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- A Management plan for Lake Louise



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A Management Plan for **Lake Louise** State Park

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Minnesota Department of Natural Resources

This document is a summary of the Lake Louise State Park management plan. All recommendations, both resource management and physical development, are included here. The detailed inventory data and specific instructions for implementing the recommendations have been compiled into a comprehensive management plan with technical appendices. These documents are on file in the:

Office of Planning
Department of Natural Resources
Box 10E Centennial Office Building
St. Paul, Minnesota 55155

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Introduction

ADDENDUM TO THE MANAGEMENT PLAN

On April 20, 1984, the state legislature passed a bill which amended the Outdoor Recreation Act of 1975 (Sec. 86A.05). The governor signed this amendment into law on April 27, 1984. The amendment is as follows:

Sec. 5. Minnesota Statutes 1982, section 86A.05, is amended by adding a subdivision to read:

Subd. 13. (ADDITIONAL PARKS: ADMINISTRATION.) All other state parks which, though not meeting the resource and site qualifications contained in subdivisions 2 and 3, were in existence on January 1, 1984, shall be administered by the commissioner of natural resources as units of the outdoor recreation system.

This amendment means that all state parks now in existence, even those which do not meet the classification criteria for natural or recreational state parks, will remain within the state's outdoor recreation system.

The management plan for Lake Louise State Park was completed well before this amendment to the Outdoor Recreation Act (ORA) was made. However, no legislative action was taken regarding the classification recommendations in the plan. Therefore, Lake Louise State Park will remain within the outdoor recreation system.

THE PLANNING PROCESS

In 1975 the Minnesota State Legislature passed the Outdoor Recreation Act (ORA). The intent of this legislation is to ensure, through long-range planning, the protection and perpetuation of Minnesota's outstanding resources. Also included in this legislation is the mandate to provide recreational facilities which are desired by the citizens of Minnesota but which do not compete with the private sector. The Park Planning Section of the DNR Office of Planning was established to formulate long-range resource management and recreation development plans for 82 state parks, recreation areas and waysides. Funds for these plans are appropriated biennially by the Legislative Commission on Minnesota Resources (LCMR).

The park planning process consists of six steps:

1. An inventory of natural resources, visitor use and existing facilities is compiled. Specialists from other DNR divisions and sections assist in collecting pertinent data. At this point the first public workshop is held.
2. Alternatives for park management and development are developed. A second public workshop may be held to review these alternatives and invite further public comment. These alternatives are then reviewed by the Park Planning staff and the DNR Division of Parks and Recreation.
3. The recommendation for park classification is made, the park goal is developed and the draft plan is written. This step culminates in an interdepartmental review of the draft plan.
4. The draft plan is revised as necessary after the interdepartmental review. The revised plan is made available to the public for a 30-day review period, after which the final public meeting is held.
5. The draft plan is revised according to information received from the public review. The plan is then sent to the State Planning Agency for a 60-day review period. (This management plan was reviewed in July 1983.)
6. The plan is implemented by the DNR Division of Parks and Recreation.

AN OVERVIEW OF LAKE LOUISE STATE PARK

Lake Louise State Park was established in 1963. It is located in southeastern Mower County, about 30 miles southeast of Austin. The statutory boundary encompasses 1,168 acres, 352 of which are privately owned. There are three life estate properties within the park boundary totalling about 15 acres.

About two-thirds of the acquired acreage within the park is old agricultural fields. The remainder of the park is covered by hardwood forest. The diversity of old fields and the field-forest margin provide good wildlife habitat in the midst of an area that is intensively farmed.

Lake Louise is an old mill pond that was created when the area was settled. The reservoir provides fishing and swimming opportunities. Recreational development includes a campground with 22 sites, a group camp area, 4 horseback rider campsites, and a modern toilet building with showers. The picnic area has a 60-car parking lot, a picnic shelter, the Hambrecht memorial cabin, and a swimming beach. Lake Louise State Park provides a diversity of trail opportunities, including 11 miles of hiking trails, 4 miles of ski touring trails, 7 miles of snowmobile trails, and 7 miles of horseback riding trails. Total trail mileage for the park is about 11 miles (snowmobiles and horses use the same trails, as do ski touring and hiking). Hiking is also permitted on the snowmobile/horseback system.

A SUMMARY OF MANAGEMENT AND DEVELOPMENT PROPOSALS

Resource Management

Initiate a planting program for the park.

Control the thistle in the old field areas.

Implement an open-old-field-area burn program.

Monitor and protect the colony of Allium cernuum (wild leek).

Restrict the number of fuelwood permits issued.

Monitor the existing deer population level and implement population control measures if necessary.

Maintain a maximum number of snags.

Implement a water quality improvement plan.

Support the DNR Section of Fisheries management recommendations outlined in its 1979 Lake Survey.

Determine whether the Hambrecht cabin should be included on a historic register.

Reorganize the Hambrecht cabin.

Development and Maintenance

Repair the Lake Louise dam.

Replace the picnic shelter.

Cooperate with the U.S. Soil Conservation Service, Resource Conservation and Development (RC&D) Program, in developing a recreational "canoe trail" on Lake Louise and the Upper Iowa River.

Other Considerations

The draft copy of the management plan (May 1983) included several developments which were identified as desirable for the park but which could not be recommended because of the park's inability to meet ORA classification criteria. The recent legislative amendment (see Addendum, p. 5) ensures that Lake Louise will remain within the outdoor recreation system. This amendment makes the implementation of several additional development actions more feasible. They are included here and should be scheduled for implementation by the Division of Parks and Recreation:

Improve the horseback riders camping area.

Improve the horseback riding trails.

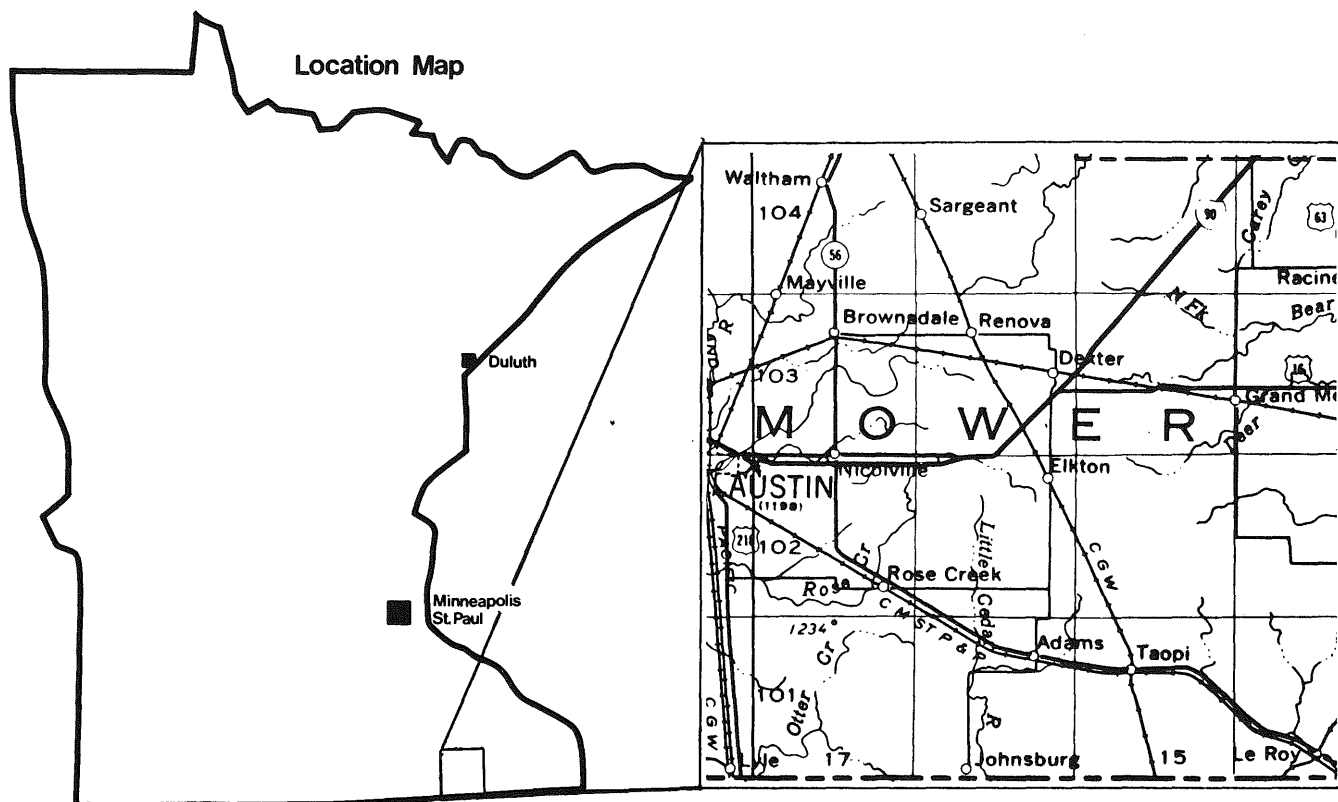
Install some electric outlets in the campground.

Develop a trailer dump station.

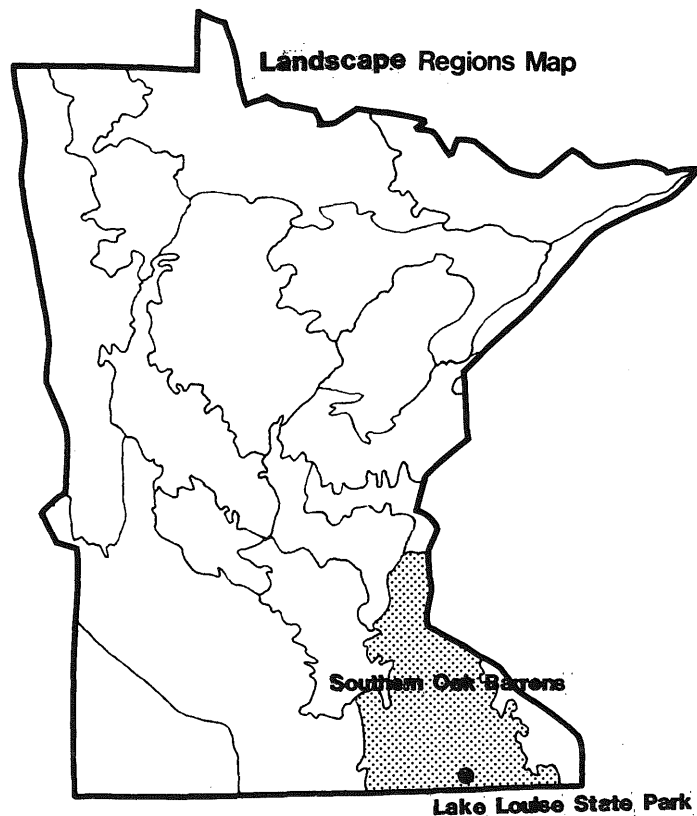
Develop a children's play area.

Improve the swimming beach.

Location Map



Landscape Regions Map



The landscape region system divides the state into 18 regions. These regions are differentiated according to the characteristic plant and animal life, landforms, and cultural patterns which existed before, during, and after European settlement. This system is a framework which provides information valuable in the planning of Minnesota's state parks.

Lake Louise is located in the Southern Oak Barrens Landscape Region. This region totals 5,800 square miles or 6.9% of the state. This region is a transition area between the prairie to the west and the deciduous forest to the north and east. Originally, the dominant vegetation was prairie with occasional groves and scattered individual oak trees.

Classification

CLASSIFICATION

There is a delicate balance which must be maintained when recreational facilities are provided for large numbers of people in areas of outstanding and often sensitive resources. Inappropriate development can result in irreparable damage to the resource. To help ensure this recreation/resource balance, the Minnesota State Legislature established, through the Outdoor Recreation Act of 1975 (ORA), a classification process whereby each unit in the state recreation system can be identified as one (or more) component in the system. These components are: natural state park; recreational state park; state trail; state scientific and natural area; state wilderness area; state forest and state forest sub-area; state wildlife management area; state water access site; state wild, scenic, and recreational rivers; state historic site; and state rest area. Included in this legislation are general criteria for classifying, planning, and managing each of these components.

Criteria for a Recreational State Park Designation

DNR policy identifies four criteria based on ORA '75 which a park must substantially meet to qualify for classification as a recreational state park:

Possess natural resources, or artificial resources in a natural setting, with outstanding outdoor recreation potential.

Provide outstanding outdoor recreational opportunities that will attract visitors from beyond the local area.

Contain resources which permit intensive recreational use by large numbers of people and be of a size sufficient to provide for effective management and protection of the natural and/or artificial outdoor recreational resources, so that they will be available for both present and future generations."

Be located in areas where they appropriately accommodate the outdoor recreational needs of the state population, provided that they complement but are not in place of recreational service normally offered by local or regional units of government or the private sector.

Criteria for a Natural State Park Designation

DNR policy identifies four criteria based on ORA which a park must substantially meet to qualify for classification as a natural state park:

Depict most of the major components characteristic of the landscape region, or contain a natural component(s) of statewide significance representing a feature of presettlement Minnesota.

Contain natural resources sufficiently diverse and interesting to attract people from throughout the state.

Be sufficiently large to provide for the maintenance of ecosystems and the protection of other natural features which give an area its special qualities.

Be sufficiently large and durable to provide opportunities for enjoyment of their special natural qualities by significant numbers of people now and in the future.

Recommended Classification

Lake Louise State Park does not meet the classification criteria for either a natural or a recreational state park. However, as a result of recent legislative action (see Addendum, p. 5) it will remain within the outdoor recreation system under the operation of the Division of Parks and Recreation.

Park Resources

CLIMATE

Temperatures for the month of July in the Lake Louise area vary from an average high of 83 degrees F to an average low of 60 degrees F. Temperatures in January for the area surrounding Lake Louise vary from an average high of 24 degrees F to an average low of 2 degrees F. The total annual precipitation (rain and snow) is about 30 inches.

GEOLOGY

The landforms of Mower County are the result of glacial activity. The park was covered by the earlier glaciers (Nebraskan and Kansan ice stages) until about 400,000 years ago. Portions of extreme southern Minnesota, including Mower County, were not covered by the most recent ice stage, which retreated 10,000 years ago. Mower County was so lightly glaciated by the Nebraskan and Kansan ice stages that its surface has few irregularities. The drift in the Lake Louise-LeRoy area is generally less than 100 feet thick. In some areas the drift is very thin, with bedrock only a few feet below the soil surface.

SOILS

There are 23 soil types in Lake Louise State Park. The majority of recreational development occurs on well-drained soils with only slight to moderate limitations for recreational development. Some limitations occur in building site or sanitary facility construction because of the thin layer of topsoil on top of bedrock. Most of the soils throughout the park are stable enough to provide good trail bases.

VEGETATION

Prior to European settlement, most of Mower County was covered by tall-grass prairie. About one-third of the county was covered by other vegetation types, mostly oak woodlands and brush prairie. All three vegetation types occurred throughout the county. The oak woodland type covered the Lake Louise area.

There are two distinct vegetation types now at Lake Louise State Park: hardwood forest and old field. The ratio of old field to forested area is about 2:1. Hardwood areas constitute about 35 percent of the park. Most hardwood areas are dominated by red oak and basswood.

There are about 500 acres of acquired old fields in the park, most of which were in crop production before their acquisition for park purposes. Most old field areas were seeded to a brome, bluegrass or orchard grass mix.

WILDLIFE

The predominant land use in Mower County is agricultural, with 81 percent of the land in cropland, 15 percent in pasture, and only 1 percent covered by forest. While many wildlife species inhabit the open agricultural field areas, many are also attracted to and find suitable habitat in areas such as Lake Louise State Park. The combination of wetter areas (along the river and lake), open field areas and wooded areas creates a variety of habitats for diverse wildlife species. Because of the limited amount of forest in this area, Lake Louise State Park has become a traditional wintering area for about 100 white-tailed deer. Browse pressure in the park has been noted in recent years, but is not to a point that would warrant a special hunt at this time.

Several years after the park was established, a flock of wild turkeys was introduced. It is unlikely that wild turkeys existed in the park area before settlement because of the poor quality of turkey habitat in this area. If the wild turkey flock dies out, the DNR Division of Wildlife may not have enough birds to risk reintroducing another flock at Lake Louise. With the limited amount of reintroduction stock available, wild turkeys must be reintroduced into areas that contain the best habitat so that the birds have a good chance to reestablish themselves.

GROUNDWATER

The main park well is situated adjacent to the road north of the picnic area. This well supplies water to both the picnic area and the campground. Because this is a relatively deep well (830 feet) it is probably drawing on the Prairie du Chien - Jordan aquifer. Large amounts of water are available from this aquifer.

Another well is located at the park manager's residence. The subsurface construction of this well is unknown; therefore, a 1982 Minnesota Department of Health Sanitary Facility Report recommended that this well not be used as a source of water for the public. Examination of both park wells indicated that water obtained from them was of good sanitary quality with an absence of coliform organisms and low nitrate nitrogen levels.

SURFACE WATER

Lake Louise is formed at the confluence of the Upper Iowa and Little Iowa rivers. It is part of the Cedar River watershed, which flows into Iowa and eventually into the Mississippi River.

Lake Louise was created in 1854 to serve as a mill pond for a grain milling operation. The lake is 26 acres in size, has a 2.3-mile shoreline, a maximum depth of 8 feet, and a total watershed of approximately 63 square miles. With most of the land in the watershed being used for agricultural purposes, Lake Louise is subject to siltation from the sediment from agricultural runoff. To temporarily curb the gradual filling in of the lake, the southern third of the lake was excavated in 1967.

Lake Louise is moderately turbid and has a silty bottom with little aquatic vegetation. Compared to other south-central Minnesota reservoirs, the water quality is fair to good. Winter oxygen tests indicate enough oxygen to preclude fish winterkill.

FISHERIES

Fishing is a popular visitor activity at Lake Louise. The turbidity of the water affects the quality of fisheries habitat and the types of fish that can exist in Lake Louise.

Lake Louise has been stocked by the DNR since 1931. Northern pike were not able to establish themselves. The lake is supporting a natural population of crappies. Black crappies are also doing well. Orange-spotted sunfish are present, but habitat to support bluegill sunfish is lacking. Good largemouth bass habitat exists between the Lake Louise dam and the Iowa border, but is lacking in the lake itself.

The most abundant fish in the lake are rough fish, which contribute to the deterioration of water quality with their feeding habits (bottom feeders disrupt sediment and increase turbidity) and high-phosphorous excretions. Channel catfish were introduced in 1980 to prey on bullheads. This action should help to alleviate the rough fish problem.

ARCHAEOLOGY/HISTORY

Archaeological evidence indicates that prehistoric Indians inhabited the Mower County area at least 7,000 years ago. A prehistoric quarry site has been documented near Grand Meadow, about 15 miles north of the park. A number of large pits mark the area that was mined for 2,000 to 5,000 years for its high-quality gray chert.

Several tribes of Dakota Indians used the Iowa-Cedar rivers area for hunting grounds and village sites until the mid-1800s. With the signing of the treaties of Traverse des Sioux and Mendota in 1851, the Sioux ceded the vast majority of their land in western and southern Minnesota to the United States. By the mid-1850s, the Mower County area had been surveyed and settlement began.

Fertile soils, natural streams and scattered woods attracted settlers to the LeRoy Township area in the early 1850s. The town of LeRoy was established near the present park site. When a railroad station was established one mile south of the town in 1867, people began to move south to the site of rail service. Eventually the railroad company platted a new city site around its railroad station, and most people moved to the present site of LeRoy. The town's original site next to the park became known as "old town."

One of the original settlers of the LeRoy area was Conrad Hambrecht, who introduced Hereford cattle to Minnesota. The Hambrechts owned the majority of the wooded land adjacent to Lake Louise. They deeded the land to the city of LeRoy and the area became known as "Wildwood Park." Wildwood Park was deeded to the state of Minnesota in 1963 to become the nucleus of Lake Louise State Park. The lake was named after Conrad's daughter in honor of the original gift of land. The Hambrecht cabin is located in the picnic area adjacent to Lake Louise.

RESOURCE MANAGEMENT OBJECTIVES

To provide good esthetic qualities while maintaining the presettlement character of vegetation.

To protect significant plants as outlined by the Minnesota Natural Heritage Program.

To control noxious weeds as identified by the county weed inspector.

To manage the deer population at a level which is compatible with the park's resources.

To enhance wildlife observation as a recreational experience for all park visitors.

To improve the recreational quality of Lake Louise water activities.

To improve the overall water quality of Lake Louise.

To work with the DNR Section of Fisheries in maintaining fishing opportunities at Lake Louise.

To interpret historical aspects of the park and surrounding area.

RESOURCE MANAGEMENT

The resource management actions of this plan were originally made within the context of the recommendation for deletion of the park from the state park system. Those actions were intended to provide future direction and to aid resource managers in the interim until a final decision was made by the legislature on park classification.

The recent legislative amendment to the Outdoor Recreation Act ensures that Lake Louise will remain within the outdoor recreation system. Therefore, the DNR regional resource coordinator and other appropriate resource management personnel should review the resource management recommendations of this plan to determine whether they are appropriate for long-range resource management. Changes in the resource management recommendations of the plan should be made where appropriate.

Vegetation

Initiate a planting program for the park.

Control the thistle in the old field areas.

Implement an open-old-field-area burn program.

Monitor and protect the colony of Allium cernuum (wild leek).

Restrict the number of fuelwood permits issued.

Wildlife

Monitor the existing deer population level and implement population control measures if necessary.

Maintain a maximum number of snags.

Water Resources

Implement a water quality improvement plan.

Fisheries

Support the DNR Section of Fisheries management recommendations outlined in its 1979 Lake Survey.

Archaeology/History

Determine whether the Hambrecht cabin should be included on a historic register.

Reorganize the Hambrecht cabin.

Physical Development and Recreation Management

EXISTING DEVELOPMENT

Campground

22 campsites

4 horseback rider campsites

modern sanitation building with vault toilets and showers

Primitive Group Camp

3 separate group campsites

Picnic Grounds

picnic shelter

60-car parking lot (gravel-surfaced)

swimming beach

Hambrecht historical cabin

Lake Louise dam

concrete dam with 8-foot crest

spillway with stop logs for water depth control
(presently inoperable)

Trails

11 total miles (all available for hiking)

4 miles of ski touring trails

7 miles of snowmobile trails

7 miles of horseback riding trails

Administrative/Support Facilities

manager's residence

shop/garage

contact station

storage barn

PROPOSED DEVELOPMENT

Maintenance and Development Recommendations

Repair the Lake Louise dam.

Replace the picnic shelter.

Cooperate with the U.S. Soil Conservation Service, Resource Conservation and Development (RC&D) Program, in developing a recreational "canoe trail" on Lake Louise and the Upper Iowa River.

Other Considerations

During the planning process, several other development recommendations were made by the park manager and many of those who attended the public meetings. Because Lake Louise was being recommended for removal from the state park system, it would have been inappropriate to make these development recommendations a part of this management plan. However, the recent legislative change which ensures the continuation of Lake Louise as a state park now makes these recommendations more feasible. They are included here and should be scheduled for implementation by the Division of Parks and Recreation.

Improve the horseback riders camping area.

Improve the horseback riding trails.

Install some electric outlets in the campground.

Develop a trailer dump station.

Develop a children's play area.

Improve the swimming beach

Park
Boundary

PARK BOUNDARY

The existing statutory boundary encompasses 1,168 acres, 352 of which are privately owned. There are three life estates located near the southwest corner of the park. The statutory boundary is determined by the legislature. Within this boundary the DNR can buy land from willing sellers for park purposes.

Much of the privately owned acreage within the park boundary is not needed for recreation or resource management. Most of the private acreage is in crop production. At least 60 percent of the 816 park-owned acres are old field; there is no need to acquire more.

The proposed park boundary (see Ownership and Proposed Boundary Map, p. 33) would delete two areas from the park. This is a net reduction of 272 (all private) acres. The V-shaped road that currently runs through the park will become the park's northern boundary, making a more definable unit. A farm residence and some agricultural fields would be deleted from the southeast corner of the park.

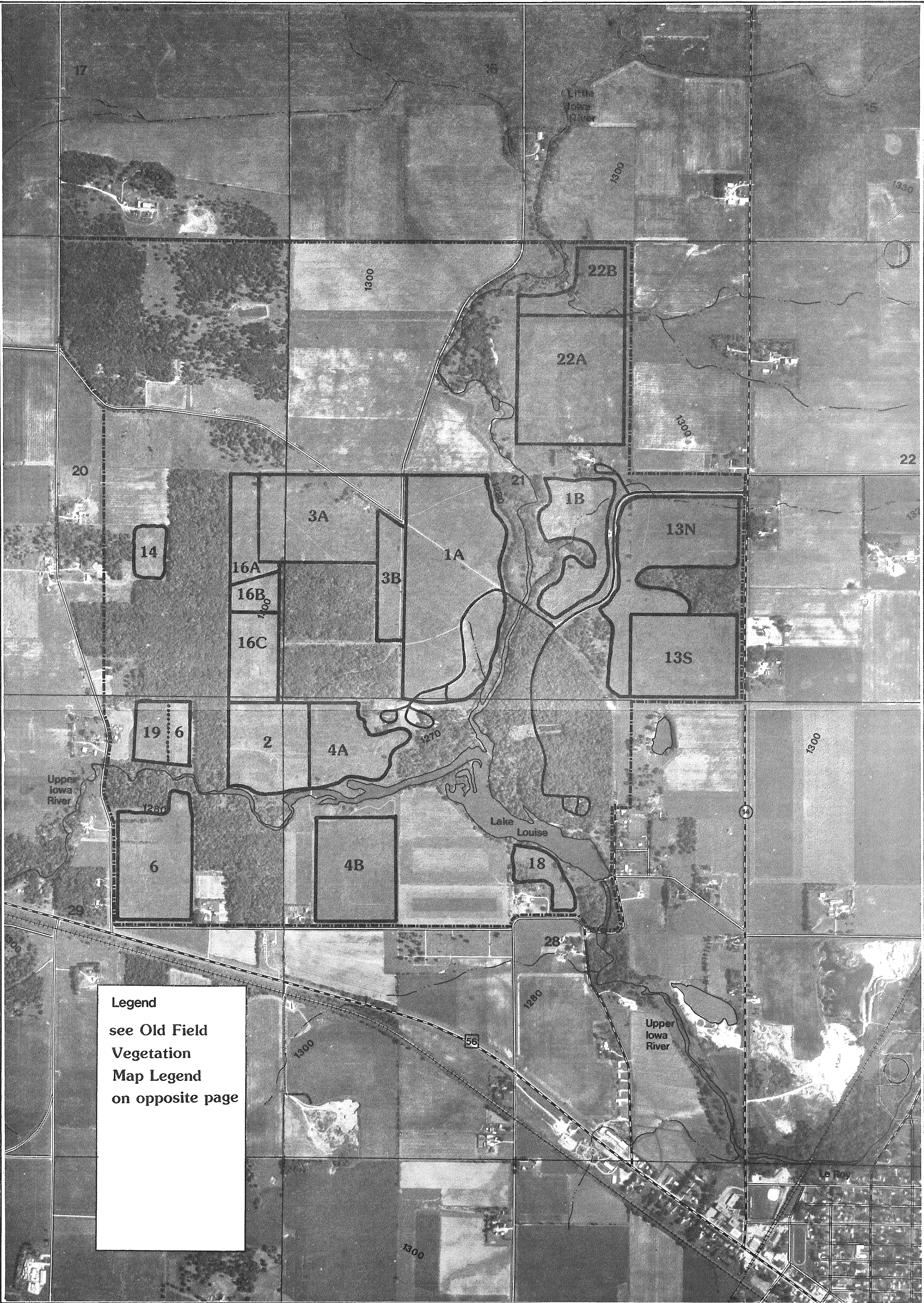
The remaining private acreage within the park, 80 acres, should remain in the boundary.

The portion of Tract 15 east of the V-shaped road (56 acres) includes a portion of the Iowa River and has some wooded areas. The land has good potential for recreation and its acquisition may improve the quality of the water that enters Lake Louise (part of this tract is currently in crop production).

Tract 11 contains 14 acres of solid woods in the west-central portion of the park. This wooded tract has been protected from recent major disturbance and is in good condition for park purposes.

That portion of Tract 5 that is adjacent to the southwest shore of Lake Louise (10 acres) should be acquired to protect the lake from runoff (it is currently in crop production).

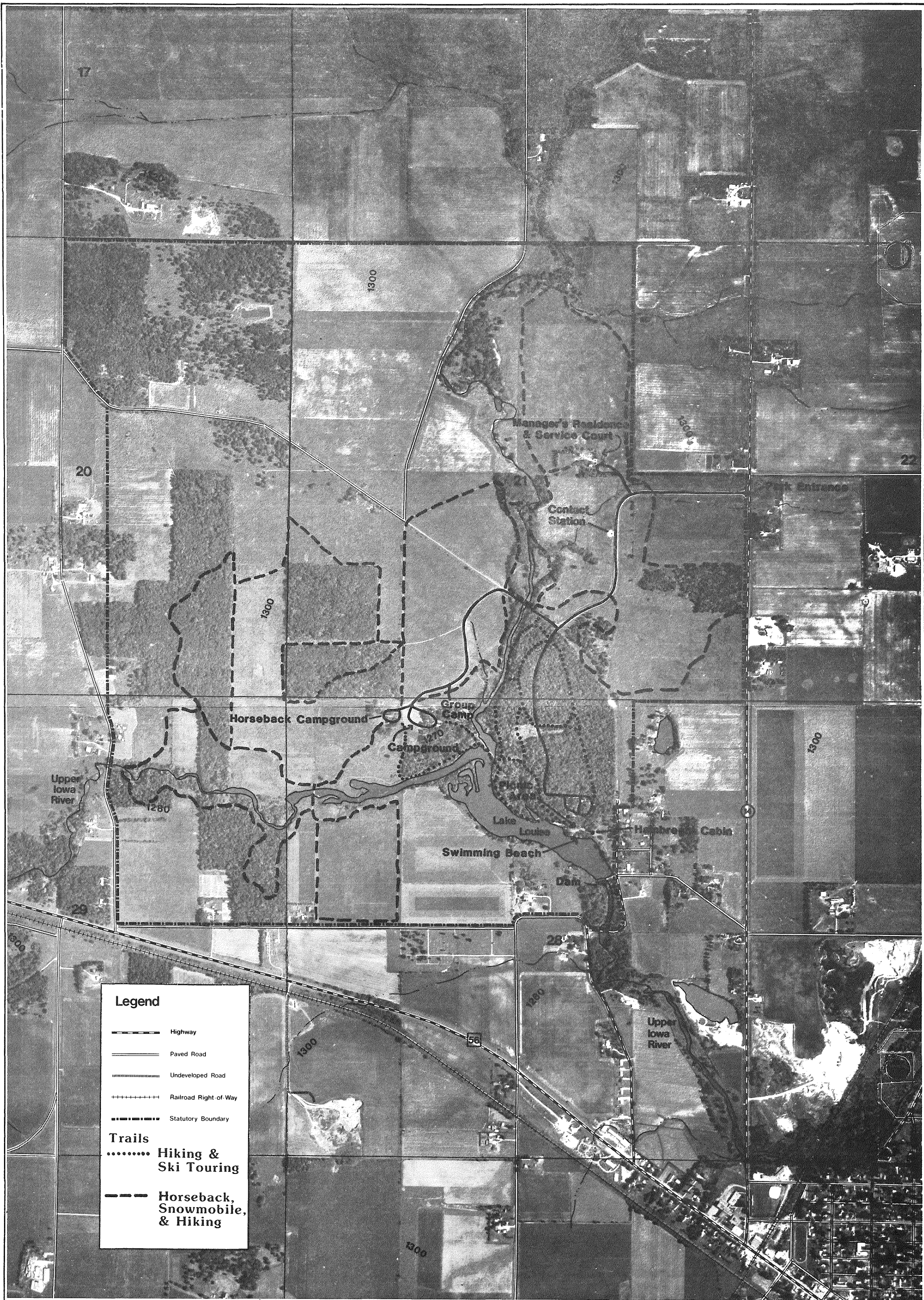
Maps



Legend
see Old Field
Vegetation
Map Legend
on opposite page



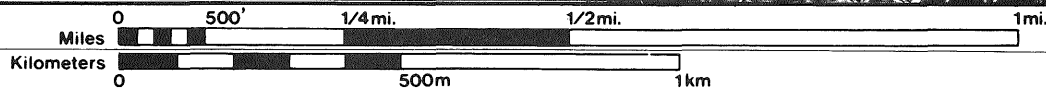
Lake Louise State Park Vegetation



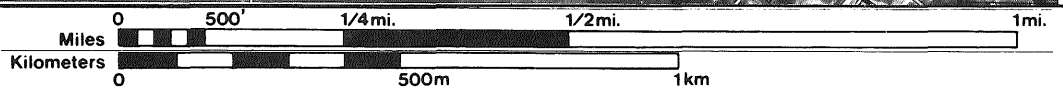
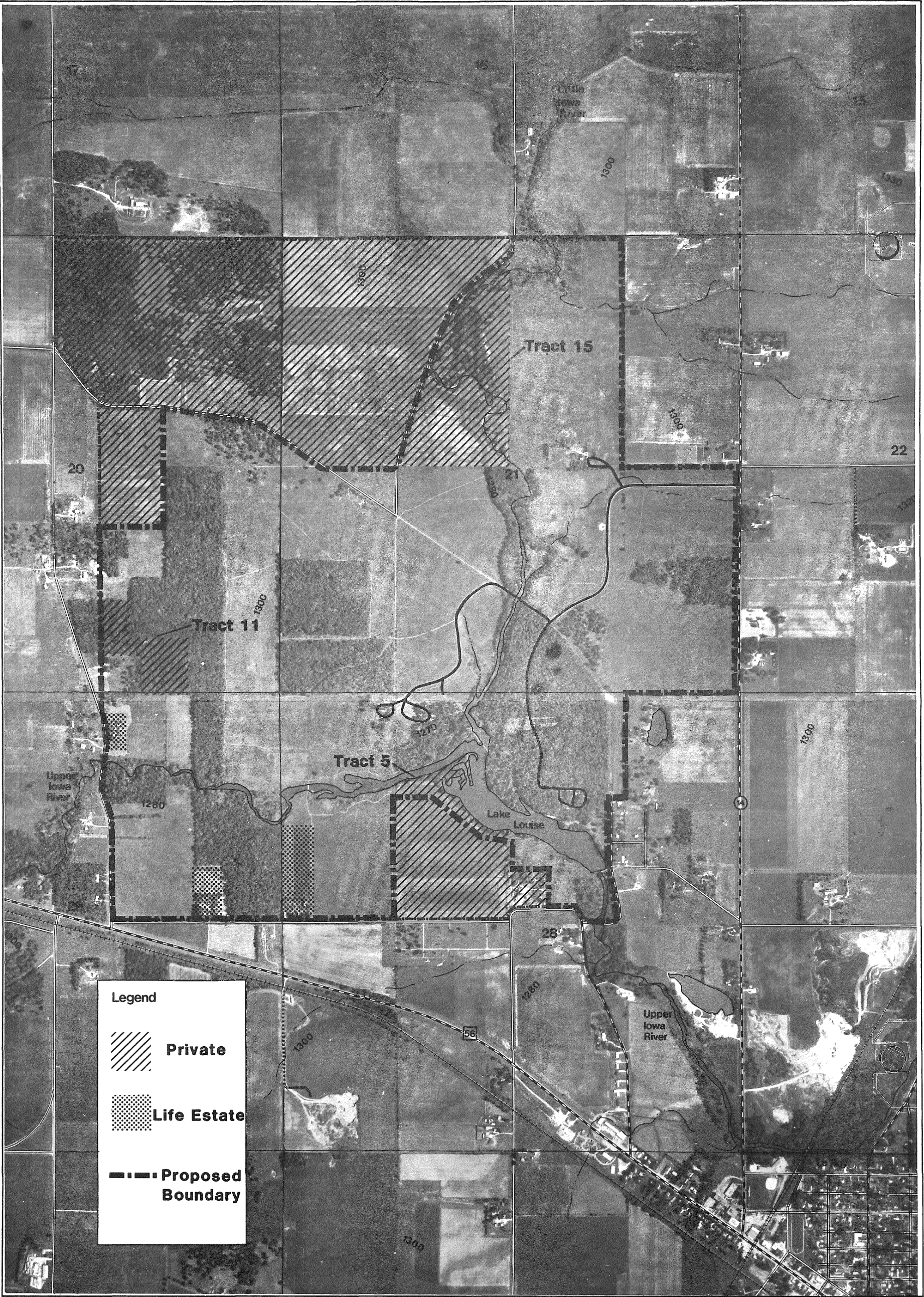
Legend

———— Highway
===== Paved Road
----- Undeveloped Road
+++++ Railroad Right-of-Way
- - - - - Statutory Boundary

Trails
..... Hiking & Ski Touring
- - - - - Horseback, Snowmobile, & Hiking



Lake Louise State Park Existing Development & Trails



Lake Louise State Park Ownership / Proposed Boundary

