# Champlain Islands Trail Report





SUBMITTED TO: Champlain Islands Chamber of Commerce and

Island Line Steering Committee

SUBMITTED BY: Alta Planning + Design

IN ASSOCIATION WITH: Wilbur Smith Associates

Rails to Trails Conservancy



# Contents

I.	Introduction	. 1
	Report Organization	. 1
	Project Background	. 1
	Alternatives Development	. 3
II.	Existing Conditions	. 5
	Land Use and Environmental Data	. 5
	Transportation Data	. 5
	Corridor Segments	. 9
III.	Alternatives Analysis	16
	Alternative 1	16
	Alternative 2	24
	Alternative 3	
	Nature of Potential Road and Path Improvements	
	Trail-Roadway Crossings	
	Access to Existing Attractions	
	Ability to Serve Various User Groups	
	Additional Analysis	
	Summary of Analysis	47
IV.	Maintenance	49
	Recommendations and Costs	49
	Maintaining Gravel Road Surfaces	50
٧.	Conclusions	55
Appei	ndix A. Island Line Steering Committee Constitution and Roster	57
Appei	ndix B. Public Meeting and Island Line Steering Committee Meeting Notes	61
Appei	ndix C. Description of Ferries	75
Appei	ndix D. Supporting Documents	77
Appei	ndix E. Executive Summary of the South Hero Village to Allen Point Access Linkage Feasibility and Alignment Study	85
Appeı	ndix F. Island Line Rail Trail: Analysis of Economic Impact and Outline of Marketing Strategies	89
Appei	ndix G. Excerpts from "A Champlain Pathway," 1965	91
Appei	ndix H. Selectboard Input	95

# **Tables**

Table 1.	Estimated Number of Property Owners by Town Section	3
Table 2.	Average 2003 Daily Traffic on US Routes, State Routes, and Selected Local Roads	6
Table 3.	Order of Magnitude Cost Estimates	37
Table 4.	Potential Connections to Origins and Destinations	44
Table 5.	User Ratings by Facility Type	45
Table 6.	Alternative Route Comparison	46
Table 7.	Alternatives Analysis Summary	48
Table 8.	Maintenance Recommendations	49
Table 9.	Typical Annual Maintenance Costs for a 1-Mile Unpaved Trail	50
Figure	es	
3		
Figure 1.	South Hero Existing Conditions	12
Figure 2.	Grand Isle Existing Conditions	13
Figure 3.	North Hero Existing Conditions	14
Figure 4.	Alburg Existing Conditions	15
Figure 5.	Alternative 1	23
Figure 6.	Alternative 2	26
Figure 7.	Alternative 3	30
Figure 8.	South Hero Alternatives	31
Figure 9.	Grand Isle Alternatives	32
Figure 10.	North Hero Alternatives	33
Figure 11.	Alburg Alternatives	34
Figure 12.	Marked Trail-Roadway Crossing	40
Figure 13.	Sample of Trail Merging onto Roadway	41
Figure 14.	Complex Intersection Walkway and Bikeway Markings	42
Figure 15	Sample Directional Signage	43

# I. INTRODUCTION

This study was prepared for the Champlain Islands Chamber of Commerce (CICC) and the Island Line Steering Committee (ILSC). It was funded by Vermont Agency of Transportation (VTrans) and the Vermont Recreation Trails Fund. The CICC managed the study of four-season trail opportunities in Grand Isle County because of the regional nature of the study and potential economic benefits of improved bicycle and pedestrian facilities.

CICC and ILSC intended this study to be a first step towards improving bicycle and pedestrian access and safety on the islands. This study identified on-road and off-road alternatives for a north-south route through the Champlain Islands from South Hero Village to the United States/Canada border. The study process included meetings with the public to select alternatives and weigh the benefits, impacts, and desirability of each. The study includes recommendations on next steps for implementing bicycle and pedestrian improvements towards implementation of the Champlain Islands Trail.

# **Report Organization**

This section (Introduction) and Section II: Existing Conditions summarize existing conditions, base data, and mapping used to evaluate alternatives for the Champlain Islands Trail. The three alternatives are described in detail in Section III: Alternatives Analysis. Section IV: Maintenance provides cost estimates and recommendations for maintaining the trail. Section V: Conclusions summarizes the conclusions of the alternatives report.

# **Project Background**

Prior to the start of this study, the ILSC defined the purpose of the Champlain Islands Trail as follows:

The Champlain Islands Trail is envisioned as a four-season, north-south transportation facility through the islands, linking the village in South Hero, Vermont with Noyan, Quebec with access to local points of interest. The facility will be primarily for pedestrians and bicyclists, serving both long distance and local travelers of all age groups and abilities. The facility would meet the requirements of the Americans with Disabilities Act (ADA). Segments of this facility could be designed to accommodate a variety of other uses such as snowmobiling, horseback riding, ATVs, and motorized vehicles if supported by landowners and local governments.

The ILSC believes the proposed facility is needed because of the current difficulty for the variety of user groups currently attracted to the region to easily travel north and south through the islands. The variety of users may include but are not limited to: bicyclists, people using scooters, in-line skaters, users of other wheeled devices such as electric assist-bicycles, roller skaters, wheelchair users (both non-motorized and motorized), walkers, runners, equestrians, and snowmobilers or ATV users, at each town's discretion.

Route 2 is the only direct, continuous transportation facility connecting the islands, but it is not suitable for all users due to:

- The lack of sidewalks along most of the roadway for pedestrians, even though many portions of the roadways have shoulders that may accommodate pedestrians or other users.
- High traffic volumes and traffic speeds that create disquieting conditions for non-motorized users when combined with narrow shoulders
- The high number of heavy vehicles which make bicycling and walking difficult and often frightening for most bicyclists and pedestrians
- The limited width and pavement on the bridges for pedestrians and bicyclists

Other limited facilities exist for pedestrians and/or bicyclists on the islands, but they are not connected, and they do not allow either pedestrians or bicyclists to travel beyond the local area without high-speed vehicular conflicts. Limited facilities also exist for snowmobile and equestrian uses. Existing trails open to horseback riding and snowmobiling include the East Alburg Rail Trail and the South Hero Marsh Trail. Informal snowmobile trails are managed by two VAST chapters, the Island Lake Runners and the Alburg Sno Springers, but no other formal trails or permanent easements for snowmobiles exist on the islands at this time. Similarly, there are a number of informal and unmarked equestrian trails.

Other regional routes which either overlay the study area, are connected to it, or are planned to be connected to it include the Lake Champlain Bikeway, which traverses the areas of:

- Colchester's Causeway Park,
- the Burlington Bike Path to the south;
- La Route Verte, and
- the Chambly Canal Tow Path a National Historic Site of Parks Canada to the north.

There are currently two initiatives underway which will recommend improvements between South Hero village and Causeway Park - The South Hero Village to Allen Point Access Linkage Feasibility and Alignment Study, and the Allen Point Ferry Project. To the north, La Route Verte is a mostly on-road route which connects Alburg with the Chambly Canal Path at St. Jean, Quebec, and connects Chambly with Montreal on mostly urban off- road paths.

Development of routes and facilities for walking, bicycling, horseback riding, and snowmobiling address two other needs in the islands: providing more recreation opportunities for residents and strengthening the tourism sector.

Vermont Governor Douglas' recently announced Fit & Healthy Kids initiative identifies a growing trend of childhood inactivity in Vermont and calls for a comprehensive approach to fostering healthy lifestyles. Free and accessible recreational opportunities are one important strategy. The trail, if developed, could provide such a convenient opportunity throughout the Champlain Islands.

Tourism is the second largest economic sector in the Champlain Islands. The Islands Chamber of Commerce reports that a majority of the information inquiries it fields from visitors and potential visitors are about trails and bikeways. A four-season recreational trail could boost tourism in the shoulder seasons. Recent studies have documented the beneficial economic impact of the Lake Champlain Bikeway, the

Introduction

VAST snowmobile network, and the Island Line trail. The more uses a trail can accommodate, the broader the user demographic will be – and the greater the economic benefit.

## Alternatives Development

Alternatives to Route 2 include low-volume back roads, such as West Shore Roads in South Hero, Grand Isle, and Alburg, as well as existing and potential off-road paths.

Sections of the abandoned Rutland Railroad Island Line corridor present the greatest potential for off-road trail development on the islands. Most of the abandoned rail corridor is privately owned, as shown in the existing conditions maps, Figures 1-4 beginning on page 12. About 90 percent of the rail corridor is still physically intact. The parts of the rail corridor that are publicly owned are mostly adjacent to the lakeshore. The rail corridor offers potential for low-impact public recreational opportunities and access to many diverse types of natural areas and quiet open spaces for wildlife viewing (with careful planning and cooperation with the Agency of Natural Resources, the Vermont Land Trust, etc.). The owners of this abandoned rail corridor could be contacted to determine their individual positions regarding potential development and various uses of a trail on their property. That task is beyond the scope of this study. Table 1 lists an approximate number of property owners for each town and section on the islands.

Estimated Number of Property Owners by Town Section Table 1.

Town	Section	Number of Property Owners	
	Martin Rd – Route 2	4-6	
South Hero	Route 2 – Route 314	Developed: Residences and access roads on railbed	
	Route 314 – Grand Isle	8	
	Total	12-14	
	Pearl Street – Allen Road	5-6	
	Allen Road – Hyde Road	6-8	
Grand Isle	Hyde Road – Moccasin Avenue	5-6	
	Moccasin Avenue – Grand Isle Causeway	2	
	Total	18-22	
	Bow + Arrow Point	Developed: Railbed is an access road to a dense population of seasonal residences	
North Hero	Bow + Arrow Point – South End Road	6-8	
	South End Road – Station Road	Railbed is West Shore Road	
	Station Road – Alburg	7-8	
	Total	13-16	
Alburg	North Hero – Route 129	11-15	
	Route 129 – Summit Road	7-10	
	Summit Road – Truck Route	23-26	
	Truck Route – Firehouse Road	5-8	

2002.

<sup>1</sup> Island Line Rail Trail: Analysis of Economic Impact and Outline of Marketing Strategies, Leadership Champlain Project 2001-

Town	Section	Number of Property Owners
	Firehouse Road – Route 2	3-4
	Route 2 – US/Canada border	6
Total		55-69
	TOTAL	98-121

<sup>\*</sup> These numbers are estimates, subject to change upon detailed deed research.

The numerous private landowners along this corridor may or may not be inclined to consider easements allowing public access to their property. In certain cases where landowner positions were known to be against public trail development at the time of this report, alternative routes were chosen. This study makes no assumptions or preconceived conclusions regarding individual landowner actions or agreements.

Other options for off-road trails include utility easements or paths along roadways. Bicycle/pedestrian ferries are an alternative to the Route 2 bridges.

Based on input from the ILSC and at public meetings on August 27 and 28, 2003, the study team developed three alternatives for a south-to-north Champlain Islands Trail. The first alternative, as shown in Figure 5 on page 23, makes greatest use of the Island Line Railroad corridor for off-road trail development. The second alternative, as shown in Figure 6 on page 26, uses rail trails and ferries to link the islands; however, most of the route is on West Shore Road. The third alternative, as shown in Figure 7 on page 30, is the existing south-to-north Champlain Bikeway route. In Grand Isle County, the Champlain Bikeway Route consists of portions of Route 2, including the bridges, but also uses less-traveled island roads for approximately two-thirds of its length.

The ILSC and the study team presented these alternatives for public review at a public work session held in South Hero on November 13, 2003. The ILSC met on December 8, 2003 and January 22, 2004 to further discuss the alternatives. Minutes of the three public meetings and the December 2003 and January 22, 2004 ILSC meetings are provided in Appendix B.

# II. EXISTING CONDITIONS

# Land Use and Environmental Data

To assist in the development and analysis of alternatives, the study team used geographic information system (GIS) data supplied by the State of Vermont and the Northwest Regional Planning Commission (NRPC) to create base maps of existing conditions. The base data includes:

- roads,
- railroads,
- electric transmission corridors,
- town boundaries,
- 50-foot contours,
- endangered species habitat,
- deer wintering areas,
- conservation land, and
- wetlands as classified by the State of Vermont.

With information supplied by the ILSC, the CICC, and the public, the study team also mapped the various locations on the Champlain Islands that would attract bicycle and pedestrian trips:

- schools
- recreation areas
- food and convenience stores
- state parks
- village centers
- tourist accommodations and attractions
- employment centers
- other points of interest, such as vineyards and natural areas

As the existing conditions maps (Figures 1-4) show, many of the stores and village centers are on or close to Route 2, but there are still many of the other facilities scattered throughout the islands. The other large concentration of origins and destinations is along the shores of the islands.

# **Transportation Data**

#### Roadways

The study team obtained data on the existing roadways from field measurements and observation, from reports obtained from the NRPC, and from the Vermont Agency of Transportation.

The following reports contain important relevant data on existing roadways on the Champlain Islands:

- 1. Grand Isle County Roadway Corridor Study US 2, VT 314, and VT 129 Existing Conditions Report, NRPC, June 1998.
- 2. Grand Isle County Roadway Corridor Study US 2, VT 314, and VT 129 Opportunities and Options Report, Lamoureux and Dickenson Consulting Engineers, Inc., December 1998.
- 3. Lake Champlain Bikeways Initial Route Assessment Final Report, February 1995.

In the first report, NRPC acknowledges the dual and often conflicting roles of US Route 2, since it provides both local and regional access. At a public work session held in 1997 for the Grand Isle Corridor Study, comments "centered on commercial traffic, excessive speeds, damaged guardrails, lack of pedestrian crossings, and roadway user conflicts." The public expressed support for roadway improvements to enhance the safety of bicyclists and pedestrians, especially on US Route 2, and Vermont Routes 314 and 129. Table 2 summarizes daily traffic volumes on these roads for 2003.

Table 2. Average 2003 Daily Traffic on US Routes, State Routes, and Selected Local Roads

Route	Town	Volume
	South Hero	9,000
	Grand Isle	3,000
US 2	North Hero	2,800
	Alburg (south of Route 78)	1,900
	Alburg (north of Route 78)	4,100
VT 314	South Hero	3,200
	Grand Isle	960
VT 129	Alburg	730
West Shore Road	South Hero	270
	Alburg	1,300
South Street	South Hero	890
Griswold	Grand Isle	240
Lake View	North Hero	430
Border Road	Alburg	280

from VTrans Program Development Division, Traffic Research Unit, July 2003

With the exception of Route 78 in Alburg, US Route 2 is the busiest road on the islands, with diminishing traffic volumes the further north one travels until the intersection with Route 78. North of the Route 78 intersection, traffic volumes increase on US Route 2 to the New York border. Vermont 314 is busiest from Route 2 in South Hero to the Grand Isle/Plattsburg, New York Ferry Terminal. Anecdotal reports indicate that motor vehicle speeds are typically higher than 45 miles per hour on both these roads, which negatively affects the comfort of cyclists and their safety. Southbound traffic on Route 314 from the ferry occurs in surges resulting from ferry intervals.

In the NRPC's 1998 "Opportunities and Options Report" cited above, speed data was provided for US Route 2 in South Hero. Of about 475 vehicles observed, nearly 90 percent (425 vehicles) were exceeding

Alternatives Analysis

the posted speed limit of 50 miles per hour. This problem is especially pronounced during the morning and afternoon peak hours.

Trucks comprise a large percentage of total traffic volumes. In 2003, 29% of daytime traffic on US Route 2 in Alburg was trucks (FHWA Class 4-13, Class 4-7, and Class 8-13 combined). In the same year, 8% of daytime traffic on US Route 2 in South Hero was trucks, and nearly 22% of daytime traffic on US Route 2 in North Hero was trucks.

As part of the Lake Champlain Bikeway (LCB) Assessment prepared in 1995, island roads were inventoried and evaluated with information provided on:

- posted speed limit,
- lane and shoulder widths,
- pavement condition,
- dirt road condition,
- aesthetic value, and
- average daily traffic.

Lane widths on local roads were nine to 12 feet wide with no paved shoulders. Several roads were noted as "unpaved" but in good condition. These include West Shore Road in South Hero and Quaker Road in Grand Isle. Posted speed limits on local roads were generally 35 or 40 miles per hour (mph).

The LCB assessment rated East Shore Road in Grand Isle with the highest aesthetic rating (five) followed by West Shore Road in South Hero, Grand Isle, and Alburg with the second highest ratings.

In the late 1990's, Route 2 was repaved, resulting in a two- to three-foot shoulder for most of its length, which is adequate for experienced cyclists.

#### The Abandoned Island Line Corridor

#### <u>History</u>

The Island Line Railroad was built in 1900 as an alternative route to Canada and the Great Lakes, bypassing the Central Vermont Railroad. The first passenger train ran in 1901 and the major traffic was creamery or other agricultural related traffic, and through traffic to Rouses Point, NY and points beyond. The line was extremely difficult to maintain in the winter with ice causing many of the problems. The last train ran in 1961.

The Rutland main line connected Rutland to Middlebury to Burlington. (The Burlington Bike Path was constructed in the 1980s on the Island Line section between the downtown waterfront and the Winooski River.) The Island Line spur connected Burlington with Grand Isle County and continued across the county and the lake to its northerly terminus at Rouses Point, NY. (There was also another spur from Alburg Village to Noyan, Quebec that connected the Rutland with the Quebec and Montreal Southern Railway. It was abandoned in the 1930s.) Approval to abandon the entire railroad was given in 1963, and the Island line corridor was offered for sale to the highest bidder. The State of Vermont then bought the Island Line corridor from Burlington to Alburg in late 1963, for \$20,000.

7

<sup>&</sup>lt;sup>2</sup> VTRans 2003 Automatic Vehicle Classification Report

In spring of 1965, teams of state and federal officials walked the entire corridor to see what the possibilities might be and to develop a plan for the eventual re-use of the line. This walk-through, 39 years ago, was the last on-the-ground look at the corridor in its entirety, by anyone in an official investigative or planning capacity. Around the same time, Mr. Francis Poulin, a retiree of the Rutland Railroad, took up a remarkable hobby. He walked every mile of the Rutland Railroad and took overlapping pictures of the entire right of way. He took pictures of everything – every grade crossing, every industry, every siding and all the structures along the way. This collection of thousands of black and white pictures is one of the country's most compelling and thorough looks at rural America in the early 1960s. His collection is in the custody of the Rutland Railroad Historical Society.

After this official walk-through, Governor Hoff formed a commission to study alternative uses of the property. Three alternatives were recommended in a report called "A Champlain Pathway:"

#### Conventional Recreational Development

This concept, which entails basic public amenities such as parking, overlooks, and picnic tables, provided the lowest level of public investment and the lowest level for economic development/jobs created, but strongly suggested that, at the very least, the entire corridor should remain intact.

#### String of Pearls

This concept involved keeping the corridor (the String) intact, but advocated for the benefits of adding acreage to the many state-owned lakeshore segments creating small parks (the Pearls). The primary difficulty with this concept was that it would have required new thinking in land management principles. A linear park was not a commonplace idea at that time; however, it could have lead to significant private development related to recreation and tourism.

#### - Comprehensive Recreation Development—or "Super Park"

This was a National Park concept, along the lines of Cape Cod National Seashore or Acadia National Park in Maine, requiring significant investment in acquisition of additional lands in Grand Isle County and Malletts Bay. This concept was seen as an impetus for major recreational and tourism developments throughout the entire region.

After a number of months, the commission recommended **The String of Pearls**. Although there was support of the concept, many residents, adjacent landowners, and ultimately, the municipalities involved and the Department of Forests and Parks opposed this recommendation. They favored the sale of the land to abutting landowners. In 1966, after much debate, the state began to sell the land to adjoining landowners and other interested buyers for \$50 an acre. The state kept (and still holds) title to the causeways connecting the islands (with the exception of the Colchester causeway, which was acquired by the town of Colchester in the late 1960s). Today, approximately fifteen percent of the total corridor remains in public ownership.

## **Corridor Segments**

The study team did not walk the corridor as part of this report nor did they individually contact each landowner due to limitations in study funding. The corridor was photographed at road crossings. Extensive information on the approximate number of landowners in each segment was provided by Brian Costello, Island Line Project Coordinator for Local Motion. His past research, which included site visits to most sections and a collection of local knowledge, indicates that most of the railroad corridor is still intact – possibly as much as 90%. Several current owners participated in public work sessions for this study or otherwise contacted the Chamber of Commerce or other ILSC members. Their opinions of the concept of development of the railroad corridor, as unofficially reported by Mr. Costello or the Chamber of Commerce, were mixed.

It is estimated that 85% of the corridor is privately owned as shown in the existing conditions maps, Figures 1-4 beginning on page 12, and that as much as 90% of the railroad corridor is still intact. Below is a summary of the available information on present ownership status and the general condition of the rail corridor segments.

This is a summary of information gathered by Mr. Costello prior to this study through site visits and conversations with landowners. It is not presented as being comprehensive, as not all segments were accessed. Due to the length of the right-of-way, a complete review of the physical condition of the entire corridor, including culverts, bridges, drainage facilities, and side slopes was not possible.

Following is a definition of the terms used to describe the observed condition of some sections of the abandoned railbed. These general descriptions are only for the purpose of giving the reader an indication of the typical level of overall condition.

- Intact: Most of the railbed fill in place with the surface elevated above the surrounding land
- Fair: Intact; rough surface, ruts, minor washouts and/or low, wet areas; overgrown
- Good: Generally dry, level surface; passable on foot or mountain bike with minor clearing
- Very Good: Dry, level surface; passable on foot, bicycle, or vehicle; needs little or no clearing
- **Excellent:** Smooth, well-drained surface; needs little or no clearing

#### South Hero: Keeler Bay

The town owns a small section of land and railbed east of Route 2 and north of the village. The town is currently negotiating access to this wooded parcel. The rest of the segment between the village and Route 314 is developed with houses and access roads within the corridor. It would be an independent destination, not a trail segment (1000 feet).

#### South Hero/Grand Isle: Routes 2 and 314 to Pearl Street

From the intersection of Route 2 and Route 314, the corridor traverses remote woods, fields, and wetlands. It is intact and in good condition. This entire section is private. (2 mi.)

#### Grand Isle: Moccasin Avenue to the Grand Isle Causeway

The railbed between Moccasin Avenue and the causeway is part of one large private farm parcel. It is generally in very good condition and is physically isolated from the farm fields and structures. The causeway is owned by the Vermont Department of Forests, Parks, and Recreation. It is intact and in fair condition. Some original railroad ties and artifacts are still in place. There are some minor washouts. (Private railbed 0.75 mi., Causeway 0.25 mi.)



West Shore Rd (Grand Isle) looking north. Road surface is asphalt

#### North Hero: Bow and Arrow Point

This is a section of state-owned railroad corridor with lake frontage on both sides. It is also a town road. This short public section begins at the private access road to the Bow and Arrow Point Association to the south. It could possibly be accessed through Camp Abnaki, or along the privately owned railroad corridor from South End Rd. (0.5 mi.)

#### North Hero: Bow and Arrow Point to Pelot's Point Road

No information is available about this section at the time of this publication.

# North Hero: Intersection of the Railbed and Pelot's Point Road to the North Hero/Alburg Causeway

This section is all public. There is town-owned land contiguous to the state-owned railroad corridor and causeway. A full-service private marina abuts the causeway. The marina owners have indicated interest in providing facilities at the marina. It is a well-used trail in very good to excellent condition; the causeway is in fair condition with minor washouts. (2 mi.+-)



Rail corridor looking north from Pelot's Point Rd

# Alburg: North Hero/Alburg Causeway to the Alburg Dunes State Park

Access would be possible only with the cooperation of a private landowner and the Point of Tongue Association. The railroad corridor here has been converted to the Point of Tongue Road, which becomes a private trail connecting to the state-owned causeway. The trail is in fair condition, as is the causeway where there are minor washouts. (2 mi+-)

The railroad corridor from the east entrance to Sand Dunes State Park to Rt. 129 is mostly (2/3) state-owned; however, the state-owned parcels are not contiguous to one another. The corridor is in very good condition. (2 mi.)

# Alburg: Route 2, North of the Village, to Line Road (the "Noyan Branch")

This railbed section crosses approximately 12 private properties. Ten have expressed support (the others have not been contacted). This section traverses remote woods, fields, and wetlands. It ends at the US/Canada border ½ mile west of the Alburg/Noyan, Quebec Customs station. It is in good to very good condition. (1.5 mi.) The US Border Patrol has verbally expressed support during discussions with Mr. Costello. Appendix D contains a written letter of support from the Homeland Security Patrol Agent in Charge. It will be necessary for trail users to be directed to the closest border crossing station prior to crossing the international border, as happens on the Beebe Spur Trail in Newport.

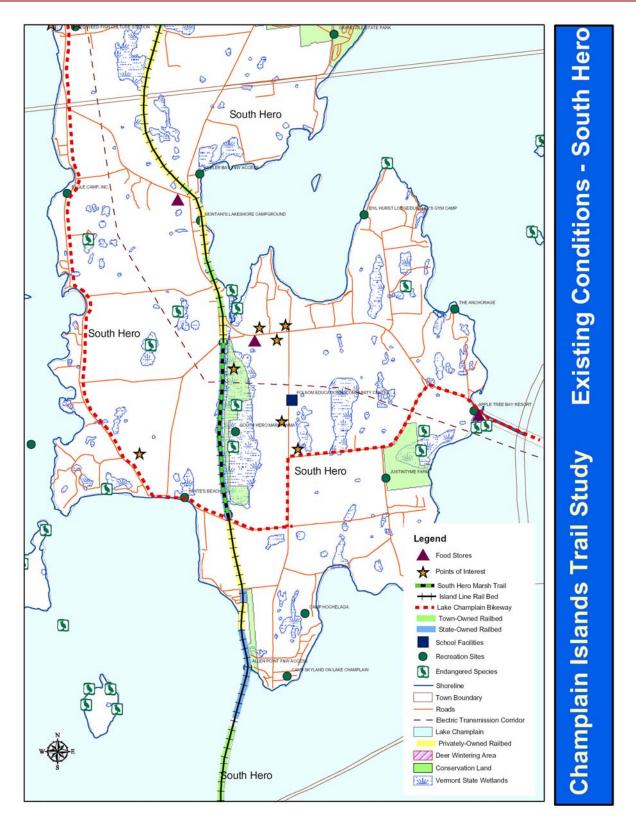


Figure 1. South Hero Existing Conditions

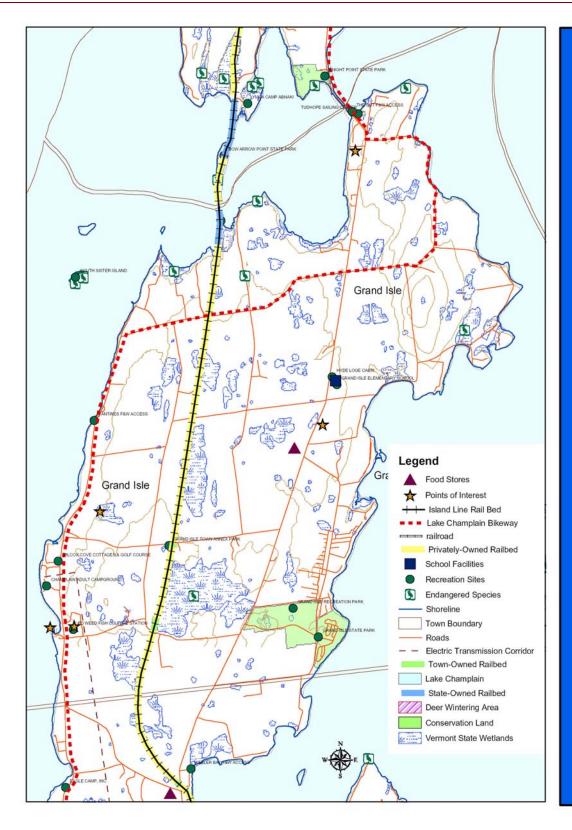


Figure 2. Grand Isle Existing Conditions

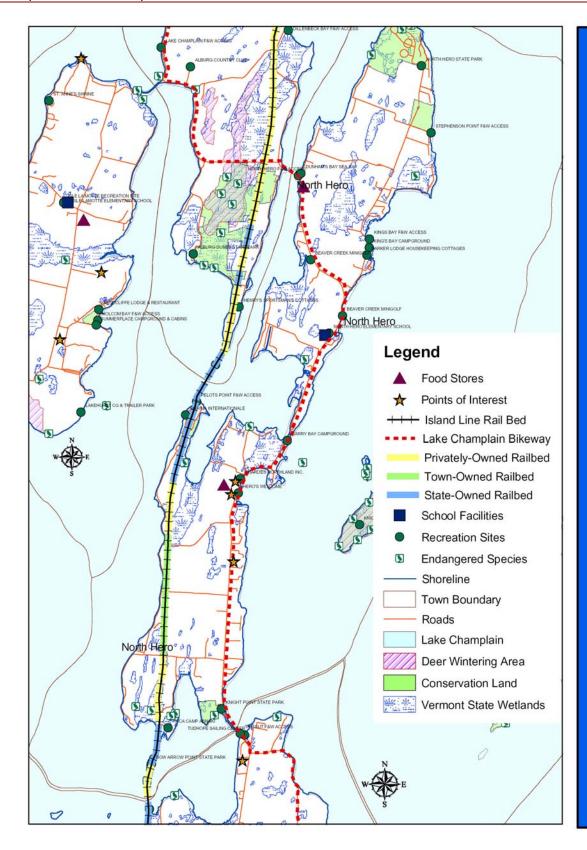


Figure 3. North Hero Existing Conditions

Figure 4. Alburg Existing Conditions

# III. ALTERNATIVES ANALYSIS

This section contains a discussion of three alternatives for a north-south bicycle and pedestrian facility through the Champlain Islands. Each of the alternatives connects in the south to the village of South Hero and in the north to Noyan, Quebec. Following the description of each alternative is a discussion of how each alternative would:

- Serve regional and local destinations, and meet the needs of various user groups
- Impact environmental, social, and cultural resources.

The sections of each alternative are discussed by town. They are described in the present tense to allow for easily understood descriptions. Based on information from the communities, the rail trail alternatives described are assumed to have a hardpacked, gravel surface.

## **Alternative 1**

This alternative makes maximum use of the former Island Line Railroad corridor for trail development, as shown in Figures 5, 8, 9, 10, and 11. Bike ferries would link Grand Isle to North Hero and North Hero to Alburg. Low volume roads would provide connection between on-road sites.

#### South Hero

#### On-Road Route

Alternative 1 begins at South Hero Village and proceeds south on South Street. The South Hero Village to Allen Point Access Linkage Feasibility and Alignment Study includes recommendations for the upgrading of South Street. Appendix E includes a copy of the Executive Summary of the report. The study recommends roadway widening and lane narrowing to create uniform shoulders of three feet. At the intersection of South Street and West Shore Road, Alternative 1 continues west on West Shore Road to the intersection of the railbed.



Rail corridor is in the tree line on the left. Looking NW from Rt. 2 just north of Rt. 314.

#### Rail Trail

Here the route turns north and follows the railbed along the existing South Hero Marsh Trail to the village. In the alignment study referenced above, Department of Fish and Wildlife (the owner of this section of railbed) makes it clear that it "...does not support significant upgrade of this path to a much higher level of use because it would result in serious negative impacts on wildlife using the South Hero Marsh." The Department does support the study's recommendation to clear and improve the trail with a smooth, grassy surface.

#### **Grand Isle**

#### Rail Trail

The rail trail continues in Grand Isle from the town line to Pearl Street. The total length of this section of rail trail, in both South Hero and Grand Isle, is about 1.5 miles.

#### On-Road Route

This paved, on-road section is on Adams School Road from Pearl Street to Moccasin Avenue and on Mocassin Avenue to the rail corridor.

Adams School Road is a suitable alternative to the rail corridor given:

- the low motor vehicle volumes and low-tomoderate speeds, and
- some landowners in this section have expressed opposition to public access.

#### Rail Trail

This rail trail section extends from Moccasin Ave to the beginning of the Grand Isle Causeway (at the westerly approach to "the Gut"). The entire segment is part of one parcel. The corridor is remote from residences, elevated from surrounding woods and farmland, and is in very good condition.

The rail trail continues for a half-mile on the Grand Isle Causeway, which is owned by the Vermont Department of Fish and Wildlife (F&W). The causeway is in generally good condition, and railroad ties are still in place.

#### Ferry

A ferry will bring trail users across the Gut. The terminus of the ferry would be at Camp Abnaki.

The Bow and Arrow Point Ferry's route would be much more than just across the gap, due to private development on the North Hero side. Although this report generally makes no preconceived conclusions



Adams School Rd north of Bell Hill Rd looking north



Adams School Rd north of Quaker Rd looking north



Looking west at gap in causeway. Grand Isle on the left, North Hero on the right.

regarding landowner opinion of trail development, Bow and Arrow Point is very narrow and densely settled with summer camps and therefore presumably incompatible with trail development. The next practical ferry landing to the north would be at the YMCA's Camp Abnaki. The camp directors and the YMCA board enthusiastically support the concept of accommodating a passenger ferry landing, and have suggested the idea

of offering hostel-type accommodations for trail users. A letter to this effect from the YMCA is included in Appendix D.

This ferry route could also be expanded to include other public recreational destinations in this bay, called "The Gut". These are: the Islands Art and Recreation Center at Knight Point State Park, and Ladd's Landing Marina, from which the State's 65-passenger boat already ferries passengers to two of its island parks - Knight Island and Burton Island.

#### North Hero

#### On-Road Route

The route from the ferry landing continues on Camp Abnaki's Driveway, west to the rail corridor.

#### Rail Trail

The route extends on a rail trail from Camp Abnaki property to the intersection of South End Road and West Shore Road. The owner of a significant portion of this segment supports trail development. Approximately five others have not been contacted.

#### On-Road Route

The final section of on-road trail extends for about two miles on West Shore Road. The gravel road is on the former rail bed from South End Road to Station Road.

#### On-Road Route

This on-road section continues on the paved Pelot's Point Road from Station Road to the intersection of the section of railroad corridor owned by the Vermont Department of Fish & Wildlife (F&W).

#### Rail Trail

The trail continues on the F&W-owned portion of the rail corridor. This section extends to the end of the North Hero Causeway. The gap in the causeway between North Hero and Alburg is 190 feet. Some landowners of the railbed parallel to this on-road section have expressed opposition to public access, and some have expressed support of public access.



Rail corridor looking south from South End Rd



West Shore Rd at Waters Edge Drive



Pelot's Point Rd looking north

#### **Ferry**

The ferry will travel from Pelot's Point to the Point of Tongue Causeway. The Pelot's Point Ferry's operation would be similar to the Allen Point Ferry, across a 190-foot gap in a causeway. The state-owned North Hero/Alburg Causeway is approximately 1.25 miles long. Currently, it is undeveloped as a trail and washed out in parts. It would need substantial investment to stabilize and improve as a family-friendly trail. Also, there is a local initiative to remove the center section of this causeway (between the cut and the fixed bridge) to improve water quality and circulation in Carry Bay. If this section were to be removed, the remaining sections would still retain their potential for public lake access and trail development independently; however, connection of the two segments would require a longer ferry route of approximately 1000 feet.

This project could possibly have the positive effect of bringing focus, funding, and materials to the cause of trail and ferry infrastructure development.

The North Hero Marina is located at the southerly end of the causeway, and would be a valuable resource for logistical support for a passenger ferry operation. The sale of goods and services would be mutually beneficial to the marina and to trail users, and the concept is appealing to the marina owner, as noted in his letter in support included in Appendix D.

On the Alburg side, the ferry could land on the F&W-owned causeway, but the trail would need to continue across the privately owned Point of Tongue Road controlled by the Point of Tongue Association. Because of the large number of landowners in the Association and along this section, alternative landing areas in Alburg should be explored.

#### Alburg

#### On-Road Route

The trail begins on-road in Alburg on the gravel Point of Tongue Road on the former rail corridor. The road is owned by the private Point of Tongue Association. The private road ends at Sand Beach Road.



Tongue Point Rd at Sand Beach Rd looking south



Rail corridor looking north from Sand Beach Rd

#### Rail Trail

The rail trail section extends from Sand Beach Road to Route 129. The trail is on the former rail bed. Two-thirds of the rail bed is state-owned and contiguous with Alburg Dunes State Park to the west. The state-owned sections are not contiguous with one another.

#### Rail Trail

The rail trail section continues from Route 129 to Summit Road. There are multiple owners of the former railroad corridor in this segment.



Rail corridor looking north from Rt 129



Railroad Ext (Pvt) looking south from Rt 129

### Rail Trail

The rail trail continues from Summit Road to US Route 2, crossing Middle Road and Truck Route. Vermont Electric Company (VELCO) is currently using part of this corridor for power transmission lines. The land under the transmission line is privately owned and subject to right-of-way agreements between the land owner and VELCO. Portions of this corridor have been converted to driveways and there may be some buildings in the corridor. This section of the rail trail has numerous owners.



Rail corridor looking north from Middle Rd



Rail corridor looking south from Truck Route

#### Rail Trail/On-Road Route

From Route 2 to Route 2/Firehouse Road, the trail is on an unused gravel road located on the rail corridor. The unused road is part of the Alburg Industrial Park infrastructure. This segment is town-owned, and intersects with the East Alburg Rail Trail, which extends from Alburg Village through the Mud Creek WMA to just past Route 78 near Alburg Springs.

#### On-Road Route

The on-road section continues on Firehouse Road from Route 2 to the Noyan Branch Railroad corridor. Firehouse Road is a low-volume, gravel, dead-end road.

#### Rail Trail

The rail trail continues on the Noyan Branch right-of-way from Firehouse Road to Route 2. This section has one owner who operates a major farm, and has not yet been contacted. This is one of the few, or possibly only, sections that may have reverted to agricultural use. This rail bed was abandoned in the 1930s.



Looking north from Truck Route



Firehouse Rd looking west



Rail corridor looking south from Route 2



Rail corridor looking north from Route 2

#### Rail Trail

The last section of rail trail is on the Noyan Branch from Route 2 to Line Road (U.S./Canada border). There are approximately 12 owners on this section. Ten owners make up the majority of the corridor and have expressed support of using the right-of-way as a rail trail. Two have not yet been contacted. The rail corridor is in good condition. At this point, the rail corridor ends just short of Line Road approximately ½ mile west of the Alburg/Noyan Customs Station at the intersection of Line and Border Roads.

The scope of this study ends at the International border. Coordination with Department of Homeland Security has been initiated, as indicated in their letter included in Appendix D. They have indicated that they would not discourage the improvement of the abandoned Noyan Branch rail corridor, and to do so may be beneficial to their mission. The key to a successful cross-border route will be proper and effective signage directing users to the Customs Station before entering Canada. (Line Road is wholly within the United States.) As the project proceeds, the Royal Canadian Mounted Police will be contacted and their guidance solicited.

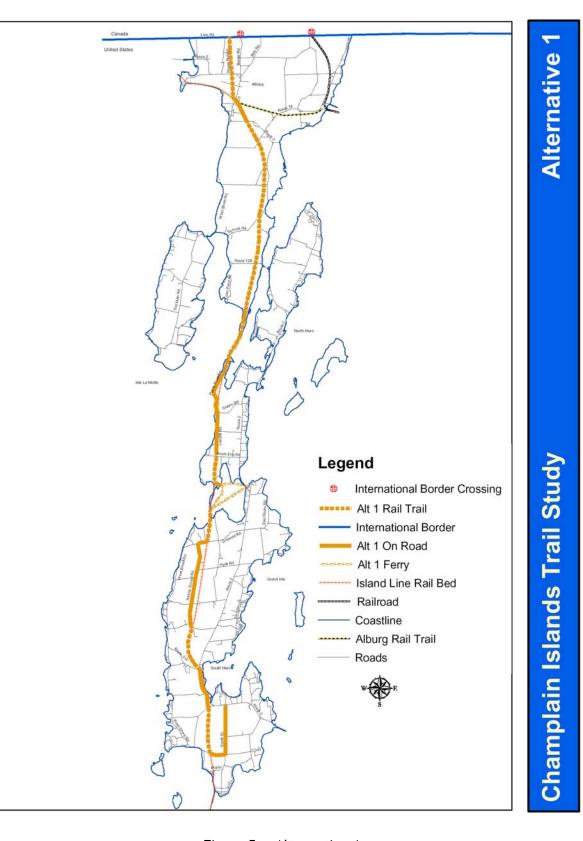


Figure 5. Alternative 1

## Alternative 2

This alternative is primarily an on-road route using West Shore Road in all four communities, as shown in Figures 6, 8, 9, 10, and 11. Rail trail development is primarily on the state-owned causeways and on the Noyan Branch in Alburg. Bike ferries would link the islands as in Alternative 1.

#### South Hero

Alternative 2 begins in South Hero as an on-road route on Route 2 from South Street to Station Road. From there, the route is on Station Road to West Shore Road, which it follows north along the shore for the remainder of South Hero.

#### Grand Isle

Heading north on West Shore Rd in Grand Isle, Alternative 2 turns right onto Moccasin Avenue, which it follows until it intersects the railroad corridor. North of Moccasin Avenue, Alternative 2 is a rail trail as in Alternative 1.

#### North Hero

Alternative 2 includes a ferry connecting Grand Isle to North Hero. The ferry would land on North Hero at Camp Abnaki.

The route would follow Abnaki Road to South End Road and South End Road to West Shore Road. From that point north, Alternative 2 is the same as Alternative 1. It is an onroad route on West Shore Road, which was built in the rail corridor, and Pelot's Point Road. A rail trail is recommended north of Pelot's Point Road to another bike ferry.

#### **Alburg**

Alternative 2 would have a bike ferry across the cut in the North Hero/Alburg Causeway through Point of Tongue by rail trail, and follow Point of Tongue Road, an on-road route. A shared use path would be constructed on an existing Class IV road within the state park along the shore from Point of Tongue Road to Coon Point Road. The Park Superintendent supports this concept, as indicated in his



Station Road (South Hero)looking west



West Shore Road (South Hero) north of Station Rd looking north. Road surface is gravel.



Moccasin Ave at West Shore Rd (Grand Isle) looking
east

letter included in Appendix D. Alternative 2 would then be an on-road route on Coon Point Road north to its junction with West Shore Road. The route then follows West Shore Road north to Route 2.



West Shore Rd (Alburg) at Alburg Country Club looking north (24 ft wide road)



West Shore Rd (Alburg) north of Truck Route looking north

Alternative 2 turns left from West Shore Rd onto Route 2 at Alburg.

In Alburg, Alternative 2 turns left onto Firehouse Road and then turns right onto a rail trail (Noyan Branch), which it follows to Line Road at the US/Canada border. This routing is the same as Alternative 1.



Route 2 (Alburg) north of West Shore Rd looking north. This 2-lane road is 30 ft wide with 11 ft lanes and 4 ft shoulders.

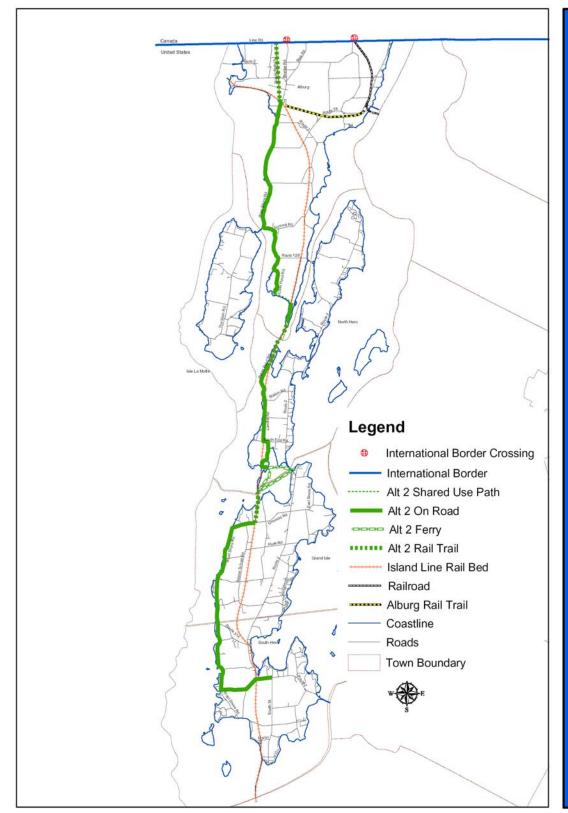


Figure 6. Alternative 2

# **Alternative 3**

This alternative consists of portions of the currently designated Champlain Bikeway, as shown in Figures 7, 8, 9, 10, and 11. The Champlain Bikeway enters the Champlain Islands from the south on the Route 2 causeway/bridge from Chittenden County. The bikeway follows Route 2 west and then turns south on Landon Road. Landon Road turns west and ends at South Street. The bikeway turns from Landon Road to South Street and then right on West Shore Road.

#### South Hero

Alternative 3 begins at South Hero Village and proceeds south on South Street. The South Hero Village to Allen Point Access Linkage Feasibility and Alignment Study includes recommendations for the upgrading of South Street. Appendix E includes a copy of the Executive Summary of the report. The study recommends roadway widening and lane narrowing to create uniform shoulders of three feet. At the intersection of South Street and West Shore Road, Alternative 3 continues west on West Shore Road. On the west side of the island, West Shore Road turns north, and Alternative 3 follows it to the town line. Just south of the town line, Route 314 joins West Shore Road.



South Street (South Hero) south of Landon Road looking south



West Shore Road (Grand Isle) north of Allen Road looking north

#### **Grand Isle**

The Champlain Bikeway continues north on West Shore Road in Grand Isle from the town line north to the ferry terminal. West Shore Road is designated as VT Route 314. At the intersection with Moccasin Avenue, Alternative 3 turns right and follows Moccasin Ave. West of Reynolds Road, it becomes Griswald Road. Alternative 3 continues east, crosses Route 2, and continues on Faywood Road as the route is followed in an easterly direction. The route then turns north on East Shore Road.

The Champlain Bikeway joins Route 2 north and crosses on the drawbridge to North Hero.



Route 2 (Grand Isle) looking north



Route 2 drawbridge linking Grand Isle and North Hero

#### North Hero

The Champlain Bikeway continues on Route 2 all the way through North Hero.



Route 2 looking south at North Hero House



Route 2 looking north on causeway



Route 2 at North Hero Elementary School looking north. This 2-lane road is 30 feet wide. Travel lanes are 11 ft wide with 4-foot shoulders.



Route 2 bridge linking North Hero and Alburg (looking west)

## Alburg

In Alburg, the Champlain Bikeway turns left onto Route129, which it follows to West Shore Road. The bike route on Route 129 and West Shore Road is the same as Alternative 2.

The Champlain Bikeway continues onto Route 2 as in Alternative 2. It follows Route 2 through the downtown past the Alburg School. It then takes Route 225 north into Quebec. A US/Canada Customs Station is located at the border on Route 225 (Border Road).



Route 225 Border Road in Alburg looking north. This 2-lane road is 22 feet wide.



Route 225 (Quebec) looking north.Much of this 2-lane road is only 16 feet wide.

Figure 7. Alternative 3

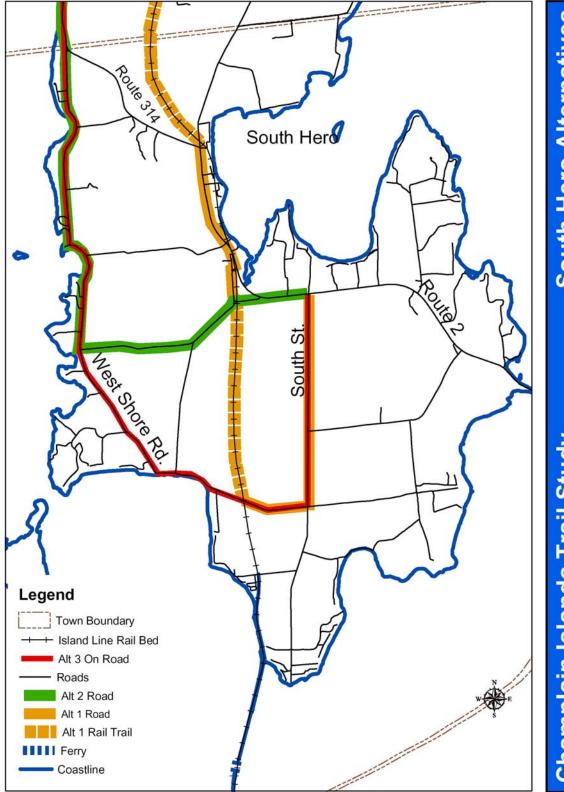


Figure 8. South Hero Alternatives

Figure 9. Grand Isle Alternatives

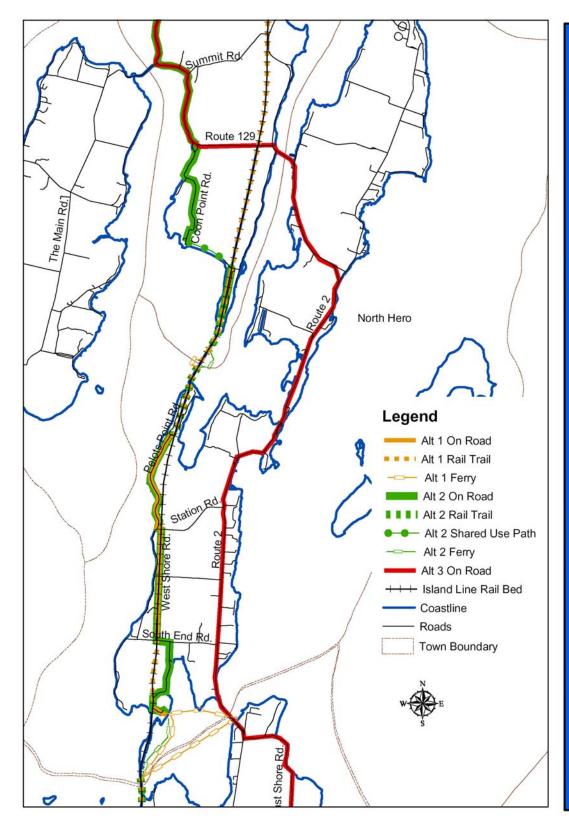


Figure 10. North Hero Alternatives

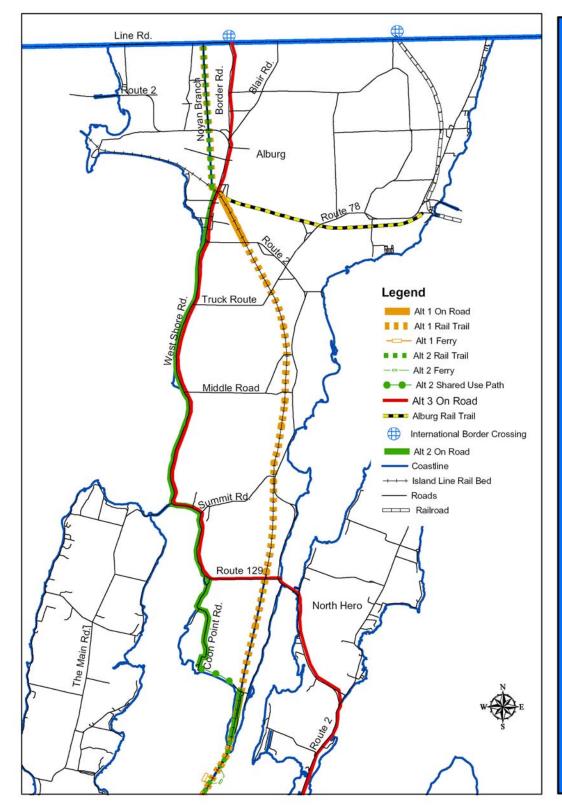


Figure 11. Alburg Alternatives

# **Nature of Potential Road and Path Improvements**

## Roadways

Each of the alternatives includes two-lane local roads. These roads have low traffic volumes of less than 1,000 vehicles per day and moderate to low motor vehicle speeds of 35 to 45 miles per hour (mph). Travel lanes generally are 11 or 12 feet wide with no paved shoulders. Bicycles travel in these lanes with motorists; thus, they are referred to as "shared travel lanes." Motorists overtaking slower moving cyclists need to slow and wait for an opportunity to safely pass bicyclists. Because of the low traffic volumes on these roads, there are often no oncoming vehicles. Therefore, the overtaking and passing process does not substantially delay motorists nor does it substantially affect bicycle safety.

Two-lane paved and unpaved roads on the islands have similar operating characteristics. However, the gravel surfaces may be less comfortable to persons on road bikes with thin tires. The more narrow the tires, the more difficult it is to operate a bicycle on loose gravel roads. Proper maintenance of the gravel road surfaces is critical to their use as a preferred bicycle travel route. Guidance on gravel road maintenance prepared by the Vermont Local Roads Program is provided in Section IV: Maintenance.

Route 314 in South Hero follows a portion of West Shore Road. This road segment carries a higher average of about 3,200 vehicles per day. Anecdotal reports indicate that traffic speeds are between 45 and 50 mph as motorists travel to and from the Plattsburg/Grand Isle Ferry.

Route 2 has been improved in recent years and generally has 11-foot lanes with four-foot shoulders. Actual motor vehicle speeds are frequently well above the posted 50 mph speed limits at most locations.

The consideration of these roads for inclusion in a designated bicycle route (for the Champlain Islands Trail) assumes that:

- Low volume two-lane roads would not be widened.
- Gravel roads would be properly maintained.
- South Street would be widened as proposed.
- The segment of Route 314 on West Shore Road would be improved to provide 11-foot lanes and three-foot shoulders as recommended in the US 2, VT 314 and VT 129 Opportunities and Options Report (1998).
- Every segment on Route 2 would have 11-foot lanes and four-foot shoulders as recommended in the US 2, VT 314 and VT 129 Opportunities and Options Report (1998) (most of these improvements have been implemented).
- Additional improvements on Route 2 bridges would be included when bridges are upgraded or replaced to better accommodate bicycles and pedestrians.

The cost of these improvements, other than the bridge improvements and road widening costs, are included in the cost estimates in Table 3 on page 37.

## Rail Trails and Shared-Use Paths

Significant segments of rail trails are included in some of the alternatives. Because the former rail corridor is owned by various public and private parties, trail development and allowed uses would be subject to owner desires. Several options are available for developing and using shared use paths within the former Island Line Railroad corridor or on new locations where applicable:

- 10-foot wide paths with a stone-dust surface course would serve more cyclists and pedestrians, especially on high-use segments. (If not maintained, stone dust surface can be difficult for bicyclists on thin tires and people in wheelchairs to use.)
- Gravel or grass shoulders could be used by horses if appropriate.
- Eight-foot wide paths could be considered in environmentally sensitive areas.
- Uses should be determined locally by landowners and the municipalities.
- Depending upon the funding source used to construct the path/trail, the use of motorized vehicles excluding maintenance and emergency vehicles and snowmobiles may be restricted.

If current owners convey abandoned rail segments to a trail management agency, uses allowed and not allowed on the trails may be specified in the conveyance.

Table 3. Order of Magnitude Cost Estimates

Alternative 1								
	Facility signage Rail Trail, ( 17.0 miles x \$110,000/mile)							
•	.0 miles x \$110,000/mile	<del>?</del> )	\$1,870,000					
Subtotal			\$1,945,000					
	Contingency	25%	\$486,250					
	Engineering, planning, & design	12.5%	\$243,125					
	Municipal Mgr	10%	\$194,500					
	Const. Services	10%	\$194,500					
	Total		\$3,063,375					
Alternative 2								
Facility signag	e		\$75,000					
	ening - 2 ft/side (8,750 f	ft x \$55/ft)	\$481,250					
	? miles x \$110,000/mile)	,	\$462,000					
Subtotal	,		\$1,018,250					
	Contingency	25%	\$254,562					
	Engineering, plannir							
	& design	12.5%	\$127,281					
	Municipal Mgr	10%	\$101,825					
	Const. Services	10%	101,825					
	Total		\$1,603,743					
Alternative 3								
Facility signag	е		\$75,000					
Route 314 wid	ening - 2 ft/side (8,750 f	t x \$55/ft)	\$481,250					
Miscellaneous	road improvements		\$100,000					
Subtotal			\$656,250					
	Contingency	25%	\$164,063					
	Engineering, plannir	ng,						
	& design	12.5%	\$70,656					
	Municipal Mgr	10%	\$65,625					
	Const. Services	10%	\$65,625					
	Total		\$1022,219					

<sup>\*</sup>These costs are for construction only, and do not include such amenities as lighting, benches, rail trail signage, water fountains, bollards, or other amenities. They also do not include bike ferry, trail easement, road widening (except as noted), or bridge improvement costs.

<sup>\*\*</sup>Additional material will be needed if a ten-foot wide path is constructed.

# **Trail-Roadway Crossings**

In each of the three alternatives, the trail must cross roadways at certain points - where the rail trail crosses a road, or an on-road section crosses another road. Additionally, there are sections that require a conversion from a rail trail to an on-road section. To blend with the character of the area, these crossings and merges should be designed at-grade. At-grade crossings create potential conflicts between trail users and motorists. However, well-designed crossings have not historically posed a safety problem, as evidenced by the thousands of successful trails around the United States with at-grade crossings. Designing safe at-grade crossings is a key to safe implementation of the Champlain Islands Trail, regardless of which alternative is implemented. Trail-roadway crossings should comply with the VTrans<sup>3</sup> Guideline for the Installation of Crosswalk Markings and Pedestrian Signing at Marked and Unmarked Crossings (hereafter referred to as the VTrans Crosswalk Guidelines), the Vermont Pedestrian and Bicycle Facilities Planning and Design Manual, MUTCD<sup>4</sup>, and any local standards that may apply.

This plan identifies the most appropriate crossing options given available information, which must be verified and/or refined through the actual engineering and design stage of the project with approvals sought from the appropriate entities, including VTrans.

Each of the three alternatives contain up to approximately 15 different intersections which should be addressed with one of the following types of crossing treatment. With only a few exceptions, these intersections are two-lane roads with speed limits (posted or un-posted) of 35 to 50 mph.

## **Crossing Types**

Virtually all crossings fit into one of the following categories:

Trail Crossing a Minor Roadway

When the roadway is paved, these crossings may be marked with crosswalk markings and should be appropriately signed, per the direction in the VTrans Crosswalk Guidelines. These will not include signals. When the roadway is unpaved, these crossings should be appropriately signed, and will also not include signals.

Trail Crossing a Major Roadway

At these locations, the trail crossing design will depend on the roadway traffic volume, speed, and trail usage. The vast majority will be designed with appropriate crosswalk markings and signage.

Merge Trail onto Existing Roadway

In this case, the separated trail merges onto a roadway, and becomes an on-road section of the trail.

On-Roadway Crossing

Some of the route options are in fact on-road bikeway/walkway routes, some on local roads and some on major roadways with marked shoulder bikeways. Parts on local roadways will be signed and marked per the MUTCD.

It should be noted that some trails use bridges or undercrossings, which provide a maximum level of safety but also generally are the most expensive and require right-of-way acquisition, maintenance, visual, and

<sup>&</sup>lt;sup>3</sup> Vermont Agency of Transportation

<sup>&</sup>lt;sup>4</sup> Manual on Uniform Traffic Control Devices

public safety considerations. Due to these considerations, in addition to the fact that undercrossings do not conform to the rural character of the area, these crossings are not recommended for the Champlain Islands Trail.

## Trail Crossing Minor or Major Roadway

This type of trail-road crossing is recommended for the majority of paved intersections on the Champlain Islands Trail, since traffic volumes do not exceed 12,000 ADT. All decisions regarding the installation of appropriate treatment at all trail-roadway crossings will be contingent upon the results of an engineering study and approval by VTrans. See Figure 12 for an example of a crossing design. Such a study will include an evaluation of vehicular traffic, line of sight, trail traffic, use patterns, vehicle speed, road type and width, and other safety issues such as the proximity of schools. As outlined in the VTrans Crosswalk Guidelines, the following criteria for non-school crossings must be met prior to installing a crosswalk:



Ladder crossing

- 1. The speed limit is 40 mph or less;
- 2. There are 20 or more pedestrians using the crossing per hour during the vehicular A.M. and P.M. peak periods (lesser volumes may be considered if a large percentage of the pedestrian population consists of young, elderly, or disabled pedestrians);
- 3. The AADT (annual average daily traffic) for the roadway (both directions combined) exceeds 3000 vehicles per day;
- 4. A sidewalk or adequate shoulder for use by pedestrians (as determined by traffic volumes, adjacent land uses and other site specific considerations) or other pedestrian destination, such as a recreation field, where there is low potential for vehicle/pedestrian conflicts exists on both sides of the roadway;
- 5. There is not another crosswalk across the same roadway within 60 m (200 ft);
- 6. A determination has been made that the pedestrian shall have the right of way over the vehicular traffic; and
- 7. Adequate sight distance (equal to or exceeding the stopping sight distance for the posted speed) is available in both directions. At a minimum, a driver must be able to see either the crosswalk or the pedestrian warning sign. It is recommended that sight distance be measured from the driver's perspective to the outer edges of the traveled lanes, to ensure that an approaching driver can see a pedestrian at any point on the crosswalk within the traveled way.

It should be noted that Vermont law does not afford bicyclists the same level of protection as pedestrians in marked crosswalks unless they are pushing their bicycles.

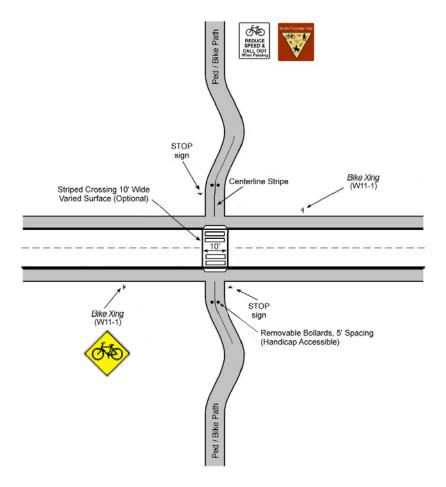


Figure 12. Marked Trail-Roadway Crossing

Also see Figure 8 on page 21 of the VTrans Crosswalk Guidelines

## Signalized/Controlled Crossings

New signalized crossings may be appropriate for crossings more than 250 feet from an existing signalized intersection and where 85th percentile travel speeds are 40 mi/h and above and/or ADT exceeds 15,000 vehicles. Such decisions will depend on the outcome of a signal warrant analysis. Each crossing, regardless of traffic speed or volume, will require additional review by a registered engineer to identify sight lines, potential impacts on traffic progression, timing with adjacent signals, capacity, and safety.

## Trail Merging Onto a Roadway

In several locations, the off-street rail-trail will merge onto local roadways for segments. There are numerous configurations of this situation, including: the trail coming in perpendicular, at an angle, or parallel to the roadway; onto local roadways or major roadways; or merging mid-block or at intersections. There is no standard way of marking or signing this merge situation, as each one needs to be designed to reflect the necessary trail user movements. Figure 9B-5 of the MUTCD illustrates one such condition (see Figure 13). All movements should be:

- Well marked and signed to direct trail users to the two-way condition of on-road bicycling, as well as to direct cyclists from the on-road portion to the off-road trail. Ladder-style crosswalks are helpful.
- Marked and signed to warn motorists of entering pedestrians and cyclists.

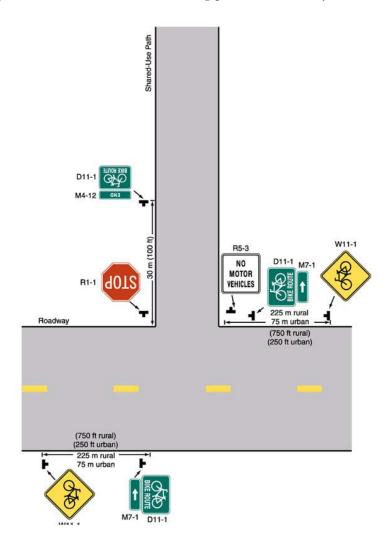


Figure 13. Sample of Trail Merging onto Roadway

## **On-Roadway Crossings**

The on-road portions of the trail require bicyclists and pedestrians to cross driveways and intersecting streets. Most locations of these will not require special signage or markings, other than standard crosswalk markings for pedestrians. In the case of complex intersections, the walkway and bikeway should be marked through the intersection (see Figure 14). However, it is unlikely that crosswalks will be permitted at this location unless connecting sidewalks are provided (see the VTrans Crosswalk Guidelines). Trail signs would help to maintain a continuous and logical route (see Figure 15), and also provide directional signage to connect to significant attractors in the area. Standard markings and signage are covered in the MUTCD and state law states that all signs on local state and federal highways must conform to MUTCD standards.

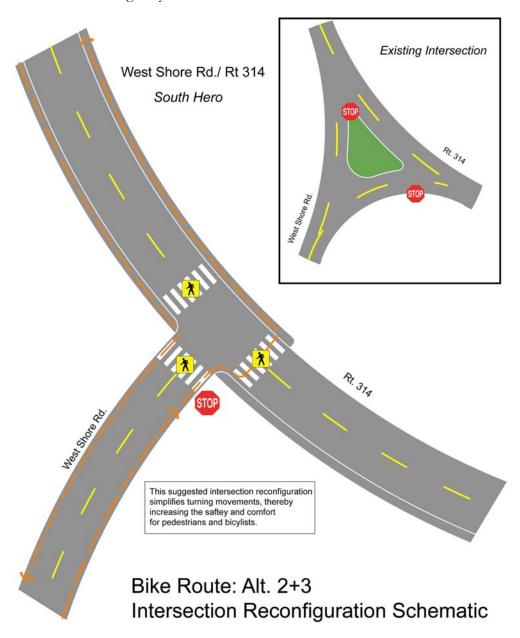
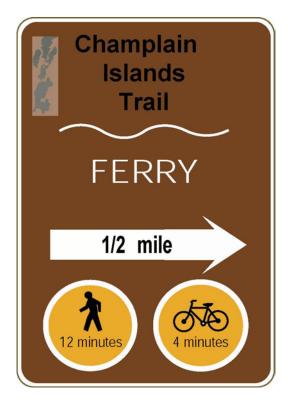


Figure 14. Complex Intersection Walkway and Bikeway Markings



Conceptual directional sign



Directional signs from the Island Line & Amenities Plan

Figure 15. Sample Directional Signage

# **Access to Existing Attractions**

Each of the three proposed alternatives serves different potential origin and destination points. Table 4 on page 44 provides an overview of how the three alternatives and the No Action Option (maintaining the current travel routes) compare in their connections to the various origins and destinations considered for this project.

Alternative 1, due to the extensive use of the existing railroad right-of-way, misses most of the Village centers and points along Route 2. Its central location through the islands, however, makes for easy connections to many of the village centers or destinations along Route 2 and the western shores of the islands. Easy connections are defined here as connections of no more than one mile along a single road, without the need to turn onto a second roadway. The connections could be signed as shown in Figure 15. To better accommodate pedestrians, who would likely use shorter segments, it is suggested that consideration of small trailhead parking areas be part of a further study of this alternative.

Alternative 2, which uses a combination of west shore roadways and the railroad right-of-way, also misses many of the village centers as well as the points along Route 2. It does connect directly to more of the potential origins and destinations along the western shores of South Hero, Grand Isle, North Hero, and Alburg. There are not many easy connections to some of the points along Route 2 with Alternative 2 because there are often several turns or jogs that need to be navigated to make the connection.

Alternative 3, which follows the route of the Champlain Bikeway, reaches the most origins and destinations. This is not surprising, since it was created, in part, to do just that. It provides the most links to village centers, stores, points of interest, and schools.

Table 4. Potential Connections to Origins and Destinations

Origin or Destination	Alternative 1	Alternative 2	Alternative 3	No Action
				'
Direct* Connection with Village Centers	1	2	3	0
Easy** Connection to Village Centers	3	0	1	0
Total Village Center Connections	4	2	4	0
Direct Connections with Food Stores	2	2	4	0
Easy Connection to Food Stores	3	0	0	0
Total Connections to Food Stores	5	2	4	0
Direct Connections to Points of Interest	0	5	9	0
Easy Connection to Points of Interest	11	4	5	0
Total Connections to Points of Interest	11	9	14	0
Direct Connection to Schools	1	1	3	0
Easy Connection to Schools	1	1	1	0
Total Connections to Schools	2	2	4	0
Easy Connections to Other Recreational Facility	17	19	24	0
Total Connections	39	34	50	0

<sup>\*</sup> Direct connections indicate that the route passes directly by the facility or point of interest.

<sup>\*\*</sup>Easy connections are connections of no more than one mile along a single road, without the need to turn onto a second roadway.

# **Ability to Serve Various User Groups**

Each of the potential trail facility types is given a general rating based on its ability to serve different users (see Table 5). This table does not indicate preferences by the users.

Table 5. User Ratings by Facility Type

Users	Route 2	Low volume paved roads	Low volume gravel roads (maintained)	Off-road trail
Advanced cyclists	✓	✓	✓	✓
Basic adult cyclist	✓	✓	✓	✓
Child cyclists				✓
Pedestrians		✓	✓	✓
Horses			✓	~
Snowmobiles/ATVs				~

- ✓ facility generally meets user needs
- uses may be accommodated on facility if supported by landowners

Rail trails and shared use paths potentially serve the widest variety of users, including cyclists of various ages and abilities using all types of bicycles. These facilities are generally more favorable for family cycling and walking. Gravel roads present difficulties for road bikes, especially touring bikes with very narrow tires. Horses may be accommodated on rail trails. This is best handled on a separate tread or path parallel and separate from the primary biking and walking path. Snowmobiles may be allowed on shared use paths built with federal transportation funds at the discretion of the trail owner.

# **Additional Analysis**

Table 6 contains additional information on the potential use, construction, needed permits, or impacts of the three alternatives. It also provides comparison information on the fourth alternative of doing nothing.

Table 6. Alternative Route Comparison

	Alternative 1	Alternative 2	Alternative 3	No Action
Project Description				
Project components	Mostly rail-trail with some on-road facilities	On-road facilities	On-road facilities	No change
Type of road crossings	Unsignalized crosswalk	Unsignalized crossing with and without crosswalks	Unsignalized crossing with and without crosswalks	Unsignalized crossings without crosswalks
Significant physical constraints	Route 2 crossing, wildlife management area and wetlands, agricultural land	Roadway widths and pavement material	Roadway widths and pavement material	Roadway widths, topography
Links with	South Hero Recreational Trail	N/A	Town Beach	N/A
Environmental/Cultural/Soc	cial Constraints			
Forest impact	Minimal	Minimal	Minimal	None
Rare, threatened, or endangered species	Passes near special habitat area	No known impact	No known impact	No impact
Wetland disturbance	Passes through and near wetland areas but with no filling	Passes near wetland areas but no change to wetland themselves	Passes near wetland areas but no change to wetland themselves	None
Interaction with road vehicular traffic	Extensive – crossing Route 2 traffic two times; South St.	Continual interaction with vehicles on low volume roads	Continual interaction with vehicles on low volume roads	Significant
Acquisition issues	Numerous easements to acquire for use of rail trail portion	Use of Town and State road right-of- ways	Use of Town road right-of-ways	None
Utilities	Minimal impacts	Minimal impacts	Minimal impacts	No impact
Permits *				
Water quality certification	Likely	No	No	No
Storm water discharge permit	Yes	No	No	No
Act 250 permit modification required	Likely	No	No	No
Qualifies for categorical exclusion	Yes	Yes	Yes	No
ADA Compliant	Yes	Yes	Yes	No
Site Plan/Zoning Permit	Likely	No	No	No

<sup>\*</sup> The ferries will need site plan/zoning permits.

Note: All three alternatives link with the East Alburg Rail Trail.

# **Summary of Analysis**

In comparing these three routes, it becomes clear that Alternatives 1 and 3, in most categories, have different benefits, serve different destinations, and serve users in very different ways.

Alternative 1 connects many lakeshore parcels, wetlands, and other natural areas, and can serve the widest range of trail users. Alternative 3 serves bicyclists and pedestrians comfortable with on-road facilities, and connects local users with many commercial establishments and attractions. It does not, however, offer the opportunity for snowmobile and equestrian uses. Alternative 2 is a blending of 1 and 3, offering some features and advantages of each, but all of neither.

As stated in the introduction, most of Alternative 1 is on private land - the abandoned Island Line Railroad corridor. To determine the feasibility and appropriateness of *any portion* of this route, the scores of owners of individual parcels, large and small, public and private, need to be contacted. Also, landowner permission is needed for a more accurate determination of existing physical conditions. These are tasks that are outside the scope of this study. Further, although construction estimates for typical rail trail improvements are included in this report, the recommended approach towards further implementation of this concept entrusts trail design decisions to the individual towns. Thus, it is only possible to determine general, planning level potential environmental impacts of the trail segments. Not until it is determined where trail development is welcome, and what levels of development are recommended, can more accurate environmental impact assessments be made.

Portions of the rail corridor were constructed in wetlands. Fill was used to create an elevated berm on which the railroad was constructed. Most of the elevated berm is still in place. It may be possible to construct a path on the existing berm without any direct impact on wetlands. A thorough assessment of both direct and indirect environmental impacts is recommended should any rail trail segments be pursued.

Most of Alternative 3 currently exists. If further study and development of Alternative 1 is pursued, it should be done as a compliment to this existing route, with a focus on safe and convenient connections between the two.

Table 7 on page 48 presents ratings of how each alternative meets a series of criteria including ability to serve different users, directness of route, and service to existing attractions. Order of magnitude cost estimates for potential road and path improvements are summarized in Table 3 on page 37. The estimates do not include cost of bike ferries, trail easements, road widening, signalized crosswalks and intersection improvements, or bridge improvements.

Table 7. Alternatives Analysis Summary

Factor	Alternative 1	Alternative 2	Alternative 3
Bicycle accommodation	4	3	3
Pedestrian accommodation	5	3	2
Accommodation of horses and snowmobiles	4	2	1
Directness of route	4	3	3
Service to existing attractions	3	3	4
Need for easements	1	3	5
Environmental impacts	3	4	5
Serves local trips	3	3	4
Tourism potential	5	4	4

Note: These ratings are general assessments that highlight the strengths and weaknesses of each route, and are not a competitive rating system. The ratings are based on a 1 to 5 scale. In the case of positive factors such as directness of route, 5 is the highest or best rating. In the case of negative factors, such as environmental impacts, a rating of 5 means the least environmental impact. High ratings are the best ratings in all cases.

# IV. MAINTENANCE

# Recommendations and Costs

Effective trail maintenance is critical to the overall success and safety of the Champlain Islands Trail. A successful maintenance program requires continuity and often involves a high level of citizen participation. As debris accumulates on road shoulders, it becomes a safety hazard for cyclists and forces them to ride in a traveled lane rather than on the shoulder. Good shoulder maintenance is necessary for paved roads if communities desire cyclists to ride in the shoulder area. In addition, general routine maintenance on a year-round basis will not only improve trail safety, but will also prolong the life of the trail.

The benefits of a good maintenance program are far-reaching, including:

- A high standard of maintenance is an effective advertisement to promote the trail as a regional and state recreational resource.
- Good maintenance can be an effective deterrent to vandalism, litter, and encroachments.
- Good maintenance is necessary to preserve positive public relations between the adjacent land owners and managing agency.
- Good maintenance can make enforcement of regulations on the trail more efficient. Local clubs and interest groups will take pride in "their" trail and will be more apt to assist in protection of the trail.
- A proactive maintenance policy will help improve safety along the trail.

Table 8 summarizes general maintenance recommendations for various aspects of a multi-use trail.

Table 8. Maintenance Recommendations

Item	Suggested Frequency
Sign replacement/repair	1-3 years
Pavement marking replacement	1-3 years
Planted tree, shrub trimming/fertilization	5 months – 1 year
Pavement sealing/potholes	5-15 years
Clean drainage system	Annual
Pavement sweeping	Monthly
Shoulder mowing*	Bi-annual – Fall/Spring
Trash disposal	As needed, twice a week
Graffiti removal	Weekly/or as reported
Maintain benches, site amenities	1 year
Pruning to maintain vertical clearance	1-4 years
Remove fallen trees	As needed
Weed control	Monthly
Water plants	As needed
Re-gravel surface	4-6 years

<sup>\*</sup>Additional maintenance may be required

In 2001, the Rails-to-Trails Conservancy published general annual costs for trail maintenance (see Table 9), which can serve as a good guideline to estimate costs. As the trail system develops and more miles are added, the annual per mile maintenance costs will decrease. Some items listed in Table 9 are not included in the construction costs listed in Table 3 on page 37.

The causeways and the ferries have unique capital and ongoing maintenance expense needs most likely to be addressed with federal dollars, as oultined in the Colchester-South Hero Causeway Improvement Project, prepared by Dufresne-Henry, 2003.

Table 9. Typical Annual Maintenance Costs for a 1-Mile Unpaved Trail

Maintenance Item	Cost
Drainage and storm channel maintenance	\$500
Re-gravel surface	\$6,864
Pickup/removal of trash	\$1,200
Weed control and vegetation management	\$1,000
Mowing of 3-foot grass shoulder along trail	\$1,200
Minor repairs to trail furniture/safety features	\$500
Maintenance supplies for work crews	\$300
Equipment fuel and repairs	\$600

Unit/Item costs from "Trails for the 21st Century," published by the Rails-to-Trails Conservancy, 2001.

# **Maintaining Gravel Road Surfaces**

Sixty-five percent of local roads in Vermont are gravel-surfaced roads. These roads are relied upon for all-weather passage of low-volume traffic. This fact sheet offers tips on maintaining gravel road surfaces. It is provided by the Vermont Local Roads Program.

### Gravel

Gravels differ. Not all gravel is good for roads. Some soils may break into fine pieces under heavy traffic, may swell when wet, or may be so hard they are difficult to work with. Good gravel is hard enough that it doesn't form dust, yet loose enough to drain. It supports the weight of traffic and distributes traffic loads sufficiently so it doesn't destroy the subgrade.

# Blending

To achieve a road that can be used in all types of weather, it is essential to achieve a proper blend of different size materials. Good road gravel contains a uniform mixture of stones with a mixture of sand and fines. Blending different sizes allows the pieces to lock and pack (compact) together to make a strong, tight surface. Usually the size of materials for a wearing surface is  $\frac{3}{4}$  inch or less.

## Maintaining Gravel Surfaces

To keep a road in good condition, the road surface and shoulders must be periodically smoothed and reshaped with a grader blade. This should be done when the gravel is moist. The dragging operation also rolls the gravel and helps compact the road surface as it is blended.

Properly-blended gravel and fines will dry to form a hard crust that provides a wearing surface. The crust carries the traffic load and sheds water until it is broken. Traffic and climatic conditions will completely break down the crust over time and reshaping will be necessary to rebuild the crust.

The speed at which a grader operates or can blade effectively will depend on the type of grader, its tire pressure, and the condition of the road surface. Going too fast will cause the grader blade to bounce, creating roughness in the road surface.

## Reshaping

Reshaping is necessary when the surface cannot be smoothed to an acceptable riding surface. The gravel subbase, eight inches or more in depth, may have to be reworked to eliminate large potholes, deep ruts, and flattened crown. The grader blade should cut well below the potholes and below the washboards.

Reshaping involves remixing the soils to get a proper blend of fines and different size stones and blading, and compacting this blended material into a properly crowned road surface. When remixing, it may be necessary to add more gravel or fines. The art of proper blending is not a cut-and-dry proposition.

Experience is the best guide to correct blending. The quality of the crust and its length of useful life depend on the skill used in blending coarse and fine materials and moisture to form the desired crust.

#### Crown

After the gravel is remixed, it is reshaped by blading to restore a proper crown and smooth surface. A proper crown has the center of the road higher than the shoulders and a straight, uniformly sloped line from the center of the road down to the shoulder edge on either side.

Keeping a crown on the road is probably the most important part of blading. Without a proper crown, water will stand, soaking and softening the road surface.

The amount of crown or cross slope in the road should be one-third to one-half inch for each foot of width measured from the center of the road to the outside edge or shoulder. This amount of crown should allow good drainage of surface water without washing off surface materials. This slope may vary in special cases.

## **Shoulders**

The shoulders are the additional width along the outside edge of the roadway. These will be either gravel-or grass-covered on most roads. The slope of the shoulder from road edge to ditch fore-slope must be equal or slightly greater than the road surface cross slope. This will allow for good drainage of surface water from the roadway. When reshaping the roadway, the shoulders should also be worked in the same manner.

The shoulders should be an extension of the road surface in order to allow water to run in sheets from the center of the road, off the sides of the road and shoulder, and into the ditch. Be careful not to form a secondary ditch by leaving a ridge of materials between the road surface and the ditch.

#### **Dust Control**

When a gravel road has dust blowing from it, the dust is the fines and, therefore, the binder is being lost. The road is deteriorating. With an average daily amount of traffic, untreated gravel roads lose about one inch of surface per year. This is equal to about 500 tons of material in a year's time for each mile of unpaved road. To replace the lost gravel can cost from \$1,000 to \$1,500 per mile each year for materials alone.

It pays a town to stabilize the gravel with calcium chloride, salt, cements, or other agents. In the long run, it may actually be more cost-effective, while keeping the roads in better condition. In addition to stabilizing the soil and reducing maintenance costs, a dust control program improves safety and reduces harmful effects to crops, the environment, and people.

Do not apply used motor oil for dust control. It is toxic and can enter the ground water.

## **Tips**

Work gravel surfaces when moist or after a rain.

The best time to use a york rake for removing cobbles is right after supper when traffic is low and it's still light enough to see.

Most washouts occur because of improper drainage.

Avoid a double ditch. Leaving a farrow in the traveled way will keep water on the road. Smooth the surface to the ditch line. Grade from the outside to the center.

Layers of gravel should be at least twice the thickness of the largest stone size. If you put on a six-inch gravel course, the largest stone should be three inches.

A key to maintaining problem washboard areas and achieving a tight, strong surface is to use high-quality crushed gravel. Also check soil quality in the base as well as the need for under drainage.

In mud season, use quality gravel instead of sand to correct problem wet areas.

Rather than disturb the entire roadway to correct occasional potholes on an otherwise sound gravel surface, patch them with a 50/50 mixture of crushed gravel and calcium chloride, sprinkle with water and tamp.

Establish a schedule for periodic inspection and resurfacing of all gravel roads on the town system.

## Summary

A gravel-surfaced road will provide a good all-weather roadway when properly constructed and maintained. Quality road gravel will depend upon local availability and budget. The material used should be suitable for

use as a base for future hardsurfacing. By putting down a good base in the beginning, the weak spots can be found over a period of years and corrected before applying a permanent hard surface.

Resurfacing will be necessary from time to time to correct pothole, transverse corrugation, or "washboard" effect and rutting. The shoulder should also be maintained when reshaping. Dust control stabilizes gravel and prevents the binder material in the gravel from blowing away.

## Resources

"Low Cost Roads," L. Odier, R.S. Milliard, Pimentel dos Santos, S.R. Mehra, Butterworth and Company, Ltd., London, 1967.

"Blading Aggregate Surfaces," NACE Training Guide Series, National Association of Counties Research Foundation, 1974.

"Maintenance of Gravel Surfaced Roads," Roger Gose, Center of Local Government Technology, Oklahoma State University, 1976.

"Maintenance of Unpaved Roads," National Academy of Sciences, Transportation Research Board, Washington, D.C., 1979.

## Vermont Local Roads Program

Saint Michael's College One Winooski Park, Box 260 Colchester, VT 05439 (800) 462-6555 (in VT) (802) 654-2652 (802) 654-2555 (Fax)

Champlain Islands Trail Report		

# V. CONCLUSIONS

The three alternatives described in the previous chapter each have merit as a continuous north-south bicycle and pedestrian facility through the islands. The four town governments have an array of choices. First, each town and the state should work to improve bicycle and pedestrian access and safety on all roads on the islands. This should be done as a matter of course. Specific roadway improvements discussed for the alternatives are recommended, as is more detailed evaluation of rail trail segments at the discretion of the towns:

- 1. Construction of four-foot shoulders on Route 2 as previously recommended by Northwest Regional Planning Commission (NRPC) and substantially implemented.
- 2. Construction of three-foot shoulders on Route 314 (West Shore Road) as previously recommended by NRPC but not yet implemented.
- 3. Upgrading of the bridges to be more accommodating to bicyclists and pedestrians.
- 4. More detailed evaluation and study of the bike ferries and rail trail segments.

The fourth recommendation will require local support. If town select boards feel there is sufficient local interest, they could encourage and support a process of contacting property owners to discuss potential rail trail development. Regional groups such as the Chamber of Commerce or Local Motion could assist the select boards in this process. Contacts over recent years have shown interest on the part of some landowners as summarized in a previous chapter. If property owners along particular abandoned rail segments express a willingness to consider trail easements, then town officials may consider appropriating funds, seeking grants, or both, to fund a more detailed feasibility analysis. This will involve site investigations and development of some level of preliminary engineering and environmental analysis. These activities are beyond the scope of this 24-mile corridor study.

The following abandoned railroad corridor segments could be considered for more detailed study at the option of public and private owners. These segments are described in more detail in Section II: Existing Conditions.

- South Hero: Town-owned land and lakefront railbed east of Rt. 2, North of the village. (1000 feet)
- South Hero/Grand Isle: Rt. 2/314 to Pearl St. Private (2 mi.)
- The Grand Isle Causeway: State-owned (Causeway 0.25 mi., private access 1 mi.)
- North Hero: Bow and Arrow Point. State-owned lakeshore railbed/town road. (0.5 mi.+-)
- North Hero: Pelot's Point and the North Hero Causeway. State-owned railbed and causeway contiguous to town-owned land, and a full-service private marina. Accessible from Pelot's Point Road. (2 mi.+-)
- Alburg/North Hero: Alburg Dunes State Park to the Alburg/North Hero Causeway. Access private, causeway public. (2 mi+-)
- Alburg: Railbed from the east entrance to Sand Dunes State Park to Rt. 129. Mostly state-owned (2 mi.)

Alburg: Route 2 to Line Road, (the "Noyan Branch"). Ends at the US/Canada border ¼ mile west of the Alburg/Noyan, Quebec Customs station. (1.5 mi.)

Shoulders are recommended for Route 314 and Route 2. In addition, local roads should also be maintained with the needs of cyclists and pedestrians in mind. This includes attention to any pavement failure at the roadway edge, proper maintenance of gravel road surfaces, and provisions for pedestrians. The latter may include grass shoulders in some areas and sidewalks in developed areas such as in school zones and village centers.

To educate visitors and residents about the area's outdoor opportunities, maps could be prepared showing specific routes and facilities for walking, bicycling, snowmobiling, and horse back riding on the islands. Bicycle and pedestrian maps should show connections to Burlington and Montreal. Notes on pavement type, scenic views, and other pertinent information should be included on the maps. Promotion of the facilities should be included in local and regional tourism materials in the United States and Canada. Due to the region's proximity to Quebec, bilingual (English/French) signs and maps should be considered. Local and regional leaders should work cooperatively with their counterparts in Quebec to advocate for the development of improved facilities between Alburg and St. Jean, the southern terminus of the Chambly Canal Path.

# APPENDIX A. ISLAND LINE STEERING COMMITTEE CONSTITUTION AND ROSTER

Approved 1/30/2003

## **Article 1. Mission**

The Island Line Steering Committee is a nonprofit association of people with a common interest in the concept of a recreation and alternative transportation route from Burlington to Montreal. It is advisory to Grand Isle County towns, Local Motion, the State of Vermont and various stakeholders and organized for the purpose of planning and developing the route using parts of the Rutland Railroad Island Line still in public ownership, and the existing Lake Champlain Bikeways route where the railbed is private. Any future on or off-road improvements would be driven by local input with a focus on landowners' concerns and local recreation and alternative transportation needs. The Committee seeks to accomplish its mission by:

- Evaluating the feasibility of potential route improvements through research, planning, and landowner contact
- Communicating with local citizens and governments along with regional, State, and Provincial planning entities
- Coordinating the implementation of the vision among governing bodies along the route
- Creating liaisons and collaborations with local organizations that share the common goal of fostering the development of the Island Line
- Advocating for route improvements and new routes with a focus on the original Island Line corridor

# Article 2. Membership

- A. Voting membership: The appointed representative from each of the organizations listed on the attached chart may be a voting member of the Committee. Appointed representatives remain the representative until such time that the ILSC receives a letter of resignation from the representative or a letter from the stakeholder group with the name of a new representative. Appointing organizations may choose to have their representative serve in a non-voting capacity.
- B. Non-voting membership: Any other person may become a non-voting member of the Committee and participate in discussions.
- C. Ex-officio membership: Any of the appointing organizations may have their representative serve as non-voting ex-officio member of the Committee.

# Article 3. Fiscal year and dues

- A. Fiscal year: The fiscal year of the Committee is the calendar year.
- B. Dues: Membership of this Committee does not require the payment of dues.

# Article 4. Officers and duties

- A. Co-Chairs: The Committee has two co-chairs, elected from among its voting members, who serve one-year terms.
- B. Election: The election of officers by the voting members is to be held at the first regular meeting of the Committee in each fiscal year.
- C. Succession: Officers serve from election until their successors are elected. If any officer does not complete his or her term, the remaining officer may designate a successor to serve the balance of such officer's term.

# Article 5. Meetings

- A. Regular meetings: The Committee shall meet at least four times per year. Meetings shall be held in accordance with Vermont open meeting law.
- B. Special meetings: The Co-chairs may call a special meeting of the members as long as the meetings are publicly warned.
- C. The Co-chairs, or their designee, shall notify members of all meetings at least 10 days in advance. The notice shall include the time, place, and general nature of the business to be transacted. Notices of meetings shall also be sent to interested members of the public, stakeholders, and local newspapers. Information on agenda items should be distributed to members in advance of the meeting.
- D. Quorum: At least <u>nine</u> voting members comprise a quorum for meetings of the Committee.

# Article 6. Voting

- A. Consensus and Voting: The Committee shall seek to establish consensus among the group when addressing issues. If consensus cannot be obtained or timely action is required, a co-chair may call for a vote. If a quorum is present, a majority of voting members casting a vote shall be the act of the Committee.
- B. Amendments to the Constitution: The Committee's Constitution may be amended by a two-thirds majority of the voting members at a meeting where at least half of the appointed members are present, provided that notice of the proposed amendment has been reviewed at a previous meeting and circulated to all members at least two weeks in advance of the subsequent meeting.

# Article 7. Rules of order

Unless otherwise provided herein, the meetings of the Committee are governed by Roberts Rules of Order, Newly Revised.

# **Island Line Steering Committee Members**

Constituency	Stakeholder	Representative	Rep Address	Rep City	Rep State	Rep Zip	Rep Email	Rep Phone	Org Contact	Org Address
TOWNS										
Alburg	Town of Alburg	Paul Hansen	PO Box 588	S. Alburg	VT	05440	shop@pivot.net	796-3778, w/868-9918	Barbara Baker - Town Clerk	P.O. Box 346
Burlington	City of Burlington	Barbara Nolfi	67 Peru Street	Burlington	VT	05401	bnolfi@datavermont.com	658-4857 w/862-1289	Wayne Gross	645 Pine Street
Colchester	Town of Colchester	Marc Landry	216 Biscayne Heights	Colchester	VT	05446	landryins@aol.com	864-6286, w/862-5775	Al Voegelle	P.O. Box 55
Grand Isle	Town of Grand Isle	David Borthwick-Leslie	East Shore North	Grand Isle	VT	05458	dborthw349@aol.com	372-4370	Town Clerk	P.O. Box 49
Haut-Richelieu, QC	MRC Haut-Richelieu	vacant								
Isle La Motte	Town of Isle La Motte	vacant		Isle La Motte	VT	05463			Sue LaBombard - Town Clerk	P.O. Box 250
North Hero	Town of North Hero	Bart Wilcox	P.O. Box 66	North Hero	VT	05474	hbwilcox3@aol.com	372-5049	Deborah Allen - Town Clerk	P.O. Box 38
South Hero	Town of South Hero	Gail Wheeler	28 Land's End Way	South Hero	VT	05486	gnwheel@earthlink.net	372-5703	Don Smallwood	P.O. Box 175
REGIONAL ENTITIE	S				•	*	•	!	•	-
Business Community	Champlain Islands Chamber of Commerce	Ruth Wallman	3501 Route 2	North Hero	VT	05474	Ruth@champlainislands.com	372-8400	Ruth Wallman	3501 Route 2
Regional Planning	Chittenden Co. RPC	org. contact will designate	30 Kimball Ave., Suite 206	South Burlington	VT	05403				30 Kimball Ave., Suite 206
Regional Planning	Northwest RPC	Bonnie Waninger	7 Lake Street #201	St. Albans	VT	05478	bwaninger@nrpcvt.com	524-5958	Bonnie Waninger	7 Lake Street #201
Regional Transportation	Chittenden Co. MPO	Christine Forde	100 Dorset Street #22	South Burlington	VT	05403	cforde@ccmpo.org		Christine Forde	100 Dorset Street #22
State of Vermont	VTrans-NW Region Coord.	Tammy Benjamin	National Life Bldg ,	Montpelier	VT	05633- 5001	Tammy.Benjamin@state.vt.us		Amy Bell	National Life Building, Drawer 33
State of Vermont	Agency of Natural	Jonathan Wood	Center Building, 103	Waterbury	VT	05671-	Jonathan.Wood@anr.state.vt.us	241-3600	Elizabeth (Wibs)	Center Building,
USER GROUPS										
Sail+Power Boaters	Winooski Valley Sail+Power Squadron	Dick Lednicky	PO Box 787	Shelburne	VT	05482	a.andizam@verizon.net	985-8151		
Canoers and Kayakers	Lake Champlain Committee	org. contact will designate							Lori Fisher	106 Main Street
Cyclists	Lake Champlain Bikeways	Lou Bresee	21 Cranwell Avenue	South Burlington	VT	05403	lakelou@together.net	846-4490 x229	Janine Heatherington	30 Kimball Ave, Suite 205
Quebec Trail users		vacant			QC					
Seniors	CIDER						cidervt@sover.net	372-4556	Robin Way	307 Route 2
People with disabilities	CIDER	Jim Holzschuh	89 East Shore Road	South Hero	VT	05486	holzschuhj@aol.com	372-4556	Jim Holzchuh	PO Box 13
Equestrians	VT Horsemen's Council	Rose Wright	PO Box 191	South Hero	VT	05486	rmwright@direcway.com	372-6640		
Fishermen	Lake Champlain International	Mike Brigham	PO Box 1714	Williston	VT	05495	mike_brigham@yahoo.com	233-6157	Keith Blake	181 South Union Street

Constituency	Stakeholder	Representative	Rep Address	Rep City	Rep State	Rep Zip	Rep Email	Rep Phone	Org Contact	Org Address
Hikers	Green Mountain Club	Mary Lou Recor	27 Woodbine by the Lake, #1	Colchester	VT	05446	mlrecor@accessvt.com	660 2634	Ben Rose	4711 Waterbury- Stowe Road
Hunters / Sportsmen	Outdoors Magazine	Dick Bayer	20B South Main Street	Alburg	VT	05440	rjbayer@grnmtsolutions.com	796-4432	James Ehlers	181 South Union Street
Snowmobilers	Island Lake Runners	Rob Straight	69 Ferry Road	South Hero	VT	05486	straight@together.net	372-3744	Bill Oakes-VAST	48 East Terrace
Historians	Alburg Historical Society	Christine+Howard Tepper	51 Coon Point Road Road	Alburg	VT	05440	tepper@together.net	796-4144	Christine+ Howard Tepper	51 Coon Point Road Road
At-Large	Island Line Steering Committee	vacant								
Railroad History	Rutland Railroad Historical Society	John Gardner	130 Pinehurst Dr.	Shelburne	VT	05482	jfr@together.net	985-9038	Laz Scangus	Arnold and Scangus 29 Ethan Allen Ave.
MAILING LIST FOLE	KS	L				1	I.			
	Alburg SnoSpringers		I	1	т —	1	I			T
	South Hero Historical Society									
	Vermont Bicycle & Pedestrian Coalition	Becka Roolf	P.O. Box 1234	Montpelier	VT	05601	becka@vtbikeped.org	324-0261, 861- 3300		
	Lake Champlain Basin Program	Bill Howland	PO Box 204, 54 West Shore Road	Grand Isle	VT	05458	whowland@lcbp.org	372-3213		
	South Hero Alternate	Peg Clark	23 Allen Point Road	South Hero	VT	05486	pegshero@aol.com	372-5718		
Haut-Richelieu, Quebec		Jean Rioux	380, 4e Avenue	St. Jean- Iberville	QC	J2X 1W9	JeanRioux@videotron.CA	418-644-1475		
	Dep't of Homeland Security	Mike Casey		Highgate	VT		Michael.Casey@dhs.gov	868-3220		
	VTrans-Chit. Co. Coord.	Polly McMurtry	National Life Building, Drawer 33	Montpelier	VT	05633- 5001	polly.mcmurtry@state.vt.us	828-2628		
	YMCA-Camp Abnaki	Tim Rollins	266 College St.	Burlington	VT	05401	Trollings@GBYMCA.org	862-9622		
	Ministre des Transport., QC	Lucie Valliere	245, boul. Saint-Jean- Baptiste	Chateaguay	QC	J6K 3C3	LValliere@mtq.gouv.qc.ca	450-698-3400 x231		
	Les Amis du Chambly Canal									
State of Vermont		Lt. Gov. Brian Dubie	115 State Street	Montpelier	VT	05633	Martha.Hanson@state.vt.us	828-2226		
	Alta Planning + Design	Mia Birk	144 NE 28th Ave	Portland	OR	97232	miabirk@altaplanning.com	503-230-9862		
	Velo Quebec	Jean-Francois Pronovost					jf_pronovost@velo.qc.ca	514-521-8356 ex 313		
Press			1	İ						1
	Burlington Free Press	Metro Desk					metro@bfp.burlingtonfreepress.com	863-3441, fax 660-1802		
	Colchester Sun						news@colchestersun.com	651-6882		
	The Islander	George Fowler					islander@vermontislander.com	372-5600		
	Canada Francais	Louise Bedard					LBedard@canadafrancais.com			
	Bob Greenough		1	1	1				1	†
	Bill Crenshaw									

# APPENDIX B. PUBLIC MEETING AND ISLAND LINE STEERING COMMITTEE MEETING NOTES

# **Local Concerns Meeting**

Wednesday, October 1<sup>st</sup>, 2003, 7-9pm Grand Isle School

## Attendees:

Ron Bushway, Grand Isle Selectboard member

Colleen Bushway

Gail Wheeler, Island Line Steering Committee, South Hero representative

Becka Roolf, VT Bicycle & Pedestrian Coalition

Will Flender

Arthur Goodrich, Grand Isle Selectboard member

Les Morway, Grand Isle Selectboard member

Mike Basch

Christine Forde, Chittenden County Metropolitan Planning Organization

Jeff Bean

Mary Lou Recor, Island Line Steering Committee, Hiking representative

Amy Bell, VTrans

Mitzi Johnson, Vermont Representative

Bonnie Waninger, Northwest Regional Planning Commission

Trox Wert

Kent Johnston

Helen Douglas

Dick Mazza, Vermont Senate

Shawn Juaire

Joseph Delecki

Carol Tremble

William Oakes, VT Association of Snow Travelers

Michael Brigham

Chapin Spencer, Local Motion

Marc Landry, Island Line Steering Committee, Colchester representative

Carolyn Prasch

Lou Bresee, Lake Champlain Bikeways

Annamarie DeMars, Grand Isle Selectboard member

David Borthwick Leslie, Island Line Steering Committee, Grand Isle representative

Ruth Wallman, Champlain Islands Chamber of Commerce

Brian Costello, Local Motion

Craig Della Penna, Rails To Trails Conservancy (project consultant)

Paul Smith, Alta Planning + Design (project consultant)

## Welcome:

Ruth Wallman, Executive Director of the Lake Champlain Islands Chamber of Commerce, welcomed guests at 7:10pm. Introductions followed.

Vermont Senator Dick Mazza thanked people for coming. He explained that trails are a priority for the Vermont Senate because of their benefits in terms of economic development, health and community connections. I am told that 80% of the calls the Chamber receives are for outdoor recreation like bicycling and snowmobiling. Vermont is making good progress with trails. They are a component of a balanced transportation system. Public input is important. I am here to listen.

## **Background:**

Chapin Spencer, Executive Director of Local Motion, provided background on the discussions to date. The Island Line Steering Committee was formed in 2001 and expanded in 2002. It engages over 20 stakeholders in exploring opportunities for four-season trails in the communities that once hosted the Rutland Railroad Island Line – with some seeing a vision of a trail linking Montreal and Burlington. To determine whether such four season trails are feasible, the Island Line Steering Committee decided to embark on a broad public planning process that has resulted in this Champlain Islands Trail Feasibility Study. Funds were secured, a scope of work was drafted, the RFP was distributed, and 5 proposals were received. In July, a subcommittee selected a collaborative proposal from consultants Wilbur Smith Associates, Alta Planning, and Rails To Trails Conservancy.

## Study Overview:

Paul Smith of Alta Planning + Design provided an overview of the feasibility planning process. These initial local concerns meetings will provide the public input necessary to begin to identify alternative alignments. The Alternatives Presentation meeting will be November 13<sup>th</sup> in South Hero. After this meeting, the consultants will prepare a preferred alternative or alternatives, projected costs and a timeline for development. The final meeting may be as late as June 2004 in order to engage seasonal residents.

## **Public Comments:**

Ken Johnston, resident in GI, avid cyclist – How does this study relate to the issue of motorized access on the Allen Point Access Area? Brian responded that the public hearing for that issue would be the following night in South Hero.

Joe Delicy – How much of the former railbed could be used? Brian responded that about a ¼ of railbed is in public ownership. 90% of the railbed is still in good shape. This will be a locally led process and any public use of any of the privately owned portions of the railbed will be dependant on landowner permission.

Joe Delicy – Have you had enough time to talk to landowners? Brian has contacted some landowners and will be contacting more within the next 6 months.

Joe Delicy – I don't like to cycle in a boring straight corridor. He likes 5-10 mile trail. Likes the Colchester path and how it connects to schools or village centers. Causeway is a great destination. He likes WSR to get off Route 2. Riding route 2 is not a great time. He doesn't find the ferries a big plus.

Carol Tremble, lives in South Hero – I like to bike to Burlington. It would be much shorter to go across the railroad causeway than the current road route. Carol bikes along Route 2 with 5-6 friends and does a loop. Likes blacktop, without a lot of traffic. Likes biking to the GI courthouse. In Alburg, likes West Shore Road in Alburg – good alternative to Route 2. Railbed could be a good alternative.

Mitzi Johnson – Village of North Hero has been nicely improved, but it is a difficult place to access by bike. Lots of cars parked on road and turning traffic. An alternative to the village would be good. Has friend who commutes by bike to Colchester, has boat across cut.

Mary Lou Recor – lives in Colchester and bicycles in the islands. The town put down gravel on West Shore Road and made it hard to bicycle on. Wants public parking areas for people who want to park then bike. She parks at Folsom School. What are other options?

Lou Bresee – The islands are a great place for outdoor recreation. West Shore Road has lots of pedestrians as well as bicycles. The challenge will be to meet the needs of a wide range of people and uses.

Carol Tremble – VAST trails are great for cross-country skiing. Unpaved surface is better for running.

Joe Delicy – What is the winter use of trails? The snow might not be good for snowmobiling and skiing. Tourists come to the campground with kids – want a 5 to 10 mile ride with kids before they get tired. What options could be provided for guests of Grand Isle State Park, Knights Point State Park, Goose Point in Alburg, etc.

Carol Tremble – The lake is the destination.

Jeffery Bean – Snowmobile potential might be greater than bicycling. How do we ensure adequate monitoring of snowmobiling behavior?

Brian Costello – We are looking at the potential trail options in sections – and the use on each section will be determined locally.

Bill Oakes – The trails dilemma is that they often come to screeching halt. Ice is a good connector. If the trails are to be used by snowmobiles, we will have to find good ice access. VAST has landowner agreements that are renewed every year. VAST will reroute trails if there are problems. Rail trails can be problematic in that the trail can't be moved if problems arise. Bill will get the VAST routes to Paul.

Bill Oakes – Most existing snowmobile trails are in South Hero, some in Grand Isle. Trails aren't groomed. Lacking enough volunteer effort in other parts of islands. To get the regular permission form, call the VAST office. Website. www.vtvast.org.

Gail Wheeler – It is important to have a direct north/south route as well as local routes to serve different users.

Bill Oakes – VASTS's trails connect to Quebec trails by Mississquoi Bay by the customs house. How would the proposed four-season trail connect to Quebec? Paul talked about the potential of the Noyan branch.

Dick Mazza – Restrooms are critical. The State awarded an enhancement grant to North Hero to provide publicly-accessible restrooms. Paul also suggested other amenities.

Les Morway – Who owns the south end of North Hero Causeway? Is it privately owned? Brian answered that the South end of Bow and Arrow Point is privately owned, and the North end is owned by the State Department of Forests and Parks and Recreation. The Grand Isle causeway is public but turns private when it hits land.

Carol – The town of South Hero owns a landlocked section of the railbed in Keeler Bay. Is there some way to make it available to the public?

Craig Della Penna asked about the land trusts in the area. There are various land trusts with holdings in the area such as the Vermont Land Trust, Lake Champlain Land Trust and South Hero Land Trust.

Lou – The drawbridge is dangerous for cyclists – the grate is very unfriendly. It needs to be fixed.

Joe Delicy – Has the Chamber done a survey with a businesses to determine whether businesses want to market to cyclists / snowmobiles? Can you link to existing facilities to better support the enthusiasts. Ruth: Day parks currently require payment for entrance, maybe there is a way to provide a permit or pass that would give users access to all the public facilities along the way.

David Borthwick-Leslie – Oregon did a study on the coastal highway comparing the expenditures of RVers and cyclists. Asked Bonnie what the results were. Bonnie recalled that both groups spent the same. The officials decided to market to cyclists because the highway was narrow, and the impact of bicycle tourism was less.

Brian – We are looking at the possibility that this trail could be a historic interpretive corridor connecting natural areas and attractions through the islands, Quebec and Chittenden County. We need to prepare for Celebration Champlain – a multi-year celebration culminating in 2009.

Troy Went -- I have B&B in Grand Isle. A third of guests come here for cycling. A majority of cyclists are looking for local rides. Only the most experienced will do the 60-mile loop over to NY.

Helen Douglas – I like to bike tour in the islands. It is important to have a through route along with the meandering routes depending on the user's reason for traveling.

Marc Companion – It is important to look at where children in the towns are trying to go. How do we accommodate children and residents seeking to get to local destinations?

Carol Tremble – Skatepark by fishing access is a popular destination for kids. Kids are skating down to this destination.

Troy West – like WSR but Route 314 is a dangerous place because folks are racing to catch the ferry. The shoulder is very narrow. Is there an alternative to Route 314? Can you get from Route 314 down to SH? Mitzi Johnson suggests Bell Hill Road to Pearl Street and you can cross Route 2 to Kim's Snack Bar.

Paul Smith – Route 314 might need a 4' shoulder where the volume is higher. Brian suggested that there may be a railbed option should the landowners be supportive.

Lou Bresee– Route 314 from Keeler's Bay to the ferry is a difficult place to ride. A good restaurant that serves locals will serve everyone else as well. If we look for serving the locals first, the long-distance trail users may also use facility.

Troy – Tourists like to see Stone Castles.

Marc Landry – lives in Colchester and has a summer place in GI. The Colchester trail segment has made the neighborhood better. Grand Isle has amenities on both sides of the island. On the east side: the Island Lake House, the organic farm, the Hyde Cabin, etc. Off road routes are important and look for alternatives on both sides of the island.

Jeffry Bean – has the steering committee thought about promoting the recreational opportunities. What about a large event to draw attention to the area? Ruth: the Chamber is currently marketing outdoor recreational opportunities. Paul highlighted Lake Champlain Bikeways – a non-profit organization that is also promoting the area.

Becka Roolf, Executive Director the of Vermont Bicycle & Pedestrian Coalition – It is important to see walking and bicycling as transportation. The definition of transportation is the moving people or goods. If someone goes for a scenic drive, it is not considered recreation. It is a transportation trip. Same goes for walking and bicycling.

Mitzi Johnson – The North Hero House accommodates bicycle tours. Let's ask VBT what are good parts of cycling in the islands and what sections could be improved. Can VAST offer the same information?

Paul – We want continued input after the Alternatives Meeting on November 13. Please send all your ideas to us. We can use other information to identify attractions. Let's focus on identifying the local destinations that won't show up on other maps.

Christine – What are the important spots to connect?

Mitzi Johnson – Let's show day care places.

[NAME?] – I am a landowner in GI who owns a section of the old railbed. My privacy is important. It is a common misconception that the land is public. Surprised that there aren't more people here tonight. I am not interested in opening my land for public access. I already have a problem with people coming into my backyard. Mitzi suggested that this process can clarify what can be public access and what is clearly private.

Jeffry Bean – Who would monitor and maintain a trail in the summer months? Paul replies that it depends. Roads are maintained by whoever owns the facility. Regarding trails, some times an inter-municipal group manages a regional trail. Amy said that the State often looks to look for local entity to manage shared-use trails in Vermont.

Bill Oakes – If folks have questions about law enforcement, call the county sheriff. VAST gives money each year to the State Police Department for enforcement.

Ruth Wallman – thanked everyone for coming and suggested that anyone with comments should contact her at Ruth@champlainislands.com.

The meeting adjourned at 8:55pm.

# **Local Concerns Meeting**

Thursday, October 2<sup>nd</sup>, 2003, 7-8:30pm Alburg Elementary School

#### Attendees:

Bill Phelps

Paul Hansen, Alburg Selectboard member, Island Line Steering Committee co-chair

Roger Rainville

Pat Rainville

Carol Yarnell, President, Point of Tongue Association

Clyde Yarnell, Treasurer, Point of Tongue Association

Howard Tepper, Island Line Steering Committee, Historical society representative

Chris Tepper

Ruth Wallman, Lake Champlain Islands Chamber of Commerce

Brian Costello, Local Motion

Paul Smith, Alta Planning + Design (project consultant)

Craig Della Penna, Rails To Trails Conservancy (project consultant)

## Study Overview:

Paul Smith provided an overview of project and noted that the Champlain Islands Trail Feasibility Study is a feasibility study only. The project seeks to gather community input and discern if a four-season multi-use trail is feasible in the islands. One of the outcomes will be a preferred alignment for such a facility. Paul noted that improved accommodations for bike and pedestrians are important. Safety from speeding vehicles is important. The project will look at serving residents and visitors as well as adults and children.

## **Public Comments:**

Howard Tepper: Is anyone going to contact the owners of private roads? Paul Smith replied "yes."

Brian Costello: The study will help determine what everyone wants for a path or route. Options include Route 2, other roads, or off-road alignments. A key component of determining the possibility of an off road route will be discussions with area landowners.

Paul Smith: Brian has already contacted many of the major landowners.

Pat Rainville: Have you spoken with Bonnier Waninger of Northwest Regional Planning Commission? Was the Missisquoi Valley Rail Trail project sold to abutters before the state bought the corridor?

Brian Costello replied that Bonnie is aware of and is participating in the Island Line feasibility project. In answer to the second question, the Missisquoi corridor was sold directly from the Central Vermont Railroad to the State of Vermont.

Bill Phelps: All landowners should be here. He is an owner of a segment of the former railroad corridor and has concerns about potential use for a trail.

Pat Rainville: The primary route should be off road — whether on the former railroad corridor or some other alignment.

Paul Hansen: Snowmobilers, in years past, have used sections of the rail bed. However, some renegade snowmobilers have damaged relationships with adjacent landowners making the legitimate club members less able to gain trust and support.

Carol Yarnell: We don't want snowmobiles on Point of Tongue. Non-motorized uses are welcome. Noise is not.

Clyde Yarnell: Sees 3 options on southern end of Alburg area: 1) Point of Tongue, 2) Cedar Hill Road, and 3) Alburg Dunes State Park. He expects that some neighbors may not want the trail. He mentioned that Jim Kaiman is the contact for the Cedarville Association.

Jeff Bean: How you keep track of who you are talking to, who is for, who is against etc.? Brian Costello explained that efforts to date have been informal. This study provides the opportunity to take a more organized and formal approach.

Jeff Bean: How do stakeholders deal with a lone abutter who might not want a trail nearby?

Pat Rainville: Most landowners are open to sharing land, but sometimes abuse causes landowners to harden their positions. Therefore, this project needs to be developed in such a way that does not harm landowners.

Paul Hansen brought group back to discussion of four-season use. The group discussed past snowmobile abuses over the years and how to address concerns.

Chris Tepper: Asked about trails going into communities? Economic development could be welcome.

Chris Tepper: The State park opening has changed the neighborhood for the better. She'd like to see historic waypoints in the form of signage or kiosks. The attendees discussed other historic resources nearby.

Carol Yarnell: What about the cuts in the causeways? Brian gave update about the ownership of the various causeways and where ferry proposals stand.

Notes by Craig Della Penna

# **Public Information Meeting**

November 13<sup>th</sup>, 2003, 7-8:30pm South Hero

The project team presented three alternatives for a continuous north-south bicycle and pedestrian facility from South Hero to Alburg at the Quebec border. The first alternative involved maximum use of the abandoned Island Line Railroad corridor for trail development. The second used portions of the rail trail but relied more on low-volume local roads including west Shore Road. The third alternative is an on-road alternative following the current route of the Champlain Bikeway. This route uses a combination of low-volume local roads and Route 2, a road with moderate traffic volumes and high motor vehicle speeds.

## Summary of Comments

Phelps Holloway, South Hero. A question about the private sections of the corridor. One of which is owned by a newly arrived Canadian family (Point of Tongue, Alburg) who has blocked the trail corridor. What kind of "carrot" could you give to those folks?

Paul Smith--Alta. Each situation has potential. That house is a major constraint. How do you get around this? Roadbed here is an advantage. Aerial photography shows the corridor is cut below grade and possible mitigation might include screenings. I would be the last to speak for selectmen and landowners, who will make decisions. In general living near RT is a positive experience.

Brian Costello—Local Motion. Most owners adjacent to abandoned railroad corridors, in his experience, have stories of past uses that were horror stories. Opening as a trail negates the misuse and help solve past abuses.

Phelps Holloway. continues with the idea that this house is a key impediment.

David Leslie—Island Line Steering Committee. Spoke of the experience of Burlington abutters, which have seen a full turnaround.

Brian Costello offered some examples of Burlington adjacent properties and their homemade connections to the path there.

Warren Steadman, South Hero Selectman. Had various surface questions. Wanted to know if the type of road surface played a role in which route was selected.

Paul Smith: said YOU (community) will choose surface.

Warren continued with idea about differing surface conditions and wants assistance in determining upgrades of surfaces etc. (what works, what doesn't, costs, maintenance, etc.)

Paul Smith: Primary users will be families and people like you. Question is: "What do you need?" First of all, roads aren't planned to be widened or paved-if they weren't already. Many different conditions are seen out there. A moderate level of upgrade is needed to the worst of the dirt roads. Final choice is what do you want to see?

Warren continued. My issue is expense –want to understand what costs the Town would incur. We like unpaved roads to complement the country flavor and feel of the area. He felt that off island users are driving these studies.

Paul Smith: Existing roads are used for bikes. If you want to increase tourists and families on bikes then a stone dust surface course should be considered.

Warren asked: Is it (Champlain Bikeway) being used now?

Debra Davis of South Hero said it IS being used. She liked Alternative 1 (mostly rail-trail). She has been using Alternative 3 (Champlain Bikeway) for 1,000 miles a year. She said that the rail trail is best alternative.

David Leslie said the town of Grand Isle is reluctantly going to pave some dirt roads to reduce maintenance costs.

Brian Costello. Spoke to the "user demand" questions posed earlier by Warren. Our office is clearinghouse of info for Lake Champlain Bikeways, Champlain Islands are the most popular destination. The Winooski River Bike Ferry has attracted users from an estimated20-30 different states and perhaps 20 different countries. Ruth Wallman of the Chamber of Commerce has told him that almost 80 percent of questions they receive are related to biking.

David Carter of South Hero. Offered two observations. 1. Route 2 and 314 are begging for a wider shoulder for biking and the West Shore Rd. in South Hero should be more popular with hybrids as opposed to touring bikes. He also noted that perhaps two signs could be utilized - one for touring bikes, one for hybrid and mountain bikes. He also noted to not expect to see a paving of dirt roads to accommodate cyclists. Bikers like to see the shoreline. Finally, he emphasized putting money into the upgrading of the paved roads with better shoulders.

Phil Reynolds of South Hero. I echo David. Signage yes. Kiosks noting choices would also be great.

Paul Smith. Many states publish different maps and choices for different abilities of users and surfaces.

David Hobbs of South Hero. Questions the thought that the average "advanced cyclist" doesn't like rail trails. He is advanced and he likes rail trails

Debra Davis echoed this sentiment.

Beth Blaken of South Hero. Put money into the rail trail corridor. Rt 2 is a disaster. Trucks too close and traffic is too fast.

Phelps Holloway of South Hero. Don't settle on one alternative. Let's look at all. Obtaining easements will be a long term and expensive option, but it will only be more expensive in the future. The other alternatives can provide routes until the easements for the rail trail are in place.

Paul Smith. Staging and phasing would probably be the best way to go. Set long-term goals and strategy. In the short term, make better use of what is available. Key is to develop a process for getting easements from the private landowners. He recommends a methodical approach to gain easements.

David Leslie. Safety is primary objective. Drawbridge is an example of danger. (Recounted a story of a biker badly injured after his tire fell into a gap in the bridge deck.) Rt 314 was also noted as a dangerous area. Short, medium and long term solutions should be the protocol. Nothing magic. Long term is the key.

Paul Smith: Gaining access to the former rail corridor from Pearl St. to Rt. 314 would a huge success if that were developed. This is a pivotal section and should be a priority. Alternative 2 uses West Shore Road. Using South St. is totally workable for short term. It is but one of 3 opportunities. We (Alta team) do this all the time and you (citizens of the area) will choose in the end, but we see a few major opportunities that if obtained, would probably go a long way to develop a through route.

Warren Steadman. Have you talked with the Dept of Fish & Wildlife about using their section of rail trail? (on South Hero)

Paul Smith: We are aware of the departments concerns and have taken them into account. We have coordinated with Wilbur Smith Associates (Alta team member on this study—and the lead consultant on the other current study involving South Hero) F&W will ultimately decide on the level of upgrade. From their perspective (of environmental concerns) it might have to be a hiking trail. Volume of traffic is a concern of F&W.

Phil Reynolds South Hero. It will be a slow process to reconnect easements. Bike tourists going through can navigate Rt 2 right now, but better signage is needed. Start negotiating easements now. This is most important.

Paul Smith asked crowd for preferences.

David Hobbs supports Alternative 1 and 2. Mixing the rail trail and the shore is important. Signage telling of views is important as well.

David Leslie. Asked what is going on in Quebec?

Brian Costello: Latest news is that according to the local Border Patrol officials, security should not be an impediment for a trail crossing on the Noyan Branch if that were developed. In fact, a formal path near a border crossing would be encouraged. Also, next week he is going to a gathering of bike path organizers in Saint Sebastien, Quebec.

David Leslie noted that the "Triangle of Excellence" is a marketing tool for the three major communities in proximity to the border. Plattsburgh, Burlington and St. Jean/Iberville.

Richard Leyden, South Hero asked for a count of the easements that needed to be acquired.

Paul Smith. Next steps. Draft report will be produced. June, 2004 will be unveiling of final report. Call or email Ruth Wallman of the Champlain Islands Chamber of Commerce at: <a href="mailto:ruth@champlainislands.com">ruth@champlainislands.com</a>

Prepared by Craig Della Penna

#### **Island Line Steering Committee Minutes**

Ed Weed Fish Hatchery, Grand Isle December 8<sup>th</sup>, 2003 7pm Unapproved - Draft

#### Attendees:

David Borthwick-Leslie (Town of Grand Isle) co-chair
Paul Hansen (Town of Alburg) co-chair
Gail Wheeler (Town of South Hero)
Christine Forde (Chittenden County Metropolitan Planning Organization)
Lou Bresee (Lake Champlain Bikeways)
Bart Wilcox (North Hero)
Mike Brigham (Vermont Outdoors)
Amy Bell (VT Agency of Transportation)
Barbara Nolfi (City of Burlington)
Ruth Wallman (CI Chamber of Commerce)
Jim Donovan (Wilbur Smith Associates)
Brian Costello (Local Motion)
Chapin Spencer (Local Motion)

#### Agenda & Minutes:

David Borthwick-Leslie called the meeting to order at 7:10pm. By consensus, the agenda was approved. October minutes were amended to remove Christine Forde from the attendees. Barbara moved to approve the October minutes. Lou seconded. Approved unanimously.

#### Champlain Islands Trail Feasibility Study:

Brian distributed the mission statement of the Island Line Steering Committee to make sure committee members felt it still well represented our work. David proposed that we allot time to review the mission statement at the next meeting. The committee supported this proposal. Members were asked to get any suggested revisions to Brian before the meeting.

Purpose & Needs Statement: Jim presented the Purpose and Need Statement for the Champlain Islands Trail Feasibility Study as developed by the consultants. Committee members discussed whether the statement should identify specific modes / uses: snowmobiling, hiking, cycling, skiing, ATV's, equestrian, etc. Lou suggested it be universal and we be open to opportunities as they arise. Mike thinks uses will vary on a case by case basis dependent on landowner and town interests. Bonnie cautions that we need to be clear about our recommendation because we don't want uses to vary widely from parcel to parcel so as to make the trail a confusing mix of uses. Amy notes that the uses will dictate the funding sources for construction. Currently, state funding is limited for trails. Gail suggests that if we try to please everybody, we may lose our focus. Amy suggests that we continue to address this issue as the study proceeds. Mike suggests that segment by segment uses may be different. David says the responses may be different town by town.

Bonnie asked if the study has clear defined end points. What are the starting and ending anchors? The committee concurs that the anchors are the South Hero village and the Canadian border somewhere in the town of Noyan.

Jim asked if committee members see this proposed trail as a "thru-trail" with limited access points or a trail that links to local destinations, sites and villages. The committee agreed that it desires the later approach.

**Alternatives Analysis:** Jim showed a map of all the origins and destinations in the Champlain Islands. The alternatives will be evaluated, in part, based on how they connect to these origins and destinations.

Jim highlighted and gave an overview to the three proposed alternatives.

- Alternative 1: maximum use of railbed
- Alternative 2: a mix of Alternative 1 & 3
- Alternative 3: maximum use of island roadways (primarily Champlain Bikeway route)
- Jim asked if people want modifications to alternatives. Jim explained that we may end up with a mix of alternatives which is fine. Comments included:
- Paul suggested Station Road is the best way to get to WSR in Alternative 2.
- The southern terminus will be corrected to be at the village center.
- Paul said there is no customs house on Blair Road and the recommended on road route should be Border road on Alternative #3.
- Gail would like to see if any of the rail bed in SH/GI in Alternative 2.
- Bonnie encouraged the consultant to show that all opportunities are explored and explained. All
  alternatives could have improvements associated with them whether on road or off road.
  Alternative 3 could look at improvements to the US Route 2 bridges.
- Bonnie suggested that we look at Alternative 2 and incorporate bridge improvements instead of ferries.
- Paul stated that the Noyan branch ends at the border as the Canadian portion has been completely removed.
- Mike asked if we have weighed alternatives considering scenic views, winds, and other issues.
- Lou mentions that as off-road routes are developed, the Champlain Bikeway will look to shift or complement its route.
- Paul reported that Point of Tongue residents are concerned about the trail.
- Paul also mentioned that the town is looking at a "path" on the west side of Alburg's West Shore Road. The committee discussed options for using this shoulder. It will probably be a southbound shoulder.
- Brian informed the committee that Mary Lou Recor could not attend tonight's meeting but called him to advocate for alternative #1.
- David asked if we should have a spur down Hyde Road in Grand Isle?

Jim explained that a chart will be developed to evaluate the strengths of each proposal based on specific criteria.

**Timeline:** Ruth handed out the feasibility study timeline for review. The committee revised the timeline as follows:

- 1/22/03 Island Line Steering Committee meeting to view and vote on final recommendations from consultants.
- 2/14/03 Mail interim final draft report to Steering Committee for comment
- 3/25/03 Island Line Steering Committee meeting to accept final report

April-June Steering Committee presents interim final report to GI County selectboards

June Public presentation on final report

Amy recommended calling the report "interim" before it is presented to the selectboards. Ruth sees the selectboard meetings as "informational" and will be warned by the normal course of their business.

#### South Hero Path Alignment Study

Bonnie updated the ILSC on the South Hero Path Alignment Study. The public meeting was on November 13th. The proposal included

- Four-foot shoulders along South Street south to West Shore Road
- Three foot shoulders south of WSR to Martin Road
- Shave 4-5 feet off of Frechette's hill.
- Maintain a 6-foot corridor along the South Hero Rail Trail for snowmobiles, equestrians, etc.

Public comment suggested fog lines could get painted first – maybe next summer. Some residents suggested narrower shoulders on South Street. General sentiment supported lowering Frechette's Hill. Jim says this would be a major construction project if there is bedrock underneath it. There was also a suggestion to lower the speed limit on South Street. Gail proposed an alternative for the South Hero Path Alignment – one way south on an off road corridor through a field and northbound on South Street. The consultants will evaluate this idea.

#### Signage Plan

Chapin gave an update on the Island Line Signage & Amenities Plan. The steering committee met and selected Landworks as the consultant though the contract had not yet been finalized. The project kick-off meeting for the Signage Plan is January 8<sup>th</sup> at the Chittenden County Metropolitan Planning Organization. Anyone who is interested in attending should contact Chapin.

#### **Updates:**

- Chapin distributed the user survey results from the 2003 Double Bike Ferry Demonstration Weekend.
- The Committee will vote on co-chairs at the next meeting. David and Paul are willing to continue their service should it be the pleasure of the committee.
- Paul Hansen has a new address: 760 US Route 2 South, Alburg, VT05440

#### Adjournment:

Lou moves to adjourn. Gail seconded. Motion passed. The meeting adjourned at 8:45pm.

#### **Next Meeting:**

January 8<sup>th</sup>, 2004 at 7pm. The Fish Hatchery location will be confirmed.

Respectfully submitted,

Chapin Spencer

#### APPENDIX C. DESCRIPTION OF FERRIES

### <u>Description of Potential Ferries at Allen Point, Pelot's Point, and Bow and Arrow Point</u>

#### A concept paper developed by Local Motion

These ferries would bridge water gaps in a proposed north/south trail as identified in the Champlain Islands Trail Report. These three gaps were created when the three 190' swing bridges, installed in 1900, were removed in 1965 shortly after the abandonment of the Rutland Railroad and subsequent purchase of the entire Island Line corridor by the State of Vermont.

There are challenges unique to each site, however the implementation, design, and funding structure would be based upon the example of the Winooski River Bike Ferry. Between 2001 and 2003 the Bike Ferry logged an average of over 20,000 boardings per season across the 225' wide river that separates Burlington and Colchester.

The fleet consisted of two pontoon boats: a main boat 30', and a back-up boat of 24' each certified to carry up to six passengers. A crew of two was used – a licensed Captain, and a 1st mate.

The approximate \$70,000 yearly operating cost was covered by three roughly equal sources: Farebox revenues (\$1 per boarding), state grants, and local support (town grants, season passes, donations, and in-kind services).

A bicycle-and-pedestrian bridge was installed in the spring of 2004 by the Department of Transportation replacing the ferry and establishing a year-round connection between the two towns.

#### The Allen Point Ferry

The Allen Point Ferry would transport passengers and bicycles across the gap in the 3.25-mile Colchester/South Hero causeway. There are currently very popular recreation paths on both sides. The South Hero side is also a state owned public fishing access area.

Over the past three years, the former Winooski River Bike Ferry, a specially equipped 30' pontoon boat, was used to demonstrate the feasibility of ferry service across "The Cut", logging up to 1,000 boardings per weekend.

A federal grant of \$200,000 has been secured for the planning and implementing of permanent daily seasonal service. Service is projected to begin in the spring of 2006.

#### The Bow and Arrow Point Ferry

The Bow and Arrow Point Ferry's route would be much more than just across the 190' gap, due to private development on the North Hero side. Bow and Arrow Point is densely settled with summer camps and presumably incompatible with trail development. The next practical ferry landing to the north would be at a YMCA Camp, Camp Abenaki. Access to the state owned Grand Isle causeway is private.

This ferry route could also be expanded to include other public recreational destinations in this bay, called "The Gut". These are: Knight Point State Park, and Ladd's Landing Marina, from which the State's 65 passenger boat ferries passengers to two of its island parks - Knight Island and Burton Island.

#### The Pelot's Point Ferry

The Pelot's Point Ferry's operation would be more similar to the Allen Point Ferry, across a 190' gap in a causeway. The North Hero/Alburg Causeway is approximately 1.25 miles long. Currently, it is undeveloped as a trail and washed out in parts. It would need substantial investment to stabilize and improve as a family-friendly trail.

There is an initiative underway which is studying the feasibility of removing the center section of this causeway to improve the water quality in Carry Bay. This would increase the ferry's route to over 1000 feet; however, it could also result in improvements to the remaining causeway segments and the development of ferry docks and other public amenities.

The North Hero Marina is located at the southerly end of the causeway and could be a valuable resource for logistical support.

The approach to this causeway from the south is through property owned by the Vermont Department of Fish and Wildlife, and from the north over a private association's road, and through one private property. Alternative landing areas in Alburg could be explored.

#### **APPENDIX D. SUPPORTING DOCUMENTS**

#### From Colchester Selectman Mark Landry in a Letter Dated 7/15/04:

"By the way, after a week in Grand Isle, got to say, it is nuts to not use Route 2 in the Grand Isle Village area. Griswald Road can be scenic in spots; but, no services other than people's front lawns.

My recommendation would be East Shore Road, equally scenic as West Shore, it includes the State Park and Lake House, as well as coming back on to Route 2 right at the village, and gets you within 1000 feet of Hyde Cabin as well as Schoolhouse."

#### Letter from North Hero Marina President Bret Kernoff

July 8, 2004

Mr. Brian Costello Local Motion 1 Steele St. #103 Burlington, VT 05401

Dear Brain,

Please accept this letter to support our mutual quest for the Island Line. As the property owner for the northern most point on the line before the next connection, I believe that the continuation of the Island Line at least to my property if not beyond, would be mutually beneficial to both the tourism industry as well as the public.

My business is uniquely situated along the proposed Island Line as a way station for a scenic stop, recycling, and hydration. We would welcome cyclists during all of our business hours during the summer.

Vaultically Yours,

North Hosb Marina

#### Letter from Homeland Security Patrol Agent in Charge



**Department of Homeland Security**Bureau of Customs and Border Protection
U.S. Border Patrol

Office of the Patrol Agent in Charge Swanton Border Patrol Station P.O. Box 209 Swanton, Vermont 05488

July 14, 2004

Brian Costello Local Motion One Steele Street #103 Burlington, VT 05401

Dear Brian

I thank you for your consideration in keeping this office apprised of plans for potential routes for safer bicycle and pedestrian routes in Swanton Station's area of operations near the International Boundary with Canada.

A sign on the border, facing north should advise trail users that they are crossing the International Border and all people entering The United States from Canada must report for inspection at the Alburg Port of Entry. An arrow on this sign should point east.

The sign that faces south should advise trail users that they are crossing the International Border and all people entering Canada from the United States must report for inspection at the Noyan Port of entry.

This proposed route will in no way interfere with our ability to perform the Border Patrol mission and may very well assist us in patrolling the border area.

I look forward to continued cooperation with you concerning this matter.

Sincerely

Michael Casey / Patrol Agent In Charge

#### Letter from Vermont Department of Forests, Parks and Recreation



Brian Costello Local Motion 1 Steel Street. # 103 Burlington, VT 05401 Parks Regional Manager
Department of Forests, Parks and Recreation
111 West Street
Essex Junction, VT 05452-4795
(802) 879-5686
FAX (802) 878-5192
E-mail: chuck.woessner@anr.state.vt.us

July 9, 2004

Dear Brian,

I wanted to get back to you in following up an earlier conversation relative to routing the "Island Line" through portions of Alburg Dunes State Park.

The General Management Plan for Alburg Dunes was approved by (then) ANR Secretary Scott Johnstone and (then) FPR Commissioner Conrad Motyka in December, 2002. Quoting from that plan:

- > "The beach road will remain closed to vehicles (except service vehicles), but will be open for through hiking, walking, bicycling, and equestrian use." (p 36-37).
- "The beach service road is necessary as a means of easily accessing both sides of the park and will be maintained. Maintenance will include those activities necessary to keep the road stable and useable." (p 37).
- "Informal trail activities, such as walking, and bicycling, will <u>not</u> be discouraged on the service road and railroad bed. These two facilities provide an excellent natural link to Coon Point Road in the west and Poor Farm Road to the east. In the future, the railroad bed could provide additional links to other trails in the Town and region as appropriate." (p 39 -40).

With such wording in the **General Management Plan**, it's clear that routing the "Island Line" along the beach road or state-owned portions of the railroad bed would <u>not</u> be incompatible uses of the park.

However; an issue to be addressed if the beach road route is selected is the fee question. Vermont State Parks are very revenue-dependent, with user fees generating the lion's share of the park system's operating budget. Alburg Dunes State Park charges a day-use fee during the summer operating season, and it should be expected that park users availing themselves of park facilities pay the park fee, whether they arrive by private vehicle or by bicycle. While does create some management issues, I'm confident some provision can be worked out.

I look forward to reviewing the final "Island Line Feasibility Study".

Chuck Woessner
Parks Regional Manager

#### Letter from the Vermont Land Trust Stewardship Director



April 20, 2004

Brian Costello Local Motion One Steele Street #103 Burlington, VT 05401

8 Bailey Avenue Montpelier, VT 05602 802-223-5234 802-223-4223 fax 800-639-1709 www.vlt.org

REGIONAL OFFICES Central Vermont 8 Bailey Avenue

802-223-5234 Champlain Valley

Montpelier, VT 05602

P.O. Box 850 Richmond, VT 05477 802-434-3079

Northeast Kingdom P.O. Box 427 St. Johnsbury, VT 05819 802-748-6089

Southeast Vermont and Mountain Valley 54 Linden Street Brattleboro, VT 05301 802-251-6008

Southwest Vermont and Mettowee Valley 10 Furnace Grove Road Bennington, VT 05201 802-442-4915

CONSERVATION STEWARDSHIP The King Farm 3117 Rose Hill Woodstock, VT 05091

802-457-2369 866-457-2369 Re: Conservation Easements in South Hero

Dear Brian:

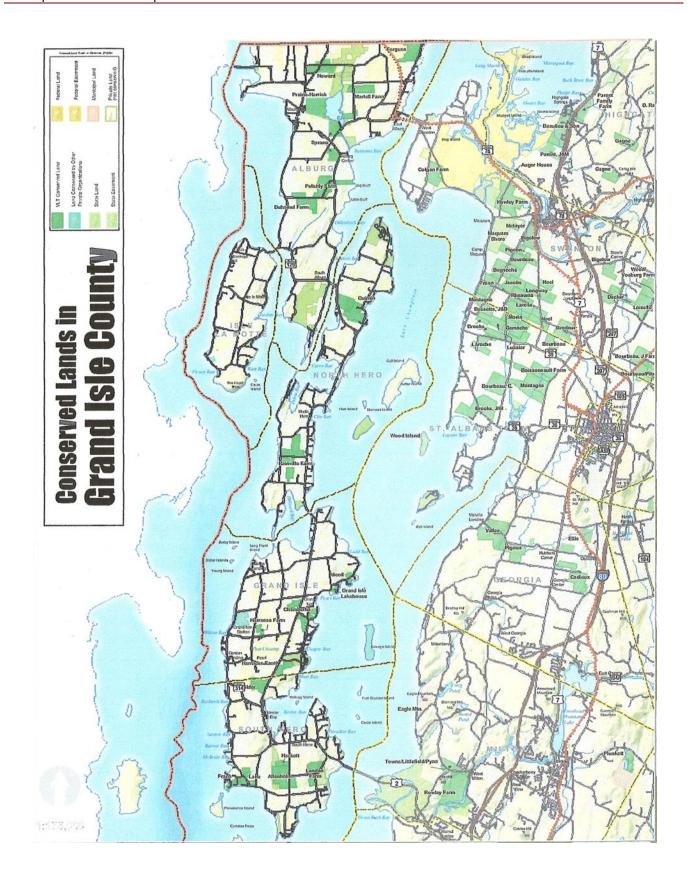
As we discussed yesterday in our telephone conversation regarding options for public recreation access in Grande Isle County, the Vermont Land Trust generally supports public access.

As you know, the Vermont Land Trust is a private land conservation organization. Our mission is to conserve land for the future of Vermont. We primarily help landowners conserve farm and forest land. We also work with communities to conserve land important to them for agriculture, forestland, open land and recreation. A recent project was in South Hero to conserve the Landon Farm. It has a public access component as well as a farm component. VLT does support, facilitate and encourage appropriate public access to conserved land in a manner that does not conflict with other purposes of the conservation easements, such as agriculture. To the extent that your rail trail project is consistent with the conservation easements on land in Grand Isle County and with the landowners' wishes, we are willing to help with your project.

The conservation easements on any conserved land require the owner of the farm to obtain VLT's prior written approval to conveying any easements. If you want further information, please let me know. I would be happy to talk with you in more detail. Best wishes with your project.

Leslie Ratley-Beach Stewardship Director

Sincerely,



#### **Letter from the Greater Burlington YMCA President**



September 17, 2004

It is with great interest and enthusiasm that we at the Greater Burlington YMCA fully support the development of a multi-use path on the former island rail lane. We believe that this is a unique and wonderfully beneficial use. It is our vision that YMCA Camp Abnaki in North Hero can become a stop or potential supportive asset in this development. Please let me know if I may be of further assistance.

Sincerely,

Tim Rollings President/CEO Greater Burlington YMCA 266 College St Burlington, VT 05401 862-9622

Champlain Islands Trail Report		

# APPENDIX E. EXECUTIVE SUMMARY OF THE SOUTH HERO VILLAGE TO ALLEN POINT ACCESS LINKAGE FEASIBILITY AND ALIGNMENT STUDY

#### A. Introduction

For the last several years, bicycle and pedestrian travel in the Town of South Hero has increased by both residents and non-resident alike. Additionally, planning continues on the development of the Island Line, a proposed shared use path and on-road facility extending from Burlington and Colchester across the former railroad causeway to South Hero and the Champlain Islands north to Quebec, Canada. Much of the current as well as the projected non-motorized traffic focuses on the route between the end of the Allen Point Access Area and South Hero village. This study is meant to focus on the best way to provide a link for non-motorized and snowmobile travelers between these two points.

The southern end of the proposed facility is the Allen Point Fish and Wildlife Access Area at Martin Road. This study assumed that the northern end of the facility would connect with the bicycle and pedestrian facilities being included in the Route 2 South Hero village traffic calming projects. As currently planned, this project will add gateway signs, gateway medians, and vegetation on Route 2, reconfigure parking along Route 2, and add bulbouts and neck downs at the cross South Street crosswalk across Route 2.

The purpose of this project is to improve safety for non-motorized travelers between the Allen Point Access Area at Martin Road and the village of South Hero and to local destination points in between. The need for this project is due to existing conflicts between non-motorized and motorized travelers, especially along the northern portion of South Street.

The Town of South Hero Path Steering Committee (the Committee) and the Northwest Regional Planning Commission (NRPC) began work on this project by refining the Purpose and Need Statement for the project, and researching the existing conditions in the Study Area.

After this information was gathered, NRPC added Wilbur Smith Associates (WSA) to the project team to assist in the development and evaluation of specific alternatives. The Committee held an initial public work session with the assistance of NRPC and WSA. The majority of the input at the first work session indicated that the facility must address local as well as regional needs, and that making South Street itself more conducive for bicycle and pedestrian travel was the most important local need.

Using the public input in conjunction with the existing data, the project team identified a comprehensive map of alternate routes for linking the Allen Point Access Area with South Hero village. The team used a second public work session to discuss the relative merits of the various alternatives and move towards a consensus on a preferred route.

After refining the Preferred Alternative with more details and information, the Committee presented the Preferred Alternative at a third public work session.

#### **B. Preferred Alternative**

The Preferred Alternative begins as an on-road, signed bicycle route heading east from the end of the Allen Point Access Area on Martin Road. There will be no improvements to Martin Road, other than to maintain it in its current condition, keeping holes and ruts to a minimum. The route turns north when Martin Road ends at South Street. South Street itself is widened by two to three feet on either side to create paved shoulders. The additional width is combined with a narrowing of the travel lanes to 10 feet, with the excess going into the shoulder.

This alternative also recommends the lowering of the roadway over Frechette's Hill by approximately five feet. Included with this alternative is the request to examine the reduction of the speed limit along South Street. The Preferred Alternative also include a slight clearing of the South Hero Recreation Path to eight feet wide and ten feet high to accommodate easier use by those not readily served by the paved shoulders on South Street.

The Preferred Alternative addresses the needs of the community, while at the same time, providing a convenient means for long distance bicyclists and walkers to travel between the Allen Point Access to the South Hero village area. It does this with surprisingly little impact on the adjacent properties. The potential impacts to houses, trees, wetlands, aesthetics and wildlife are minimal or non-existent with the Preferred Alternative.

The most significant modification associated with the Alternative is the lowering of Frechette's Hill, which should have no significant negative impacts beyond the right-of-way. There is no need to obtain easements or right-of-ways across private property. The widening of the street will require the relocation of mailboxes along the road. No more than five street trees and four or five hedges should be impacted by the proposed widening. The proposed widening can be accomplished without paving over, or directly adjacent to, the existing water line that runs adjacent to the roadway for much of the length of South Street.

#### C. Alternative Analysis

Overall, nine alternatives were examined:

- A. The Lake View Road On-Road Facility,
- B. The South Hero Marsh Trail,
- C. The Orchard Shared Use Path,
- D. The South Street On-Road Facility,
- E. The East Side On-Road/Shared Use Path Combination,
- F. The West Shore On-Road Link.
- G. The Power Line Shared Use Path Link,
- H. The School Access Shared Use Path Link, and
- I. No Action.

Based on a review of the alternative analysis and the ways in which each of the various alternatives addressed the Purpose and Need for this project, the Project Team, with public input, recommended Alternative D with a slight modification of Alternative B as the Preferred Alternative. The use of Lake View Road in Alternative A would not allow a direct link with some of the destination points along South Street. The Department of Fish and Wildlife does not support a significant upgrade of the South Hero Marsh, included as part of Alternative B. Alternative C, the Orchard Shared Use Path, would have the

most significant impacts of the five main alternatives. This alignment would also mostly likely be the most costly, since almost the entire route involves the construction of a new facility. Alternative E, the East Side facility could provide indirect access to the destinations along South Street, but only via Alternatives G and H or in combination with portions of Alternative D. Alternatives F, G, and H, the linking sections, do not directly address the purpose and need of this project themselves. The common element in reviewing the various alternatives is that none of them provides as much access to local origins and destinations or address non-motorized travel needs of the existing community users, especially those along South Street, as does Alternative D. While good for bicyclists and pedestrians, Alternative D does not provide the adequate provisions for equestrians and snowmobiles that Alternative B does. The slight improvement to the existing South Hero Marsh Trail to make it fully suitable for equestrians and snowmobiles hopes to meet the needs described in the Purpose and Need Statement not met by Alternative D.

The proposed widening and as needed, ditch relocation, can be completed entirely within the existing three rod right-of-way for South Street. No additional permanent right-of-ways or easements will be needed to implement the Preferred Alternative, but temporary construction easements may be needed from adjacent landowners along South Street. The utility poles along South Street will not need to be moved as part of the development of the Preferred Alternative.

The amount of water being conveyed in the ditches will need to be examined in more detail as the project moves forward, to determine if the smaller cross section of the ditch will still provide sufficient capacity for the storm water. If it will not, then the ditches need to be widened to provide the needed volume. The widening will proceed towards trees slowly, carefully pruning tree roots that are encountered as part of the widening.

Because there are no wetlands along the sides of South Street, the two-foot widening will not involve disturbing wetlands. The Preferred Alternative should have minimal impacts on the street trees along South Street. Several small shrubs close to the road in the right-of-way may need to be transplanted further away from the road. The Preferred Alternative will not disturb usable agricultural land in the study area. The Preferred Alternative should not encounter hazardous waste sites, based on the current information available from the State on the Active Hazardous Site List. The Preferred Alternative is in conformance with local South Hero plans and policies.

#### D. Preliminary Estimates of Probable Construction Costs

The initial estimate of probable construction costs for the Preferred Alternative, based only on the schematic plans presented in this Report, is \$749,500; with design work, contingencies and construction management the estimate total for this project is \$1,114,500.

Based on current funding sources, the Town's portion of this cost would be 20 percent, or \$261,800. The Town can provide this match in numerous ways, including administration of the contract and work, land donations, materials and actual construction activities, such as the relocation of the ditches, the placement of new signs, or the removal of the ties and brush clearing on the Marsh Trail.

Champlain Islands Trail Report	

# APPENDIX F. ISLAND LINE RAIL TRAIL: ANALYSIS OF ECONOMIC IMPACT AND OUTLINE OF MARKETING STRATEGIES

Leadership Champlain Project 2001-02

Mark Benson Jay Renzulli
Ken Gingras Randy Sargent
Chris Jensen Chris Snyder
Liz Miller Todd Warren

#### **Project Mission and Executive Summary**

From September 2001 through May 2002, this Leadership Champlain project team was charged with (1) assessing the economic impact of trail users of the completed Island Line Rail Trail ("ILRT"); and (2) creating a marketing outline for the trail designed to maximize the positive economic impact of the trail.

Several assumptions were necessary in order to fulfill these tasks; for example, the project team assumed that the ILRT, which now stretches from south of Burlington, VT to a point approximately 13 miles north, would in fact be completed by adding additional miles of trail north into the Champlain Islands. The project team was asked to exclude the costs of completion and maintenance for purposes of assessing the economic impact of trail users. The project team also assumed that, when completed, the ILRT would be a "world-class" trail, with substantial improvement to portions of the trail that currently require ferry service or that currently run over narrow or unimproved pathways.

With these assumptions in mind, the project team researched a variety of rail trails and other recreation paths throughout the United States and Canada in order to gauge the likely economic impact of the ILRT on its host communities. The team then collected local data, through business, realtor, and user surveys, and integrated that data with information regarding the Vermont tourism industry generally. By synthesizing all of this data, the project team was able to both assess the likely economic impact of the ILRT and to develop a brief marketing outline targeted at the areas of greatest potential economic impact.

As set forth in detail within the report, the project team found substantial evidence to support its conclusion that ILRT users will provide an economic benefit to the trail's host communities. Although the greatest benefit will come from the relatively small number of users who travel to Vermont intending to spend more than one day using the trail and visiting its host communities, there will also be a economic benefit created by those users who come to the trail for a day-trip as a part of their vacation in Vermont, and by those Vermont users who travel to the trail from outlying communities.

A marketing plan that targets tourists will be of the greatest benefit to the ILRT's host communities. However, any marketing plan should also take advantage of the opportunities to use the trail for educational, social, and fund-raising events, and should be sure to publicize the trail within the state in order to solidify public support and also bring additional economic benefits to the area.

The project team would like to thank the many organizations, government offices, community members, and business people that offered advice and data for this report.

Questions concerning this report can be directed to the project team through the Leadership Champlain office of the Lake Champlain Regional Chamber of Commerce, 60 Main Street, Suite 100, Burlington, VT 05401, 802-863-3489

#### Conclusion

As set forth above, the trail as it currently exists appears to generate a measurable economic benefit for the local community in Burlington; there is, moreover, evidence from a variety of sources that strongly suggests the economic impact from the users of a completed, "world-class" ILRT will be significant for its host communities. This impact will be felt primarily in the lodging, restaurant, and transportation sectors. There are a number of marketing opportunities, targeted at tourists and Vermonters from outlying areas, that will solidify the positive economic impact of the ILRT.

Given the period of the project team's study (September 0l - May 02), and the fact that certain portions of the trail are scheduled to be improved or expanded in the coming years, the project team recommends that a more detailed study be made of the ILRT during a season of use (June-September). Such a study could be completed before or after planned improvements, although a study performed after improvement likely would best capture the economic impact of a completed ILRT. In light of the extensive information and data gathered as a part of this report, the project team strongly believes that continued support of the ILRT, including improvements and expansions to the trail, will bring a significant, positive economic impact to the ILRT's host communities.

## APPENDIX G. EXCERPTS FROM "A CHAMPLAIN PATHWAY," 1965

A special report to Governor Philip H. Hoff on the recreation development potential of the former Rutland Railroad right of way in Grand Isle County.

by
Howard Jeffrey
Vermont Director of Recreation

John J. Lindsey Vermont Extension Service

Frederic O. Sargent and James G. Sykes Vermont Experiment Station

VERMONT RESOURCES RESEARCH CENTER Burlington, Vermont August 25, 1965

#### <u>Foreword</u>

When the State of Vermont purchased the Rutland Railroad right of way north of Burlington in February 1963, there immediately arose many pressures, points of view, and proposals concerning what the state should do with the purchased land.

A number of conflicting proposals and demands developed. Some individual landowners saw it as an opportunity to purchase a parcel from the state to extend their private holdings or give them access to Lake Champlain. Other individuals saw it as a hope for increasing public access to Lake Champlain. Officials of state agencies also differed. Some saw the costs involved in administering the holding, while others saw vast opportunities in developing the right of way as a major key in a comprehensive recreation development program. University and federal agency people who looked at the purchase also had differing views. Some saw it as a pathway, others as a connecting link between a long string of intensively developed recreation areas, and others as one part of a superpark development of Grand Isle County.

In response to these conflicting and competing proposals, Governor Hoff asked the members of the Interagency Committee on Natural Resources to study the newly acquired land and make recommendations concerning the best use to which it could be put. The Interagency Committee agreed unanimously to this proposal and set January 1, 1966 as the deadline for these reports to be completed. However, as a result of the recommendation of the Board of Forest and Parks, the deadline was moved up to September 1, 1965.

This study is based on an intensive study of aerial photographs and ground inventory of the right of way. All points of potential development have been inspected by the authors. Nearly all of the 37.5 miles of the right of way have been inspected on foot. Several points of possible development have been surveyed and discussed with recreation specialists of the Bureau of Outdoor Recreation and the National Park Service.

This report was originally intended to cover the former Rutland Railroad right of way north of Burlington. It is limited to Grand Isle County, in deference to a request by the Department of Forests and Parks.

This manuscript is a progress report of work done to date on the State Research Project 114, "Recreation Development Potential of Grand Isle County". It is not complete and comprehensive but designed to be suggestive of the opportunities and the scope of development that could take place. It should be read as a complement to other reports by state agencies. While time has been limited in preparing this report, the authors make no excuses on this basis. Although more detailed analysis is left to be done before specific development projects may be outlined, we believe that this report will sketch, in general terms, the unique situation, the unparalleled opportunities, and the significant development potential of this new piece of state property.

The cover and maps are by the VRRC cartographic unit. Thanks are due to the State Soil Conservation office for making aerial photos available, to Dwight K. Eddy for contributing to the section on economics, to Malcolm I. Bevins for assistance in analyses, and to M. Yvonne Gratton for publication design and layout.

H. Jeffrey J. Lindsay F. Sargent J. Sykes

### V. Suggestions for Immediate Use of the Railroad Right of Way for Recreation

Governor Hoff asked for specific recommendations for use of the State of Vermont's railroad right of way north of Burlington. In addition to proposing development of a Champlain Pathway with a string of recreation areas, the authors recommend the following steps which could be taken immediately.

It is recommended that the feasibility of the sheltered harbor potential of the railroad right of way be immediately studied, site plans drawn up, and development moved forward. The pathway should be authorized at once. By 1966 every suitable building now in existence along the right of way should be equipped with toilet facilities. Those which are of sufficient size, such as the one at Alburg, should be used as historical museums or hostels. It is also recommended that citizens interested in the history of the area be asked to assist in developing material for presentation of historic interpretations to tourists.

In 1963 there was no picnic use of Grand Isle State Park, and Sand Bar turned away large numbers of would be day-use visitors. There were no tables left. Picnic, facilities should be provided along the pathway for the summer of 1966.

Staff must be hired to develop, maintain, and properly administer the pathway. We recommend that a parkway superintendent be hired who has a degree in recreation management. This person would supervise

a crew, which would be responsible for creating, improving, and maintaining the attractions in the area. Self-guiding nature trails could be established by July 1966.

In the Mud Creek area in Alburg a start could be made toward developing a multiple-purpose recreation area. Buildings used for the railroad might house the beginning of a museum depicting early settlers way of life and early history of the area. Good parking space is available. A trail could be developed to connect various points of interest, The roadbed leads to and through a marsh which is the home of a number of interesting birds -- the hooded mergansers, young wood ducks, rails, gallinules, mallards, blue-winged teals, and black ducks. There would be good wildlife viewing here for the nature lovers behind a curtain of trees.

Another significant nature area with the rerouting of highway 2 in South Hero, would be the development of a roadside park area; again, with self-guiding pictures of the birds and other wildlife of this prime marsh area.

In the planning of the road in South Hero we recommend that a sheltered harbor marina development be considered. Plans for highway project F028-1 (4) should accommodate this planned marina. This planning should be undertaken immediately.

We recommend that by June 1966 the Champlain Pathway be cleared of trees where necessary and suitable signs erected so the vacation traveler can reach it, park, get out of his car, and visit the area without trespassing. Such improvements would cost only a small amount.

It has been suggested that parcels of land included in the state's railroad right of way purchase could be sold to private individuals without affecting the development of the right of way as a Champlain Pathway. This is not so. It is the finding of this team that if any state owned land in Grand Isle County is sold, it will adversely affect the development of a Champlain Pathway. A pathway for bicycles, hiking, or horses will require a number of acres in addition to the railroad bed. Some acreage lies beside the roadbed. These lots will be required for picnic areas, sanitary facilities, parking lots, Adirondack shelters, tenting areas for hikers and bikers, plantings for nature study and wildlife cover, open space to preserve views, and a few other possible uses. The sale of any state acreage in Grand Isle County before a Champlain Pathway recreation plan is drawn up will jeopardize development of many significant and even critical facilities required in a comprehensive recreation development plan.

Champlain Islands Trail Report		

APPENDIX H. SELECTBOARD INPUT					