RECREATION

Wantastiquet Region



Connecticut River Management Plan



RECREATION

Wantastiquet Region River Subcommittee

adopted March 12, 2008

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Cover image:

Kayaking near the mouth of Sackett's Brook on the Connecticut River at Putney, Vermont and Westmoreland, New Hampshire

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CONTENTS

I.	Prefac							
	A.	A Citizen-based Plan for the Connecticut River						
	B.	Origin of the Connecticut River Management Plan2						
	C.	A New Recreation Plan						
	D.	Plan Process & Scope						
	E.	The Connecticut River Joint Commissions4						
	F.	Acknowledgments						
11	D							
II.		creation on and along the Connecticut River						
	A.	Economic Value of Recreation						
	В.	Boating 1. Paddling						
		Paddling Power Boating						
		Power Boating Ski Craft and Personal Watercraft						
		4. Water Skiing						
		5. Boating Hazards a. Current & Water Levels						
		b. Boat Wakes & Erosion						
		6. Boating Laws						
		a. Boater Education & Responsibility						
		7. River Access						
		 a. Access for Canoes and Kayaks b. Access for Trailered Boats 						
		8. Docks 9. Marinas						
	C.	r r r r r r r r r r r r r r r r r r r						
	C.	Swimming						
	D.	1. Water Quality for Swimming Piver Compine & The Connections Piver Weter Trail						
	Ъ.	River Camping & The Connecticut River Water Trail						
	E.	1. Campsites in the Wantastiquet Region Fishing						
	L.							
		 Fishing Tournaments Fish Tissue Toxins 						
III.	Landl							
111.	A.	and-based Recreation & Trails . Private Lands & Landowner Liability						
	Λ.	1. Land Conservation for Recreation						
	В.							
	C.	Walking & Hiking Trails Rail Trails						
	D.	Bicycling						
	Б.	1. Mountain Biking						
	E.	Birding and Wildlife Observation						
	L.	Middle Connecticut River Important Bird Area						
		Connecticut River Birding Trail						
	F.	Valley Quest						
	G.	Hunting						
	Н.	All-Terrain Vehicles						
	I.	Commercial Recreation Developments						
	J.	Winter Recreation						
		1. Ice Safety						
		2. Snowmobiling						
	K.	Connecticut River Byway						
	-	1. Waypoint Communities						
IV.	Refere	es & Resources						

APPENDICES

- A. Summary of recommendations by responsible party
- B. Progress since 1997

PREFACE

A Citizen-based Plan for the Connecticut River

The Wantastiquet Region's plan is a blueprint for stewardship of the Connecticut River – for communities, landowners, visitors, businesses, and agencies on both shores. Gathering together to create this plan for the Wantastiquet segment of the river were representatives from the towns of Walpole, Westmoreland, Chesterfield, and Hinsdale, New Hampshire and Westminster, Putney, Dummerston, and Brattleboro, Vermont. Vernon, Vermont did not participate..

The strength of the Wantastiquet Subcommittee's planning process lies in the diversity of its membership. These citizens, as directed by RSA 483, represent local business, local government, agriculture, recreation, conservation, and riverfront landowners. All of the recommendations of the Wantastiquet Subcommittee's plan represent the consensus of this diverse group of citizens.

Origin of the Connecticut River Management Plan

The Connecticut River Joint Commissions (CRJC) mobilized hundreds of valley residents and local officials to join them in nominating the Connecticut River into the New Hampshire Rivers Management and Protection Program in 1991-2. The New Hampshire Legislature subsequently designated the river for state protection under RSA 483, which authorized CRJC to develop a river corridor management plan. CRJC sought support from the Vermont Legislature as well, so citizens from both states could engage in planning for their shared river.

With backing from both legislatures, CRJC contacted select boards or city councils from the 53 New Hampshire and Vermont riverfront communities and asked them to nominate representatives to serve on five bi-state local river subcommittees. This partnership between local town representatives and the state commissions for the Connecticut River enabled CRJC to publish the first edition of the Connecticut River Corridor Management Plan in 1997, after five years of work by the Commissions and the five bi-state local river subcommittees. Since this planning process began in 1993, nearly 200 citizens have thus participated in the subcommittees' work. A summary of progress on the plan's recommendations for recreation appears in Appendix B.

A New Recreation Plan

Increasing attention to public recreation in the region, including reports of conflicts among recreationists in the Vernon impoundment, prompted CRJC to ask the local river subcommittees to update and expand the 1997 Recreation chapter of the *Connecticut River Corridor Management Plan*. The Subcommittees have explored new topics, especially in land-based-recreation, in an attempt to portray and address the full range of recreation issues in the region.

Plan Process

The Wantastiquet Subcommittee met at the Westmoreland and Westminster Town Halls throughout 2004 and 2005 to develop the new recreation chapter for this section of the river. CRJC's Conservation Director, who manages the five subcommittees' communications with each other, CRJC, and state agencies and organizations, transcribed the subcommittee's discussions to construct drafts of the plan, which the members revised and approved. Final updates were included before the plan was approved in 2008.

Scope of the plan

The Subcommittee has concentrated its planning upon the towns that border 40 miles of the Connecticut River in this segment. Recommendations are presented within each topic area, and are summarized in Appendix A, arranged by responsible party. Some are aimed beyond town boundaries, to guide state and federal agencies. The Subcommittee recognizes that proper care of the river is such a large task and important public duty that help from beyond the watershed is sometimes appropriate and needed from those agencies which share responsibility for the river.

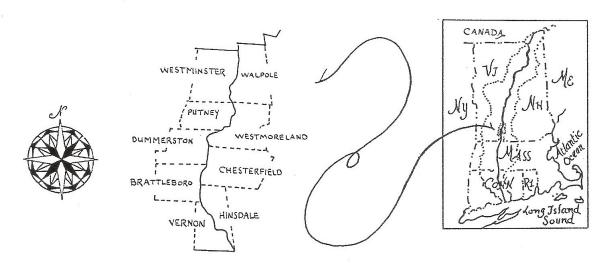
The Connecticut River Joint Commissions

The New Hampshire legislature created the Connecticut River Valley Resource Commission in 1987 to preserve and protect the resources of the valley, to guide growth and development, and to cooperate with Vermont for the benefit of the valley. The Vermont legislature established the Connecticut River Watershed Advisory Commission in the following year. The two commissions banded together as the Connecticut River Joint Commissions (CRJC) in 1989, and are headquartered in Charlestown, New Hampshire. The Commissions are advisory and have no regulatory powers,

preferring instead to advocate and ensure public involvement in decisions that affect the river and its valley. CRJC's broad goal is to assure responsible economic development and economically sound environmental protection. The thirty volunteer river commissioners, fifteen appointed by each state, represent the interests of business, agriculture, forestry, conservation, hydro power, recreation, and regional planning agencies on both sides of the river.

Acknowledgments

The following subcommittee members and river commissioners participated in creating this updated recreation plan for the Connecticut River in the Wantastiquet region:



LRSS WANTASTIQUET REGION RIVER SUBCOMMITTEE

New Hampshire

Walpole - Paul Happ, George Watkins*
Westmoreland - Jim Blake, Stuart Adams, Gwen Mitchell
Chesterfield - Hazel Hunter, Susan Lawson-Kelleher, Susan Plunske
Hinsdale - Gordon Schofield (Subcommittee Chair); Bill Roberts*

Vermont

Westminster - Peter Barrett, Jim Grandy, Beverly Major* Putney - Jo Beth Mullens Dummerston - Bob Wainwright, Daniel Marx Brattleboro - Monroe Whitaker

*Connecticut River Commissioner

We are particularly grateful to the Towns of Westmoreland and Westminster for providing meeting space in their historic town halls.

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NH Department of Environmental Services National Oceanic and Atmospheric Administration

RECREATION ON AND ALONG THE CONNECTICUT RIVER

The Connecticut River is the centerpiece for a wide variety of recreation in the Wantastiquet region, from paddling trips down New England's largest waterway, to hike affording expansive river views from atop Mt. Wantastiquet itself. The river's return from years of pollution has transformed the Connecticut into a rich recreational asset for valley residents and visitors. Swimming, fishing, boating, camping, hiking, bicycling, wildlife observation, and sight-seeing are more widely enjoyed and appreciated in the Wantastiquet region than ever before.

This reach of the river offers something for nearly every kind of boater. From the roiling water below Bellows Falls all the way to Massachusetts, the river provides fine canoeing and kayaking. Impoundments behind the dams at Bellows Falls and Vernon provide deeper water for power craft. The vintage craft "Belle of Brattleboro" has operated scenic cruises on the river, and the West River Marina is sometimes the site of a steamboat regatta. The fish ladders at Bellows Falls and Vernon Dams are also an attraction.

In winter, many people enjoy skating on the river and ice fishing in setbacks, such as Retreat Meadows at the mouth of the West River, while spring and fall make these places excellent for watching waterfowl during bird migration. Growing networks of hiking trails and bicycle routes offer plenty of land-based recreation.

The river corridor has offered a favorite scenic route for a Sunday drive long before designation of the Connecticut River Byway in 1999. Byway visitor centers are now introducing residents and visitors to the region's natural and cultural heritage. A key part of the region's appeal is its dramatic scenery, dominated by the forested slopes of Fall Mountain in the north and Wantastiquet Mountain in the south.

Economic Value of Recreation - Recent research has confirmed the economic value of public waters for recreation. A wealth of outdoor recreation opportunities within a few miles of home also supports better public health.

A 2007 study in New Hampshire (1) found that about \$379 million in total sales is generated by those who are fishing, boating or swimming in New Hampshire fresh waters, or about 26% of all summer spending in the state. Fishing, boating and swimming have about the same economic impact as snowmobiling, downhill skiing, cross-country skiing, and ice-fishing combined. Interviews with users of six public boat ramps in the Monadnock tourism region, including at the Prospect Street Boat Launch on the Connecticut River in Hinsdale, found that 68% of anglers, boaters and swimmers say they would decrease their intended visits to the Monadnock Region if water clarity and purity grew poor(er). For the purpose of this study, "water clarity and purity" include milfoil or other invasives, mercury, and algae. Of those who would decrease their intended visits, 18% would leave the state and 13% would leave the region. Approximately 45% would go to some unspecified location in New Hampshire, and 24% would remain in the region. Those recreationalists who would leave the state because of declining water clarity and purity would create a loss of about 21,000 visitor days.

The study found that overall, surface water recreation in the 36 towns in New Hampshire's Monadnock tourism region generates over 120 jobs. These jobs equate to over almost \$3 million in personal income and almost \$8 million in business sales. A perceived decline in water clarity and purity in the Monadnock region would lead to a loss of loss of about half a million dollars in business sales. While similar figures not available for Vermont, it is clear that Vermont residents and visitors are also enjoying these waters and contributing to the local economy.

A 2003 study (2) found that boating, fishing, and swimming in New Hampshire's rivers, streams, lakes, and ponds contribute up to \$1.2 billion to that state's economy each year. It is increasingly clear that protection of what we value about the Connecticut River and its tributaries supports more than just a vague "quality of life" but also an important aspect of local economic health.

Outfitters, merchants, campgrounds, motels, bed and breakfasts, and other businesses earn income from those who come to enjoy the Connecticut River. A number of recent studies confirm the economic value of the region's woods, waters, and wildlife for recreation. Wildlife-related recreation, including observing and photographing wildlife, fishing, and hunting, contributes dollars spent on trip-related expenses, equipment purchases, licenses, contributions, land ownership and leasing, guide services, and other items. Americans spent \$122.3 billion on fishing, hunting, and especially wildlife-watching in 2006, equal to one percent of the Gross Domestic Product(3). In that year, 61 percent of Vermonters and 51 percent of New Hampshirites participated in wildlife-associated recreation. The Vermont Data Tourism Center has found that outdoor recreation visitors spend nearly a third more than the average visitor when they come. (4)

The National Wildlife Federation found in 1997 that water-based recreation in Vermont at the time was at least a \$109 million business, generating \$5.5 million in tax revenues. Fifty-two percent of the sampled statewide households participate in recreation activities along Vermont rivers. Ninety-two percent of outdoor recreation business respondents reported that continual improvements in clean water are important to their business. (5)

BOATING

Things have changed since Henry David Thoreau visited the Connecticut River at Brattleboro in 1856, and his journal coldly stated, "Not a boat to be seen upon it," apparently in contrast to his native Concord River in Massachusetts. (6)

On a sunny summer weekend these days, motor boats, water skiers, pontoon boats, jet skis, rowing shells, canoes, and kayaks share the river as fishermen angle from shore.

The Wantastiquet section offers easy flatwater paddling for canoes, kayaks, sculls, and rowboats, with some quickwater below the Bellows Falls and Vernon Dams. The dams at either end of this segment create long reaches and seasons for power boat travel.

More people are discovering the pleasure of rowing and sculling on the river, and the Putney Rowing Club coordinates an annual race at the Putney Boat Landing, known as the Green Mountain Head. Sailing is somewhat limited as much of the river is sheltered from the wind.

In the Wantastiquet region, several sandbars have become favorite picnic areas for boaters. While most larger landowners do not object to this public use of their riverfront land, they report that picnickers sometimes leave trash behind, and contribute to bank erosion by climbing up the steep banks.

Paddling - Some of the most interesting and scenic paddling in the Wantastiquet segment is in the seventeen miles below Bellows Falls through Putney and Westmoreland, past the historic villages of Walpole and Westminster and the rich agricultural lands of the Great Meadow, the conserved Windyhurst and Boggy Meadow Farms, and the Cheshire County Farm. The New England Canoe Racing Association holds regional races on the river in Westmoreland.

The portage trail around the Bellows Falls Dam on the New Hampshire side, through North Walpole, is oneand-one-half-miles long, and canoeists sometimes seek the aid of a taxi. A short trail skirts the Vernon Dam on the Vermont side.

While there is no whitewater on the mainstem of Connecticut River here, other than what remains of the Great Falls below the Bellows Falls hydro station, there are many scenic stretches of whitewater on its tributaries, especially the West and Ashuelot Rivers. The West River attracts kayakers and canoeists during high water, especially during scheduled releases from the US Army Corps' flood control dams at Ball Mountain and Townshend. Some sections should be run only by experts.

Power boating - Power boating is usually confined to the section from Windyhurst Farm in Westmoreland down to Vernon Dam, although small motor boats may sometimes find enough water to travel upstream as far as Walpole. The few miles from the Ashuelot River to the Massachusetts line are passable by canoe, kayak, and small motor boat. The reach between Vernon Dam and the Chesterfield/Brattleboro bridge is often congested with heavy power boat traffic, small boats, and jet skis. Propellers can spread invasive milfoil and other nuisance aquatic plants by chopping them into fragments that can establish new colonies.

Ski Craft & Personal Watercraft - Personal watercraft, commonly known as jet skis, are perhaps more common in the Wantastiquet segment than in any other part of the river in New Hampshire and Vermont. The river itself should guide the use of the craft. The only section in the Wantastiquet region that is wide enough for legal use of ski craft over headway speed is from Vernon Dam to the Fort Hill Bridge in Brattleboro, around the Route 119 bridge, and near the two marinas. However, jet skiers commonly use the river from Chesterfield south to the Vernon Dam.

The rules for use of these craft are confusing on the Connecticut River because the definition of the craft is outdated in New Hampshire. A "ski craft" is a kind of personal watercraft currently defined in this state as any motorized vessel that is less than 13 feet in length, is capable of exceeding 20 miles per hour, and has the capacity to carry no more than two persons. These craft may not exceed headway speed within 300 feet from shore, islands, bridges, other boats, swimmers, or floats, and therefore only where the river is more than 600 feet wide.

The three- and four-person personal watercraft are nearly the same size and are similar to ski craft in engine design, maneuverability, propulsion system, shallow draft, acceleration and speed. Because they are currently defined as boats, however, they may travel over headway speed on any portion of the river that is over 300 feet wide. Inconsistencies in this definition have resulted in confusion as to which laws apply to which craft, and have made enforcement more difficult. The definition should be updated to apply the rules for ski craft to all personal watercraft, to simplify enforcement and to protect the sensitive river shoreline.

A 2003 study (7) gives insight into local river users' opinions of different kinds of river recreation on an 80-mile section of the Connecticut River that includes the Wantastiquet region. The majority of river users surveyed (52%) identified jet skiing as an inappropriate or unsuitable activity for the river. They cited noise, speed, and a lack of courtesy from the operators as primary reasons for concern. The second and third least acceptable activities, according to survey respondents, were waterskiing (24%) and motor boating (19%). Respondents cited the narrowness of the river channel in the study area, safety issues for swimmers, and disturbance of non-motorized boats and fishing lines by water skiers and motor boats.

Water skiing - Water skiing is common in the Wantastiquet segment. Water skiers should confine their rides to places where the river is wide enough to allow the boat to turn without approaching too close to shore or other boats: from

Vernon Dam to the Fort Hill Bridge in Brattleboro, near the Route 119 bridge, and near the two marinas. The river is too narrow for this activity farther upstream.

In 2007, a water skiing course was set up at Retreat Meadows, a shallow backwater near the mouth of the West River that is recognized by the U.S. Fish and Wildlife Service as an important resting area for migrating waterfowl, and that is enjoyed by paddlers and other quiet water recreationists. The area is also infested with Eurasian milfoil. In the past, including recent years, water-skiing has more typically occurred on the mainstem of the Connecticut River in the Brattleboro area. Complaints by area residents led to a petition to the Vermont Water Resources Board to prohibit activities by motorized wake-producing boats in this area.

State rules on water ski courses

<u>Vermont:</u> The Water Resources Panel of the Vermont Natural Resources Board regulates the use of surface waters. The Vermont use of Public Waters Rules establish statewide surface use rules and waterbody-specific rules, generally on the basis of petitions filed with the Water Resources Panel.

New Hampshire: The Division of Safety Services' Marine Patrol issues permits for water ski courses, and may deny an application if the location or configuration of the waterbody is inappropriate for the use.

The Wantastiquet Subcommittee is concerned about erosion caused by wave action from water skiing, in addition to potential conflicts with other kinds of boating on narrower sections of the river.

RECOMMENDATIONS

- ♦ The NH General Court should pass legislation updating the definition of personal water craft to include all such craft under the definition of ski craft, retaining the 300' distance from shore as a requirement for travel over headway speed.
- ♦ The NH Department of Safety should support such legislation.
- ♦ Marina owners should ensure that customers renting jet skis understand where these craft can be legally operated, and caution them not to disturb waterfowl and other wildlife in shallow areas.
- Jet ski operators should understand where they can legally operate their craft.
- ♦ Motor boaters should avoid milfoil-infested areas, to keep propellers from chopping up and dispersing the plants.
- Water skiers should avoid Retreat Meadows and should obey state laws regarding establishment of water skiers.
- Boaters visiting riverside land for picnics should be considerate of the landowner and not leave a trace of their visit, and avoid climbing up steep erodible riverbanks.

Boating hazards - Several hazards exist for boaters in this reach, some caused by boaters themselves. Boat traffic near Norm's Marina in Hinsdale has become very heavy on weekends, and there are common reports of boaters and jetski operators disregarding laws regarding boat speed and safe distance from bridges and other boats. Boat chop is sometimes rough and creates difficulty for small craft. While the impounded river is deeper at all seasons than it once was as a free-flowing river, shallows still exist where tributaries enter and drop their load of sediment, and not all areas are deep enough for motor boats.

RECOMMENDATIONS

- ♦ Local fire departments should have water rescue equipment available for river recreation emergencies at all seasons
- ♦ Boaters should watch for debris such as submerged or floating logs, and be courteous to those in smaller craft.

Current and water levels - The river's current reflects hydro power generation activity at both dams. Current may be especially fast below a dam when the gates are open and the dam is generating power, while the current may be minimal in the impoundment at other times.

TransCanada Hydro Northeast manages water levels in the Vernon impoundment for recreation following the policy set by its predecessor, New England Power Company, in response to public request. During weekends from Memorial Day through the beginning of October, when 85% of river recreation occurs, the water level is kept at 218.6 feet (above mean sea level) from 4 pm Friday to midnight Sunday. The water level seldom reaches the limits of the dam's operating permit. By Monday mornings, with power generation for business activity resuming, dam managers return the impoundment to normal operating levels. These limits are not license restrictions, and there may be instances where circumstances dictate the need to deviate from these levels.

Boaters can check on water conditions at the Connecticut River Joint Commissions' web page on flow (www.crjc.org/riverflow.htm), which provides links to river gages and to the hydro power company's page on current and projected flows at mainstem dams.

RECOMMENDATIONS

• People should watch for sudden water level changes below the Bellows Falls and Vernon Dams, and avoid swimming and anchoring below them due to the possibility of sudden releases.

Boat Wakes and Erosion - Power boat wakes are one of the key causes of bank erosion on this part of the Connecticut River. The waves they create wash away soil at the base of the bank, particularly if it is unvegetated with no riparian buffer. This allows the unsupported bank material above to collapse into the river, leading to water quality degradation and sometimes forcing landowners to undertake expensive riverbank stabilization. The Subcommittee encourages slow travel on the river to minimize bank erosion

RECOMMENDATIONS

- Boaters should be aware of the size of their boat's wake, and travel slowly to minimize erosion.
- Riverfront landowners should protect their property and their privacy with vegetated riparian buffers.

Boating Laws - New Hampshire boating law is in force on the Connecticut River. Boats may not exceed headway speed (no-wake, or 6 mph) within 150 feet (300 feet for ski craft) from shore, islands, bridges, other boats, swimmers, or floats. Boats towing water skiers may exceed headway speed when starting up if the safety of others is not endangered. The legal speed of travel on the river therefore depends upon the river's width. While the river below the two dams is often too shallow for most propeller-driven boats, the entire segment is generally wide enough for legal travel by all kinds of boats other than ski craft.

Many river users believe that enforcement on the river remains inadequate. More consistent and effective enforcement of boating laws is necessary, particularly with the steady increase in conflicting boat traffic and the vulnerability of the river's banks to erosion from boat wakes. Canoeists and kayakers should not be forced to use the sides rather than the middle of the river to avoid power boats. Fishermen standing on the riverbanks in the Brattleboro area report frequent problems with boaters speeding too close to shore and bridges.

RECOMMENDATIONS

- Boaters should obey boat speed laws.
- Marina owners should remind their customers of boating laws and boater responsibility.
- Fishing tournament organizers should inform visiting fishermen of boating laws on the Connecticut River, especially with respect to legal speed near bridges, islands, other boats, and fishermen.
- ♦ NH Marine Patrol should increase enforcement of existing boating laws, to prevent boating conflicts and minimize boat wake-induced riverbank erosion, and could consider the use of unmarked boats. The Department should provide information on boating laws when boat licenses are issued, and supervise fishing derbies.

Boater Education and Responsibility-Good stewardship by river users is important for the continued health of the river and its value for recreation. Boaters are sometimes unaware of the boat speed law and boating etiquette, and should make an effort to educate themselves about existing regulations. Fortunately, New Hampshire has now joined Vermont in requiring boater education. This includes the erosion impacts of boat wakes and how to avoid spreading invasive nuisances such as Eurasian milfoil and Zebra mussel. Boating on the Connecticut River in Vermont and New Hampshire, a pamphlet published by the Connecticut River Joint Commissions, indicates public access sites, no-wake zones, and those sections of the river too narrow for travel above headway speed.

Appropriate sites for posting public information are needed at several access sites. This information should include cautions about checking boats for milfoil and zebra mussels.

RECOMMENDATIONS

- ♦ Managers of river access points should provide a location for limited signage, aesthetically in keeping with the rural nature of the region, reminding the public of the boat speed law, the problem of bank erosion, nuisance aquatics, and boater responsibility. A sign is needed at the Prospect Street landing in Hinsdale. Chesterfield should provide a site for posting public information at the River Road landing.
- Recreation groups should encourage education of residents and visitors, particularly about the impacts of different forms of recreation and visitor etiquette.
- Marina owners can help improve boating safety and their customers' experience by reminding them of boating laws and boater responsibility, and cautioning them about transporting invasive species, including Eurasian milfoil and Didymo. Marinas renting jet skis should be certain their customers understand where these craft can be legally operated, and caution them not to disturb waterfowl and other wildlife in shallow areas.

- River recreationists should use designated public access to reach the river, rather than crossing private land.
- Boaters must obey boating speed laws, dispose of litter properly, and avoid creating boat wakes which will erode riverbanks.
- Citizens should consider participating in volunteer cleanups.

River Access - There are fourteen boat launches providing access to the Connecticut River in the Wantastiquet segment, including eight ramps accommodating all boats, one serving small outboard motor boats, and five sites serving only car-top boats. They vary in size, amount of parking, availability of picnic sites, and other amenities.

Access for canoes and kayaks - There is a need for further access for canoes and kayaks. Use of the river by such small boats is more localized than by power boats, and therefore requires more access points. Access from tributaries can increase the variety and interest of canoe trips on the mainstem, and disperse the impacts of public use. Canoes and kayaks present substantially less threat to eroding banks and to fishermen than do larger power boats.

There is currently no public boat access in Westminster, where the river is suitable only for very shallow draft boats. The Subcommittee recommends that the town seek the assistance of the Vermont Agency of Natural Resources and/or a land conservation organization to acquire riverfront property for a public cartop boat access.

There is also no public boat access in Westmoreland. The Subcommittee recommends that the Cheshire County Farm's substantial publicly owned riverfront property at River Road offers a good location for a modest boat launch. Since the river is too shallow for large power boats in the northern half of Westmoreland, and the valuable farmland on both sides of the river here is vulnerable to erosion from boat wakes, the Subcommittee is reluctant to recommend a ramp for large trailered boats at the County Farm, but suggests that the question deserves ample public discussion.

The project to build the new Route 9 bridge between Chesterfield and Brattleboro created an opportunity for a new cartop boat access on the New Hampshire side, just upstream from the bridge, where there is now a small level area accessible from a road off Route 9. Since federal funds were used to build this bridge, there is a requirement to provide such public access as part of the project.

Access for trailered boats - There are public boat ramps located in every town (other than Westmoreland and Westminster) where the river is deep enough for power traffic. These access points, located in Walpole above the Bellows Falls Dam, Chesterfield, Putney, Dummerston, Hinsdale, Brattleboro, and Vernon, are spaced no more than five miles apart. The Subcommittee believes that, in general, adding further access for trailered boats to already congested areas of the river will create additional boating conflicts and strain the already limited enforcement ability of NH Marine Patrol. A boat ramp can also contribute to pollution by allowing direct runoff into the river without benefit of filtration through vegetative cover.

However, the Subcommittee suggests a launch may be needed for small trailered boats at the mouth of the Ashuelot River below Vernon Dam in Hinsdale. This part of the river is navigable only by canoes, kayaks, and small motor boats. At present, the only access to this section of the river is from Northfield, Massachusetts, forcing fishermen to abide by Massachusetts fishing regulations even if their catch comes from New Hampshire waters.

Boat landings in the region sometimes suffer from litter problems, and there is occasional vandalism. Access points for trailered boats are currently at capacity during fishing tournaments. The parking area at the Hinsdale boat ramp is often full and cars with trailers park along the road on private property. Expanding parking lot size, however, invites heavier use, compounding boat traffic and enforcement problems. Improvements to existing access and new access to accommodate trailered boats should be added only after good planning and with awareness of the potential environmental impacts.

RECOMMENDATIONS

- ♦ The states should encourage more car-top boat access for the use of canoes and other small craft, on the mainstem and on tributaries, because of their low impact on the river.
- ♦ The Vermont Fish & Wildlife Department should assist the Town of Westminster with construction of a public car-top boat access.
- ♦ The New Hampshire Fish and Game Department should assist Cheshire County with construction of a boat access at the Cheshire County Farm in Westmoreland, after ample public discussion about its design.
- ♦ The NH Department of Transportation should create a small parking area at the Route 9 bridge between Chesterfield and Brattleboro and add a trail to the river for cartop boats and fishermen.
- State legislatures should provide adequate funding for summer maintenance of state-owned river access sites.
- Managers of public river access sites should screen parking from the river with a vegetated buffer strip at stateowned river access points, enforce littering laws, and provide porta-potties during the summer recreation season. They should consider potential environmental impacts before moving ahead with improvements to existing state-owned river access sites. In particular, Vermont should confer with NH Marine Patrol if expansion of Vermont river access is contemplated.

- ♦ The NH Fish and Game Department should build a boat access for small motor boats at the mouth of the Ashuelot River below Vernon Dam, for fishermen using the section of the river between the dam and the Massachusetts line.
- State agencies and towns should discourage construction of other new public boat ramps.
- ♦ TransCanada Hydro Northeast should continue to maintain portages around its dams at Bellows Falls and Vernon.
- Fishing tournament organizers should make provisions for legal parking so that the trailers and vehicles of tournament participants do not interfere with private property or clog access parking lots.

Public river access points:

TOWN	ACCESS NAME	TYPE OF BOAT	OWNERSHIP	RIVER MILE	COMMENTS
Walpole, NH	Pine Street Boat Launch	trailered and car-top boats	TransCanada Hydro Northeast	171	concrete log ramp There is a covered sign board.
	Bellows Falls Dam portage	car-top boats and small outboard motor boats	TransCanada Hydro Northeast	169	gravel ramp; 1 ½ mile portage around dam from Pine Street Boat Launch
	Connecticut River Car-top Access	car-top boats	State of New Hampshire	166	There is a covered sign board.
Westminster VT	no public river access				river access is needed
Westmoreland NH	no public river access				river access is needed
Putney, VT	Putney Landing	trailered and car-top boats	State of Vermont	157	Paved ramp There is a covered sign board.
Dummerston, VT	Dummerston Landing	car-top boats	State of Vermont	152	Gravel path There is a covered sign board.
Chesterfield, NH	River Road Access	trailered and car-top boats	Town of Chesterfield	149	Paved ramp This site needs a sign board for posting public information.
Brattleboro, VT	Old Ferry Road Access	trailered and car-top boats	State of Vermont	147	Paved ramp There is a covered sign board for posting public information.
	West River Marina	trailered and car-top boats	private marina	146	concrete log ramp; no fee A covered sign board is needed for posting public information.
	Retreat Meadows	car-top boats	Brattleboro Retreat	145	
	Knickerbocker's	car-top boats	privately owned canoe livery	145	Open to the public; at the mouth of the West River at the Route 5 bridge
HInsdale, NH	Hinsdale Island	car-top boats	State of New Hampshire	144	A covered sign board is needed for posting public information.
	Norm's Marina	trailered and car-top boats	private marina,	144	Open to the public; fee
	Prospect Street Launch	trailered and car-top boats	Town of Hinsdale	139	Gravel ramp. A covered sign board is needed for posting public information.
Vernon, VT	Governor Hunt Recreation Area	trailered and car-top boats below the dam; cartop only above the dam	TransCanada Hydro Northeast	137	Concrete log ramp; there are posts for posting public information; a covered signboard

Docks - The past five years have seen many new private docks installed on the Connecticut River mainstem, particularly in Chesterfield and Dummerston, sometimes without a permit. The docks and boat slips at Norm's Marina have also been expanded, with a permit from the State of New Hampshire.

While dock construction may reduce pressure on public access points, new docks affect riverbank stability, as riverbanks are cut, re-graded, and cleared of their natural buffer. They degrade the scenic quality of the river shore, particularly where shoreland owners have cleared trees and shrubs for a view of the river that in turn opens a view of shore front development to river users. They also create a regular maintenance problem for landowners who must remove them each fall. While much of the riverfront in Westminster, Walpole, and Westmoreland is still part of large agricultural parcels, this area could see many more docks if those lands that are unprotected by conservation agreements are sold for residential development.

In contrast to a lake installation, docks on the river require some attention in engineering and design. Although impounded for a good part of its length in the Wantastiquet region, the Connecticut River is not a lake, and dock design must be able to handle regular water level fluctuations and occasional high flows and strong currents. Docks must be anchored and tethered securely to the shore and built so they can be easily removed and stored without damage to the riverbank. High water, which often comes in June after docks are installed for the season, sometimes carries docks away. Each year some are torn loose and float down to Vernon Dam, where they are a nuisance to dam operations.

New Hampshire limits docks on rivers to seasonal structures of 6 feet by 30 feet for lots with 75 feet or more shoreline frontage. Docks on smaller lots are limited to 4 feet x 24 feet. Docks must be located more than 20 feet from the property line. New Hampshire does not permit structures such as decks over the water which transfer activities to the water that are usually associated with the land, such as sunbathing and picnicking. If stairs are desired for access to the dock, they must be no wider than 6 feet and constructed over the bank in a way that does not require regrading or recontouring. Property owners considering a dock should check with NH DES to see if they can file a Seasonal Dock Notification or whether a permit is needed.

There is currently little control over dock installation on the Vermont shore. New Hampshire jurisdiction extends to the low water mark on the Vermont side, where some docks are anchored. The situation is further complicated by the fact that the state line has been inundated in some places by dam impoundments. Both states have been reluctant to apply their dock rules to this apparent no-man's land, leaving the shoreline vulnerable to uncontrolled riverfront development. Unlike New Hampshire, Vermont still has no statewide shoreland protection law, although some towns have ordinances in place..

Ice damage to docks is common. Dock owners should remove their docks well before the river begins to freeze. The state should consider establishing a date for dock removal similar to the date in effect for ice fishing houses. Alternatively, towns could advise riverfront landowners to take in their docks when the floating safety lines at the dams are removed at the end of the recreation season.

RECOMMENDATIONS

- ♦ Vermont should adopt rules for docks on the Connecticut River similar to those established by New Hampshire, and inform its riverfront towns where the state boundary lies in each town and where the rules apply.
- Towns should consider adopting local control of docks, especially in Vermont in the absence of state oversight of dock construction.
- Property owners should check to see if a dock permit is needed before installing a dock.
- Docks should be removed well before the river begins to freeze.

Marinas - The Wantastiquet segment of the upper Connecticut River has the most concentrated marina development anywhere north of Massachusetts. There are presently two marinas here: the West River Marina at the mouth of this major tributary in Brattleboro, and Norm's Marina in Hinsdale. The Subcommittee suggests that sufficient marina service now exists, and discourages development of further such facilities elsewhere in the segment which could threaten pollution and create more boat traffic congestion leading to boating conflicts and bank erosion. If there is strong need for further boater services, towns should encourage their location off-river. Fairlee Marine in Fairlee, Vermont, offers a successful example.

RECOMMENDATIONS

• Towns and state agencies should discourage construction of new marinas on the river.

Invasive species - Exotic aquatic plants and animals can interfere with boating and swimming and reduce the value of waterfront property. The Wantastiquet region of the Connecticut River now has the most diverse group of invasive aquatic plants of any segment of the river in New Hampshire and Vermont. Submerged invasive plants include European Naiad, Eurasian Water-Milfoil, and Curly-leaf Pondweed.

Eurasian milfoil is a plant that interferes with boating, swimming and fishing, and can overwhelm native vegetation. Milfoil was introduced in the mid-1990s to the Connecticut River at Hoyt's Landing in Springfield Vermont, north of the Wantastiquet reach, and the aquatic weed is now abundant here, especially in Retreat Meadows. Water chestnut has not yet reached the river but is present in an upstream tributary.

Didymosphenia geminata (Rock Snot, also called Didymo), discovered upstream on the Connecticut and White Rivers in 2007, is an invasive freshwater diatom (microscopic algae). It can form extensive colonies on the bottoms of rocky river beds, smothering aquatic life such as macroinvertebrates (aquatic insects). Its appearance is very unattractive, making the water less appealing for recreation. Biologists believe that Didymo was introduced on contaminated fishing/wading gear, especially felt-soled waders, and that it could be spread by any other recreational equipment, including bait buckets, diving gear (neoprene), water shoes, canoes, kayaks, and life jackets. There is currently no way to control or eliminate Didymo.

While the Zebra mussel has not yet invaded the Connecticut River, the river's water chemistry is suitable, and the mussel has already infested Lake Champlain, just a short trip on the interstate for a boater or fisherman. Juvenile or larval mussels can hitchhike in anglers' bait bucket water and boat engine cooling water. These aquatic exotics reproduce rapidly because they do not have any natural local predators. The primary method of dispersal of all these exotics is by attachment to boat trailers and the hulls of boats. Other exotics, such as purple loosestrife and Japanese knotweed, are becoming common at some of the larger boat access sites.

RECOMMENDATIONS

- Town conservation commissions should monitor local boat access points for invasive species.
- The states should post illustrated signage about invasive aquatics at each river access site used by trailered
- Marina owners should caution their customers about transporting invasive species and encourage inspection of trailers and boats before launching in the river.
- Fishing tournament organizers should ask fishermen to check their boats and trailers for invasive species before launching.
- Fishermen and other recreationists must carefully clean their gear after visiting the Connecticut River and report sightings of invasive aquatic species to state agencies. Do not release unused bait into the water.
- ♦ Local outfitters and guides should educate their customers about Didymo and other invasives, and to clean their gear.
- Boaters must check their boats, trailers, and fishermen's equipment before and after launching in the river or its tributaries, to ensure that they are not unwittingly introducing unwanted invasive exotic plants and animals into the Connecticut River, or transporting them to another water body.

SWIMMING

Natural beaches along the river are popular for swimming, as are Stebbins Island and Governor Hunt Recreation Area. Scuba divers enjoy exploring the river around the bridges.

Water Quality for Swimming - In preparation for the update of this plan, and at the request of the Connecticut River Joint Commissions, the New Hampshire Department of Environmental Services conducted an assessment of the entire river north of Massachusetts in 2004, assisted by the Environmental Protection Agency.

New Hampshire considers the entire reach of the river in the Wantastiquet Region to be safe for swimming, although the State of Vermont cautions that non-point sources of pollution threaten swimming here. These include sediment and turbidity, nutrients, pathogens, metals, organics from combined sewer overflows, and runoff from urban areas, industrial and municipal sources, and agricultural lands.

Among the river's New Hampshire tributaries, the Cold River from Walpole to a point below Vilas Pool is safe for swimming. The Ashuelot River in Hinsdale is largely safe for swimming, although it has not been assessed near its confluence with the mainstem. The lower nine miles of Partridge Brook in Westmoreland are unsafe for swimming due to unknown sources of bacteria. The safety of other New Hampshire tributaries for swimming is presently unknown. Vermont tributaries are safe for swimming except for Sackett's Brook in Putney, Whetstone Brook in Brattleboro, and Newton Brook in Vernon.

Bacteria in the water can affect the safety of swimming and reach rivers through runoff, such as stormwater washing over a city street where dog walkers do not pick up after their pets, drainage from a pasture, or combined sewer overflows, where runoff from heavy storms can overwhelm a wastewater collection system and send untreated sewage into the river. Bacteria counts are variable, but are likely to be higher in the river after a heavy storm.

Failures in the recent past at several wastewater treatment plants upstream in the Connecticut River watershed have closed tributaries in those areas to swimming or threatened contact recreation for short periods of time. The public

10- Wantastiquet Region Recreation

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should be notified immediately if there is a suspected water quality violation in the Wantastiquet region during the summer recreation season. Cautions can be aired on the radio and provided to managers of Connecticut River Byway visitor centers. Water quality should be monitored to ensure safety for recreation.

There are several areas in this region where swimming should be discouraged. State agencies and town conservation commissions can help educate the public about these places. Swimming is dangerous below the Bellows Falls Dam and in the area of main flow below the Vernon Dam due to the possibility of sudden water releases. Swimmers should beware the warning horn that is sounded before the dam gates are opened. Jumping from bridges is prohibited.

RECOMMENDATIONS

- State water quality agencies should work with citizen volunteers to monitor water quality in the mainstem and tributaries, to ensure that these waters are safe for swimming and other recreation.
- Town wastewater treatment plant managers should notify the public immediately if there is a suspected water quality violation at a wastewater treatment plant during the summer recreation season.
- ♦ State agencies and town conservation commissions can assist TransCanada Hydro Northeast in cautioning the public about swimming hazards from sudden water releases below the Bellows Falls Dam and in the area of main flow below the Vernon Dam.

RIVER CAMPING / CONNECTICUT RIVER WATER TRAIL

The natural appeal of the river corridor, the increased pace of land conservation by landowners willing to share their property with the public, and the rising numbers of paddlers seeking an extended river experience prompted creation of a chain of primitive canoe campsites in the Upper Valley beginning in 1992, which extended into the Wantastiquet region. There are presently three officially sanctioned campsites on the river in this area. Two are owned and managed by TransCanada Hydro Northeast, and the other is in the care of a private landowner. There are also two private commercial campgrounds off Route 5 in Brattleboro.

Experience has proven the value of designated sites in carefully selected locations, to help focus recreational use in places that can be monitored, and reduce unauthorized camping and trespassing in places where campers are not welcome. There is no charge for use of the sites, which are available on a first-come-first-served basis, with a limit of two nights per site. Land-based access is prohibited. The sites are already well used, and wide promotion of the system is not recommended. The campsites are intended for canoe and kayak access from the river only, although power boaters have sometimes appropriated the canoe sites.

There is currently no coordinated management of the canoe campsite system. An overall management plan will be useful for various groups to follow in managing individual campsites. There is potential for the campsite system to lose its appeal if it is not well monitored, if the sites become overcrowded, or if campers do not practice "leave no trace." The National Park Service has produced campsite stewardship guidelines for the Connecticut River.

Interest in canoe camping on the river is on the rise, and creation of several more sites will help prevent trespassing and disperse camping impacts. Candidate campsite locations must be screened for the presence of archeological resources. Nearby businesses and paddling groups could adopt a campsite to assist with maintenance. Dunshee Island in Walpole, owned by the New Hampshire Fish and Game Department, offers a possible canoe campsite location, although it has a large colony of poison ivy and floods fairly often. An unauthorized dock, campsite, and privy have been installed on Monkey Island in Hinsdale.

Bald Eagles have established a nesting site near Vernon Dam, upstream of the Stebbins Island campsite. Campers should avoid disturbing the birds during the nesting season (March through August) and use the access from the south side of the island. Visitors to Connecticut River islands should avoid walking on upstream ends of gravelly islands, which, at least in other parts of the river, provide habitat for rare beetles.

RECOMMENDATIONS

- ♦ TransCanada Hydro Northeast and its successors should continue to maintain canoe campsites at Stebbins Island and Wantastiquet/Hinsdale.
- ♦ The NH Fish and Game Department should work with local volunteers to develop a canoe campsite at Dunshee Island in Walpole.
- Recreation groups should identify other potential canoe campsite locations, work with state historical resources agencies to screen sites for archeological resources, and enlist nearby businesses and paddling groups to adopt and maintain a campsite.
- ♦ Campers should avoid disturbing eagles and the rare beetle habitat on the upstream end of gravelly islands.
- Chambers of commerce, area guides, and the Connecticut River Byway Council could promote inn-to-inn canoe trips to further low-impact use of the river with an economic return to local businesses.

Primitive canoe campsites open to the public in the Wantastiquet region

TOWN	CAMPSITE NAME	CAMPSITE MANAGER	RIVER MILE	CAPACITY	AMENITIES/NOTES
Westmoreland Windyhurst NH		Local landowner	159	8	Located just downstream from Windyhurst Farm
Hinsdale, NH	Wantastiquet - Hinsdale Canoe Rest Area	TransCanada Hydro Northeast	142	8	no sanitary facilities; no fires at request of local fire department - use cookstoves
	Stebbins Island	TransCanada Hydro Northeast	137	small groups	limited to small groups to minimize disturbance to nearby nesting bald eagles; recycling toilet; no fires at request of local fire department - use cookstoves

^{*}River mileage is expressed here in distance from the mouth of the river at Long Island Sound. River mileage shown in *Along the Northern Connecticut River: An Inventory of Significant Instream Features* by MicroDATA Inc., CRJC, 1994, uses distance from the Massachusetts border, 134 miles from the Sound.

FISHING

Residents and visitors enjoy fishing nearly year-round in the Wantastiquet region. The tributaries offer fine fishing for cold water species such as rainbow, brown, and the native brook trout, and have seen a few returning Atlantic salmon. The mainstem impounded behind Vernon Dam provides habitat for warm water species such as perch, pickerel, bass, walleye, and pike.

Fishing tournaments - The Connecticut River's Vernon and Bellows Falls impoundments are popular sites for fishing tournaments, drawing boats from all over New England. They also offer potential to bring invasive species to the river, cause riverbank erosion, and create parking problems for local landowners and river users.

Tournament organizers are required to notify the New Hampshire Fish and Game Department well in advance, and should also notify Marine Patrol. They should also contact the hydro dam operators (802-291-8104) to inquire whether any water level changes are anticipated on the day of the event that might affect launching. Visiting fishermen, who may not be familiar with the area, should be informed of boating laws on the Connecticut River, especially with respect to legal speed near bridges, islands, other boats, and fishermen. NH

Marine Patrol should make a special effort to be present at these events.

RECOMMENDATIONS

- Fishing tournament organizers must notify the NH Fish and Game Department and NH Marine Patrol well before an event. They should also contact the hydro dam operators to inquire whether any water level changes are anticipated on the day of the event.
- ♦ Tournament organizers should make provisions for legal parking so that the trailers and vehicles of tournament participants do not interfere with private property or clog access parking lots. They should ask fishermen to check their boats and trailers for invasive species before launching, and inform visiting fishermen of boating laws on the Connecticut River and the threat of spreading Didymo.
- ♦ Boaters should check boats and trailers before and after launching in the Connecticut or its tributaries to avoid transporting milfoil, Zebra mussels, or other unwanted invasives.

Fish tissue toxins - While fishing is good sport, the the region's fish are no longer completely safe to eat. Mercury, largely delivered by prevailing westerly winds, has infiltrated the food web and accumulated in resident fish to the point where the State of New Hampshire considers the entire river system, and others in our region, to be contaminated with mercury and has issued fish consumption guidelines. The Wantastiquet Subcommittee asks Congress and the states to act to reduce the amount of air-borne mercury delivered to the Connecticut River Valley.

In 2000, the U.S. Environmental Protection Agency worked with the four Connecticut River states to conduct a comprehensive fish tissue toxin study. (8) This landmark study, which may be the first river-wide study New Hampshire Fish Consumption Guidelines: pregnant and nursing women, and women who may get pregnant, can safely eat one 8-oz. meal of freshwater fish per month. Children under age 7 can safely eat one 4-oz. serving per month. All other adults and children age 7 and older can safely eat four 8-oz. meals per month of freshwater fish. Bass and pickerel should be 12 inches or less in length while following the above guidelines. Advisory does not apply to stocked fish. For rainbow and brown trout, women of childbearing age and children can safely eat one meal per week, others can eat 6 meals per week. Brook trout could be either stocked or from a reproducing population, therefore they should be consumed at the rate of the general statewide advisory.

Fish from Ashuelot and May Ponds in Washington have been shown to have higher than average mercury concentrations. Sensitive populations should not consume any fish from these waters; others may consume two meals per month.

of fish tissue in the nation, represents significant cooperation among the four states, each of which contributed substantial funding and staff. The concept for the study came directly from the public, raised in the 1997 Connecticut River Corridor Management Plan.

Biologists sampled white sucker, yellow perch, and smallmouth bass from eight sections of the Connecticut River, choosing fish species that represent different levels of the food chain and are widely found in the 410 mile long river. Smallmouth bass, yellow perch and white suckers were collected during 2000 from the mainstem of the Connecticut River and composite samples were analyzed for total mercury, coplanar (dioxin-like) PCBs and organochlorine pesticides, including DDT and its breakdown products. Wantastiquet Region fish were sampled as part of Reach 5 (Wilder Dam to Vernon Dam).

In this reach, mercury in fish is a threat to fish-eating birds and mammals, but not to recreational or subsistence fishers. Dioxin-like PCBs pose a risk to recreational and subsistence fishers and to fish-eating mammals and fish-eating birds, but not to fish-eating fish. DDT and related breakdown products pose a risk to subsistence fishers and to fish-eating birds, but not to recreational fishers or fish-eating mammals. The study found that total mercury concentrations in all three species of fish were significantly higher upstream than downstream. Risk from PCBs was generally lower in upstream areas than in downstream areas, although this varied by fish species and was different for the humans, mammals, birds or fish that eat them. Dioxins and furans are a threat to subsistence fishermen, and a slight threat to fisheating mammals, but not to recreational fishermen. Ice fishermen from New Hampshire, Vermont, and Massachusetts fish in the area, and generally eat what they catch.

Lead fishing tackle is also a source of waterfowl and loon poisoning. The state of New Hampshire prohibits use of lead sinkers weighing one ounce or less and jigs less than one inch long on all fresh waters to protect wildlife from this toxic substance. Loons that ingest lead tackle usually die within a matter of weeks. Lead tackle has also been banned by Vermont. Fishermen should replace their tackle immediately.

RECOMMENDATIONS

- ♦ Congress should act to reduce the amount of air-borne mercury delivered to the Connecticut River Valley. State legislatures should support this action and find ways to reduce locally-generated mercury.
- NH DES and VT ANR should conduct a survey of local anglers to see how many are subsistence fishermen, in order to ensure that fish consumption advisories are well calibrated to local consumption.
- Fishermen should replace their lead sinkers with non-hazardous substitutes.

LAND-BASED RECREATION & TRAILS

The Wantastiquet region of the Connecticut River valley has enticed recreational hikers for well over a century. Henry David Thoreau wrote in his journal of his experience ascending "the Chesterfield Mountain" (Mount Wantastiquet) with friends in 1856. (6) Walking and trail activities are still the most popular form of recreation in the United States, including among older Americans, according to research in 2003 (9). Research in Vermont in 2002 (10) showed that the most popular recreational activities are hiking in the warm-weather months, and downhill skiing, followed by cross-country skiing and snowshoeing, in the winter. In New Hampshire, people most often enjoy walking, watching wildlife, and hiking, and half of their recreation takes place within ten miles of home. (9)

Private Lands and Landowner Liability - People in the Wantastiquet region have long been fortunate to have the chance to walk, hike, snowmobile, hunt, and ski on land belonging to others, with the understanding that the visitor would leave no trace and respect the property as if it were his or her own. This long-standing tradition in northern New England is now threatened as the pace of development quickens, new homes crowd into what were once woods, and newcomers from regions without such a tradition are uncomfortable allowing their land to remain available for public use. Land is posted and trails are blocked, closing off recreational opportunities. The number of posted acres in Windham County, Vermont, increased from 2895 acres in 1991 to 11,580 in 2004, a change of 300%. (10)

Some landowners are frustrated by litter and damage to crops or other vegetation by hunters and other recreationists. Fear of liability is also sometimes cited as factor in the decision to post land. Landowners should be aware that both New Hampshire and Vermont have enacted laws protecting private landowners who open their land to the public for recreation from liability, if the landowner has not charged a fee for this access and has not purposefully created a hazard. Land assessed under the Current Use program in New Hampshire is eligible for a 20% extra reduction if it is open for public recreation. Conservation commissions and recreation groups can help inform landowners about these protections and benefits.

RECOMMENDATIONS

New Hampshire's Parks and Recreation Division should educate NH landowners about the 20% recreational adjustment under current use and Class A/B trails and the liability protections offered by existing laws.

- Town conservation commissions should inform landowners about liability protections and benefits of allowing public recreation.
- ♦ The Connecticut River Scenic Byway Council should help educate residents and visitors to the region on respectful use of private land, such as asking landowner permission and avoiding littering.
- Recreation groups such as snowmobile clubs, Friends of Pisgah, ATV groups, hunting groups, and bicycle clubs can provide monitoring, trail watches and peer education of hikers, joggers, cross-country skiers, snowmobilers, and hunters on the proper use of private land to help prevent unwanted trespassing and littering.
- Recreation groups can encourage landowners to keep their land open to the public.

Land conservation for recreation - It comes as no surprise that residents' favorite recreational activities require plenty of open space, especially close to home. With increased development and posting of land, state government may have to purchase more land to dedicate to public recreation.

There are several federal and state programs, such as the Land and Water Conservation Fund, the federal Scenic Byway Program, SAFETEA, and the Vermont Housing and Conservation Board that can help communities protect scenic views and create trails and other recreation assets. New Hampshire's Land and Community Heritage Investment Program ("LCHIP"), which was established in part to help protect land for public recreation, is currently funded at a relatively low level. The New Hampshire legislature should reinstate full funding for LCHIP, and towns should take advantage of this and other opportunities to protect land for public recreation and open space.

A 2003 survey by New Hampshire (9) found stronger public interest in funding for non-motorized activities than for motorized activities, and more enthusiasm for land, water, and species protection than for recreation development. A similar survey by Vermont (11) showed 91.6% of Vermonters felt it was important to provide opportunities for non-motorized recreation, and 63.6% felt it was not important for the state to provide opportunities for riding motorized recreation vehicles.

RECOMMENDATIONS

- ♦ The New Hampshire General Court should reinstate full funding for LCHIP.
- State Parks and Recreation agencies should consider purchasing more land to dedicate to public recreation.
- Towns should explore the purchase of small parcels of land along the river and its tributaries for public parks, and identify opportunities, when land is developed, to retain easements for public access for trails, birding, cartop access, or other public recreation.
- ♦ Towns and the Connecticut River Byway Council should encourage protection of scenic views of the river corridor.
- ♦ Land conservation organizations should pursue open space protection, providing public recreation access for birding, car-top boats, or trails where possible and appropriate, especially near the river and its tributaries, and help protect scenic views, especially along the river.

Walking & Hiking Trails - Most towns in the Wantastiquet region offer hiking and walking trails enriched by views of the river and surrounding hills, as they were in Thoreau's day. The Wantastiquet Trail in Chesterfield and Hinsdale, which parallels the river and ascends Wantastiquet Mountain, is a popular hiking route. The Wantastiquet-Monadnock Greenway Trail is another favorite, and has been extended to Chesterfield. Interpretive trails at the Cheshire County Farm feature a fine remnant of floodplain forest and lead visitors to benches at the water's edge. A trail now connects Windmill Hill and Pinnacle Ridge from Rockingham to the Putney-Dummerston Line, and another riverfront trail connects Route 119 in Hinsdale with the Route 9 bridge in Chesterfield. The Whetstone Pathway is under development in Brattleboro.

Better access to major trail systems in the area will be appreciated. A long-held dream to create cross-river trail connections will be realized when the historic Hinsdale/Brattleboro Bridge is retired from service and becomes a bridge for pedestrians and cyclists, as has recently happened at the Chesterfield/Brattleboro Route 9 bridge. The Wantastiquet Trail and/or the Fort Hill Line trail in New Hampshire could be connected with Vermont's West River trails over the historic highway bridge or over the Fort Hill railroad bridge. There is an opportunity to create a walking tour or interpretive trail along the Cheshire Line below Westmoreland Station. Good areas of picnicking and trails include the Stone Arch railroad trestles at Aldrich Brook in Walpole, and should be protected. Better signage is needed for Hinsdale trails.

Erosion is a problem on some of the steeper trails, and more trail maintenance is required. Proper trail maintenance and design can prevent a lot of problems. Landowners should consider seeding trails on their land with a mix of native seeds. Trail erosion can become a water quality concern, especially for nearby small headwater streams that harbor trout. Trails require special care between sugaring season and Memorial Day to prevent erosion and damage. The Green Mountain Club recommends that since higher elevation soils take longer to dry out, hikers should stay below

1000' until May 1, below 2,000' until May 15, and below 3,000' until Memorial Day. Trails in Pisgah State Park are closed until late May for this reason.

RECOMMENDATIONS

- Regional Planning Commissions should coordinate multi-community recreation and open space plans.
- Town conservation commissions should explore federal and state funding programs, such as SAFE-TEA, to create trails and other new recreation opportunities, and create trail guides to town owned properties. Town conservation commissions should encourage birdwatching and other low impact forms of recreation.
- Towns should support the efforts of local trails organizations and the development of their partnership with state natural resource and transportation agencies to cooperatively plan for trail corridors and resolve conflicts.
- Recreation groups should encourage local stewardship of recreation areas (campsites, trail heads, trails), develop more published information on trail systems, and explore possible connections between trail systems, such as the Wantastiquet Trail and/or the Fort Hill Line trail in New Hampshire with Vermont's West River trails over the historic Route 11 bridge or the Fort Hill railroad bridge.
- ♦ Walpole should protect the stone arch railroad trestles at Aldrich Brook in Walpole with easements.
- Recreation groups should address trail erosion with increased trail maintenance.
- Citizens should volunteer to help with trail maintenance for their chosen form of recreation, whether it's hiking, mountain biking, cross country skiing, or snowmobiling.
- ♦ Landowners should seed trails on their land with native seed mix.
- ◆ Trail users should avoid hiking or riding on trails in wet conditions, especially when exposed soils are saturated from snow melt and rain.

Rail Trails - Three former railroad beds on the New Hampshire side have been converted to recreational trails in this region. The 42-mile Cheshire Recreational Trail, which links North Walpole with Fitzwilliam, is under development and is now used in winter. The Ashuelot Recreational Trail runs 21 miles between Keene and Winchester, and the Fort Hill Recreational Trail runs 8.9 miles in Hinsdale along the Connecticut River. There is a potential economic advantage to linking small towns with these trails. The trails pass through scenic country and small communities, past wetlands and wildlife habitat, and farms with dramatic vistas. Many of the rail trails in this region provide good birding and wildlife watching. These multi-use trails welcome hikers, bicyclists, horseback riders, snowmobiles, snowshoers, cross-country skiers, and sled dogs, but do not allow ATVs. Surface and drainage improvements might be considered, such as are now underway on the Fort Hill trail.

RECOMMENDATIONS

- New Hampshire Division of Parks and Recreation should operate and maintain the Ashuelot rail corridor as a multi-use trail, and consider surface and drainage improvements to rail trails.
- Recreation groups should create a walking tour or interpretive trail along the Cheshire Line below Westmoreland Station.

Bicycling - Bicycling is a popular family and touring sport along the Connecticut River in the Wantastiquet Region. The river roads are especially attractive routes for their excellent cycling and fine river views, particularly on a loop along river roads and bridges from Putney and across the Route 123 and historic Route 9 bridges. Another trail passes through Walpole on Routes 12, 63, and 9 across to Route 5. Commercial bicycle tours visit the region, with overnight stays at local inns and bed-and-breakfast facilities.

The hope is to create a system of scenic and informative cross-river bicycle "theme rides" in Windham County, VT and Cheshire County, NH. In a long-term effort to enhance non-motorized transportation opportunities in conjunction with the Connecticut River Byway, the Windham Regional Commission produced a map of bicycle routes and brochures for two self-guided bicycle rides in 2004. There is an opportunity for a bicycle route linking Spofford Lake with riverside routes. Safe traveling for cyclists is sometimes a concern, especially in Brattleboro. Bike lanes are needed on well-used highways. The historic Route 9 bridge should be tied in to bicycle lanes on Routes 9 and 5.

Mountain bicycling - A limited number of mountain bike trails are open in Pisgah State Park, and maps are available at the trailheads. Non-motorized, foot-pedaled mountain bikes can cause erosion on steep trails under certain conditions, since their tires are outfitted with nubs to give them greater traction for rough terrain. Cyclists should stay on trails that are hard enough to sustain this use, and avoid cycling on steep foot trails or in wet conditions when their tires are more likely to leave ruts and cause permanent trail damage. Off-road biking is a water quality concern especially in spring, and bikers should stay off trails until Memorial Day, when the trails have had a chance to dry out. Mountain bikers should be prepared to volunteer to help maintain local trails where they ride.

RECOMMENDATIONS

- State transportation agencies should work together to connect the historic Route 9 bridge with bicycle lanes on Routes 9 and 5 to improve cross-river bicycle and walking trail connections. They should make efforts to improve bicycling safety, such as working with towns to create bike paths.
- ♦ Mountain bikers should avoid riding on trails in wet conditions, especially when exposed soils are saturated from snow melt and rain, and participate in maintaining the trails they enjoy.

Birding and Wildlife Observation - Many more people spend money and time on wildlife-watching than on fishing or hunting. In 2006, 14 percent of Vermonters and 12 percent of New Hampshirites went fishing, 11 percent of Vermonters and 5 percent of New Hampshirites went hunting, and a remarkable 55 percent of Vermonters and 46 percent of New Hampshirites spent time watching, feeding, and/or photographing wildlife. Vermont ranks second highest in the nation (after Maine) in the percentage of the population that spends time watching wildlife, and New Hampshire fourth highest (3). Bird and wildlife-watching are growing in popularity among all age groups and offer a way to enjoy natural places with little or no harm to the land or river.

Middle Connecticut River Important Bird Area - The river's role as a migration corridor brings a richer variety of birds, particularly waterfowl, to the region in spring and fall. The riverfront and nearby floodplains from the Massachusetts border to Weathersfield Bow, including all of the Wantastiquet Region, are recognized as the Middle Connecticut River Important Bird Area.

Rewarding birding and wildlife watching spots in the Wantastiquet Region include Retreat Meadows, well known as a waterfowl resting area during migration, and the river setbacks in Hinsdale. The Audubon Society of New Hampshire and the Harris Center for Conservation Education lead birding outings on the Connecticut River. The Cheshire Line below the Westmoreland Station bridge passes through good songbird habitat. A particularly good birding vantage point is the Fort Hill Railroad corridor, purchased by the State of New Hampshire and converted to a hiking trail. Trails at the Cheshire County Farm offer good birding, as does a wetland at Exit 5 at Interstate 91.

The area of Vernon Dam is a favorite bald eagle observation point, where open water year-round provides the birds with good fishing when other waters are frozen over. Eagles have begun to nest in this area in recent years, drawing admirers sometimes too close or interfering with private landowners' access to their property. Isolated areas near the river which offer excellent wildlife observation and habitat must be protected from overuse. The Wantastiquet Subcommittee does not encourage feeding of wildlife.

Connecticut River Birding Trail - The Connecticut River Birding Trail, a series of nature observation sites in Connecticut River valley towns from Rockingham north to the Canadian border, was established in 2001, and descriptive maps are available to the public. Several groups working together have extended the Connecticut River Birding Trail south into the Wantastiquet region, in hopes of establishing a river-long network of birding and nature observation sites where the public is welcome to explore and enjoy the area's natural heritage. This represents a fine opportunity to engage residents and visitors in enjoying local wildlife, and would further increase interest in land conservation in the area. Birding and wildlife observation trail loops should be encouraged.

RECOMMENDATIONS

- ♦ The Connecticut River Scenic Byway Council should encourage birdwatching and other nature-based, low impact forms of recreation.
- ♦ The U.S. Fish and Wildlife Service and local land conservation organizations should seek opportunities to conserve good bird and wildlife habitat, especially near the river.
- ♦ Eagle observers should rely on good optical equipment to observe the birds from a distance to avoid disturbing them, and be respectful of private property.

Valley Quest- Vital Communities of the Upper Valley has created an innovative form of recreation, a series of treasure hunts known as Quests. Often developed in cooperation with local schools, Quests share the natural and cultural history of the region using hand-drawn maps and riddle-like clues to lead to special places such as remote lakes, historic landmarks, and forgotten cemeteries. Vital Communities has recently created new quests to explore these natural and historical sites in the Wantastiquet region: Fall Mountain Quest in Walpole, NH, Dummerston Center Quest in Dummerston, VT, and seven quests in Keene.

RECOMMENDATION

♦ Schools and other local groups can devise their own quests using Valley Quest's guidance.(12)

Hunting - Hunting as a recreational pastime has decreased in recent years, although it is still significant. New Hampshire hosted 51,000 resident and visiting hunters in 2006, and Vermont in the same year hosted 73,000 (3).

In Vermont, 81% of hunting takes place on private land, and 76% in New Hampshire, with the remaining hunting on public land. These statistics confirm what many already well understand: that respect for private landowners and courteous use of their land is the key to keeping private land open for hunting. Hunters in both states notice an increase in posting of private land against hunting.

The Connecticut River flyway brings a wealth of migrating waterfowl to the river each spring and fall, especially to the shallow waters of "setbacks" and at the mouths of tributaries such as Retreat Meadows at the West River in Brattleboro. New Hampshire and Vermont have enacted reciprocal migratory waterfowl hunting rights for licensed waterfowl hunters in the Connecticut River Zone. A person holding either a Vermont or a New Hampshire resident hunting license which allows the taking of migratory waterfowl and coots may hunt them in this area.

In some areas frequented by migrating waterfowl, there are homes located close to the water. Hunters should be aware that in New Hampshire, no one may discharge a firearm within 300 feet of a permanently occupied dwelling without the landowner's permission.(RSA 207:3-a). In Vermont, a property owner may establish a 500' safety zone around any occupied building, using signs provided by the VT Fish and Wildlife Department.

Vermont law does not provide for a mandatory safety zone around a building.

RECOMMENDATION

♦ Hunters should seek permission from landowners who have not posted their land, and obey state laws regarding discharge of firearms.

All-Terrain Vehicles - Registrations of all off-highway recreational vehicles more than doubled in New Hampshire between 1996 and 2003, and ATV numbers are increasing by 10-15% per year. All vehicles must be registered if used off the

owner's property, and cannot be used on private land without written permission of the landowner. A Vermont survey found that 18.8% of Vermonters ride ATVs. (4) Many farm and forestland owners find ATVs a convenient way to get around on their property. The following comments apply only to recreational ATV use on property owned by others.

Compared to foot travel, motorized travel by ATVs, dirt bikes, and other machines creates damage which can be especially harsh depending on the season. Most private landowners do not want ATVs on their property, because they cause erosion, degrade wetlands, and disturb wildlife. Landowners near ATV trail systems report that riders sometimes stray onto their property and leave gates open. State law restricts OHRVs from driving through wetlands and surface waters, but these laws are not always obeyed. Derry Hill in Walpole is currently suffering from problems with unauthorized ATVs in violation of easements.

There is rising demand among ATV riders for trails similar to those used by snowmobiles in winter. In New Hampshire, the state manages 250 miles of ATV trails including some on state lands. Because they were created with federal funds, the Ashuelot, Cheshire, and Fort Hill Rail Trails are not open to ATVs. In Vermont, ATVs are currently prohibited on state lands. There is growing pressure to open up public lands to all-terrain vehicles and to develop trails on private lands.

Pisgah State Park in Hinsdale has 20 miles of trails open to ATVs. This use should not expand in the park. No appropriate location for an ATV trail system exists in the Connecticut River corridor in the Wantastiquet Region. If an organized ATV group wishes to establish a trail system in a location away from the river or its tributaries, the least unsuitable site could be an unused gravel pit.

Proposed trails on state lands should be developed only after ample public discussion, and if the responsible state agency can adequately monitor the trails, with active cooperation from a local club. Trails should be consistent with local planning and zoning, and a community should have the authority to impose more stringent regulations on private lands which are part of the state trail system. Private landowners should be educated about the effects of allowing trails over streams on their land.

Snowmobile clubs present a good model for ATV riders. An adequate mandatory registration fee could provide enough funds to build trails and provide law enforcement. Part of this registration fee could also be dedicated to a landowner restitution fund to which landowners can apply for reimbursement if they have sustained damage from OHRVs. Riders should also be required to be members of a statewide ATV organization which would provide education and training. While boaters and drivers are required to pass a safety education course, and snowmobile clubs conduct classes for new riders, there is no such requirement for ATV riders. NH Fish and Game is required by law to propose a fine schedule, but has not yet done so. Penalties for eluding an officer should be meaningful.

Some believe that the NH state park funding system created in 1991 has resulted in a culture of dependency on motorized users, since the Trails Bureau must rely on registration fees for snowmobiles and other OHRVs. Because NH

The Connecticut River Zone for waterfowl hunting in this region includes that portion of New Hampshire lying west of the line defined by Route 12 and Route 63. In Vermont, this zone lies east of Interstate 91. Hunters on the Vermont side of the Connecticut River Zone must follow New Hampshire regulations.

Fish and Game does not have the manpower to enforce responsible riding, it is now making grants to towns to help them take over enforcement responsibility. Towns should consider applying for these funds if they are experiencing a problem. Town officials and landowners should contact Fish and Game if a problem occurs, and should make their concerns known to their legislators.

RECOMMENDATIONS

- ♦ State Parks and Recreation agencies should provide more enforcement to discourage ATV violations, and establish a registration fee that is adequate to provide funds for trail development and enforcement.
- ◆ Towns should control establishment of ATV trails within the town.
- New Hampshire Division of Trails should not expand the ATV trail system in Pisgah State Park.
- States should require ATV riders to be members of a statewide ATV organization.
- New Hampshire Fish and Game Department should propose a fine schedule.
- ♦ ATV riders should respect private property and ride responsibly, avoiding wet trails.

Ice safety specifics: Those hoping to venture on to the ice should check it first. The Cold Regions Research and Engineering Laboratory in Hanover recommends this rule of thumb for new, clear ice: a minimum of: 4 - 6 inches of ice to support a few well-dispersed people; 6 -7 inches for small, on-foot, group activities; and at least 8 - 10 inches for snowmobile activities. A wise precaution is to carry a long stick to help distribute weight or to lay across a hole in an emergency. If ice at the shore is cracked or soft, stay off. Avoid ice during thaws. Avoid honeycombed ice, dark snow and dark ice, and look for settling ice against the shore. Ice is generally thinner where there is moving water, such as at inlets and outlets, around bridge abutments, islands and objects protruding through the ice. Coves are generally safer than the mainstem.

Commercial recreation developments - There are three racetracks in the Wantastiquet Region, one in Hinsdale and two in Winchester. These and other commercial recreational developments are challenging to the environment of the river valley. Developments such as these should be consistent with the aesthetics of the area, and carefully follow state and local rules. Sound, lighting, and traffic are concerns. Racetracks should be located well away from surface waters, and provide for sound muffling. Opening them only to small clubs could help minimize effects upon neighbors.

RECOMMENDATIONS

♦ Towns should require racetracks and other commercial recreational developments to be located well away from surface waters.

Winter Recreation - Winter brings a different kaleidoscope of recreation opportunities to the Wantastiquet region. The area's rail trail system hums with snowmobile traffic and provides easy grades for cross country skiing. Local groups like the Bonnyvale Environmental Education Center, Windmill Hill Pinnacle Association, Stonewall Farm, and the Harris Center offer snowshoe walks and winter hikes. Cross-country skiers explore miles of groomed trails at Grafton Ponds or glide on miles of trails laid out by friends on private land as well as the rail trail and many other summer trails. A number of area farms offer horse-drawn sleigh rides. Pond skating remains a favorite. Downhill skiers flock to the many ski areas of southern Vermont and New Hampshire, including the recently revitalized Granite Gorge in Roxbury. Ice fishermen populate ponds and river setbacks, and some people enjoy skating on the river.

Ice safety - On the Connecticut River and its setbacks, ice thickness can vary greatly within a few feet, depending upon whether there is a spring below, or where the current is active. The area near Vermont Yankee no longer freezes because the plant discharges warm water from its cooling operations. In the impoundments behind dams, the water level continues to fluctuate with generation at the dam, even though the ice cover above it appears solid. There may be several feet of empty space between the bottom of the ice and the top of the water.

Snowmobiling - Well-coordinated and managed snowmobile trail systems link most towns through the efforts of local clubs, who take responsibility for grooming their trails. Agreements with private landowners allow passage during the winter, but not generally for summer use by the public. Many of these trails bring riders and business to local stores and eateries. Cross country skiers and snowmobiles now share the trail in most places with no conflict, due to good communication and care in observing trail etiquette by both groups.

As with hiking trails, snowmobile trails and the private land they cross deserve attention and care during sensitive times of the year. Snowmobiling on the river is not safe. Snowmobile clubs should discourage their members from riding on the river.

Better sound muffling and pollution control would greatly improve conditions near snowmobile trails and gathering places. Four-stroke engines are quieter and emit less pollution than two-stroke engines.

RECOMMENDATIONS

- ♦ Snowmobiles should avoid traveling over exposed soil and wet areas to avoid creating erosion and water quality problems. Clubs should enforce the rules on trail travel under erosion-prone conditions.
- Riders should avoid snowmobiling on the river.
- Snowmobilers should consider replacing their equipment with four-stroke engines.

CONNECTICUT RIVER BYWAY

The river corridor has been a popular route for auto touring since the invention of the Sunday drive. In 1999, the States of New Hampshire and Vermont designated the Connecticut River Scenic Byway along the river, after the Connecticut River Joint Commissions worked with the states and regional planning agencies on a study and implementation plan for a scenic byway in the Valley. In the Wantastiquet region, the Byway follows Routes 5 and 142 (Vermont) and 12 and 63 (New Hampshire), visiting historic villages and scenic river overlooks along the way.

CRJC now hosts the Connecticut River Scenic Byway Council, which fosters the promotion of tourism in the Connecticut River Valley, preservation of scenic, cultural, and recreational features, and development of the infrastructure of signage and other information that will enable visitors, whether from the next town or from across the country, to enjoy and explore the Valley. Membership in the Scenic Byway Council is open to all. Its steering committee has balanced representation from municipalities, regional planning agencies, chambers of commerce, cultural and natural resource organizations, the agricultural community, and state agencies.

The Byway represents a custom- made opportunity for regional economic development based upon the features that set our valley apart: fine and varied river recreation, scenic beauty, tangible history, and a rich agricultural heritage. The Byway also provides an economic reason to pursue protection of the values that give the region its appeal: the extraordinary collection of historic buildings, covered bridges, scenic farmland, and a clean environment. Scenic views along the Byway are being inventoried to help towns and conservation organizations prioritize their protection.

Multi-modal recreation potential is rich in this region. There is presently a train running between Bellows Falls and Chester, Vermont in the summer, and an excursion train along the river from Brattleboro to Charlestown would be welcomed. The vintage craft "Belle of Brattleboro," which has suspended river tours, would offer an appealing attraction to Byway visitors and area residents.

There is potential for impacts from over use by tourists. Byway organizers should strive to monitor use and seek protection of recreational features likely to sustain damage from over use, and to place a strong value upon the Byway's scenic backdrop. Upon climbing Mt. Wantastiquet with friends in 1856, Henry David Thoreau wrote, "This mountain...is the most remarkable feature here. The village of Brattleboro is peculiar for the nearness of the primitive wood and the mountain. Above all, this everlasting mountain is forever lowering over the village, shortening the day and wearing a misty cap each morning. You look up to its top at a steep angle from the village streets. This town will be convicted of a folly if they ever permit this mountain to be laid bare. Frances B. says its Indian name is Wantastiquet." (4)

Much of the appeal of the region for the Byway rests upon the same scenery that inspired Thoreau. Ridge lines and hillsides, particularly near the river, are threatened with clearing for development. Regional planning commissions can help protect the Byway's scenic value by identifying key components of scenic views to help towns and land conservation organizations prioritize lands for protection.

RECOMMENDATIONS

- ♦ State transportation agencies should provide limited signage identifying waterways which is aesthetically in keeping with the rural nature of the region.
- Regional Planning Commissions should inventory scenic views along the Connecticut River Byway and from the river, and check for disappearing views.
- ♦ Towns and the Connecticut River Scenic Byway Council should encourage protection of scenic views of the river corridor.
- ♦ The Connecticut River Scenic Byway Council should work with area chambers of commerce to encourage an excursion train along the river from Brattleboro to Charlestown, and encourage inn-to-inn canoe trips and bicycle touring to further low-impact recreation with an economic return to local businesses. Encourage river tours by the "Belle of Brattleboro."

Waypoint communities - Ten communities along the 500-mile-long Byway between Canada and the Massachusetts border have stepped forward to offer education and services to visitors. A dramatic new building built on a former brownfields site at Bellows Falls serves as the waypoint center for Walpole and other towns on both sides of the river. Brattleboro is the waypoint community serving the Wantastiquet region, sharing the history and appeal of this and

surrounding towns. The Windham Regional Commission has worked diligently with the town on plans to construct a Byway visitor center at the Hinsdale Bridge and the junction of Routes 142 and 5, incorporating the historic coal gasification plant. The project is currently awaiting funding through the federal Scenic Byway program.

RECOMMENDATIONS

♦ The Federal Highway Administration should award Scenic Byway grant funding to establish the Brattleboro waypoint center.

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