



Waterbury Connector Trail Feasibility Study Final Report



Prepared for:
Town and Village of Waterbury
Waterbury Connector Trail Steering Committee
March 30, 2015

By:



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Little River Survey
UVM Consulting Archaeological Program

Acknowledgements

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Waterbury Winterfest trekkers at the VAST bridge at Little River State Park.

EXECUTIVE SUMMARY

The Town of Waterbury received a grant through the Community Development Block Grant – Disaster Recovery program to prepare a feasibility study for a connector trail between the Village of Waterbury and Little River State Park. The purpose of this study is to identify trail options, issues and costs associated with a multi-use trail between the village and the state park.

The study area encompasses the area between the Perry Hill Trails in C.C. Putnam State Forest, Waterbury Village and Little River State Park in Mt. Mansfield State Forest.

Purpose and Need

The **purpose** of the Waterbury Connector Trail is to:

- Establish a multi-purpose, non-motorized recreation trail emphasizing walking, mountain biking, and compatible winter sports such as back-country skiing and snow shoeing, between downtown Waterbury and Little River State Park.
- Promote trail associated economic development in Waterbury by linking the Perry Hill mountain bike trails and Little River State Park to create a larger trail attraction and connecting the trails to Waterbury businesses and services.

The **need** for the Waterbury Connector Trail is to:

Expand Economic Development Opportunities for Waterbury. Tropical Storm Irene caused significant economic hardship on the Village of Waterbury in August of 2011 due to flooding of the Winooski River and the economic dislocations that followed. A connector trail that links the Perry Hill Trails and Little River State Park to the Village of Waterbury is needed so trail users can benefit from the availability of services and accommodations in Waterbury and local businesses can benefit from the patronage of trail users. A larger network of connected trails adds to the value and utility of the trail system.

Provide a Key Link in a Growing Trail Network in Central Vermont. Development of the Waterbury Connector Trail is needed to provide a strategically important link within a growing network of recreational mountain bike and walking trails that are developing in Central Vermont. The trails at Perry Hill are one of Vermont’s most popular mountain bike destinations, and trails in neighboring Stowe are popular as well. Providing a connector trail from Perry Hill through Waterbury Village to Little River State Park would provide important connectivity between these two significant destinations. The connector trail would significantly enhance the trail network in Central Vermont, providing greater opportunities for recreation and events that would enhance the social and economic vitality of the area.

Provide a Trail That Attracts a Broad Range of Users and Expands Opportunities for Outdoor Recreation in Waterbury. The objective of the Waterbury Connector Trail is to provide a family-friendly trail that accommodates the needs of trail users that vary in terms of age, skill level and interest. The connector trail should provide a safe, attractive connection that is inviting for Waterbury residents and visitors alike. The connector trail, or portions of the connector trail, would be accessible for winter use as well.

Respect Scenic, Natural and Cultural Resources. Development of the Waterbury Connector Trail will enhance the understanding and enjoyment of scenic, natural and cultural resources in the area through the alignment and development of a trail that incorporates sustainable trail development practices and through wayfinding and interpretative signage. The trail will avoid sensitive resources.

Recommendations

The plan recommendations address two broad corridors for a connector trail between Waterbury Village and Little River State Park. These trails are shown in Figure 1. The features of the two corridors are summarized as follows:

Option 1: Blush Hill Connector (Stowe Street/Community Path/ Blush Hill Road/Little River State Park). This route utilizes Stowe Street, the Waterbury Community Path and Crossroad Road to access an non-road connector trail that begins at Blush Hill Road. The non-road section of this trail is largely on private property so permission would need to be obtained from six or seven property owners to develop a trail along this alignment. This alignment has the attraction of using quieter roads, traversing Waterbury’s historic Mill Village District and connecting with Ben & Jerry’s—a major visitor attraction. The non-road segment of the trail is 3.5 miles in length. Challenges associated with this route include private land ownership for the non-road section of trail and steep topography in certain areas. Overall, this alignment is preferred because it avoids Route 2 as a bike connection between Waterbury Village and Little River State Park. Option 1 is summarized as follows:

- On-Road Route Length: 1.8 miles
- Non-Road Trail Length: 3.5 miles
- Total Length: 5.3 miles
- Regional Connectivity: High
- Property Ownership (Trail): Private
- Family-Friendly: Medium on road; Medium on Trail
- Resource Considerations: Deer Wintering Area, Stream Crossings, Historic/Archaeological Resources
- Attractions: Ben & Jerry’s, Waterbury Mill Village District, Quieter Streets

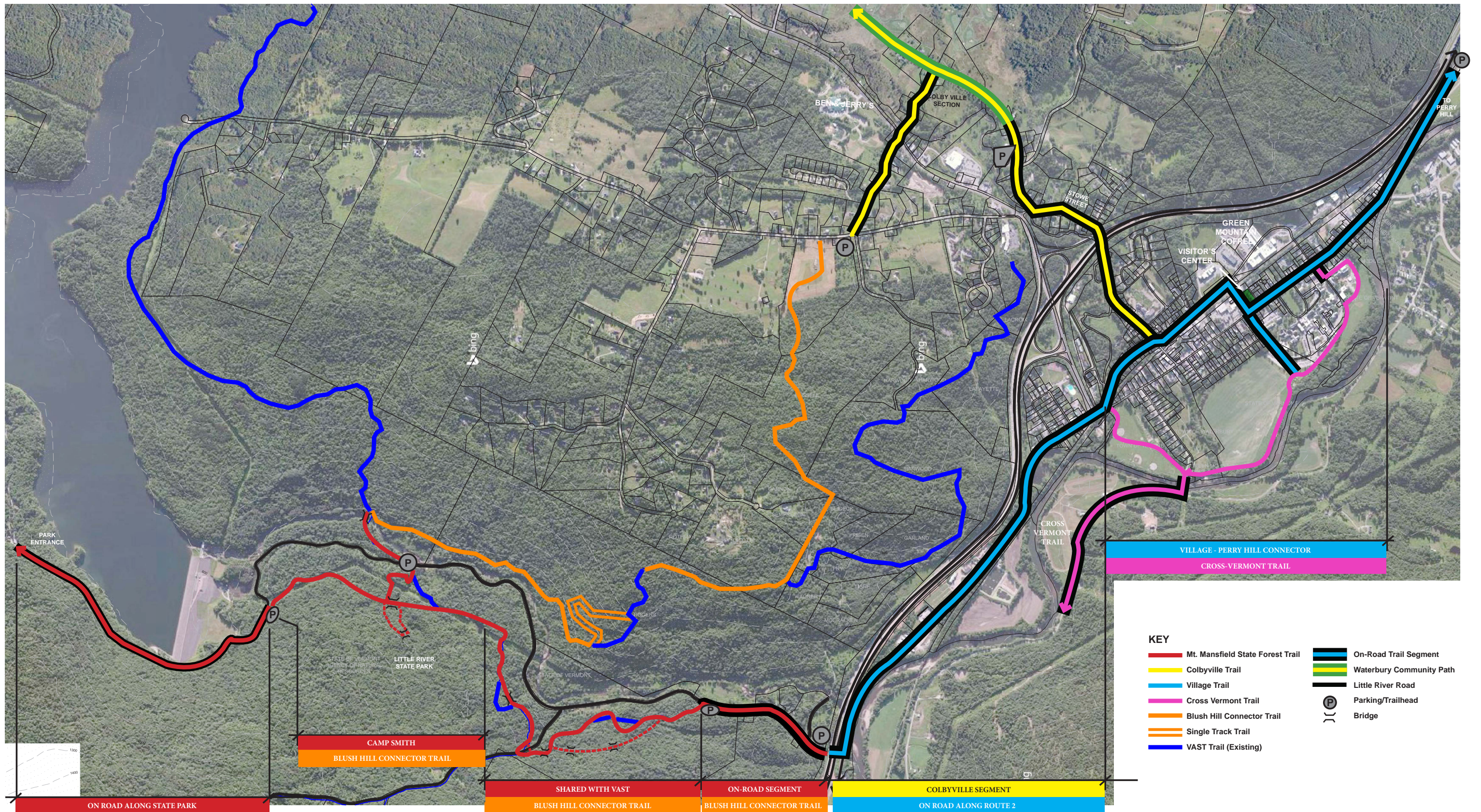


Figure 1: Conceptual Trail Alignments



Portions of the area are 'trail-ready' while other areas are topographically challenging.

Option 2: Little River Connector (Main Street/Route 2/Little River State Park). The alternative corridor is via Route 2 and through Mt. Mansfield State Forest to Little River State Park. While Route 2 is a level and direct path to Mt. Mansfield State Forest and Little River State Park, riding along Route 2 is seen as only an option for confident riders and is not considered a 'family-friendly' option. The non-road section of the trail includes segments that are shared with the existing VAST trail and utilizes existing trails and historic camp roads to the extent feasible. The non-road segment of this trail is 2.2 miles.

- On-Road Route Length: 2.1 miles
- Non-Road Trail Length: 2.2 miles
- Total Length: 4.3 miles
- Regional Connectivity: High
- Property Ownership (Trail): Public
- Family-Friendly: Low on Road; Medium on Trail
- Resource Considerations: Deer Wintering Area, Stream Crossings, Historic/Archaeological Resources

In the above comparison of the trail route corridors, the evaluation factors are explained as follows:

Route Length: The route length calculations begin at the intersection of Stowe Street and Union Street. The focus of this study is connecting the Village and Little River State Park, but connecting the Perry Hill trails is also a consideration. In the recommendations a discussion of the route from Perry Hill to Waterbury Village is described. However, this is exclusively on-road riding, and it is the same in either case. The corridors diverge at Stowe Street, so this is where the distance calculation begins. The on-road length includes sharing the road for bikes. There are sidewalks in the village and along Stowe Street for walkers. The non-road length includes the trail length.

Regional Connectivity: Both trails provide a key connection from Little River State Park to Waterbury Village, the Cross-Vermont Trail and the Perry Hill trail complex in C.C. Putnam State Forest.

Property Ownership (Trail): The Blush Hill trail corridor would be on private property which would require agreements with several owners for trail access. The trail through Mount Mansfield State Forest to Little River State Park is on land owned by the Vermont Department of Forests, Parks and Recreation (FPR).

Family-Friendly: The primary concern with respect to a 'family-friendly' consideration is the character of the on-road sections of the route. The best alternative would be to develop a route that is fully separated from traffic; however that is not possible at this time. Riding along Route 2, with higher speed and volumes of traffic is considered to be less friendly than riding on Stowe Street/Laurel Road/Crossroad Road. While the Stowe Street/Laurel Road/Crossroad route is on quieter streets, crossing Route 100 and the steep grade of Crossroad Road are difficulties along this route.

The non-road segment of the trail also carries a 'family-friendly' consideration. In general, grades of 6% or less and gradual curve radii are considered family-friendly for the trail. Portions of both non-road trails are steep, and a portion of the Blush Hill Trail is expected to have a section of single-track with switchbacks. At this time, however, the trail alignment through this area is very conceptual and may change substantially depending on a number of factors, not the least of which is the desires of property owners for the trail alignment. As more refined trail alignments are developed, the goal is to develop the trail to be as family-friendly as possible in terms of curves and grade, but there are many factors that will affect the ultimate alignment of the trail.

Resource Considerations: Both non-road trails traverse mapped deer wintering areas and have stream crossings. The area east of the river is considered to be less disturbed by Agency of Natural Resources (ANR) staff. This area has natural resource and archaeological sensitivities and will require additional review prior to development of a trail. Camp Smith is also an historic and archaeological resource; the trail through this area will utilize a trail alignment that has been developed by the Vermont Department of Forests, Parks and Recreation (FPR) taking these resources into consideration.

In summary, both trails provide connectivity that is strategic with respect to Waterbury and the Central Vermont region, and are valuable recreational resources that could be expected to encourage economic development in the area. The Blush Hill trail option avoids Route 2, and was seen as a stronger village-to-park connector trail by the Steering Committee. This route is complicated, however, by numerous private property agreements that would need to be secured in order to develop a trail along the route. The trail through Mt. Mansfield State Forest to Little River State Park is a valuable addition to the regional trail network, and is less complicated in terms of land ownership and negotiating agreements. Portions of this alignment are 'trail-ready' or shared with VAST, which may make this trail less attractive for winter users including backcountry skiers and snowshoers. The trail corridor identified in this report has been reviewed and reflects direction given to the team by FPR staff. It was the preference of the Waterbury Connector Trail Steering Committee to pursue implementation of both trails.

Preliminary Cost Estimate

The following table provides a summary of the estimated costs for the two trail corridors, including the non-road segments of trail and trailhead/wayfinding signage.

Table 1: Preliminary Estimate of Probable Cost

| March 30, 2015 | | | Mt. Mansfield SF Trail | | Blush Hill Trail | |
|---|-----------|---------------|------------------------|------------------|------------------|-----------------------|
| Item Description | Unit | Unit Price | Quantity | Cost | Quantity | Cost |
| 10-foot Wide Multi-Use Trail: | LF | \$ 25 | 9830 | \$ 245,750 | 10,162 | \$ 254,050 |
| Minor Rehab | | | | | | |
| 10-foot Wide Multi-Use Trail: | LF | \$ 45 | 2356 | \$ 106,020 | 7,031 | \$ 316,395 |
| New Trail | | | | | | |
| 3-foot Wide Single Track Trail: | LF | \$ 15 | | \$ - | 2017 | \$ 30,255 |
| Minor culverts | Each | \$ 250 | 81 | \$ 20,310 | 128 | \$ 32,017 |
| Major culverts | Each | \$ 500 | 20 | \$ 10,155 | 32 | \$ 16,008 |
| Suspension Bridge #1 | LF | \$ 1,000 | 200 | \$ 200,000 | | \$ - |
| Suspension Bridge #2 | LF | \$ 1,000 | 135 | \$ 135,000 | | \$ - |
| Suspension Bridge #3 | LF | \$ 1,000 | 25 | \$ 25,000 | | \$ - |
| Suspension Bridge #4 | LF | \$ 1,000 | 25 | \$ 25,000 | | \$ - |
| Suspension Bridge #5 | LF | \$ 1,000 | 50 | \$ 50,000 | | \$ - |
| Upgrade VAST Bridge | LF | \$ 250 | | \$ - | 150 | \$ 37,500 |
| Trailhead Signage | Each | \$ 1,500 | 4 | \$ 6,000 | 5 | \$ 7,500 |
| Trailhead Kiosk | Each | \$ 3,500 | 2 | \$ 7,000 | 3 | \$ 10,500 |
| Wayfinding | LS | \$ 5,000 | 1 | \$ 5,000 | 1 | \$ 5,000 |
| Subtotal | | | | \$ 835,235 | | \$ 709,225 |
| Contingency (20%) | | | | \$ 167,047.0 | | \$ 141,845.0 |
| Total Cost to Complete Project | | | | \$ 1,002,282.0 | | \$ 851,070.0 |
| <i>Optional: trail surfacing</i> | <i>CY</i> | <i>\$ 100</i> | <i>451</i> | <i>\$ 45,133</i> | <i>636.78</i> | <i>\$ 63,678</i> |
| Engineering, Project Mgmt. and Inspection (25%) | | | | \$ 250,570.5 | | \$ 212,767.5 |
| Total Cost to Complete Project | | | | \$ 1,297,985.8 | | \$ 1,127,515.3 |
| Grand Total | | | | | | \$ 2,425,501.1 |

| | | | Mt. Mansfield SF Trail | |
|--|-----------|---------------|------------------------|---------------------|
| Alternative to Bridge #1 | Unit | Unit Price | Quantity | Cost |
| New Trail | LF | \$ 45 | 1,073 | \$ 48,285 |
| Suspension Bridge #1 | LF | \$ 1,000 | 50 | \$ 50,000 |
| Subtotal New Trail and Bridge | | | | \$ 98,285 |
| Subtotal Trail Cost | | | | \$ 733,520 |
| Contingency (20%) | | | | \$ 146,704.0 |
| Total Cost to Complete Project | | | | \$ 880,224.0 |
| <i>Optional: trail surfacing</i> | <i>CY</i> | <i>\$ 100</i> | <i>491</i> | <i>\$ 49,107</i> |
| Engineering, Project Mgmt and Inspection (25%) | | | | \$ 220,056.0 |
| Total Cost to Complete Project | | | | \$ 1,149,387.4 |
| Estimated Savings | | | | \$ 148,598.4 |

NOTES:

Cost of the Blush Hill Trail does not include purchase of land or easements.
 Costs are preliminary and conceptual.





Waterbury Reservoir at Little River State Park.

INTRODUCTION

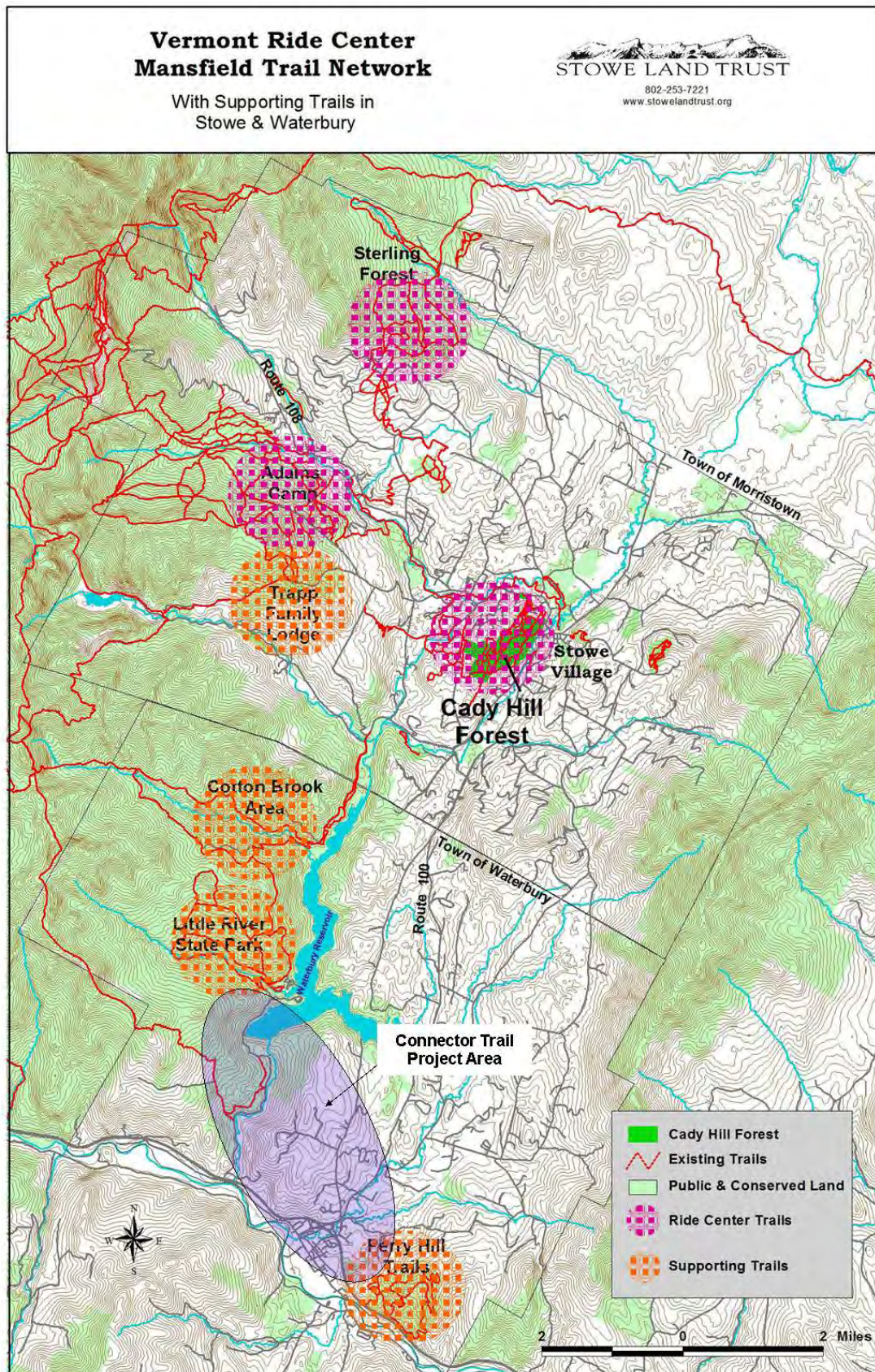
The Town of Waterbury has received a grant through the Community Development Block Grant – Disaster Recovery program to prepare a feasibility study for a connector trail between the Village of Waterbury and Little River State Park. The purpose of this study is to identify trail options, issues and costs associated with a multi-use trail between the village and the State Park.

The study area encompasses the area between the Perry Hill Trails in C.C. Putnam State Forest, Waterbury Village, Mt. Mansfield State Forest, and Little River State Park.

Project Background and Objectives

In the aftermath of Tropical Storm Irene, Waterbury worked with the Federal Emergency Management Agency (FEMA) to develop a Long Term Community Recovery (LTCR) Plan. The idea of a ‘Connector Trail’ linking the Perry Hill trail system south of the Village of Waterbury with the Little River State Park north of the village was highly rated among 22 identified LTCR projects, and presents a strategy to aid economic recovery and improve the future vitality of Waterbury by diversifying economic activity and potential revenue streams. Located at the crossroads of I-89 and Route 100 (‘the skier’s highway’) Waterbury is a gateway to Vermont’s outdoors and offers access to it year-round, in a varied array of physical activities. This project reinforces emerging opportunities to maintain an economically and culturally vibrant community through increased tourism and recreational activity. Places like the Perry Hill Trails, Little River State Park, and the Waterbury Reservoir increasingly draw visitors from near and far. By connecting these recreational resources to the Village and establishing Little River State Park as a destination for mountain biking, Waterbury can benefit from the significant economic opportunity this resource can offer the community.

Figure 2: Vicinity Map and Trail Setting



Little River State Park is located in Mt. Mansfield State Forest in the western portion of Waterbury, bordering the Towns of Stowe and Bolton. Perched above the Waterbury Reservoir, Little River State Park is used to access a trail system that is adjacent to the campground and draws visitors of all ages to enjoy the recreational resources of the area. The state land has historically been used for timber production and various types of recreational activities, including trail uses such as hiking, snowmobiling, cross-country skiing, and dog sledding. Many of the trails within the park system are historic roads and many of the forest roads are used for trail purposes. Demands for additional trails for mountain biking, horseback riding, backcountry skiing, education, and interpretation have increased in recent years. The Vermont Department of Forests, Parks and Recreation (FPR) in collaboration with the Vermont Mountain Bike Association (VMBA) recently began working on an initiative to develop several bike trails in the Mount Mansfield State Forest suitable for a range of ability levels with the additional goal of connecting to existing pods of mountain bike trails in Stowe and Waterbury. The 'Ride Center' concept of developing an extensive network of mountain bike trails co-located with other amenities (i.e., a range of lodging, retail and food services) is an idea developed by the International Mountain Bike Association (IMBA) that has proven to be a catalyst for economic development in other parts of the country.

A multi-use trail from Little River State Park in Mt. Mansfield State Forest to the Village of Waterbury could establish a much needed connection between the downtown and one of the primary gateways to the recreational resources visitors come to the area to experience year-round. Businesses would benefit from bicycle traffic in the downtown, residents will enjoy access to the outdoors from their doorsteps—promoting a healthy lifestyle—and visitors can take advantage of the amenities and attractions Waterbury has to offer.

Purpose and Need

The **purpose** of the Waterbury Connector Trail is to:

- Establish a multi-purpose, non-motorized recreation trail emphasizing walking, mountain biking, and compatible winter sports such as back-country skiing and snow shoeing, between Downtown Waterbury and Little River State Park.
- Promote trail associated economic development in Waterbury by linking Perry Hill and Little River State Park to create a larger trail attraction and connecting the trails to Waterbury businesses and services.

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Provide a Key Link in a Growing Trail Network in Central Vermont. Development of the Waterbury Connector Trail is needed to provide a strategically important link within a growing network of recreational mountain bike and walking trails that are developing in Central Vermont. The trails at Perry Hill are one of Vermont's most popular mountain bike destinations, and trails in neighboring Stowe are popular as well. Providing a connector trail from Perry Hill through Waterbury Village to Little River State Park would provide important connectivity between these two significant destinations. The connector trail would significantly enhance the trail network in Central Vermont, providing greater opportunities for recreation and events that would enhance the social and economic vitality of the area.

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Trail Planning Context

Town and Village of Waterbury. The Town and village of Waterbury is a community of 5,064 residents (2010 Census) located in Central Vermont. The Town is bisected by Interstate 89. Route 100, a Vermont State Highway and part of the designated Green Mountain Scenic Byway which is a popular tourist destination—sometimes referred to as ‘the Skier’s Highway’—also runs through Waterbury providing access to the Green Mountains with Stowe to the north and the Mad River Valley to the south. Waterbury is organized around a picturesque village center which includes a central green with numerous historic buildings and shops along its Main Street. Waterbury’s Main Street is also US Routes 2 and 100, which runs parallel to I-89 through Waterbury.

Perry Hill Trails. Southeast of Waterbury Village is the Perry Hill mountain bike trail system which is within Vermont’s C.C. Putnam State Forest. There are 15 miles of mountain bike trails at Perry Hill. The trails were developed as a collaboration between the Department of FPR and VMBA, which maintains the trails. Perry Hill is one of the top mountain bike destinations in Vermont (IMBA MTB Project <http://www.mtbproject.com/trail/6041876>).

Little River State Park. North of Waterbury Village is Little River State Park which is part of the larger Mt. Mansfield State Forest. Little River State Park includes an 81-site campground, 20 lean-tos and five cabins in addition to a net-

work of trails that accommodate hiking, mountain biking, back-country skiing, snowshoeing and snowmobiling. Other recreational amenities at Little River State Park include the Waterbury Reservoir with its swimming beaches, boat launch and play areas. The park includes land that was settled in the early 1800's and there are remnants of the past community within its boundaries, including the remains of Camp Smith, a CCC (Civilian Conservation Corps) Camp that was developed to house workers building the Waterbury Dam in 1935-38 and other projects.

VAST Trail. The Vermont Association of Snow Travelers (VAST) maintains a network of snowmobile trails throughout Vermont. VAST trails are only used in the winter time, mid-December to mid-April, depending on snow conditions. There is a VAST spur trail that runs from the Best Western Inn on Blush Hill Road to the main VAST trail in Mt. Mansfield State Forest.

Waterbury Community Path. Waterbury also has a community path that runs from the end of Lincoln Street through the Laurel Lane neighborhood to Guptil Road. The community path runs nearby the route of the former Mount Mansfield Electric Railroad, an inter-urban line that connected Waterbury and Stowe between 1897 and 1932.

Cross Vermont Trail. The Cross Vermont Trail is a planned four-season path traversing the center of Vermont from Lake Champlain to the Connecticut River through the Winooski and Wells River Valleys. In total, the Cross Vermont Trail will be 90 miles long. To date 30 miles have been developed. The Cross Vermont Trail alignment in Waterbury enters on Route 2 from the southeast, runs through the State Office Complex, travels non-road along the Winooski River to Winooski Street, where it crosses the river and continues west along River Road in Duxbury.

Little River - Stowe Area Trail Network. There is a well developed trail network north of the study area adjacent to Little River State Park in Mt. Mansfield State Forest. This also includes the Cotton Brook area trails in Mt. Mansfield State Forest and the trails within the Town of Stowe. Connecting these trails through to Waterbury provides a great opportunity for recreation and economic development within the region.

Connector Trail Planning Process

The idea for the Connector Trail grew out of the post-disaster recovery planning that was undertaken following Tropical Storm Irene. The Town of Waterbury applied for and obtained Community Development Block Grant – Disaster

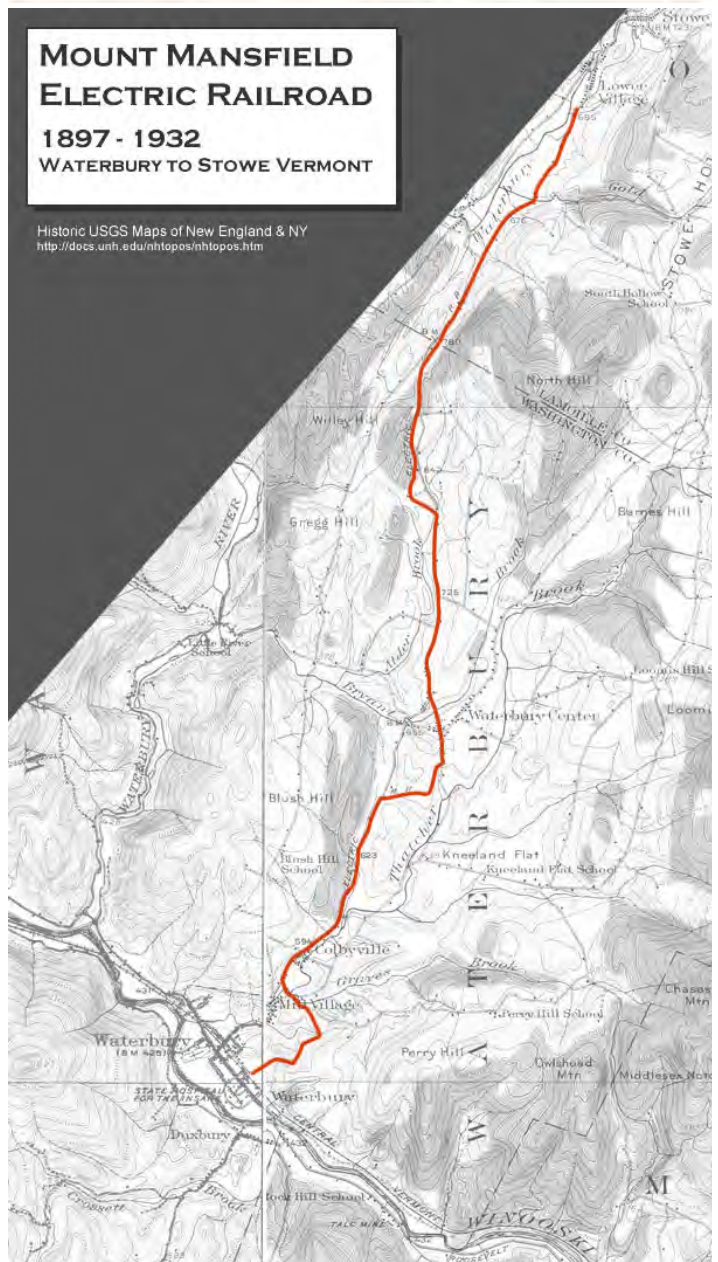


Photo and Route of the Mount Mansfield Electric Railroad.



Recovery (CDBG_DR) funds to “...examine the feasibility of a multi-use recreation trail suitable for mountain bikes from Waterbury Village to Little River State Park...” The Town issued an RFP for the study and in December 2013 selected a consultant team consisting of ORW Landscape Architects and Planners, Community Development Services (Kevin Russell), Little River Survey, and the UVM Consulting Archaeological Program to complete the project.

The consultant team worked closely with a Town appointed Steering Committee in the development of this feasibility study. The Steering Committee and Town staff were instrumental in assisting the team with site reconnaissance, providing direction to the team and hosting community meetings.

The area between the Village and Little River State Park includes a number of large parcels in private ownership. The existing VAST (Vermont Association of Snow Travelers) trail was seen as a good starting point to begin an assessment for a connector trail, as it has been in existence across private parcels for a number of years. This trail is a spur trail connecting the Best Western Inn on Blush Hill Road to the main VAST Trail in Mt. Mansfield State Forest. The consultants met with the Barre District Stewardship Team of the Vermont Agency of Natural Resources (ANR) (a multi-disciplinary team that includes forestry and parks staff as well as a wildlife and fisheries biologist, and an ecologist) to get an understanding of the environmental considerations associated with a new trail. An assessment of existing conditions was also undertaken at this time. In March 2014, the consultant team and members of the Steering Committee did a winter reconnaissance of the VAST spur trail. While much of the VAST alignment was attractive for a multi-use path, portions were clearly too steep or too wet for use as a multi-use, year-round path. Following this site walk, the team began a process of discussing the trail alignment with landowners and performing field reconnaissance for the trail alignment. This iterative process lasted through the late spring and summer. Through the process, the trail alignment shifted significantly to avoid property held by disinterested landowners and to avoid, to the extent possible steep areas and areas with natural resource concerns.

As a trail in Mt. Mansfield State Forest through Little River State Park is a key connection from Waterbury to the network of trails in Stowe and beyond, the consultant team also met in the field with the Barre District Stewardship Team to look at possible trail alignments on state land. Two meetings were held in the field, one in May and a follow-up meeting in November 2014. Through these meetings the team has been able to identify a conceptual alignment on State land that has had an initial screening from state resource staff.

Through this time period, broadly-noticed public meetings were held to get input from the interested public on the concept of a connector trail. Comments received at these workshops are summarized in this report. Public comments have been integrated into the trail planning and feasibility analysis. The three public workshops were held as follows:

1. Local Concerns Workshop: June 25, 2014
2. Trail Alternatives Workshop: September 24, 2014
3. Final Presentation: January 28, 2015

All of the meetings were broadly noticed, advertised in the Waterbury Record, on Front Porch Forum and through mailed letters to the affected landowners. Meeting notes from the workshops are included in the Appendix.

Community Concerns

Concerns and ideas expressed by the public fell into the following broad categories:

Landowner Concerns

If a connector trail is to be developed non-road, it will be through the cooperation of private landowners. Vermont has a tradition and a well developed legal framework that protects a landowner that opens their land for public use. As a result there is an extensive network of trails that has been developed on private land. Notable examples include: the VAST (Vermont Association of Snow Travelers) trails; Kingdom Trails in Burke; much of the Cross Vermont Trail; the Catamount



Existing trails in Waterbury: Perry Hill (left) and the Waterbury Community Path (right).

Trail; some of the Craftsbury /Highland Lodge ski trails; the Mad River Path in Fayston and Waitsfield. Within the plan area, the area between Route 100 and Little River State Park includes numerous private properties with owners that have varying degrees of receptivity to a trail traversing their land.

Neighbors in the Farr Road area expressed concern about public trail access near private residences. Several noted that uncontrolled use of ATVs in the area is a problem now. Farr Road neighbors were also concerned about any activity that would attract traffic to Farr Road, which is mostly a privately owned and maintained road.

Use of Route 2

Route 2 was discussed as an alternative to a non-road path. Route 2 has recently been improved with four-foot shoulders along much of its length between Waterbury and Little River Road. Most workshop attendees agreed that riding on Route 2 is not a 'family-friendly' connection. The possibility of a separate path near Route 2 was considered a more direct linkage to Little River State Park; however, it was also seen as an unlikely scenario to be developed given the competitive nature of shared use path funds. Route 2 was noted as a 'default option' for a connection to Little River State Park, but as a state highway with higher vehicle speeds and volumes, not the desired 'family-friendly' connector trail between the village and the park.

Economic Development Considerations / International Ride Center Concept

A 'Ride Center' is a designation by IMBA (the International Mountain Bicycling Association) for places which have a combination of factors that make them a mountain bicycling destination. An IMBA designated Ride Center could have a significant economic impact on businesses that are struggling to recover from Tropical Storm Irene. A Ride Center needs 100 km of connected trails. With the trails in Stowe and Perry Hill this area is about half-way there. There are also criteria regarding services—such as food, lodging, and sports outfitters—that are also IMBA considerations for a designated Ride Center. Ride Centers are economic drivers for the community within which they are located. Kingdom Trails (not a designated Ride Center) brings in a significant amount of money for the Burke area. Waterbury is missing out. Connection to the campground is secondary; priority should be on the connection to downtown Waterbury. Tying everything together—trails, lodging, food, amenities, community involvement, tourism and marketing—is key for a Ride Center designation. IMBA criteria for a Ride Center are included in Appendix A.

Liability, Trail Management and Maintenance

Questions regarding the liability of public use of a trail on private land were common during the planning process. Vermont statutes protect landowners that open the property for public recreation. For that reason, there are many miles of trails developed on private property as described above. Landowner outreach and education regarding Vermont's laws would be a part of developing any trail easement agreements.

The trail design would utilize sustainable trail design practices that minimize damage to the environment, and simplify maintenance. It is not known at this time how the connector trail would be managed and maintained, but it would likely be a partnership between Waterbury and partner agencies such as VMBA, Waterbury Area Trail Alliance (WATA), VAST and FPR. These topics are discussed further in the Implementation Chapter of this report.

Questions regarding trail use conflicts with hunting activities were also raised. It was noted that at Perry Hill the mountain bike trails currently give way to hunting without problem.

ATV Use

Currently, ATVs are used in the rural residential area between Blush Hill Road and State land. In some areas, it is landowners using ATVs on their property; in some areas it is considered 'rogue' usage on land without landowner permission. Some landowners are open to a walking / mountain bike/ ski trail on their land, but do not want use by motorized vehicles. Designing for, managing and enforcing non-motorized use of the trail will be important. This will be a significant trail design and management consideration in future steps of trail development.

Other Trail Options

Members of the public made suggestions regarding other trail alignments, which are discussed further in the Recommendations sections of this report.



Existing conditions in the project area and varied.

PROJECT AREA AND EXISTING CONDITIONS

The Project Area includes the area from Perry Hill, through the Village of Waterbury to Mt. Mansfield State Forest and Little River State Park, and distance of approximately 4.3 miles as the crow flies, but using streets and paths the actual distance would be seven to eight miles depending on the route.

The path will be a combination of on-road and non-road routes connecting the Village of Waterbury with Little River State Park. The opportunity of the Connector Trail is to provide connectivity to a number of significant destinations, including:

- Perry Hill Trails
- Vermont State Office Complex
- Waterbury Visitors Center
- Green Mountain Coffee Roasters
- Main Street Commercial District
- Waterbury Recreational Fields
- Waterbury Library



The Little River provides a valuable scenic and natural resource in the area.

- Waterbury Town Hall (under construction)
- Thatcher Brook Primary School
- Ben and Jerry's Factory
- Little River State Park

Natural Resources

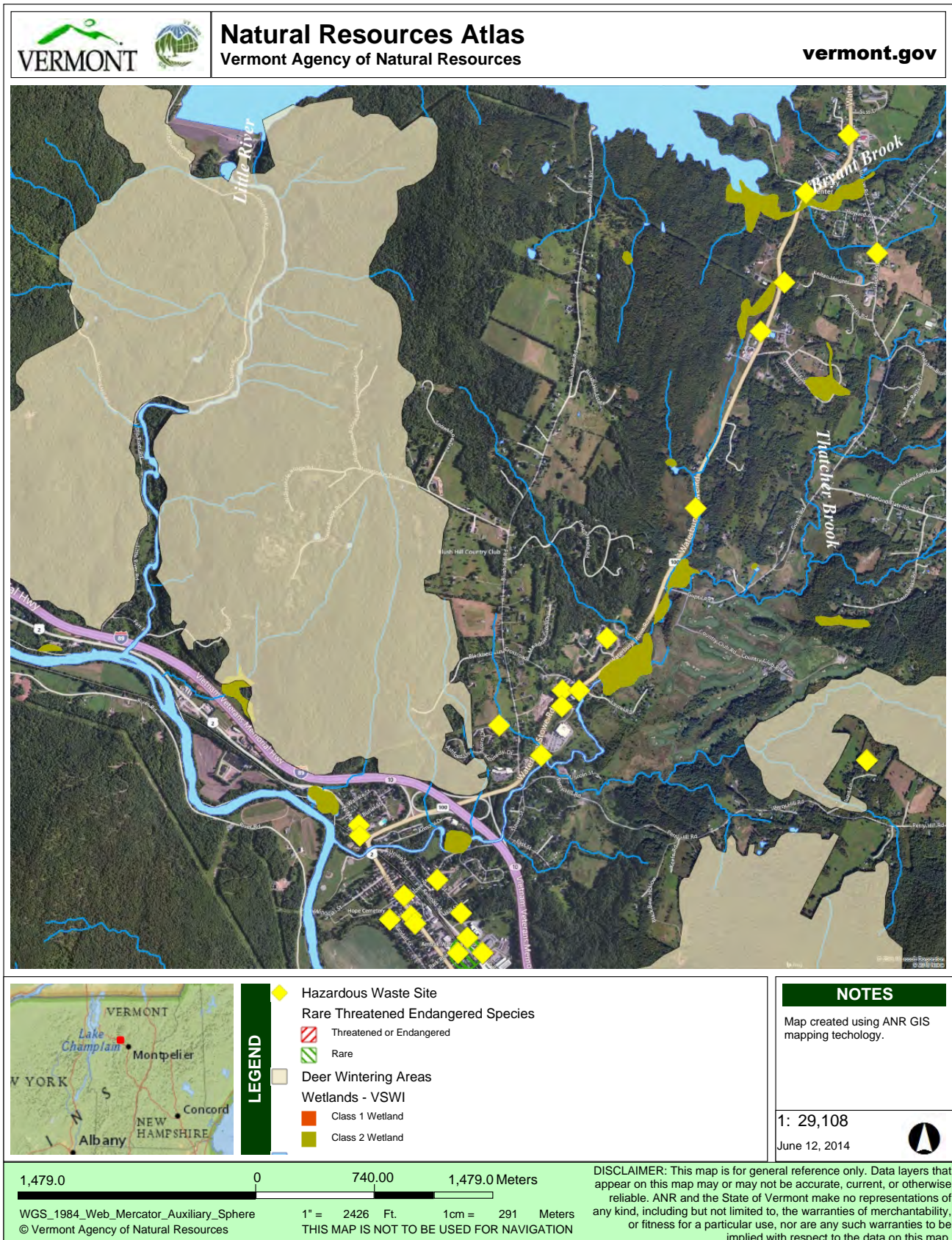
The project area was reviewed for the presence of critical natural resources using the Vermont Agency of Natural Resources on-line Natural Resources Atlas. Areas where non-road routes are considered, specifically through Mt. Mansfield State Forest and in the area between Blush Hill Road and Little River State Park was of particular consideration and the focus of this review.

Wetlands – There are Class II and III wetlands located along the Winooski River and Thatcher Brook. There are Class II wetlands located adjacent to I-89 below the Farr Road area.

Surface Waters – Major water bodies in the area include the Waterbury Reservoir, the Winooski River, Little River, and Thatcher Brook. In addition, there are several unnamed tributaries flowing into the Little River and the Winooski River. A non-road trail would be required to cross one or more of these tributaries.

Floodplains – There are mapped *Zone A* floodplains associated with the Winooski River, Little River and Thatcher Brook.

Figure 2: Resources Map



Endangered Species/Flora/Fauna – There are no identified rare, threatened or endangered species in the plan area.

Natural Resources - There are extensive deer wintering areas in Mt. Mansfield State Forest and in the area between Blush Hill Road and the state forest. Trails are not allowed in deer wintering areas on state land. The State has done some relocation of VAST trails on their land to be located near existing road or at the edge of wintering areas to reduce the impact of winter recreational activities on wintering deer. (Mt.. Mansfield State Forest Long Range Management Plan, 2002).

Stormwater Runoff – Additional trail development may increase stormwater runoff. Sustainable trail design techniques which incorporate measures to reduce runoff and attendant damaging erosion would be used in the trail design. Such techniques not only manage stormwater but reduce maintenance costs as well.

Hazardous Wastes – There are several hazardous waste sites identified in Waterbury, primarily clustered along Route 2/ Main Street and along Route 100. Many of the sites have been closed; the remaining sites are deemed a low or medium priority or designated NFAP (no further action planned).

Forest Land – The plan area includes the C.C. Putnam State Forest and Little River State Park/Mt. Mansfield State Forest. No changes are contemplated within C. C. Putnam State Forest; additional trails would be located within Mt. Mansfield State Forest.

Historic Resources

Historic resources within the environs of the connector trail include:

- **Waterbury Village Historic District.** The Waterbury Village Historic District is centered on the intersection of Main Street and Stowe Street, and including Winooski, Stowe, Union, Foundry, Randall, Elm, and Park Streets, Park Row and Moody Court. This district includes over 200 commercial, residential, industrial, educational, religious, railroad associated structures, as well as a town green which date from the late nineteenth and early twentieth century. (See map in Appendix B). This district was listed on the National Register in 1978.
- **Mill Village Historic District.** The Mill Village Historic District includes Stowe, North and Lincoln Streets and Seabury Place northeast of the main village center. The mill building and surrounding residential structures which date from 1835 to 1918 are contained within this historic district. This district was listed on the National Register in 1979.
- **Bridge #31.** Waterbury- Duxbury Bridge. Metal truss bridge over the Winooski River built in 1928. Listed on the National Register in 2006.
- **Colby Mansion.** Route 100. Ca. 1870's mansion. Listed on the National Register in 1979.
- **Greylawn Farm Complex.** Route 2. Circa 1870's dairy barn and farm complex. Listed on the State Register in 1990.
- **Gov. Ezra Butler House.** 73 South Main Street. ca. 1810. Listed on the State Register in 1990.
- **58 North Main Street.** ca. 1830's residential structure. Listed on the State Register in 1990.
- **Kelly House.** Lincoln Street Extension, ca. 1830's house. Listed on the State Register in 1990.
- **Colbyville Historic District.** A cluster of residential, church, retail buildings and mill dam structure above the Mill District. Listed on the State Register in 1990.

The Connector Trail would use established roads in the identified historic districts and would not be expected to have a negative impact on historic buildings and structures.





Remains of the Camp Smith C.C.C. Camp in Little River State Park.

Archaeological Resources

The plan area includes the Camp Smith and Stevenson Brook Historic Archaeological Districts.

- **Camp Smith Historic Archaeological District.** The remains of Camp Smith are located within Mt. Mansfield State Forest, just south of the Waterbury Dam. The camp housed 2000 men in a self-contained 'village.' The remains include a series of stone chimneys, foundations, stone steps, roads, remnant landscape plantings, cement filled rollers, and a wooden dam. Camps Smith is eligible for the state and national historic register but has not been listed (Knight, UVM, November 19, 2014).
- **Stevenson Brook Historic Archaeological District.** The Stevenson Brook District is the remains of a late 18th, 19th and early 20th century upland farming community. Archaeological features include cellar holes, mills, schools, cemeteries, roads, walls, orchards, and other community structures. (Knight, UVM, November 19, 2014, see Appendix C). The Stevenson Brook District is eligible for the national and state historic register but has not been listed.

An Archaeological Resources Assessment (ARA) was completed for this project, and is attached in Appendix C. The assessment identified several areas of the proposed alignment as sensitive and several areas as potentially sensitive for archaeological resources. Additional investigations would be required as trail sections are developed. Phase I site identifications in the archaeologically sensitive areas and field investigations in the potentially sensitive areas would be required as part of the Section 106 process for this project. Avoidance of these resources is another option.



Snowshoers explore a potential village to park connector trail during Waterbury Winterfest 2015.

RECOMMENDATIONS

Overview

The following section provides a description of the trail alignment recommendations starting from Perry Hill and ending at Little River State Park. The focus of the work under this contract was on the connection from the village center to Little River State Park, and the non-road sections of this linkage in particular. Two options that connect the village and Little River State Park are described. In areas where pedestrians and bicycles would use the existing street system it is assumed that bikes and pedestrians would be accommodated within the facilities that have been planned or developed in Waterbury. More specifically, construction plans have been completed for improvements to Waterbury's Main Street (which is also Route 100 and Route 2), and construction for this roadway is slated to begin construction in 2018. This project will include sidewalk, streetscape and roadway improvements. Route 2 northwest of the Waterbury village center has been repaved and the roadway will be striped with four-foot shoulders along its length, except where narrow bridge crossings are in place. Finally, sidewalks were constructed on Stowe Street during the summer/fall of 2014. We accept these projects as is; minor improvements such as sharrows for shared bike routes or an improved pedestrian crossing are noted in a few locations. A sharrow is a pavement marking indicating that bikes share the road with cars. Sharrows provide a visual path for cyclists where there are no bike lanes and remind motorists that bikes are to be expected and may use the full travel lane.

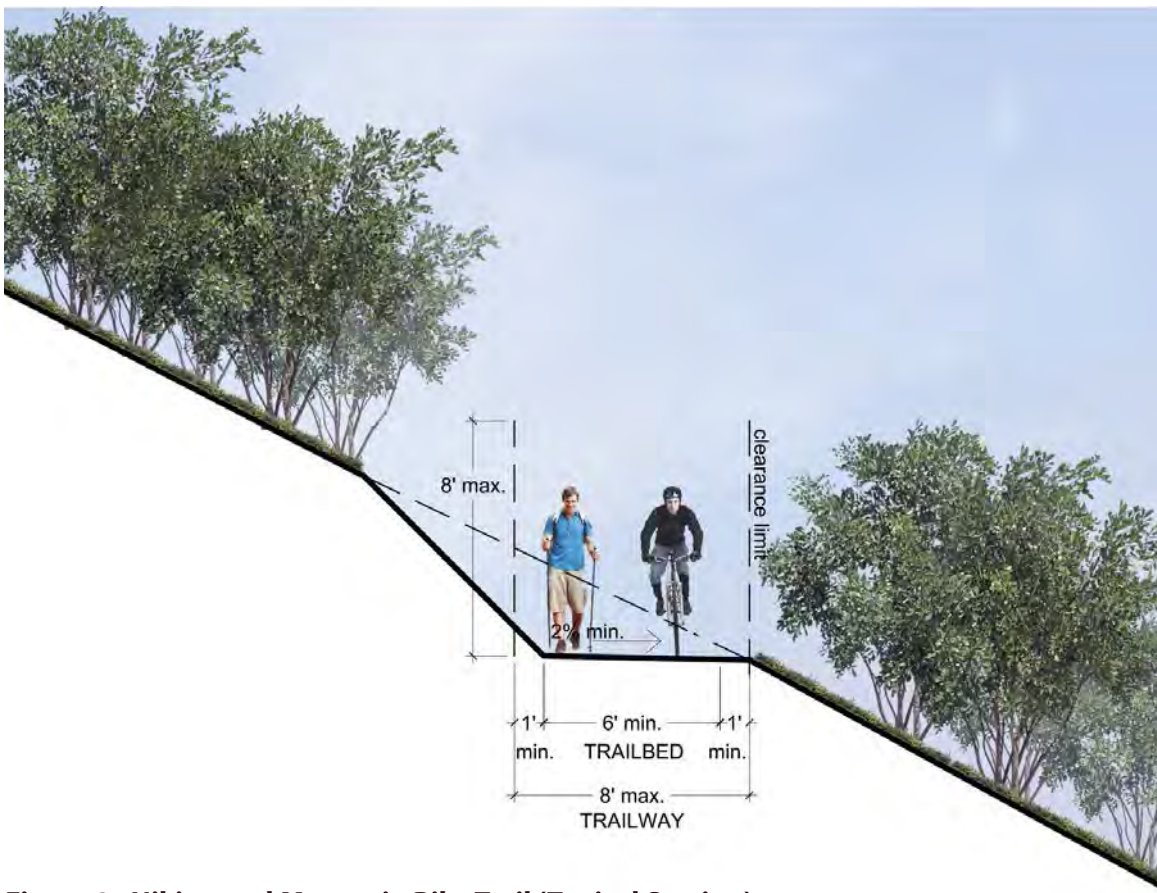
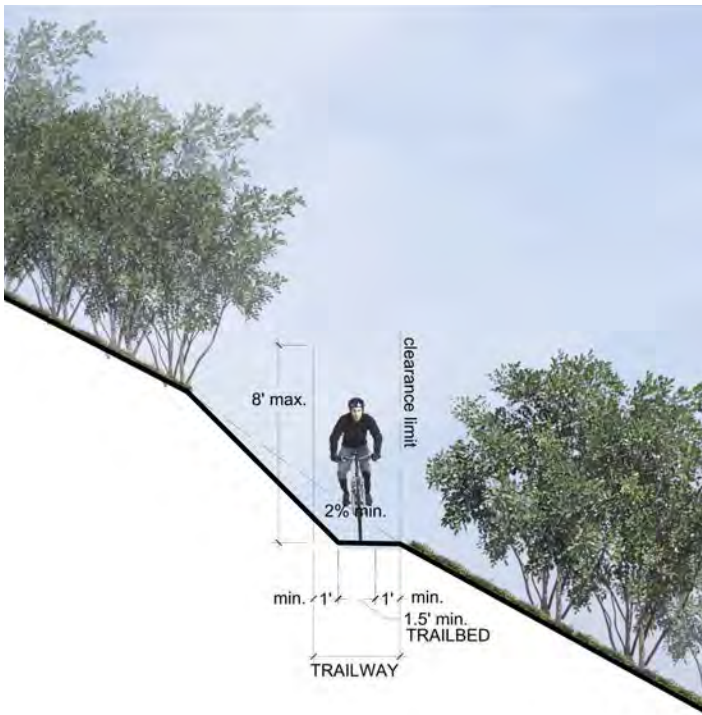


Figure 3: Hiking and Mountain Bike Trail (Typical Section)

The goal of the non-road segments of the connector trail is to be a ‘family-friendly trail’ with opportunity for multiple non-motorized uses (except where shared with VAST trails), specifically walking, bicycling on mountain bikes and possibly back-country skiing and snowshoeing. This trail is seen primarily as a recreational resource, as opposed to a transportation facility, so the design criteria vary from a typical shared-use transportation path. The trail design criteria are shown in Figures 3 and 4 and are described as follows:

- **Multi-Use / Family Friendly Trail.** The objective of the project is to create a ‘family-friendly’ connection, to the extent possible, between Perry Hill, Waterbury Village and Little River State Park. This assumes a moderate level of fitness for walkers and mountain bikers and a path that is comfortable for older children. The path is wide enough for side-by-side walking and two-way passing. Steps are avoided and the surface is natural, but removed of roots and rocks. Some curves may be super-elevated (banked).
 - **Width:** Minimum of 6 to 10-feet
 - **Grade:** 6 to 10% average up to 12% in steep areas
 - **Surface:** unpaved, gravel, even (roots and rocks removed), may include boardwalks
 - **Cross-slope:** 2% minimum – 5% maximum
 - **Vertical Clearance:** 8-feet
 - **Horizontal Clearance:** 1-foot from either side of the treadway
 - **Easement Width:** Tread plus ten feet



Single-track trail at Cady Hill Forest in Stowe.

Figure 4: Single Track Mountain Bike Trail (Typical Section)

- **Single-Track Mountain Bike Trail.** The connector trail may include segments or loops off the main trail which are single-track mountain bike trails. These segments will be narrower, steeper and more curving than a multi-use trail. These areas may require higher levels of fitness and skill than the Multi-Use Trail. These trails add diversity for recreational users. Single-track trails are one-way; portions of the trail may include wider two-way segments. The single track design criteria are minimums. Curves may be super-elevated.
 - **Width:** Minimum of 18"; 3 feet optimal
 - **Grade:** 0 to 12%
 - **Surface:** unpaved, may include some obstacles. There may be boardwalk sections.
 - **Cross slope:** 2% minimum – 5% maximum
 - **Vertical Clearance:** 8 feet
 - **Horizontal Clearance:** 1 foot from either side of the treadway
 - **Easement Width:** Treadway plus 10 feet

All trails would utilize trail design standards to minimize erosion and drainage issues.

Segment 1: Perry Hill to Stowe Street via Waterbury Visitors Center and Railroad Street

From Perry Hill to Stowe Street the Connector Trail would be an on-road route utilizing Main Street. At Perry Hill there is a parking area along River Road, which is a two-way lightly used roadway that provides access to the Ice Center, a cluster of residential and commercial uses near Main Street in addition to the Perry Hill trails. Along this street, bikes and pedestrians share the road with cars.

Main Street at River Road is the south gateway to the Waterbury village center. At this location there are sidewalks on both sides of the street which connect into the village. There is a crosswalk just north of River Road, and crosswalks are in place at regular junctures through the village center. This is a two-lane roadway with wide shoulders.



Railroad Street provides a quieter alternative to Main Street.

The speed limit is posted at 25 mph. This area has a strong sense of a scenic Vermont village center with period architecture, gardens and mature trees. This segment of Main Street is also the designated Cross Vermont Trail (CVT) alignment. At Batchelder Street the CVT turns west through the state office complex toward the Winooski River.

Closer to the center of the village, there are more commercial and public uses and more use made of on-street parking on both sides of the street. At Park Row, a busy intersection that is at the heart of the village center, the recommended route turns east to utilize streets with lighter traffic, specifically Park Row and Railroad Street. At Park Row there is a sidewalk on one side and walkways through the Green. There is a missing length of sidewalk across the tracks to Railroad Street.

Railroad Street is a quiet two-lane street with a continuous sidewalk that runs parallel to the railroad tracks. The street is relatively level, there is a very short hill section, but is otherwise an easy ride on flat terrain. Railroad Street connects through to Stowe Street.

Alternative Route: Main Street

Alternatively, pedestrians and more confident riders can continue on Main Street through to Stowe Street. This route would be better for more experienced riders, or those who wish to patronize the shops and services on this segment of Main Street.

- River Road: 0.3 miles
- Main Street:
 - To Batchelder Street: 0.3 miles
 - To Park Row: 0.25 miles
- Park Row to Railroad Street: 0.1 miles
- Railroad Street to Stowe Street: 0.3 miles
- TOTAL: 1.2 miles





A well worn path and a steady stream of pedestrians indicates a strong desire line between Park Row to Foundry Street.

Alternative Route

- River Road: 0.3 miles
- Main Street to Stowe Street: 0.8 miles
- TOTAL: 1.1 miles

Alternatives for Future Consideration:

- **Perry Hill to Town Green.** Over the long term, a bike and pedestrian path that runs parallel to the railroad tracks from Perry Hill to the Waterbury Visitors Center and Railroad Street via Pilgrim Park Road or a new bike/pedestrian path would be an attractive connection that would allow bicycles to avoid the traffic conditions of Main Street. More study is needed to reach out to property owners to determine the viability of a future route in this direction.
- **Park Row to Foundry Street Path.** In addition, there is a strong desire line for pedestrians between Park Row and the Foundry Street area, and pedestrians can be seen regularly walking between Park Row and the Foundry Street area adjacent to the railroad tracks. Enhancing the downtown connectivity for pedestrians and bikes through separate paths should be considered if properties in these areas are redeveloped in the future.

Option 1: Blush Hill Connector

Segment 1: On-Road: Stowe Street/Community Path/Ben and Jerry's/Blush Hill

This route uses an upland route which avoids Route 2, but involves a steady uphill climb to the non-road connector trail on Blush Hill Road. From the Village Center, either at Main Street, or Railroad/Union Street, trail users can travel north-east on Stowe Street which runs from the village center, beneath Interstate 89 to the Colbyville section of Waterbury. This route is a steady climb past the Thatcher Brook School, and through the historic Mill Village District to Lincoln Street. Through this section Stowe Street is a two-lane street with a sidewalk developed on the south side of the street. At Lincoln Street, the topography levels out and the route continues in an easterly direction. There is a park and ride facility located on Lincoln Street, which has the possibility to serve as a trailhead for those who wish to skip the Stowe Street hill. Recreational use of the path would complement commuter use of the Park and Ride facility, occurring more in summer evenings and on the weekend.

From the end of Lincoln Street the route uses a short section of the non-road Waterbury Community Path to Laurel Lane. The route would continue along Laurel Lane, a quiet residential street, to Route 100. At this location, the connector route would cross Route 100. The intersection of Laurel Lane and Crossroad is an off-set intersection with a small cluster of commercial buildings. At the present time, there is not a crosswalk here, but there are flashing beacons to alert drivers regarding to the presence of the intersection. The main entrance to Ben and Jerry's is 800 feet to the east. Over the long term, if bike and pedestrian crossings at this location increase, improvements to this crossing should be developed to improve pedestrian and bicycle safety. Traffic calming improvements such as splitter islands, as well as a pedestrian demand rapid flashing beacon would improve the situation for bikes and pedestrians, as well as tourists or others traveling to Ben and Jerry's or the other commercial uses along Route 100. Any improvements to Route 100 would require permission from VTrans, as Route 100 falls under their jurisdiction.

After crossing Route 100, the connector route continues along Crossroad, a short and steep hill that leads to Blush Hill Road and the beginning of the non-road section of the Blush Hill Connector Trail. Ascending this road may involve walking bikes along the roadway edge as it is very steep.

| | |
|--|-----------|
| • Village Center to Community Path via Stowe Street: | 0.9 miles |
| • Community Path to Route 100: | 0.6 miles |
| • Route 100/Ben and Jerry's to Connector Trail: | 0.3 miles |
| TOTAL: | 1.8 miles |

Segment 2: Non-Road: Blush Hill Connector Trail

A trail head with parking would be ideal at this location, and a site just south of the brick house on land of Radio Vermont would work well for this purpose. From here, the planned route ascends a long series of sloped meadows west from Blush Hill Road, then enters the woods just southwest of the golf course and radio towers at the height of land.

Once entering the woods, the route traverses topography across the hillside using a series of old woods roads and some new cross-country sections in a southerly and westerly direction. West of Pinnacle Ridge Road the linked paths cross private properties and eventually reach the VAST trail.

The VAST trail travels west and then north descending steeply in places to the Little River valley. Sections of the VAST trail will require weaving cross-contour realignments to lower the steepness of the grades.

The steepest section will require about one-half mile of single track with separate up -and - down routes to traverse the steep hillside topography of approximately 150 feet of elevation change between the valley and the upper terrace where the VAST trail levels out. Using the model of the Cady Hill trails in Stowe, separated routes can blend with the steep slopes and be safe for bike travelers in each direction. The VAST trail could be retained for snowmobile use but is very



Above, a portion of the VAST spur trail southwest of Little River State Park; a simulation of an improved multi-use trail at this location.

steep and eroded. Partnership with VAST will be essential to plan for and maintain this challenging route. The balance of the VAST trail to Little River Road follows rolling topography along the river. Several sections of eroded ravines have impacted the current VAST trail and culverts are damaged with deep gullies and siltation. Upgrading the route to mixed-use trail will require rehabilitation and or relocation of the trail in some areas. The VAST bridge at the end of the route will need to be improved with new decking and protective handrails for bicycle and pedestrian use and the outlet trail would need to be improved to the trailhead parking area that is shared with VAST on the west side of Little River Road.

- Blush Hill Road to Mt. Mansfield State Forest VAST Bridge and Parking Area: 3.4 miles

Option 2: Little River Connector

Segment 1: On-Road: Stowe Street to Little River State Park via Route 2

From Stowe Street, this route continues along Union Street, which is a quiet residential street with sidewalks along both sides of the street. Bikes would share the road through this segment. Union Street terminates in Route 2 near the intersection with Route 100. As of this writing a roundabout is under construction at this location. Once completed, the roundabout will slow traffic, making the intersection easier to navigate for bicycles and pedestrians. At this juncture a community path through Dascomb Rowe Field to River Road and the Cross Vermont Trail can be accessed.

From the roundabout, the route continues along Route 2 which is a two-lane highway with shoulders. The first section of Route 2, from Route 100 to Butler Pond, is a continuation of a village pattern of development with residential homes and mixed auto-oriented commercial development. There is an intermittent sidewalk on both sides of the road. Beyond Butler Pond, the road becomes a higher speed highway with strip commercial development. The posted speed here is 40 mph. There is a pinch point where the highway is close to the railroad right-of-way and there is a guard rail on the west side of the highway. The shoulder is narrow along this stretch. This road has been recently repaved and has four-foot shoulders along much, although not all, of its length. The topography is level; however the highway traffic detracts from the experience for bicyclists, particularly less-confident riders.

At Little River Road, the route turns eastward onto Little River Road. This road is a curving two-lane rural dirt road, approximately 24' wide, that passes under I-89, and follows the valley of the Little River providing access to the Dam and Little River State Park. The posted speed limit is 25 miles per hour. A short distance up Little River Road, the route passes the old alignment of Farr Road, which has been closed since the removal of a deteriorated bridge. The closed remnant of



Above, one of the old roads through Camp Smith; a simulation of an improved multi-use trail at this location.

Farr Road is called Little Fox Forest Road. This road provides an opportunity for trail head parking area in the right of way. The route follows Little River Road for approximately one-half mile.

- Union Street to Route 2: 0.3 miles
- Route 2 to Little River Road: 1.3 miles
- Little River Road to VAST and State Park: 0.5 miles
- TOTAL: 2.1 miles

Segment 2: Non-Road: Little River State Park Connector Trail

The non-road route from Little River Road through Mt. Mansfield State Forest to the Little River State Park campground at the reservoir falls into three segments:

- Shared with VAST and cross country routes
- Camp Smith
- Little River Road and State Park Road

Shared with VAST. The non-road road route begins approximately one-half mile up Little River Road from Route 2 or one-third mile up Little River Road from the Little Fox Forest Road potential trail head. The trail is shared with the VAST trail approximately one-quarter mile uphill into the state forest, and then diverges to cross a series of terraced plateaus and side hill traverses across the mountainside for about one-third of a mile. This new route is designed to avoid a steep and very wet section of VAST west of the “Brown Farmhouse” and stays higher on the terraces. There would be one 75-foot bridge over a steep ravine that has been initially reviewed in the field by state resource staff and deemed acceptable for further consideration.

The route then crosses Woodard Hill Road, again realigning with the VAST trail and then proceeding north and west across a culverted stream crossing and climbing to a higher elevation. Following VAST for another 600 feet, the trail realigns a steep VAST section and stays on a continuous and relatively level terrace for approximately 1800 ft. eventually reaching the southern end of the former Camp Smith. This realigned section would also include a 125-foot suspension bridge over a steep and eroded ravine. This side has also been reviewed by state resource staff in the field and deemed an acceptable trail alignment for further consideration.





Above, a ravine on the State Forest property; a simulation of an suspension bridge over the ravine.

Camp Smith. The trail route through the historic Camp Smith, a CCC era work camp for workers on the Waterbury Dam follows old camp roads that connected the southern and northern camps. Originally separated by the river ravine, the southern camp was for black workers and the northern for whites in a poignant reminder of how the landscape was used in a segregated world. Visitors to the area use the existing trails, and Department of FPR staff has designed a future universally accessible interpretative trail through the site that uses mostly the old camp roads which are very well constructed gravel base roads with sand and gravel surfaces. Due to the historic nature of this place, interpretative and wayfinding signage will provide a richer and unique experience along the trail.

The total length of the road system through the Camp Smith site is approximately 4500 feet most of which is nearly “trail ready” with a base and stable surface that could withstand mountain bike and pedestrian uses. The former bridge across the dividing stream between the north and south camps is gone, lost to flooding and the trail crossing here requires a substantial suspension bridge of approximately 175 feet in length. State resource staff have reviewed this location and while the crossing is long agrees it has potential. This bridge would avoid another steep and wet section of the VAST trail.

The trail through Camp Smith terminates at Little River Road near the dam overlook site, and in a site that the Department of FPR has planned as a trailhead parking facility.

Little River Road and Park Road: From the end of Camp Smith, the route follows Little River Road as it climbs to the height of land by the Dam. This climb is relatively short and steep but alternative routes across the dam face or through the woods met topographical challenges.

The preferred route for FPR is to have the route shared with the park roadway with a signed “share the road” designation or a widened road with designated two-way bike path. Alternative routes across the steep topography were considered and may in the future have promise in an expanded biking program.

Once the route reaches the campground, it connects to existing mountain bike trails.

- Non-Road Trail Little River Road to Park Road: 2.2 miles

Trail Route Alternatives and Evaluation

The identified trail routes provide a couple of options to meet the project objective of connecting the Village of Waterbury with Little River State Park through a combination of on-road and non-road routes. The Steering Committee declared both off-route trails to be worthy for future development. The Blush Hill route is more attractive as it avoids Route 2, however, access easements over several private properties would be required. For this reason, both routes are recommended for further development; priority is placed on investigating the Blush Hill connector trail further with property owners. Both routes provide the following benefits:

- Connecting Perry Hill, Waterbury Village destinations, and Little River State Park;
- Avoiding properties belonging to property owners not interested accommodating a path on their property;
- Building on the existing Central Vermont trail network to provide greater connectivity and a more extensive trail network;
- Providing several trailhead access points; and
- Providing opportunities for joint use and management through partnerships with other trail associations, e.g., Waterbury Area Trail Alliance (WATA), VMBA, FPR and VAST.

Other Trail Routes Considered

Through the planning process other trail routes were suggested and considered. These are described below:

VAST Trail from the Best Western to Little River State Park. Initially, an existing VAST spur trail was considered as a route for the connector trail as it was an existing trail alignment that could be possibly shared year-round. There would also be benefits with sharing the maintenance of the trail between various user groups. While portions of this route near Mt. Mansfield State Forest are utilized, the majority of this alignment was discarded as an option because:

- Property owners along the trail, including the Best Western, were not interested in a multi-use year-round trail on their property.
- Portions of the trail were either too steep or too wet to work for a multi-use trail.

Blush Hill Road or Waterbury Community Path to VAST. Another connection that was suggested during public meetings involves the development of a loop using either the Waterbury Community Path or Blush Hill Road to the VAST Trail in Mt. Mansfield State Forest that runs on the south side of the reservoir. This path would be completely non-road (if it used the community path) and has the potential to be the most family-friendly alternative. After consulting with state resource staff, however, this route was removed from consideration due to concerns with wildlife and natural resources along the VAST route.

Cross-Vermont Trail/River Road to Richmond Bridge Crossing. Another route considered as a way to avoid Route 2 involves the use of the Cross-Vermont Trail route along River Road in Duxbury west to the snow-machine bridge crossing of the Winooski. This route, however, significantly overshoots Little River Road, and would, therefore not avoid riding on Route 2, as riders would need to ride back to Little River Road via Route 2.

Trail Routes for Future Consideration

Community Path to Perry Hill. Another suggestion raised through the public process was the possibility of developing a connector trail between Perry Hill and Little River State Park via the Community Path and Perry Hill Road. This seems like a promising idea that could use a portion of the old rail bed of the Mt. Mansfield Electric Railway which would be a good addition to Waterbury's trail system.



Conditions on Route 2, fast and heavy traffic, truck traffic, debris in shoulders, is not considered an optimal connection for a wide-cross-section of bicyclists.

Waterbury Railroad Station to Perry Hill Trails. Another trail connection that would be useful would be connecting from the Perry Hill bike trails to the Waterbury Railroad Station in an alignment parallel to the railroad (e.g., rail with trail), to DeMeritt Place and Pilgrim Park Road. This connection would allow trail users to bypass the busy traffic conditions of Waterbury's Main Street, making this a more attractive route for less experienced riders.

Route Evaluation

The alternative routes have been evaluated in consideration of factors included in the project purpose and need. The evaluation factors for each route are as follows:

Route Length: The route length calculations begin at the intersection of Stowe Street and Union Street. The focus of this study is connecting the Village and Little River State Park, but connecting the Perry Hill bike trails is also

a consideration. In the recommendations a discussion of the route from the Perry Hill trails to the Village is described. However, this is exclusively on-road riding, so it is the same in either case. The corridors diverge at Stowe Street, so this is where the distance calculation begins. The on-road length includes sharing the road for bikes. There are sidewalks in village and along Stowe Street. The off road length includes the trail length.

Economic Development: Economic development potential relates to the connection between the route and Waterbury businesses. Both routes connect the Village and Little River State Park, providing economic development potential for Waterbury businesses. Both routes tie into food, lodging and visitor attractions in the village center.

Regional Connectivity: This factor refers to the addition of trails to the existing network, thereby adding gravity to the regional network. Connecting to Little River State Park, and paths beyond in Stowe, Perry Hill and the Cross-Vermont Trail. Both routes, by design, provide a key connection between these existing resources. Providing a superior trail connection will provide the best economic development results.

Property Ownership (Trail): This refers to public or private ownership of the land associated with the non-road route. The Blush Hill Connector trail corridor would be on private property and would require agreements with several owners. The Little River State Park Connector is on land owned by the State of Vermont; the trail corridor has been reviewed in the field by the district stewardship team and has a level of acceptance.

Family-Friendly: The primary consideration with respect to a 'family-friendly' factor is the character of the on-road sections of the route. The best alternative would be to develop a route that is fully separated from traffic; however that is not possible at this time. Riding along Route 2, with higher speed and higher volumes of traffic, is considered to be less friendly than riding on Stowe Street/Laurel Lane/Crossroad. While the Stowe Street/Laurel Lane/Crossroad route is on quieter streets, crossing Route 100 and the steep grade of Crossroad Road are difficulties along this route.

The non-road trail also carries a 'family-friendly' consideration. In general, grades of 6% or less and gradual curve radii are considered family-friendly for the trail. Portions of both non-road trails are steep, and a portion of the Blush Hill Trail is expected to have a section of single-track with switchbacks. At this time, however, the trail alignment through this area is very conceptual and may change substantially depending on a number of factors, not the least of which is the desires of property owners for the trail alignment. As more refined trail alignments are developed, the goal is to develop the trail to be as family-friendly as possible in terms of curves and grade, but there are many factors that will affect the ultimate alignment of the trail.

Resource Considerations: Both non-road trails traverse areas that are deer wintering areas and have stream crossings. The routes are shared with existing VAST trails through much of the area. The area southwest of the river is considered to be less disturbed by state resource staff. This area has archaeological sensitivities and will require additional review prior to development of a trail. Camp Smith is also an archaeological resource; the trail through this area will utilize a trail alignment that has been developed by FPR taking archaeological resources into consideration.

The trail route evaluation is summarized as follows:

Option 1: Blush Hill Route (Stowe Street/Community Path/ Blush Hill Road/Little River State Park.) This route utilizes Stowe Street, the Waterbury Community Path and Crossroad Road to access an non-road connector trail that begins at Blush Hill Road. The non-road section of this trail is largely on private property so permission would need to be obtained from six or seven property owners to develop a trail along this alignment. This alignment has the attraction of utilizing quieter roads, traversing Waterbury's historic Mill Village District, and connecting with Ben & Jerry's and other destinations in the Colbyville section of Waterbury. This non-road trail is 3.6 miles in length. Overall, priority is placed on this alignment because it avoids Route 2 as a bike connection between Waterbury Village and Little River State Park. In summary:

- On-Road Route Length: 1.8 miles
- Non-Road Trail Length: 3.6 miles
- Total Length: 5.4 miles
- Economic Development: Yes
- Regional Connectivity: High
- Property Ownership (Trail): Private
- Family-Friendly: Medium
- Resource Considerations: Deer Yard, Stream Crossings, Archaeological Resources, Wildlife Corridor
- Attractions: Ben & Jerry's, Waterbury Mill Village District, Quieter Streets

Option 2: Main Street/Route 2/Little River State Park. The alternative corridor is via Route 2 to Little River State Park. While Route 2 is a level and direct path to Little River State Park, riding along Route 2 is seen as only an option for confident riders and is not at all family-friendly. The non-road section of the trail, includes segments sharing with the existing VAST trail and utilizing existing trails and camp roads to the extent feasible. The non-road segment of this trail is 2.2 miles and utilizes segments of the VAST Trail and the planned trail through Camp Smith.

- On-Road Route Length: 2.1 miles
- Non-Road Trail Length: 2.2 miles
- Total Length: 4.3 miles
- Economic Development: Yes
- Regional Connectivity: High
- Property Ownership (Trail): Public
- Family-Friendly: Low
- Resource Considerations: Deer Yard, Stream Crossings, Archaeological Resources, Wildlife Corridor

In summary, both non-road connector trails provide connectivity which is strategic with respect to Waterbury and the Central Vermont region, and are valuable recreational resources that could encourage economic development in the area. The Blush Hill trail option avoids Route 2, and was seen as a stronger village-to-park connector trail by the Steering Committee. This route is complicated, however, by numerous private property agreements that would need to be secured in order to develop a trail along the route. The trail through Mt. Mansfield State Forest is a valuable addition to the regional trail network, and is less complicated in terms of land ownership and negotiating agreements. Portions of this alignment are 'trail-ready' or shared with VAST, which may make this trail less attractive for winter users including backcountry skiers and snowshoers. The conceptual trail corridor through the state land identified in this report has been reviewed and reflects direction given to the team by state resource staff.

It was the preference of the Waterbury Connector Trail Steering Committee to pursue implementation of both non-road trails.

Other Trail Planning Considerations

Trailheads

Several potential trailhead locations have been identified on the plan. Some of these exist now and could be improved for trail users through informational signage which displays a trail map, at a minimum. In a few locations a more developed information kiosk would be desirable including, in addition to a trail map, directions to places to eat, drink, food stores, air and water stops, bicycle gear and camping supply shops. Use of these areas for trailheads would require agreements with owners. The conceptual trailhead/parking areas are summarized below:

Table 2: Potential Trailhead Locations

| Trail Head | Owner | Developed? | Amenities | Notes |
|-------------------------------------|-------------------|------------|-----------------------------|-----------------------------|
| Perry Hill / Rink Road | Town of Waterbury | Yes | Trail Map/ Wayfinding Kiosk | |
| Waterbury Park and Ride | VTrans | Yes | Trail Map | Agreement/Permission Needed |
| Radio Vermont | Radio Vermont | No | Trail Map/Wayfinding Kiosk | Agreement/Permission Needed |
| Little Fox Forest Road | Town of Waterbury | No | Trail Map | Minimal Improvements Needed |
| VAST Parking Lot | Vermont Dept. FPR | Yes | Trail Map | Agreement/Permission Needed |
| Camp Smith Parking Lot | Vermont Dept. FPR | Yes | Trail Map/Wayfinding Kiosk | Agreement/Permission Needed |
| Dam Parking Lot | Vermont Dept. FPR | Yes | Trail Map | Agreement/Permission Needed |
| Little River State Park Parking Lot | Vermont Dept. FPR | Yes | Trail Map | Agreement/Permission Needed |

Signage and Wayfinding

An integrated signage and wayfinding system should be developed as the path is improved. As described above, at the trail heads there should be an overall trail map to orient trail users. For the more heavily used trail heads, a wayfinding kiosk which includes trail information as well as directions to visitor services, such as eating and drinking locations, bike repair shops, picnic areas, should be included as well.

In addition to trailhead signage, identifying signage along the route helps to direct and orient trail users would also benefit users.



Winterfest trekkers take a break while exploring a potential village to park connector trail.

IMPLEMENTATION

Preliminary Cost Estimate

A cost estimate for the non-road segments of the two connector trail options is summarized in Table 3.

These cost estimates are based on the trail alignment represented in this report and linear foot costs based on the team's project experience and comparisons with comparable projects. Trail costs vary depending on how the trail is constructed (e.g., by mechanized equipment or by hand), whether they are built by volunteers, trail crews, or contractors and what the existing conditions are now. These trails include segments that are an upgrade to an existing VAST trail or State Park trail and require less work, as well as segments that are new trails involving trail clearing, grading of the land and surfacing.

This estimate incorporates cost elements that reflect a minor rehabilitation of an existing VAST trail or a new trail segment. The estimate also includes a 20 percent contingency reflecting the planning level of the project; a 25 percent engineering, project management and inspection cost as well as an optional trail surfacing cost for an imported hardpack material. In this cost estimate an alternative to a long suspension bridge connecting the two parts of Camp Smith is also presented. This trail would utilize an established service road for the camp on the north side and create a new trail on the south side, and incorporate a much shorter bridge across the ravine. This alternative alignment saves approximately

Table 3: Preliminary Estimate of Probable Cost

| March 30, 2015 | | | Mt. Mansfield SF Trail | | Blush Hill Trail | |
|---|------|------------|------------------------|----------------|------------------|-----------------------|
| Item Description | Unit | Unit Price | Quantity | Cost | Quantity | Cost |
| 10-foot Wide Multi-Use Trail: Minor Rehab | LF | \$ 25 | 9830 | \$ 245,750 | 10,162 | \$ 254,050 |
| 10-foot Wide Multi-Use Trail: New Trail | LF | \$ 45 | 2356 | \$ 106,020 | 7,031 | \$ 316,395 |
| 3-foot Wide Single Track Trail: Minor culverts | LF | \$ 15 | | \$ - | 2017 | \$ 30,255 |
| Major culverts | Each | \$ 250 | 81 | \$ 20,310 | 128 | \$ 32,017 |
| Suspension Bridge #1 | Each | \$ 500 | 20 | \$ 10,155 | 32 | \$ 16,008 |
| Suspension Bridge #2 | LF | \$ 1,000 | 200 | \$ 200,000 | | \$ - |
| Suspension Bridge #3 | LF | \$ 1,000 | 135 | \$ 135,000 | | \$ - |
| Suspension Bridge #4 | LF | \$ 1,000 | 25 | \$ 25,000 | | \$ - |
| Suspension Bridge #5 | LF | \$ 1,000 | 25 | \$ 25,000 | | \$ - |
| Upgrade VAST Bridge | LF | \$ 1,000 | 50 | \$ 50,000 | | \$ - |
| Trailhead Signage | LF | \$ 250 | | \$ - | 150 | \$ 37,500 |
| Trailhead Kiosk | Each | \$ 1,500 | 4 | \$ 6,000 | 5 | \$ 7,500 |
| Wayfinding | Each | \$ 3,500 | 2 | \$ 7,000 | 3 | \$ 10,500 |
| | LS | \$ 5,000 | 1 | \$ 5,000 | 1 | \$ 5,000 |
| Subtotal | | | | \$ 835,235 | | \$ 709,225 |
| Contingency (20%) | | | | \$ 167,047.0 | | \$ 141,845.0 |
| Total Cost to Complete Project | | | | \$ 1,002,282.0 | | \$ 851,070.0 |
| <i>Optional: trail surfacing</i> | CY | \$ 100 | 451 | \$ 45,133 | 636.78 | \$ 63,678 |
| Engineering, Project Mgmt. and Inspection (25%) | | | | \$ 250,570.5 | | \$ 212,767.5 |
| Total Cost to Complete Project | | | | \$ 1,297,985.8 | | \$ 1,127,515.3 |
| Grand Total | | | | | | \$ 2,425,501.1 |

| | | | Mt. Mansfield SF Trail | |
|--|------|------------|------------------------|---------------------|
| Alternative to Bridge #1 | Unit | Unit Price | Quantity | Cost |
| New Trail | LF | \$ 45 | 1,073 | \$ 48,285 |
| Suspension Bridge #1 | LF | \$ 1,000 | 50 | \$ 50,000 |
| Subtotal New Trail and Bridge | | | | \$ 98,285 |
| Subtotal Trail Cost | | | | \$ 733,520 |
| Contingency (20%) | | | | \$ 146,704.0 |
| Total Cost to Complete Project | | | | \$ 880,224.0 |
| <i>Optional: trail surfacing</i> | CY | \$ 100 | 491 | \$ 49,107 |
| Engineering, Project Mgmt and Inspection (25%) | | | | \$ 220,056.0 |
| Total Cost to Complete Project | | | | \$ 1,149,387.4 |
| Estimated Savings | | | | \$ 148,598.4 |

NOTES:

Cost of the Blush Hill Trail does not include purchase of land or easements.

Costs are preliminary and conceptual.

\$150,000, however the alignment would disturb more stream buffer area. The best way to make this connection would be considered in subsequent trail planning.

Right-of-way

Obtaining landowner permission and demonstrating legal control of the necessary land needed for the path is important when considering the investment and long-term utility of the trail. This section discusses the various options for obtaining control of land for public or private investments in the trails and various agreements for permission to allow public access. This endeavor envisions trails and connections that traverse public and private lands as well as current transportation corridors.

Public Land:

Developing trails on public land is typically an easier undertaking. Much of the forested and open lands in Vermont are conserved and added to the public domain with public use for recreation as an important goal. Agreements between public entities and local trail groups for management of trail systems on publicly-owned land are common and successful in Vermont. The United States Forest Service and Vermont Department of Forests, Parks and Recreation have worked successfully with statewide and local hiking, mountain bicycling and horseback riding groups to establish sustainable trail systems in the Green Mountain National Forest and within state parks and forests throughout Vermont. Town-owned forests and locally conserved lands also provide good trail opportunities. Public funding for construction and maintenance of trail projects on public land is more likely to be an option because it is easy to demonstrate control of the land and is more certain that the investment will be protected.

Private Land:

Public access on private land can be handled through a public access easement or through purchase of land for trail by a public agency. This is typically a more complicated undertaking; regardless, there is a robust network of public access trails on private land in Vermont, including such noteworthy examples as the Kingdom Trails in Burke; portions of the Cross-Vermont Trail; the Catamount Trail; and the Mad River Path to name a few examples. Landowners are typically concerned about privacy, security, exposure to liability and affect on land value. To a certain extent these issues can be worked out with individual landowners. Vermont state statutes provide liability protection to private property owners who allow public use of their land for recreation.

Just as there are agreements with public land managers for trails, there should be agreements with private landowners to establish management responsibilities as well as the need for a public access easement. Developing a management plan collaboratively with the Town, landowner and third party trail organization will identify responsibilities and answer these questions.

There is a variety of agreement types that could be used to obtain control of private land needed to construct and maintain a public trail. Generally speaking, the higher the investment in the trail, the higher the degree of control of the land will be necessary. From lowest to the highest degree of control these agreement types include:

- Verbal or handshake agreements.
- Written permission with option to cancel with notice.
- Long-term easements.
- Permanent easements.
- Land purchases.

Proposed trails requiring drainage structures such as bridges and culverts or significant construction costs will likely require public control of the land to guarantee public access commensurate with the public investment, usually a minimum



of 10 years. Depending on the funding source, an agreement can be timed accordingly. A trail project funded with private or locally raised funds can be more flexible on the level of control necessary, assuming a higher risk that the investment will be worthy for a reasonable term.

Phasing

On-Road Segments. The on-road segments of the trail, including Main Street, Route 2 and Stowe Street have all been improved, or plans for improvements to those routes have been recently completed and are programmed for construction. Over time, the routes would benefit from identifying signage and sharrows for bicycles on shared routes. An improved pedestrian crossing of Route 100 at Laurel Road potentially involving traffic calming and a rapid flashing beacon is another improvement that would be of benefit if this trail alignment becomes developed.

Non-Road Segments. The two non-road segments of the trail can proceed simultaneously as funding opportunities and landowner relations permit. The first step is to further investigate landowner interest for the Blush Hill connector trail.

Permitting

Permits would be required to construct the trail. These are summarized as follows:

Local:

- Trails are generally exempt from local zoning permits. A local permit may be required for bridge crossings, kiosks or work in the floodplain.

State:

- Vermont Stormwater Permit 3-9015 (ANR). New impervious area greater than one acre in area will require a 3-9015 stormwater permit. For a 10-foot path, this is roughly equivalent to a trail .825 miles in length.
- Construction General Permit 3-9020 (ANR). This permit would be required to address stormwater runoff for construction of the entire trail.
- Act 250 (ANR). Trails are considered development for the purposes of Vermont's Act 250; however neither trail equates to 10 acres of development. Therefore, it appears that Act 250 would be a consideration if the trail crosses a property which has an existing Act 250 permit. In this case, coordination with the District V Environmental Commission will be required.
- Vermont Wetland Permit (ANR). Wetlands in the trail area will need to be delineated and if wetlands or their buffers are affected a Vermont Wetland Permit would need to be obtained from ANR. At this point, it appears that bridge crossings are the primary area where wetland buffers may be impacted.

Federal:

- NEPA. If federal funds are used for implementation of the trail, the project will need to go through the NEPA (National Environmental Policy Act). For a trail project this would typically be a Categorical Exclusion (CE) which would not involve a lengthy review process.

Funding

There are several potential funding sources for this trail. An overview of these sources follows:

State/Federal Grants

There are several sources of grant funding for trail projects. The use of public funding would require public land ownership, or long-term easements (10 to 25 years depending on the grant) for improvement of trails on private land. Some likely candidates for this project include:

- **Recreation Trails Program (RTP) Grants.** RTP grants are administered by the Vermont Department of Forests, Parks and Recreation. This is an annual, competitive grant available to municipalities and non-profits for the development and maintenance of motorized and non-motorized recreational and trails and trail-related projects. Starting this year (2015) maximum amount of a grant has been raised to a maximum award of \$50,000.
- **Transportation Alternatives (TA) Grants.** Portions of the trail may be eligible for funding through the TA grant program which funds projects to increase pedestrian and bicycle mobility. TA funds will pay a maximum of 80% of project costs, with the remaining funding coming from sponsoring organizations. These grants are distributed annually through a competitive grant program.
- **Vermont Bicycle and Pedestrian Program.** This is a competitive grant program for bicycle and pedestrian improvements of up to \$300,000 per project. This is an annual competitive grant program administered by the Vermont Agency of Transportation.
- **Land and Water Conservation Fund.** Also administered by Forests, Parks and Recreation, LWCF provides up to 50% matching assistance to state and local government agencies for various projects including outdoor recreation facility development.
- **National Park Service Rivers and Trails Grants.** The National Park Service provides technical assistance to communities for conservation and development of trails and greenways. The National Parks Service trail specialists can be a partner in moving the project forward and development a management plan for the trail.
- **Vermont Housing and Conservation Board Grants.** The Vermont Housing and Conservation Board makes grants to eligible entities, namely nonprofit conservation organizations, municipalities, and certain state agencies. Included in VHCB's program are grants for the acquisition of land or interests in land (easements) for natural area protection and/or public outdoor recreation. Grants are limited to acquisition costs and costs directly associated with acquisition, as well as for small endowments for the stewardship of conservation easements.

VHCB funds are not available for the development of recreational facilities or the physical construction of trails. VHCB has assisted in the acquisition of land associated with the Long Trail, and in the acquisition of trail easements for the Catamount Trail Association and the Cross Vermont Trail Association. VHCB has also helped numerous municipalities in the acquisition of town parks and forests, many of which include important recreational elements.

- **Vermont Department of Health - Combined Community Grants.** These grants support implementation of community-based chronic disease prevention strategies related to physical activity and nutrition, tobacco prevention and alcohol and drug abuse prevention. The physical activity and nutrition (PAN) component funds community based strategies that fall into the following categories: (1) Increase mixed use development; (2) Improve bicycle and pedestrian facilities; (3) Improve parks, recreation +/- or open space; (4) Increase access to healthy food.

Nonprofit Grants

- **Various national, regional and local non-profits provide grants for trails, bike paths, and facilities.** As an example, People for Bikes has a community grant program that provides support for bicycle paths and trails, as well as mountain bike facilities and parks. There are also grants that support healthy and active living which may also be a source of funding. The Vermont Mountain Bike Association (VMBA) would be a good contact for advice on tapping into larger IMBA and national grant programs.
- **Vermont Youth Conservation Corps (VYCC).** While not a grant program itself, the VYCC provides work crews to municipalities, agencies and organizations and partners with agencies, such as the Vermont Agency of Transpor-



tation, to build less complicated bicycle and pedestrian improvements. They are a pay for service organization but rates are less costly than typical contractor rates. Typical crew time ranges from one to eight weeks. Trails at Perry Hill, for example, have been maintained and upgraded using VYCC crew time.

Local Funding

- **Town of Waterbury.** It may be desirable to fund some portions of this project locally through the Waterbury town budget. The advantage to this approach is that there is more flexibility in design and some aspects of the trail may be built by Town Crews.
- **Local Fundraising.** Local community groups and businesses may be interested in promoting a project like this, particularly given the economic development objective of the trail.

Maintenance

If the trails are built using sustainable trail building practices, it helps significantly with maintenance. Maintenance tasks would primarily involve clearing blow-downs, maintaining bridges and culverts, tree trimming. Along the Waterbury Connector Trail there is the opportunity to partner with established organizations including the Waterbury Area Trail Alliance (WATA) and VAST to maintain the trails. The costs of maintaining the trail may be handled through contributions by Waterbury, or through the establishment of a separate association that will organize and solicit donations and grants to maintain the trail. A local example of this is the Mad River Path Association which is an established non-profit that manages the maintenance, building and conservation of the Mad River Path.

Compatibility with Planning Efforts

Town and Village of Waterbury Municipal Plan (2013)

This project is compatible with and implements ongoing planning efforts in Waterbury related to:

- disaster recovery;
- economic development; and
- expansion of recreational opportunities.

The project is supported by the 2013 Waterbury Municipal Plan, specifically the goals, objectives and actions in the Facilities and Services Chapter. The project is also consistent with the recommendations of Waterbury's Colbyville Bike and Pedestrian Plan. In addition, this project would reinforce efforts of Vermont State Parks to increase recreational opportunities in the parks as well as a larger effort to create a connected mountain bike network in Central Vermont.

Mt. Mansfield State Forest Long Range Management Plan (2002)

The Vermont Agency of Natural Resources prepare a long range management plan for the Mt. Mansfield State Forest which sets goals and policies for the use and management of the forest lands. The broad goals of the management plan are to protect biodiversity; provide continued opportunities for the recreational activities that have taken place historically on these lands and to provide opportunities for new compatible activities; and to maintain the contribution this forest makes to local and regional economies. The plan identifies consideration of expanded mountain bike trails for Little River State Park as a part of the plan. This trail plan is consistent with the goals and objectives of the Mt. Mansfield State Forest Long Range Management Plan to provide and improve recreational opportunity and to support local economies in a manner that is consistent with protecting the resources of the forest.

Appendix A:

IMBA International Ride Center Criteria



IMBA Ride Center

Evaluation Criteria

19 August 2011

| Categories | Available |
|-----------------------|-----------|
| Trail Experience | 62 |
| Services | 19 |
| Community Involvement | 8 |
| Tourism and Marketing | 6 |
| Above and Beyond | 5 |
| | 100 |
| | |
| | |
| Grading | |
| Gold Ride Center | 90 - 100 |
| Silver Ride Center | 76 - 89 |
| Bronze Ride Center | 55 - 75 |



INTERNATIONAL MOUNTAIN BICYCLING ASSOCIATION

| Category | Criteria | Description | Notes | Specifics | Points Available | Points Awarded | Partial points possible? |
|-------------------------|-----------------------------------|---|---|---|------------------|----------------|--------------------------|
| Trail Experience | Trail Types | | | | | | |
| | Singletrack - easy | Easy singletrack trail for riders. | Traditional singletrack trail. Generally complies with IMBA Trail Rating guidelines. | Minimum length of 3.0 miles/4.8 km. Minimum contiguous length of 2.0 mile/3.2 km. | 1 | | |
| | Singletrack - more difficult | More difficult singletrack trail for riders. | Traditional singletrack trail. Generally complies with IMBA Trail Rating guidelines. | Minimum length of 6.0 miles/9.7 km. Minimum contiguous length of 4.0 mile/6.4 km. | 1 | | |
| | Singletrack - very difficult | Very difficult singletrack trail for riders. | Traditional singletrack trail. Generally complies with IMBA Trail Rating guidelines. | Minimum length of 6.0 miles/9.7 km. Minimum contiguous length of 4.0 mile/6.4 km. | 1 | | |
| | Singletrack - extremely difficult | Extremely difficult singletrack trail for riders. | Traditional singletrack trail. Generally complies with IMBA Trail Rating guidelines. | Minimum length of 5.0 miles/8 km. Minimum contiguous length of 2.0 mile/6.4 km. | 1 | | |
| | Bike-specific singletrack - easy | Easy purpose-built singletrack trail that maximizes the fun and efficiency of riding a mountain bike. | Purpose-built or -modified singletrack trail, the majority of which contains a high density of specific features to enhance the rider experience and provide challenge, such as berms, rollers, consistently wide turn radii, technical features, rock gardens, jumps, drops, etc. Generally complies with IMBA Trail Rating guidelines. | Minimum length of 1.0 miles/2.5 km. Minimum contiguous length of 1.0 miles/2.5 km. | 1 | | |
| | Bike-specific singletrack - easy | Easy purpose-built singletrack trail that maximizes the fun and efficiency of riding a mountain bike. | Purpose-built or -modified singletrack trail, the majority of which contains a high density of specific features to enhance the rider experience and provide challenge, such as berms, rollers, consistently wide turn radii, technical features, rock gardens, jumps, drops, etc. Generally complies with IMBA Trail Rating guidelines. Points are cumulative. | Minimum length of 2.0 miles/3.2 km. Minimum contiguous length of 1.0 miles/2.5 km. | 1 | | |
| | Bike-specific singletrack - easy | Easy purpose-built singletrack trail that maximizes the fun and efficiency of riding a mountain bike. | Purpose-built or -modified singletrack trail, the majority of which contains a high density of specific features to enhance the rider experience and provide challenge, such as berms, rollers, consistently wide turn radii, technical features, rock gardens, jumps, drops, etc. Generally complies with IMBA Trail Rating guidelines. | Minimum length of 3.0 miles/4.8 km. Minimum contiguous length of 1.0 miles/2.5 km. | 1 | | |

| Category | Criteria | Description | Notes | Specifics | Points Available | Points Awarded | Partial points possible? |
|-------------------------|--|---|---|---|------------------|----------------|--------------------------|
| Trail Experience | | | | | | | |
| | Bike-specific singletrack - more difficult | More difficult purpose-built singletrack trail that maximizes the fun and efficiency of riding a mountain bike. | Purpose-built or -modified singletrack trail, the majority of which contains a high density of specific features to enhance the rider experience and provide challenge, such as berms, rollers, consistently wide turn radii, technical features, rock gardens, jumps, drops, etc. Generally complies with IMBA Trail Rating guidelines. Points are cumulative. | Minimum length of 1.0 miles/2.5 km. Minimum contiguous length of 1.0 miles/2.5 km. | 1 | | |
| | Bike-specific singletrack - more difficult | More difficult purpose-built singletrack trail that maximizes the fun and efficiency of riding a mountain bike. | Purpose-built or -modified singletrack trail, the majority of which contains a high density of specific features to enhance the rider experience and provide challenge, such as berms, rollers, consistently wide turn radii, technical features, rock gardens, jumps, drops, etc. Generally complies with IMBA Trail Rating guidelines. | Minimum length of 2.0 miles/3.2 km. Minimum contiguous length of 1.0 miles/2.5 km. | 1 | | |
| | Bike-specific singletrack - more difficult | More difficult purpose-built singletrack trail that maximizes the fun and efficiency of riding a mountain bike. | Purpose-built or -modified singletrack trail, the majority of which contains a high density of specific features to enhance the rider experience and provide challenge, such as berms, rollers, consistently wide turn radii, technical features, rock gardens, jumps, drops, etc. Generally complies with IMBA Trail Rating guidelines. Points are cumulative. | Minimum length of 3.0 miles/4.8 km. Minimum contiguous length of 1.0 miles/2.5 km. | 1 | | |
| | Bike-specific singletrack - very difficult | Very difficult purpose-built singletrack trail that maximizes the fun and efficiency of riding a mountain bike. | Purpose-built or -modified singletrack trail, the majority of which contains a high density of specific features to enhance the rider experience and provide challenge, such as berms, rollers, consistently wide turn radii, technical features, rock gardens, jumps, drops, etc. Generally complies with IMBA Trail Rating guidelines. | Minimum length of 1.0 miles/2.5 km. Minimum contiguous length of 1.0 miles/2.5 km. | 1 | | |
| | Bike-specific singletrack - very difficult | Very difficult purpose-built singletrack trail that maximizes the fun and efficiency of riding a mountain bike. | Purpose-built or -modified singletrack trail, the majority of which contains a high density of specific features to enhance the rider experience and provide challenge, such as berms, rollers, consistently wide turn radii, technical features, rock gardens, jumps, drops, etc. Generally complies with IMBA Trail Rating guidelines. Points are cumulative. | Minimum length of 2.0 miles/3.2 km. Minimum contiguous length of 1.0 miles/2.5 km. | 1 | | |
| | Bike-specific singletrack - very difficult | Very difficult purpose-built singletrack trail that maximizes the fun and efficiency of riding a mountain bike. | Purpose-built or -modified singletrack trail, the majority of which contains a high density of specific features to enhance the rider experience and provide challenge, such as berms, rollers, consistently wide turn radii, technical features, rock gardens, jumps, drops, etc. Generally complies with IMBA Trail Rating guidelines. | Minimum length of 3.0 miles/4.8 km. Minimum contiguous length of 1.0 miles/2.5 km. | 1 | | |

| Category | Criteria | Description | Notes | Specifics | Points Available | Points Awarded | Partial points possible? |
|-------------------------|---|--|--|--|------------------|----------------|--------------------------|
| Trail Experience | | | | | | | |
| | Bike-specific singletrack - extremely difficult | Extremely difficult purpose-built singletrack trail that maximizes the fun and efficiency of riding a mountain bike. | Purpose-built or -modified singletrack trail, the majority of which contains a high density of specific features to enhance the rider experience and provide challenge, such as berms, rollers, consistently wide turn radii, technical features, rock gardens, jumps, drops, etc. Generally complies with IMBA Trail Rating guidelines. | Minimum length of 1.0 miles/2.5 km. Minimum contiguous length of 1.0 miles/2.5 km. | 1 | | |
| | Bike-specific singletrack - extremely difficult | Extremely difficult purpose-built singletrack trail that maximizes the fun and efficiency of riding a mountain bike. | Purpose-built or -modified singletrack trail, the majority of which contains a high density of specific features to enhance the rider experience and provide challenge, such as berms, rollers, consistently wide turn radii, technical features, rock gardens, jumps, drops, etc. Generally complies with IMBA Trail Rating guidelines. | Minimum length of 2.0 miles/3.2 km. Minimum contiguous length of 1.0 miles/2.5 km. | 1 | | |
| | Bike-specific gravity-oriented trail - easy | Easy purpose-built gravity-oriented trail that maximizes the fun and efficiency of riding a mountain bike. | Purpose-built or -modified trail that utilizes gravity to enhance the descending experience. The majority of the trail must contain a high density of bike-specific features, such as berms, rollers, consistently wide turn radii, technical challenges, rock gardens, jumps, drops, etc. | Minimum length of 1.0 miles/2.5 km. Minimum contiguous length of 1.0 miles/2.5 km. | 1 | | |
| | Bike-specific gravity-oriented trail - easy | Easy purpose-built gravity-oriented trail that maximizes the fun and efficiency of riding a mountain bike. | Purpose-built or -modified trail that utilizes gravity to enhance the descending experience. The majority of the trail must contain a high density of bike-specific features, such as berms, rollers, consistently wide turn radii, technical challenges, rock gardens, jumps, drops, etc. Points are cumulative. | Minimum length of 2.0 miles/4.8 km. Minimum contiguous length of 1.0 miles/2.5 km. | 1 | | |
| | Bike-specific gravity-oriented trail - more difficult | More difficult purpose-built gravity-oriented trail that maximizes the fun and efficiency of riding a mountain bike. | Purpose-built or -modified trail that utilizes gravity to enhance the descending experience. The majority of the trail must contain a high density of bike-specific features, such as berms, rollers, consistently wide turn radii, technical challenges, rock gardens, jumps, drops, etc. | Minimum length of 1.0 miles/2.5 km. Minimum contiguous length of 1.0 miles/2.5 km. | 1 | | |

| Category | Criteria | Description | Notes | Specifics | Points Available | Points Awarded | Partial points possible? |
|-------------------------|---|--|---|---|------------------|----------------|--------------------------|
| Trail Experience | | | | | | | |
| | Bike-specific gravity-oriented trail - more difficult | More difficult purpose-built gravity-oriented trail that maximizes the fun and efficiency of riding a mountain bike. | Purpose-built or -modified trail that utilizes gravity to enhance the descending experience. The majority of the trail must contain a high density of bike-specific features, such as berms, rollers, consistently wide turn radii, technical challenges, rock gardens, jumps, drops, etc. Points are cumulative. | Minimum length of 2.0 miles/4.8 km. Minimum contiguous length of 1.0 miles/2.5 km. | 1 | | |
| | Bike-specific gravity-oriented trail - more difficult | More difficult purpose-built gravity-oriented trail that maximizes the fun and efficiency of riding a mountain bike. | Purpose-built or -modified trail that utilizes gravity to enhance the descending experience. The majority of the trail must contain a high density of bike-specific features, such as berms, rollers, consistently wide turn radii, technical challenges, rock gardens, jumps, drops, etc. Points are cumulative. | Minimum length of 4.0 miles/6.4 km. Minimum contiguous length of 2.0 miles/4.8 km. | 1 | | |
| | Bike-specific gravity-oriented trail - very difficult | Very difficult purpose-built gravity-oriented trail for intermediate riders that maximizes the fun and efficiency of riding a mountain bike. | Purpose-built or -modified trail that utilizes gravity to enhance the descending experience. The majority of the trail must contain a high density of bike-specific features, such as berms, rollers, consistently wide turn radii, technical challenges, rock gardens, jumps, drops, etc. | Minimum length of 1.0 miles/2.5 km. Minimum contiguous length of 1.0 miles/2.5 km. | 1 | | |
| | Bike-specific gravity-oriented trail - very difficult | Very difficult purpose-built gravity-oriented trail for intermediate riders that maximizes the fun and efficiency of riding a mountain bike. | Purpose-built or -modified trail that utilizes gravity to enhance the descending experience. The majority of the trail must contain a high density of bike-specific features, such as berms, rollers, consistently wide turn radii, technical challenges, rock gardens, jumps, drops, etc. Points are cumulative. | Minimum length of 2.0 miles/4.8 km. Minimum contiguous length of 1.0 miles/2.5 km. | 1 | | |
| | Bike-specific gravity-oriented trail - very difficult | Very difficult purpose-built gravity-oriented trail for intermediate riders that maximizes the fun and efficiency of riding a mountain bike. | Purpose-built or -modified trail that utilizes gravity to enhance the descending experience. The majority of the trail must contain a high density of bike-specific features, such as berms, rollers, consistently wide turn radii, technical challenges, rock gardens, jumps, drops, etc. Points are cumulative. | Minimum length of 4.0 miles/6.4 km. Minimum contiguous length of 2.0 miles/4.8 km. | 1 | | |

| Category | Criteria | Description | Notes | Specifics | Points Available | Points Awarded | Partial points possible? |
|-------------------------|--|---|---|--|------------------|----------------|--------------------------|
| Trail Experience | | | | | | | |
| | Bike-specific gravity-oriented trail - extremely difficult | Extremely difficult purpose-built gravity-oriented trail for intermediate riders that maximizes the fun and efficiency of riding a mountain bike. | Purpose-built or -modified trail that utilizes gravity to enhance the descending experience. The majority of the trail must contain a high density of bike-specific features, such as berms, rollers, consistently wide turn radii, technical challenges, rock gardens, jumps, drops, etc. | Minimum length of 1.0 miles/2.5 km. Minimum contiguous length of 1.0 miles/2.5 km. | 1 | | |
| | Bike-specific gravity-oriented trail - extremely difficult | Extremely difficult purpose-built gravity-oriented trail for intermediate riders that maximizes the fun and efficiency of riding a mountain bike. | Purpose-built or -modified trail that utilizes gravity to enhance the descending experience. The majority of the trail must contain a high density of bike-specific features, such as berms, rollers, consistently wide turn radii, technical challenges, rock gardens, jumps, drops, etc. Points are cumulative. | Minimum length of 2.0 miles/4.8 km. Minimum contiguous length of 1.0 miles/2.5 km. | 1 | | |
| | DJ trail/area - easy/more difficult | Easy/more difficult dirtjump track/trail. | | | 1 | | |
| | DJ trail/area - very/extremely difficult | Very/extremely difficult dirtjump track/trail. | | | 1 | | |
| | Pump tracks | Public pump track is available. | | | 1 | | |
| | Bike Park | There is a bike park facility | A bike park is defined as a distinct, identifiable area that contains at least two primary mountain bicycle-oriented trails or tracks. Can be free or fee-based. | | 3 | | Yes |
| | Uplift options at bike park | Bike park has options for uplift (e.g., chairlift, access road). | Uplift options can be either free or fee-based. | | 1 | | |
| | <i>Trail Qualities</i> | | | | | | |
| | Three or more days of riding | A cyclist can spend three or more days riding the trail system and enjoy a different ride each day. | Each ride does not necessarily need to be on completely different trails, but should provide a unique experience. | | 3 | | |
| | Signs/wayfinding | Signs, maps, and markers allow persons unfamiliar with the trail system to navigate it with relative ease. | | | 2 | | Yes |

| Category | Criteria | Description | Notes | Specifics | Points Available | Points Awarded | Partial points possible? |
|-------------------------|----------------------------|---|---|-----------|------------------|----------------|--------------------------|
| Trail Experience | | | | | | | |
| | Trailhead amenities | Major trailheads contain some combination of parking areas, sign kiosks, bathrooms, changing areas, bike wash, drinking water, etc. | | | 2 | | Yes |
| | Skills development area | Easy-level features (e.g., berms, rock armoring, drops, rollers) that encourage learning. | | | 1 | | |
| | Scenic views | Scenic views of the local community, natural beauty, or unique natural features. | | | 1 | | |
| | Backcountry experience | Opportunities to find a sense of solitude or a backcountry experience while riding. | The trail experience will result in a ride when fewer than 12 other users are encountered when further than 5.0 miles/8.0 km (by trail) from the trailhead. | | 2 | | |
| | Descents ≥ 1 mile/1.6 km | Singletrack trail descent with average grade between 5% - 10% for at least 1.0 mile/1.6 km. | Maximum sustained grade of 20% for no more than 0.5 mile/0.8 km. | | 1 | | |
| | Descents ≥ 3 mile/4.8 km | Singletrack trail descent with average grade between 5% - 10% for at least 3.0 mile/4.8 km. | Maximum sustained grade of 20% for no more than 0.5 mile/0.8 km. Points are cumulative. | | 1 | | |
| | Descents ≥ 5 mile/8 km | Singletrack trail descent with average grade between 5% - 10% for at least 5.0 mile/8 km. | Maximum sustained grade of 20% for no more than 0.5 mile/0.8 km. Points are cumulative. | | 1 | | |
| | Long climb ≥ 1 mile/1.6 km | Singletrack trail ascent with minimum average grade of 7% for at least 1.0 mile/1.6 km. | Maximum sustained grade of 20% for no more than 0.5 mile/0.8 km. | | 1 | | |
| | Long climb ≥ 3 mile/4.8 km | Singletrack trail ascent with minimum average grade of 7% for at least 3.0 mile/4.8 km. | Maximum sustained grade of 20% for no more than 0.5 mile/0.8 km. Points are cumulative. | | 1 | | |
| | Long climb ≥ 5 mile/8 km | Singletrack trail ascent with minimum average grade of 7% for at least 5.0 mile/8 km. | Maximum sustained grade of 20% for no more than 0.5 mile/0.8 km. Points are cumulative. | | 1 | | |
| | Technical Climbs | There exist trails used as ascending routes that possess technical climbs regularly featuring rocks, roots, steps, and/or other challenges. | Minimum length of 5.0 mile/8 km. Minimum contiguous length of 1.0 miles/2.5 km. | | 2 | | Yes |

| Category | Criteria | Description | Notes | Specifics | Points Available | Points Awarded | Partial points possible? |
|-------------------------|------------------------------------|---|--|-----------|------------------|----------------|--------------------------|
| Trail Experience | Long-distance adventure | There exist opportunities to do a long distance (40 miles/65 km) and possibly multi-day singletrack tour within or as part of the trail system. | | | 1 | | |
| | All-weather trails ≥ 3 mile/4.8 km | There exist at least 3.0 mile/4.8 km of trails that can sustainably withstand use during very wet or very dry periods. | Trails can be engineered, improved, and/or possess soil types that make them durable. | | 1 | | |
| | All-weather trails ≥ 5 mile/8 km | There exist at least 5.0 mile/8.0 km of trails that can sustainably withstand use during very wet or very dry periods. | Trails can be engineered, improved, and/or possess soil types that make them durable. Points are cumulative. | | 1 | | |
| | Trailhead access by bike | Ease of access by bicycle from lodging/camping to trailhead. | Factors to consider include: easy grades (5% or less); distance (less than 3 miles/5 km); presence of a bike lane, path, trail, or wide striped shoulder; traffic volume on shared routes. | | 2 | | Yes |
| | Shuttle/uplift options | There are opportunities to shuttle or use uplift services to access trails. | Shuttle/uplift options must cover at least 90% of the trail vertical and allow access to 50% of the trail system. Includes established heli shuttles. | | 3 | | |
| | Riding season ≥ 6 months | The riding season is typically six months or longer. | Assumes at least half the facilities to be open during a time when the ground is free of snow and the maximum average monthly heat index is below 100 degrees. | | 1 | | |
| | Riding season ≥ 8 months | The riding season is typically eight months or longer. | Assumes at least half the facilities to be open during a time when the ground is free of snow and the maximum average monthly heat index is below 100 degrees. | | 1 | | |
| | Riding season ≥ 10 months | The riding season is typically ten months or longer. | Assumes at least half the facilities to be open during a time when the ground is free of snow and the maximum average monthly heat index is below 100 degrees. | | 1 | | |

| Category | Criteria | Description | Notes | Specifics | Points Available | Points Awarded | Partial points possible? |
|--------------------------------|--|---|--|-----------|------------------|----------------|--------------------------|
| Services | <i>Retail</i> | | | | | | |
| | Bike shop - goods & services | Bike shop(s) within the community has/have a significant stock of mountain bike-based merchandise and can service mountain bikes. | | | 2 | | Yes |
| | MTB guide services/outfitter | Availability of free or fee-based guide services. | | | 1 | | |
| | MTB shuttle service | There is a service that shuttles riders and their bikes to area trailheads. | | | 1 | | |
| | Bike rental | Availability of mountain bicycle rental services. | Stock cannot be older than three years and must include mid-level full-suspension bicycles in sizes small through extra-large. | | 1 | | |
| | Shopping | There are opportunities to shop for general merchandise. | Pharmacy, department store, hardware store, automotive supply shop, etc. | | 1 | | |
| | <i>Lodging</i> | | | | | | |
| | Primitive camping | There are primitive camping locations within 5.0 miles/8.0 km of the trail system. | | | 1 | | |
| | Camping with potable water & showers | There are camping sites with potable water and hot showers within 5.0 miles/8.0 km of the trail system. | | | 1 | | |
| | Camping with van/RV hookup | There are camping sites with van/RV hookups within 5.0 miles/8.0 km of the trail system. | | | 1 | | |
| | Hotel/motel | There are hotels/motels within 5.0 miles/8.0 km of the trail system. | | | 1 | | |
| | Bike-friendly lodging | Hotels/motels/campgrounds have bike washes, secure bike storage, and/or allow bikes in rooms. | Must total of at least 25% of available rooms/sites be bike-friendly. | | 1 | | |
| | <i>Food</i> | | | | | | |
| Quality/Variety of Restaurants | There is a variety of eating establishments that feature different cuisines. | More than six different categories of restaurant (e.g., ethnic, food type, etc). | | 2 | | Y | |
| Brew pub | There is a brew pub. | | | 1 | | | |
| Coffee shop | There is a coffee shop. | | | 1 | | | |

| Category | Criteria | Description | Notes | Specifics | Points Available | Points Awarded | Partial points possible? |
|-----------------|----------------------|---|--|-----------|------------------|----------------|--------------------------|
| Services | | | | | | | |
| | Grocery store | There is a grocery store. | | | 1 | | |
| | Natural/organic food | It is possible to purchase natural/organic food. | | | 1 | | |
| | <i>Other</i> | | | | | | |
| | Airport | There is an airport within one hour by public or private transportation. | Airport needs to have daily commercial jet service no further than one hour away. | | 1 | | |
| | Medical services/EMS | There exists a hospital emergency room or clinic within 40 miles of trail system, or backcountry EMS providers are established in the area. | EMS providers can be trained land management agency staff, organized volunteer SAR teams, etc. Personnel need to be familiar with the trail system and have an understanding of access points and evacuation routes. | | 1 | | |

| Category | Criteria | Description | Notes | Specifics | Points Available | Points Awarded | Partial points possible? |
|----------|--------------------------------|--|--|-----------|------------------|----------------|--------------------------|
| | Community Involvement | | | | | | |
| | MTB Patrol/ Ambassadors | Trail system is served by bike patrol or ambassadors (volunteer or professional) with regularly scheduled patrols. | Patrols need to occur at least once during the weekend and once during the week. Patrols need to be accredited through IMBA, other recognized organization, or the land management agency. | | 1 | | |
| | Group rides | There are regularly scheduled group rides. | The rides can be hosted by the local community, bike shop, guide service, or other entity. Rides are free or available for a minimal fee. | | 1 | | |
| | MTB-related events | Local community or other entity hosts or helps with races, festivals, trailwork, or other bike-related social activities (e.g., fundraisers). | | | 2 | | Yes |
| | Support | The Ride Center's development and maintenance are supported by government entities, businesses, land managers/owners, stakeholders, and the general community. | Can be shown through letters of support, MOUs, adopted trail plans, grants, etc. Can also be shown with strong advocacy support. | | 2 | | Yes |
| | Land manager/ owner support | Legal instrument (e.g., adopted trail plan, contract, MOU) supports mountain bicycling. | | | 2 | | Yes |

| Category | Criteria | Description | Notes | Specifics | Points Available | Points Awarded | Partial points possible? |
|------------------------------|-----------------------|---|---|-----------|------------------|----------------|--------------------------|
| Tourism and Marketing | | | | | | | |
| | Recreation variety | There are a variety of recreational opportunities within one hour by public or private transportation. | Additional recreation opportunities are important to provide a diverse experience. Activities include rock climbing, skiing/boarding, mountaineering, kayaking, rafting, hiking, running, surfing, etc. | | 2 | | Yes |
| | Marketing presence | Easily accessible mediums (e.g., website) used for marketing the trail system. | Information should include details about where to ride, where to stay, where to eat, local MTB organization, Chamber of Commerce/visitors' bureau, etc. | | 2 | | Yes |
| | Local marketing group | There exists a local community group that has made a commitment to promoting and marketing the Ride Center. | Group can be comprised of Chamber of Commerce, visitors' council, government agencies, land manager/owner, marketing alliance, etc. | | 2 | | Yes |

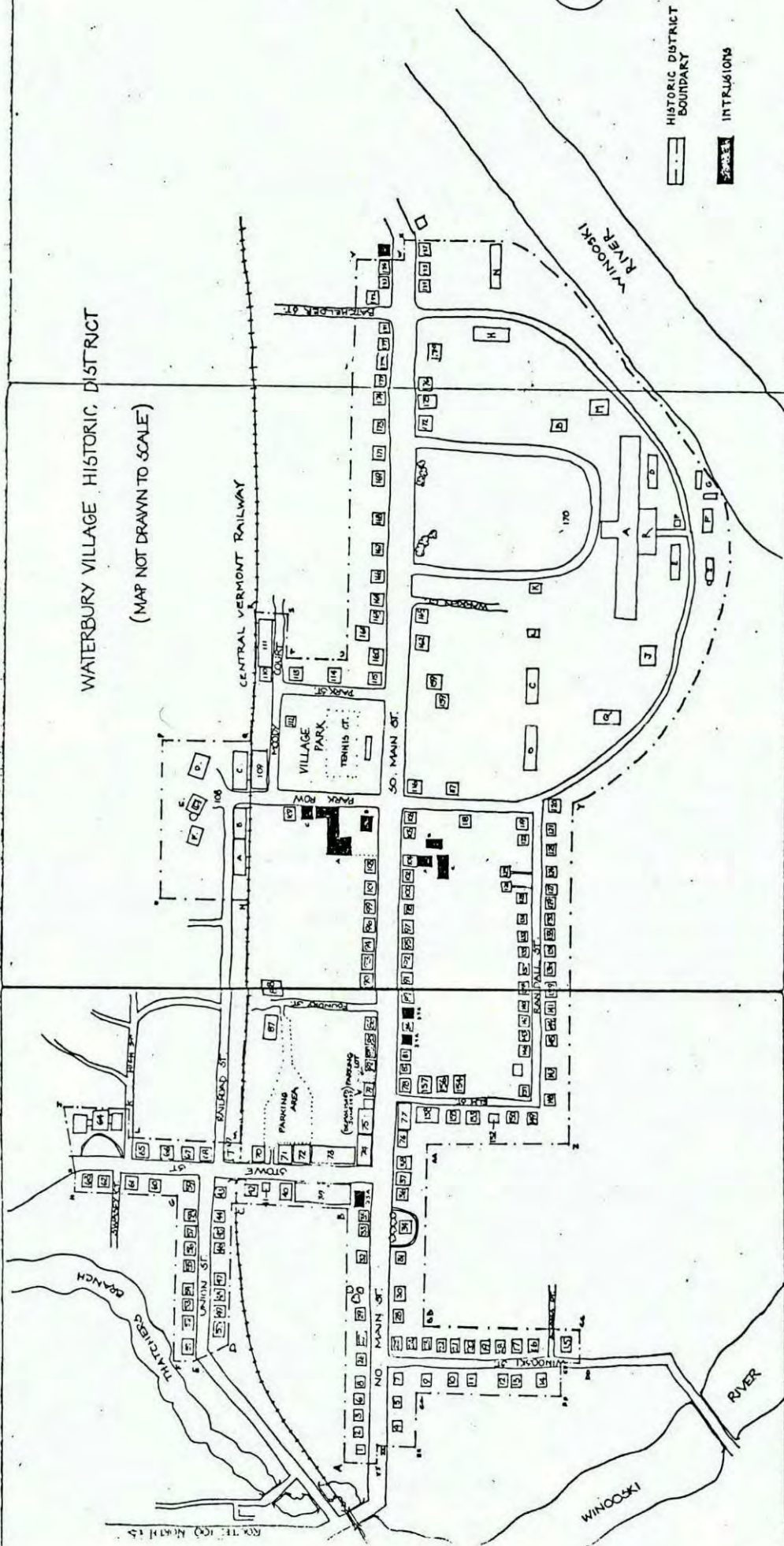
| Category | Criteria | Description | Notes | Specifics | Points Available | Points Awarded | Partial points possible? |
|-------------------------|--------------------|---|---|-----------|------------------|----------------|--------------------------|
| Above and Beyond | Special conditions | There are unique and special conditions present within the community and trails that are valuable to an IMBA Ride Center. | Applicants should describe special conditions for criteria not mentioned above. | | 5 | | Yes |

Appendix B:
Historic District Maps



WATERBURY VILLAGE HISTORIC DISTRICT

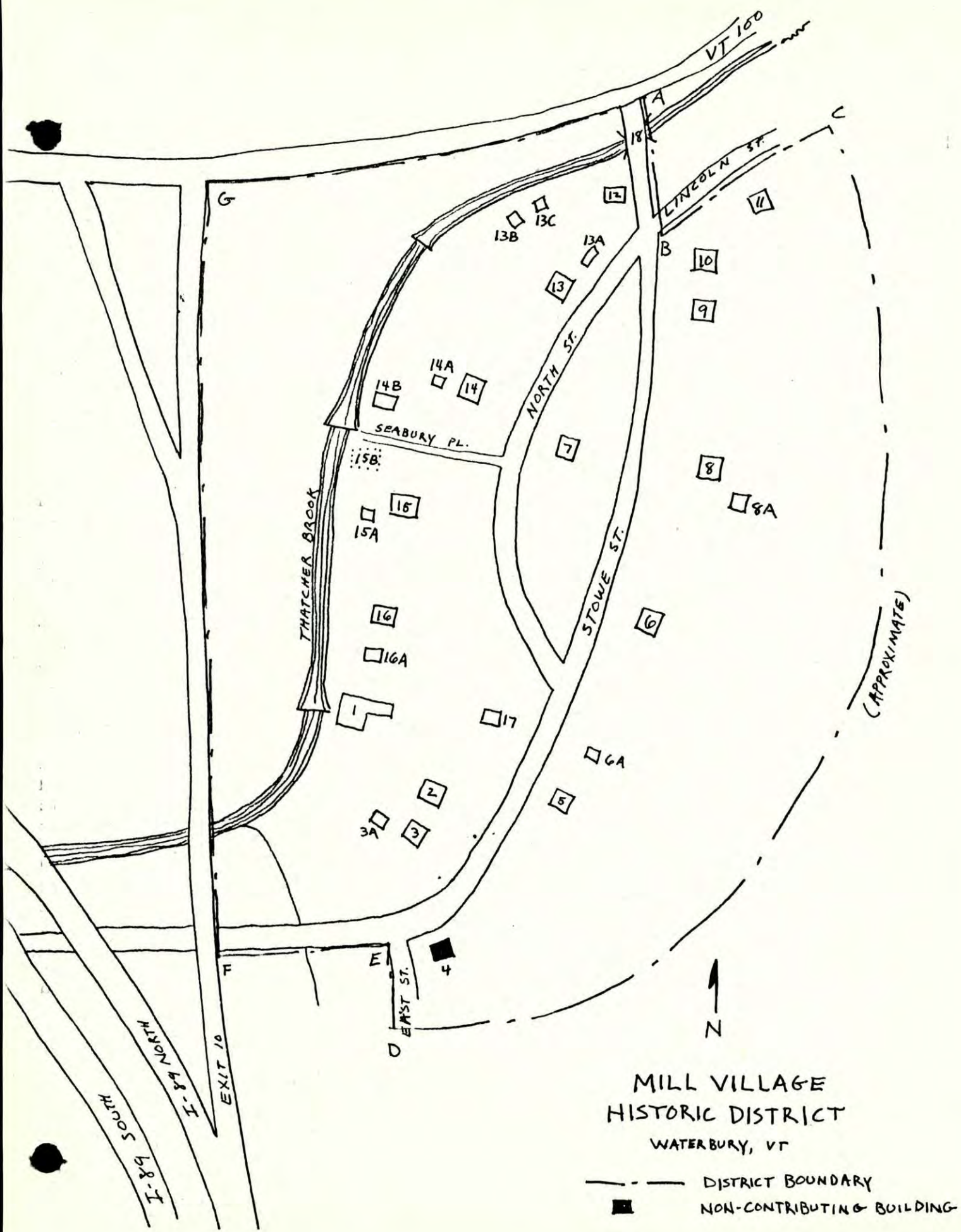
(MAP NOT DRAWN TO SCALE)



HISTORIC DISTRICT
BOUNDARY

INTRUSIONS

ROV 1E 100 NORTH 15



MILL VILLAGE
 HISTORIC DISTRICT
 WATERBURY, VT

- DISTRICT BOUNDARY
- NON-CONTRIBUTING BUILDING

Appendix C:
Archaeological Resources Assessment



**Archaeological Resources Assessment for the proposed Waterbury Little River - Village
Connector Project, Waterbury, Washington County, Vermont**

Submitted to:

**Carolyn Radisch, AICP
ORW
Landscape Architects and Planners
PO Box 65
46 South Main Street
White River Junction, VT 05001**

Submitted by:

**Charles Knight, Ph.D.
University of Vermont
Consulting Archaeology Program
111 Delehanty Hall
180 Colchester Ave.
Burlington, VT 05405**

Report No. 836

November 19, 2014

Archaeological Resources Assessment for the proposed Waterbury Little River - Village Connector Project, Waterbury, Washington County, Vermont

Project Description

The Town of Waterbury, with help from the Landscape Architectural Firm of ORW, proposes the Waterbury Little River - Village Connector Project, Waterbury, Washington County, Vermont (Figure 1). The proposed project will construct a multi-use recreation trail suitable for mountain bikes from Waterbury Village to Little River State Park, and in doing so connect Waterbury Village, and its Perry Hill bike trails, to Little River State Park and the site of the Smith Civilian Conservation Corps Camp (Figure 2).

The University of Vermont Consulting Archaeology Program (UVM CAP) conducted an Archaeological Resources Assessment (ARA) of the APE for the proposed Waterbury Trail project and several areas were identified as archaeologically sensitive, as well as potentially archaeologically sensitive. If the portions identified as archaeologically sensitive cannot be avoided, then a Phase I site identification survey is recommended as part of the Section 106 permitting process. A detailed site inspection of the areas identified as potentially archaeologically sensitive is also recommended when access to those properties is permitted.

Study Goal

The goal of an ARA (or “review”) is to identify portions of a specific project’s APE that have the potential for containing precontact and/or historic sites. An ARA is to be accomplished through a “background search” and a “field inspection” of the project area. For this study, reference materials were reviewed following established guidelines. Resources examined included the National Register of Historic Places (NRHP) files; the Historic Sites and Structures Survey; and the USGS master archaeological maps that accompany the Vermont Archaeological Inventory (VAI). Relevant town histories and nineteenth-century maps also were consulted. Based on the background research, general contexts were derived for precontact and historic resources in the study area.

Archaeological Site Potential

The only known archaeological site that will be impacted by the proposed project is VT-WA-26, the remains of Camp Smith (discussed below). Approximately 2 km northwest of the northern terminus of the Connector Trail at the Waterbury Reservoir dam, are located historic sites VT-WA-21 and VT-WA-27. Of these, the closest is site VT-WA-27, the Stevenson Brook Historic Archaeology District, which includes the remains of a late 18th, 19th and early 20th century upland farming community. Archaeological features of this district include cellar holes, mills, schools, cemeteries, roads, walls, orchards, and other community structures. Several of these remains have signage explaining their history, as they are located adjacent to several walking trails throughout the state forest. Although this historic district is eligible for listing on the State and National Registers of Historic Properties, it has not yet been listed. Like the Stevenson Brook Historic Archaeological District, the remains of CCC Camp Smith are considered an archaeological historic district, but they have not been listed on either register either. The proposed project will not impact either site VT-WA-21 or VT-WA-27.

The remains of Camp Smith, the largest Civilian Conservation Corps (CCC) camp in Vermont, is located on the western terraces of the Little River, just south of the Waterbury Dam, as the access road levels out. The CCC camp housed workers for the construction of the Waterbury Dam, as part of a general waster control program within the Winooski watershed, after the devastation brought on by the Flood of 1927. According to Thomas W. Patton (2005:175-176), Camp Smith housed 2000 men, in a somewhat self-contained "village" that included over 100 buildings, 16 L-shaped barracks (one of which was for a segregated "colored detachment"), 8 T-shaped mess halls, a theater, library, chapel, officer's quarters, skating rink, infirmary, camp garden and a school (Figure 3). What remains includes a series of stone chimneys, foundations, stone steps, roads, remnant landscape plantings, cement filled rollers, and a wooden dam. However, the site has never been systematically surveyed and mapped, so additional camp features may exist. There also is the potential for precontact Native American site remains on these landforms.

Beyond both the Stevenson Brook and Camp Smith Historic Archaeological Districts, the closest known archaeological sites are located east of the town of Waterbury. None of these sites will be impacted by the proposed project. In regard to historic period resources, both the historic 1858 Wallings map (Figure 4) and the 1873 Beers map (Figure 5) depict no historic period structures within or adjacent to the proposed project parcel. As a result, no historic archaeological sites are expected to be encountered on the proposed project parcel.

Desk Review

As part of the desk review, the UVM CAP utilized the Vermont Division of Historic Preservation's (VDHP) predictive model for identifying precontact Native American archaeological sites. The Waterbury Little River - Village Connector Project scores 24 on the Predictive Model, due to its location within 90 m of the Little River (12), and located on kame terraces (12). In addition to the paper-based predictive model, the desk review uses a Geographical Information System (GIS) developed jointly by the UVM CAP, and its consultant Earth Analytic, Inc., which operationalizes the paper-based model. It does this by applying the VDHP's sensitivity criteria to all lands within the State of Vermont. In these maps, archaeological sensitivity is depicted by the presence of one or more overlapping factors, or types of archaeological sensitivity. Portions of the Waterbury Little River - Village Connector Project crosses areas that exhibit 6 overlapping sensitivity factors, which are Drainage, Waterbody, Stream-Water confluence, Head-of-Draw, Kame Terrace, and Level Terrain (see Figure 1).

Field Inspection

A field inspection of the project area was carried out on September 25, 2014 by Charles Knight, Assistant Director of the UVM CAP. Knight was accompanied in the field by Mr. Bob White of ORW Landscape Architects and Planners, who is familiar with the trail alignment. Both men walked across the portion of the proposed Connector Trail that they had permission to access and several areas of archaeological sensitivity were identified (Figure 6). Level terraces overlooking the Little River drainage were seen throughout. These sandy terraces were relatively narrow, ranging from 40-80 m in width (Figure 7). All of these level terraces were identified as archaeologically sensitive. The rest of the inspected area was at too great of an angle to be

sensitive for precontact Native American sites. Another short section of the proposed Connector Trail that cuts through the parcel that houses the antennae for WDEV AM radio. The entire WDEV parcel, and the adjacent parcel to the south, is on slope and therefore, those portions are not archaeologically sensitive (Figure 8). However, between the WDEV parcel and the terminus of the field inspection, the proposed Connector Trail alignment is unknown. Therefore, utilizing topographic maps and oblique aerial photographs, several areas along the unknown portion of Connector Trail appear to be potentially sensitive (Figure 9). It is recommended that these areas be inspected before trail construction begins, unless they can be avoided.

The proposed Little River State Park Trail, which stays to the west side of Little River, and begins at the top of the dam, descends steep slope until Camp Smith, the remains of the largest Civil Conservation Corps (CCC) camp in Vermont. The remains of Camp Smith cover almost the entire, level terrace along the west side of the Little River (see Figure 3). The entire Camp Smith area is archaeologically sensitive and any trail alignment that passes through this known site will have to mitigate any impacts. As a result avoidance or additional archaeological work is recommended for the section of Waterbury Little River - Village Connector Project that will pass through Camp Smith.

The Cross Vermont Trail bordering the Waterbury ball fields already exists, so that portion of the overall trail system was not inspected. Likewise, Colby Trail and Waterbury Community Path sections were not inspected, as their relationship to the Connector Trail project was unclear.

Conclusions

The Town of Waterbury proposes the Waterbury Little River - Village Connector Project, Waterbury, Washington County, Vermont. The UVM CAP conducted an Archaeological Resources Assessment of the proposed substation project and identified several areas as archaeologically sensitive and several areas as potentially archaeologically sensitive. Portions of the Connector Trail along the slopes to the east of Little River contain level terraces. These terraces are archaeologically sensitive. In addition, the entire terrace along the west side of Little River, a portion of which houses the remains of the CCC Camp Smith, are archaeologically sensitive as well. Several areas of potential archaeological sensitivity were identified west of Blush Hill, but these areas could not be inspected since permission to enter had not been granted. As a result, an inspection of those areas is recommended when permission is granted, while a Phase I site identification is recommended in the other sensitive areas before project construction begins, unless they can be avoided.

Thank you for working with us on this project. Please let me know if you have any questions or comments.

Charles Knight, Ph.D.
Assistant Director

Bibliography

Patton, Thomas W.

2005 Downloaded from https://vermonthistory.org/journal/73/06_Patton.pdf, November 15, 2014

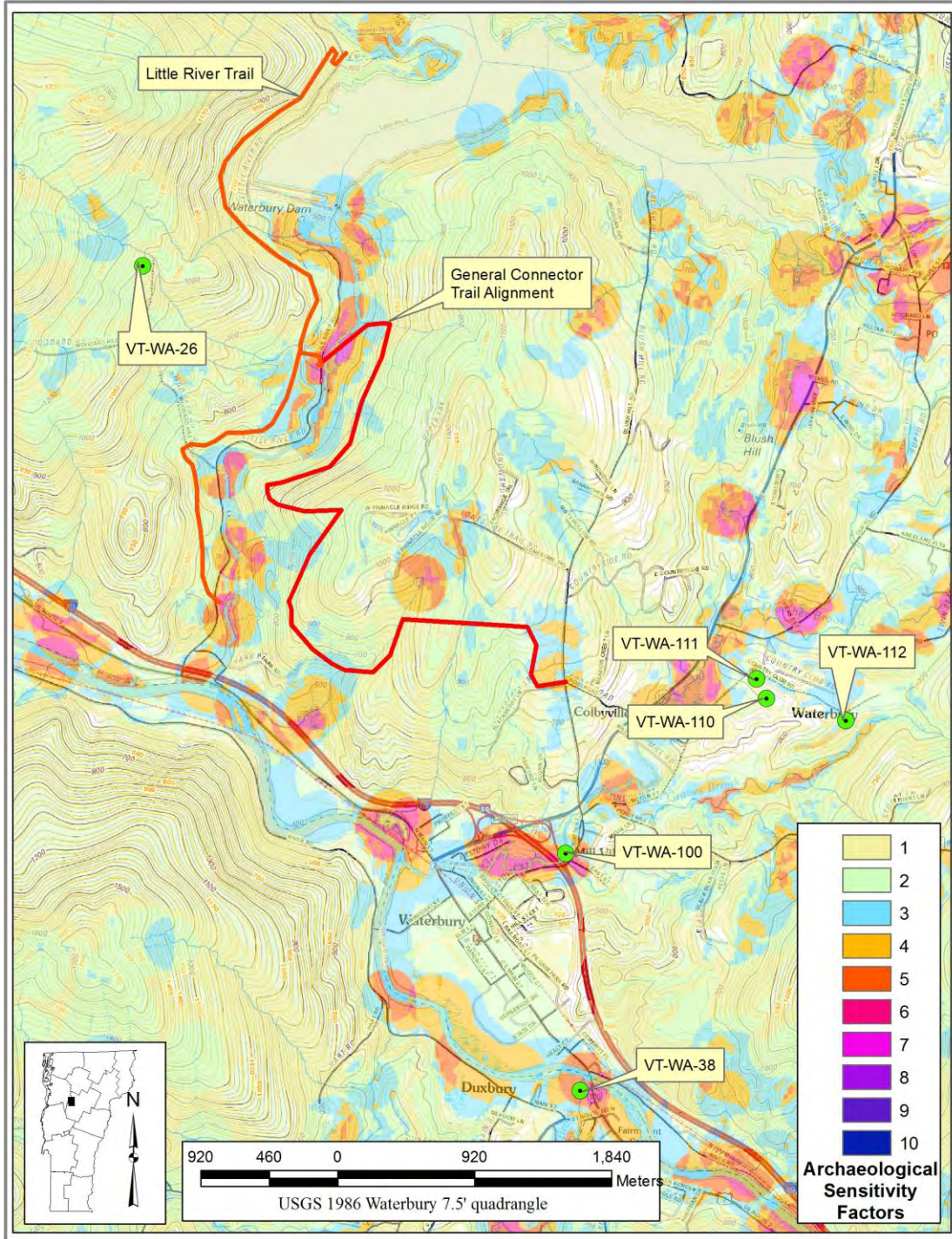


Figure 1. Map showing the location of the proposed Waterbury Little River - Village Connector Project, in relation to archaeological sensitivity factors, Waterbury, Washington County, Vermont.

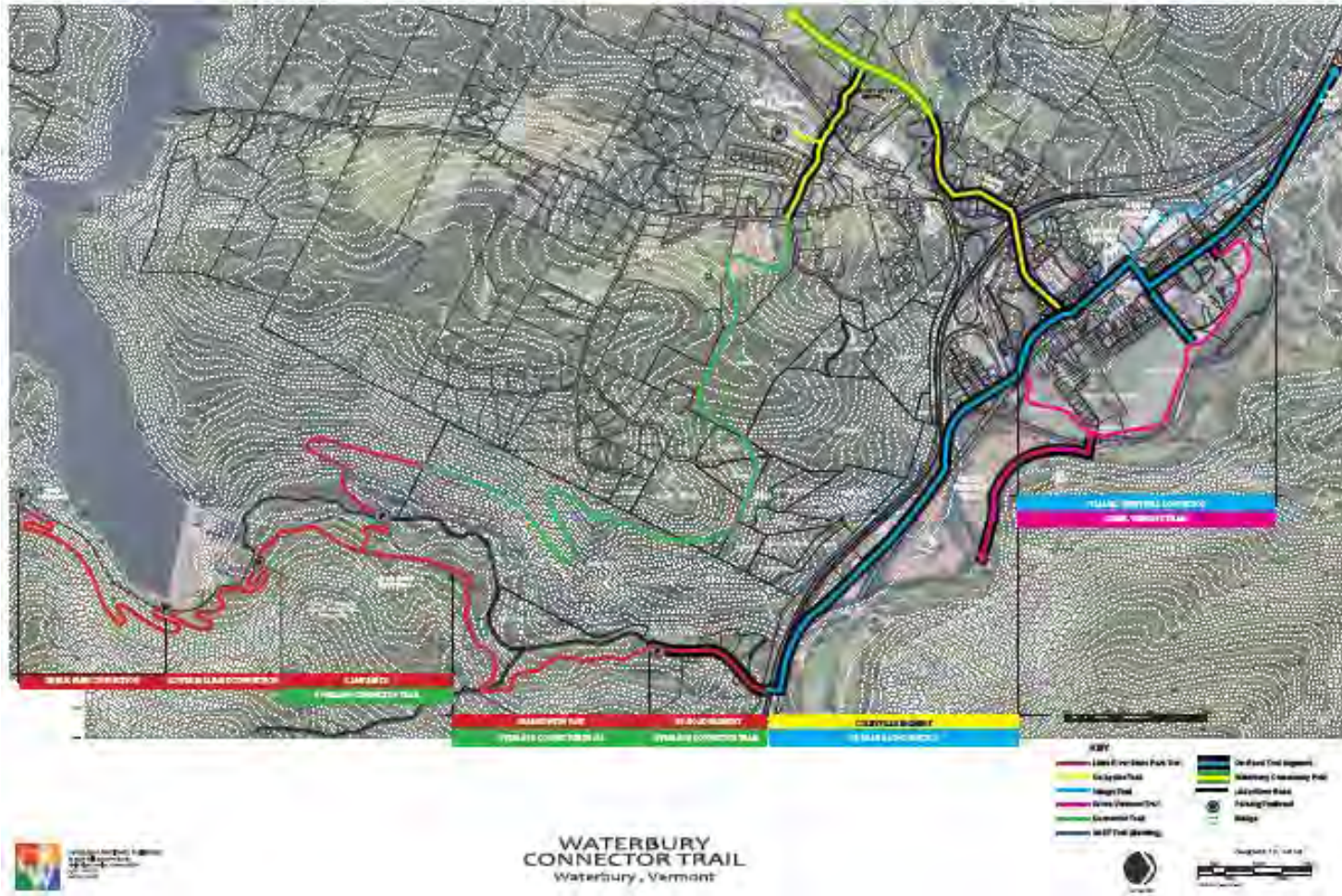


Figure 2. Project map showing the location of the proposed Waterbury Little River - Village Connector Project, Waterbury, Washington County, Vermont.



Figure 3. Historic photograph looking southeast at CCC Camp Smith just south of the Waterbury Reservoir, Waterbury, Washington County, Vermont.

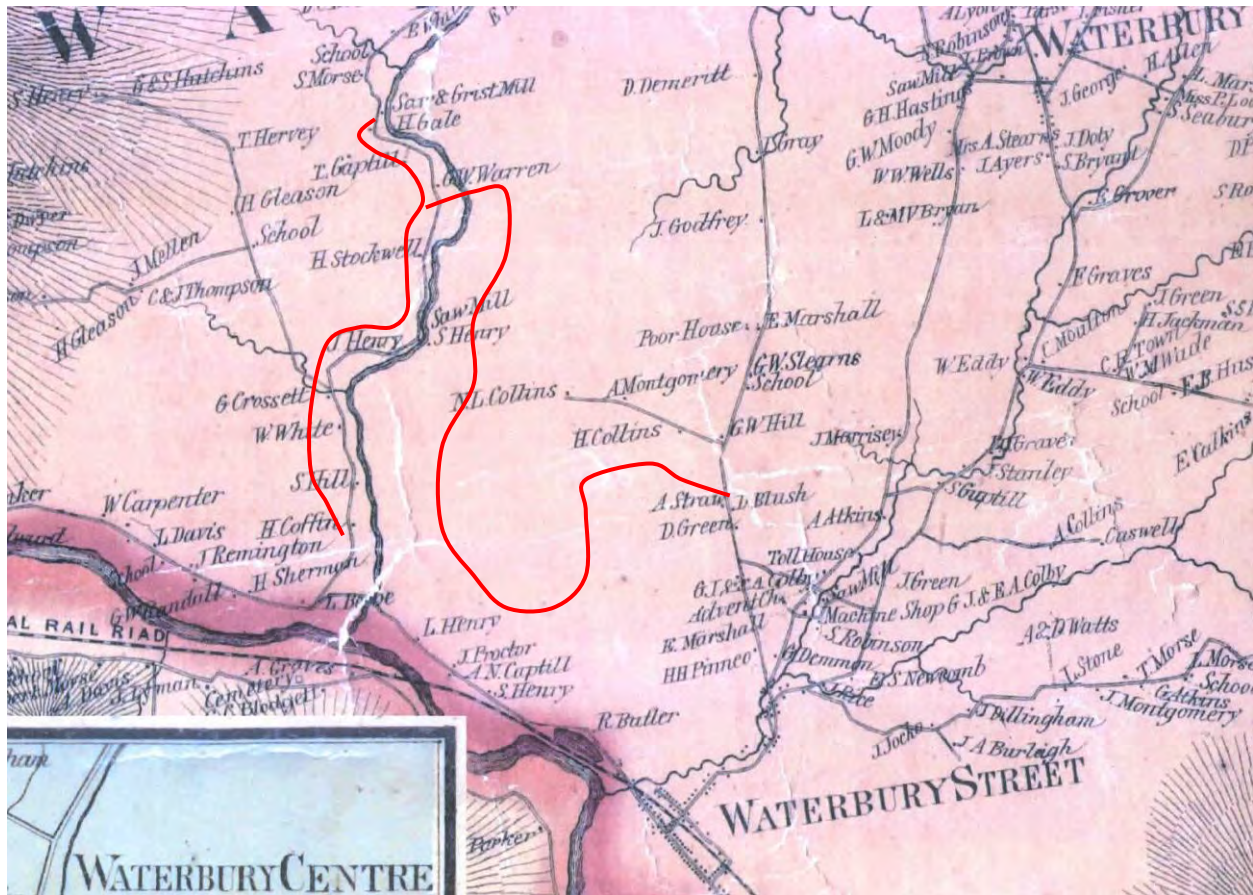


Figure 4. Historic 1858 Wallings Map showing the approximate location of the proposed Waterbury Little River - Village Connector Project, Waterbury, Washington County, Vermont.

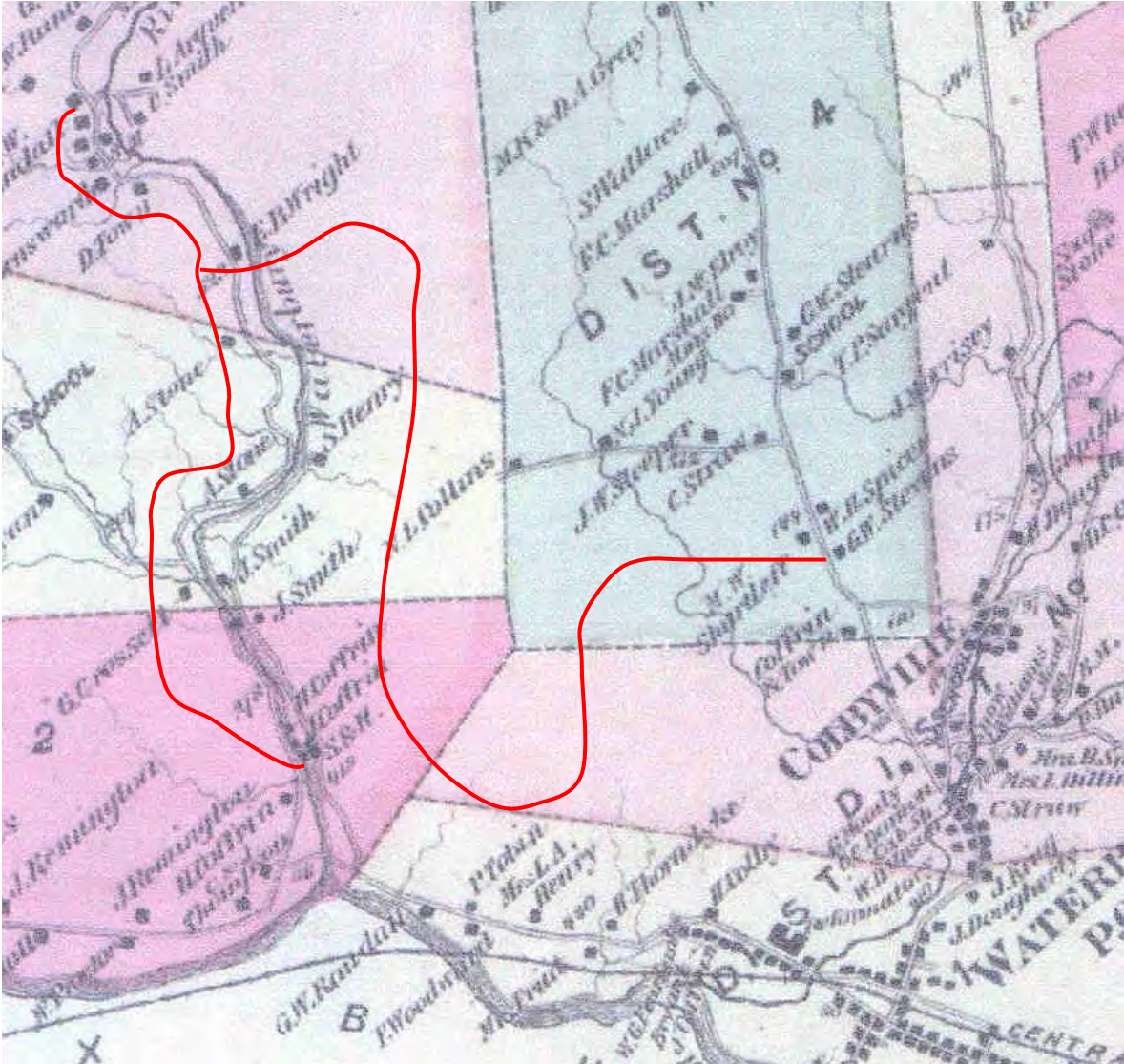


Figure 5. Historic 1873 Beers Map showing the approximate location of the proposed Waterbury Little River - Village Connector Project, Waterbury, Washington County, Vermont.

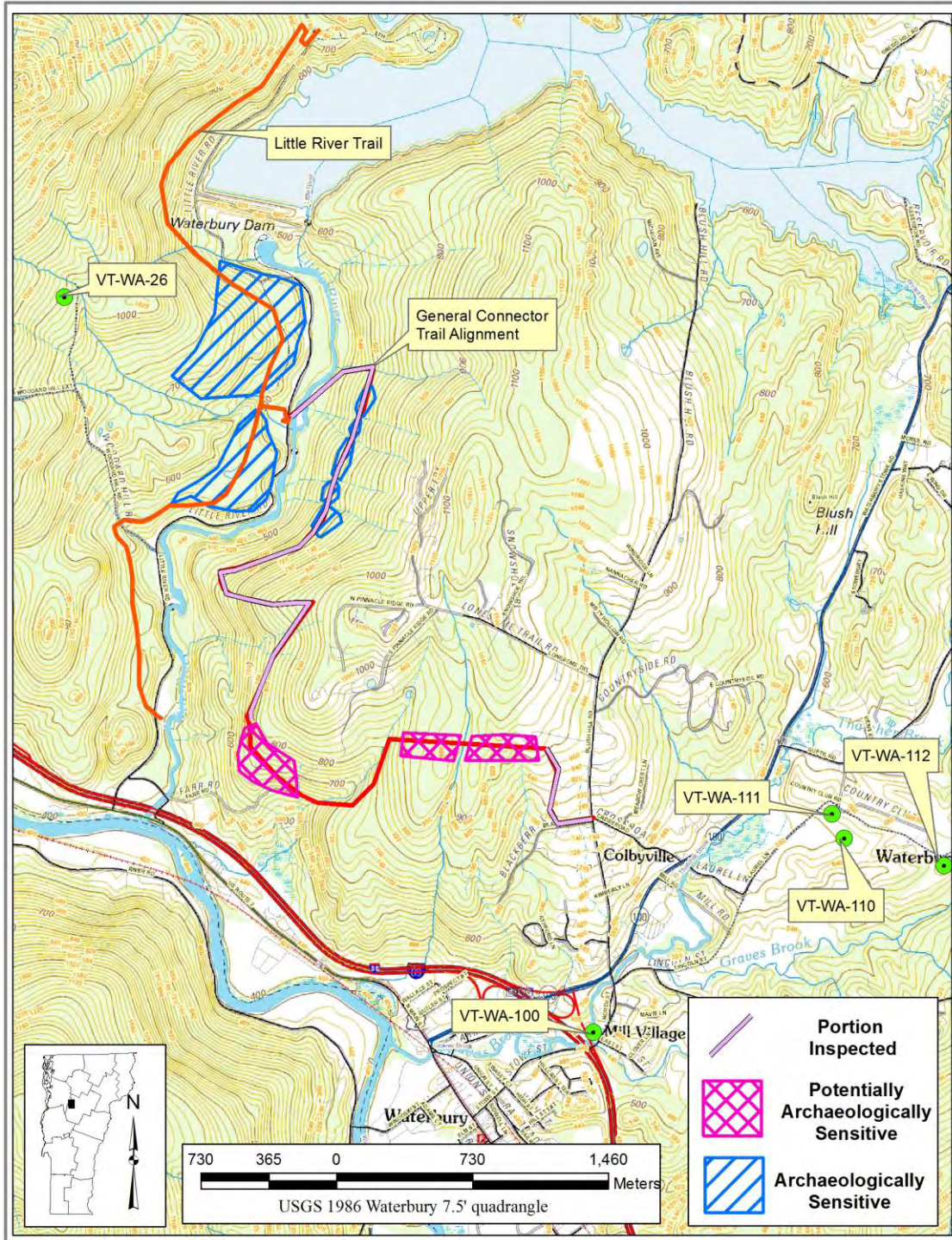


Figure 6. Map showing the location of archaeologically sensitive, and potentially archaeologically sensitive, portions of the proposed Waterbury Little River - Village Connector Project, Waterbury, Washington County, Vermont.



a



b

Figure 7. Photographs looking south (a) and north (b) along the narrow, level terraces east of the Little River along the alignment of the proposed Waterbury Little River - Village Connector Project, Waterbury, Washington County, Vermont.



a



b

Figure 8. Photographs looking northwest (a) and south (b) at the portion of the project alignment in the WDEV antennae field, for the proposed Waterbury Little River - Village Connector Project, Waterbury, Washington County, Vermont.

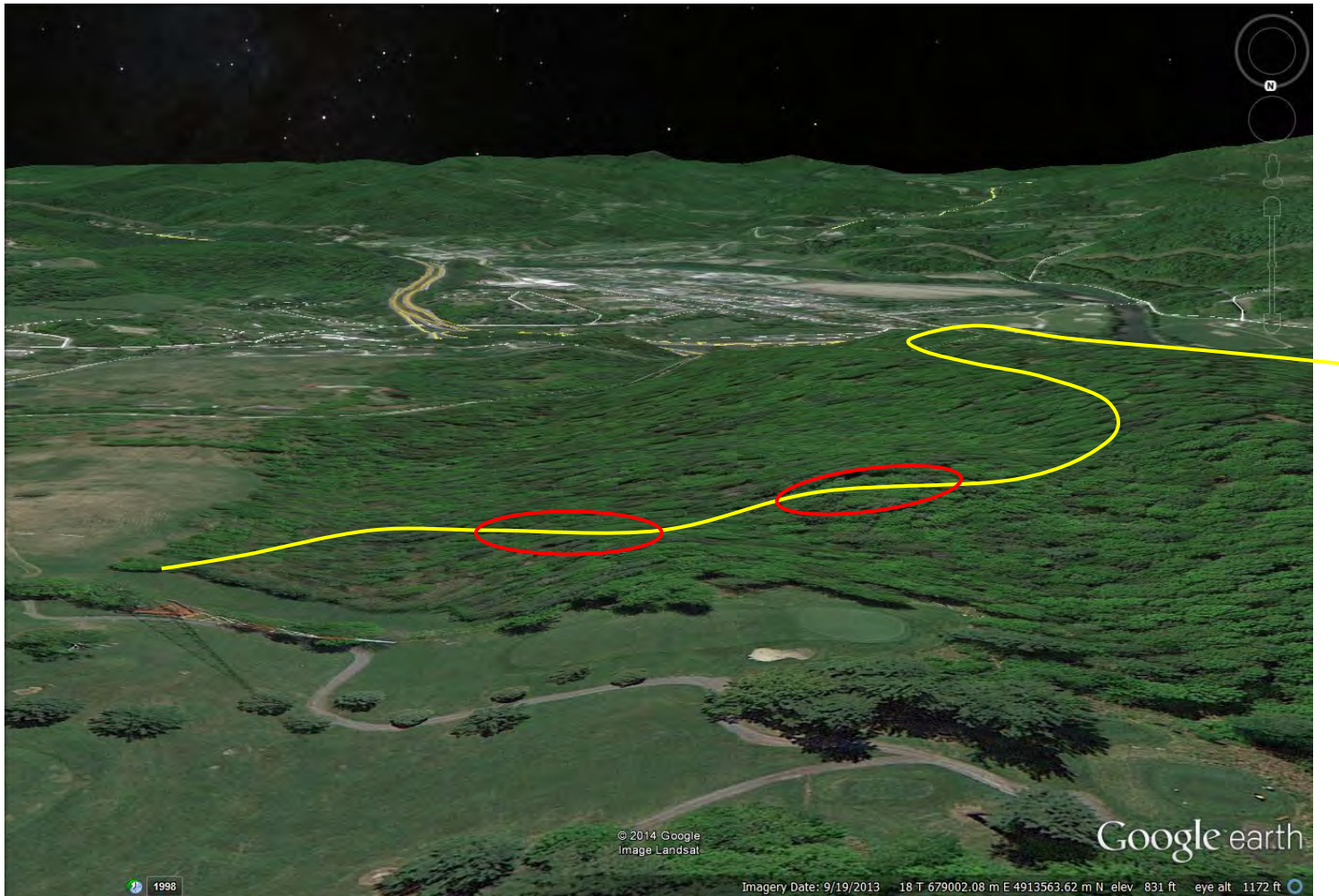


Figure 9. Google map oblique view looking southeast at the eastern portion of the project alignment that could not be inspected, Waterbury Little River - Village Connector Project, Waterbury, Washington County, Vermont.

Appendix D:
Public Meeting Notes





**Waterbury Connector Trail
Local Concerns Meeting & Workshop
June 25, 2014 6:30 pm
Best Western Hearth Room**

The following individuals signed in for the meeting:

| | |
|---------------------------------|--|
| Chad Fry | Rolland Lafayette |
| Suzanne Corbitt | Paul Arnot |
| Jes Halterman | Reed McCracken |
| Brenda Hudson | Lisa Wagner |
| Melissa Kucserik | Dexter Lefavour |
| Mark Tighe | Anne Imhof |
| Deb Tighe | Ned Houston, Steering Committee |
| Mike Hedges, Steering Committee | Steve Lotspeich, Town of Waterbury |
| Lauren Oates, Town of Waterbury | Bob White, ORW Landscape Architects and Planners |
| Carolyn Radisch, ORW | Kevin Russell, Community Development |

Steve Lotpseich gave an introduction to the Connector Trail project, citing the FEMA Long-Term Community Recovery process following Tropical Storm Irene as the driver for this economic recovery project. He then introduced the present members of the trail steering committee and the consultants working on the feasibility study.

Carolyn Radisch of ORW Landscape Architects & Planners thanked the Best Western and Ben and Jerry's for their contributions of the meeting room and ice cream then introduced her firm and the format and agenda for the meeting. She discussed the purpose for the feasibility study, citing its importance in increasing funding opportunities, public understanding and input, and guiding of the physical development of trails. She briefly reviewed the current trail corridor options for the Little River to Village Connector Trail, and then allowed Bob White (ORW) to discuss the general idea for the project, which is to connect Little River State Park to the Village to the Perry Hill bike trails on the southern side of Waterbury Village. Bob mentioned that the trail will most likely be a family friendly, natural trail (unpaved) that can be used by mountain bikers, hikers and potentially cross country/back-country skiers in the winter. As there is currently a VAST snowmobile path network in this area, Bob mentioned an opportunity to collocate several functions along part of the VAST corridor. He then discussed the Route 2 default option, which would direct bikers from the Little River State Park to Route 2, which could then be taken into the Village. There may be an increase in safety concerns, considering the speed and traffic on Route 2, which may discourage the public, specifically families, from utilizing this as a route. Above and beyond this Connector Trail, Bob mentioned that the big, long-term picture is to connect Waterbury Village and the Perry Hill bike trails up to Stowe's Cady Hill Forest, Trapp Family Lodge trail network, and eventually around the base of Mt. Mansfield to Jeffersonville. This Connector Trail could be a vital link in this long, connected trail network and could have significant beneficial impacts on the local economy.

During the public comment period the following comments were made, and followed several common themes, as identified below:

Alternative Alignments to Best Western / Farr Road Area Off-Road Path

- Consider an alternative alignment: Blush Hill to VAST trail
- Parts of the VAST trail in this area are equivalent to the VAST trail between the Best Western and Little River State Park in terms of wet and steep areas
- The VAST trail continues to Guptil Road / Country Club and Post Office

Trail Design Questions

- How did you determine the nature of the path? E.g., family-friendly
- Is a non-paved path family-friendly?
- Will bikers want to go to Town?
- How are bikes going to get through Town?

Farr Road Neighbors Concerns

- Concerned with bikes near residences on Farr Road; concerned about public use and control of the trail; hiking in the area is now peaceful – concerned about change in character.
- Don't want people to have uncontrolled use of a trail in that area. Problems now with unauthorized ATVs.
 - Formalized paths have the ability to create a cleaner pattern of use. The Mad River Path in Waitsfield is an example of this.
- Liability question regarding public use of private property.
 - Vermont has statutes that protect private landowners that allow public use of their land.
- Farr Road is a private road – not Town supported. Don't want additional traffic on Farr Road.
- Safety Question: What about hunting season?
 - At Perry Hill the trails are closed for hunting season.
- Look at the example of the Waterbury Community Path as a local resource for local use. Goes through Laurel Lane neighborhood. Is a valuable asset and works well in the community.

Economic Development Considerations / International Ride Center Concept

- International Ride Center Concept: IMBA Designation for mountain biking destinations – 100 km of single track connected trail (about 30 km now in Stowe) this connector trail would connect Stowe to Perry Hill. Trapps has added trails. There is a larger idea of connecting mountain biking trails around Mt. Mansfield from Waterbury to Jeffersonville. Can help area businesses – which are still struggling to recover from Tropical Storm Irene.
- Waterbury was the area for mountain bike conference – but it has moved to Burke (Kingdom Trails).

- Families now go the Morrisville and Essex for trails because the trails there are family-friendly. Waterbury is missing out – the business community in particular.
- Kingdom Trails = \$\$ for the Town and community.
- Ride Centers are economic drivers.
- The connection to the campground is secondary. Priority should be connection to downtown Waterbury.
- Campground is bed-base; one of the options for overnight accommodations. Tying everything together is the key for mountain bike center / tourism.

Route 2

- Would bike traffic be better on Route 2?
 - Route 2 is a 'default' option but not as attractive to a broad audience of bike riders as an off-road path.
- Likes idea of Route 2 as a walking route to Town. Would like to walk to town from Farr Road.
- Can the connector trail / path be set off Route 2?
 - It is unlikely to get built. Bike path funds are competitive – Route 2 path would not be competitive.
 - Route 2 will be a higher speed road after the improvements.
- Route 2 path could be short term plan and off-road would be long-term plan?
- Prefers Route 2. As a village resident, path along Route 2 would be useful.

Management and Maintenance Considerations

- Current mountain bike trail designs incorporate sustainable design approaches that minimize damage.
- How are trails maintained?
 - Volunteers, e.g., Stowe Mountain Bike Club
 - Grants
- Maintenance and management plan would be part of the trail plan.

Little River State Park and CCC Camp Plans

- CCC site trail will be universally accessible.
- Larger parking lot and trail construction will take place this year.

Carolyn Radisch closed the meeting by expressing her gratitude for the community input and discussing the timeline for the upcoming months, including the next community meeting to be held in early September.

The meeting concluded at 8:30 pm.



Waterbury Connector Trail

Connector Trail Alternatives Meeting

September 24th, 2014 6:30 pm

Thatcher Brook Primary School Cafeteria

The following individuals signed in for the meeting:

Kathleen Daye

Jackie Risen

Ann Smith

Herschell Murry

Ned Houston, Steering Committee

Mike Hedges, Steering Committee

Steve Lotspeich, Town of Waterbury

Zoe Gordon, Town of Waterbury

Carolyn Radisch, ORW

Kevin Russell, Community Development

Carolyn Radisch and Kevin Russell gave a presentation on the current status of the Connector Trail project trail options, landowner contact and feedback to date, and what the next steps will be in moving forward with the feasibility study project.

During the public comment period the following comments were made, and followed several common themes, as identified below:

Trail Maintenance:

-Who will maintain the trail after its construction?

-There is potential for a partnership with VAST and the local mountain bike associations and clubs

-If the trail is constructed, part of the project would be the creation and implementation of a management plan

-Trail route related questions:

- Would it be possible to connect the Park and Ride with Perry Hill?

- That option has been considered and it would be considered further in the future, but not for the current connector trail project

-Has the use of Route 2 been considered for a portion of the trail?

-Route 2 is the default option, however riders would only be able to ride on the shoulder of the road, which is not a trail and therefore does not serve the overall goals of the project.

- Could the trail connect across the Winooski River?

- Crossing the river would employ the use of Route 2, which is not within the project goals. A bridge over the river would be very expensive and difficult to permit and construct. Additionally, it would require permission from the railroad, which can be difficult to obtain.

-Will the trail be used by ATVs? If not, how will ATV use be prohibited and policed?

- The trail is not intended for motorized vehicle use (with the exception of authorized maintenance vehicles)

- Waterbury could establish the trail as a non-motorized trail. However, the Town does not currently have the capacity to take on an enforcement role beyond trail designation and general support.

- The trail can incorporate design to discourage ATV use

- If ATV users have access to other trails, they will be less likely to use one that is not designed for ATV use

- If signs are posted prohibiting ATV use, and local landowners are also using the trail, the process will create a kind of self-policing neighborhood watch approach

-There can be public outreach to enhance awareness of trail regulations and enhance the self-policing capacity of local trail users

-If a registered motor vehicle violates the trail rules, they can be reported to the State Police

- Should an additional ATV trail be considered as to prevent recreational exclusion on the part of ATV users?

- Economic development opportunities presented by the trail

-Connecting key Vermont/Waterbury attractions together: food, beer and ice cream

-Waterbury has the potential to be designated as an International Ride Center, which could prove to be a huge draw for businesses, bike clubs, and other economic development stakeholders

-The family-friendly goal for all sections of the trail may need to be re-evaluated. Most bikers that would be using the trail will not have children with them. It could be beneficial to create the

trail to be a more intermediate trail to draw more users. This could also potentially reduce project costs

- A good example of economic development are the Kingdom Trails in Burke, Vermont. It would be beneficial to analyze the economic effects of implementing the trail system

- What is the next step in the public outreach process?

-The feasibility study will yield a recommended corridor for the trail, which will be presented to the public via a final public meeting in November or early December

Village-Little River State Park Connector Trail Feasibility Study

3rd Public Meeting Minutes

January 28th, 2015 6:30 PM

Attendees: S. Lotspeich, C. Radisch, R. White, Z. Gordon, K. Russell, B. Minter, R. Garland, J. Provencher, R. Washburn, A. Imhoff, B. Minter, R. Ellis, N. Houston, M. Hedges, R. Lafayette, D. Wolfe, K. Fiebig, S. Bulmer, J. Gauthier, J. Medose, I. Turkle, D. Rye, D. Tidhar, D. Beideck, C. Fry, S. Corbitt, M. McCracken

The meeting commenced at 6:35 PM.

S. Lotspeich provided a project background. The Connector Trail project began about one year ago and was developed as one of the post-Irene long-term recovery community projects. R. Washburn was the project champion and helped secure the CDBG-DR grant funding for the project. The Connector Trail is intended to be the first in a larger trail development project that could make the Waterbury-Stowe-Mount Mansfield area a Ride Center destination in the future.

C. Radisch announced that Waterbury WinterFest will be hosting a snowshoe/cross country ski trek on Saturday, February 7th starting at 11 AM at the Blush Hill Country Club and culminating in Little River State Park.

J. Provencher announced that Waterbury now has an official biking club, the Waterbury Area Trails Alliance (WATA).

C. Radisch began the presentation. The completion of the Connector Trail Feasibility Study is the culmination of the first phase of the project planning process. This study was just the beginning of this planning process and there will be many more phases in the future before this project is complete.

Question: Does the Connector Trail Steering Committee have every abutting landowner's telephone number? The meeting attendee has been out of town on business and only received information about the trail in the mail.

Answer: The Steering Committee has done mailings to abutting landowners, however the Committee does not have phone numbers for all the landowners.

Question: How will landowner permission be obtained for the trail?

Answer: Half of trail will require private landowner permission, and the other half of the trail will require State permission. More in-depth communication with landowners will be the next step in the trail creation process, and each landowner discussion and agreement/easement will be addressed individually.

C. Radisch continued the presentation. The first public meeting discussed trail opportunities, questions and concerns. During the summer of 2014, reconnaissance missions and landowner meetings continued. The second public meeting was held in September to receive more feedback on the revised trail. The preferred trail that is now presented is the result of the consideration and integration of public and landowner requests, feedback and concerns. This is the final scheduled public meeting for this feasibility study, however this is an evolving project that will continue to integrate public input and landowner interest as much as possible. The final Connector Trail Feasibility Report will be completed and made available to the public in February.

The reason study was conducted was to identify preferred trail alignments, understand the long-term effects and goals of the trail corridor, and to gain and facilitate public understanding of the project. The Connector Trail was proposed for several reasons. First, creating greater access to existing trails from Downtown Waterbury will facilitate the connection between business and recreation for both locals and visitors. The Waterbury-Stowe area also has the potential to be a

designated Ride Center, which will draw visitors to the lodging and dining opportunities Waterbury offers. J. Provencher noted that Lyndon State College conducted a study to find out the economic value added to Burke, VT by the creation of the Kingdom Trails Network and the result was \$5 million, which is considered to be a conservative estimate. Second, the trail will provide additional recreation opportunities for Waterbury residents. Third, the trail has the potential to begin the connection of trails to Stowe and eventually Mount Mansfield, which would expand recreational opportunities greatly. In terms of economic development, the potential Ride Center would have many benefits. In order to become a Ride Center, a proposal would have to be submitted to the International Mountain Bike Association.

Thus far in the project, the largest public concerns have been privacy on private property, the issue of non-motorized users sharing a space with ATV users on the sections of the preferred trail route, including the sections that overlap with the VAST Trail network, the control of path use on non-motorized sections, and the location of trailhead parking.

Question: Has the trail grown to incorporate ATV use?

Answer: After hearing public concerns related to ATV use of the trail, the Steering Committee maintains that this will be a non-motorized trail, and sections that overlap with the VAST Trail network will not allow ATV use.

Question: How will ATV use be prevented on non-motorized trail sections?

Answer: The prevention of ATV use will have to be addressed through trail design with features such as bollards and trail signage. Additionally, it is the belief of the Committee that the trail will be somewhat self-policing.

Question: Would there be a way to regulate through State enforcement or punitive fines?

Answer: Enforcement measures will differ on State and privately owned land. This feasibility study does not include particular enforcement measures, but these details can be addressed through land use agreements such as easements. There are several great examples of public trails on private lands in Vermont, including the Cross Vermont Trail, the Mad River Path, the Catamount Trail, etc.

C. Radisch presented the trail alignments. Including Route 2 in the Connector Trail has been considered the default option, however it is not a family friendly road due to car speed, terrain, and a lack of biking infrastructure. Another option that was considered was building off of the Community Path, and a third was to build off of the Perry Hill Trails. The trail will be a gravel path and will not be paved. It is planned to be 6-10 feet in width in the multiuse sections and 18 inches-3 feet in single-track sections. The trail is planned to have a 6-10% grade. The preferred route will begin on Main Street in Downtown Waterbury, will continue up Stowe Street and Lincoln St. to the Waterbury Community Path, then connect to the Radio Vermont land near the Blush Hill Country Club via Laurel Ln. and Crossroad, and follow through private and state land to Little River State Park. One goal is to keep the trail as far away from nearby houses as possible, staying near rear property lines where feasible.

Question: Some of the VAST Trail is too steep for biking and for activities with children. Will the trail accommodate things like bike chariots for children, etc.?

Answer: Those kinds of questions and elements will need to be taken into consideration during trail design.

Comment: For the trail to be entirely family friendly, it cannot exceed a 6% grade.

Comment: Whether or not kids can use the trail safely should be figured out at some point.

Question: Is trying to coin the trail as "family friendly" an effort to locate it farther away from the road?

Answer: The term "family friendly" is an effort to make the trail more inclusive for all users.

Question: Should we consider revising the “Family Friendly” goal given the physical constraints? It is okay to modify goals as the project continues. If the goals are revised, perhaps the trail could be at an intermediate biking level due to the steep terrain. It will be much more cost effective to build the entire trail at the 18”-36” width as opposed to 8-10 feet.

R. White, C. Radisch and S. Lotspeich asked that the group please accept that this feasibility study is a beginning point for the project and that there will be issues and questions to address in the future. However, a goal of this trail is still to be “family friendly,” which may result in only sections of the trail being family friendly and others being designated for more advanced riding levels. Creating a diverse trail system is not unusual. It was noted that sections of the VAST trail at this point are steep and not mountain bike friendly, that there are sections through Little River State Park that are not useable under current conditions, and that topography will be a challenge in the future of this project. However, a portion of the preferred trail route would be “family friendly.” They also noted that further investigation could be done of other potential trail routes, but that this feasibility study is what was accomplished given the available grant funding.

Comment: A member of the public noted that biking seems to be the primary focus of the meeting; however this is intended to be a multi-use trail that, even with the topographic challenges, will be suited for other kinds of recreation.

Comment: Families and people ride at all levels, so the trail can serve everyone, even a family of diverse riding levels.

Question: Has the Steering Committee considered the VAST trail located closest to the Reservoir as a possibility?

Answer: That area has been considered, however it will not work for the trail because it is a deer wintering area and cannot be used. Additionally, many sections of the VAST trail near the Reservoir are too wet to develop. Finally, the intention of the trail is to connect people to Downtown Waterbury, and the Reservoir route would bring people farther away from downtown.

Question: How long is the trail?

Answer: The preferred route is approximately 2.5 miles long.

Question: Where will the parking be located?

Answer: Parking can be located in several locations: One area at the snowmobile parking area on Little River Road, another south of Woodward Hill Road, another could be on the abandoned section of Old Farr Road, at the Park and Ride, and finally at the Radio Vermont land.

S. Lotspeich requested feedback about winter use of the trail for snowshoeing, back country skiing, fat biking, etc.

J. Provencher explained that fat biking is a new sport whose popularity is growing rapidly. Fat bikes have tires that are about the size of motorcycle tire. He stated that WATA has a grant to develop fat biking trails in Little River State Park and that the Stowe Mountain Bike Club is taking fat biking into consideration while creating trail plans. He also noted that fat biking will be allowed on all State owned VAST trails. It was noted that Fat biking and back country skiing are not compatible in terms of trails, as skiers prefer unpacked snow while fat bikers prefer the snow to be packed and the tire will chew up the surface. Fat bike and snowmobile use would be compatible.

S. Lotspeich concluded the meeting by stating that the next steps in the project will include more in-depth conversations with landowners and with the State. He noted that once finalized, the Connector Trail Feasibility Study will be available on the Town website.

The meeting was adjourned at 8:00 PM.