STATE OF VERMONT
AGENCY OF NATURAL RESOURCES
DEPARTMENT OF FORESTS, PARKS AND RECREATION
AND DEPARTMENT OF FISH AND WILDLIFE

Lowell Lake State Park

General Management Plan

Prepared by: Nate McKeen
Jay Maciejowski
Susan Bulmer

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Table of Contents

Preface 1

The purpose and objective of Land Management by the Department of Forests, Parks and Recreation 2

Introduction 6
- Purpose of Plan 6
- Management Plan Outline 7
- The Planning Process 8
  - Public Involvement 8
  - Public Advisory Committee 10
  - Technical Steering Committee 10
  - Recreational User Survey 10
  - Plan Approval and Adoption 11

Background and General Description 12
- Visitation and Use 13
- Regional Setting and Surrounding Land Uses 14
- Area History 14
- Property History 16
- Park Character Statement and Operating Philosophy 18
  - Proposed Primary Uses for Park 19
  - Secondary Uses 19
  - Supporting Facilities and Uses 19

Resource Element 21
- Natural Resources 21
  - Topography 21
  - Geology 21
  - Drainage 22
  - Soils 22
- Natural Communities and Vegetation 23
- Water Quality 25
  - Exotic Species Infestations 25
  - Acid Precipitation 25
  - Unique Status 26
- Wildlife Habitat 26
- Fisheries 27

Cultural Resources 28
Visual Resources and Scenic Quality 28
Recreation Resource 28
Critical Resources Map 29
Soil Survey Map 30
Vegetative Cover Map 31
Topographic Map 32
Watershed Boundary Map 33
Generalized Aquatic Vegetation Map 34
Aquatic Vegetation Map 35
Lake Bathymetry Map 36

Land Use Element 37
Considerations in Land Use Determination 37
General Land Use Goals and Objectives 40
Proposed Management Areas 42
Land Use Limitations 44
Appropriate Future Additions and Areas of Protection 46

General Management Plan Element 48
Character Statement and Operating Philosophy 48
Facilities and Operations Strategies 48
Current and Proposed Facilities 49
Trails 55
Utilities 57
Existing Park Facilities Map 58
Operations Element 60
Operational Strategies 60
Use Level Map 69

Preface

The objective of public land management by the Department of Forests, Parks and Recreation is the management of all resources on land owned or controlled by the Department for the greatest benefit for the people of Vermont consistent with the capability of the resources. It shall be the policy of the Department to manage these lands under the concept of integrated use, a strategy of land management which considers public need and the capabilities of the land to meet these needs, and favors the highest and best use or uses. Compatible uses shall be recognized, and as conditions and needs change, uses may be changed. Properly implemented, this multiple use concept maximizes benefits and avoids environmental deterioration.

The following general long-range management plan is prepared to provide a summary of the area's assets, or an inventory of the total resource, and is designed to present the background and goals of management, to set priorities, and to provide the setting for work plans, activities, and methods that will be applied to reach these goals over the next 5 - 20 years.

The Agency and its Departments acknowledges the helpful participation of the Public Planning Group, the Technical Steering Committee, and other professional resource managers in the development of this plan. Following public comment on the final draft plan, the Department will incorporate constructive suggestions. We thank everyone who has participated to date for their assistance, and appreciate the importance of their contributions. Continued public support is needed to achieve many of the goals and objectives outlined in this plan.

The Purpose and Objectives of Land Management by the Department of Forests, Parks and Recreation

In addressing the natural resource needs of the people of the State of Vermont, the Legislature has established the Department of Forests, Parks and Recreation, as a part of the Agency of Natural Resources. A major assignment of the Department is the responsibility for management of lands acquired to fulfill these needs.

Consistent with legislative direction, and through a policy of economic management of its lands, the Department will protect, conserve, and enhance resource qualities and provide recreational opportunities, timber products, varied plant and wildlife habitat, clean water, and natural beauty for the enjoyment and use of the people of the state.

Management of public land will be in accordance with the interests of the people of Vermont, as expressed through the democratic process, and through a systematic assessment of needs. Decisions will consider both public needs and inherent resource capabilities, through application of interdisciplinary review by a staff of professional personnel.

Public ownership shall complement private ownership by fulfilling needs which are not readily met by the private sector. The continuity of public ownership provides the opportunity to meet long range goals and objectives, an assurance of public access to diverse natural resources, their availability for use by future generations, and the opportunity for research, education, and study for the enrichment of society.

Public management shall be consistent, yet flexible enough to adapt to changing public needs, technological advances, and relevant economic conditions. The Department recognizes the legislative charge to manage for purposes implied by its title and jurisdictions: the forest, recreation, and natural areas of the state, but will consider and incorporate all other values consistent with expressed goals and policy.

To achieve the Department assignments of fulfilling resource needs through state lands stewardship, the Department will be guided by the following objectives:

A. To manage the land for the greatest benefit of the people of the state, consistent with the capability of the resource, under the concept of integrated use, while favoring the highest and best use, by:

1. Establishing land use definitions, categories, and objectives;
2. Identifying resource capability through an inventory process;
3. Assessing and integrating public needs;
4. Establishing an input process by other state divisions and departments, individuals, and special interest groups.
5. Developing long range plans and goals for the land;
6. Formulating work plans that outline specific tasks to be achieved over a 15-year period;
7. Reviewing and updating plans regularly;
8. Establishing a method of monitoring progress on plans; and
9. Continually reviewing the public land ownership pattern, and making recommendations with respect to acquisition and/or disposition of property.

B. To protect the resources by:

1. Identifying for acquisition those lands needed to enhance or protect existing state ownership;
2. Identifying and recommending acquisitions of land which have outstanding scenic quality, vital ecosystems needing preservation, vulnerable habitat or landforms;
3. Devising and implementing a fire protection plan;
4. Reducing insect and disease damage through silvicultural practices, or where necessary, other appropriate techniques;
5. Implementing the best erosion control measures feasible in all activities;
6. Including educational efforts in all plans to encourage knowledgeable public uses of the lands;
7. Monitoring all uses of state lands to ensure protection of the resource and to review or adjust uses as needs demonstrate;

8. Locating and marking all property lines to maintain the integrity of the property.
9. Designing facilities that direct use to areas most suited to certain activities.

C. To provide a suitable variety of services and products by:

1. Developing outdoor recreational opportunities such as campgrounds, beaches, trails, picnic areas, and other facilities, where compatible with the resource and where need is demonstrated;
2. Harvesting the timber growth through an orderly sales program, to provide fuelwood, logs, pulpwood, and other marketable forest products, based on a sound silvicultural management system;
3. Maintaining, enhancing, and creating a variety of wildlife habitat;
4. Acquiring and developing access for public use of state lands;
5. Allowing limited special uses through a permit system, when such uses are clearly beneficial to an individual or group, and fully compatible with the primary objectives of the parcel;
6. Administering all leases in a professional and timely manner, demonstrating appropriate and constructive attention to natural resources, viability and private sector interests, economics and the general public good.

Introduction

Purpose of Plan and Executive Summary

Lowell Lake State Park was acquired for its natural resource significance and to provide water-based recreation. The challenge for managing the park is to balance these dual and somewhat conflicting purposes: to protect the special natural resources (undeveloped shoreline, water quality, wildlife habitat, and wetland community) while providing visitor services and facilities necessary to support a high quality outdoor recreation experience.

The Department of Forests, Parks, and Recreation does not currently receive any general fund tax dollars for support of park operations. At the same time, resource management strategies and actions, as well as interpretive services, tend to be labor intensive and expensive relative to revenue generated. The goal at Lowell Lake will be to strike a balance between an efficient revenue producing operation that provides a memorable visitor experience, yet most importantly, one that places resource value above revenue potential.

It is felt that the best way to meet the goals of the park operating philosophy will be to limit use to an extent. Overall use will be controlled by the number of parking spaces available for park visitors. Given the natural and recreational resources currently present, the reasons behind acquisition of the property, and the historic significance and value of the property to the community, it is felt that the best use of the park will be quite similar to what it has been in the past. However, use will not approach the level of activity that was seen at the lake before it gained "quiet lake" designation and when both Lowell Lake Lodge and Lowell Lake Camps were operating. Activities available will include overnight cabin rentals, boat launching, fishing, hiking, and nature study. Recreational use will be concentrated in the western portion of the park at the day use parking area, boat launch, and overnight area where the lodge and cabins are now located. The overnight area will include eight or nine cabins for rent. The trail system around the lake will also see considerable use.

Park visitors will continue to come from all over. Vermonters, vacation homeowners, and out of state visitors will come to experience the lake environment for the day or to spend their vacations at the park.

This Management Plan provides guidance for long-term management and development of the Park. The plan summarizes the available information about the park, documents the planning process and the relevant data used in making land use decisions, including specific management and development proposals. As conditions change, the plan may be reviewed and updated as necessary to guide Departmental actions at the park. The plan is not meant to provide details for site development, resource management, or park operations and maintenance, but to provide overall general guidance for such activities. Visitation and parking capacities indicated by the plan may be slightly more or less when specific site designs are prepared and implemented.

The plan takes into consideration the comments and recommendations made by the general public and the advisory committee. This input has been integral to the development of this plan.

Management Plan Outline

The plan is made up of the following elements:

The **Introduction** outlines the plan and summarizes the planning process.

The **Background** section includes background information about the park and surrounding area. It provides the park character statement and operating philosophy, which sets the stage for recommendations found in the management plan. Also included in this section is a brief history of the park and the Town of Londonderry.

The **Resource Element** summarizes the natural, recreational, cultural, and visual resources of the park.

The **Land Use Element** describes current land uses and relevant planning issues and determines appropriate land uses consistent with the resources.

The **Facilities and Operations Element** describes facilities and proposes development to enhance public recreation, park use, and understanding of the park's resources. It establishes recommendations for park operations and development.

The Planning Process

The planning process included an evaluation of the park's resources, property restrictions, and the roles the park and cooperating agencies play in providing recreational opportunities and in preserving the natural and cultural values at this site. Public participation played an integral part in developing this plan. The process was completed during an 18-month period.

Public Involvement

Lowell Lake State Park was acquired in two parts. The first part, called the Gardner property, included three different parcels consisting of 207 total acres. This property was acquired in 1979. The second part, called the White property, consisting of 154 acres, was acquired in October 1996. Public involvement in the Gardner property had previously been limited to communicating with and gaining support from town representatives and officials concerning the acquisition.

The current approach taken by the Department in long range planning of all facilities and lands incorporates and relies significantly on public participation. As a result, there has been extensive public involvement related to the White property and to the park as a whole. Identifying the resource protection and public use benefits, the Town Select Board and Planning Commission fully supported the acquisition of both properties and the establishment of the state park within their town boundaries. A town Conservation Commission was established in 1996. The

Commission was in favor of adding the White property to the park also for the benefits of resource protection and public use availability.

Public Planning

On October 13, 1996, Governor Howard Dean celebrated the addition of the White property to Lowell Lake State Park as he unveiled the new park sign during a ceremony that was attended by approximately 50 people. The Commissioner of Forests and Parks, the chair of the Londonderry Select Board, the chair of the Londonderry Conservation Commission, and Roger White a previous owner, also spoke at the ceremony.

A public informational meeting attended by approximately 80 people was held on December 4, 1996 at the Londonderry Town Clerk's Office in Londonderry, VT. The purpose of the meeting was:

1) to inform the public about the acquisition of the White property and what this meant regarding the goals and future of the park.
2) to answer questions regarding the acquisition and future plans for management of the park as best as possible.
3) to solicit comments and input regarding the communities ideas and concerns for the future of the park.

A second public informational meeting was held on January 25, 1996 to give people who were unable to make the first meeting a chance to get the same information and give their input.

A questionnaire was distributed to all attendees of the informational meetings. The questionnaire focused on current use of the park; assessing the values, need and importance of the park to the community; and obtaining recommendations for future use.

Public Advisory Committee

The Lowell Lake State Park Public Advisory Committee was organized to take part in the management planning process. The committee discussed the issues of management, and made recommendations on how the park should be managed and developed. The Advisory Committee consists of 15 members, representing neighbors of the park, representatives of various local organizations, representatives of other community interests, and local municipal officials. The committee has met from March 1997 through January 1999, for a total of 16 meetings to date. These were open, public meetings with participation from other interested citizens as well. The Advisory Committee provided significant guidance for the writing of this draft plan.

Technical Steering Committee

The Technical Steering Committee (TSC) consists of representatives from the Agency of Natural Resources, including the Fish and Wildlife Department, the Department of Forests, Parks and Recreation and the Department of Environmental Conservation. The TSC was formed to make recommendations and provide technical expertise and guidance for park management given the two main purposes for establishment of the park: wildlife habitat protection and public recreational use of the property. The TSC has reviewed this draft plan and will provide further recommendations during the ongoing implementation of the management plan.

Recreational User Survey

A Recreational User Survey was implemented during July, August, and early September of 1997. This survey focused on day visitors coming to the park. It was conducted by the park ranger and an intern from Lyndon State College. The main purpose was to determine whom the park users were, what activities they were participating in, and to obtain their views and opinions on how the park should be managed and developed. In addition to the survey, a vehicle count was also conducted. A total of 112 surveys were distributed during this time with a return of 61, giving a

54% return rate. This survey does not necessarily represent a full cross-section of park visitors, but it does provide valuable information. The most important aspects of park operation as rated by survey participants included:

1) Having a park ranger on site.
2) Maintaining a clean and safe park.
3) Providing for Day Use as well as Overnight Use at the park.
4) Providing restrooms.

Plan Approval and Adoption

After public review and comment of this draft plan, the Dept. of Forests, Parks and Recreation will conduct an internal review by departments within the Agency of Natural Resources, address additional concerns and forward the final draft to the Commissioner of Forests, Parks and Recreation for approval. Once the plan has received final approval, more detailed analysis for site development, resource management, and park operations will be formulated.

Background and General Description

Lowell Lake State Park comprises some 361 acres of land around Lowell Lake in the Town of Londonderry. The State Park was established in 1979 with the acquisition of a 207-acre parcel located at the southern and northeastern portion of the Lake. This parcel came from the Estate of Arline Weiss Gardner and includes the dam, an old cemetery, and an informal car top boat launching area. It also includes two of the islands and a significant bog area located at the southeastern end of the Lake. State funding for the Gardner acquisition was approved by the 1977 Legislature. The Interagency Committee on Natural Resources approved up to $250,000 of the State's allocation of federal Land and Water Conservation funds at their December 7, 1977 meeting. It was planned that a State Park would be developed giving priority to day use type facilities and public access for water-oriented activities and nature interpretation. Secondary priority would be the development of overnight camping facilities.

Through the Vermont Land Trust (VLT), the State added another 154 acres to the Park with the acquisition of the White property in October 1996. Due to the property's outstanding scenic, recreational, and wildlife values, this site had long been considered a priority for public acquisition. This is especially true given that there is very little public access to water bodies in this area of the state. Through a unique partnership involving the Department of Forests, Parks and Recreation, the Vermont Housing and Conservation Board (VHCB), and the Freeman Foundation, the Vermont Land Trust conveyed the property to the state while retaining a conservation easement and development restrictions.

General Description

Lowell Lake State Park's most notable feature is Lowell Lake itself. At 102 acres in size, Lowell Lake is one of the larger water bodies in southeastern Vermont. Though not remote, the Lake is secluded and has remained relatively undeveloped. This scenic lake is a popular spot for canoeing, fishing, and nature study. The Lake supports a good warm water fishery, contains five islands and provides habitat to two rare plant species (*Myriophyllum farwelli* and *Utricularia*

purpurea). The Lake has been designated as a "Quiet Lake" by the Vermont Water Resources Board, meaning that only non-motorized or electric-powered watercraft are allowed on the lake.

The main access to the park is currently from Lowell Lake Road off of Route 11. There is also access from Little Pond road off of Route 11. The closest neighbors to the park are residential homes at the end of Lowell Lake Road (southwest area of park), a few homes along Little Pond Road (northern end of park), and property owned by Powder Mill residential development and Ruth Pfanner (southeastern end of park). The Powder Mill property is the only property abutting the lake shore not in public ownership. The section of this property located closest to the shoreline does not appear suitable for development. However, future use of this property could have significant impacts on the park and managing an otherwise in tact lake system. Of the five islands on the lake, only one remains in private ownership. This island, named Wood Island, has a private cottage on it.

The western portion of the White property was formerly operated as a boys camp, then as a family vacation camp. This property includes a rustic lodge, eleven lakeside cabins, three maintenance garages, an old saw mill site, and a few sheds. These buildings have not been in use since 1986 and are in need of rehabilitation. There is also a small network of trails. The eastern portion of the White property includes two islands (one of which has a camp on it), a residential building, and a cabin. This property encloses nearly a mile of lakeshore surrounding the north end of the lake, and includes a significant marsh area and wetland habitat.

In the late 1980s an ACT 250 permit for a 12 site development was acquired and the property was sold. Eventually the owner went into receivership and the property reverted back to the original owners, the Whites.

Visitation and Use

Visitors to Lowell Lake Lodge (Gardner property) or Lowell Lake Camps (White property) had historically traveled from all over New England and New York. Since 1980 however, local residents and vacationers have been the most frequent visitors, mainly using the park for fishing, canoeing, hiking, biking, and camping.

Regional Setting and Surrounding Land Uses

Location

Lowell Lake State Park is situated at the eastern end of the Town of Londonderry. The Town is rural in character with a 1995 estimated population of 1446. The main land uses are commercial, residential, and agricultural, with areas of forests, and undeveloped land. Approximately 88% of the Town's lands are forested. Agricultural uses, although limited in number, are widely distributed throughout the town. Maple sugaring and forestry related activities are likewise dispersed. Tourism and second home ownership are also very important to the area.

Transportation Routes

The main transportation route, VT Highway 11, runs east and west through the town. Scenic Route 100, the main north/south corridor, is only three miles west from the main park access road. Routes 11 and 100 are the town's main arterial highways, providing regional access to Londonderry.

History

Prehistoric Londonderry

The area now named Londonderry, VT was originally inhabited by Abenaki Native Americans. A band of Eastern Abenakis migrated West from Maine and became known as the Western Abenakis. The Abenakis depended on waterways for transportation. Their south-central Green Mountain location provided the Champlain Valley to the West and the Connecticut River to the east. The Abenakis utilized abundant hardwood stands of Birch, Oak, and Maple trees to make canoes and utensils. Sources of fertile soil for crops and clay for pottery were located in the area's mountain valleys. The West, Black, and White Rivers gave the Abenakis access to hunting grounds where they found "...deer, moose, otter, beaver, bear, and fish (Londonderry Town Plan, 1997)."

Colonial Londonderry

Colonel James Rogers, of Londonderry, NH, was given a land grant in an area called Kent. From approximately 1770-1772 the Colonel led settlers into the area. In 1775, the first town meeting was held at Great Pond now called Lowell Lake. This event first documented the significance of the bond and history Londonderry and Lowell Lake share today. After Colonel James Rogers, a Tory, left town to fight for the king in 1777, Kent was renamed Londonderry. The naming of Londonderry was an Act of the new VT legislature in 1780 (Londonderry Town Plan, 1997). Londonderry's first settlers were dependent on agriculture and livestock. The need for forest products and the utilization of hydroelectric power led to the establishment of lumber mills. Throughout the 1800's, industry increased in Londonderry. Wool carding, tannery, harness, and machine tool shops, as well as a Post Office, were added to Londonderry's infrastructure ("Doings In Derry", Wiley).

Modern Londonderry

As agricultural dependence declined in Londonderry throughout the 1900's, the town developed a different "rural image". An economic environment that included small business, industry, and tourism emerged to support the town. This shift occurred, in part, because Londonderry is located in one of Vermont's "natural playgrounds" for outdoor recreation. The evolution of quick and efficient transportation has made Londonderry, and surrounding rural areas, easily accessible to visitors.

Recreation-related activities and summer homes may be thought of as the "glue" that holds the Londonderry economy together. Visitors to Bromley, Magic, and Stratton ski areas support Londonderry businesses and taxes. Bromley, regarded as the region's first ski area, opened in 1936. Magic and Stratton followed suit in 1960 and 1961, respectively.

Importance of Londonderry's Natural Resources

Londonderry's rural character includes scenic landscape along with traditional settlement patterns and architecture (Londonderry Town Plan, 1997). Town settlement patterns have been

influenced by the West River and its major tributaries. Rural character is bolstered by the presence of clean air, clean water, aesthetically pleasing mountains, valleys, and abundant fish and wildlife. Fish and wildlife includes "...bass, trout, pickerel, deer, bear, bobcat, moose, turkey, ducks, geese, ruffed grouse, woodcock, otter, and beaver" (Londonderry Town Plan, 1997).

The Lowell Lake unit of the Londonderry ecosystem is one of the town's most precious natural resources. It has been noted that Lowell Lake water resources are important to the "town's people and future" (Londonderry Town Plan, 1997). The Londonderry Town Plan (1997) outlines special natural resource designations for shorelands, wetlands, and habitat associated with Lowell Lake.

Shorelands including Lowell Lake, and *Conservation and Resource* areas have been described as environmentally fragile and aesthetically pleasing. The town makes a point to see that these areas receive minimal intensity use. Lowell Lake, an area with so much natural diversity and value, will require careful management planning.

Property History

Early Recreation Development at Lowell Lake

The Lowell Lake Resort was opened in 1880. During the 1880's Mr. Hilton, better known as "Kap" or "the Commodore", was the proud proprietor of Camp Lyon and the Lowell Lake House (hotel). Journalists have documented that Mr. Hilton's hotel and cottages seemed to blend into the wilderness (Lowell Lake is surrounded by Mt. Tabor, Mt. Glebe, Stratton, and Bromley). The property was equipped with a hotel, cottages, sheds, a bathhouse, and 10-person tents. Amenities included an oil stove, stone arch, and cots. The father-son operation saw to it that recreators had access to a livery, sailboats, rowboats, swings, hammocks, and croquet sets. Mr. Hilton had visitors from all over New England who were interested in relaxing at his "rustic" resort. It should be noted that Mr. Hilton named Annie's Isle after his daughter during his tenure

at Lowell Lake (the remaining islands are named Birch Island, Picnic Island, Pine Island, and Wood Island).

Lowell Lake Lodge and Camps

Preston White of Columbia, NJ began searching for a wilderness campsite in the 1930's. In 1937, he took a long trip through the Adirondacks (NY), White Mountains (NH), and Laurentians (Canada) looking for the perfect site (Nemethy, 1982). Preston White and his sister's family (Mr. and Mrs. J. R. Gardner) ended up at the Lowell Lake Lodge. "They immediately saw the possibilities and purchased some property which they later developed into a modern children's camp" (Brattleboro, VT, Daily Reformer, 1948).

In 1944, P. A. White and Mr. and Mrs. J. R. Gardner purchased the Lowell Lake Lodge (closed at the time). Eventually, the White and Gardner families amassed about 400 acres of land around Lowell Lake. Preston White and his wife Joan relocated to teach in the Brattleboro school system (Nemethy, 1982). The Lowell Lake Lodge underwent repairs and renovations in the hands of the Whites and Gardners. Most structures were upgraded and equipped with modern plumbing and electricity. The Lowell Lake Lodge and Lowell Lake Camps personified Preston White and his idea of the Lowell Lake experience. Mr. White and his staff simultaneously ran the resort and camps (Timbercrest for boys and Limberloch for girls) as separate units until 1949 (Nemethy, 1982). The two entities were combined from the 1950's through the early 1980's to provide a family camp atmosphere.

Cottages were renovated to suit adults and loosely scheduled activities were available to entertain kids. In regard to Preston White's Lowell Lake operation, The Brattleboro, VT Daily Reformer is quoted as saying "...here the peaceful waters reflect the blue sky, the glowing sunset colors, and the dark green shoreline...here the people come to get away from the noise and heat of the city...here they may go boating, fishing, bathing, or just loaf" (August 23, 1948).

Cemetery Provides a Link to the Past

The cemetery, located on what was previously the Arline Weiss Gardner parcel of land, is the oldest in Londonderry and includes markers dating back to the revolutionary war. The cemetery property was first owned and cleared by Captain Edward Aiken. Captain Aiken was one of Londonderry's most distinguished settlers. His son, Jonathan Aiken, offered the one-acre cemetery to the town in 1798. Today, the cemetery is made up of unmarked slate headstones, marble slabs, and rows of fieldstones. In 1997, in cooperation with the Londonderry Cemetery Commission, the department hired a Vermont Youth Conservation Corps crew to construct a fence surrounding the cemetery. This fence replaces the original one and is built as a replica of this original enclosure.

State of Vermont Acquires Properties

In 1977, the state acquired the Gardner property. The hotel was removed along with associated buildings. The dam was rebuilt and plans were made for a Day Use area and campground. These plans were never funded. The White property was then acquired in 1996 allowing for this plan to be developed.

Park Character Statement and Operating Philosophy

One of the initial objectives for the steering committee was to assist the department in defining the park's important characteristics and then an appropriate operating philosophy. The committee developed the following philosophy for the park:

The quiet and beauty of Lowell Lake and its surrounding shore-lands are key to the character and scenic values of the park. Lowell Lake State Park will be managed to protect and enhance its resources, and to provide high quality, passive day use and overnight recreational experiences through conservative facility development. The

recreational uses and facilities will be balanced with the protection of the park's natural, cultural, and scenic values. The park's natural resources will provide the backdrop for environmental education. The park must be managed in a way that it continues to be a community asset.

Providing "low key" recreational activities are at the core of Lowell Lake State Park Plans. The Lowell Lake Advisory Committee has prioritized local values to consider for planning:

1) Preserve and protect the character and natural beauty of the landscape, lake, wetlands, shorelands, islands, and forest.
2) Develop facilities that will not adversely affect the park's resources.
3) Promote programs that tie into existing community resources (one example would be to link Lowell Lake State Park recreation trails with the West River Trail and Jamaica State Park).

Proposed Primary Uses For Park

- •Environmental Research & Education
- •Nonmotorized Boating
- •Nature Study/Wildlife Observation
- •Lodge activities
- •Hunting
- •Fishing
- •Trail activities
- •Overnight cabin lodging

Secondary Uses

- •Community/School Events
- •Preservation and Interpretation of Cemetery
- •Possible Camping in the future

Supporting Facilities and Uses

- •Parking
- •Boat Launch
- •Entrance Control
- •Interpretative Trail, Materials and Signs
- •Sanitary Facilities
- •Maintenance Buildings
- •Park Ranger House
- •Cabins

- Signs - Directional and Informational
- Nature/Environmental Education Center
- Access Road
- Lodge
- Trails

Resource Element

The **Resource Element** evaluates the natural, recreational, cultural, and visual resources of Lowell Lake State Park. This element identifies specific resources and their sensitivities and physical constraints. The following resource information summarizes the available information.

Natural Resources

Topography

The topography of the region consists generally of wooded hills and rolling mountains. Londonderry generally lies on the eastern slopes of the Green Mountains. The park is approximately 361 acres in size. Within the park are uplands, shoreline, and wetlands. The dominant feature of the park is Lowell Lake itself, comprising about 102 acres. A marsh of about 14 acres is located at the northern end of the lake, and a bog of about 20 acres is located at the southern end of the lake. A smaller area of wetland is also located in the northwest corner of the park.

Geology

12,000 B.C. to 1700 A.D. Prehistoric Londonderry
With the warming of climate about 13,000 years ago, ending the last ice age, the topography of Vermont was forever scarred. Great Lakes and seas were developed to the west and east of the flattened mountains we now call the Piedmont Area of Vermont. With great water masses on each side of the mountains, sediments led to fertile valleys in the lowlands and rocky terrain in the highlands. (Londonderry Town Plan, 1997)

(The Following is taken from Geology For Environmental Planning in The Brattleboro-Windsor Region, Vermont by David P. Stewart, Vermont Geological Survey, 1975)

Lowell Lake is within the Precambrian schists and gneisses which form the core of the Green Mountain Anticlinorium. Geographically, it is on the east limb of the anticlinorium. The surficial materials map shows a large alluvial deposit at the southern end of the lake.

The major portion of the region (Brattleboro-Windsor) lies within the New England Upland geomorphic subdivision of the Appalachian Highlands, however Londonderry falls within the

eastern slopes of the Green Mountain geomorphic subdivision. Tectonically, the entire region is located in the Crystalline Appalachian Province.

The size of the area covered by the Green Mountains in the Brattleboro-Windsor region is very small. However, the influence of the mountains on several aspects of the environment, particularly the watershed, is very important. The Green Mountains are the most conspicuous element of the topography throughout Vermont and occupy a major portion of the southern part of the state including Londonderry. The mountains have the highest elevations, the most rugged terrain, and more influences on the drainage than any other feature of the state. Structurally the mountains are a huge, complex anticlinorium composed of highly metamorphosed rock. The uplift is called an anticlinorium because the great arch has a series of upfolds and downfolds superimposed upon it. Only the eastern limb of this structure is found in the Londonderry/Lowell Lake region.

Drainage

A more or less continuous ridge that trends north from Black Mountain through Putney and Windmill mountains to the Saxtons River divide northwest of Westminster West forms a divide that separates the West River drainage basin from a section drained by several small streams that flow into the Connecticut River.

Some maps show alluvium at the southern end of Lowell Lake. Recent alluvium is a post-glacial stream. It usually forms a layer on the surface of the valley floor that ranges from 5 to 25 feet in thickness. It may be composed of fine, silty sediment with varying amounts of clay or it may be predominantly sand.

Soils

This section describes the soil series found at Lowell Lake State Park. The location and distribution of the soil series are shown on the Soil Map. More detailed soils maps can be found in the Soil Survey of Windham County (1975).

Summary

The most prevalent soil classes found on the property are Worden poorly drained loam, Wilmington very fine sandy loam, Mundal fine sandy loam, Houghtonville fine sandy loam, and Lupton mucky peat.

With the exception of the areas which have been previously developed, the property is quite restrictive for intensive development due to unfavorable soil conditions, steep slopes or low wet areas. The identified soils series generally tend to be wooded and not suited to agricultural crops. The potential for timber management is not great in some areas of the park due to wet soils or steep slopes. Use for recreation purposes is generally not as restrictive over most of the area. However, some of the previously mentioned conditions, such as steep slopes and low wet areas severely restrict certain parcels for recreation.

A summary of each soil class found at Lowell Lake State Park can be found in the files.

Natural Communities and Vegetation

More than 90% of the property is forested. The woodlands occurring throughout the property consist of uneven-aged mixed softwood and hardwood. Species include balsam fir, red spruce, hemlock, red maple, sugar maple, white pine, white birch and yellow birch. The northern parcel consists of large, well-formed white pine, with over mature white birch and some poor specimens of red maple. The southern parcel consists of hemlock, mixed softwood and mixed hardwood. Some large, old white pines occur here within 200' of the shoreline. The understory vegetation is typical of that found in a site with a coniferous over-story, relative high elevation of the lake basin and with a cooler environment created by the basin itself. Species include Clintonia *(Clintonia borealis)*, Starflower (*Trientalis borealis)*, Wild Lily of the *Valley (Maianthemum canadense)*, Partridgeberry *(Mitchella repens)*, Goldthread (*Coptis groenlandica*), Shinleaf *(Pyrola rotundiflora)*, Lowbush Blueberry *(Vaccinium angustifolium),* and others well represented.

The bog located at the southern end of the lake is approximately 20 acres in size. It contains a sphagnum mat and associated bog vegetation. This area is a good exhibit of bog succession, from the Water Lillies near the lake, passing through the heath-shrub outer fringes of the mat, to the mat proper, to the swamp forest nearest land. The bog does not contain any endangered species and does not have the floral diversity of older and more developed bogs. It does however, contain some interesting species. Innumerable Pitcher-plants *(Sarracenia purpurea)* and Round-leaved Sundews *(Drosera rotundifolia)* grow throughout. Both of these plants are carnivorous. The Greater Bladderwort *(Utricularia vulgaris)*, another carnivorous plant covers the bottom. Other common bog plants here are Large Cranberry *(Vaccinium macrocarpon)*, Small Cranberry *(Vaccinium oxycoccus)*, Leatherleaf *(Chamadaphne calyculata)*, Wild Calla

(Calla palustris), Creeping Snowberry *(Gaultheria hispidula)*, and Tawny Cotton-grass *(Eriophorum virginicum)*.

We have less information at this time regarding the cattail marsh at the northern end of the lake. This marsh is typical, and is a very important feature of the lake for habitat and water quality.

Vegetation Types

The traditional approach to classifying land and forests is through cover typing. A **cover type** describes a forested landscape element based on the species of canopy trees occurring there, and is generally named after the predominant tree species. The Society of American Foresters (SAF) has developed a cover type system that is used as the standard throughout the Northern Forest.

A **natural community approach** to classify and describe forested landscapes is used for the purposes of conservation planning and bio-diversity protection. The Nature Conservancy and the nationwide network of Natural Heritage Programs have developed a Standardized National Vegetation Classification System. The Vermont TNC Office and Vermont Nongame and Natural Heritage Program have developed a classification scheme specifically for Vermont in 1996. There are 71 different types of wetland and upland natural communities in Vermont.

The park was recently mapped as containing fifteen different forest types. Six of the cover types/descriptions dominate the acreage. These cover types are:

1) red spruce – balsam fir – red maple, covering 22%
2) hemlock - red maple covering 14.8%
3) white pine sawtimber covering 14,5%
4) hemlock sawtimber covering 8%
5) white pine – balsam fir – red maple covering 6.5%
6) spruce – fir – tamarack swamp covering 5.5%.

More detailed cover type information can be found in the appendix

Water Quality

(Aquatic Plant Survey and Water Quality Report from Susan Warren, Water Quality Specialist D.E.C.)
Lowell Lake is a beautiful body of water with an abundant plant population. The plant community included a large amount of *Utricularia purpurea,* which is flourishing in shallow water throughout the lake. The typical species mix included *Brasenia schreberi, Nymphaea odorata, Nymphoides cordata* with *Utricularia purpurea* as the bottom cover. *Eriocaulon septangulare* frequently occurred in depths shallower than one foot.

Within the Vermont Lake Protection Classification System, there are three points on which Lowell Lake scores 'high'. These are:

1) Scenic and Natural Features.

2) Rare, threatened and endangered species.

3) Critically Low Dissolved Oxygen. Lakes in this category are subject to potential water quality degradation at a more rapid rate.

A summary of the data collected on Lowell Lake from the VT. Dept. of Environmental Conservation (VTDEC) can be found in the files along with the 1997 aquatic plant survey.

Exotic Species Infestations
VTDEC has not documented, in Lowell Lake, any of the three aquatic exotic species of primary concern: Eurasian watermilfoil; water chestnut; or zebra mussels. As no species of concern are known to be in the lake at this time, various educational and protective actions can be used to help prevent an infestation.

Acid Precipitation
Lowell Lake has an alkalinity of 3.05 mg/l(1992); it is considered "sensitive" to the effects of acid precipitation due to its limited ability to buffer incoming acidic rainfall and snowmelt. (Lakes with alkalinities below 2.5 mg/l area considered "highly sensitive".) Lowell Lake was sampled throughout the 1980's under VTDEC's Acid Precipitation Monitoring Program (ARMP), but due to budget cutbacks, only the 12 most highly threatened or impaired lakes are now sampled regularly. Jim Kellog of the ARMP reports that Lowell Lake has a good population of large mouth bass, native clams and crayfish, all of which are sensitive to the effects

of acid rain; their presence indicates the biological community of the lake has probably not yet been effected by acid rain.

Unique Status

Lowell Lake is note worthy from a statewide perspective due to its undeveloped shore, islands and diverse aquatic and shoreland vegetation. VTDEC's Lake Protection Classification System ranks Lowell as "Unique" due to these features; only about 10% of Vermont's 286 lakes of 20 acres or over fall into this category.

Purple Loosestrife

Purple Loosestrife (*Lythrum salicaria*) has not been found nearby the lake. It is a perennial wetland plant native to Europe. Immigrants who valued its striking purple flowers brought it to North America in the early 1800's. Seeds were also unintentionally transported to the shores of North America in the ballast water of ships. Since then, purple loosestrife has expanded its range. It is now a serious pest of wetlands and pastures. Once it enters a wetland, it takes over. Common native plants, such as cattails and sedges, cannot compete with it. Once the native plants are choked out, the wildlife that depends on them for food and shelter are also eliminated. Purple loosestrife has little value as food for animals, and populations of the plant become so thick that they cannot serve as cover for wildlife. Educating park visitors will be very important in the effort to keep this nuisance plant out of the lake.

Wildlife Habitat

The forested wetland adjacent to the cattail marsh at the northern end of the Lake attracts nesting waterfowl as well as fur bearing animals such as mink and otter. There is also a complex of beaver wetlands along the northern border of the western parcel with sedges that provide a spring source of food for bear and cover for fawns. This natural setting also attracts migrating waterfowl. The property supports wild turkey and many songbird species. In general, the wildlife populations include the traditional small mammals such as several species of bats, meadow voles, pine voles, deer mice, meadow and woodland jumping mice, several species of shrew; both star-nosed and hairy-tailed moles, red squirrel, flying squirrel, gray squirrel and snowshoe hare. Gray squirrels are uncommon because of a lack of good mast producing trees, and snowshoe hare are low in number because of a lack of short coniferous cover.

Predators using the property would include red and gray foxes, bobcat, and eastern coyote. The bobcat and coyote would not reside on the property permanently, but use it as a portion of their home range.

Big game present includes large numbers of white-tailed deer and occasional visits by black bear. White-tailed deer use the heavier softwood cover located on the western and southern edges of the lake during the winter months and can be seen throughout the park at other times of the year. Black bear move throughout the area because of the property being located within a larger bear travel corridor that connects Glebe Mountain with the Manchester mountains to the north.

The predominant furbearers, beaver and muskrat, are found on both Lowell Lake (occasionally) and some of the beaver ponds. In addition, weasel, mink, skunk, fisher and an occasional otter would use the property.

A wide variety of typical Vermont songbirds, raptors of several species, limited shore birds and game birds, such as ruffed grouse and woodcock, are found in the area. Much of the terrain has suitable cover and is ideally situated for fair numbers of the latter two species. Wild turkey would occasionally be found on the area.

Waterfowl utilization would probably be limited to light nesting and brood-rearing use of Lowell Lake and some of the larger beaver ponds by black duck and wood ducks. Lowell Lake, and in particular some of the emergent, aquatic vegetation bordering the parcel would be the most heavily used areas. On occasion the lake is used as a stopover for loons.

No endangered species of plants or animals have been found on the parcel.

Fisheries

Lowell Lake provides a locally popular fishery for largemouth bass and other warm water species including yellow perch, brown bullhead, chain pickerel, pumpkinseed, golden shiner, white sucker, and an occasional smallmouth bass.

Cultural Resources

Lowell Lake has a rich history dating back to Prehistoric Londonderry inhabited by the Abenaki Indians. In 1775, Colonial Londonderry's first town meeting was held there. The cemetery located on the property dates back to before the revolutionary war time period and is an extremely valuable cultural and historic resource. Lowell Lake Lodge (no longer present) and Lowell Lake Camps (White property acquisition) are indicators of more recent historic and cultural attributes of the park. A cultural resources inventory has not yet been conducted for the park.

Visual Resources and Scenic Quality

The scenic values of Lowell Lake contribute greatly to the park and the region. The protection of the lake's shoreline provides an opportunity to observe a Lake community without the normal interference of intense human activity and development so prevalent in many of Vermont's Lake communities. The quality of night darkness available at this lake is also important. The undeveloped shoreline, marsh, bog, lake, islands and surrounding woodlands collectively create an extremely valuable visual and spiritual resource in the Londonderry area.

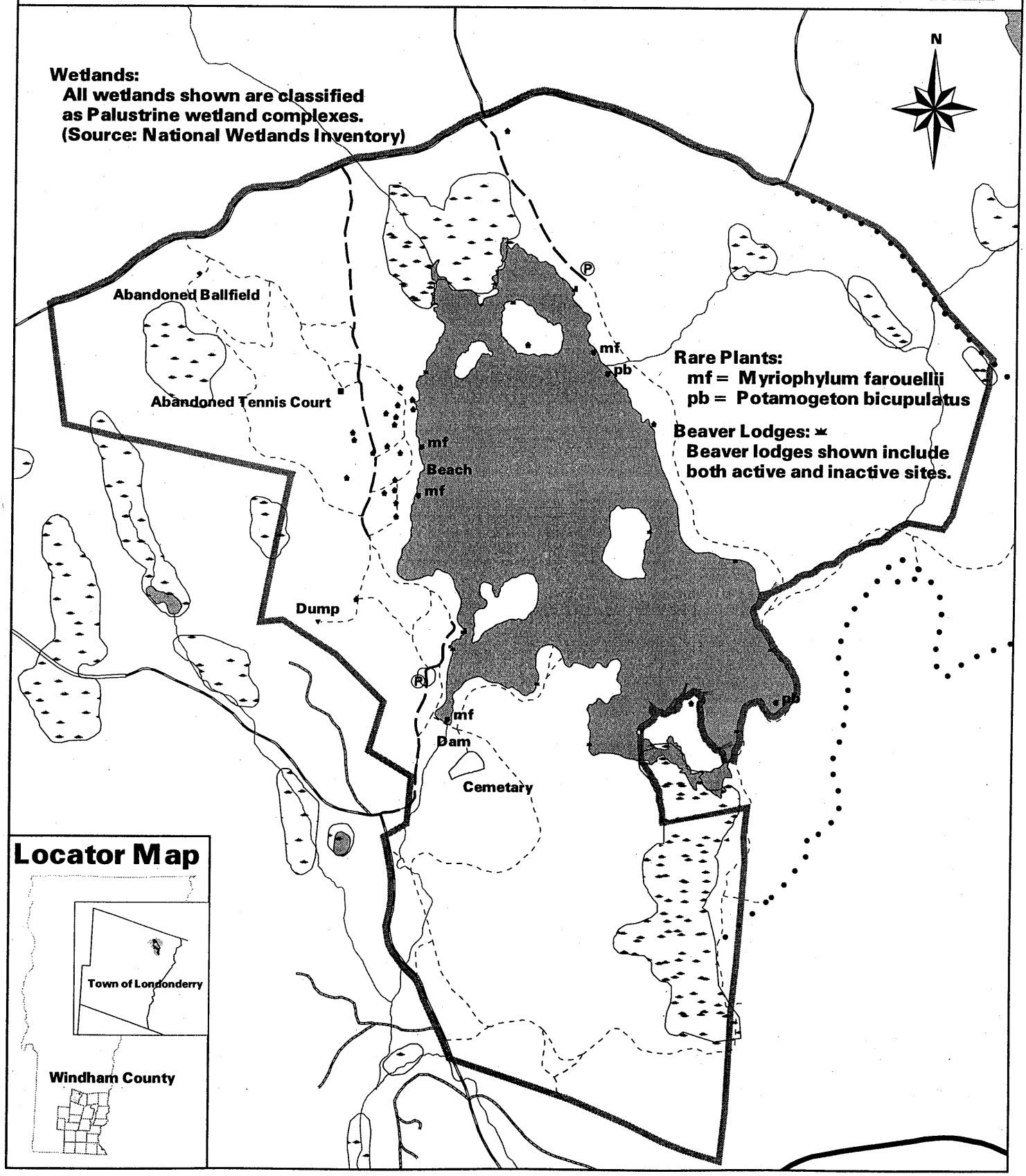
Recreation Resources

Lowell Lake State Park provides excellent recreational opportunities for fishing, hiking, canoeing, and peaceful relaxation. The park is currently used for day use activities associated with the lake Other activities that occur include hiking, walking, and biking. Opportunities exist to provide facilities for nature study, and interpretation of the natural resources such as the wetlands, lake, and shoreline. The current principle recreational facilities at Lowell Lake State Park consist of the boat launch, parking area, and hiking trails. A dirt road parallels the lake for the entire western length of the park. This is used as a service road and is also frequently used as a walking and bicycling path. The other existing facilities are also important recreational resources. These include the cabins, lodge, boat launch, and cemetery.

Lowell Lake State Park

Critical Resources Map

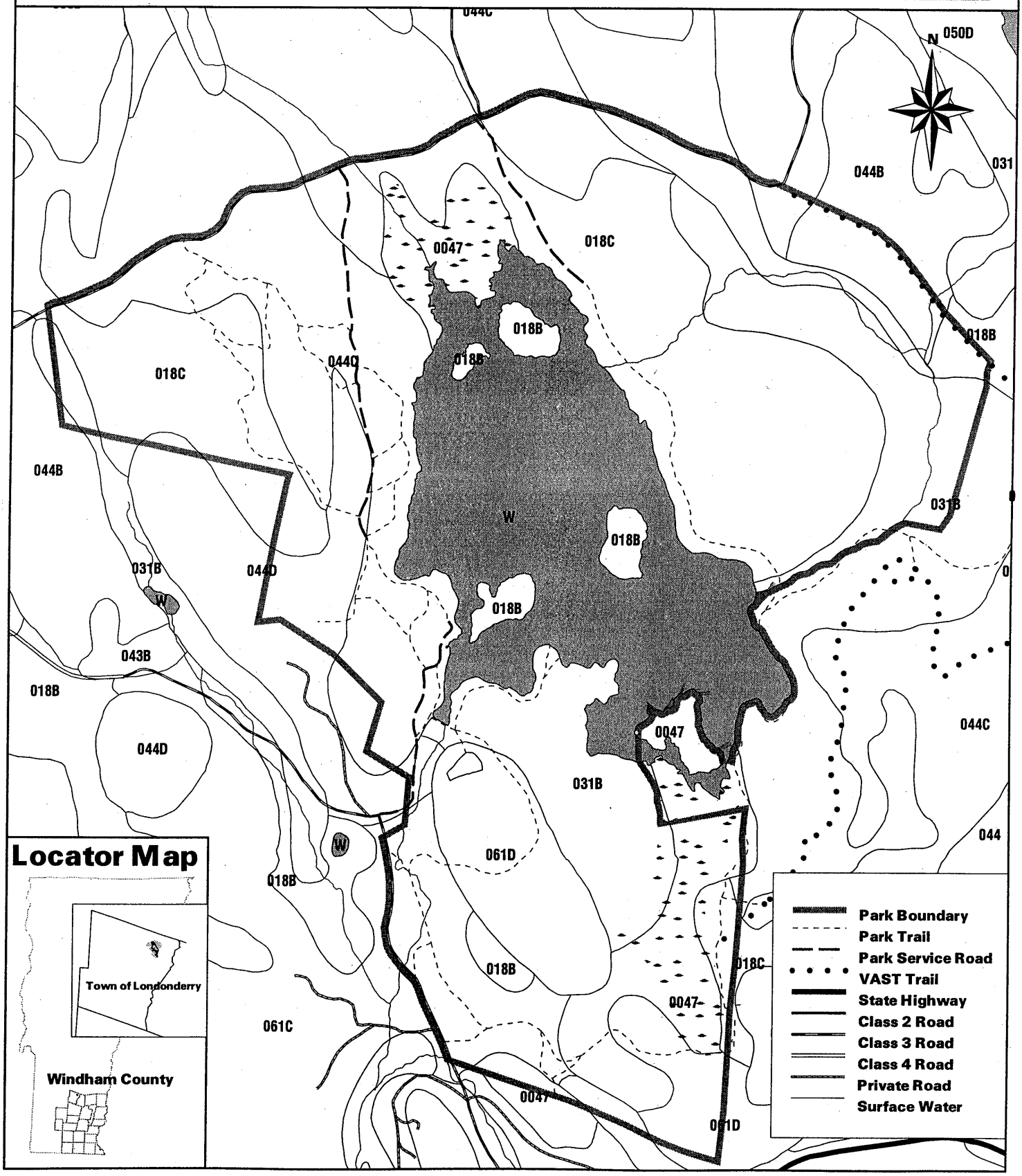
Map Produced March, 1999



Lowell Lake State Park

Soil Survey Map

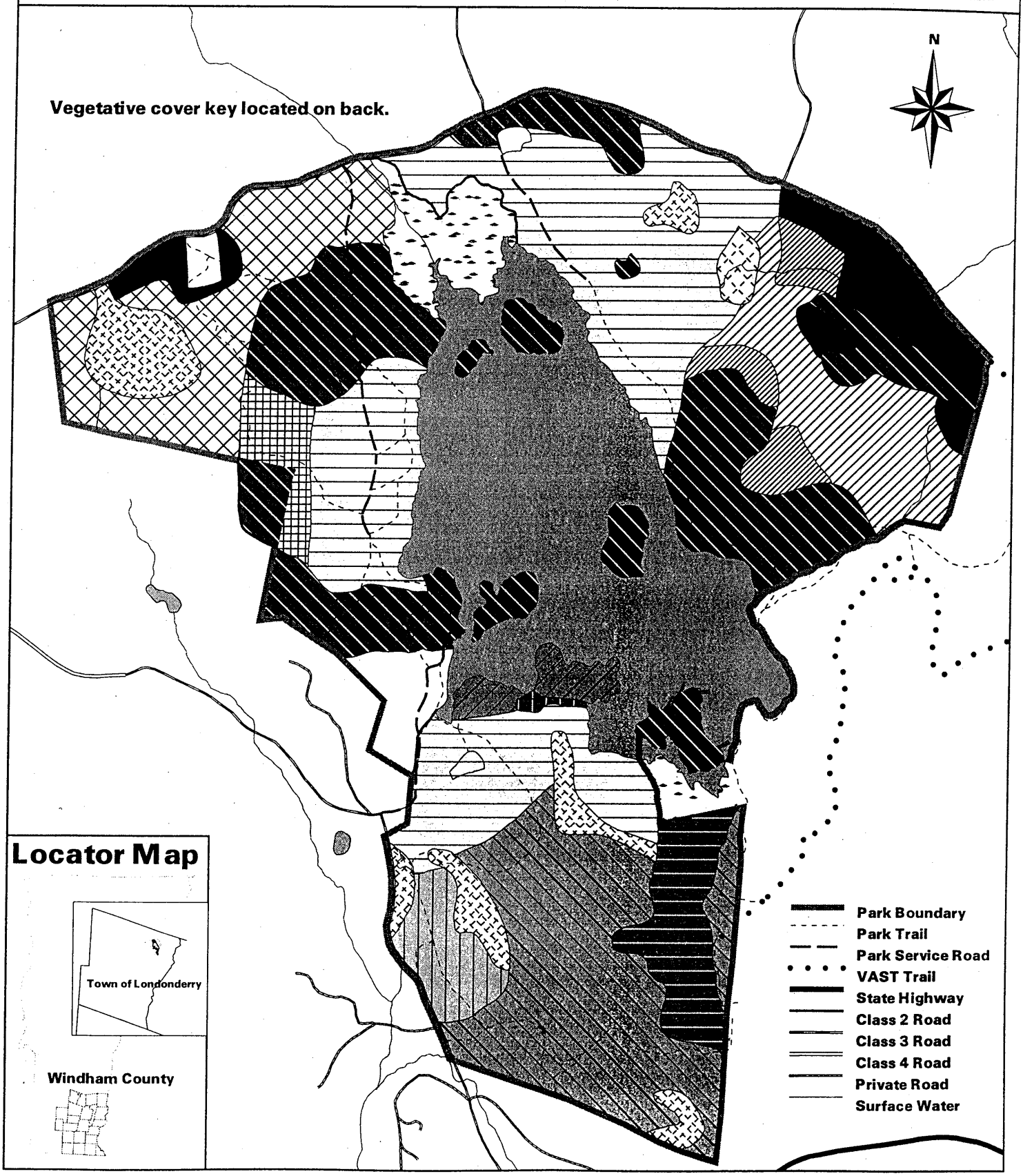
Map Produced March, 1999



Lowell Lake State Park

Vegetative Cover Map

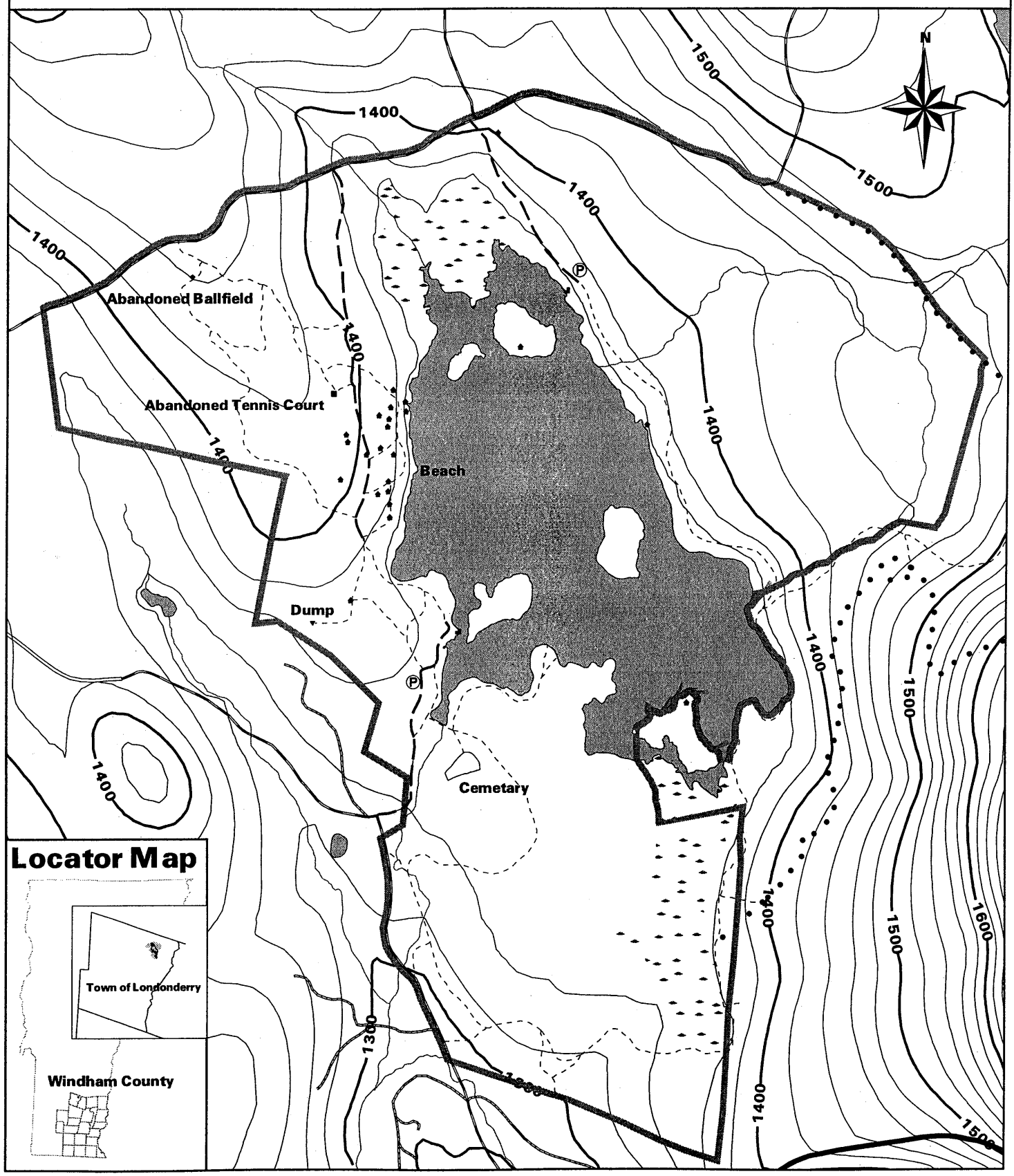
Map Produced March, 1999



Lowell Lake State Park

Topographic Map

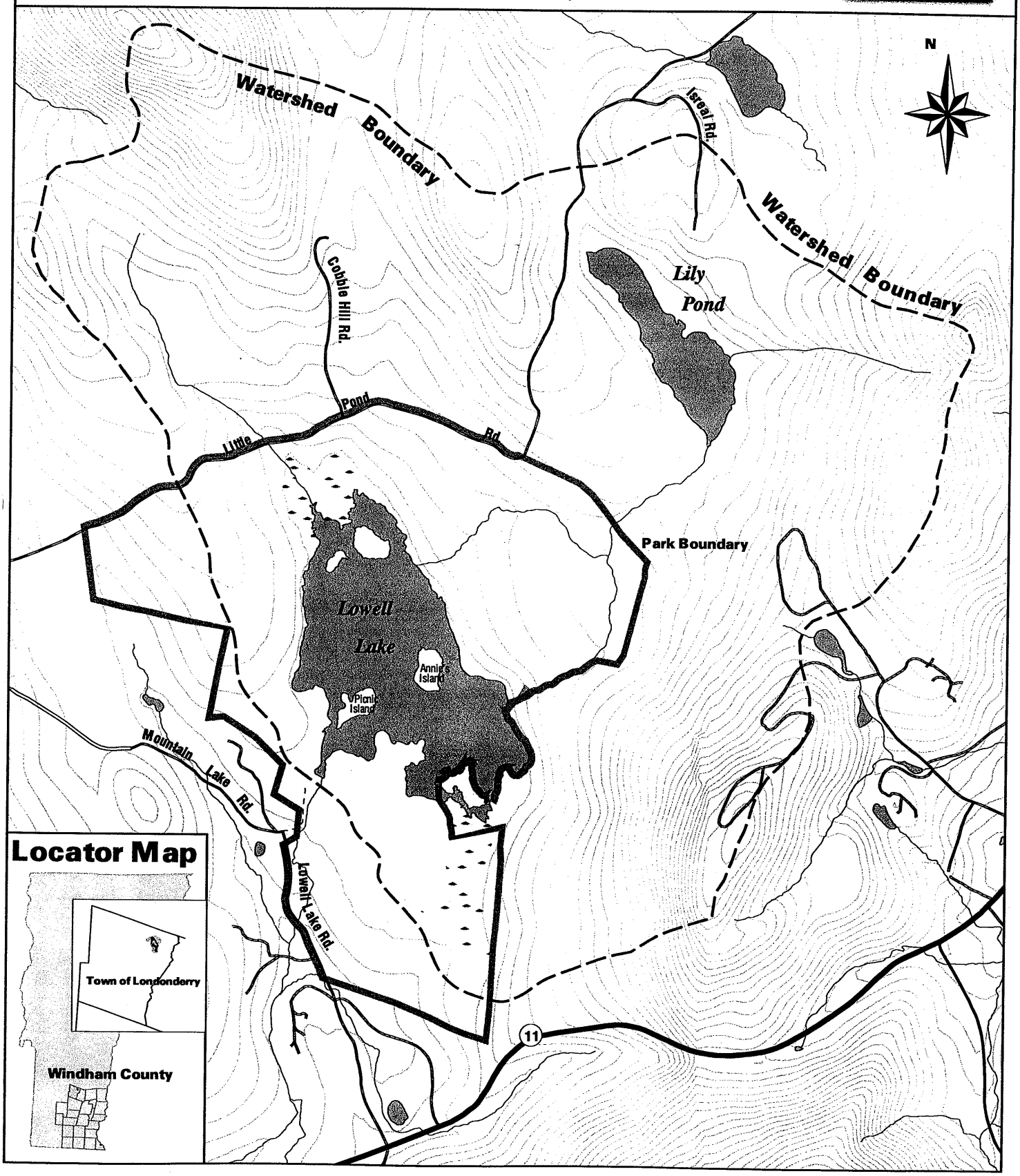
Map Produced March, 1999



Lowell Lake State Park

Watershed Boundary Map

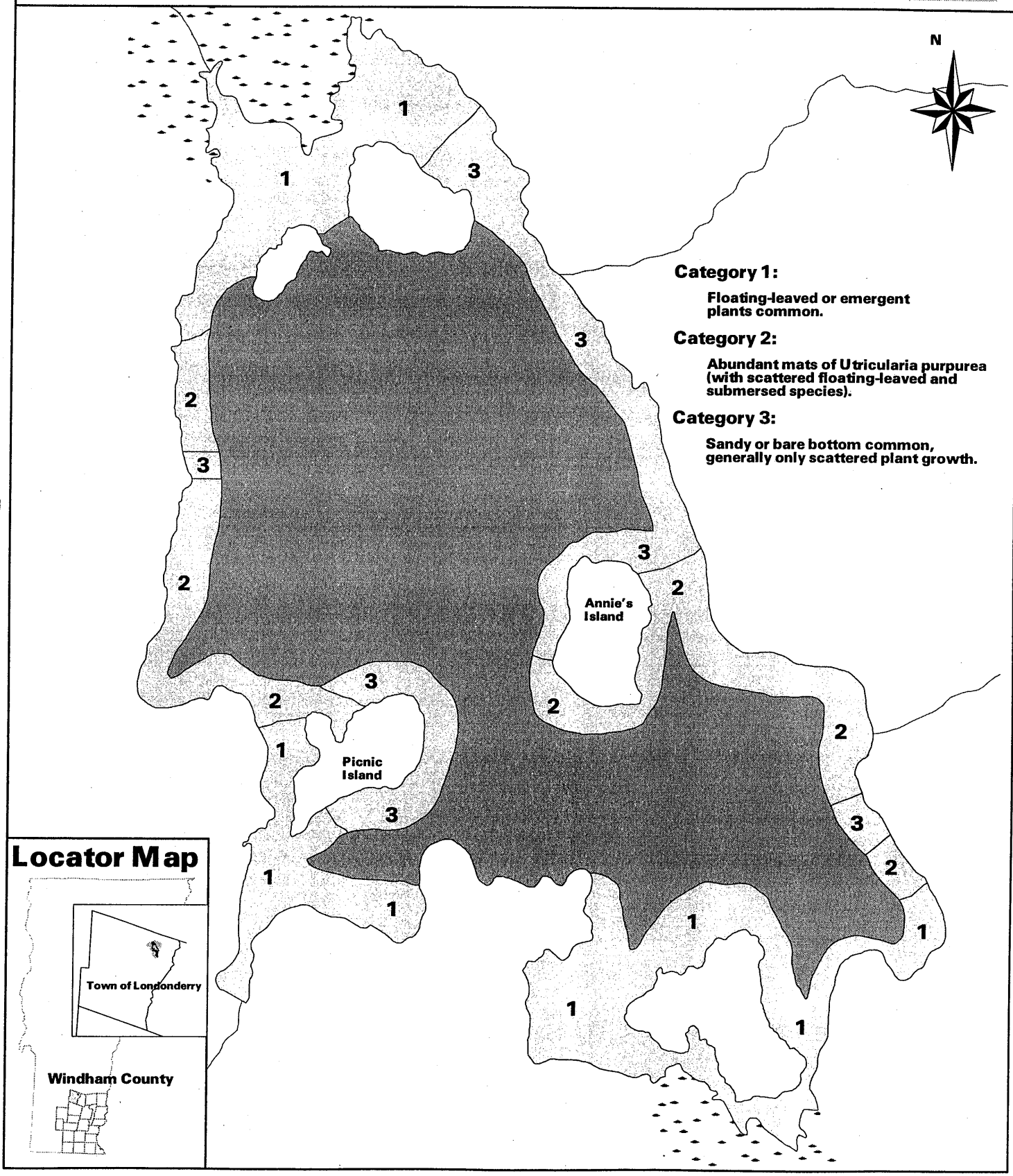
Map Produced March, 1999



Lowell Lake State Park

Generalized Aquatic Vegetation Map

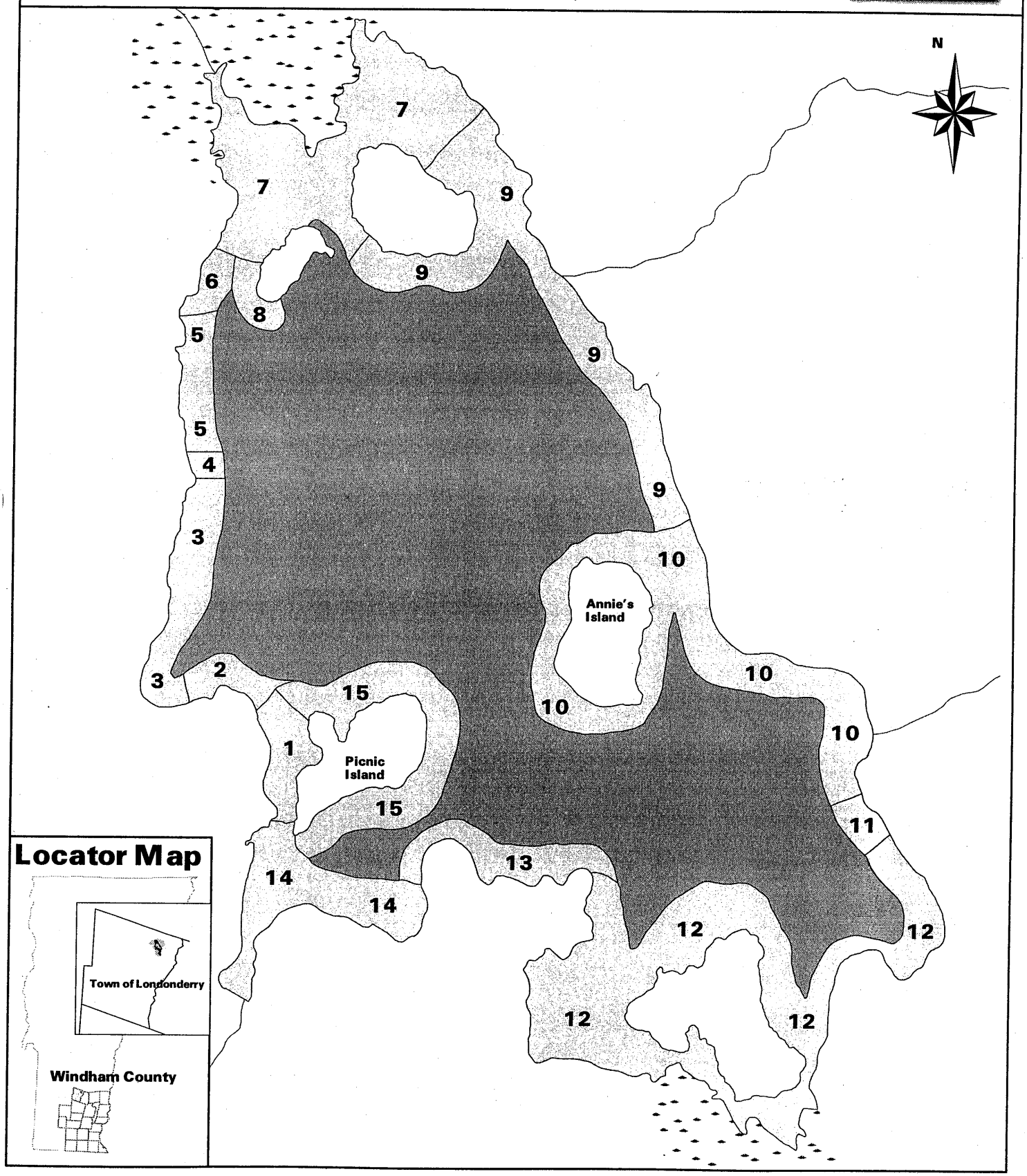
Map Produced March, 1999



Lowell Lake State Park

Aquatic Vegetation Map

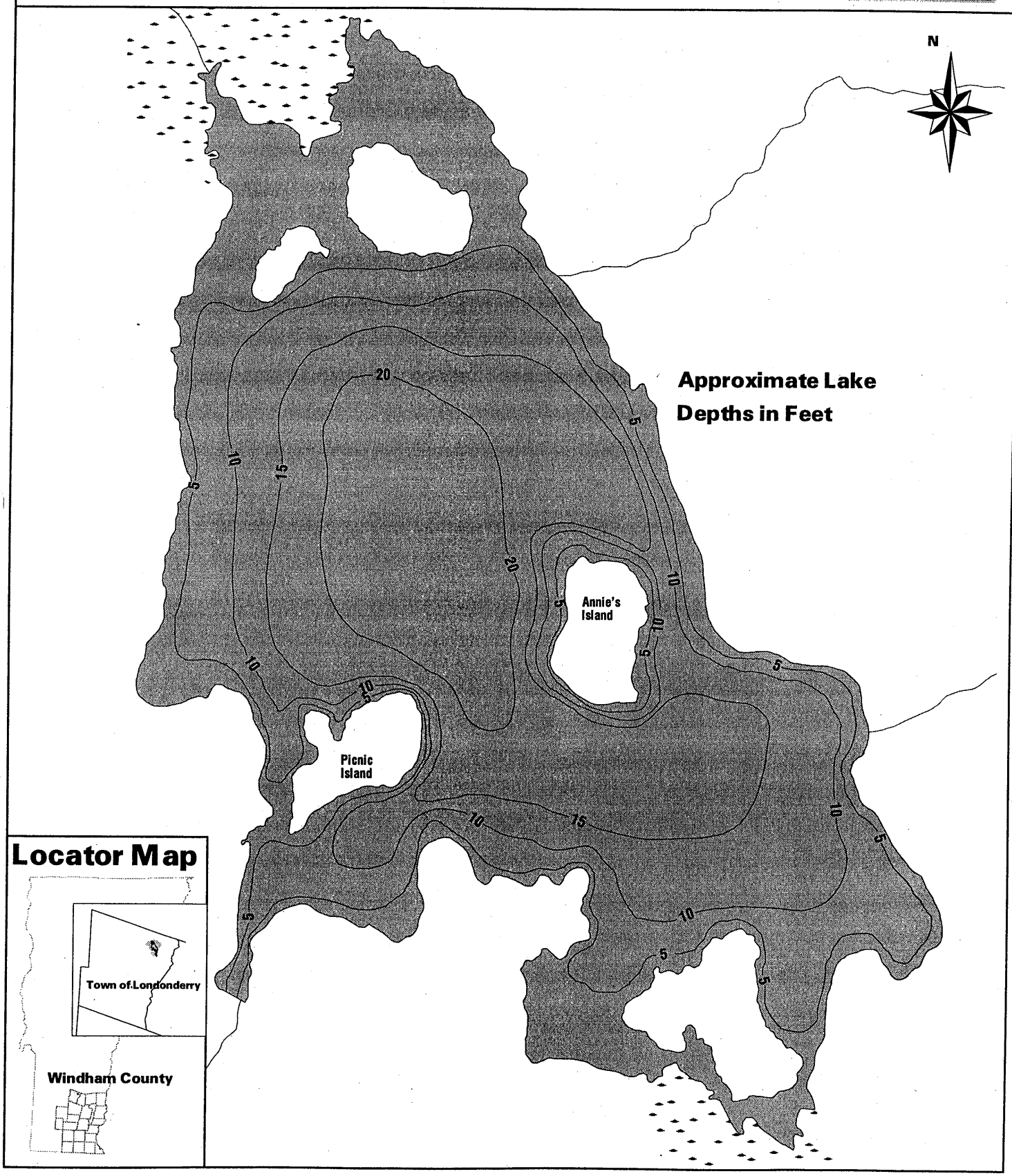
Map Produced March, 1999



Lowell Lake State Park

Lake Bathymetry Map

Map Produced March, 1999



Land Use Element

The resources at Lowell Lake State Park present diverse recreational, interpretative, and educational opportunities for the public's enjoyment. The Land Use Element prescribes, in general terms, the best use of the land at Lowell Lake State Park for providing these opportunities, consistent with the resource protection and the park's operating philosophy.

The land use plan defines the pattern for human activity in a given area. It defines routes of travel, controls use and development, and arranges park activities and facilities so a balance is obtained between visitor enjoyment of the park and protection of the park's resources. The Land Use Element considers desirable and necessary land uses – undeveloped (natural and open space) and developed (recreation, interpretative, and operations facilities). The Facilities and Operations Element more specifically locates these facilities and activities in the appropriate areas.

Considerations in Land Use Determination

Local, Regional, and Statewide Plans

The acquisition, goals, management, and development of Lowell Lake State Park is consistent with the goals of the Londonderry town plan, the Windham County regional plan, and the Vermont Recreation Plan

Vermont Recreation Plan

The 1993 Vermont Recreation Plan (VRP) identified the need for additional lakeshore access, particularly in southeastern Vermont. As a part of this planning process, regional planning commissions were asked to identify recreation needs within their respective regions. One of the high priority recreation needs for Windham County region was, "Expanded public access to lakes in the region"

Protection of lakeshore properties was also recognized as a high priority need within the 1993 VRP.

Regional Plan

The Windham County Regional Plan states the importance of maintaining and enhancing recreational opportunities for the region's citizens and visitors, when in keeping with the carrying capacity of the recreational resource, the natural environment and the region's public facilities. This statement ties in directly with the goals of the management of Lowell Lake State Park.

The following paragraph from the regional plan identifies directly the need and importance of Lowell Lake State Park: *"There has been a notable increase in trail use, especially hiking, mountain biking, and snowmobiling; and water based activities, especially boating and swimming, in the region. Public access to many areas is limited by private ownership of trails and shorelands. Some of the more popular areas that provide public access are experiencing problems related to increased use and a lack of adequate parking and sanitary facilities".*

Also from the regional plan: "*Certain types of recreation are expected to experience continued strong growth. Included within this group are water-based activities, especially boating and swimming. The region's ability to meet increased demand for these pursuits may be strained because of the very limited supply of accessible lake and pond shoreline. Those shorelands which are accessible to the public and the accompanying facilities, such as parking and sanitary accommodations, will be under increased pressure to serve more people. Additional private waterfront development may also diminish the value of the resource to the public.*

Bicycling and walking are also expected to continue strong growth in popularity and, with it, support for multi-use paths, trails, and linear parks or greenways. Participation in hiking is expected to continue to move away from long distance to short duration and day hikes.

Limited funding for maintaining public recreational facilities may result in poor maintenance and overcrowding that will detract from the recreational experience.

These stated trends and issues will continue to have a direct impact on the future management and need of Lowell Lake State Park.

Lowell Lake falls into the regional plan's Resource Lands Category. According to the plan these are *lands requiring special protection or consideration due to their uniqueness, irreplaceable and fragile nature. Resource lands include: fish and wildlife habitats; areas hosting Natural Heritage or federally identified endangered and threatened species; unique and fragile natural areas; wetlands; and shoreland. Regional areas of special value should be preserved and protected to the greatest extent possible. Any development or land use in these areas should be designed to have a minimal impact on the resource.*

Londonderry Town Plan

Lowell Lake, its wetlands, and shorelands are identified in the Londonderry town plan as a fine water resource important to Londonderry, its people, and its future. Lowell Lake's shorelands are identified as important for maintaining water quality and providing wildlife habitat. Its vegetative buffers are necessary to reduce soil erosion and siltation. According to the town plan the wetlands surrounding the lake provide benefits including fish and wildlife habitat, flood and erosion protection, pollution filtration, ground water re-charge, and sites for education, recreation, and scenic enjoyment. The plan also states that water resources such as **Lowell Lake**, Lily Pond, and the West River support bass, trout, and other fish life and are attractive to a variety of migratory water fowl; shorelands which are undeveloped support amphibians, reptiles, birds, mammals and rare vegetation; wetlands habitat support song birds, game birds, beaver, otter and are important for a great variety of species for breeding.

Legal Constraints

Conservation Easement

As a condition of the acquisition, The Vermont Land Trust holds a conservation easement on the property. This easement can be found in the files. The easement identifies restricted uses of the property. Protection of the resources is very important as well as providing appropriate outdoor recreational uses. A representative of the Vermont Land Trust has been an integral member of the Advisory Committee.

No other easements are apparent within the park property.

General Land Use Goals and Objectives

Goals

In setting land uses for Lowell Lake State Park, the following three general goals are important considerations. These goals also affect the management strategies for the park:

1) **Ecological Continuity**. Finding a balance in which human activity is part of the whole, and in which natural ecosystems will continue to renew themselves.

2) **Quality Experience**. Quality experiences are very important to visitors, and they relate directly to the satisfaction they feel after visiting the park. Concepts known to help achieve a high quality experience include separating conflicting uses; preserving significant natural, cultural and visual resources; maintaining the park's current qualities; and minimizing unnatural visual impacts.

3) **Diversity of Experience.** In relation to the park character statement and operating philosophy, Lowell Lake State Park will try to provide opportunities for a variety of user

needs and values. A pleasant experience for one person may be something entirely different for another.

Objectives

Based on existing conditions, assumptions, resource protection needs, and public comment, the land use objectives outline ways of reaching the land use goals.

Resource Management

- Preserve the current character and natural beauty of the Lowell Lake State Park landscape, wetlands, forest, islands and lake by:

1) Preserving the shoreline, wetlands, and islands.

2) Balancing recreational use with resource and facility capabilities. Any new facility that is developed must not adversely affect the park's resources, particularly the wetlands, shoreline, and water quality.

Recreation

- Provide opportunities for park visitors and the community to learn about and enjoy Lowell Lake State Park's natural, cultural, and scenic resources.
- Recreational activities are to continue to be low-to-medium intensity in use areas.
- Allow only limited basic facility development and amenities so as to avoid altering the natural park setting.
- Meet appropriate recreational needs.
- Minimize conflicts between recreational users.
- Promote balance between recreational use and the resource through facility design.
- Provide accessible facilities, where practical.

Interpretation

- Develop facilities, programs, and appropriate media consistent with the park's purpose, publics' interests, and the relative importance of the resources.
- Make programs and facilities accessible to persons with disabilities, when possible.

Park Access and Transportation

- Limit the traffic circulation and parking requirements given the need to preserve the resources and experience that visitors have come to enjoy.
- Adhering to current department of Forest and Parks policies and to the conservation easement, All-Terrain Vehicle use will be prohibited in the park unless needed for park operational or maintenance purposes.

Operations

- Provide for appropriate operational strategies and facilities that minimize the impacts on the resources and on public use.

Proposed Management Areas

A management area determines the appropriate type and intensity of use for a particular area. The determination is based on the resource constraints, values, and sensitivities as well as desirability for recreational use. They establish the limits of development and amount of use an area can sustain without an unacceptable degree of deterioration in the character and value of the resources occurring.

Resource constraints are factors that may make facilities unsafe or economically impractical to develop and maintain. They are determined by evaluating such factors as soil erosion and compaction potential, geologic factors, hydrologic flooding conditions, and the potential for pollution of surface waters.

Sensitivities are values of resources that warrant protection or restricted use. Sensitivities are evaluated by considering such factors as the ability of the ecosystem to withstand human impact, not only in the short term but also over a more extended time span; vegetation characteristics such as rarity, fragility, and regeneration rates; and wildlife considerations such as tolerance to human activity, habitat values, population levels, and population stability. Sensitivities may also include rare, threatened, or endangered plants and animals, and their habitats; unique or scientifically important botanic or geologic features; cultural resources such as archeological sites and historic structures; scenic resources; and other resources of regional or statewide significance.

Based on the preceding factors, management areas and intensities of activities and uses for lands within Lowell Lake State Park were determined. These areas are discussed below and will be shown on the Management Areas Map.

Given the resource sensitivities, park character statement, and operational philosophy the park will be developed for moderate to low use intensities.

The moderate use intensity areas include the dam, cemetery, and boat launch area, as well as the area that includes the lodge, cabins, and out-buildings.

The low/moderate management and use intensity category includes the trail around the lake.

The low use intensity areas include the remainder of the shoreline, the undeveloped islands, the marsh at the northern end of the lake and the bog at the southern end. These areas are considered the most sensitive and need to be closely monitored for impact levels from park users.

The greatest volume of use will be concentrated in the southwestern portion of the park that includes the boat launch area and overnight area. This amount will be controlled by limiting the number of parking spaces available for visitors.

Land Use Limitations

Providing for human activity at Lowell Lake State Park in a manner that allows for perpetuation of resource values and the integrity of ecosystems involves setting limitations on:

1) How humans use the land.

2) How many people can use an area (carrying capacity) and for what purpose (use intensity).

The concept of "carrying capacity" often refers to the number of people or the intensity of activities (allowable use intensity) that an area of land can support without losing its ability to renew itself. Park lands and their associated resources have inherent limitations with regard to the type and amount of public use they can endure without experiencing significant damage to resources.

The number of people and types of uses that can be allowed at Lowell Lake State Park without compromising the integrity of the resources and the quality of visitor experiences is one of the most complex questions addressed by the Public Planning Group (PPG) and the Technical Steering Committee (TSC) during discussions for the development of this Management Plan.

Lowell Lake State Park will continue to experience an increase in demand for use. This demand will increase regardless of how the park is managed. In the best interest of the resource, proper management will be crucial for the park's future. The main dilemma is the difficult task of improving public access and providing facilities while ensuring that the character of the park is maintained. Lowell Lake State Park's main attraction is its natural setting, inherent quiet, and scenic beauty. It is understood that too many visitors and facilities at the park will negatively impact the desired visitor experience and threaten the natural resource. An appropriate balance needs to be maintained regarding volume of visitors at the park as related to the park character and operating philosophy.

The amount of parking and the type of facilities provided at the park were viewed as the best methods to control the amount of visitation to the park at any one time. Through various discussions, it was determined that the day use parking capacity would be limited to approximately 20 vehicles, and the overnight parking area would accommodate approximately 12 vehicles. This was determined in part by the amount of land available to develop a parking lot away from the shoreline itself, the amount of visitation necessary to generate adequate revenue to support operations, and an acceptable level of the number of lake users at any one point as related to the Park Character and Operating Philosophy. Monitoring the impacts of humans on the resources must be an active part of the management of the park in order to continually assess the levels of acceptable use that have currently been determined.

The following table further details the management area categories:

CATEGORY	SITE CHARACTERISTICS	REPRESENTATIVE ACTIVITIES
1. Low/Moderate use area	♦ Trail ♦ Islands ♦ Wooded areas ♦ Shoreline	➢ Low concentration of park users. ➢ Trail activities, hunting, wildlife viewing. ➢ Low concentration of use around shoreline. Most shoreline activity will be concentrated around the overnight area and boat launch. ➢ Enjoyment of the quality of darkness.
2. Moderate use area	♦ Park Ranger's residence and maintenance buildings. ♦ Sites of existing facilities, cabins and lodge area, boat launch. ♦ Parking lots, one for cabin users and existing boat launch parking lot.	➢ Moderate concentrations of park users, mainly at day use area, trails, and on lake. ➢ Overnight visitors and lodge users. ➢ Park Access areas ➢ Nature observation and study, interpretative facilities and trails. ➢ Park operation and maintenance activities. ➢ Fishing access.
3. Low use area	♦ Wetland communities. (bog and marsh) ♦ Shoreline.	➢ Access not encouraged preventing adverse impacts to sensitive wildlife and plant species.

These examples serve as a general guide to appropriate uses. Detailed field investigations and site development plans shall be made prior to approval of any site-specific development.

Natural Area

The bog, marsh, and surrounding wetland areas at either end of the lake warrant consideration for designation as a State Natural Area. This designation would more formally protect and preserve Lowell Lakes most significant wetlands.

Once the General Management Plan has been approved, the Department of Forests Parks and Recreation will further assess the benefits of proposing the designating of a portion of the park as a natural area. The Governor of the State of Vermont has the authority to designate state natural areas (10 V.S.A.,Chapter 83) upon receiving a designation proposal.

Appropriate Future Additions and Areas of Needed Protection

The following discussions and any other comments regarding land acquisitions or conservation are intended for long-range planning purposes only and are not a commitment to acquire. The Department of Forests, Parks and Recreation only acquires land from willing sellers.

The lands mentioned in this discussion and shown on the Appropriate Future Additions and Areas of Needed Protection Map are currently outside state ownership, and represent "ideal" additions to Lowell Lake State Park. Current use of these parcels does not threaten the values of the park. If conditions change that would seriously threaten the park's values, and property in these areas becomes available for purchase and/or management by the state, the state should actively try to acquire these lands for resource protection and potential recreational development and expanded opportunities. Options other than fee simple could also be a possibility to protect or use certain parcels of land.

It should also be noted that the department has relatively few funds available for acquisition of land in relation to the number of high priority parcels already identified statewide. Even if identified parcels actually become available, the department would be hard pressed to acquire those parcels.

If the following lands become available, they should be considered for acquisition or protection. Also, methods should be developed to educate citizens and private landowners on the importance of the resources they own to the integrity and health of wildlife, the wetlands, lake, and park.

Identified priorities for protection:

a. The only remaining privately owned shoreline property is part of the Powder Mill Housing Development. The existing trail system also runs through some wet areas on this property. This parcel would be a priority for protection or acquisition.

b. Lilly Pond is the headwater for Lowell Lake. The land surrounding the pond would also be a priority for protection or acquisition.

c. Of Lowell Lake's five islands, four are currently in public ownership included with the park. The fifth island located in the southeastern portion of the lake is privately owned and has a camp on it. This would be a priority for acquisition.

d. The existing trail system also runs through some wet areas on the property located between the park boundary and Powder Mill boundary at the southern end of the lake. This parcel does not include any lakeshore, but activities on this piece could have significant impacts on the lake.

General Management Plan Element

Facilities and Operation Strategies

Funding

Much of the implementation of this park plan will not be able to be fully implemented until capitol improvement funding can be secured for the development of park-related facilities.

FPR should begin immediately to seek legislative approval for capital improvement and development funding, as well as continue to search for alternative funding and partnerships to develop programs and facilities, collect information and data, and to conduct research at the park.

On site staff will be maintained to continue stabilization and improvements at the park until capital funding is obtained to develop the park.

Facilities Element

The **Facilities Element** identifies existing facilities, makes recommendations for their improvement, and recommendations for the development of additional facilities at Lowell Lake State Park.

Various recreational and related facilities are necessary to best accommodate public access, and enjoyment of the park. Roads, trails, restrooms, and parking areas are typical public-use facilities to be provided. Contact station, maintenance areas, signs, and utilities, are examples of the other facilities needed for operation and maintenance of the park. An architectural and engineering site

design will be the first step toward implementing this plan and securing capitol improvement funding. The site design must be consistent with the rustic character of the park.

Current and Proposed Facilities

Existing Access: Access to the park is currently from Rte. 11 to Lowell Lake road leading to the dam and boat launch area.

Recommended Access: The existing access will continue to serve both day visitors as well as overnight visitors. For management, road maintenance, and visitor impact purposes it is best to have just one public access to the park. For overnight visitors, the road would continue from the day use parking lot, past the old planing mill and connect to the existing service road in the cabins area. Some road improvement and relocation work will be necessary. This access from the day visitor parking to overnight area would be gated and closed in the off-season. It could also be gated at night during the operating season if necessary.

Cabins

Eleven one-story cabins are also located on the west side of the lake. Another is located on the southeast side of the lake. There is also a cottage with electricity, gas lighting, and wood heat located on the island closest to the Ranger's residence. The 11 cabins included plumbing, electricity, a fireplace or woodstove, refrigerator, cooking stove, sink, and toilet. As with most of the park buildings, these cabins have not been in use for at least twelve years. They are in need of significant repair and improvements.

Cabin Recommendations

The cabin rentals are a historic use of the property and the park system has seen an increase in demand for cabin and cottage rentals. The cabins at Lowell Lake will significantly increase cabin availability in the system. Eight or nine of these cabins will be renovated for overnight users. They will be reserved for week-long stays or used for shorter visits if available. The cabins will not have plumbing, each will have electricity but only with minimal lighting and outlets. There is a possibility of some containing a gas cook stove.

The three cabins located closest to the shoreline will be removed because they are situated too close to the shoreline of Lowell Lake

Lodge

The lodge is located in the center of the cabins. The southern portion of the building is a large open room with a cathedral ceiling. The north side of the building is subdivided into two floors. A kitchen with walk-in cooler, a bathroom, and one other room are located on the first floor. The second floor consists of a bedroom and open bathroom. The lodge is constructed of logs with an asphalt shingle roof. The lodge will need significant repairs and stabilization beginning with a new roof.

Lodge Recommendations

The lodge will be used as a group gathering area and a place for cabin users to spend time on rainy days. It might include a library, games, slide projector, and video for programs. If possible the kitchen in the lodge will be rehabilitated and be available for use by groups and cabin guests. In short, this will be a multi-purpose facility set up for "low key" group and visitor use.

Cottage Recommendation

The island cottage will most likely be used for staff housing or available as a rental during months when the cabins are not heavily used. This was decided because the location of this cottage is such that it's use could significantly impact the experience of visitors renting the cabins.

Restrooms

The park has no restrooms at this time. The cabins, when operating, were each equipped with bathrooms. The lodge was also equipped with a bathroom. The existing plumbing and electrical systems in the park have not been in full use since 1986 and are probably not usable. The cottage on the island has a bathroom. This plumbing and electrical system has been used more recently but needs to be inspected and shown to meet state and local standards before it is used again.

Recommended Restroom Facility Strategy

Even at the parks current level of use and development, restrooms are necessary. Until capitol improvement funding can be secured a portable toilet will be rented and placed in the day use area.

If possible, a composting-type restroom building will eventually be built at the day use parking lot.

The cabins will not have plumbing, so a centralized bath house and toilet facility will be built to serve the cabins and overnight users. This facility will also include a dish-washing area. Properly locating this building will be a challenge, somewhere between the lodge and service road may be the best area. It is hoped that this one building will be able to serve all the cabins.

Laundry Buildings

There are two small laundry buildings, one for each group of cabins on either side of the lodge. It is undetermined at this time whether these two buildings will be utilized or removed.

Maintenance/Residential Area

The purchase of the White Property included what is now the park ranger's residence, located in the northeast area of the park just off Little Pond road. This building was started in the late 1980s, but was still unfinished when the property was purchased. Park's regional maintenance staff completed the building during the winter of 1996/97. It includes two bedrooms, a loft, one bath, a large kitchen/dining area, and a large living room area. The basement has three large bays serviced by garage doors at the lower ground level. This will continue to serve as the ranger's quarters and a maintenance area.

Three maintenance buildings and a couple of sheds are located in the lodge/cabin area of the park. The shop is located behind the lodge on the other side of the service road. The two story building is underlain by a cracked concrete slab. The first floor of the shop has been used for storage, the second floor was formerly used as a game room and a small apartment. Two of these

buildings are set on posts, and are mainly storage buildings. One of these, located on the southwest side of the property was formerly used as a planing mill. The mill was constructed in the 1940s. The other is located behind the shop.

Maintenance Buildings Recommendations

The first floor of the shop will most likely be used as a satellite maintenance facility, helping to serve the region's southern parks. Upstairs could be used as a Nature center or staff housing. The raised pole sheds will be used for storage or as a nature center.

Employee Housing

Present Situation: The Park Ranger is currently living in the house at the northeast portion of the park. The Park Ranger will continue to live at the park as a condition of employment during the park operating season. The ranger's residence will remain at the house currently being used. The ranger will normally have the option of renting the park house for the winter months when not employed by the department.

One of the cabins or the island cottage could be used for other staff housing if needed. In addition, an electrical and water hook-up for an RV could be provided at some location. This site would be for employees or volunteers who owned a camper to live in. Most Vermont State Parks have one site with hook-ups for "volunteer" park staff.

Service Roads

Currently a service road runs from the dam along the western shore of the lake past the boat launch through the overnight area and out to Little Pond Road. This road is gated at the boat launch and at Little Pond Road, resulting in 90% of the road currently being inaccessible to public vehicles. Another service road branches off and leads to the old planing mill site where there is now a maintenance shed. On the northeast shore another road leads off Little Pond road, past the park ranger's house and runs about 200 yards to the lakeshore just to the southeast of the marsh. All of these roads are frequently used for walking and biking.

Service Road Recommendations

A portion of the service road leading from the day use parking area will become the entrance for the overnight area. The other portion of this road that runs along the shoreline will remain inaccessible to the public's vehicles. It will remain as a service road and also continue to be used for walking or biking. This road will remain gated at the Little Pond Road entrance.

CONTACT STATION

There is no existing contact station

Contact Station Recommendation: Due to the relatively low level of expected use, it probably will not be necessary to place a contact station right at the park entrance. The park contact station will be located in the overnight area. Proper signage and traffic flow management should suffice for directing visitors. It would be best to try and utilize one of the existing buildings for the park office and contact station.

PARKING

Existing Parking Areas

There is one existing parking lot that serves the boat launch and dam area. The lot is a combination of gravel and grass. It can accommodate approximately twenty cars. This capacity is reduced depending on the number of boat trailers using the lot. In the past visitors would park in the circular drive directly accessing the boat launch. This causes congestion at the launch area. Also visitors attempting to pull off the drive and park "out of the way" degrade the roadside vegetation and appearance.

Parking Recommendations The existing parking lot above the boat launch area will continue to serve as the day use parking lot. Some design and improvement will be necessary, but this parking lot is well established and appears to work well. The design of this lot needs to maintain the capacity to handle 20 vehicles.

Another parking area will need to be constructed for the overnight cabin area. Parking will not be available at each individual cabin, this was decided for the purpose of minimizing the visual

and noise impact at the cabins and on the lake. This parking area should be able to accommodate 10 to 12 vehicles. The location of this parking area will be determined during the site design phase.

Flow of Visitors

Day visitors arriving at the park will be directed by signs to stop and park at the day use parking lot. If they are launching a boat they will be directed to the boat launch then required to park in the upper lot after depositing their boat. Overnight visitors will be instructed to continue on into the cabin area to register, unload, and park their vehicles. It is planned that day visitors will not necessarily be restricted from the overnight area. Due to the relatively low level of expected use, this should not be a conflict. Traditional park planning would not normally mix day use with overnight use. The impacts of day visitors using the overnight area will need to be monitored.

Signage Recommendations

Various informational and directive signs will be constructed at appropriate locations. Signage will be kept to a minimum and fit in with the character of the Park. Interpretative signs will also be provided at various locations that lend themselves to interpretation and environmental education as determined once the design of the Park is finalized.

Beach/Swimming

The waterfront at the Lodge has historically served as a beach and swimming area. The "beach" itself is small, about 30' by 15'. This area will most likely continue to be used for informal swimming, but little will be done to maintain or improve the swimming area. The entire shoreline and lake bottom is shallow, weedy, and not particularly desirable for swimming.

Swimming Recommendations:

Swimming in the lake will not be prohibited, however no specific facilities or accommodations will be made, "Swim at your own risk" will be the policy at Lowell Lake. This is also the policy at most other Vermont State Parks.

Boat Launch

Current Situation: The boat launch currently has three different areas where boats are launched. Each of these areas are eroded. Many visitors park right in the immediate launch area, this causes congestion during the busier periods. Also in an effort to park in a spot closest to the launch, some visitors pull their vehicle into the underbrush. This damages the vegetation and degrades the area.

Recommendation: The boat launch will remain in its current location. Improvements will be made to the launch area. These improvements will have the goal of stabilizing the launch area to prevent further erosion and to make it easier for visitors to launch their canoes and row boats. There will only be one site designated for launching boats.

No parking will be permitted at the designated launching site. To prevent congestion and protect vegetation, visitors will be directed to the day-use parking area after they have launched their boat. An area reserved for handicapped parking will be available closer to the launch site.

Trails

Existing Trails

There is a network of trails throughout the park. The main trail has one entrance off of Lowell Lake Road and another on the eastern side of the dam. The trail follows along the southern end of the lake, along the east shore to Little Pond Road. Its location relative to the lake shoreline, varies from 100 yards to a few feet. This trail passes through the Powder Mill and Stowell properties on the southwestern portion of the lake. The Powder Mill property is the only private parcel that actually abuts the lake. Another trail network runs through the northwest part of the park in the overnight area. These trails are not as heavily used. Snowmobiles, mountain bikes, all terrain vehicles, skiers, as well as hikers have been traditional users of the trails.

Trails Strategy

Trail planning, development, and use will be guided by the Trail Criteria developed by the advisory committee. The Trails Criteria are as follows:

- Trail must not negatively impact the lake shore or water quality.
- Trails must be routed around or over significant wet areas.
- Trail use must be consistent with the park mission and operating philosophy
- The main trail should be separate from the overnight area.

It is hoped that multi-use of the existing trail can continue. The trail needs to be assessed to determine if the various types of desired uses are possible. Some relocation and trail improvements will need to be accomplished to reduce erosion and impact on the lake's water quality and shoreline. It is also planned that this multi-use trail around the east side of the lake will link a larger network of trails. No park trails will be linked to other trails on adjacent property that negatively impact the park or water quality. It will be very important to work in partnership with adjacent landowners to ensure the development of a well designed trail system. Sections of current trails both on park and private property go through some sensitive areas that need to be addressed. The smaller network of trails in the overnight area, on the west side of the utility road, will be used for hiking and a possible nature trail. Department policy and the Vermont Land Trust easements prohibit the use of ATVs on the trails.

Snowmobiling

The main trail will be the only one designated for snowmobiling. An agreement for trail development and maintenance will be worked out with Vermont Association of Snowmobile Travelers (V.A.S.T.) and the local snowmobile club.

Mountain Biking

Mountain biking is currently only permitted on the service roads in the park. The goal, through further trail design and development, will be to accommodate mountain bikers on designated trails. Coordination with local mountain bike groups and volunteers will be required to successfully accomplish this goal.

Utilities

Water Systems

Present Situation: The Park Ranger's residence is served from a drilled well yielding approximately 20 gallons per minute. The lodge, cabins, and laundry rooms on the western side of the lake are also served by a drilled well. This 140' deep well was drilled in 1941 and is located between the lodge and maintenance shop. The yield of this well is currently unknown. This water system has not been used for a number of years. When Lowell Lake Camps was in operation, the system was not winterized and served the buildings with above ground or shallow piping which has since been removed. The water for the island cottage comes directly from the lake. Being from an untreated surface water source (Lowell Lake), this water does not meet public drinking water standards.

Proposal: The water supply for the ranger's house has been tested and is acceptable. This water supply should be adequate to serve the house for the foreseeable future.

It is currently felt that the only other buildings at the park that will require a water supply are the lodge and the toilet building that will serve the overnight area. Two water spigots as well as a campsite with hook-ups would also require water. The water supply and actual well structure, of the system that served the lodge and cabins needs to be tested. If suitable, this well can be used to serve the toilet/shower building that will be built to serve the overnight area as well as the lodge. If the existing well and water supply are found to be unsuitable then a new well will need to be drilled.

The possibilities for the island cottage will have to be assessed separately.

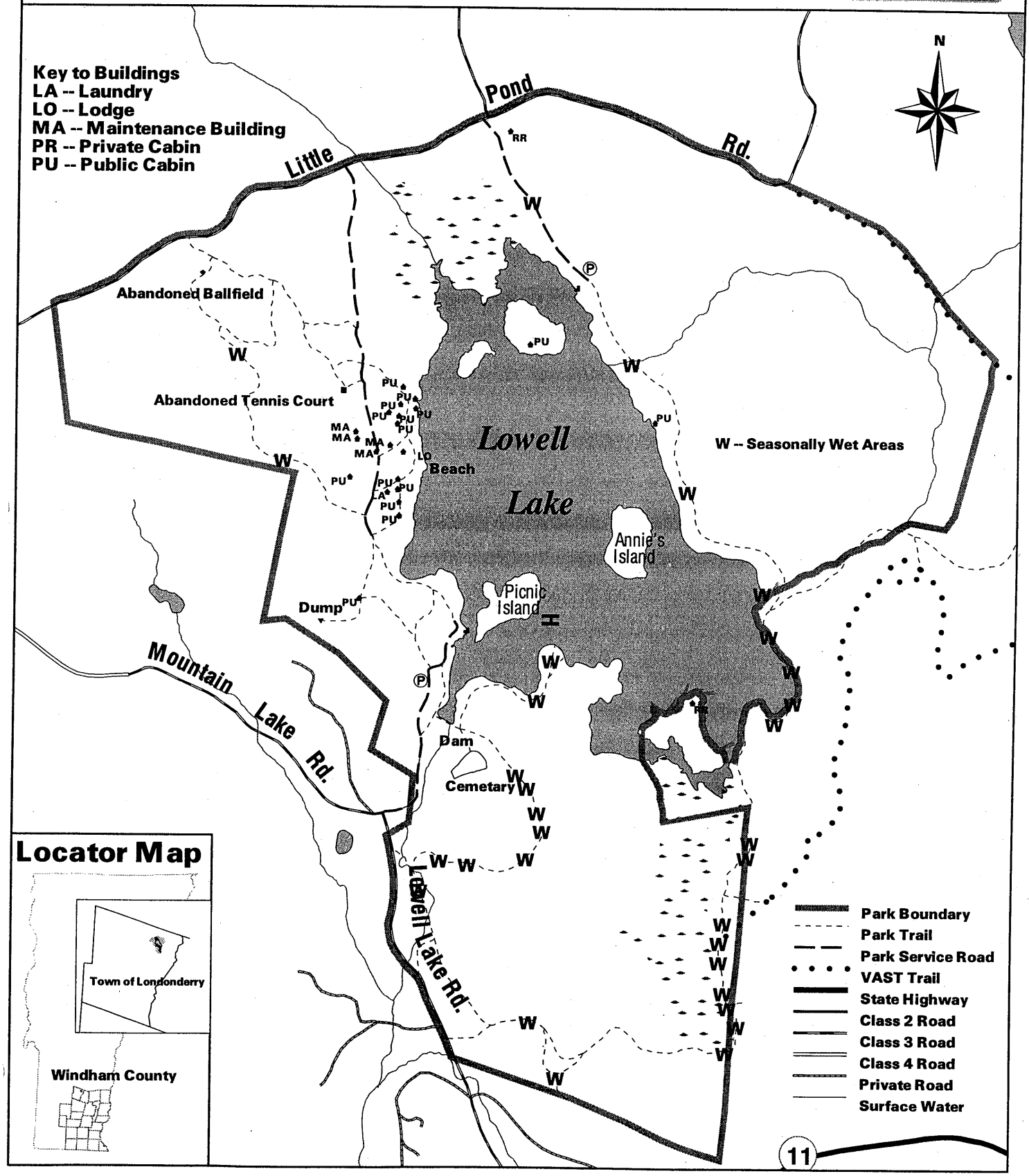
Septic

The cabins, lodge, and shop are connected to individual septic systems. The ranger's house is served by a septic tank and leach field. Other than the ranger's quarters, none of these systems have been used for many years. Their reliability as well as compliance with local and state requirements is highly suspect. A new wastewater disposal system will need to be developed for

Lowell Lake State Park

Existing Park Facilities Map

Map Produced March, 1999



the toilet/shower building that will serve the overnight area. The toilet facilities to serve the day users near the boat launch area would be composting toilets which do not require a water supply.

Propane

The cabins and lodge were fed propane by underground lines from a tank located to the northwest of the log cabin. The propane was used for the cook-stoves. These lines and the tank have been removed. Individual propane tanks may serve some cabins in the future

Electric

The local electric company is currently CVPS. At this time electricity is only available to the lodge and ranger's quarters.

Telephone

The local telephone company is Bell Atlantic

Operations Element

The **Operations Element** is intended to define broad operational goals for Lowell Lake State Park. This element also identifies existing or potential operations problems and strategies for dealing with them.

Operational Strategies

Administrative Functions

Technical Steering Committee

The Technical Steering Committee (TSC) is an interdisciplinary team comprised of staff from the Agency of Natural Resources. It was formed to serve as a guide for the various technical aspects

and issues related to the planning process and appropriate park development. The TSC will play a role in the finalization of the management plan and in park development.

As resource management and recreational use of Lowell Lake State Park presents a delicate balance, it is recommended that this forum be continued so as to be able to discuss and review major issues and changes in park management, operations, and development. The TSC will be administered by the Parks Regional Manager, who would periodically consult with the TSC to review park operations, management, and visitor impact. This will include the review of annual work plans for the park.

Staffing

Present Situation: The park currently has a ranger on staff from May through October. The ranger rents the house during the off-season. This helps in monitoring park use and solving any immediate on site problems as well. The staff level will remain at one until additional funding is secured and the park can be fully developed.

Proposal: Proper staffing is the key to successful management of any state park. As Lowell Lake moves beyond an "interim" park operation status to anticipated full operation, the staffing needs will surely increase. Lowell Lake State Park, when fully developed, will most likely require the ranger and two to three paid staff members.

The budgeted amount for seasonal staffing does not give a true picture of the total cost of operations and maintenance at Lowell Lake State Park. The regional maintenance staff codes time spent while engaged in Lowell Lake-related projects back to the park, and these amounts are not considered a part of the staffing budget, but need to be taken into account.

Volunteers

Present Situation: The funding mechanism by which park staffing levels are determined will make it unlikely that Lowell Lake will be staffed at a level higher than that described above. This being the case, there is great potential for volunteer involvement at the park. There are interpretive opportunities, research opportunities, and resource management activities that could

be accomplished by interested volunteers. Some desirable and needed resource management actions and activities probably will not happen without volunteer involvement and participation.

Proposal: Volunteers will be welcomed to assist with a variety of work at Lowell Lake. A couple of examples in which volunteer efforts are needed are for visitor interpretation and education (i.e., lake and wetland ecology), visitor service, park operations, trail work, vegetative surveys, and water quality monitoring. It is most likely that some of these activities will not occur if left solely to the operations staff at the park. However, coordinating and directing the efforts of these volunteers, once they have been recruited and trained, are activities that could be reasonably accomplished by on-site staff. Initially, the Department of Forests, Parks and Recreation will look to other partnering organizations (e.g., Nongame and Heritage Program, DEC-Wetlands Office, Friends of Lowell Lake) to recruit and train these volunteers.

Garbage Disposal

Proposal: As with other day use areas in Vermont State Parks, there will be a "carry in – carry out" policy for day visitors. A dumpster will be available for trash from overnight visitors.

Enforcement

Present Situation: The major enforcement issues seen at Lowell Lake appear to be similar to what our other state parks face. The most common issues include:

1) Teenage Drinking parties at the boat launch area.
2) Illegal camping.
3) ATV use on park roads and trails.
4) Mountain Biking on non-designated trails.
5) Potential vandalism and trash dumping.

Proposal

Lowell Lake State Park will be subject to existing Forests, Parks, and Recreation policies as well as Vermont State Parks rules and regulations. Staff presence, education, and signage will play the largest roles in ensuring that regulations are observed and the potential problems mentioned above will be kept to a minimum.

In the off-season, staff presence has been and will continue to play a major role in minimizing undesirable activities. The park will most likely not have paid staff in the off-season. However, the park ranger will have the option of renting the ranger's house. This person or others renting the house will help monitor the park.

Revenue Generation

Present Situation: At present there is no revenue generated at the park. There is little opportunity for revenue generation until the necessary capital funds are secured to rehabilitate and enhance the existing facilities at the park and add the toilet and shower building.

The greatest source of potential income for the park will be through the cabin rentals. It is not anticipated that any day use fees will be charged initially. Day use will consist mainly of boat launching, hiking, and nature study. The current anticipated volume of day visitors does not warrant the collection of fees. The decision not to charge day visitors could change depending on the amount of visitation the park gets, or how large the percentage of staff time and other resources are required to manage day-use. Another source of income could be renting out the lodge to groups when the occasion would not interfere with the overnight visitor's experience. In addition, a fee could be charged for use of the lodge as a dining room along with the kitchen. The lodge would be open for informal use by overnight visitors for reading and other indoor activities.

The cabin rentals present a good opportunity for generating revenue. Their popularity and resulting impacts on the park will be closely monitored. A few campsites or leantos may be considered in the future. This would occur only if their addition would fit in with the park character statement and operating philosophy.

In a non-tax supported park system such as Vermont's there is at least some thought given to have a Park's income match its total operating cost. Lowell Lake, however, even when fully developed and meeting the income potential as defined by design limitations, most likely will not cover it's operating costs.

Lowell Lake will operate as a day-use and overnight use park under the same rules and regulations that are in effect in other parks within the system. Fees for cabin rentals will be set in accordance with the "going rate" in the area. Fees for use of the lodge will be set in accordance with other shelter rentals in the park system.

Visitor Services

Interpretation, Public Information, and Education

Overview: Interpretation enhances public enjoyment and benefit of a park through increasing understanding of significant natural, cultural, and recreational resources, and encouraging appreciation of their value.

The Park's unique natural resources, such as the wetlands, islands and undeveloped shoreline, provide a natural backdrop for interpretation and education.

Visitors: Their Needs And Expectations. The majority of the park users come specifically to hike, canoe, fish, and relax in the park's natural setting. Providing interpretative and educational materials, programs, and facilities would enhance additional activities for users. Increased use of the park by people coming specifically to study nature and bird watch, either on there own or on organized trips, would be a desired result.

Proposal: Opportunities for interpretation and study of threatened plants, wetland ecology and wildlife abound at Lowell Lake State Park. Facilities and media should be chosen that best serve visitors' needs, match how they use the park, work well with staffing levels, and are environmentally and aesthetically appropriate.

Given the park's limited visitation, varied use patterns, and the fact that the general predominance of recreational users have limited interest in interpretation, a large visitor center does not seem justified. A smaller nature center is planned. Outdoor interpretative panels and self-guiding trails and materials are possibilities for effective interpretative developments for

Lowell Lake State Park. An informational brochure will be published and available to all visitors. The trails will require interpretive descriptions, either read-as-you go signs, or a guide brochure to describe features of interest. Currently, there are no plans to have staff lead formal interpretive programs or activities at the park. However, it is hoped that interpreters and educators from the surrounding area will take advantage of interpretive opportunities within the park, and will bring groups to the park to learn. It is also possible that an on site naturalist will be hired in the future.

Programs and Community Programs

Programs and community use of the Park will be encouraged, especially as there is such a great opportunity for environmental education and recreational activity within the Park. Events that can be accommodated, without overtaxing facilities or the natural features of the Park, will be considered on a case-by-case basis. The Department of Forests, Parks and Recreation does not, however, have the staff, even at the system-wide level, to actively promote or encourage community programs in parks. As this situation is not expected to change, the impetus and organization of programs at Lowell Lake State Park, if they are to occur, will most likely have to come from the community.

Community Relations

Current Situation: The elected officials for the Town of Londonderry and local residents were supportive of the State of Vermont acquiring lands in their community to develop Lowell Lake State Park. A number of meetings were held with the Selectboard prior to acquisition of both parcels that make up the park and three meetings with the public were initially held following the addition of the White property to the park. These meetings were at the beginning of the planning process. In addition, the public advisory committee was formed to participate in the planning process. Much enthusiasm exists within the community for this park.

Proposal: In order to meet the goals of the park to be a good neighbor and a community asset, park staff will need to continue to communicate and develop positive relationships with the Town of Londonderry and surrounding residents. This could be accomplished by periodically

meeting with elected officials and the Friends of Lowell Lake about activities occurring at the Park, including proposed new acquisitions, park events, user conflicts, and other issues. Staff should also encourage members of the Friends of Lowell Lake to volunteer for activities at the Park.
An annual "Town Day" for town residents to participate in a park activity could also be held to help maintain local interest and participation in the park.

The continuation and expansion of the "Friends of Lowell Lake" will be encouraged as well as their involvement in volunteer activities at the Park.

Off-Season Use

Present Situation: State parks are regularly used in the off-season by hikers, hunters, fishermen, snowmobilers, horseback riders and others. Lowell Lake has historically seen use from ice-fishermen, snowmobilers, cross-country skiers in the winter. The local snowmobile club and V.A.S.T chapter has requested permission to use part of the hiking trail around the lake for their snowmobile trail. They have been given permission to use part of this trail.

Proposal: Current off-season usage will continue within the guidelines of existing Forest, Parks, and Recreation policies and regulations. It is hoped that parts of the trail system can be designated as a trail for snowmobilers. As in other state parks, hunting will be allowed within Lowell Lake State Park in the off-season. The day use parking lot will not be plowed by the department after snowfall, but it is possible that an agreement can be reached with the town or state highway departments to plow the lot when they are plowing Lowell Lake road.

Hunting

As in other state parks, hunting will be permitted at Lowell Lake State Park within the rules and guidelines of the Department of Fish and Wildlife.

Special Use Permits will be available to adjacent landowners to post 500-foot safety zones on state land.

Special Use Permits and Licenses

Present Situation: In accordance with Department procedures, Special Use Permits and Licenses, will be issued for research or other purposes deemed appropriate by FPR regional staff.

Proposal: Requests for Special Use Permits and Licenses will be administered by the Parks Regional Manager or Forestry District Manager. Depending upon the nature of the request, and in accordance with existing policy and procedures, the Parks Regional Manager or Forestry District Manager will prepare and issue Special Use Permits, or will prepare Licenses for issue (subject to approval by the Commissioner of Forests, Parks, and Recreation).

Requests for permits and/or licenses to conduct scientific research within the park will be routed by the Parks Regional Manager through the Lowell Lake Technical Steering Committee (TSC). The TSC will make a determination as to the appropriateness of the request, possible tie-ins or conflicts with on-going area research, and may impose additional conditions to be included in a research license or permit.

Resource Management and Protection

Information and data on the resources in the park will continually be collected and existing information updated. GIS data layers will continue to be developed and updated on all collected information.

Soils

Prior to the development or upgrading of any facilities, site-specific soil investigations will be made and appropriate mitigation measures taken as necessary.

Natural Communities and Vegetation Types

The Department will work toward preservation of the natural communities in the park. The principal objectives will be to minimizing impacts on these resources by park visitors and operations. Recreational use and park facility construction, including trail construction, will be located and designed so as to avoid or minimize negative impacts. A complete survey of the park's natural communities and vegetative types should be accomplished.

Unique Species

Rare and endangered plants found at Lowell Lake State Park will be protected and managed for their perpetuation. Periodic surveys will be conducted to monitor population status.

Exotic Species

None of the three aquatic exotic species of primary concern - Eurasian water milfoil, water chestnut, or zebra mussels - have been documented in Lowell Lake. Various educational and protective actions will be used to prevent a new infestation. If an exotic species is documented in the lake, management strategies will be devised depending on the specifics of the infestation.

Wildlife Management

The focus will be on maintaining the existing wildlife habitat in the park. Vegetative cuts to improve or maintain wildlife habitat may take place at the park. These cuts would be recommended and approved by the district fisheries and wildlife biologists. The open area in the northwestern portion of the park, formally the softball field for Lowell Lake Camps will probably be brush-cut and mowed once or twice each year to maintain diversity of habitat within the park.

Vegetative Management

Timber management will not be a priority for the park. An improvement cut was made in the northeastern section of the park during the late eighties. This property was part of the Gardner acquisition. This cut was made to improve the growth of the large White Pine growing on that parcel. Possible future timber sales may be planned for improvements of wildlife habitat or to promote the health and vigor of the forest. Any sale would require the full support of the Technical Steering Committee and have no negative impact on the park's operating philosophy.

Each year a hazardous tree survey will be conducted of the park. Hazardous trees in the concentrated public use areas will be removed. These areas include the parking areas, overnight area, boat launch and the most obvious hazards along the trails.

Visual Resources and Scenic Quality

All management actions will consider the impacts on the visual resources of the park, and every effort will be taken to ensure that they will not be impacted. The landscape and architectural design criteria will be followed.

Signs will be used sparingly, and designed to blend with the surrounding environment. Signs should not block scenic views, and should be appropriately scaled.

Cultural Resources

Staff will seek funding for an archeological survey at Lowell Lake State Park.

If a full survey cannot be funded, and prior to any ground disturbing activity (i.e., park facility construction) a cultural resources survey will be conducted at the site.

Threatened and Endangered Species

Present Situation: Two threatened and endangered plant species, *Myriopyllum farwellii* and *Utricularia purpurea* grow in the lake. These are both listed as rare by the VT Natural Heritage Program.

Proposal: Use of the lake and surrounding property will not significantly change with the development of the park. These plants have thrived in their existing conditions. These conditions should not be changing and the plants should continue to do well. Periodic monitoring will take place to help ensure the protection of these plants.