey the nature and extent of the rock systems. Within the county is found all three major rock types; igneous, sedimentary and metamorphic, aligned along a northwest to southeast axis.

## TOPOGRAPHY

The topography of Pine County shows the influence of two major natural forces at work on the face of the land. The first was the passage of the great continental glaciers across Minnesota in the last period of glacial action, the Wisconsin Stage, which ended around 20,000 years ago. The second force is the downcutting of stream valleys through the glacial drift deposited by the glaciers as well as through the original bedrock.

The Wisconsin Stage produced three different ice sheets that reached the Pine County area and acted in shaping the county's topog-

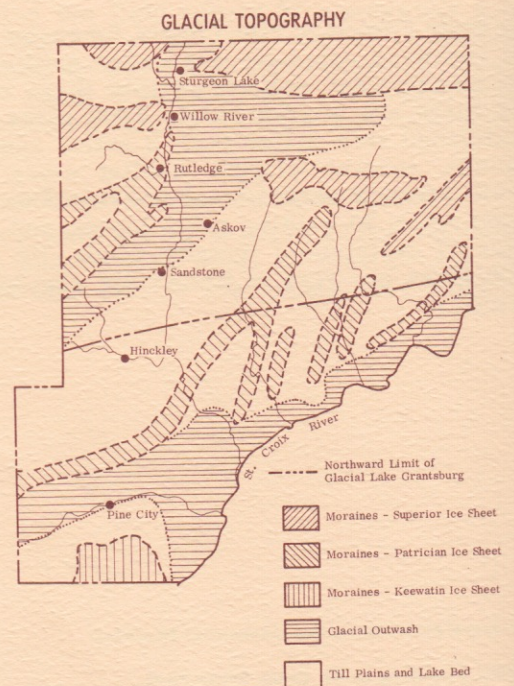
raphy. As each ice sheet passed from its separate point of origin north of Lake Superior, land surfaces were scoured of rock, soil and vegetation, and these materials were subsequently deposited on the surface of Pine County.

Since each ice sheet picked up different material from widely separated locations, the surface of Pine County is made up of a complex variety of drifts. The present makeup of the soils and land forms of the county is directly linked to the nature of the parent till, or drift.

## WATER RESOURCES

The drainage patterns of Pine County have been profoundly influenced by glacial action. Both glacial deposition and glacial erosion have affected topography and stream development. The deposition of moraine and other land forms have forced streams to change their patterns to bypass these features or to cut their way through the less resistant parts. Glacial erosion and the cutting done by the flowing of glacial meltwaters have produced many valleys and enlarged previously existing ones, such as the St. Croix Valley.

**St. Croix Watershed:** The St. Croix Valley is separated into two parts, the upper part lying north of the mouth of the Snake River and the lower part lying to the south. The



Source: Thiel, *Geology and Underground Waters of Northeastern Minnesota*.



upper system consists of a series of streams including the Tamarack River and Bear, Sand, Crooked, Keene, McDermott and Hay Creeks. The development of these streams date to the late Wisconsin Stage when waters began to drain from the south margin of the Superior Ice Sheet.

The lower watershed includes only southern Rock Creek and Royalton Townships on the southern edge of the county with Rock Lake and Rock Creek the major water features in the drainage. The St. Croix River in this area has a quite steep gradient and occupies a narrow valley. Ground water in this drainage comes mainly from sand and gravel layers, glacial outwash areas and gravel terraces.

**Lake Superior Watershed:** This drainage is part of the Nemadji River system and consists mainly of Net Lake and Net River.

**Snake River Watershed:** The Snake River rises in the marshy area north of McGrath and flows southward for about 56 miles and 24 miles eastward to join the St. Croix east of Pine City. West of Cross Lake the river occupies a valley 5 to 25 feet deep and 50 to 130 feet wide, except for a narrow stretch of rapids near the mouth of Hay Creek. East of Cross Lake the river occupies a deep valley carved through bluffs 50 to 100 feet high. Major tributaries in Pine County are Mission and Pokegama Creeks.

**Kettle River Watershed:** In its northern part, the watershed occupies a shallow, narrow valley of glacial drift. From Willow River to Hinckley it has cut a gorge 75 to 100 feet deep in the Hinckley sandstone. Below Hinckley, the river crosses the Douglas Fault and flows southward in a lava channel 25 to 40 feet deep to its junction with the St. Croix east of Beroun.

Much of the river has a steep gradient, with the steepest being 18 feet per mile in the portion of the river 10 miles above the mouth. Major tributaries include the Moose Horn, Pine, Willow, Grindstone and Split Rock Rivers.

## WATER POLLUTION

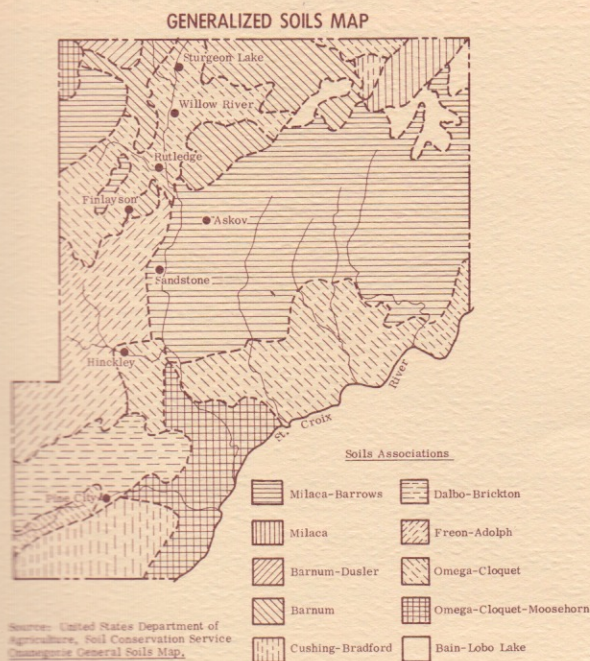
Although pollution is not yet a major problem in Pine County, careful attention must be given to certain areas to insure water quality. Sewage treatment facilities or lagoon systems exist in Hinckley, Askov, Kettle River, Pine City, Sandstone and Finlayson. Systems should be required for all those communities presently dumping raw effluents into the surface waters of the county. Stream and lakeshore resort areas where septic tanks are used for waste disposal should be given special consideration. Proper zoning and subdivision practices will help avoid serious pollution problems by correcting past practices where lot sizes were too small or the sub-surface material was unsuitable for proper sewage filtration. Standards regarding water quality are presently being developed by the State of Minnesota. Their findings should serve as guidelines for concerned citizens and officials in implementing regulations regarding water pollution.

## SOILS

Soils are a natural resource particularly vital to the prosperity and well-being of a rural area. Extensive efforts have been made to conserve and maintain the quality of soils, especially in heavily farmed areas. Many influences operate in the formation or destruction of soils, including climate, topography, bedrock type, time and biological agents.

A large scale soils map of Pine County completed by the U.S. Department of Agriculture, and the University of Minnesota Agricultural Experiment Station, demonstrates in detail the complexity of the soils distribution pattern. This map is part of the publication "Soil Survey, Pine County, Minnesota," which also contains much valuable information on agriculture, vegetation and forestry in the county. Copies of this report are available from the County Agent's Office at Hinckley.

As shown by the generalized soils map, there are 10 major soil associations within the county.





## **WILDLIFE**

Pine County is endowed with a high-quality environment for many types of wildlife. A diversity of habitat are available including swamps, forests, river valleys and cultivated fields, providing for many resident and migratory species.

### **Big Game**

The northern one-third of Pine County is included in the peripheral range of the moose. This large browsing animal is found in remote forested areas, living on bark, leaves and herbs in the winter, and feeding on aquatic plants in lakes and marshes during the summer months.

The most important game animal in the state is the white-tailed deer. This animal is significant to Pine County because it provides local residents with sport, food, and seasonal income, in the form of revenues from visiting hunters and photographers.

Although the black bear is a game animal, it does not figure as a significant species in terms of hunters or revenue derived from hunting trips. The bear does have aesthetic value, however, in that tourists and visitors often look forward to seeing these animals at the now disappearing dumpgrounds and in more remote parts of the county.

### **Predators**

The Canada Lynx is a resident of the uninhabited parts of the county, but his range decreases yearly as the pressures of civilization increase. Much of the range of the lynx has been taken up by the bobcat, which seems to adapt better to the proximity of man. Both of these animals are valuable in controlling the populations of snowshoe rabbits and other destructive rodents. The coyote and the red and grey fox are also found in the county, and these animals are also significant in reducing the number of rodent pests, especially in agricultural areas.

### **Furbearers**

The stream and lakeshore areas support several species of valuable fur-bearers and trapping is often a supplementary source of income for rural residents of Pine County. The muskrat is the most common furbearer trapped, and the county's lakes and rivers are well supplied with populations of this small rodent. Beaver are also found in areas of slow or standing water, where aspen, birch and willow are available for food and dam construction. The beaver, through damming and ponding the small watercourses he frequents, provides a useful service for man and wildlife. Beaver ponds provide a natural regulation of stream levels and flow, reducing the intensity of flood and the severity of periods of low water levels. The ponds also pro-

vide a natural nesting and resting place for waterfowl, fish, birds, and other types of wildlife.

The mink is an important commercial furbearer, but proper management is essential in using this wildlife resource, as populations fluctuate rapidly with trapping pressure.

### **Small Game**

Small game species resident in the county include the jack rabbit, cottontail rabbit, and snowshoe hare. The jack rabbit is an inhabitant of open areas and fields, while the cottontail prefers brushy and woody areas. The snowshoe hare is a denizen of the deep forest, and is characterized by fluctuating population cycles. Predator populations, especially those of the bobcat and lynx, tend to follow the cycle of the snowshoe hare. In periods of high population density, these animals can be very destructful to young trees and often represent a major problem in areas of reforestation or tree nurseries. Red squirrels are common in areas of coniferous forest, as are grey squirrels in the deciduous forest, and along with the raccoon and woodchuck, make up a group attractive to the small game hunter.

### **Upland Game**

The most actively-hunted game species in northern Minnesota is the ruffed grouse, or "partridge," and like the white-tailed deer, is of economic significance to Pine County. The forested areas of the county offer ample habitat for large numbers of these birds, and such hunting has drawn countless visitors to the area. Adjustments of the hunting season are frequently made to compensate for fluctuating numbers of these birds in the area. Pheasants and sharp-tailed grouse were once common and are still found in limited numbers. The pheasant occupies open fields, while the sharp-tail prefers open marshy tracts adjacent to timber stands.

### **Waterfowl**

Pine County lies adjacent to the Mississippi Flyway, the greatest aerial migration pathway in the Western Hemisphere. As a result, it is a significant area for both resident and migratory species of ducks and geese. The extensive marshy tracts within the county area are used for nesting by many species such as mallard, teal, shoveler, wood duck and pintail, and are important as resting and feeding areas for Canadian, Blue and Snow geese, and many other species of ducks which nest on the tundra of the Canadian Arctic. Habitat destruction has been the major cause of the enormous reduction in the numbers of North American waterfowl, and it is the responsibility and opportunity of officials and residents alike to protect and reserve marsh and





water impoundment areas for the use of waterfowl. The new water impoundment of the Chengwatana Wildlife Management Area within the Chengwatana State Forest is an excellent example of a government project for waterfowl and fur-bearing animal habitat as well as a public hunting area for deer and sharp-tailed grouse. The Mission Creek Wildlife Area on the Lohman Farm southeast of Hinckley is a model of private and official cooperation in action.

**TOP: Pine County contains much Excellent Waterfowl Habitat.**

**BELOW: Significant Quantities of Pulpwood are Harvested Each Year in Pine County.**

## FOREST RESOURCES

All of northeastern Minnesota is included in the northern coniferous forest zone. The original vegetation of this area consisted of vast expanses of pine, spruce, and fir with patches of softwoods occurring in areas of swamp, bog or fire damage.

Approximately one-half of Pine County is composed of moraine or swampy terrain. While much of the forest cover on these lands is unsuitable for high grade timber production, they play important roles in providing game habitat and in helping the soil retain water. It is also true that poor quality hardwoods and brush have regrown on areas where red and white pine once stood and much forest land which was tilled and later abandoned has never recovered to timber growth.

Nearly 460,000 acres of Pine County's forested land is classified as commercial forest land. The large majority of this acreage is timbered with aspen species. About one-third consists of hardwoods, and most of the remainder is forested with various coniferous species.

Significant quantities of timber are harvested each year in Pine County. During 1964, a recent year for which data is available, a total of 3.3 million board feet of sawtimber and 12 thousand cords of pulpwood were harvested.

Only about one-third of the annual "desirable cut" of Pine County's timber is actually har-





vested each year. Several reasons are given to explain the differences between actual and desirable cuts of various species. Much of the timber now growing in the county is of low quality and relatively difficult to harvest. Pine County's timber stands have also traditionally been regarded as being too far from major markets or timber users, but this line of thinking has changed radically in recent years with the advent of improved highways and more efficient means to move timber. A third problem is that much of the timber in Pine County, and especially high grade stands, is inaccessible for logging because of difficult terrain conditions and complex property ownership patterns. Finally, it must be remembered that while considerable quantities of growing timber are now of low value, this does not mean that the same will be true in a few years. Within five to ten years Pine County's commercial forest lands could be producing a much larger harvest than at present as young second-growth stands mature.

### **Forest Land Ownership**

In 1913 the Minnesota State Legislature passed an act to provide for the establishment of community forests. In 1945 and 1949 additional amendments included county memorial forests and school forests in the public forest system and made provisions for the use of tax-forfeited land in these areas. School forests are managed and maintained with a dual purpose - to educate students in proper management and conservation, and to provide income to the school district through timber sales. Although Pine County presently has no established community forests, such forest lands can also be beneficial by providing revenue, protecting watersheds, and furnishing local recreation areas. In addition, municipal forests are quite valuable to planning and zoning. They can be used to conceal unsightly land uses and to separate residential areas from highways and commercial-industrial zones.

State forest areas on the other hand include lands of all ownership types, the largest amount of which is usually state owned. Forest lands, swamplands and open land are included, and multiple use forestry is practiced under management policies of varying intensity depending upon the particular parcel involved.

Because of the varied pattern of land ownership patterns within Pine County, several problems exist which make proper and efficient management of timber resources very difficult. Absentee ownership is a major problem. About 42 percent of the privately-owned land in the county is reportedly held by absentee landlords. The scattered pattern of land ownership at all levels also reflects the need to consolidate holdings into efficiently-managed units either through sales or land exchange.

Efficient management programs have been underway for some time on state and school forest lands, but private and county-held forest lands have received little or no management except where limited state cooperation or assistance has been available. In order to resolve the problems arising from existing situations, a number of recommendations are offered. If followed, Pine County could realize greatly-increased benefits from its land holdings. The present system of merely selling land to place it on the tax rolls is not necessarily the best nor is it the only way to generate revenue and use of county lands.

1. A county-wide inventory of all lands and timber resources is urgently needed. Assistance from state and other agencies such as paper companies or the IRRRC is available for such a program.
2. Once an inventory is complete, all the land should be classified as to its best use. This is now being done in a number of nearby counties. Such a process enables the county to formulate an overall administrative policy.
3. Pine County should then set up its land management program and policies. If the results of the inventory and land classification so indicate, a full or part-time land commissioner should be appointed to administer the county's lands. Hopefully, Pine County's land management program would include more than merely selling lands. Other nearby counties have established fine workable programs which could be used as examples.
4. Finally, Pine County should develop its land for the best use. Lands that should be sold the county should sell, but other lands should be managed for other uses including timber growing and harvesting, hunting and other types of recreation.



# THE PEOPLE OF PINE COUNTY

Although white men visited the region long before 1800, concentrated settlement and growth in Pine County did not begin until after the mid-nineteenth century.

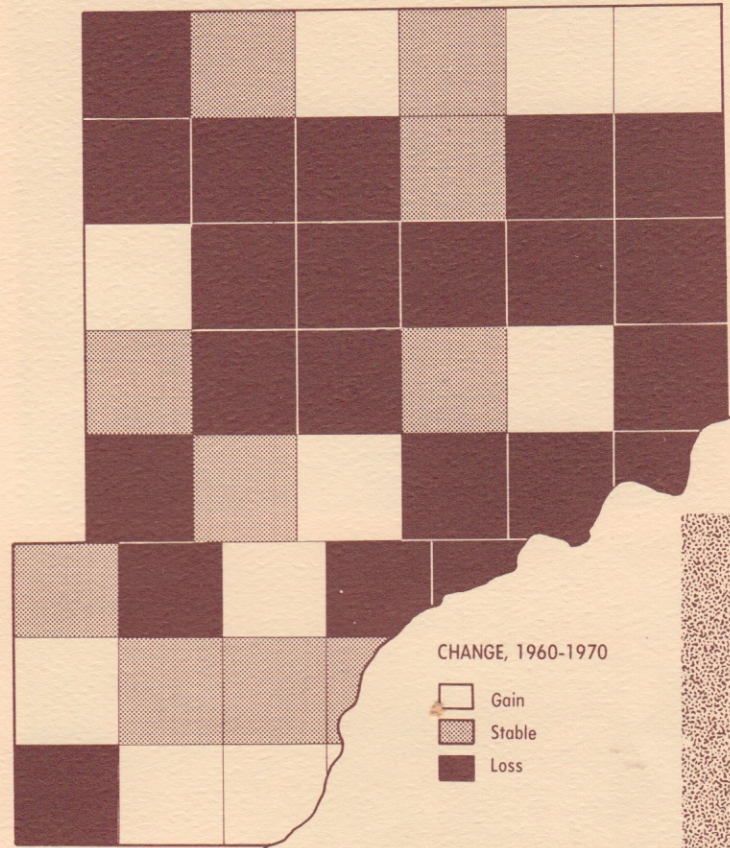
Lumbering brought the first influx of people into the region. Soon afterwards, railroads were built, reaching Pine County around 1870. Towns sprang up along the railroad tracks almost overnight. In spite of the difficulties associated with removing the large pine stumps left by the loggers, 11,546 persons had settled in Pine County by 1900.

Pine County's population grew steadily until 1920 when the census recorded 21,117 residents. By 1930 a decline of about 1,000 persons had occurred but was made up by 1940 when the county population reached its high point of 21,478 persons.

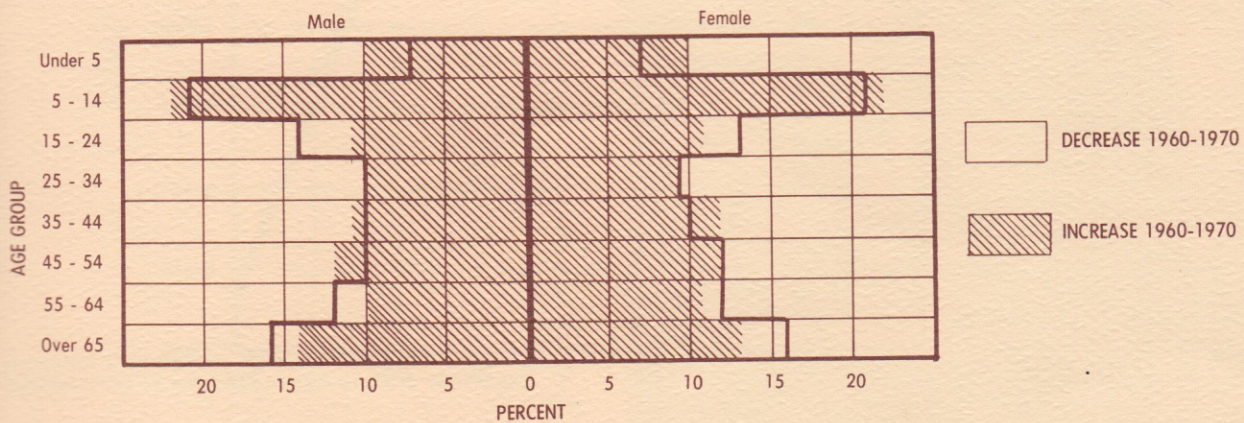
Since 1940, the county's population has gradually declined to a current 1970 level of 16,821 persons. The chief causes for this marked decline are considered to be losses in agricultural employment through farm closings and consolidation as well as migration from rural areas to urban centers where employment opportunities are more favorable. World War II also drew a large number of young men away from their homes in Pine County, many of whom were reluctant to return afterwards.

Pine County's population exhibits many of the same characteristics found throughout central and northern Minnesota. There are less than 150 Blacks and a total of only 400 minority group representatives, including Indians, living in the county. Nearly 125 of these Blacks are inmates of the Sandstone Federal Correctional Institution.

POPULATION CHANGE BY TOWNSHIP 1960-1970



AGE AND SEX DISTRIBUTION 1960-1970







As with nearly all Minnesota and Wisconsin counties, many of the residents are either foreign born or of foreign family stock. Askov is noted for the Danes who settled nearby, Finlayson for its Finns, Willow River for its Poles, Beroun for its Bohemians, and Friesland for its Friesians. Large numbers of Swedes, Norwegians and Germans can be found throughout the county. Altogether one-third of the county's total population are of foreign stock.

The 1970 U.S. Census indicated that there are 8,774 males and 8,047 females living in Pine County. This pattern is in direct contrast to the nation as a whole where there are slightly more women than men. It is consistent with and typical of rural Minnesota counties.

Nearly 2,700 of Pine County's residents are 65 years old or older. An additional 5,192 are fifteen or younger. Thus, almost half of the county's population belong to age groups that traditionally require more public services such as schools, public housing, medical and welfare assistance and the like. The earning power of these very young and elderly persons is also generally much less than that of persons in the middle-aged groups who represent the most productive segments of society.

The people of Pine County are quite well educated. Census information for 1960 showed that the median number of school years completed by adult residents (persons over 25) was 9.7. Although below the statewide average of 10.8 years, it does compare very favorably with most rural areas within Minnesota.

Ninety-two percent of the county's males and 85 percent of the females were high school graduates in 1960. Nearly 7 percent of the males and 14 percent of the females had also completed one or more years of college.



**Pine County's People are its Most Valuable Resource.  
The Needs of Every Age Group Must Be Provided for.**



Because of marginal agricultural activity and other low-wage occupations have been largely responsible for the fact that in 1960 the county's median family income level was only \$3,555, some \$2,000 less than the state as a whole. Undoubtedly, this figure has risen during the last decade as changes in the county's economic structure have occurred.

Primarily because of the relative lack of high-income job opportunities in Pine County, nearly 9,500 persons have migrated to places of better employment opportunities. Additional population shifts have also occurred within the county itself. Each year fewer people are left working in agricultural activities.

Pine County can probably expect reasonable population growth during the coming ten to 15 years. The county's location along I-35, the major northward extension of the Twin Cities growth corridor, will undoubtedly have considerable impact on development within Pine County during this period.

Two forecasts of future population were made for Pine County. Each forecast involves different methodology and assumptions, but both exclude the possibility of total war, national emergency, major economic depression or other disasters of regional or national importance. These forecasts do not mean that population change will occur at a uniform rate during the next ten to twenty years. Rather,

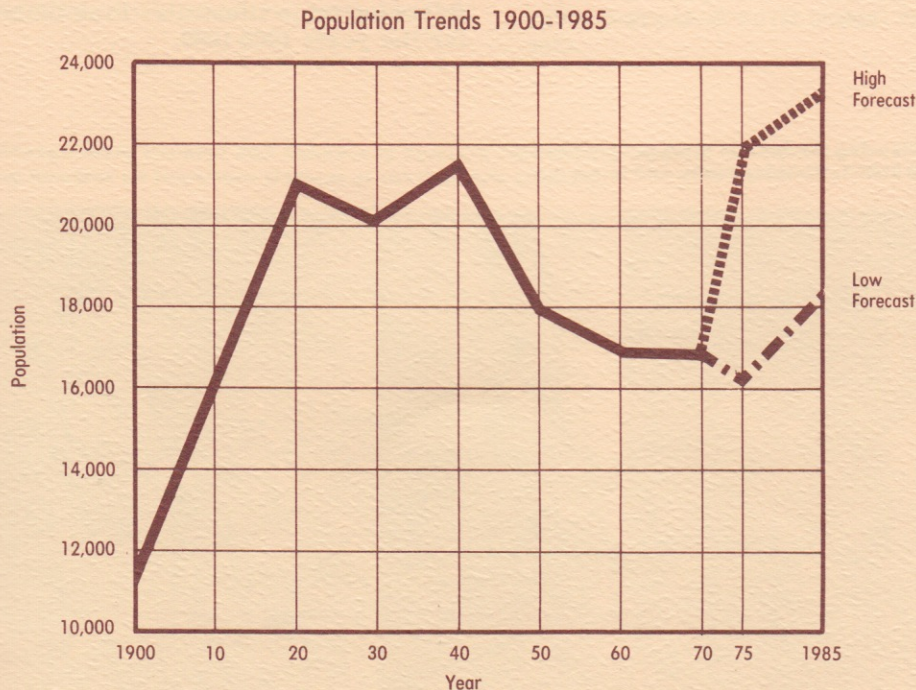
there will be "ups and downs" as the economy develops and adjusts itself. The overall picture in 1975 and 1985 should closely approximate the forecasted levels even though any given year in between may deviate substantially from the most direct line of change. Both forecasts are based upon past trends, present conditions, and "likely" occurrences in the future. In both it is also assumed that the economic base of Pine County will expand and that a certain amount of industrial and commercial development will occur which would offset the past trends of economic and population decline and out-migration.

**Population Forecasts — Pine County, Minnesota, 1975, 1985**

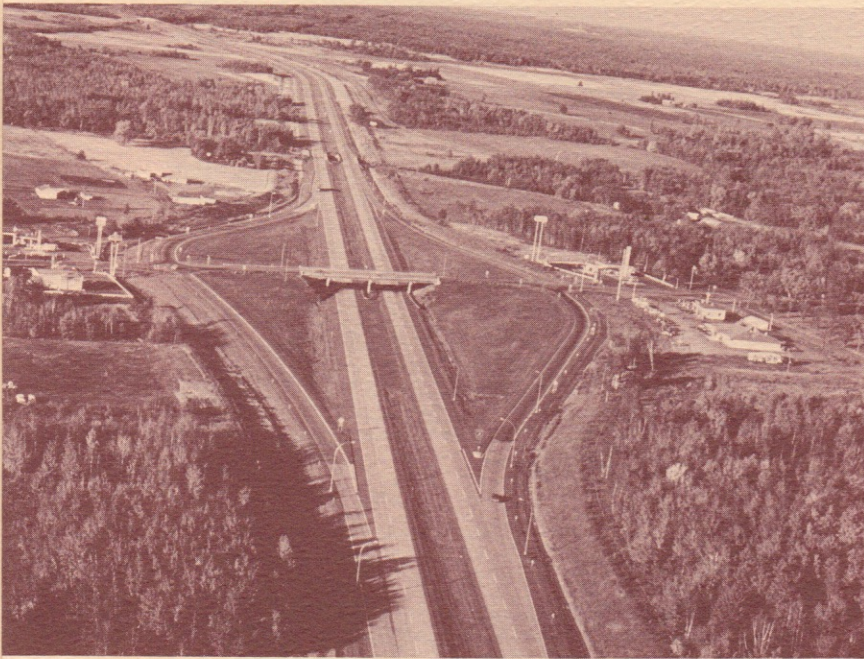
|               | 1975   | 1985   |
|---------------|--------|--------|
| Low Forecast  | 16,229 | 18,280 |
| High Forecast | 21,862 | 23,280 |

Source: U.S. Bureau of the Census, **U.S. CENSUS OF POPULATION, 1900-1960**; Minnesota Department of Health, Section of Vital Statistics; Consultant's Estimates

It will be noted that the forecasts prepared offer a range in which the actual 1975 and 1985 population will probably fall. The "low forecast" would be useful in estimating expected tax revenue, for example, at each of the target years, while the "high forecast" could provide some estimation of future land use needs.







Interstate Highway 35 Interchange at Hinckley.

terstate 35 corridor will certainly affect communities in Carlton, Pine and Chisago Counties.

### Employment and Labor Force

Between 1965 and 1969 work force and total employment figures rose by over 200 persons. Unemployment rates have followed this trend of increased employment by declining slightly during the same period.

### TOTAL EMPLOYMENT AND WORK FORCE ESTIMATES, 1965 - 1969

| CATEGORY          | 1965  | 1966  | 1967  | 1968  | 1969  |
|-------------------|-------|-------|-------|-------|-------|
| Work Force        | 6,143 | 6,181 | 6,164 | 6,340 | 6,368 |
| Total Employment  | 5,647 | 5,739 | 5,728 | 5,947 | 5,977 |
| Unemployment      | 495   | 442   | 436   | 393   | 391   |
| Unemployment Rate | 8.1%  | 7.1%  | 7.1%  | 6.2%  | 6.1%  |

Source: Minnesota Department of Employment Security.

Monthly unemployment rates in Pine County vary with the seasons. Typical monthly rates usually range from highs of 15 per cent in February to less than 3 per cent in peak summer employment months. Fluctuations of this magnitude are common in Minnesota's rural areas.

Analysis of employment by industry group provides a look at what is happening within the various segments of the economy. The following table illustrates Pine County trends for the years 1965-1969.

e

## THE COUNTY'S ECONOMY

As early as 1963 the Upper Midwest Economic Study outlined with cautious optimism Pine County's growth potential for the remainder of the 1960's and the 1970's. Continued decline was forecast for most rural areas, but major centers, such as Pine City, Hinckley and Sandstone, as well as resort and summer home areas, could expect both population and economic growth. The county's location between the two major economic centers of Minnesota - Duluth and the Twin Cities - is cited as an important factor. Growth along the In-

BELOW LEFT: Land Clearing Machine at Work in Pine County.  
BELOW CENTER AND RIGHT: Hinckley Today and tomorrow.





## EMPLOYMENT BY INDUSTRY GROUP, 1965 - 1969

| CATEGORY      | 1965  | 1966  | 1967  | 1968  | 1969  |
|---------------|-------|-------|-------|-------|-------|
| Construction  | 59    | 60    | 51    | 55    | 54    |
| Manufacturing | 182   | 200   | 247   | 268   | 246   |
| Trade         | 322   | 356   | 376   | 424   | 473   |
| Government    | 40    | 66    | 72    | 76    | 79    |
| Services*     | 247   | 285   | 317   | 291   | 297   |
| Agriculture   | 1,586 | 1,504 | 1,416 | 1,370 | 1,390 |
| Other**       | 3,211 | 3,268 | 3,249 | 3,463 | 3,438 |
| Total         | 5,647 | 5,739 | 5,728 | 5,947 | 5,977 |

\*Includes finance, transportation, communications, and utilities.

\*\*Includes education, management, health services and other categories not elsewhere listed.

Source: Minnesota Department of Employment Security.

### Agriculture

One of the pioneer industries of Pine County, agriculture began to develop as early as 1849 when lumberman and land promoter Elam Greely opened a farm in Royal Township. Hundreds of farms were opened up after 1870, and Pine County, like neighboring counties, became firmly established as an agricultural area. Most of the farms opened prior to about 1920 at least provided a living for their owners while some were reasonably prosperous.

Recent decades have, however, been a period of decline for the typical small farmer in Minnesota and across the nation. This fact is brought out in Pine County by the 1968 land use survey which noted over 400 abandoned homesteads in the county. Despite this decline, farming still employs more county

residents than any other single industry or business, and its importance to the economy cannot be overlooked.

As the total number of farms declined, several things happened. First of all, the average size of each farm increased substantially. Each year more and more marginal farms fall by the wayside or are consolidated into larger units. This pattern will undoubtedly continue into the 1970's and 1980's as further adjustments and policy changes are made.

### FARM CHARACTERISTICS IN PINE COUNTY AND MINNESOTA, 1954, 1959, 1964

| AVERAGE SIZE FARM (ACRES) | PINE COUNTY | MINNESOTA |
|---------------------------|-------------|-----------|
| 1964                      | 197.6       | 234.9     |
| 1959                      | 180.3       | 211.4     |
| 1954                      | 160.3       | 195.4     |

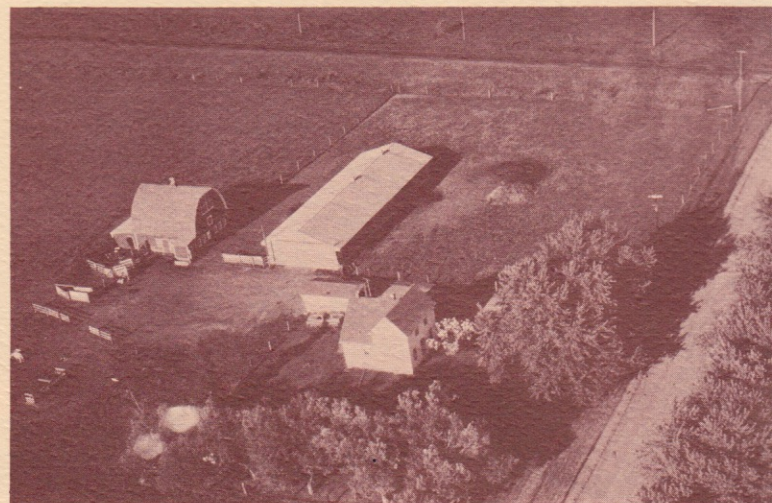
| AVERAGE VALUE/FARM | PINE COUNTY | MINNESOTA |
|--------------------|-------------|-----------|
| 1964               | \$13,388    | \$39,075  |
| 1959               | 9,198       | 32,605    |
| 1954               | 6,897       | 21,057    |

| AVERAGE VALUE/ACRE | PINE COUNTY | MINNESOTA |
|--------------------|-------------|-----------|
| 1964               | \$66.97     | \$166.14  |
| 1959               | 49.86       | 154.22    |
| 1954               | 43.60       | 105.58    |

(Source: U.S. Census of Agriculture, 1964)

Analysis of the total value of crops sold further emphasizes the lower quality of farmland in Pine County. Sixty-four per cent of the farms in Pine County produce crops worth less than \$5,000 per year. At the opposite end of the scale, only two per cent of Pine County's farms sell crops worth more than \$20,000 per year, compared to ten per cent for Minnesota.

**BELOW: Although there are over 400 Abandoned Farms in Pine County, Modern Farming Remains an Important Element of the County's Economy.**





### Trade and Industry

Total wholesale and retail sales in 1948 were \$14,643,000 as compared to \$21,048,000 in 1967. The number of wholesale trade establishments in the County will continue to decline because of increased competition from wholesale jobbers in the Twin Cities and Duluth.

Trade activities in Pine County are in a state of transition. The time is past when County residents purchase all of their goods from local merchants. Improved roads and faster cars make it very easy to shop over a wide area. Smaller communities and merchants find it difficult to match prices and selection with large-volume businesses in nearby large cities.

Industrial development in Pine County during the 1950's and 1960's has consisted primarily of small plants which do everything from process rutabagas to refinish bowling pins and make photographic equipment. Recent growth and expansion of such plants as Nord Manufacturing at Hinckley and the 3M Corporation at Pine City point out the viability and importance of light industry to the County's development.

Continued encouragement should be given toward expanding the County's industrial base by taking advantage of such factors as available labor and easy access to major metropolitan areas of Minnesota.

### Tourism

Pine County's lakes have long been attractive to local residents and people from the Twin Cities. Early resorts were built during the 1890's on Pokegama Lake, and steamboats cruising along the Snake River were popular attractions. Today second-home development, camping, boating, fishing, hunting, riding and snowmobiling are among the activities developing in Northern Minnesota at a greater pace than ever before.

Tourism and recreational development probably offers the greatest potential for development of any aspect of the County's economy. Each year greater numbers of Minnesotans engage in a variety of outdoor recreational

**LEFT: Horseback Riding in St. Croix State Park.**

**CENTER: Pine County's Streams Offer Some of Minnesota's Best Canoeing.**

**RIGHT: Pine County is a Snowmobiler's Paradise.**





activities ranging from hiking, boating, hunting, and fishing, to skiing, snowmobiling, and whitewater canoeing. Pine County lies directly in the path of the 50,000 plus persons who drive north from the Twin Cities every weekend, and forecasts indicate that this traffic will increase by 150 per cent during the next one to two decades. The attractions Pine County has to offer are among the finest of the region, and its proximity midway between the two largest metropolitan areas of Minnesota assure the volume of patronage necessary to justify and sustain first class recreational developments. Tourism in Minnesota is already a \$750,000,000 per year business, the fifth largest industry in the state. The \$1 billion mark is expected to be passed by 1975.

As Pine County continues to develop its tourist industry and recreational potential the emphasis should be on providing quality as opposed to "tourist trap" places with caged animals and unsightly billboards. St. Croix and Banning State Parks, the St. Croix Wild River, the Connor's Post and several local projects such as the proposed Robinson Park development at Sandstone offer excellent examples of outstanding recreational areas which offer a variety of facilities and activities for the visitor. Detailed recommendations for tourism and recreation development are contained in other sections of this report.

### Economic Development Needs

Pine County's work force and labor supply appear to be adequate to meet the needs of a number of new employers if new plants and businesses were to be located in the county. Before any attempts to attract new industry are made, the following considerations should be thoroughly studied:

1. At the present time Pine County and nearly every other rural area of Minnesota is caught in a situation in which there is an imbalance between the number of young, more productive workers and older workers nearing retirement age. Special efforts should be made to retain more younger workers who now tend to seek educational and employment opportunities elsewhere. The choice of new industry must reflect this condition if long-range success is to be attained.
2. Up-to-date studies of various aspects of the employment and work force situation in the county is needed. Of special significance would be analyses of commuting patterns and desires as well as a thorough study of the role of women in the county's economy.
3. Any efforts to attract new industries should carefully reflect the total economic and social situation within the county. Gradual and carefully planned growth may very well prove to be more beneficial in the long term even though the impact of a large firm locating in the county may look attractive at first glance. Finding housing and providing public services for sudden large influx of workers could create severe difficulties.
4. Whenever seeking new jobs, Pine County's unique assets and environment should be respected. Many are of the belief that jobs and new job opportunities are all that matters, but there is much to be said for selecting employment generators which could take advantage of Pine County's assets as a place to work and live. The reasons people choose to live in Pine County indicates those social elements which should be preserved.





## PINE COUNTY'S TRANSPORTATION SYSTEM

In today's world, transportation of people and goods has become one of mankind's major concerns. Roads and highways are being built with such endeavor that it sometimes seems that entire cities will be overwhelmed by them. Providing parking space for automobiles assumes unbelievable proportions. Air traffic is reaching the point where existing airport facilities are obsolete, and bigger, faster planes are on the way. Railroads, once the major provider of passenger service, are slowly transforming themselves into efficient, modern freight and bulk commodity carriers. Pipeline transport offers new dimensions that were unthought of only a few years ago and are now carrying ever larger quantities of gas, liquids and bulk commodities.

### Highways and Roads

Pine County's road system dates back to 1854 when the Military or Old Government Road was completed between St. Paul and Superior. Today, over one hundred years after the completion of the first road, Pine County boasts of a modern highway network consisting of 1,651 miles of roads. Of this total 399 miles are hard surfaced.

### Traffic Volumes

Vehicular movement in Pine County is generally oriented in a north-south direction. The most heavily used route through the county is Interstate 35 which carries a year-round average of 3,000 to 4,000 cars per day. On weekends and during holiday or hunting periods, traffic on this route reaches as high as 12,000 cars per day as thousands of persons leave the Twin Cities Metropolitan area and travel into northern Minnesota.

Minnesota 23 carries an average of between 1,000 and 1,500 vehicles per day and is the

second most-heavily used route in the county. U.S. 61, once the most heavily-used highway through Pine County, now carries between 500 and 1,000 cars per day. Other routes with high traffic volumes include Minnesota 18 between U.S. 61 and Aitkin County, Minnesota 48 between Hinckley and St. Croix Park, and Minnesota 70 between Pine City and Grantsburg.

Major segments of the County State Aid and County road system carry traffic volumes in excess of 500 vehicles per day while less-used stretches carry from 250 vehicles per day downward. As might be expected, higher volume routes are generally paved throughout the county.

### Traffic Accidents

Many factors contribute to the high accident rate on Minnesota highways. Between 800 and 1,000 deaths per year have been common in recent years. Between 1964 and 1966 there were 466 accidents in Pine County. Such factors as obstructed intersections, hilly conditions, narrow roadways, inadequate shoulders, slippery surfaces, improper or inadequate warning signs and/or signals, lack of proper maintenance, excessive curb cuts, drunken drivers, speeding, and limited law enforcement are some of the reasons contributing toward the large number of accidents which occur each year on Minnesota roads.

### Road Restrictions

Road weight limits on roads throughout Pine County vary according to their ability to support certain tonnages without endangering the surface. Road restrictions are placed in effect during the spring breakup period, and legal limits vary from five to nine tons per axle.

The posting of roads during the spring breakup restricts normal activity during this period by preventing heavy truck traffic as well as creating problems in routing school buses. As roads are improved over time, the negative impact of seasonal road restrictions will be lessened, but it is unlikely that all of Pine County's roads will ever be rated at legal nine-ton limits.



## Pine County Highway Department

The Pine County Highway Department has charge of construction and maintenance of all County State Aid Highways, County Roads and Township Roads under a cooperative agreement which involves nearly 1,500 miles of roads. With an annual construction budget in excess of \$300,000 the Department finds it is possible to upgrade from 10 to 14 miles of roads per year in addition to handling the special problems involved with the mileage of former State Highway 61 being turned back to the county.

## Effects of I-35 in Pine County

Upon completion of I-35 through most of Pine County, there was some concern that the communities by-passed by the new highway would become ghost towns. Such fears are common wherever and whenever by-pass routes are constructed.

Pine County's experience with the freeway by-pass has proven that such fears are unfounded. The freeway has proven to have little detrimental effect on the county's municipalities as a whole and in fact is now recognized as an asset to Pine County's economy. A study completed by the Minnesota Highway Department in 1968 concluded that I-35 has benefitted several of the county's communities by reducing traffic accidents, raising property values near the freeway and attracting new industries.

## Railroads

Today, the primary function of railroads in Pine County, and elsewhere in the nation, is to provide freight service. Passenger carrying functions have shifted to other modes, particularly the automobile. This is a far cry from the days at the turn of the century when the Hinckley depot alone offered dining facilities for 500 persons at one sitting and was filled each time a train stopped.

## Pipelines

Two pipelines pass through Pine County. The William's Brothers oil line runs north and



TOP: Today the Railroads that Serve Pine County Provide Fast Efficient Freight Service.

BOTTOM: Pine County's Modern Highway System Provides the County's Primary Means of Transport.





**TOP: The Use of Light Aircraft will Increase Dramatically in Future Years.**

**BOTTOM: I-35 Near Pine City.**

south passing to the east of Pine City and Hinckley, crossing Interstate 35 and continuing west.

Roughly paralleling this oil line is the Northern Natural Gas pipeline. A branch also runs from its intersection point north of Cross Lake west toward Mora in Kanabec County.

Both of these pipeline companies have substantial investments in capital equipment in Pine County and make more important annual tax contributions to the county than is generally realized.

### **Airports**

Two airports within Pine County are located at Sandstone and Pine City. Presently these are capable of handling only light aircraft and are closed during certain times of the year when ground conditions cause the sod runways to become wet and soft.

The Sandstone airport is centrally located within Pine County and is approximately halfway between the Twin Cities and Duluth. During 1969 the Sandstone Airport was designated as the official county airport in order to be able to apply for federal improvement funds.

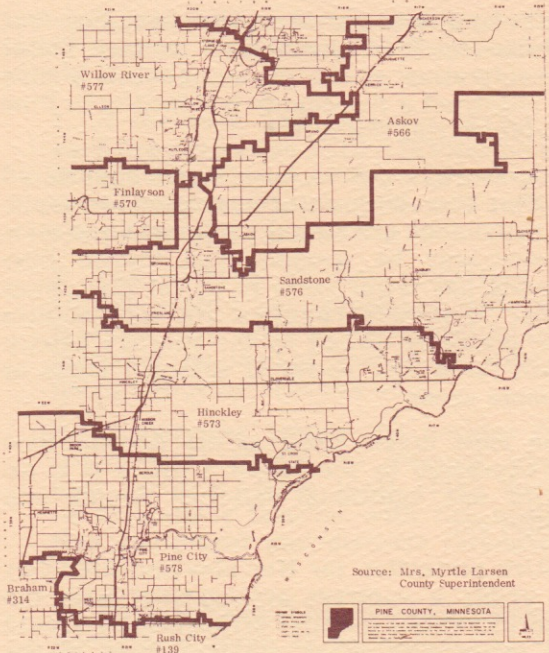
Under existing conditions over 1,000 planes per year use the Sandstone facility. One of the major users of the airport is the Federal Correctional Institution which has indicated they would use the facility even more if it were further improved. Currently, they must use the Duluth Airport when conditions do not permit landing at Sandstone. Other potentially large users include the Apache Corporation and North American Communications as well as several county residents who own aircraft but must keep them elsewhere.

Future years will undoubtedly see an increase in the role air transportation plays in Pine County's economic and social growth. Such factors as increased income, reduced air fares, greater comfort and speed as well as a more general acceptance of air travel have prompted the rapid growth of this mode of transportation.

While Pine County is not likely to be served by scheduled commercial flights during the foreseeable future, the growth of business flying and other forms of commercial aviation will certainly have effects upon airport development in the county. Business flying already accounts for nearly half of all miles flown by general aviation aircraft. Other forms of commercial aviation include agricultural crop dusting, pipeline inspection, aerial photography and air taxi service.



## PINE COUNTY SCHOOL DISTRICTS, 1970



Willow River School.

9

## PUBLIC FACILITIES

Pine County's public facilities include its schools, hospitals, nursing homes, law enforcement agencies, town halls, libraries, dumpgrounds, cemeteries and fire protection organizations. The varied services provided by these facilities are at the very heart of the county's well-being.

### Educational Facilities

Seven school districts in Pine County and parts of three districts in adjacent counties have the responsibility for educating the county's children at the elementary and secondary grade levels. Consolidations during the 1960's have greatly simplified the previously complex pattern of district boundaries.

Nearly all of the schools in the small communities or rural districts remained stable or showed a decline in enrollment between 1963 and 1970. The county's larger communities generally showed an increase in enrollment. Natural trends of declining rural population coupled with the effects of consolidation account for these patterns and changes in enrollment.

School capacity figures show that overcrowding is not generally a problem in Pine County's schools. Total enrollment in the county during the 1969-70 school year was 3,853 while total classroom capacity is approximately 4,500 students. Willow River elementary school appears to be the most crowded. Crowding is also a problem at the Hinckley and Pine City schools which are operating at or above capacity. Other schools, such as the Willow River and Finlayson High Schools are operating

far below their capacities. Pupils per classroom figures range from 6.5 per classroom to as high as 31.8 per classroom.

Nearly all of the schools in Pine County receive part-time aid from speech therapists, psychologists, psychiatrists etc., on a regular schedule.

Transportation of school pupils is a major consideration of school operations in the county. About two-thirds of all the students enrolled are transported by school bus. A total of 85 busses each travel an average of twenty-four miles, but the extremes range from twelve to thirty-six miles.

### Medical Facilities

Major medical facilities are concentrated at Sandstone where the Pine County Memorial hospital is located. Rated as a General Hospital, this twenty-eight bed facility has all of the normal facilities needed including nine bassinets, maternity care, laboratories, x-ray equipment, emergency room, and a blood bank.

While the average occupancy rate is 85 per cent, it is felt that the hospital has too many bassinets and not enough long-term beds. At the present time there are no extended care facilities in the county. Cambridge and Carlton offer the closest such facilities. The Sandstone Hospital also does not have an extensive-care recovery room.

Another problem is a shortage of doctors. In 1971 there were three doctors in Pine City, four in Sandstone, and one at the Federal



Correctional Institute. Two surgeons from the Twin Cities are available on call, and two radiologists spend one day per week in Sandstone.

Three nursing home facilities are located in Pine County. A county operated nursing home built in 1964 with 46 beds is located adjacent to the hospital in Sandstone. Other nursing homes include the Holznagel Boarding Home at Hinckley and the Lakeside Nursing Home at Pine City. The Lakeside Home is the largest in the county and has a capacity of 100 patients. Both are privately operated.

The Federal Correctional Institution also maintains a small hospital facility with one doctor at Sandstone.

### Law Enforcement Agencies

Law enforcement within Pine County is provided by the county Sheriff's Office, the Sandstone Police Department, the Minnesota Highway Patrol, state game wardens and local constables.

The federal government operates the large Federal Correctional Institution at Sandstone, as well as Youth Correction Institutions and Camps at Duxbury and Willow River.

Pine County's major law enforcement agency is the Sheriff's Office which is headquartered at Pine City. In addition to the sheriff there are four full-time deputies and six part-time deputies on call when needed. Full-time deputies are stationed at Hinckley, Sandstone, Finlayson and Askov. Five patrol cars are available.

Jail facilities provide detention for four adults and four juveniles or women. Under consideration at the present time is a plan to construct a five-county jail facility in Pine County during the 1970's.

One sheriff's patrol boat is headquartered at Pine City. With water recreation use rapidly expanding, additional equipment and manpower may be needed even though Pine County has fewer lakes to patrol than many other Minnesota counties. No snowmobiles are presently owned by the sheriff's department for winter patrol of seasonal home or remote areas.

The most urgent need at the present time as expressed by the Sheriff's Office is to acquire one additional full-time deputy and patrol car.

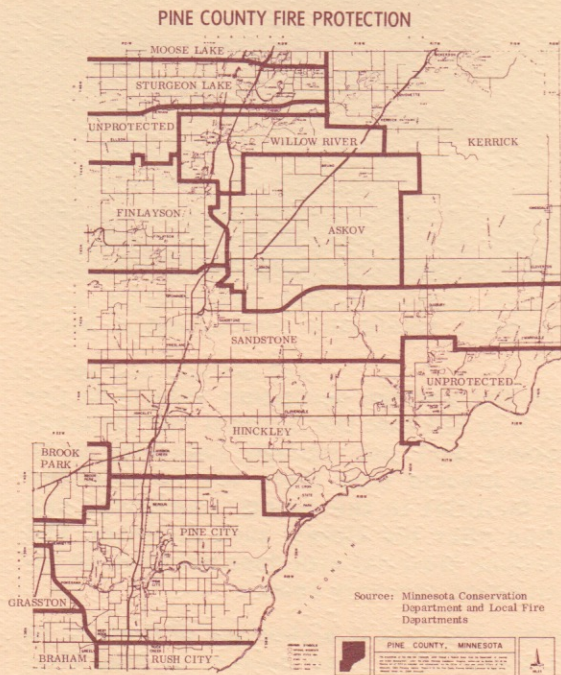
Police protection for Hinckley and Pine City is under a contract arrangement with the Sheriff's Office. Similar arrangements should be made with other municipalities in the county in order to provide adequate coordinated police protection at a reasonable cost.

### Fire Protection

Thirteen fire protection districts serve nearly all of Pine County. Nine villages within the county and four in adjoining counties contract with the townships for fire protection.

Equipment maintained by these volunteer fire departments ranges from modern, efficient fire-fighting rigs to completely antiquated trucks and pumpers which in some instances are not operable.

Consolidation and streamlining of fire protection services could result in substantial





tax savings as well as in better and more reliable service. Suggestions for improvement should include:

1. A thorough and objective review of each fire protection district in Pine County should be undertaken. Arrangements for serving presently unprotected areas should be made at an early date.
2. Consolidation of fire protection facilities should be undertaken wherever feasible. Fire departments operating with marginal equipment should be consolidated into more efficient units.
3. Cooperation among the various fire departments should be fostered whenever possible. Each local chief should be thoroughly familiar with fire protection equipment and districts throughout the county.
4. Outdated and worn equipment cannot adequately serve as valid first-line fire fighting devices. Such equipment can and should offer service as back-up or auxiliary rigs when necessary.
5. Improvements are urgently needed in the fire protection arrangement now serving in St. Croix State Park. Presently the Minnesota Conservation Department Division of Lands and Forestry is responsible for forest and grass fire protection, and the Hinckley Rural Fire Department is responsible for building fires within the park. The large amount of use received by the park each year, its economic benefits to the county, and the well-developed complex of buildings within the park warrant that close attention be paid to fire protection there.

### Township Halls

Nearly all of the town halls in Pine County are small, located on barely adequate sites, and are in need of general repairs and site improvements. Virtually all of the structures are more than twenty-five years old, and many are originally constructed as one-room school houses. Lack of adequate parking space and the need for painting and repairs were noted most frequently during the 1968 land use survey. The average site size is between one and two acres.

In addition to serving as centers of local government functions, these meeting halls also serve a variety of social functions. Family gatherings, community parties, showers and wedding receptions are often held at the town hall.

### Library System

Library services for nearly all of Pine County are provided by the East Central Regional Library System (ECRL) which has its headquarters at Cambridge. Permanent libraries in Pine County are maintained at Hinckley and Sandstone, and a station is located at Askov. Bookmobiles operating on a regular schedule service the remainder of the county. Independent library facilities are maintained at Pine City.

According to officials of the regional system, library facilities in Pine County are generally adequate. The Sandstone library, located in the village hall, expanded recently into an adjacent room thus doubling the space available. The Hinckley Library is very crowded

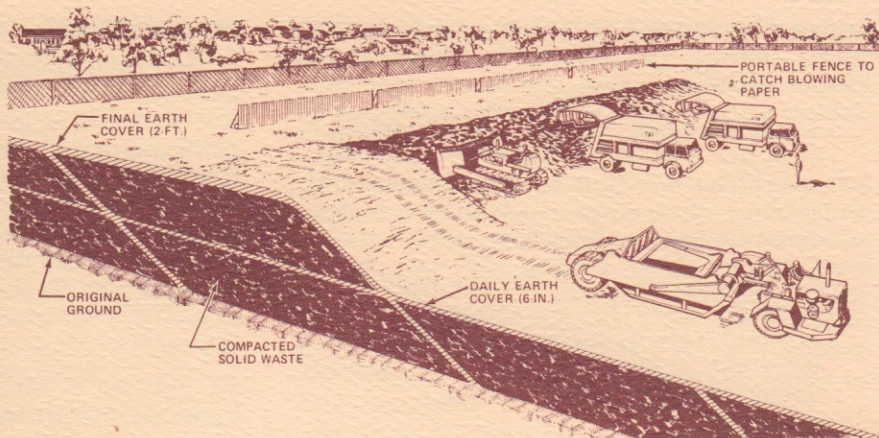
Pine County Court House at Pine City.







**LEFT: Caustic Waste Dump in Northern Pine County.**



**RIGHT: Modern Sanitary Landfill Operation Source: U.S. Public Health Service.**

at the present time as is the one at Pine City. More space could be provided either within the existing village hall or at another location. No definite plans are available.

Because of the regional concept, all of the system's 60,000 books, 135 magazine subscriptions, 2,000 phonograph records, 200 films, 1,000 filmstrips, and thousands of pamphlets are directly available to residents of Pine, Kanabec, Aitkin, Isanti and Mille Lacs Counties.

Future years will undoubtedly see continued expansion of facilities and services provided by the East Central Regional Library. Additional communities will probably join the system, cooperative agreements will expand, and financial support will increase. In Pine County, the most obvious need is to bring Pine City into the regional system. Even now, however, the regional system provides Pine County residents with better library services than any time in the past.

### **Cemeteries**

Pine County has thirty-one public and private cemeteries. Most are connected with adjacent churches or are rural township cemeteries. These cemeteries range in size from one-half to ten acres, the average being between four and five acres. None of the county's cemeteries are used to capacity at the present time with an average of  $\frac{2}{3}$  to  $\frac{1}{2}$  of the lots in each filled.

### **Dumpgrounds and Solid Waste Disposal**

Dumpgrounds have been important public facilities since the time Pine County was settled but can create problems related to health, fire hazards, air and water pollution and despoiling of scenic values.

Twenty-six dumpgrounds were counted during the 1968 land use survey. Twenty-one of these were authorized dumpgrounds operated by townships, communities or private concerns, and five were illegal "wildcat" or roadside dumps.

Two large industrial waste areas are located in Pine County, operated by the 3M Company and the other by the Great Northern Oil Company of the Twin Cities.

The problems of solid waste disposal are becoming increasingly acute throughout Minnesota and the nation. To eliminate hazardous methods of solid waste disposal, the Minnesota Pollution Control Administration established regulations which provide for the selection and operation of sanitary landfills, and the proper collection and storage of waste. Additionally, these regulations require the County to develop a comprehensive solid waste disposal plan, which demonstrates the provision of solid waste disposal services to ALL members of the County.

Pine County has been actively engaged in upgrading its solid waste facilities. A sanitary Landfill has been licensed and is currently operating north of Pine City. Three sub-standard dumps have been closed, and the comprehensive solid waste plan is being prepared by the County Highway Engineer.



# OUTDOOR RECREATION RESOURCES

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**TOP:** Pine County's State Forest Lands Offer a Variety of Recreational Opportunities.

**BOTTOM:** Trail Riding is a Popular Recreational Activity.

Pine County's outdoor recreation resources are among its greatest assets. Few counties in Minnesota can offer the traveling tourist or vacationer the variety of recreational experiences that can be found in Pine County. Even though little is currently being done to promote tourism and protect valuable recreation assets, Pine County is in a position to become one of the state's leading outdoor recreation areas.

## St. Croix River

Perhaps the county's most prestigious recreational asset is the **St. Croix National Wild River**. The upper St. Croix, much of which borders Pine County, has been designated as part of the National Wild and Scenic River System under a cooperative plan developed by the U.S. Dept. of Interior, the States of Minnesota and Wisconsin and Northern States Power Company. The St. Croix Wild River plan has been regarded as an outstanding example of private industry taking an active role in cooperating with governmental agencies to protect a priceless natural resource.

Other valuable recreation resources in Pine County include two state parks, five state forests, a major state historic site, several prehistoric Indian sites, and many lakes, streams and other attractions.

## State Parks

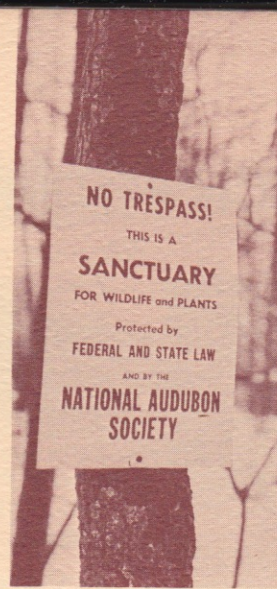
Two units of the Minnesota State Parks System are located in Pine County. St. Croix State Park is one of the oldest, largest and most popular in Minnesota. This 34,000 acre facility borders the St. Croix Wild River. As the county's major leisure-time destination in the county, it attracted nearly 260,000 visitors in 1969.

Banning State Park incorporates the famous Hell's Gate portion of the Kettle River as well as the old ghost town site of Banning. Relatively new and as yet not fully developed, Banning Park will attract increasing numbers of visitors as its attractions become known.

## State Forests

Five state forests are located in Pine County ranging from the 640 acre D.A.R. Memorial Forest northeast of Askov to the large Nemadji State Forest containing 90,240 acres within the extreme northeastern corner of the county and extending into Carlton County. Other state forests are the General C. C. Andrews between Willow River and Sturgeon Lake, the St. Croix within the north of the state park and the Chengwatana located southeast of St. Croix State Park bounded on three sides of the Kettle, St. Croix, and Snake Rivers.





### Connor's Fur Post State Historic Site

This reconstruction by the Minnesota Historical Society occupies the original site on the Snake River one and one-half miles west of Pine City on County Road 7. Thomas Connor was an employee of the British North West Company when he built his small wintering post in 1804. Connor's diary for the winter of 1804-1805 told of building the rough post and its crude stockade but it was not until 1963 that the site was verified and excavations started by the Minnesota Historical Society. Connor's diary was used extensively to reconstruct the North West Company outpost as it looked during the height of the fur trade period.

### Stumne Mounds State Prehistoric Site

This group of 15 mounds occupies an area of approximately 13 acres on the south side of the Snake River about one half mile south of Pokegama Lake. Located on land formerly owned by Mr. Paul Stumne, a site of about 60 acres containing the mounds and surrounding area has been purchased by the Minnesota Historical Society and will be prepared for interpretation as a state prehistoric site.

The mounds were explored by archaeological teams from the University of Minnesota during the summer of 1963, 1964 and 1966. Burials and artifacts found represent a time span of four or five thousand years.

### Vach Prehistoric Sites

A cluster of 9 separate prehistoric village and habitation sites are located between Pokegama Lake and the Snake River on the St. Gerard Mission property. Artifacts, including copper weapons have been picked up from the surface for many years. Excavations by the University of Minnesota Department of

Anthropology during summers between 1963 and 1967 suggest a very extensive village occupation by "Old Copper" or Eastern Archaic culture that dates between 5000 B.C. to 1000 B.C.

Since these important sites are in danger of destruction by subdivisions and other development, it is recommended that the property be acquired by the state or other governmental unit to assure that additional archaeological resources are not lost. Prehistoric mounds and habitation sites once existed within the village limits of Pine City but have now been destroyed as were mounds on the Snake River that were bulldozed out for the construction of I-35.

### Neubauer Prehistoric Site

A major prehistoric village site where tools, weapons and other artifacts were manufactured is located near the Joseph Neubauer home and Harry Cummings farm adjacent to the Connor's Fur post site. Projectile points, knives, stone axes and trade goods indicate a long period of occupancy represented by several cultures that range from 5000 B.C. to the early 1800's A.D.

### Snake River and Mission Creek Ancient Indian Villages

On the north side of the Snake River east of Mission Creek are several features which suggest ancient cultural development – possibly that of Woodland Indians of the period 1000 B.C. to 1700 A.D.

### Audubon Society Nature Sanctuary

With funds left in a \$250,000 bequest by a St. Paul physician, the prestigious National Audubon Society received a 500 acre farm that includes a scenic hardwood forested area and 4,000 feet of shoreline on Grindstone Lake west





of Sandstone. The proposed Nature Sanctuary and Center for Nature Education will benefit Pine County with a facility of unusual significance.

#### **Other Historical Attractions**

During the course of Pine County's comprehensive planning program, over 100 historic sites ranging in importance from areas of local interest to sites of statewide significance have been identified. Lumber camps, old logging dams, fur trade posts, Indian mounds, early portages, trails, canoe routes, homesteads, ghost towns, and copper mines were inventoried and located on a large scale map in the county atlas.

Many of Pine County's historical attractions have already been marked by the Pine County Historical Society along a scenic route designated as the Chengwatana Historical Trail.

Pine County's historical heritage is currently one of its most undeveloped and undersold attractions. The stories of Minnesota lumbering, railroad development, quarrying of building stone, prehistoric Indian culture, disastrous forest fires and immigrant settlement are all a part of Pine County's rich and often colorful heritage that deserve to be told in an imaginative and informative way. The County Museum at Askov should be promoted as the center of historical interest and the focal point for visits to local historical sites.

Each year more and more people are becoming interested in their region's history. "History hunting" in the seventies will undoubtedly be of major significance to the state's tourist economy. Pine County has the potential to become a leader in capitalizing on this impact.

#### **Recreational Trails**

Both overland and water routes are proposed for inclusion in Pine County's overall recreational planning efforts. In many cases these routes are noted for special fall color or wildlife sighting in addition to serving as access for recreational activities.

Old logging railroad grades and abandoned roads often serve well as multi-purpose hiking, horseback riding, snowshoeing and cross county skiing routes. Horseback riding is a big attraction in Pine County as expressed by several active saddle clubs. It should be more widely promoted with particular reference to Twin City riders who would undoubtedly respond enthusiastically if the county's riding facilities were better known.

Pine County already has an extensive network of mapped snowmobile trails. Much of the county is regarded as a snowmobiler's paradise. This popular wintertime activity contributes significantly to the county's "off-season" economy.

"Aqua-Highways" or Canoe Routes within Pine County are among the state's finest. The river system of the county provides a variety of water types for those with canoeing skills ranging from "novice" to "expert". The county contains major sections of three rivers out of a total of 16 streams officially designated by the legislature as part of the state-wide recreational river system. The Kettle, Snake and St. Croix Rivers are part of this system and should receive special protective consideration in the planning and zoning of Pine County. The Kettle River has also been considered for addition to the Natural Wild and Scenic River System and the Planning Advisory Commission has taken action recommending that standards and zoning similar to the St. Croix be applied.



## Seasonal Home Development

Considerable seasonal home development has already occurred in Pine County. Results of the 1968 land use survey showed that there were 1,467 second homes or cabins in the county. Grindstone, Big Pine, Bass, Long, Passenger, Sturgeon, Sand, Pokegama, and Cross Lakes as well as portions of the Snake River already have extensive development along their shores. In addition, numerous "hunting shacks", often abandoned homesteads, are located along the roads in rural areas.

## Hunting and Fishing

Hunting and fishing will continue to be among the most popular recreational activities engaged in by county residents and visitors alike. Large areas of Pine County are suitable habitat for many species of game and fowl.

Ice fishing has long been one of winter's most popular activities. Snowmobiles have recently added a new dimension to this winter sport as have improved clothing, shelters, winter camping units, heaters, etc. Older persons particularly find enjoyment in ice fishing.

## Recommended Recreational Planning Goals

In order to fully meet the challenges of developing Pine County's recreational resources in the best possible manner, a recommended outdoor recreation plan has been developed through the combined efforts of the planning consultant and recreation specialists representing the county, municipal, state and private agencies.

Careful consideration should be given to the following recreational planning goals:

1. Preservation of the natural features and unique landscape environment of Pine County with special attention to the special qualities of the river system.
2. Identification and interpretation of well-known, and little known historic sites as major attractions.
3. Provision for public recreation facilities that will support rather than compete with private enterprise accommodations and services.
4. Help provide a vehicle for coordinating the many existing public and private agencies and organizations now working in the field of recreation and tourism.
5. Adopt adequate shoreline standards and sanitation codes to curb pollution and control development of rivers, streams, and lakeshores.
6. Continue to enforce the adopted subdivision platting regulations that encourage larger lot sizes and design standards such as cluster homesites in order to provide open space and less cluttered waterfronts.
7. Adopt the recommended zoning ordinance if townships do not choose to zone within a reasonable period of time. Land use controls are essential to guide all future developments and prevent further mixture of uses that become unsightly as well as tend to lower property values.
8. Begin a systematic program of environmental improvement considering the problems of solid waste disposal, abandoned structures, overhead utility lines, outdoor advertising and all forms of pollution.
9. Improve roads and bridges on a priority basis that includes the needs of the traveling public such as access to existing or proposed recreational attractions.
10. Continue to consider the future public need for access, trails and other recreational benefits before selling tax forfeited land.
11. Cooperate with resort associations, promotion groups and individuals to encourage the provision of new and improved private recreational facilities. There is a need for deluxe private campgrounds, for example, to be located near the natural resources and generators of traffic. Golf courses, riding stables, swimming pools and service establishments should be provided by the private sector in coordination with public improvements.
12. Assist villages and townships in making application for recreational matching funds such as Land and Water (LAWCON) from state and federal agencies. Highest priority for such funds should go to local projects with wide appeal and resource expansion opportunity such as Robinson Park in Sandstone.
13. Continue to support the St. Croix Wild River development and push for Wild River status on the Kettle. Special attention must also be given to the Snake River and other streams that are in danger of being destroyed as recreational or scenic waterways.
14. Cooperate with the RC&D program, the Pine County Historical Society, Canoe Route Committees and other groups endeavoring to improve and promote the natural and historic resources of the county.



15. Support continued improvement of existing state parks and state forest recreation areas. Highest priority should be given to the master plan updating and needed expansion facilities at St. Croix State Park.
16. As an initial example to encourage protection and coordinated development of recreation resources, the creation of "Heritage Park" between Pokegama and Cross Lakes west of Pine City is proposed.

In addition to the Connor's Fur Post, Neubauer, Vach, Stumne, and other sites already mentioned, this area contains a number of other historical and natural attractions that together could be developed into one of Minnesota's outstanding recreational and tourist locations.

The entrance to the proposed "Heritage Park" can be enhanced by reclaiming abandoned gravel and borrow pits used in the construction of I-35 adjoining CSAH 7 near the WCMP Radio Station. The ponds of this area could be developed for swimming and motorless water craft. An attractive setting could be developed for a museum and other exhibits to interpret the historic and prehistoric background of this entire area.

A key attraction would be a reconstructed steamboat similar to the ones that used to operate on the Snake River, Pokegama and Cross Lakes. This steamboat and smaller shuttle craft would be used to take passengers to the various sites of interest within the proposed park.

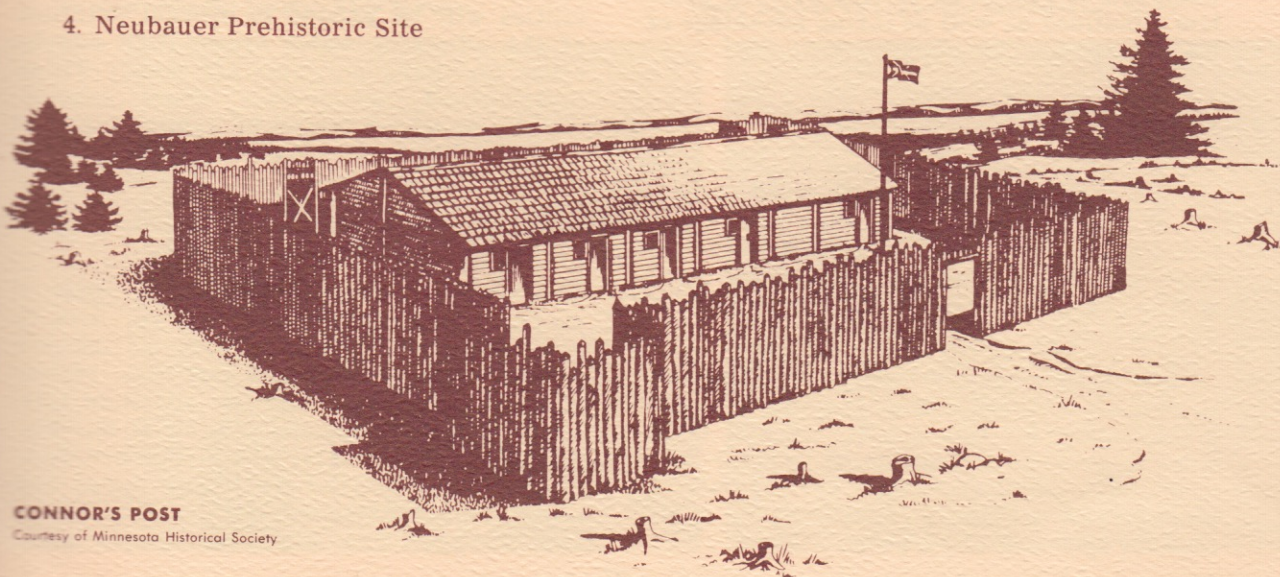
Major sites of interest in the area include:

1. Connor's Fur Post State Historic Site
2. Stumne Mounds State Historic Site
3. Vach Prehistoric Site
4. Neubauer Prehistoric Site

5. Snake River and Mission Creek Indian Villages
6. Rev. Ayer's 1836 Pokegama Mission Site
7. Early Pokegama Lake Resorts including "Tuxedo Inn"
8. Chengwatana Townsite
9. Pine City Sawmill Sites
10. Copper mine site near Chengwatana
11. Early military road or government trail from St. Paul to Superior
12. Snake River canoe trail

Development of Pine County's "Heritage Park" and continued expansion of other county recreation attractions as well will go far toward realizing the full potential of the county's considerable recreation resources.

The future economic impact of quality recreational development in Pine County should not be underestimated. It has been proven time again elsewhere in Minnesota and the nation that the economic return to local areas from important and high quality recreational and natural attractions is often far greater than the mere selling of waterfront property, wilderness lands or even the building of industry that requires expensive utilities and other public services. The tourist dollar, on the other hand, is easy to get and requires relatively small public investment in expensive facilities such as schools, medical facilities, and the like. Thus, the return to the local area can be relatively large in proportion to the amount of tax-financed facilities needed for support. Tourism represents a "clean industry" of major economic value that in the past has either been ignored or realized in a poorly-planned and developed manner. Pine County is in a very good position to take advantage of this potential economic return.



**CONNOR'S POST**  
Courtesy of Minnesota Historical Society





Pine County Planning Advisory Commission meeting.

## PINE COUNTY'S GUIDE PLAN

The question of how Pine County will meet the challenges of its future development has already been posed. We have also looked at the county's past history of growth, development and land use. Assessments of the county's potential as a place to live, as a home for industry, and as a place for recreational activities have been outlined.

Now the challenge becomes the question of how Pine County will establish priorities for the future. One way might be to adopt the guide plan suggested here. This plan represents a concentrated two-year effort by the Pine County Planning Advisory Commission and its consultants. It is based on the background studies discussed above and envisions likely and suggested future development for the period reaching into the 1990's. Emphasis is placed on solving existing problem situations as well as taking advantage of the county's unique resources.

### AGRICULTURE

The importance of agriculture to Pine County's economy cannot be denied. Over 86 percent of all the developed land in the county is devoted to agricultural activity. Agricultural land uses are widespread throughout the county but are especially predominate in the southern portion.

Realizing that over 350,000 acres of county land is devoted to farming, the plan provides ample space for this activity. It also takes steps to prevent encroachment of other land uses upon agricultural areas. The plan places almost no restrictions on a farmer's use of his land for agricultural purposes.

### RESIDENTIAL AREAS

Much of the proposed land use area shown on the guide plan is devoted to rural residential homes. Minimum lot sizes of 5 acres are encouraged in the future to avoid the overdevelopment of the agricultural areas of the county. Located mainly west of Minnesota 23 and south of Minnesota 70, these areas should be preserved in a rural agricultural environment. Higher density residential areas are proposed for Pine City, Hinckley, Sandstone, Finlayson and Willow River as well as many of the attractive lakeshore and river frontage areas in the county. These locations are designed for non-farm residences situated close to existing communities where public services could be extended as needed or in the desirable environment of waterfront properties where adequate sewage treatment facilities will be needed to prevent pollution of the adjoining water areas. High density areas for living purposes are mostly within incorporated communities where compact developments are served by public water and sewer utilities. A broad variety of housing types are encouraged in all three broad residential districts.

### COMMERCIAL CENTERS

Several communities offer a wide range of shopping and employment opportunities to serve county residents. Those having the widest range of shopping facilities, variety of employment and services are Pine City, Hinckley and Sandstone. Willow River, Finlayson and Askov serve as convenience shopping centers for the day-to-day needs and information service of the local residents and visitors. The plan encourages more



compact development of these business and service centers in the future. Provision of adequate off-street parking and loading space will correct present inconveniences in the commercial centers. Other items which should be considered are attractive design of structures and signs, and landscaped grounds where possible.

### **PUBLIC AREAS**

Public areas serve an important purpose in any location. As indicated on the guide plan, large areas of land are designated for public service and enjoyment. Banning State Park and the recently expanded St. Croix State Park are both important not only to local residents but also to visitors from the Twin Cities Metropolitan area and elsewhere. Plans for further development of facilities at St. Croix State Park are being considered. Other important public areas include the General Andrews State Forest campground at Willow River, the highway rest areas on Interstate 35, Connors Fur Post west of Pine City, the quarry at Sandstone's Robinson Park, the Sandstone airport, and the numerous public access points to the county's lakes and streams.

### **OPEN SPACE**

A large portion of Pine County is open space – those areas not devoted to any particular use or under a specific management program. Large expanses of swamp and poorly drained lowland areas, inaccessible lands and excessively steep and/or rocky land forms unsuitable for permanent development are some examples of open space preserves indicated in the Guide Plan for Pine County. Multiple-use is a more appropriate function of these lands where residences, business or industry are not allowed but such uses as forestry and some forms of agriculture, recre-

ation, snowmobiling, hunting, fishing, hiking, forestry and related activities are more suited.

### **SHORELAND MANAGEMENT AREAS**

Over development is already evident on the major rivers and streams located in Pine County. Water pollution is but one threat resulting from this type of development. Protection of the recreational rivers is proposed in the guide plan by designating them as scenic rivers and limiting future development along their banks. The Kettle, Snake, Moose and St. Croix Rivers all have existing portions of their channels which are undeveloped and are designated as Waterfront Preserve or Shoreland Management Areas.

Without a doubt, the creation of the St. Croix Wild River is one of the most significant conservation and recreational achievements in recent Minnesota history. Pine County will benefit far more in the long run by this action than ever could have happened had the land along the St. Croix been platted and sold for crowded cabin sites. It is now up to the county government, in cooperation with its neighboring counties in both Minnesota and Wisconsin to take strong action to develop and assure through proper zoning and other land use controls, adequate protection for the wild river and adjoining preservation area. Terrific pressures will be brought to bear by the people who wish to build facilities along access routes to the river. To be sure, certain types of facilities will be needed, but the mere demand for supplies, canoe rentals, camping and the like should not be allowed as justification for the creation of "tourist traps" and "billboard alleys" along such major access routes as Minnesota highways 48 and 70. Over and over again the urgent cry "we need the tax dollars" will be heard, but the

**BELOW LEFT: The Guide Plan Helps Establish Priorities for Upgrading the County's Road System.**



**BELOW RIGHT: Connor's Fur Post Reconstruction has already Become an Important Recreational Asset.**

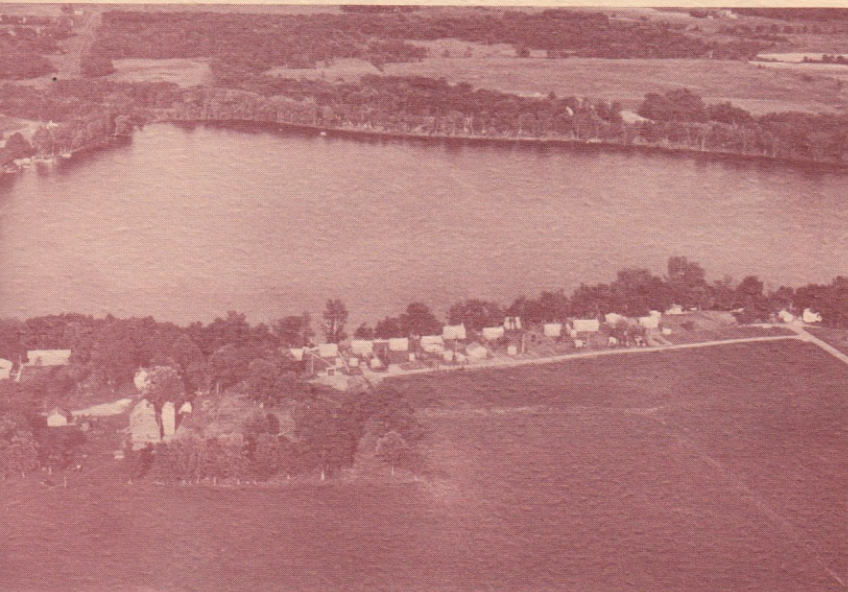






**ABOVE: Improvement of Utility Systems will be a High Priority Item During the 1970's.**

**BELOW: Much of Pine County's Valuable Lakeshore Property has already been Subdivided into Small, Crowded Lots.**



long-range values inherent in what the county has should prevail.

Careful consideration must also be given to the type and extent of development which is allowed to occur along lakes and streams feeding into the St. Croix and its tributaries. Protection of the St. Croix alone is not sufficient.

### **TRANSPORTATION**

In order to adequately serve all travelers in Pine County with an efficient, safe transportation network, the guide plan proposes a complete system of roads and highways.

This plan will enable both county and state officials to establish priority programs for construction in an orderly and logical pattern as well as determine future rights-of-way necessary for programmed road widenings and other improvements.

### **SUBDIVISION PLATTING REGULATIONS**

Considerable acreages of Pine County farmland and lakeshore property have been subdivided or platted into small, often crowded, lots during the past two or three decades. It is expected that such activities will continue in future years.

As property is subdivided, roads are usually constructed in order to provide access to the newly laid-out lots. Water and sewer systems are sometimes built. More often utility systems are not provided but rather are left for the individual property owners to install. Subdivision lots are often small, poorly arranged and sometimes in areas of soil, water and topographical conditions which are unsuited for development.

Once subdivided property is sold, roadways and whatever common utility systems, which have been constructed often are dedicated to the county or particular municipality for maintenance. All too often the local government is faced with expensive bills for rebuilding roads or digging up water lines that were improperly installed by the subdivider or developer in the first place.

Pine County's subdivision platting regulations establish standards for the design of new subdivisions throughout the county. Communities that have their own regulations can enforce them within two miles of their municipal boundaries.



Generally, these regulations state that the developer must, at his own expense, construct adequate roads in accordance with accepted engineering standards. Lot sizes must be large enough to protect the public health and welfare. Areas that are swamp or marshland as well as those that are too steep or rocky cannot normally be subdivided. Special provisions apply to planned unit and modern cluster subdivisions which offer the most beneficial use of the land.

After several review sessions, Pine County's Planning Advisory Commission recommended that the County Board adopt these subdivision platting regulations which it did in 1970. Following past patterns of development, these regulations have found major application near existing communities or near lakes and streams where many cabins and homes are popularly located. The county's farmers will find nothing in the regulations that affects their property unless they choose to subdivide their acreage and sell it by lot.

Copies of the regulations are available at the County Court House.

### **PINE COUNTY ZONING**

One of the most efficient and commonly-accepted methods of organizing and guiding future land use and development in Pine County is through the application of zoning procedures.

Many people, especially those who live in rural areas, feel that zoning impairs their right to do as they please with their own land. Experience has shown this not to be true. Properly established zoning has been proven successful time after time throughout many regions of Minnesota including the nearby counties of Carlton, St. Louis and Itasca. In all of these counties, zoning ordinances were strongly opposed when first suggested. Once adopted, however, they have proven very valuable even after a short time. Itasca County citizens, for example, have urged much stricter zoning controls on lakeshore development after realizing that many of their beautiful lakes were becoming dangerously polluted and that there was very little undeveloped shoreline left in the county even though it contains almost 1,000 lakes.

Pine County itself has experienced tremendous lakeshore development as well as indiscriminate use of other valuable lands. Many of the county's citizens are upset with the

extremely offensive industrial dumps located within the headwaters region of the St. Croix National Wild River itself. Yet, the county has no legal way at the present time to prevent other industries from the Twin Cities and elsewhere from establishing similar disposal sites within the county.

Adoption and enforcement of an effective zoning ordinance can prevent harmful development such as that mentioned above. Properly enforced zoning can also help local farmers from encroachment upon their lands by real estate and industrial developers seeking to avoid generally higher taxes within incorporated communities. Zoning does not, however, prevent farmers or anyone else from doing anything reasonable that they want to with their own land, including selling it, erecting buildings, building fences, harvesting timber or even subdividing it into lots if they so wish.

The proposed Pine County zoning ordinance is composed of two parts – a text explaining the regulations for each zoning district and a map designating the actual zone locations.

The zoning map is not arbitrary. It is in fact based upon the county guide plan and incorporates information on land uses, expected growth and development, soils and topography. No reasonable manner of individual land development is prevented. Only development that will harm a neighbor's land or land value, is regulated. As an example, junkyards or noxious industrial operations would not be permitted in residential or lakeshore areas. Such land uses are set aside for industrial zones where noise, dirt, dust and other problem conditions can be minimized.

To preserve land for future road widenings, new buildings in each zone will be set back a minimum distance from the right-of-way line of the abutting roadway. Buildings must be set back a certain distance from side and rear lot lines to prevent buildings on adjoining lots from being constructed too close to one another and to preserve adequate yard space, light and air for each lot.

Minimum lot areas are established for future development in order to prevent pollution from inadequate septic tank leaching fields and over-development of rural agricultural, recreation, or forestry areas.



## ADMINISTRATION

Pine County's proposed zoning ordinance, when and if adopted, will be administered by the Pine County Zoning Officer who, it is assumed, will issue zoning permits for new development after a field inspection has been made to assure that the development meets the minimum provisions of the ordinance. Existing uses not meeting the minimum requirements of the ordinance are generally not affected except as they may be gradually removed or changed through time. Certain non-conforming land uses, such as junkyards, refuse dumps, and some outdoor advertising signs must be removed or made to conform by a specified date and through action taken by such authority as the County Board may determine. In individual instances where meeting the provisions of the ordinance will cause undue hardships because of property peculiarities, "variances" can be obtained by appealing to the authority designated. Changes in the zoning map may and quite certainly will be necessary in the future, and they can be initiated by individuals as well as the representing units of local government.

## FINANCIAL RESOURCES AND CAPITAL IMPROVEMENT PROGRAMMING

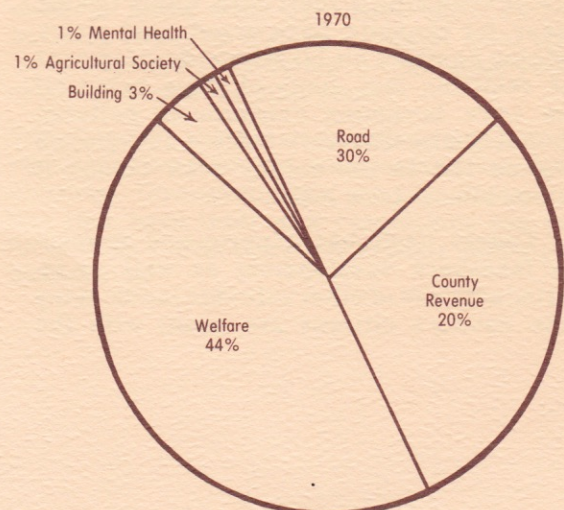
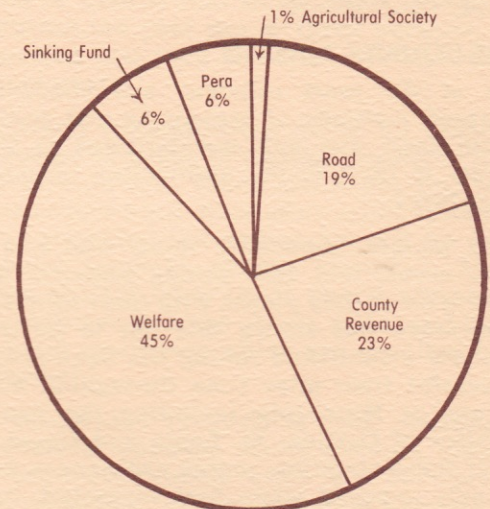
Between 1960 and 1966 Pine County's total taxable valuation increased by \$389,275. During this same period tax levies increased by \$211,367 and total County income increased by \$603,782. In addition to more money from tax levies, the County saw substantial increases in state aids for education, charities and highways.

County expenditures between 1960 and 1966 rose sharply while revenues increased gradually. In both 1962 and 1966 expenditures exceeded revenue primarily as a result of capital outlays for highways connected with construction and completion of Interstate 35 through Pine County.

The largest single expense the county has to meet each year is the cost of welfare. Total welfare costs for Pine County have risen from \$275,392 in 1960 to \$1,098,272 in 1966. The problems of financing and administering welfare programs are among the most urgent facing Minnesota's Counties today. It is significant to point out that the cost of welfare represents nearly half of the county's annual budget.

Capital improvements programming refers to the scheduling of selected necessary and desirable physical plans and facilities over a period of time. It is based on a priority of needs and the county's current and anticipated financial standing. With annual review the programming procedure becomes a continuing process and an up-to-date schedule of needs can be maintained. The capital improvements program includes both short-term and long-term projects. The short term projects are those that should be considered and provided for in the next five or six years. Long-term projects are those that are not scheduled for funding in the next five years, but should be listed because of their importance to the county, the necessity for finding means of financing them, and the possibility of obtaining government grants and loans for programs that are listed in an improvements program.

1960 - 1970 MILL RATE APPORTIONMENT  
1960



Source: Pine County Auditor's Records



## **CAPITAL IMPROVEMENT RECOMMENDATIONS**

1. A high priority project is the construction of a regional jail for the Pine, Kanabec, Carlton, Aitkin and Mille Lacs County area. Interviews with the sheriffs of both Pine and Kanabec Counties have confirmed that the transport and holding of prisoners in the St. Louis County or Hennepin County jails, represents a huge expense to local taxpayers. The consolidation of jail facilities would also foster the regional approach to law enforcement in the area, a concept favored by many public administrators interested in upgrading services and lowering costs of public safety.

2. The establishment of a solid waste disposal plan by July 1, 1972, is required by Minnesota Statutes, 1967, Section 116.07. This regulation requires the county to demonstrate that solid waste disposal sites meeting the MPCA Standards be accessible to all residents of the county.

3. The establishment of a county airport with a 3,200 foot blacktop strip is necessary and could be located in the Sandstone area.

4. At the present time, a 50% increase in the occupant capacity of the nursing home is warranted.

The Outdoor Recreation section of this report outlines goals and objectives for recreational development in Pine County that should be considered in the establishment of capital improvement programs. These goals might include:

1. Preservation of the natural features and unique landscape of Pine County with special attention given to the special qualities of the river system.

2. Identification or interpretation of well known, and little known historic sites as major attractions.

3. Provision of public recreation facilities that will support rather than compete with private enterprise accommodations and service.

4. Coordination of the many existing public and private agencies and organizations now working in the field of recreation and tourism.

5. Early purchase of public access for proposed and future trails, lakeshore and other outdoor activities.

6. Financial support for communities applying for Land and Water Conservation and other matching fund programs.

It is important for the county to select specific projects that are consistent with the County Plan, and with the position of the county in the regional recreational system. Specific projects should include the following:

1. Conduct a survey to determine the recreational capability of county-owned land, and establish a classification system.

2. Instead of selling county land for hunting shacks or similar uses, lease and manage it to achieve its recreational potential.

3. Develop a system of county recreation lands around existing tourist attractions, such as state parks and forests.

4. Development of access routes, launching, service and camp sites along the county's river systems.

5. As only 1% of the surface of Pine County is permanent water, serious consideration should be given to the development of impoundments. When properly designed and managed, these features can provide significant benefits, including boating, fishing, wildlife production (especially waterfowl) and hunting.

6. Development of snowmobile trails to provide for the expanding demands of snowmobilers, and to protect the environment against damage that results from uncontrolled use of these vehicles.

7. Development of trails for hunter dispersal, hiking and snowshoeing.

8. Development of campgrounds and waysides along canoe routes (especially the Kettle River) and scenic drives consistent with the purposes of those routes.

The County Highway Engineer has outlined a major improvement program for the county highway system.

1. Maintenance costs are extremely high, yet neglecting good maintenance practice is even more costly. To protect the county's heavy investment in the highway system, protective maintenance is given first priority.

2. To protect and maintain the existing county highway network, the county highway budget (at current levels) will be directed to road surface protection and repair for the next eight years.



3. New construction and upgrading of county roads, while definitely warranted in many locations, cannot be considered for several years under current budget conditions. Diverting money from maintenance activities would mean a loss of the county's investment in the long run.

4. Maintaining obsolete and worn equipment is an expensive proposition. Much of Pine County's highway equipment is overdue for replacement. Although purchase of such equipment amounts to a large expense, it is usually much less expensive in the long run than maintaining obsolete equipment.

5. Considerable long-term savings are also possible by providing suitable storage and maintenance facilities for highway equipment.

### **METHODS OF FINANCING CAPITAL IMPROVEMENTS**

There are several methods of financing Capital Improvement Programs, including bonds, assessments, pay-as-you-go and joint financing. An increasingly important feature of providing for improvements at the county level is the role of the state and federal government.

#### **Pay-as-you-go**

Pay-as-you-go is the financing of improvement projects from current revenues. Such revenues may come from general taxation, fees, charges for services, special funds, or special assessments. Advantages of this method include the saving of interest costs on borrowed money and providing for greater future budget flexibility. The major disadvantage is the need to have uncommitted cash available, which often precludes the financing of extensive capital improvements in a small community or rural county.

#### **General Obligation Bonds**

Projects providing county or community-wide benefits may be financed by general obligation bonds. Through this method the taxing power of the jurisdiction is pledged to pay interest upon and retire the debt. General obligation

bonds can be sold to finance permanent types of improvements such as schools, municipal buildings, parks, and recreation facilities. General obligation bonds may require the approval of the electorate and are issued as either sinking fund or, more commonly, serial bonds.

#### **Revenue Bonds**

Revenue bonds frequently are sold for such projects as water and sewerage systems, stadiums, swimming pools, airports, and other revenue-producing facilities.

#### **Special Assessments**

Public works programs financed most equitably by special assessments are those that benefit certain properties more than others. Local improvements often financed by this method include street paving, sanitary sewers, and water mains.

#### **Joint Financing**

The proposed program might be surveyed to determine whether certain projects are equally beneficial to other governmental agencies, authorities, or special districts and if joint financing can be arranged. Such cooperation may bring about projects that would otherwise have to be deferred for many years and thus can result in better service and lower costs for the area.

#### **Outside Sources**

State and federal grants-in-aid programs are frequently available to plan, construct, and finance capital improvements. The possibility of obtaining private gifts for certain facilities — parks, community centers or libraries — from individuals, corporations, and foundations should also be explored. Before defining what projects should be provided by the Government, an effort should be made to discover if some nonpublic group can provide a service or parts of a needed program. For example, private groups or business leaders may be persuaded to build off-street parking structures or provide lots if the local government has insufficient funds. Civic Associations have provided parks and playgrounds in many communities and counties as well.



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