

WINOOSKI VALLEY PARK DISTRICT

**COLCHESTER POND NATURAL AREA
MANAGEMENT PLAN**

August 21, 1997

DEDICATION

This management plan is dedicated to the numerous people and organizations who have been involved in protecting Colchester Pond Natural Area. These include adjoining landowners, community members, Colchester Fire District #3, Colchester and Essex municipal officials, the Vermont Housing and Conservation Board, the Agency of Transportation, the Heritage Program, the Land and Water Conservation Fund, the Vermont Department of Fish and Wildlife, Key Bank, the Sweet Water Trust, the Norcross Wildlife Foundation, the Lintilhac Foundation, the Vermont Recreation Trail Fund, the Colchester Historical Society, the Cricket Foundation, the University of Vermont, Trinity College, the Winooski Valley Park District and its member communities.

OWNERSHIP

Colchester Pond Natural Area is owned by the Winooski Valley Park District, a union municipal district chartered in 1972 to plan, acquire and manage lands and waters within the boundaries of its member municipalities in the Winooski River Valley for purposes of conservation, preservation of natural areas, establishment of parks and passive recreation. Winooski Valley Park District was created by the member municipalities to provide natural areas for the general public.

Under the stewardship of the Park District and the legal conditions of the granting agencies, the property will remain a natural area open to the public in perpetuity. This will be assured through the Land and Water Conservation Fund requirement that lands purchased with their assistance be maintained in public outdoor recreation and through easements to perpetually protect these conservation lands which will be held by the Vermont Housing and Conservation Board.

PURPOSE

This management plan is built upon the mission of the Winooski Valley Park District. It is a working document designed to guide the Park District's continuing stewardship and management of the Natural Area's lands and waters.

In keeping with the Park District's mission, Colchester Pond Natural Area will be

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managed to maintain its natural “sense of place”, ecological integrity, and opportunities for a natural recreational experience which characterize this urban wilderness, the Pond, the Heritage sites, and the greenway corridor. The Natural Area will be roadless except for a visitor’s entrance road and parking area and the existing driveway to the caretaker’s residence and outbuildings. Future development will be minimal.

PROPERTY DESCRIPTION

Colchester Pond Natural Area encompasses 693 +/- acres¹ in Colchester and Essex, about 10 miles from Burlington. Park District ownership protects and encompasses the Pond, forested lands to the west and north of the Pond, a portion of the steep and forested watershed lands to the east, wetlands and fields on the south, and open and forested land to the west.

ACCESS

Formal public entrance to the natural area is provided by a driveway and parking area off Colchester Pond Road, just north of the Pond’s dam in Colchester. A short portage from the parking area leads to a launching point on the Pond for non-motorized boats.

WATER RESOURCES

As a result of a petition describing Colchester Pond as a wilderness pond, which was filed by the Park District (supported by neighbors), the Town of Colchester, and the Chittenden County Regional Planning Commission, use of the Pond was limited to non-motorized boats³ by the State of Vermont.

In 1965 a dam was constructed which doubled the size of the Pond to provide drinking water to Colchester residents. Today the Pond covers 182 acres, has an estimated maximum depth of 45 feet⁴ although more than half of the Pond is less than 15 feet deep⁵. Colchester now receives its water from the Champlain Water District and the Pond is no longer a drinking water supply.

Colchester Pond is fed by three streams that drain its largely forested 1,383 acre watershed⁶. On the south the Pond is drained by Pond Brook, which flows out of the dam, and a small stream which drains its wetlands.

The Pond supports a warm water fishery populated by Northern pike, Smallmouth bass, Rock bass, Pumpkinseed, Yellow perch, Brown bullhead, Golden shiner, Bluntnose minnow, and Banded killifish⁷.

THE FOREST

The forest to the north and northeast of Colchester Pond is dominated by eastern white

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pine and contains northern red oak and red maple. To the east, Colchester Pond is framed by steep, forested slopes with cliff-like rock outcroppings. The shallow, rocky, and excessively drained Lyman-Marlow soils support a mixed forest cover. The eastern slopes support forests containing sugar maple, beech and yellow birch. Eastern white pine and eastern hemlock with small, dense understory species are found along the southwestern corner of the Pond⁸. Forest on the west side of the pond consists primarily of white pine invading old fields and, in the moist, steep, rocky areas, eastern hemlock and red oak. The watershed slopes are also home to an excellent example of a dry oak hickory-hophornbeam forest⁹.

AGRICULTURAL LANDS

The southern and western agricultural fields provide a dramatic contrast to the Pond and its tall eastern slopes. The lower fields are predominately Vergennes clay, while the higher, easterly field contains well drained Scantic silt loams¹⁰. The most recent agricultural use of the western fields has been limited to hay and pasture.

WILDLIFE & FLORA

An effort to track and survey wildlife at the park has begun. Signs of moose, bobcat, white-tailed deer, grey and red squirrels, songbirds, raptors, migratory ducks, wood ducks, skunks, and raccoons have been reported. A neighbor reports that painted and snapping turtles climb up to his property from the pond to lay eggs each year. An American Bittern has frequented the south end of the pond.

Lands in the area are known to contain a state-threatened flower¹¹ and several habitats important to the Park District and the Vermont Heritage Program.

CULTURAL RESOURCES

There is a small farm complex on the former Somers property which includes a farmhouse c. 1830-1860 that is considered to be of historical significance. Two archeological sites have been identified within the Natural Area and it is generally accepted that these lands are likely to contain significant prehistoric resources¹².

UTILITIES

A Vermont Electric Corporation utility line runs roughly north-south over Park District land to the west of the Pond and over the western edge of the Pond itself.

CURRENT USE

Visitors generally access the Pond and the Natural Area via the entrance off Colchester Pond Road just north of the Pond's dam. The Pond offers boating for non-motorized boats. A short portage leads from the parking area to the shoreline. Fishing is currently restricted by State regulations which limit the number of fish that can be caught. Recreational uses also include hiking, ice skating, cross country skiing, nature study, and simply viewing the pond from the parking area. Hunting is prohibited and the entire property has been posted against hunting and motorized vehicles.

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The park provides a 847' wide connection between Colchester Pond and Indian Brook Reservoir to the east. Indian Brook Reservoir is a 574 acre public park owned by the Town of Essex which contains a 60 acre reservoir, two small ponds and extensive trails. Essex is interested in a trail link between the two parks for hiking, mountain biking, cross-country skiing and horseback riding and is interested in reducing activities in the park which violate the Town ordinances.

MANAGEMENT GOALS AND STRATEGIES

COLCHESTER POND NATURAL AREA WILL BE MANAGED TO MAINTAIN ITS NATURAL BEAUTY, ITS ECOLOGICAL INTEGRITY, AND TO PROVIDE NATURAL EXPERIENCES FOR VISITORS.

The boundaries of the public parkland will be marked and the Park District's presence and management will be established through signage.

Resources permitting, the Park District will provide only minimal, low-impact facilities that work in harmony with the natural systems and which encourage use of the park for walking, running, skating, fishing, boating, cross country skiing, and limited mountain biking and camping. A small, gated parking lot, an entrance sign, and a gravel road have been installed on the west side of the Pond. Park visitors with special needs may be issued a permit to use motorized vehicles on designated trails and may park in the parking lot at the caretaker's house. Other development priorities will include a warming hut, foot trails around the Pond with log puncheon bridges and observation platforms, as suitable. Foot trails will be located on existing trails and logging roads to the fullest extent feasible and will avoid any area that has been identified as sensitive to human activity. Where the public is walking in sensitive areas, trails and boardwalks will be used to channel people and minimize their impact. Signs will inform visitors where to walk within 25' of the shoreline. The Park District will maintain boat barriers and signs prohibiting motorized boats and vehicles.

Resources permitting, the Park District will develop and maintain a nature education center at the existing farm complex on the west side of the Pond, a warming hut, and a canoe rental facility. Any maintenance, repair, and/or remodeling of the buildings will be performed in keeping with their historic nature.

The existing farmhouse and outbuildings will be maintained by the Park District for lease to a tenant/park caretaker. The caretaker will provide surveillance during weekends and in the evenings, help assure compliance with park protection rules, and educate visitors. Specific tenant rights, duties, and responsibilities are described in the tenant lease. This rental will also generate revenues to be used for park management.
THE PARK DISTRICT SHALL STRIVE TO CONSERVE AND IMPROVE THE WATER QUALITY OF COLCHESTER POND.

To achieve this goal the Park District has acquired all the shoreline and significant acreage within the Pond's 1,383 acre watershed. The Park District will be receptive to

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cooperative acquisition of additional lands through fee simple acquisition, donations, development rights acquisition, easements, or other arrangements.

To manage for water quality the Park District will work with the Towns of Colchester and Essex to encourage sound land use within the watershed and with the neighbors to reduce the nutrients reaching the Pond. Where erosion is a problem, time and resources allowing, vegetated buffer strips will be maintained along shorelines and streams. The Park District will seek the help of local students and organizations to monitor water quality. Signs, a carefully designed boat access, and the prohibition of motorized boats will limit the likelihood of invasion by Eurasian milfoil and Zebra Mussels. Signs will explain steps boaters must take to prevent infestations. The Park District will work with the Department of Fish and Wildlife to maintain the health of the fishery.

To manage for nonpoint source pollution the District will work with Vermont Electric Corporation for manual clearing of the utility Right-of-Way rather than herbicide application.

THE PARK DISTRICT SHALL STRIVE TO MAINTAIN THE ECOLOGICAL INTEGRITY OF THE LANDS AND WATERS.

Habitat management will be passive with the long-term goal of maintaining the Natural Area's existing biological diversity, unless inventory and analysis of the natural resources recommend specific measures necessary to protect native species. Volunteers will be encouraged to identify wildlife use through tracking and survey methods. Schools will be encouraged to conduct inventories of the natural communities and to develop stewardship recommendations including mapping and identification of potential threats to the Natural Area's ecology so that the effects of future management decisions can be assessed.

THE PARK DISTRICT SHALL STRIVE TO PROTECT THE NATURAL AREA'S CULTURAL RESOURCES.

The farmhouse on the former Somers property will be further investigated and documented under the guidance of the Vermont Division of Historic Preservation. Archeological resources will remain unidentified to the public. To insure continued protection, the Park District will review any planned facility-related ground disturbance with the State Archeologist. Given sufficient resources, the agricultural fields which enhance the Natural Area's aesthetics will remain open. The dam's structure will remain in place as an integral part of the roadway landscape.

THE PARK DISTRICT SHALL STRIVE TO PROVIDE QUALITY PASSIVE RECREATIONAL OPPORTUNITIES WHICH MAINTAIN THE NATURAL AREA'S ECOLOGICAL INTEGRITY.

Colchester Pond Natural Area provides visitors with access to the natural environment. The roadless park will offer opportunities for hiking, walking, running, skating, limited

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mountain biking, cross-country skiing, snowshoeing, nature study, respite, non-motorized boating, and fishing.

The Natural Area will be operated under the approved Park District rules. For liability reasons and the safety of Park visitors, the park will continue to be posted against hunting. Off road vehicles and snowmobiles will not be permitted, except by visitors with special needs who have received written permission to use designated areas. The entrance to the public parking lot will be secured with a gate that is locked from dusk to dawn. The tenant/caretaker will act as the gatekeeper and accommodate parking for the handicapped.

The Park District anticipates developing “good neighbor” relationships with landowners, Scouts, and other community groups which will enhance Natural Area stewardship and will augment the Park District’s limited resources.

Trail maps of the Natural Area will be developed and made available at the Natural Area entrance.

THE PARK DISTRICT WILL CONTINUE TO ENCOURAGE THE USE OF THE NATURAL AREA FOR APPROPRIATE RESEARCH AND EDUCATION.

Colchester Pond Natural Area provides an excellent outdoor classroom, especially because it protects nearly all of a small watershed and an ecological link to Indian Brook Reservoir. The Park District will encourage use of the Natural Area for natural resources education, research, and student internships. The Park District will also encourage local naturalists to conduct nature walks and other outdoor education programs.

PLAN UPDATE

This management plan will be periodically updated as needed to reflect changing conditions such as acquisition of additional lands. Winooski Valley Park District staff will draft changes for approval by the Park District’s Board of Trustees and by the Vermont Housing Conservation Board which holds an easement on the Colchester Pond Natural Area.

ENDNOTES

(1) Winooski Valley Park District Acquisitions 1972-1996 (January, 1997). Acreage information taken from Colchester Pond Composite Survey, Brooks Land Surveying Inc. Map # 1561A, original: 12/29/94, last revision: 12/12/96. Total acreage figure assumes former Colchester Fire District #3 land (pond and shoreline) to be 182+/- acres.

(2) Lindsay, John J. and Malone, Daniel T., editors; "Vermont Lakes and Ponds, A Pilot Recreation Planning Process, Colchester Pond, Colchester, Vermont and Indian Brook Reservoir, Essex, Vermont"; Fall 1990; prepared for the State of Vermont by the University of Vermont Environmental Assessment Group, School of Natural Resources; Burlington, Vermont; pg. 1.

(3) State of Vermont Water Resources Board; Petition of the Winooski Valley Park District and the Town of Colchester to adopt rules regulating the use of the public waters of Colchester Pond, Town of Colchester, Vermont; December 22, 1992; Montpelier, Vermont.

(4) see Lindsay; pg. 1.

(5) Sanderson, J., Lipsky, A., Patrick, K., and Cafferty, E.; "A Qualitative Assessment of Watershed Factors Affecting Water Quality at Colchester Pond, Vermont"; April 14, 1992; prepared for the Winooski Valley Park District; University of Vermont, Burlington, Vermont; pg. 4.

(6) see Lindsay; pg. 1.

(7) Chipman, Brian, District Fisheries Biologist, Department of Fish and Wildlife, Vermont Agency of Natural Resources; Lake, Pond, and Stream Investigations, Creel and Angler Use Survey and Lake, Pond and Stream Investigations, Lake and Stream Survey and Inventory; November 10, 1993;; December 17, 1993; Essex Junction, Vermont.

(8) see Lindsay; pg. 16.

(9) Engstrom, Brett; Biological Natural Areas of Chittenden County - Colchester, Hinesburg, Jericho, Milton, Richmond, Shelburne, and Williston; for the Vermont Nongame and Natural Heritage Program, Department of Fish and Wildlife, Agency of Natural Resources; January, 1991; Waterbury, Vermont.

(10) Beissel, G., Collins, G, Cook, M., Ferrell, N., Fish, L.; "Assessment of Abandoned Agricultural Site, Colchester Pond"; November 16, 1993; ENVIS Senior Seminar, University of Vermont; Burlington, Vermont.

(11) see Engstrom

(12) Gilbertson, Eric; Division for Historic Preservation, Agency of Development and Community Affairs; letter to Jennifer Ely, Winooski Valley Park District; September 7, 1989.

SUPPORTING DOCUMENTS:

(*) student report, Trinity College, untitled, undated; Colchester, Vermont (soils information).

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