

State of Vermont
Agency of Natural Resources
Department of Forests, Parks and
Recreation

**Long-Range Management Plan
LYMAN FALLS STATE PARK**



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Section I

Introduction

Mission Statements Guiding the Development of this Plan

Vermont Agency of Natural Resources

The mission of the Agency of Natural Resources (ANR) is "to protect, sustain, and enhance Vermont's natural resources, for the benefit of this and future generations" (Agency Strategic Plan, 2001-2005).

Four agency goals address the following:

- To promote the sustainable use of Vermont's natural resources;
- To protect and improve the health of Vermont's people and ecosystems;
- To promote sustainable outdoor recreation; and
- To operate efficiently and effectively to fulfill our mission.

Agency Departments

Vermont Department of Environmental Conservation

Mission Statement - 2001-2005

The mission of the Vermont Department of Environmental Conservation (DEC) is to preserve, enhance, restore, and conserve Vermont's natural resources, and protect human health, for the benefit of this and future generations.

Vermont Department of Fish and Wildlife

Mission Statement - 2001-2005

The mission of the Vermont Fish and Wildlife Department (DFW) is the conservation of all species of fish, wildlife, and plants and their habitats for the people of Vermont. To accomplish this mission, the integrity, diversity, and vitality of their natural systems must be protected.

Vermont Department of Forests, Parks and Recreation
Mission Statement - 2001-2005

The mission of the Department of Forests, Parks, and Recreation (DFPR) is to practice and encourage high quality stewardship of Vermont's environment by monitoring and maintaining the health, integrity, and diversity of important species, natural communities, and ecological processes; managing forests for sustainable use; providing and promoting opportunities for compatible outdoor recreation; and furnishing related information, education, and services.

Overview of Lands Management by the Vermont Agency of Natural Resources

Purposes of Land Ownership

On behalf of the State of Vermont, the Agency of Natural Resources manages state-owned land for a variety of purposes, ranging from the protection of important natural resources to public uses of the land in appropriate places.

Natural resources include, but are not limited to, the following: biodiversity, wildlife habitat, natural communities, water bodies, wetlands, undeveloped land, scenery, and aesthetic values.

Public uses include, but are not limited to, the following: recreation, access to state lands or waters, environment-related businesses, flood control, education, research, and sustainable use of renewable resources such as hunting, fishing, trapping, and forest management.

Outcome of Long-Range Management Plans

The Vermont Agency of Natural Resources manages state lands in a sustainable manner by considering all aspects of the ecosystem and all uses of the natural resources (Agency Strategic Plan, 2001-2005).

The Agency has a mandate to serve as the principal land steward for properties owned or managed by its three departments – Environmental Conservation; Fish and Wildlife; and Forests, Parks and Recreation.

The development of long-range management plans (LRMP) for Agency lands represents a key step in providing responsible stewardship of these valued public assets. Each LRMP identifies areas where different uses are to be allowed and describes how these uses will be

managed to ensure protection of natural resources. The following over-arching management standards further both Agency and Department missions and are applied to the development of long-range management plans for all ANR lands:

Biological Diversity: Agency lands are managed to both maintain and enhance the variety and abundance of plants, animals and other life forms at scales ranging from local to regional.

Ecosystem Health: Agency lands are managed to ensure ecosystem functions, health, and sustainability. Threats and stresses are monitored, evaluated, and reported regularly.

Legal Constraints: Agency lands are managed in accordance with the purposes for which they were acquired. Many Agency lands were purchased with federal funds that require management to be directed for specific purposes. These requirements and other legal restrictions, such as conservation easements, are supported in all planning and management activities.

Natural Resource Science: The foundation for management decisions on Agency land consists of comprehensive ecological assessments as developed and documented in long-range management plans.

Wildlife Management: Wildlife management activities are directed at protecting and enhancing wildlife habitat for species needing to be conserved as well as those of public interest and utilization.

Recreational Uses and Needs: Agency lands are managed to create, maintain, and enhance sustainable recreational uses. Permitted or allowed activities are dependent upon site capabilities and public need. Wildlife management areas continue to give priority to wildlife dependent activities.

Sustainable Forestry: Agency lands are managed to ensure forest health and sustainability. Vegetation management and utilization strategies based on natural communities and appropriate silvicultural guidelines ensure that trees, forests, and forest ecosystems remain healthy.

Public Involvement: State lands are a public resource. The public is involved in all aspects of decision-making on state lands, including acquisition, policy development, management planning, and the implementation of policies, plans, and regulations. In developing long-range plans, the Agency considers interests outlined in local, regional, and state plans, including town plans, regional plans, watershed plans, and species recovery and management plans, and works to resolve conflicts between plans as may be appropriate or necessary.

Historical/Cultural and Scenic Values: Agency lands are managed to be sensitive to historical, cultural, and scenic values. Due to protection under state and federal regulations, sites of archaeological significance are equal in status to legal constraints applicable to the lands.

Best Management Practices: Lands under Agency management serve as exemplary stewardship models for the public and private sectors in Vermont. Whenever possible, best management practices that are utilized are visible and easy to understand.

Regional Availability of Resources and Activities: Because every parcel of Agency land cannot accommodate all the uses that the public might want, the Agency works to ensure that the following uses are made available on a regional basis: sustainable forest harvest; sustainable recreational activities; wildlife-oriented activities; protection of biodiversity and natural communities; and activities that reflect historical and cultural values.

PLAN STRUCTURE

This long-range management plan follows the agency's planning format. It is divided into several sections:

Section I is the *Introduction*, which includes the Agency and Department missions and an overview of lands management.

Section II is the *Parcel Description*. Found in this section is a summary of the parcel location and setting information, the history of acquisition, legal constraints of the property, and land use history, as well as a locator map and parcel base maps. Also included is a summary of the natural resources found on the property, as well as other special resources along with specific resource maps. How this plan relates to regional and town plans is also in the section.

Section III is a *Summary of Public Input* to this plan and management of the property.

Section IV covers *Management Strategies and Actions*. This section of the plan identifies the vision statement of management of the property, management goals, and areas where different activities and uses are to be allowed. It also describes how these uses will be managed, an implementation schedule for various management strategies, and monitoring and evaluation of uses of the property.

Section V is the *Appendices*. Found in this section is a number of appendices supplementing information in the main plan document.

Section II

PROPERTY DESCRIPTION

Location and Size Information

Lyman Falls State Park is located along the eastern side of VT Route 102 in Bloomfield, approximately 2 miles north of the intersection of VT Routes 102 and 105. Bloomfield is situated at the easternmost boundary of Essex County, Vermont, and on the New Hampshire border along the Connecticut River (See Map 1: Park Locator Map).

The region is known as the “Northeast Kingdom.” Caledonia, Essex, and Orleans Counties spread across almost 2,000 square miles in the northeast quadrant of Vermont. The counties share a border with Canada on the north and New Hampshire on the east. The region is the most rural in the state, with its villages interspersed among large areas of forest, farmland, streams, wetlands, and lakes.

The nearest shopping and employment centers are Island Pond, Vermont and Colebrook, New Hampshire, located 18 miles and 11 miles away, respectively.

Bloomfield lies in the Connecticut River valley portion of the Vermont biophysical region known as the “Northeastern Highlands” (See Map 2: Biophysical Regions of Vermont). The Connecticut River is a dominant feature of the area. The Northeastern Highlands region is known for its boreal character with cold temperatures and a short growing season.

Lyman Falls State Park is approximately 41 acres in size with approximately 2,600 feet of frontage on VT Route 102 (See Map 3: Lyman Falls State Park Base Map). This road frontage is interrupted by two small in-holdings. The southernmost is a 0.46-acre site with 140 feet of road frontage. This private in-holding, which includes several structures and a single-family dwelling, is just north of where Mill Brook crosses VT Route 102 and enters the property. The northernmost in-holding is of similar size, is undeveloped, and is of uncertain ownership (See Appendix A: Bloomfield Tax Parcel Map).

The property is shaped irregularly, bulging with the river bend at its upstream extent and narrowing towards the entrance of Mill Brook into the Connecticut River. The Connecticut River forms the eastern boundary of the property. The property has 3,200 feet (by deed) of Connecticut River frontage. The banks of the Connecticut River are generally low for much of the property, but rise at the lower third of the property. The Mill River runs through the lower third of the property, entering from the west. Lyman Falls State Park has frontage on

both sides of Mill Brook from the point at which it passes under VT Route 102 to where it enters the Connecticut River near the southern boundary of the property. Total brook frontage is approximately 1,200 feet on each side (See Map 4: Base Map with Orthophoto).

There is a gated access road off of VT Route 102 leading into the lower part of the Park from slightly north of where Mill Brook enters the site. The access road is an undeveloped road that soon parallels the Connecticut River for almost the length of the property.

Map 1: Park Locator Map

Map 2: Biophysical Regions of Vermont

Map 3: Base Map

Map 4: Base Map – Orthophoto

Acquisition History

The Connecticut River Joint Commissions made initial contact with the landowners, the Washburn Lumber Company, in early 2000, which opened the door to the future conservation purchase. In May 2001, the Vermont River Conservancy (VRC) purchased the property from the Washburn Lumber Company. On the same day, the VRC donated a grant of conservation restrictions, public access easement, and right of entry (collectively: “Conservation Easement”) to the Vermont Housing & Conservation Board (See Appendix B for Conservation Easement). The VRC then immediately conveyed the underlying fee-title to the property, subject to the aforementioned easement, to the Vermont Department of Forests, Parks and Recreation (See Appendix C for Warranty Deed).

Washburn Lumber Company purchased the property (and other parcels) from Public Service of New Hampshire (PSNH) in 1963. Public Service of New Hampshire purchased the property from the Lyman Falls Power Company [date unknown]. Lyman Falls Power Company purchased the property from F.M. MacDonald in 1903.

At the time of the sale by Washburn Lumber Company to the Vermont River Conservancy, Reuben Washburn had died and his son and daughter, Malcolm and Dallas, owned the company. The Washburns could have probably subdivided the property and sold it to developers for more money than they received from the VRC, but they were motivated to put the land into public ownership and protect it as undeveloped shore land that allowed access for fishing and primitive canoe camping. The Washburns agreed to sell the property for the appraised fair market value of \$113,000, as determined by the appraisal office of Daniel J. Berna of Newbury. The total cost of the project, including legal and other associated project costs, was approximately \$121,000.

The Vermont River Conservancy raised the funds for the purchase on behalf of the Vermont Department of Forests, Parks, and Recreation. Solicitation occurred in newspaper articles, by letter, by email, and by phone calls and visits. All who donated understood the goals of the project and purposes for the purchase as they are set forth in this plan.

The Vermont Housing & Conservation Board awarded the VRC a grant of \$90,500. The Connecticut River Joint Commissions (through the Connecticut River Valley Partnership Grant Program) awarded the VRC \$8,500. The Fields Pond Foundation awarded the VRC a grant of \$4,000. Collectively, anglers and angling groups contributed approximately \$8,000. Many other individuals collectively donated the remaining \$10,000.

In accordance with the Conservation Easement held by the Vermont Housing & Conservation Board, the Department intends to ensure that Lyman Falls State Park is maintained for the public values for which it was acquired.

Purpose of Ownership

Lyman Falls State Park is a special property that is steeped in local and regional history, especially with the impact the Washburn's had in the area, and is located on an important stretch of the upper Connecticut River, where public access is limited.

As on other state lands, at Lyman Falls State Park the DFPR aims to provide the public with natural resource-based opportunities that are not widely, or even necessarily, available on private land (e.g., dispersed outdoor recreation and natural area protection).

The Washburn Lumber Company owned the Lyman Falls property for nearly 35 years. Reuben Washburn was a very well known logger and landowner in the area. In selling the property, the Washburn family made it very clear that the property was to be maintained as an undeveloped piece of land to be managed much as they had managed it. The Washburns worked with the Vermont River Conservancy and the Vermont Housing & Conservation Board to develop a conservation easement that would ensure the proper restricted and permitted uses were maintained forever on the property. In addition, the acquisition of this property implements recommendations found in the *Connecticut River Corridor Management Plan*.

The Lyman Falls property was acquired primarily to:

- 1) Protect an area that has been traditionally used by many for canoe camping; and
- 2) Continue to provide foot access to the river and below the falls for fishing.

The DFPR, in cooperation with the Vermont Department of Fish & Wildlife and Vermont Department of Environmental Conservation, will be careful to honor the intended uses for which Lyman Falls State Park was acquired. Summarized management goals are to:

- ❑ Protect biodiversity;
- ❑ Maintain historic high quality recreation opportunities and experiences; in particular, primitive canoe camping and access for angling;
- ❑ Maintain or enhance critical wildlife habitats and aquatic ecosystems;
- ❑ Protect historic and cultural resources;

Management emphasis includes actions meant to accomplish these goals. Human values and recreational uses that are compatible with the conservation of biodiversity will be provided for. Management planning has occurred with the input from the public and from a diversity of natural resource professionals.

Legal Constraints, Funding Issues, Rights-of-Way, Etc.

State ownership of Lyman Falls State Park is subject to a Grant of Development Rights, Conservation Restrictions, and Public Access Easement granted from the Vermont River Conservancy to the Vermont Housing & Conservation Board as recorded in the Land Records of the Town of Bloomfield (Book 23, Pages 143 – 152). (See Appendix B).

The following is a summary of restricted and permitted uses as set forth in the Grant of Development Rights, Conservation Restrictions, and Public Access Easement:

Restricted Uses of Protected Property

The restrictions hereby imposed upon the Protected Property and the acts, which Grantor shall do or refrain from doing, are as follows:

1. The Protected Property shall be used for educational, forestry, natural area, open space, public outdoor recreation, and scientific purposes only. No agricultural, residential, commercial, industrial or mining activities shall be permitted on the Protected Property and no building or structure associated with such activities shall be constructed, created, erected or moved onto the Protected Property. The term structure as used in the preceding sentence shall include, but not be limited to, any telecommunications, broadcasting or transmission facility. No other building or structure shall be constructed, created, erected or moved onto the Protected Property, except as specifically permitted by the Management Plans or by this Grant.
2. Except as otherwise specifically permitted under this Grant, no rights-of-way, easements of ingress or egress, driveways, roads, utility lines, other easements or use restrictions shall be constructed, developed, granted or maintained into, on, over, under, or across the Protected Property without the prior written permission of Grantees. Grantee may grant such permission if it determines, in its sole discretion, that any such improvement would be consistent with the Purposes of this Grant.
3. There shall be no signs, billboards or outdoor advertising of any kind erected or displayed; provided, however, that the Grantor may erect and maintain reasonable signs indicating the name of the Protected Property, boundary markers, directional signs, signs informing the public about reasonable use or restricting access on the Protected Property, memorial plaques, historical markers and interpretive/educational markers. With prior written permission of Grantor, Grantee may erect and maintain signs designating the Protected Property as land under easement protection by Grantees.
4. The placement, collection or storage of trash, human waste, or any other unsightly or offensive material on the Protected Property shall not be permitted except at locations, if any, and in a manner that is consistent with this Grant and permitted by the Management Plans. The temporary storage of trash in receptacles for periodic off-site disposal shall be permitted.
5. There shall be no disturbance of the surface, including, but not limited to, filling, excavation, removal of topsoil, sand, gravel, rocks or minerals, or change of the topography of the land in

any manner, except as may be reasonably necessary to carry out the uses permitted on the Protected Property under the terms of this Grant and provided for in the Management Plans. In no case shall surface mining of subsurface oil, gas or other minerals be permitted.

6. There shall be no manipulation of natural watercourses, wetlands, or other water bodies, nor shall there be activities conducted on the Protected Property which would be detrimental to water purity, or which could alter natural water level or flow, except as is minimally necessary to carry out the uses permitted on the Protected Property under this Grant.
7. There shall be no operation of motorized vehicles on the Protected Property except for uses specifically reserved, such as wildlife and forest management, trail grooming and/or maintenance, and for emergency purposes. Snowmobiling may be permitted at the discretion of the Grantor and as provided for in the Management Plans. There shall be no all-terrain vehicle use permitted on the Protected Property except for emergency or management purposes. For purposes of this Grant, all-terrain vehicles include motorized four-wheeled, three-wheeled and two-wheeled or tracked vehicles.
8. Except for a conveyance to the Vermont Department of Forests, Parks and Recreation, Grantor shall not give, grant, sell, convey, transfer, lease, mortgage, pledge or otherwise encumber the Protected Property without the prior written approval of Grantee.
9. No use shall be made of the Protected Property and no activity thereon shall be permitted which, in the reasonable opinion of the Grantee, is or is likely to become inconsistent with the Purposes of this Grant.

Permitted Uses of the Protected Property

1. The right to use the Protected Property for all types of non-commercial, non-motorized dispersed outdoor recreational purposes (including, but not limited to, birdwatching, camping, canoeing, cross-country skiing, fishing, hunting, snowshoeing, trapping, walking, wildlife observation) consistent with the Purposes of this Grant and permitted under the Management Plans.
2. Within designated trail corridors, use of the Protected Property for snowmobiling and for non-motorized, mechanized recreation, such as mountain biking, may be permitted in the discretion of Grantor if such uses are regulated in the Management Plans and are consistent with the Purposes of this Grant.
3. The right to conduct all activities allowed by the Management Plans provided such activities are reasonably necessary to carry out the Purposes of this Grant and are consistent with this Grant. Such activities may include, but are not necessarily limited to, the management of vegetation, wildlife and recreation.
4. The right to maintain, repair, improve, and replace existing recreational trails, together with the right to clear, construct, repair, improve, maintain and replace new trails within designated corridors on the Protected Property, provided that the location, use and construction of such new trails are consistent with the Purposes of this Grant and permitted by the Management Plans.
5. The right to establish dispersed primitive canoe camping tent sites and associated parking for

seasonal public recreational use on the Protected Property, provided that the number, location, scale, management, and volume of use of said sites is consistent with the Purposes of this Grant and permitted by the Management Plans, and provided further, that such dispersed tent sites comply with the Vermont Department of Forests, Parks, and Recreation's rules and regulations governing primitive camping on state lands.

6. The right to harvest timber and other forest products, together with the right to construct and maintain roads necessary for such activities, in accordance with the publication "Acceptable Management Practices for Maintaining Water Quality on Logging Jobs in Vermont," a Vermont Department of Forests, Parks and Recreation publication dated August 15, 1987 (or such successor standard approved by Grantee) and in accordance with a forest management plan which has been developed in consultation with the Vermont Department of Fish and Wildlife, and which forest management plan is consistent with the Purposes of the Grant and shall be a component of the Management Plans.
7. The right to charge the public reasonable fees for admission to and use of the Protected Property.
8. The right to issue temporary special use permits or licenses authorizing the commercial or non-commercial use of the Protected Property for recreational, educational, forestry, or research purposes, provided that any such permit or license (i) does not unreasonably interfere with the access of the general public to the Protected Property, and (ii) is for uses consistent with the Purposes of this Grant.

Future Acquisition/Disposition

The protection of surrounding properties is critical to protecting Lyman Falls State Park as a public resource. In Vermont, one parcel abuts the property upstream and already contains a residence. One parcel abuts the property downstream and was recently purchased by a local fishing guide. A third parcel is an in-holding along VT Route 102. State land managers should maintain communication and excellent relationships with adjoining landowners.

On the New Hampshire side of the river, the future disposition of several parcels could affect Lyman Falls State Park and the river resource. Any development on that side of the river would adversely impact the primitive experience of camping and fishing at Lyman Falls State Park. The Department should work with New Hampshire state agencies and land protection groups to protect the undeveloped shoreline along this important reach of the river.

The Headwaters Subcommittee Plan for the Connecticut River makes the recommendation that the "Fish and Game/Wildlife agencies should establish a new car-top, gravel-surfaced river access point on the New Hampshire side of N. Stratford-Maidstone Bridge, at end of natural segment of the confluence of Bog Brook, on parcel which the landowner has offered for this purpose. This will provide alternatives for day canoe trips on the river, and could increase business to two small stores in the vicinity." The access described in the above recommendation will be built instead just upstream at the Stratford-Maidstone Bridge. With

this access and access at Lyman Falls State Park, this stretch of river will create a good day trip from the Bridge.

Land Use and Cultural History

The surface geology of the surrounding area was determined by a series of lakes that formed as the glaciers melted and retreated. Successive terraces were formed as the height of the outlet dam far downstream changed. Today, these can be seen on either side of the Connecticut River. Meltwater flowing in streams under the glaciers also formed meandering sand and gravel deposits known as eskers, such as the steeply sloping ridge opposite the Park on the New Hampshire side. These surficial geological formations of riverside terraces and eskers were occupied by Native Americans during the archaic period.

In New Hampshire, across the river on the Martin farm, a rhyolite cobble and two stone tools were recovered about 40 cm below the surface (New Hampshire, Division for Historic Resources – 27-CO-40). Similar finds on the riverside near Colebrook, NH were associated with charcoal from fires and were radiocarbon dated to 8,000 B.C.

The Vermont Division of Historic Preservation was contacted prior to acquiring the Lyman Falls property, but no records of significant historic or archaeological sites were found in their files. During a reconnaissance project for the Connecticut River Water Trail, archaeological consultants noted that although the entire Upper Connecticut River is sensitive from an archaeological perspective due to its importance to Native Americans, they also found no sites of record on or near the property.

During the French and Indian Wars, the Connecticut River below Stratford, NH was a strategic point – this is where the Nulhegan River leads off to the Clyde River and to the lakes of Vermont and Canada. Rogers' Rangers followed this route on their way to the attack on the Abenaki village of St. Francis in 1761.

The Connecticut River Valley was surveyed for English settlement in 1761-2. Farms were laid out with a short river frontage and long parallel lines up the hillside. Thereby both flat river bottom for hay and sloping hillsides for firewood were ensured in proper proportion. These divisions still exist and can be discerned in the various tree coverings of the hillsides across the river in New Hampshire. Land was sold to settlers from Connecticut, who generally built log cabins and cleared land with horses and oxen in the summer, returning downriver in the winter.

During the American Revolution, Canada again claimed all the territory north of the White Mountains. According to the History of the Town of Stratford, seven families remained in Stratford throughout the American Revolution, while at one time “a party of Indians, commanded by a Frenchman, came into Stratford, took two prisoners, plundered two families of everything valuable.” After the Revolution, as more land was cleared, the log cabins were replaced with finer houses. The Lyman house, on the farm directly opposite of the current camping area, and the Martin house, on the farm opposite of the end of the canal (which has been entered on the National Register of Historic Places as a typical farm of the time), are structures from this period. Waterpower from Lyman Brook, which flows through the location of Tinkerville in the gorge north of Lightning Mountain, and enters the Connecticut River half a mile above Lyman Falls, most likely provided the sawn boards for these houses.

The Grand Trunk Railroad from Portland, Maine to Montreal, Quebec, which crosses the Connecticut River at North Stratford/Bloomfield three miles south of the Park, was completed in 1853. Farmers in the valley could then ship to the cities, instead of driving their cattle to Portland, Maine. The agricultural census for the Martin farm shows that in 1860, some 30 acres (amounting to all the flat land) were cleared on the 100-acre farm; that rye, oats, potatoes, barley, buckwheat and hay were grown in tens of pounds; and that butter and maple sugar were shipped at 300 pounds per year. The Civil War brought the need for machine-woven wool clothing and in the subsequent sheep craze, the hillsides were cleared, leading to 60 cleared acres and 65 pounds of wool per year. The price of wool fell sharply around 1890, coincident with a ten-fold expansion of dairy farming in New Hampshire. By 1900, a ton of butter per day was shipped from the North Stratford Creamery Company. Farming declined slowly from its peak in 1890, holding up through the Great Depression and World War II, to decline precipitously from 1950 – 1970.

Lumbering was a major activity in the Upper Connecticut River Valley. Before the building of the railroad, sawmill machinery was hauled from Portland, Maine to the Nulhegan Mills, located on the Nulhegan River just across a toll bridge from Stratford in the Town of Bloomfield, VT. The first lumber was rafted in 1851 to the canal at Fifteen Mile Falls for delivery to Massachusetts. The Connecticut Valley Lumber Company, led by the regionally famous lumberman, George van Dyke, bought up the highlands on the major tributary streams. Every spring they sluiced 32-foot logs down to the main river in an avalanche of mud and stone, or their “long teams of fine horses or oxen drew the immense logs from the hillsides.” Subsequently, they drove them all the way down the river to the sawmill in Holyoke, Massachusetts. The drive with its horses, bateaux, wangan, and rivermen passed over and around Lyman Falls every year. The pre-dam falls was not a serious obstacle to the log drives. The small “falls” was followed by a long stretch of boulder-strewn rapids where the river dropped about 20 feet in half a mile. The Connecticut Valley Lumber Company bought Nulhegan Mills in 1892, and after a time relocated its saws to Massachusetts, nearer to the market.

North Stratford became a supply point for all the Upper Connecticut Valley residents. As recounted in the Stratford history, “All merchandise for the northern part of the state was to

find storage, and all produce from the north was to be brought here for shipment.” “This brought to North Stratford every spring the river-drivers, when drunkenness and disorder reigned until the river broke up, and the formidable jams of ice and logs claimed the attention of every man.” “There also sprung up the Reform clubs, that wonderful movement that swept through the country, and aroused the public conscience to the evils of intemperance.”

In the service of supply to the north, as many as 80 horses a day traveled up the roads on either side of Lyman Falls. In 1883, a charter for a narrow-gauge railroad was granted, but George van Dyke and his associates offered to build a standard gauge railroad. The railroad was built past the falls on the New Hampshire side, and van Dyke himself reportedly was the locomotive engineer on the first train to Colebrook at the formal opening on November 29, 1887.

The original hydropower dam at Lyman Falls may have been the brainchild of one F.M. McDonald. According to newspaper reports, the first electricity was delivered from Lyman Falls to the Nulhegan Mills in 1892. The transmission line was extended to Groveton, NH by 1903. In October 1903, the Lyman Falls Power Company purchased land on both sides of the river from McDonald. In 1904, the Lyman Falls Power Company completed a dam across the Connecticut River (compiled by F.W. Martin from local history books and articles; February 27, 2003).

The first dam was constructed with rock-filled cribbing. Following years saw additional land and flowage purchases both above and below the dam. The dam was 18 feet high from sill to spillway and about 400 feet long, with an additional 300-foot long dike or bulkhead at the eastern end extending to the Upper Coos Railroad tracks, which run along the NH side of the river. Subsequent versions of the dam were concrete.

The penstock began at the Vermont end of the dam and ran at an acute angle for about 1800 feet to bring water to the turbine at the generating plant. Beyond the powerhouse, a tailrace canal continued on down more or less parallel with the river for another 1,200 feet or so. Mill Brook was thus rerouted downstream so as not to interfere with the flow of water from the turbine (See Map 5: Cultural/Historic Resources Map).

The dam sluice was approximately at its midpoint. It could be opened just enough to permit passage of a few logs at a time. The main current, during periods of average discharge, flowed toward the penstock, the mouth of which was protected by a grate. The power complex eventually included a penstock canal, an expanded power station, a house and other structures. Lightning, floods, ice, and logs did extensive damage to the dam, which had to be frequently repaired. A new dam was built in 1930. In the early 1960s, the dam breached and was abandoned.

In 1963 Reuben Washburn, who owned Washburn Lumber Company, bought the property from the Public Service Company of New Hampshire. The Washburns filled in the canal shortly thereafter (See Appendix D: 1930 Property Map).

The Washburn family allowed access to the property, by permission only, for fishing and canoe camping. The Washburns also leased a portion of the property to a family for summer camping. This family enjoyed nearly exclusive use of this site for many years, establishing a pole-structure over the cooking area, a privy, and several tent platforms. The lease agreement was discontinued a short time before the property was conveyed to the State of Vermont.



Lyman Falls Dam – looking north – 1960



Canal – looking north – 1960



Powerhouse and Tailrace - 1960



Old Powerhouse Site - 2002



Old Powerhouse Site - 2002

Map 5: Cultural/Historic Resources Map

Ecological Assessment

The Lyman Falls State Park ecological assessment was conducted using an updated version of the Department's Forest Examination protocol. It incorporates a methodology known as the coarse filter/fine filter assessment for protection of biodiversity as first developed by The Nature Conservancy. This approach first identifies examples of all natural community types at their natural scale of occurrence with the assumption that this will in turn protect most species. The life histories and distributions of many species are not known, especially for lower organisms such as fungi, bryophytes, and invertebrates. By conserving examples of natural communities that represent the full known biological variation of each community across the community's distribution range, it is hypothesized that the majority of the species for a region (both known and unknown) will be protected. This "coarse filter" approach must be implemented along with a "fine filter" that addresses specific populations of rare species, critical habitats, or other sites that are otherwise left unprotected through the coarse filter process.

Coarse Filter Assessment

Biophysical Region and Climate

Lyman Falls State Park is located in Vermont's Northeast Highlands biophysical region. The moderate to high elevations and high latitude of this region result in a cooler climate than that found in most other parts of the state, however temperatures are somewhat moderated at Lyman Falls by its location along the Connecticut River. The oldest bedrock in the region is composed of metamorphosed marine sediments of the Waits River and Gile Mountain Formations; this rock weathers quickly and contains high concentrations of essential plant nutrients, including calcium. Younger, much harder granite intrusions are also common. Soils are mostly the product of glacial activity, and include extensive kame deposits of sand, silt, and gravel along rivers and valley edges. The Northeast Highlands are home to many animals, plants, and ecological communities typical of areas far to our north. This biophysical region extends north and east into Québec, New Hampshire, and Maine.

Bedrock and Surficial Geology and Soils

The geology of Lyman Falls State Park is dominated by the Connecticut River and Mill Brook. The site lies within a belt of Siluro-Devonian meta-sediments that form the Connecticut Valley/Gaspe synclinorium. Granitic plutons of Devonian and Mississippian age are present throughout the area. Several of these plutons are exposed locally, namely Monadnock Mountain to the northeast, and the Nulhegan Basin and Averill Lakes to the west and northwest. In the vicinity of the Lyman Falls property the country rock consists of lower Devonian phyllitic schists and slates. Pleistocene glaciation modified the topography to a large degree. Ice moved across the area in an approximately S 30°E direction. Products of

glaciation include kame terraces, outwash gravels, roches moutonnees, glacial striae and grooves, and large erratics. The upper terraces of the Connecticut River Valley contain many kames and other features of glacio-fluvial origin. Large deposits of sand and gravel are scattered throughout the area. Terraces on both sides of the Connecticut River are formed of Pleistocene and Recent alluvium, covering a size range from coarse gravels to clay. There is no bedrock exposed on the Lyman Falls property as it is covered with Quarternary alluvium. For more information, see *Geology of the Vermont Portion of the Averill Quadrangle, Vermont* by Paul Benton Myers, Jr.

Bedrock at Lyman Falls is the gray quartzite and schist of the Gile Mountain Formation. This material was originally deposited as sediment in ancient seas. It was later compressed and metamorphosed into the material we presently see. Many rocks within the Gile Mountain Formation contain high concentrations of calcium and other plant nutrients. When this rock weathers, it enriches the soil and may have substantial effects on natural community composition. However, the rock at Lyman Falls is covered by a thick blanket of glacial sediments, and probably has much effect on the biology of the area. Soils at Lyman Falls State Park are a mixture of glacial tills and kame terrace deposits left as the glaciers retreated up the Connecticut River Valley. Soil sampling on these terraces revealed a fine silty material greater than 3' in depth.

Hydrology, the Connecticut River and Mill Brook

Hydrology plays a major role in the structuring of natural communities at Lyman Falls State Park. Past activity by glacial meltwater was responsible for deposition of the well-drained sediments that influence tree species composition in the Northern Hardwood Forest here. Annual flooding cycles of the Connecticut River are responsible for structuring vegetation in the Rivershore Grassland and Sugar Maple-Ostrich Fern Riverine Floodplain Forest. Where Mill Brook meets the Connecticut, both of these rivers have a hand in structuring Alder Swamp and River Mud Shore natural communities. And, human induced hydrological changes during dam operation probably had an impact on all of these natural communities.

Lyman Falls State Park has approximately 3,200 feet of forested Connecticut River frontage. For the northernmost two-thirds of the property, banks are low and the land slopes down only a few feet to the river allowing for easy access to and from the water in most locations. Along the southernmost third of the property's boundary along the Connecticut River, a high human-made ridge makes river access difficult. For its length along the property, the Connecticut River is relatively shallow (with the exception of one pool below the breached dam), predominantly rocky, and varying in width from approximately 100 to 215 feet.

The property also has frontage on both sides of Mill Brook from the point at which it passes under VT Route 102 to where it enters the Connecticut River near the southern boundary of property. Total Mill Brook frontage is approximately 1,200 feet on each side. Mill Brook arises in the hills to the northeast of the Lyman Falls property. It flows as a high to medium gradient stream generally south-southeast, paralleling Mill Brook Road along its lower reaches. At its confluence with the Connecticut River, it is a second order stream. The natural

channel of Mill Brook was altered to conjoin with the Lyman Falls powerhouse tailrace. A deep pool forms a small backwater in the stream just below the old power station. Where the natural confluence with the Connecticut River was probably once closer to the powerhouse, Mill Brook now follows a human-made ridge of land parallel to the Connecticut River, which it joins at the southern boundary of the Lyman Falls property. As an altered stream within the boundaries of the Lyman Falls property, Mill Brook is slow moving, shallow stream with a cobble, gravel and sand substrate.

Topography

The site is predominantly level or nearly so (See Map 6: 7.5' USGS Topographic Map). The area with most varied topography is in the southernmost portions of the site, near Mill Brook. This area is particularly interesting because of the long ridge of land that lies between the Connecticut River and Mill Brook. East of the brook, the land raises up and then down fairly steeply to the Connecticut River. This ridge and other features of relief at Lyman Falls State Park may have been created by earth-moving activities associated with the old Lyman Falls dam and power station.



Ridge between Mill Brook and the Connecticut River

Map 6: 7.5' USGS Topographic Map

Natural Community Types

A natural community is composed of an interacting assemblage of organisms, and the physical context—geology, hydrology, climate, natural disturbance regime, etc.—in which they occur. The 80 natural community types described in Vermont repeat across the landscape in patches of various sizes. When two or more unconnected patches occur near each other, they often function as a unit: elevation, hydrology, and geology are similar, organisms move back and forth between the patches, and natural disturbances affect them similarly. Natural community patches of this sort are considered to be a single occurrence of the natural community type. Thus, an occurrence of a natural community type may be composed of one to many patches or polygons.

Five occurrences of five natural community types have been identified and mapped at the state park (See Map 7: Natural Communities Map). A total of nine natural community and two water body polygons were mapped. Natural communities were identified through aerial photograph interpretation, systematic FOREX inventory, and collection of global positioning system (G.P.S.) data on the ground (during an April, 2002 field visit). A Geographic Information System (G.I.S.) map of natural communities was produced using ArcView software. Because some natural communities occur at very small scales (e.g., less than ¼ acre), this mapping effort is probably incomplete. Natural community mapping is an iterative process, and our knowledge improves with each mapping effort. Thus, the map presented here should not be viewed as a final statement on community distribution at Lyman Falls State Park; instead, it should be treated as a first attempt at describing natural communities in this area. Land managers should keep in mind that additional examples of small natural communities (e.g., Vernal Pools) may occur at the park. As subsequent inventories and site visits are conducted, this map will be improved.

What follows is a description of all natural community types identified at Lyman Falls. Much of the property shows evidence of recovery from disturbances from 60 years during which hydropower was created at Lyman Falls. The current condition of natural communities reflects these and prior human disturbances. The statewide rarity/ commonness of each community is discussed, and a quality rank (A through D) is given for each community occurrence. Quality ranks are objectively assigned on the basis of occurrence size, ecological quality and successional stage, and landscape context. An A-ranked occurrence is of high quality in comparison with other occurrences of its natural community in the state, while a D-ranked example is of comparatively low quality. Detailed descriptions of these natural communities may be found in *Wetland, Woodland, Wildland: A Guide to the Natural Communities of Vermont*, by Eric Sorenson and Elizabeth Thompson. Information may also be found in the glossary (Appendix M).

1) Northern Hardwood Forest

The majority of the park has been mapped as Northern Hardwood Forest, a common and variable natural community in Vermont. Most of this community occurs on deep, well-drained terraces of silty glacial sediments. Soils usually feature a 1-2" layer of poorly decomposed leaf litter (primarily pine needles) on top of more than 3' silt

loam. The dense (80% cover) canopy is currently dominated by 60' white pine (*Pinus strobus*) that may have established when an agricultural field was abandoned. A 20-35' understory canopy features sugar maple (*Acer saccharum*), red maple (*Acer rubrum*), balsam fir (*Abies balsamea*), northern white cedar (*Thuja occidentalis*), hophornbeam (*Ostrya virginiana*), bigtooth aspen (*Populus grandidentata*), and quaking aspen (*Populus tremuloides*). The shrub layer is sparse. It includes regenerating hardwoods and fir, as well as beaked hazelnut (*Corylus cornuta*). Herbs are moderately sparse, and include Canada mayflower (*Maianthemum canadense*), wild sarsaparilla (*Aralia nudicaulis*), and wintergreen (*Pyrola* species). Mosses are patchily distributed, but form a dense cover in places. A number of species were observed, among them Knight's plume (*Ptilium crista-castrensis*). False morel (*Gyromitra esculenta*) was observed in this community. The deep, well-drained sediments and understory plant species suggest that this is not a typical example of Northern Hardwood Forest. Over time, it may come to look more like a Lowland Spruce-Fir Forest (although the only red spruce (*Picea rubens*) on the parcel seems to be a few scattered individuals near the parking lot). The well-drained soils may allow white pine to remain a component of the canopy in the long term, something not predicted for most second-growth hardwood stands. Despite these speculations, our best guess is that the majority of the park uplands should be considered Northern Hardwood Forest.

Northern Hardwood Forest along the narrow ridge of earth between the mouth of Mill Brook and the Connecticut are somewhat different from those described above. Here white pine shares the canopy with yellow birch (*Betula allegheniensis*), balsam fir, eastern hemlock (*Tsuga canadensis*), American beech (*Fagus grandifolia*), and red maple (*Acer rubrum*). Shrubs and herbs are more diverse. Soils here are rocky and seem like they could have resulted from dredging of dam structures.

Some characteristic birds of the Northern Hardwood Forest that might be seen here are hermit thrush, rose-breasted grosbeak, ovenbird, red-eyed vireo, eastern wood peewee, black and white warbler, black-throated blue warbler, veery, and scarlet tanager. The hardwood forests at Lyman Falls have moderate to heavy levels of deer browse, and are impacted by beaver along the waterways. This is a relatively low-quality (C/D) occurrence of the community relative to other examples elsewhere in the state.

2) Sugar Maple-Ostrich Fern Riverine Floodplain Forest

A four acre-example of this rare natural community is found along the Connecticut River. Tree canopy is composed of sugar maple (*Acer saccharum*), black cherry (*Prunus serotina*), quaking aspen (*Populus tremuloides*), green ash (*Fraxinus pennsylvanica*), white ash (*Fraxinus americana*), black ash (*Fraxinus nigra*), and elm (*Ulmus* species). Shrubs present include highbush cranberry (*Viburnum opulus*), speckled alder (*Alnus rugosa*), and meadowsweet (*Spiraea latifolia*). A lush herbaceous layer includes false hellebore (*Veratrum viride*), Christmas fern

(*Polystichum acrostichoides*), intermediate woodfern (*Dryopteris intermedia*), sensitive fern (*Onoclea sensibilis*), virgin's bower (*Clematis virginiana*), dandelion (*Taraxacum officinale*), and meadow rue (*Thalictrum* species). Principal natural disturbance in this community is by seasonal flooding of the river, which keeps soils saturated for part of the growing season, and deposits new organic and mineral soil materials. This example is at a mid-successional stage, and has a quality rank of C.

3) Rivershore Grassland

Rivershore grassland is found the length of the parcel's 3,200' Connecticut River shoreline. An uncommon community statewide, this one is considered to be of moderate quality (C rank; this may change if a more thorough survey is conducted during the growing season). In a functional ecological sense, this community extends on to adjacent private lands. In most places this grassland is less than six feet wide, but this varies with seasonal fluctuations of the river's water table. Annual flooding and ice scour keep trees from establishing in this community, although shrubby speckled alder (*Alnus rugosa*), willow (*Salix* species), raspberry (*Rubus* species), and a few tree shrubs are present. Herbaceous growth is expected to be dense and diverse; species observed in an early spring field visit include sensitive fern (*Onoclea sensibilis*), dandelion (*Taraxacum officinale*), joe-pye weed (*Eupatorium maculatum*), virgin's bower (*Clematis virginiana*), monkey flower (*Mimulus* species), Indian hemp (*Apocynum* species), and several grasses. Spotted sandpipers nest and feed in this type of shoreline community. Two-lined salamanders and green frogs are often found in wetter portions of this community. The rare cobblestone tiger beetle and White Mountain tiger beetle can both occur in this community. A number of rare plants occur in examples of this community elsewhere along the Connecticut River, and they should be looked for here. These include great St. John's wort (*Hypericum pyramidatum*) and Canada burnet (*Sanguisorba canadensis*).

4) River Mud Shore

A small example of this uncommon community type is found near where Mill Brook joins the Connecticut River. The muddy bank consists of more than 3' of saturated silt loam. Scattered speckled alder (*Alnus rugosa*) are present. The dominant plant here is common nightshade (*Solanum dulcamara*), an invasive species often found in Vermont's Wetlands. Sensitive fern (*Onoclea sensibilis*), Ostrich fern (*Matteuccia struthiopteris*), and several grass species were also seen here. A beaver lodge entrance was observed in this bank where it rises slightly above the water line. Invasive exotic plants, small size, and impacts from damming make this community a low quality (D-ranked) example of its type.

5) Alder Swamp

A small Alder Swamp is found near the mouth of Mill Brook. It is dominated by speckled alder (*Alnus rugosa*) and willows (*Salix* species). The vegetation of this community needs more investigation. The community was likely established after damming activities ceased on Mill Brook, and is of low quality relative to other

examples around the state. Alder Swamps are used as breeding and foraging habitat by a number of bird species, including alder flycatcher, swamp sparrow, veery, gray catbird, common yellowthroat, yellow warbler, and American woodcock.



Shoreline of Connecticut River



Shoreline of Connecticut River

Map 7: Natural Communities Map

Fine Filter Assessment

Rare, Threatened, and Endangered Species

No rare, threatened, and endangered species were found during inventories of Lyman Falls State Park. The most likely place to find rare plants would be the Rivershore Grassland (see above), which was not exhaustively surveyed during the growing season. The federally endangered dwarf wedgemussel (*Alasmidonta heterodon*) has been found about 35 Km downstream, in the Connecticut River at Guildhall. This rare animal could occur in the waters of Lyman Falls State Park, and conducting a biological survey for this species should precede any activity that would impact the river.

Wildlife

Although not previously identified on the Vermont Fish and Wildlife Department's Deer Wintering Area Maps, nearly all of Lyman Falls State Park is critical deer wintering habitat. Historic and current use by wintering deer is evident in the old bark scarring on sapling firs and hardwoods, high degree of browsing on hardwood saplings, conifer foliage, and shrub species, and abundant tracks, trails, beds, and pellet groups. It appears from the existing trail system that the winter shelter at Lyman Falls is an extension of a wintering area located west of VT Route 102.

Functional deer winter shelter is currently provided by the white pine stand, and future shelter is improving as spruce-fir saplings and poles mature underneath overtopping intolerant hardwoods. Browse supplies in the form of raspberries, blackberries, witch hobble, other shrubs, and hardwood seedlings are present in moderate abundance, likely as a result of the last thinning of the white pine stand. These food resources are severely over browsed, however, and many are now only dead stems.

Wildlife highlights of the parcel in addition to wintering deer are species typically associated with a larger riverine habitat. Fresh beaver cuttings are present, and otter, mink and raccoon likely live on or at least use the property intermittently. Migrating waterfowl can no doubt be observed from the shoreline and possibly some nesting may occur. Other bird species likely seen along the shoreline are spotted and solitary sandpipers, great blue herons, gulls, and kingfishers.

Fisheries

The breached Lyman Falls dam creates good frothiness with large, well-oxygenated pools and eddies below. This is pocket water that provides outstanding fish habitat. The undeveloped shoreline buffers what many consider to be some of the best trout water on the Connecticut River, with sustained moderate gradient and consistent rapids and riffles.

The Connecticut River Corridor Management Plan calls attention to the quality of the fishery here (CRCMP, Headwaters Region, Volume II, pg. 21: "Fish and game/wildlife agencies should recognize the importance of rapids and areas such as Lyman Falls in returning oxygen to river water.").

The New Hampshire Department of Fish and Game (NHFG) manages the Connecticut River fishery. Because this section of the Connecticut River is such good habitat, this section is popular among anglers and is known throughout New England for its good fishing. Because of this popularity, New Hampshire Fish and Game Department has designated this as a special catch-and-release only section (See Angling Section in Recreation Resources for more specific regulations for angling). New Hampshire has also begun efforts to manage the remaining populations of wild brook trout.

The area surrounding this special section is stocked with brook trout, rainbows, and browns. NHFG primarily manages this section of the river as a put-and-take fishery, meaning the stocked fish are of a size that is large enough to catch. According to Dianne Emerson of NHFG, angler pressure is the primary reason for this. If NHFG were to stock smaller fish anglers may not be satisfied with their catch. Because NHFG has identified a need to further understand the fishery before any special regulations are incorporated, NHFG is in the process of reviewing their management of the North Country rivers.

Other Quality of Habitat Concerns

Non-native Species

Several non-native species were observed during inventory. These included dandelion (*Taraxacum officinale*), a ubiquitous weed that usually does not reach troublesome densities in natural situations, and common nightshade (*Solanum dulcamara*), which is infesting the River Mud Shore natural community. Nightshade is probably established as a result of past human land use. If it appears to be spreading to other wetland natural communities here, park managers should consider controlling it.

Recreational Resources

Lyman Falls State Park is located in an area remote from major population centers. Because of this remoteness and the existence of undeveloped, forested shoreline along a high-gradient reach of the Connecticut River, the tradition of and future potential for high quality angling and paddling experiences make the Lyman Falls site a destination location for anglers and paddlers from areas throughout Vermont and New England. The property has several areas that have been used for primitive canoe camping.

The lands adjacent to Lyman Falls became popular for recreational use even when the property was actively used for hydropower generation. Now that the dam is gone, the reach is

unique and significant not only in Vermont, but on the Connecticut River as a whole. It includes one of the longest sections of forested shoreline (both sides of the river) in this highly scenic reach of the Connecticut River. The Lyman Falls area has a very positive impact on river-oriented tourism and recreation that provides an important boost to the local economy.

The North Country stretch of the Connecticut River between the Murphy Dam at the foot of Lake Francis in New Hampshire and the N. Stratford/Bloomfield Bridge is a distance of 35 river miles that is canoe, kayak, and wader water (See Map 8: Boating Map of the Connecticut River in the North Country). The seven-mile river stretch from the mouth of Wheeler Stream to the c. 1885 steel truss bridge between Stratford and Maidstone was recognized by an act of the New Hampshire legislature in 1992 for its exceptional natural beauty, and was designated as “natural.” This is the only segment of the Connecticut River officially designated as such. No motors may be used on this section. Looking broader at the Connecticut River, the 70-mile segment of uninterrupted boatable water between Canaan Dam and Gilman Dam is longer than any other undammed river segment in Vermont. A growing number of people are paddling this stretch and multiple-day, overnight trips are becoming more and more popular.

It was the wish of the Washburn Family to keep Lyman Falls State Park much as they managed it. The family conditioned the sale on the concept that the park would remain forested and undeveloped so that the public could enjoy primitive canoe camping and fishing.

Map 8: Boating Map of the Connecticut River in the North Country (from the Connecticut River Joint Commissions)

Boating and Primitive Canoe Camping

The Lyman Falls State Park property is the first formally established primitive paddlers' campsite in this section of the Connecticut River. The concept of the **Connecticut River Water Trail**, a series of established primitive campsites that enable longer journeys with overnight stays on the river, began in 1992 with the efforts of the Upper Valley Land Trust in the stretch of river between South Ryegate and Brattleboro, Vermont. In this area there are now over 20 established sites on the New Hampshire and Vermont sides of the river.

There are numerous sites along the Upper Connecticut from Canaan to Gilman at which certain landowners allow primitive canoe camping by permission. There are very few sites that are formally and permanently dedicated to primitive canoe camping. Until the establishment of Lyman Falls State Park, there were no formal sites along the upper Connecticut River between Canaan and Gilman. Project partners hope to establish more sites through similar purchases and agreements with private landowners.

There is a need to increase formal public access areas for boat car-top and/or launching ramps along the Vermont shore of the Connecticut River from Canaan to Gilman. Currently, there are three car-top launch accesses available at the bridges in Canaan, Colebrook/Lemington, and Columbia, and at river confluences in Bloomfield, Maidstone, Guildhall, Lancaster, and Lunenburg (for more information on boating on the Connecticut River see publications by the Connecticut Joint River Commissions).

It is not the purpose of the Lyman Falls State Park to provide all types of access to or from the river. The Vermont Agency of Natural Resources should work with the Connecticut River Joint Commissions and conservation organizations, such as the Vermont River Conservancy, to identify and prioritize sites to acquire that might provide appropriate public access areas (for a variety of uses) along this reach of the river. Acquisition could utilize various conservation tools, such as fee acquisition, or the securing of public access easements.

For years, canoeists used the Lyman Falls site for primitive canoe camping due to its location and the existence of several excellent canoe campsites near a very good landing area on the property (See Map 3: Base Map for Lyman Falls State Park). Boaters on long-distance paddling trips usually portage around the breached dam at Lyman Falls on the New Hampshire side of the river where it is a short carry along the shoreline. Most trips on this section of the river terminate at the confluence of the Nulhegan River approximately 3 miles downriver near the North Stratford – Bloomfield Bridge.



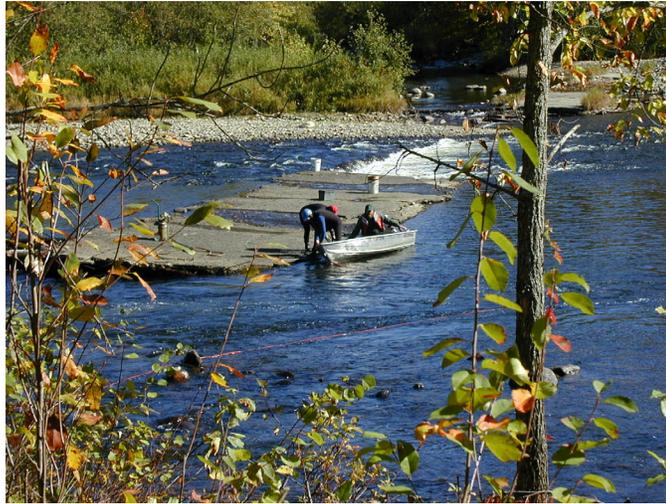
Campsite in the Pines



Campsite in the Meadow

Boating Safety Considerations

The drop at the breached Lyman Falls dam can be hazardous to novice boaters at some water levels. Fortunately, in the fall of 2001, the Connecticut River Joint Commissions hired a contractor to remove the exposed hazardous rebar and timber crib spikes that was sticking out of the old dam concrete and dam cribbing (the river water level was very low this year due to a drought in the region). Even with this hazard removed, safety issues remain. Paddling and fishing, particularly in high water, cold-water periods can have inherent risks, and accidents could occur on the river. There is a need for emergency information at the site, in case there is an accident (see Management Recommendations).



*Removal of spikes in breached dam – boating safety hazard
(Summer 2001)*

Other Recreational Uses and Facilities

Other activities also occur at Lyman Falls State Park, and include swimming, walking, picnicking, and hunting. On hot summer days, some people frequent the river to cool off in the deep pool below the falls. Others may picnic near the river, or just walk on the existing roads and trails. Hunting has also occurred on the parcel over the years.

There are other existing recreational facilities at Lyman Falls State Park, and include: a picnic shelter and nearby pit toilet, and a storage shed.



Picnic Shelter



Pit Toilet near Picnic Shelter



Storage Shed

Nearby Recreational Opportunities

There are two developed campsite areas in close proximity to Lyman Falls State Park: 1) Maidstone State Park, Maidstone, Vermont, located approximately 12 miles to the south adjacent to Maidstone Lake; and 2) Brighton State Park, Island Pond, located approximately 18 miles to the west just off of VT Route 105 on Spectacle Pond. These two state parks provide campers with more developed facilities and associated amenities.

North of the park is Mt. Monadnock, which rises 3,140 feet above the valley on the Vermont side of the river. A 2.4 mile hiking trail leads to the summit from VT Route 102 just above the Colebrook/Lemington Bridge. The summit provides excellent views of the valley and the Presidential Range in the White Mountains of New Hampshire to the southwest.

The West Mountain Wildlife Management Area, the Wenlock Wildlife Management Area, and the Silvo Conte National Wildlife Refuge are all located within a ½ hour radius from the park in Vermont.

Angling

The breached Lyman Falls dam creates excellent habitat for fish, and this stretch of the Connecticut River is considered by many to be some of the best trout water on the Connecticut River. It has a moderate gradient with consistent rapids and riffles, and is wadeable for fishing. It is popular among anglers and is known throughout New England for its good fishing. Because of this popularity, New Hampshire Fish and Game Department has designated this as a special catch-and-release only section between Lyman Falls Dam and the Bloomfield – North Stratford bridge (Please refer to pages 51-53 of the *2002 New Hampshire Freshwater Fishing Digest*):

From a point 1,600 feet upstream from the bridge in North Stratford upstream to a point 250 feet below the Lyman Falls Dam in North Stratford [typo – should be Columbia], and marked by a sign, the following restrictions shall apply: Fishing shall be permitted by artificial lures and flies only. All lures and flies shall have barbless hooks or shall have all barbs pinched so they will not interfere with removal of the hook from the fish. All fish are to be immediately released unharmed (2002 New Hampshire Freshwater Fishing Digest page 53).

New Hampshire Fish and Game Department is also has begun an initiative for managing for wild brook trout. At this point, the Lyman Falls segment is open to fishing all year, although this varies by species. For example, it is only lawful to fish for trout from January 1 through October 15. After that you may fish other species present in the river, but not actively fish for trout. Many people miss this important rule.

It is also important to note that New Hampshire's fishing regulations, not Vermont's, apply to fishing on the Connecticut River in this area (See Section F8.0, Table 4, pgs. 84-88 of the *2003 Vermont Digest of Hunting, Fishing & Trapping Laws*). Vermont residents may fish in the river with their Vermont Resident Fishing License. Those who are neither Vermont nor New Hampshire residents must have a New Hampshire non-resident license to fish in the Connecticut River (i.e., a Vermont non-resident license is not valid on the Connecticut River).

Many anglers and Trout Unlimited Chapters throughout New England responded to the request for contributions needed to purchase the Lyman Falls property and donated generously to the project.

Recreational Access

Recreational access to Lyman Falls State Park is meant to be limited. The primitive canoe campsites are primarily for boaters coming from the river. Access to the river for fishing, swimming, and other day use activities is meant to be by foot only, along designated trails. There will be two small parking areas for foot access to the property: one near the gate and service road; and the other at the north end of the property.

Relationship to Town, Regional, and other pertinent Planning Efforts

The Long-Range Management Plan for the Lyman Falls State Park should be consistent with Bloomfield, Northeast Kingdom regional, and other pertinent planning efforts.

Town of Bloomfield

The Selectboard for the Town of Bloomfield supported the purchase of the Lyman Falls property and the subsequent property transfer to the state. The Town of Bloomfield, however, does not have a Town Plan or zoning by-laws. Therefore there is little written guidance for this development of the Lyman Falls Long-Range Management Plan. The Plan has been developed, however, with input from the Bloomfield Selectboard and interested citizenry.

Flood Plain – Even though the Town of Bloomfield has no local zoning regulations, it currently has Flood Plain Zoning and is a member of the National Flood Insurance Program whereby flood insurance is available. The limits of the flood hazard areas were determined by the U.S. Department of Housing and Urban Development that has prepared a flood hazard map of the area that includes Lyman Falls State Park. The Flood Insurance Rate Map (See Appendix E: Flood Zone Map and Definitions) was drawn by the Federal Emergency Management Agency, and it suggests that a small section of the eastern part of Lyman Falls State Park property may be within a recognized flood hazard area. Another area of apparent flood zone is in the southern site section along both sides of Mill Brook. In this area all of the land between VT Route 102 and the Connecticut River is shown on the map as being in a Zone A Flood Hazard Area. It is not possible to make a conclusive determination of the flood zone status of the property without additional information.

Regional Plan for the Northeast Kingdom, Northeastern Vermont Development Association (Adopted September 28, 2000)

The Lyman Falls Long Range Management Plan is consistent with the NVDA Regional Plan for the Northeast Kingdom.

- **Water Quality.** The NVDA Plan registers concern that as more seasonal camps are converted into year-round use along the water's edge, that water quality could be negatively affected. Even though there will be minimal development at Lyman Falls State Park, the impact of recreational use on water quality should be closely monitored.

- **Residential Development.** The NVDA Plan recommends concentrating residential development close to growth center and away from natural areas. Lyman Falls State Park protects important natural shorefront land that might otherwise have been developed.
- **Natural Areas/Wetlands/ Fish and Wildlife Habitat.** In keeping with the NVDA Plan, the Lyman Falls State Park LRMP gives special consideration to natural areas, wetlands, and fish and wildlife habitat.

Connecticut River Corridor Management Plan, Connecticut River Joint Commissions

New Hampshire's Connecticut River Valley Resource Commission, created by the legislature in 1987, and Vermont's Connecticut River Watershed Advisory Commission, similarly created in 1988, was directed to cooperate with each other to preserve and protect the resources of the Connecticut River Valley, and to guide its growth and development. They have met together as the Joint Commissions since 1989. Both Commissions are advisory and have no regulatory powers, preferring instead to advocate and ensure public involvement in decisions, which affect their river and their valley.

The thirty volunteer Commissioners, fifteen appointed by each state, are business people, landowners, conservationists, and citizens who live and work in the Valley and are committed to its future. The executive director, communications director, and administrative assistant provide staff support.

To ensure local leadership in implementing the New Hampshire Rivers Management and Protection Act on the Connecticut River, the CRJC established five local river subcommittees, with the specific approval of the New Hampshire legislature. The Vermont legislature also directed its 27 riverfront communities to participate in the work of these subcommittees. The CRJC asked the selectmen of all riverfront towns for nominations, and appointed up to two members and several alternates from each of the 53 towns. Some 150 citizens have thus participated in the subcommittees' work.

The five local groups are advisory, and have met monthly since January of 1993 to develop the Connecticut River Corridor Management Plan. The subcommittees are also empowered by RSA 483 to review and advise state agencies on permits that can affect the river on the New Hampshire side, and by agreement with the Vermont Agency of Natural Resources, on the Vermont side as well. Their leadership, planning, and expertise are local in nature, but their ideas now reach far beyond town boundaries as they advise the CRJC and state and federal agencies on river issues (from www.crjc.org).

Lyman Falls State Park lies within the area of the Headwaters Subcommittee. The Headwaters segment runs 80 miles from the river's source at Fourth Connecticut Lake at the Canadian border in Pittsburg, New Hampshire, south to Northumberland and Maidstone,

Vermont. The Subcommittee region includes the New Hampshire towns of Pittsburg, Clarksville, Stewartstown, Colebrook, Columbia, Stratford, and Northumberland (Groveton), and the Vermont towns of Canaan (Beecher Falls), Lemington, Bloomfield, Brunswick, and Maidstone.

The Lyman Falls State Park Long-Range Management Plan helps to implement the following applicable recommendations from the *Connecticut River Corridor Management Plan, Headwaters Region* (Volume II, 1997):

- ❑ Recognize the importance of rapids and areas such as Lyman Falls in returning oxygen to river water (p. 21).
- ❑ Encourage maintenance of current undammed sections of the river, such as at the breached Wyoming Dam site (p. 21).
- ❑ Carefully consider the potential impacts upon fisheries from increased access and publicity. Provide better publicity of public access sites, and provide limited signage at river access points, which is aesthetically in keeping with the rural nature of the region (p. 21, 33).
- ❑ Encourage planting or maintenance of streamside buffers to minimize runoff, filter sediment nutrients, and other pollution that might otherwise enter the stream, and for the shade they would provide to keep water cool and thus better oxygenated for trout (p. 21).
- ❑ Develop management plans and conduct logging with the help of professional foresters (p. 14). Consider presence of deeryards and den trees when planning and conducting logging operations (p. 27).
- ❑ Educate...visitors about how best to keep the Connecticut River the high quality resource it still is.”
- ❑ Ensure that the fishery is “enjoyed by both residents and visitors.”
- ❑ Encourage “low impact recreational use and enjoyment of the river.”
- ❑ Keep recreational amenities “compatible with rural character of area.”

Potential problems identified by the Headwaters Subcommittee include:

- ❑ Deterioration of the extraordinary scenic quality of the river corridor.
- ❑ Second-home development on shoreline, which is a limited resource.

Connecticut River Scenic Byway

In 1999, the States of Vermont and New Hampshire officially designated a bi-state route for the new Connecticut River Scenic Byway along New England’s largest river after years of planning. The goals of the Byway are to: 1) balance the promotion, preservation, enjoyment, and stewardship of the Connecticut River Valley; and 2) link people, organizations, communities, and agencies in promotion of the Connecticut River Scenic Byway as a tourism asset.

There is a Scenic Byways Council comprised of a Steering Committee, whose members are elected from the following caucus groups: municipalities; business organizations including chambers of commerce; regional planning agencies; state agencies; natural resource interests; recreation interests; cultural resource interests; agricultural interests; Connecticut River Joint Commissions; Vermont Agency of Transportation; New Hampshire Office of State Planning; and members at large.

The Lyman Falls State Park Long-Range Management Plan helps to implement the following activities that the Steering Committee members consider under their Stewardship duties: 1) foster protection of scenic and cultural resources; and 2) encourage and support land use planning that sustains the intrinsic qualities of the Connecticut River Byway.

New Hampshire Fish and Game Fisheries Management Plan

The Lyman Falls State Park LRMP is consistent with the *NHFG Upper Connecticut River Strategic Fisheries Management Plan*, draft 6/1/99 (see Appendix F for complete plan). The purpose of this plan is to be used as a guide for managing the fishery resources in the upper Connecticut Watershed in a legitimate and consistent manner to:

- ❑ Conserve, manage, and protect these resources and their habitats;
- ❑ Inform and educate the public about these resources; and
- ❑ Provide the public with opportunities to use and appreciate these resources.

In particular, Lyman Falls fulfills the goals and objectives of:

- ❑ Goal 2: The upper Connecticut River watershed has abundant coldwater fish populations that support a diverse recreational fishery.
 - Objective 2.1: Protect, conserve, and enhance wild populations of coldwater fish.
- ❑ Goal 3: Human activities and land uses are compatible with desired population and recreational goals for fish species in the upper Connecticut River Watershed.

Section III

Public Input Summary

Public involvement, or citizen participation, is a broad term for a variety of methods through which the citizens of Vermont have input into public land management decisions. The Department of Forests, Parks and Recreation is committed to seeking that input. Expressions of citizen interest come in many forms. These include letters, personal comments, telephone calls, emails, and more formal methods, such as public meetings.

The final draft of the Lyman Falls State Park Long-Range Management Plan was developed with public input and comment, and was presented to the public at a public presentation and listening session held at the Bloomfield Town Office on March 20, 2003. During this session, resource findings were explained and public comments on the draft plan were heard and recorded.

Prior to this meeting, copies of the final draft plan were sent to the Bloomfield Selectboard, the Northeast Vermont Development Association, and the Headwaters Subcommittee of the Connecticut River Joint Commissions, and the Connecticut River Joint Commissions. Copies were available for public review at the Bloomfield Town Offices approximately three weeks in advance of the meeting.

The meeting was advertised in local papers and at the Bloomfield Town Offices. In addition, a meeting notice was mailed to approximately 200 individuals and organizations notifying them of the public meeting. In addition, the draft plan was placed on the Department's website: <http://www.state.vt.us/anr/fpr/lands/currentplans.htm>

Written comments were received up to 30 days after the public forum date (April 21, 2003). Responses to public comments and questions are explained in the Responses To Public Comments Summary that is on the website, mailed out upon request, and as part of the final plan (Appendix G).

Lyman Falls State Park Public Involvement Process

Public involvement for the Lyman Falls Long-Range Management Plan process consisted of the following meetings, which were mainly listening sessions:

1. Connecticut River Joint Commissions Headwaters Subcommittee Meeting, September 18, 2001
2. Bloomfield Selectboard meeting, April 15, 2002

A public meeting to review the final draft management plan was also held on:

3. Public Meeting Forum, Bloomfield Town Offices, March 20, 2003.

Summary of Public Comments

1. Connecticut River Joint Commissions Headwaters Subcommittee Meeting, September 18, 2001

FPR staff and the Vermont Rivers Conservancy staff were invited to attend a periodic meeting of the CT River Joint Commissions Headwaters Subcommittee. Staff (Susan Bulmer and Jeff Meyers) answered questions and listened to comments from members of the Headwaters Subcommittee regarding the future management of Lyman Falls State Park. The discussion included the following topics (See Appendix H for a more complete summary of the meeting):

- ❑ timetable for management decisions;
- ❑ public process envisioned;
- ❑ need to hear from the Bloomfield Selectboard;
- ❑ issues of safety near the old powerhouse location and at the breached dam;
- ❑ how to deal with emergencies;
- ❑ parking location, access control, and facility development;
- ❑ park operations and maintenance;
- ❑ rebar in the river at the breached dam site causing a safety hazard; and
- ❑ naming of the park

2. Bloomfield Selectboard meeting, April 15, 2002

FPR staff and the Vermont Rivers Conservancy staff were invited to attend a periodic meeting of the Bloomfield Selectboard. Staff (Susan Bulmer and Jeff Meyers) answered questions and listened to comments from the Bloomfield Selectboard on the future management of Lyman Falls State Park. The Selectboard had questions or concerns about the following:

- ❑ access gate – who will have access through gate;
- ❑ location and size of parking area;
- ❑ safety issues regarding the old penstock and river emergencies;

- ❑ litter and trash management;
- ❑ bulletin board with rules, regulations, and safety protocol;
- ❑ registration box for campers and anglers;
- ❑ bathroom facilities for campers – privy locations;
- ❑ length of stay regulations for camping – do not want long-term campers, just transient campers that access from the water;
- ❑ emergency services – access through gate and who is responsible;
- ❑ snowmobile use on park property – mainly local and occasional; not a VAST trail;
- ❑ the dump near the campsite – safety and cleanup of area;
- ❑ mowing and tree management;
- ❑ deer wintering and deer habitat;

3. *Public Forum on the Draft Management Plan, March 20, 2003 at Bloomfield Old Town Hall.*

A brief summary of the comments heard at this public forum on the draft management plan included:

- ❑ parking location, size, visibility, access control, trails from parking area, and general facility development;
- ❑ number of campsites, fires, and toilet facilities, and how managed;
- ❑ park operations and maintenance;
- ❑ issues of safety near the old powerhouse location and at the breached dam;
- ❑ how to deal with emergencies, keys to gate, notifications;
- ❑ naming of the park; and
- ❑ general comments regarding missing information, and fact and grammatical errors.

(See Appendices I for entire Public Meeting Notes and Appendix G for Responses to Public Comments Summary)

All of this public input has been considered in the writing of the Lyman Falls State Park Long-Range Management Plan and will continue to be considered as management of the Park moves forward. There will be future opportunities for the public to stay involved. Public comments will be needed for any amendments to the LRMP. Also, each year the District Stewardship Team (St. Johnsbury District) completes an Annual Stewardship Plan (see page 60 for additional information) for all state-owned properties where management activities are planned in the next calendar year. This plan is available for review by July 1 of each year. Typically, the Selectboard for the town(s) where the state parcel is located will be notified of any management activities for that specific parcel. Future opportunities for public input will be announced on the Department's website and through local media.

Section IV

Management Strategies and Actions

Vision Statement

Lyman Falls State Park will remain in its natural and undeveloped condition, with low-impact, compatible recreational and forest uses. Management will include those activities necessary to maintain the property's primitive character, protect the environment and critical resources, demonstrate sustainable forest and recreation management, control excessive use by visitors, and ensure high-quality outdoor experiences for those visiting the park.

Management Goals of Lyman Falls State Park

Within the broad bounds of the overall vision and management theme stated above, the following goals and objectives provide more specific direction for the management of Lyman Falls State Park.

1. To protect biodiversity.
 - Protect natural communities and species that are rare or exemplary (unknown) should any be discovered.
 - Maintain and enhance the natural communities of Lyman Falls State Park.
2. To maintain or enhance critical wildlife habitats and aquatic ecosystems.
 - Manage to provide high quality habitat for target wildlife species.
 - Protect the shorelands of the Connecticut River.
3. To provide opportunities for the continuation of high quality recreation activities that have taken place historically (e.g., fishing, primitive canoe camping, hunting) and for other compatible recreational activities.
 - Provide and manage for primitive canoe camping experiences.
 - Continue to provide foot access for fishing on the Connecticut River.
 - Continue to allow hunting on the property.
4. To protect the cultural and historic resources on the property.
 - Develop public safety measures in and around the old hydropower site.

- Develop public interpretative information relative to the logging history of the area, and specifically Reuben Washburn and the conservation legacy of his successors, Malcolm Washburn and Dallas Washburn Chase.

Land Use Categories (Classification)

This section of the Lyman Falls State Park Long-Range Management Plan identifies areas in the Park where specific uses and activities are allowed. It also describes how the Department will manage these uses. Use area classifications are defined for all state land in accordance with overarching management standards that further the missions of the Vermont Agency of Natural Resources (ANR) and its three departments.

As part of the planning process, the Department has evaluated the lands, resources, and facilities of Lyman Falls State Park and assigned them to the appropriate land use categories (classifications). Four categories (Highly Sensitive Areas, Unique or Special Use Areas, General Use Areas, and Intensive Use Areas) were developed for lands managed by the ANR. The definitions for each category are found below. In each area category, certain activities or uses are emphasized. Other activities may be allowed within these areas if compatible with the emphasized activity (See Map 9: Land Use Classification Map).

Map 9: Land Use Classification Map

Highly Sensitive Areas

Definition - *An area with uncommon or outstanding biological, ecological, geological, scenic, cultural, or historic significance where those values are preserved and protected. Human activities and uses should be minimal and regulated to protect the exceptional features on the landscape.*

1.1 Rare or Exemplary Natural Community - Sugar Maple-Ostrich Fern Riverine Floodplain Forest

The rare Sugar Maple-Ostrich Fern Riverine Floodplain Forest is approximately four acres in size and is located along the shoreline of the Connecticut River approximately in the center of the property extending southerly towards the powerhouse area. Principal natural disturbance in this community is by seasonal flooding of the river, which keeps soils saturated for part of the growing season, and deposits new organic and mineral soil materials. This example is at a mid-successional stage, and has a quality rank of C.

All activities within this land use category must achieve the highest level of protection for this rare natural community. With the exception of tails and angler access for fishing, human activities will be minimized in order to protect this natural community.

1.7 Exceptional Water Resources

The riparian area along the Connecticut River has uncommon biological, ecological, and scenic significance. All land within a 150-foot strip from the Connecticut River shoreline is designated as a highly sensitive area at Lyman Falls State Park (accounts for 4.8 acres or 9.4% of the Park land). In addition to this buffer strip, the land between VT Route 102 and Mill Brook in the far southern section of the park property is also included in this land use category.

All activities within this land use category must achieve the highest level of protection for these important waters. With the exception of the trails, canoe landing, primitive camping sites, and angler access areas, human activities should be minimal within this area to protect this exceptional fish habitat and riparian vegetation. The entire southern portion of this category has been designated as 1.7 and will be maintained as a natural riparian zone.

The reach of river along Lyman Falls State Park is designated as Special Regulation Water by the New Hampshire Department of Fish and Game, and is signed in many locations on the New Hampshire side informing the public about special use regulations for anglers. This uniquely managed water (catch-and-release and barbless hooks only) begins 250 feet below the breached Lyman Falls Dam and continues almost 3 miles to 1600 feet above the North

Stratford Bridge. In addition, the Lyman Falls stretch of water also coincides with the NH Legislature designation of a “natural” stretch where no motors are allowed.

Management Objectives

1. Protect examples of exemplary natural communities (floodplain forest).
2. Protect shoreland areas along the Connecticut River and Mill Brook to maintain their natural condition.
3. Continue to provide dispersed recreational opportunities where appropriate and compatible with other goals.

Implementation Actions

(Planned activities; this may not be an all-inclusive list; other unforeseen actions may be necessary to carry out the goals and objectives of this plan.

- Maintain a vegetated 150-foot buffer along the Connecticut River and Mill Brook.
- Place signs at parking area, river access points, and along trail to the shoreline to make anglers aware of New Hampshire’s special management status for these waters.
- Designate several access points for waders and take action to discourage “social trail threads” and networks along the shoreline.
- Monitor and attempt to control the spread of invasive exotic plants along river shore.
- Maintain canoe landing area and launching area by providing a trail to and from the water and signage indicating location for each.

Unique or Special Use Areas

Definition - *An area with unique or special resources where management objectives consider protection and/or enhancement of those resources. These areas do not need to have the same level of protection given to highly sensitive areas and, in some cases, may be intensively managed for specific purposes. There may be some evidence of timber harvesting, wildlife management, roads, and recreational activities; however, those activities should be compatible with and will not detract from the primary objective of protection and/or enhancement of the unique or special resources.*

Most of the acreage at Lyman Falls State Park falls into this category, and unless otherwise designated as a subcategory below, should be considered in the Special Use Management Zone with special management considerations. Areas with special management considerations follow below. The majority of the 41 acres within Lyman Falls State Park is forested. Portions of the property may be commercially and noncommercially harvested on occasion to meet wildlife management and public safety objectives. These harvests are not intended to produce a regular flow of forest products.

2.1 Biological, Cultural, and Geological Resources

2.1.1 *Historic Powerstation and Penstock Area* - Structures that remain from the old Lyman Falls dam and power plant present potential safety hazards to the public. The penstock and powerhouse area is particularly hazardous and has been identified as such by the Bloomfield Selectboard (accounts for 0.5 acre or 0.98% of the Park land). Signage and trail re-routing should be made to route visitors away from the penstock area.

2.2 Critical Plant and Wildlife Habitat

2.2.1 *Deer Wintering Area* - Much of Lyman Falls State Park is deer wintering habitat accounting for 18.6 acres or 36.6% of the Park land. The winter deer sign is particularly abundant beneath pines, hemlocks, and balsam fir. Stands 1, 2 and 3 will receive some type of treatment over time to encourage browse for deer (see Stand Map in Appendix I).

Stand 1: 10.5 acres of white pine interspersed with spruce, fir and hemlock. This stand should not be treated over the next 10 years. At some point in the future small openings may need to occur in ensure that softwood cover is being replicated with regeneration. At the same time some pre-commercial work may be necessary in the form of interplantings, or the removal of competing hardwood. Where safety issues are not a concern we would advocate the retention of standing dead snags and den trees.

Stand 2: 5 acres of spruce, fir and hemlock saplings and small poles overtopped by 8-10 inch diameter aspen, red maple and cherry. This hardwood overstory should be removed as soon as possible to hasten the development of the existing softwood into functional winter cover. Openings created by this treatment will also provide much needed browse. It is anticipated that this operation would be done in conjunction with the first treatment in stand 3 and be a mechanical operation to minimize residual stand damage. It is not anticipated that any other treatment would need to occur in this stand for at least 20 years.

Stand 3: 3.5 acres of aspen and red maple saplings. This stand is surrounded by varying levels of softwood cover, most of which is lacking in available winter browse. It is proposed that approximately 1 acre of browse be created every 5 years by creating 4-8 openings 1/8 to 1/4 acre in size dispersed throughout the stand. The first treatment should be done in conjunction with the treatment in stand 2. Subsequent treatments may not be commercial operations but at the very least some firewood could be made available for the primitive camp sites.

Trails and Roads – At the time of this writing, two trails parallel the river and two trails connect with VT Route 102 at the southern parking area. These trails will be maintained for summer foot access into the property and for emergency vehicle access. Snowmobile use of these trails will be discouraged as this use would conflict with the deer wintering area.

2.9 Special Recreation Area (accounts for 22.9 acres or 45.1% of the Park land)

2.9.1 *Parking Areas* – At the time of this writing, two very small parking areas (one-two cars) exists next to the residential in-holding on VT Route 102 in the northern section of the property and near the gate in the southern end of the property. The southern parking area is gated and leads to the old road that passes the old penstock and powerhouse area, which is a potential safety hazard.

Location of a parking area has been somewhat controversial. The Bloomfield Selectboard suggested a new parking area (maximum of four to six vehicles) be established along VT Route 102 just south of the small, undeveloped in-holding in the middle of the property (approximately 4.4 acres). Adjacent landowners were not happy with this location, and other areas were suggested. On June 8, 2003, Department staff, adjacent landowners, and a representative from the Selectboard met at the park to determine the location for the parking area. The group collectively decided on maintaining parking at both of its current locations.

Northern parking area – the existing parking area will be maintained for 2 – 3 vehicles. The existing foot trail will be maintained for access to Lyman falls area. A portion of the trail will be rerouted away from the property line.

Southern parking area – the existing gate and roadway will be maintained as is for management and emergency access to the park. Immediately adjacent to this roadway, a small 2 – 3 vehicle parking area will be developed. Existing trails will be maintained for foot access to the Lyman Falls area. Foot traffic will be channeled away from the penstock and powerhouse area and towards the river.

The two parking areas are for day use only, not for overnight campers or for parking vehicles for multi-day boating trips on the Connecticut River.

2.9.2 *Primitive Canoe Camping and Boat Launching Area* – There are three camping areas on the property, all in the vicinity of the canoe landing area

(approximately 18.6 acres). These primitive areas are to be used by people traveling the river by boat, and are not for car-supported campers who park in the parking areas on VT Route 102. Two camping areas are in the meadows above the canoe landing area and one camping area is in the pine grove downstream of the canoe landing area. These camping areas contain a total of approximately 12 locations of unimproved tent sites (four tent sites at each area). Facilities at the primitive camping areas will be limited: a fire ring; possibility of a few picnic tables, and at least one privy. If use increases in the future, additional privies and further site hardening may be necessary to protect the vegetation and other resources.

There is a designated canoe landing and take-out area in the pool just below the breached Lyman Falls dam. This area should remain the only take-out area on the property. Depending upon use, site hardening may be needed in the future if banks become eroded.

Interior Trails – At the time of this writing, two trails parallel the river and two trails connect with VT Route 102 at the southern parking area and continue to the camping areas and boat launching area. There is also a spur trail off the small parking area located in the northern section of the property.

The trails in and around the camping areas and boat launching area should be maintained and monitored so that “social” trails are kept to a minimum in order to protect the vegetation and shoreland areas.

Emergency Access Area – Because of the potential for river emergencies along the Lyman Falls reach, the existing roadway should provide access for emergency vehicles. A key to the gate to allow emergency vehicle access to the canoe landing area below the falls will be supplied to the appropriate emergency service provider.

Management Objectives

1. Protect examples of unique or special natural communities.
2. Appropriately manage critical plant and wildlife habitat to promote high quality habitat.
3. Continue to provide dispersed recreational opportunities where appropriate and compatible with other goals. Develop accessible facilities where appropriate.
4. Provide for healthy and safe environs for visitors.
5. Manage and monitor use of area to maintain the high quality recreational experience.
6. Protect important cultural and historic resources of the property and promote visitor knowledge of the history of the property.

Implementation Actions

(Planned activities; this may not be an all-inclusive list; other unforeseen actions may be necessary to carry out the goals and objectives of this plan.

General

- ❑ Implement stand treatment prescription and schedule.
- ❑ Remove trash and clean up any dumpsites in the woods.
- ❑ Monitor use and the need for the picnic shelter. If not warranted, remove picnic shelter and allow area to revert to natural condition.
- ❑ Monitor the shoreline and old dam site for newly exposed spikes and rebar, and remove it when they becomes a hazard.

Parking Area

- ❑ Establish two small parking areas along VT Route 102 for maximum of 2 –3 vehicles each; one located near existing gate and one located in northern section of property currently used as a parking area.
- ❑ Place a kiosk/bulletin board at beginning of entrance trail. Signs should include a “Welcome to Lyman Falls State Park” sign, a “no motorized vehicle” sign, a “carry-in, carry-out sign,” sign with rules/hours of operation, and angling regulations sign, etc.
- ❑ Place boulders where appropriate to discourage ATV use.

Safety Zone

- ❑ Close dangerous gaps on old penstock and powerhouse facilities.
- ❑ Place appropriate signage to warn public away from old penstock and powerhouse facilities.

Trails and Roads

- ❑ Maintain access trails from the two small parking areas through the property to canoe landing/camping area and trails to key angler access points along river. Reroute a portion of the spur trail from northern parking area away from property line to main access trail
- ❑ Maintain existing interior road system as a management and emergency vehicle access. Provide keys to appropriate emergency response organizations.
- ❑ Re-route trails and place signs to discourage activity around the old penstock and powerhouse area.
- ❑ Discourage winter use of the trails by snowmobiles.
- ❑ Replace existing (previous owner’s) gate with new gate, if appropriate.

Canoe Landing Area

- ❑ Place small target sign along river, visible by paddlers, to designate the canoe landing area.

- ❑ Place bulletin board near landing/camping area. Signs should include a “Welcome to Lyman Falls State Park” sign, a “no motorized vehicle” sign, a “carry-in, carry-out sign,” sign with rules/hours of operation, and angling regulations sign, etc.
- ❑ Place sign at landing area explaining emergency protocol.
- ❑ Direct canoe campers to designated primitive camping areas.

Primitive Camping Areas

- ❑ Identify and designate each primitive campsite.
- ❑ Designate camping boundaries to discourage spread of each site.
- ❑ Provide information about low-impact camping techniques near each site, to include proper disposal of human waste, requesting that campers avoid cutting vegetation, and discouraging use of fires.
- ❑ Provide a picnic table and designated fire pit/ring at each primitive campsite, if appropriate.
- ❑ Install an adequate number of privies with signs directing users to privy location.

Monitoring Use During the Season

- ❑ Install a day user and campsite register to monitor use of the site and to receive comments from the users.
- ❑ Inspect area for impact from fires and cutting.
- ❑ Inspect area for trash left by users.
- ❑ Monitor area for impact due to human waste. When use warrants additional site hardening, install tent pads at each campsite and additional pit privies for campers and park users.
- ❑ Periodically check signs and physical condition of all facilities and sign-in register.
- ❑ Record and review user information and register comments.
- ❑ Monitor inappropriate use, or illegal uses of property. If warranted, enter into enforcement contracts with the local Sheriff Department.

General Use Areas

Definition - *An area where multiple land uses occur but where the dominant uses may be sustainable timber harvesting, wildlife habitat management, dispersed recreation, or other general land uses. Where one use such as recreation dominates, for example, vegetation will be managed as a secondary use so long as it can be conducted in a way that does not conflict with the dominant use or with other lands categorized as more sensitive that may be adjacent to it.*

No General Use Areas are currently identified at Lyman Falls State Park.

Intensive Use Areas

Definition - *An area that is easily accessible and characterized by a high level of human activity and high intensity development on or adjacent to state land. Vegetative management will be directed toward aesthetic and safety considerations. Other resources maybe managed but in a compatible way with the dominant use.*

No Intensive Use Areas are currently identified at Lyman Falls State Park.

Water Resources

The management of Lyman Falls State Park by the Department of Forests, Parks, and Recreation will, at minimum, maintain the quality of all surface waters associated with the land. It is understood that agricultural and silvicultural activities that follow Accepted Agricultural Practices and Acceptable Management Practices are presumed to conform to the rebuttable presumption of compliance with Vermont's Water Quality Standards.

Managers of ANR land holdings will cooperate with the ANR's Department of Environmental Conservation, Water Quality Division with their watershed planning initiatives for the Connecticut River as they are undertaken. The watershed basin planning effort includes the determination of the water management type of all waters located with the basin(s). Through this process, the assignment water classification and water management type for all waters will take into consideration the existing water quality, the desired water quality, and whether or not the desired quality is attainable.

The goal for the water management type of waters below 2,500 feet that flow through Lyman Falls State Park is of a high level (potentially B1). B1 waters are managed to maintain an almost natural condition showing minimal changes from reference conditions for aquatic macroinvertebrates and fish assemblages.

Implementation Schedule

The long-range management plan outlines in a general way that Lyman Falls State Park will be managed for the foreseeable future. Management activities to be undertaken in a particular year are detailed in the Annual Stewardship Plan prepared by the District Stewardship Team. These are available for public review for each fiscal year beginning in June for the following July through June.

This section of the plan offers more specific details about the priorities for management activities and practices that will be implemented at the Park. Some management activities are ongoing stewardship activities (i.e., picking up litter, mowing lawns) that do not need to be identified and are assumed to occur as baseline responsibilities for owning the land. Other management activities are maintenance related, such as replacing a roof, thinning for wildlife habitat, or brush hogging a field. Exactly when these types of projects are implemented often depends upon the availability of funding and staff resources, which varies from year to year.

Other management activities may include new facility development or upgrades to existing facilities, land additions to the park, and new demands from users, which are unknown at this point in time. The implementation of these activities is often dependent on available funding, and implementation may be delayed even when urgent. As these projects or activities arise, each project will undergo resource analysis and public review.

Implementation Priorities

High Priorities (not in order of priority)

- Replace Gate, if warranted
- Signage and public information
- Designate and establish campsites
- Privy construction
- Develop parking area and trails
- Remove hazardous trees near campsites
- Habitat management
- Monitor safety hazards
- Monitor for invasive species

Medium Priorities (not in order of priority)

- Interpretative signage
- Habitat management
- Eliminate or diminish safety hazards

Monitoring and Evaluation

Each year the Long-Range Management Plan for the Lyman Falls State Park is in effect, monitoring will be conducted by the Agency of Natural Resources to ensure that state-owned resources are protected from natural disturbances, encroachments, or unforeseen problems that may occur within the camping area and the forest.

Additionally, management activities carried out to conform to scheduled actions and planned outcomes will be evaluated to determine how closely the results matched those projected within the plan. The Agency of Natural Resources may make recommendations for changes in planned activities to reflect changed conditions or unanticipated results. Any major revisions to the plan would be proposed as amendments and be subject to public review and approved by the State's Agency of Natural Resources Stewardship Team.

Forest Health

Department personnel will monitor the health of the forest stands within the Lyman Falls State Park through a system of aerial observation and ground checking. Significant changes in forest stand conditions will be recorded and investigated by the Forest Resource Protection Specialist. The specialist will provide specific information on identified problems sufficient to make informed management decisions and will assist the state lands staff in formulating appropriate management strategies. Strategies for managing forest stands damaged by insect and disease will be ecologically acceptable and will be based upon appropriate silvicultural practices.

Each year near the more developed areas that the public uses (i.e., parking area, primitive campsites, landing/launching area) there will be an evaluation on the condition of the trees as to whether or not any of the nearby trees present a hazard to the public (i.e., topple over in a storm on a tent site). Hazardous trees will be marked and cut according to protocols developed by the Forest Resource Protection Section and Vermont State Parks.

Vegetation Management

The Stewardship Specialist and the District State Lands Stewardship Team will periodically review timber harvests and wildlife management practices completed within Lyman Falls State Park to determine how well the state is doing in achieving its planned objectives. If the monitoring results indicate that there is a significant difference between the outcomes predicted by the plan and the actual conditions, the Agency may recommend changes to the plan.

Natural Communities

Presence and condition of exemplary, unique, and special natural communities and RT&E species of plants and animals at Lyman Falls State Park will be periodically evaluated by the Stewardship Specialist and the District State Lands Stewardship Team to determine conservation status (threats from recreational or other land uses) and successional trends. Management strategies may be developed to ensure that those communities and species continue to be afforded the highest level of protection and stability.

Invasive Exotic Species

Department personnel will monitor the property within the Lyman Falls State Park for presence of invasive exotic species. If any invasive species are found, appropriate management strategies will be undertaken to remove and/or control these species.