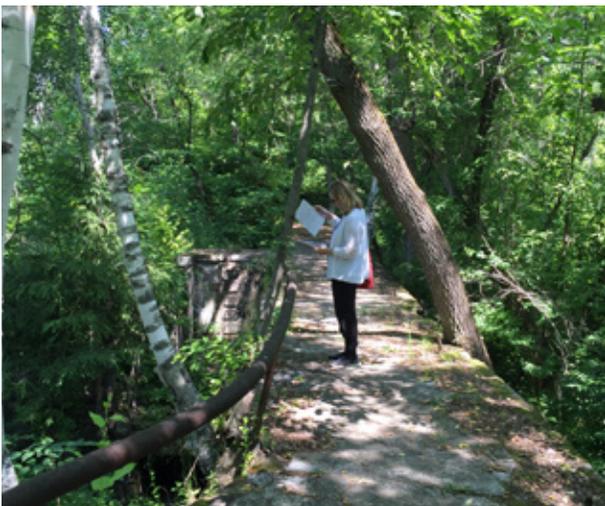




ST. JOHNSBURY

RIVERFRONT CONCEPTUAL ACCESS STUDY

FINAL REPORT:



PREPARED FOR
THE TOWN OF ST. JOHNSBURY
ST. JOHNSBURY, VT

PREPARED BY
GPI GREENMAN PEDERSON
WHITE RIVER JUNCTION, VT AND PORTSMOUTH, NH

MAY 30, 2017

GPI

Designated river corridor
area map:
St. Johnsbury, VT



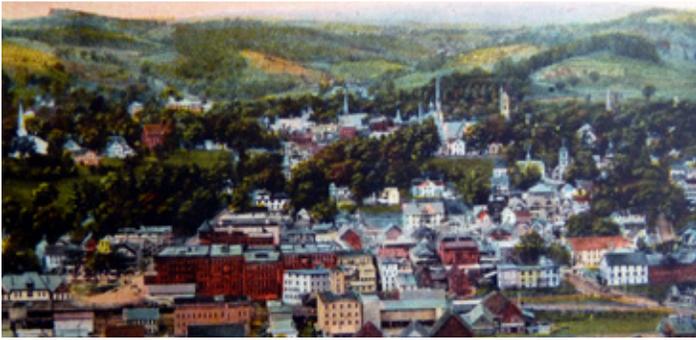
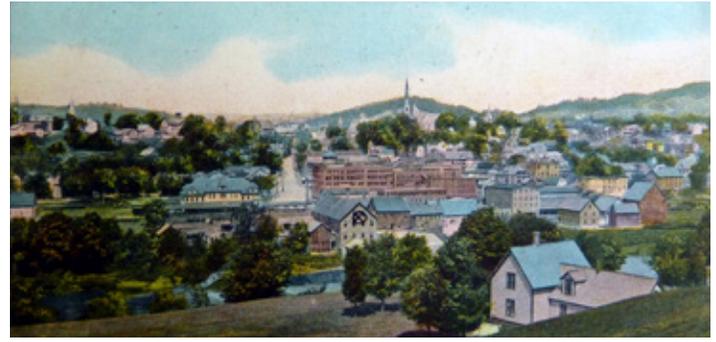


TABLE OF CONTENTS:

Chapter:	page
1. Executive summary:	4
2. Introduction:	6
3. Project Goals and Objectives:	8
4. Property Ownership	10
5. Public Participation	16
6. Coordination with Permitting Agencies	19
7. Time line of previous work	20
8. Area Descriptions of the Proposed Improvements:	21
Downtown Connections	
Riverside Pathway Development and River Access	
Bay Street Bicycle and Pedestrian Improvements	
to the Lamoille Valley Rail Trail	
Details for branding, trail design, wayfinding and interpretation.	
9. Overview of Project Costs	28
10. Overview of Project phasing	30



1. EXECUTIVE SUMMARY:

A Municipal Planning Grant was awarded to the Town of St. Johnsbury in 2016 by the Vermont Agency of Commerce and Community Development to create a conceptual plan focused on the Passumpsic Riverfront from the Portland Street Bridge south to the confluence with the Sleepers River. The study area is immediately adjacent to the State-designated downtown. With guidance provided by three Riverfront Steering Committee meetings, a public site walk and local public meeting the plan has become resolved into this conceptual plan report.

Just prior to this report's completion, the St. Johnsbury selectboard approved a grant application through the Northern Border Regional Commission for as much as \$500,000 in funds with local or other grant source matches of 20% for a project implementation in excess of 600,000. The optimism of the community for a river path and connector trail to the highly popular Lamoille Valley Rail Trail and its local manifestation as the Three Rivers Transportation Path that has been envisioned by the town for more than 15 years- is still alive and well.

This project envisions a river pathway to connect St. Johnsbury's Designated Downtown to the Passumpsic River:

New sidewalks, a riverfront path and bicycle route will allow people to access the river and see it's beauty.

A trail head facility with parking and renovation of a derelict Town-owned building into a trail-head center with space for boat/bike/fishing gear rentals, and river and trail specific information will welcome people and provide economic opportunity in a major market sector for VT tourism.

Connecting to the newly opened and very popular Lamoille Valley Rail Trail a river path can connect to

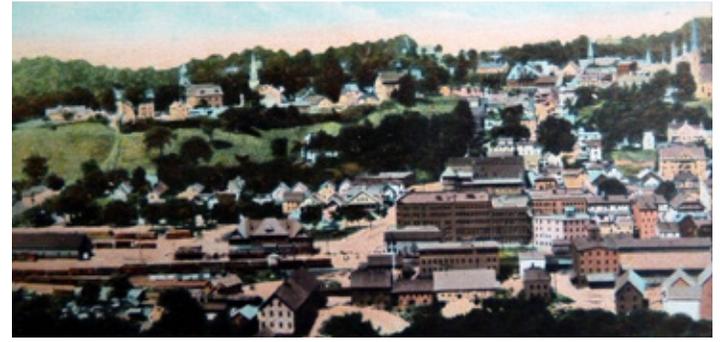
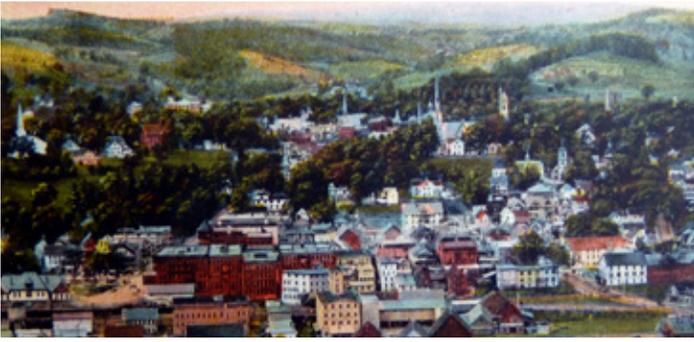
miles of recreational access and enjoyment.

The project's development is equally oriented to local residents as to tourists and visitors. Tourists to support downtown businesses and provide an amenity for St. Johnsbury residents and visitors. This can contribute to improving the physical and economic environment of St. Johnsbury's downtown by linking outdoor water recreation to the downtown experience. It is expected that this connection will enhance the recreational opportunities available on the river, will attract visitors who might not otherwise visit the downtown area, and will create a synergy that increases economic activity in the downtown.

The town has hoped for over a decade that the river could also be an impetus for redevelopment for the former industrial properties along Bay Street, giving those properties value and amenity to allow the current property owners to either have stronger redevelopment confidence or to allow them to sell to enthusiastic new development interests and bringing new business and economic opportunity to the town.

Drawing visitors from outside the Town and region is crucial to the economic health of the downtown. The recent opening of the Lamoille Valley Rail Trail in a single year saw over 12,000 visitors to the area, bringing in new people in search of excellent recreation opportunities and looking for goods and services, of which St. Johnsbury has a lot to offer.

Making St. Johnsbury a stronger local downtown is also a major opportunity, as recent years have seen the establishment of new and vibrant downtown business with considerable appeal for local residents and has garnered a devoted following.



Residents and many businesses' have embraced the river path in part resulting from the experience of a site walk in July 2016, where on a mowed pathway the length of the river was created by the fabulous efforts of the public works department. Residents described the "new" river path as a "game changer" in their perception of downtown and the river as a community place and fabulous natural recreational and economic amenity. This plays well to St. Johnsbury's desire to have an economically stronger downtown. If residents and visitors linger on a river path - they will soon become hungry and thirsty. Local businesses will have an opportunity to have added customers. Visitors may fall in love with the town and bring other investments.

This plan has identified the best location(s) to establish public access from the downtown business district to the riverfront. The plan has identified compatible improvements, pedestrian paths, canoe and kayak landing areas, vehicular trail head bike parking and a trail head center, a community park, interpretive sites for local heritage and environmental stories, supported by a directional and interpretive signage program.

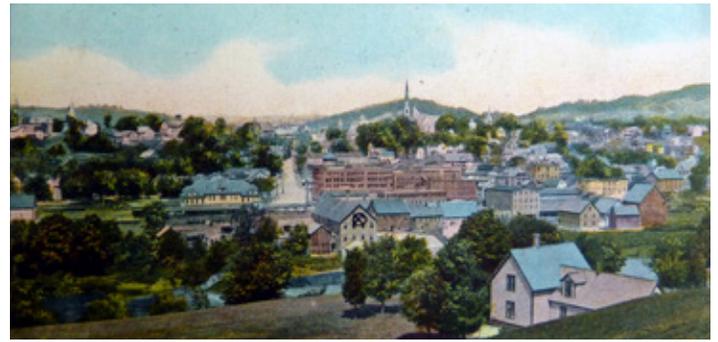
It is important to note that while this topic has been under study in St. Johnsbury in the past - the Three Rivers Bikepath plan suffered from landowner resistance, and planning fatigue. We have used relevant background from that past work, but have simplified the plan as much as possible.

The current grant application represents one way to build the path - we have also defined less expensive and local grass root efforts to get a path in place.

Which makes this study different - to the following four major points:

- 1. The path has a stronger and more meaningful connection to downtown economic development:** A desire to connect the development of community, economic, recreation, natural resource and aesthetic relationship of St. Johnsbury's downtown to the Passumpsic riverfront is the core proposal, and the value of the path is seen as a very clear economic future. That may not have been as strong a message in the past - although that is still anecdotally based in this study. People really believe in the river now.
- 2. A cooperative spirit with property owners** to do realistic improvements for everyone's benefit and not to force unwilling parties to accept a trail on their property if they are unready or unwilling. The path route focuses on property with the willing landowner cooperation of the Green Mountain Power company and uses public property and road Rights of way for the rest.
- 3. A willingness to start small and less expensively** - but still achieve meaningful improvements. There is a phase of this plan that allows for a smaller scale local grass roots effort to define a passable trail route for the river path.
- 4. The plan can grow:** Incremental development is as equally viable to get a path up and going at less cost and with more local "Sweat Equity" of local volunteers and town staff as opposed to engineered solutions that have greater cost and permitting requirements. The project can be phased.

Welcome to the St. Johnsbury riverfront experiencing as we walk you from the downtown to the Lamoille Valley Rail trail - and you can join the thousands that have already come to St. Johnsbury to walk, bike and enjoy the community.



2. INTRODUCTION:

This project report has the following sections:

1. Executive summary:

2. Introduction:

3. **Project Goals and Objectives:** to give broad direction for the project's priorities.

4. An overview of the **Property Ownership** of the area and guidance provided by property owners and their willingness to be a part of a river path vision.

5. **Public Participation**

6. A summary of the local, state, regional and federal agency permitting and other approvals for the pathway to be built.

7. An **Overview and time line of previous work and studies and project developments for the Bay Street and riverfront area.**

8. An **Area by Area description of the Proposed Improvements** in three general districts:

Downtown Connections

Riverside Pathway Development and River Access

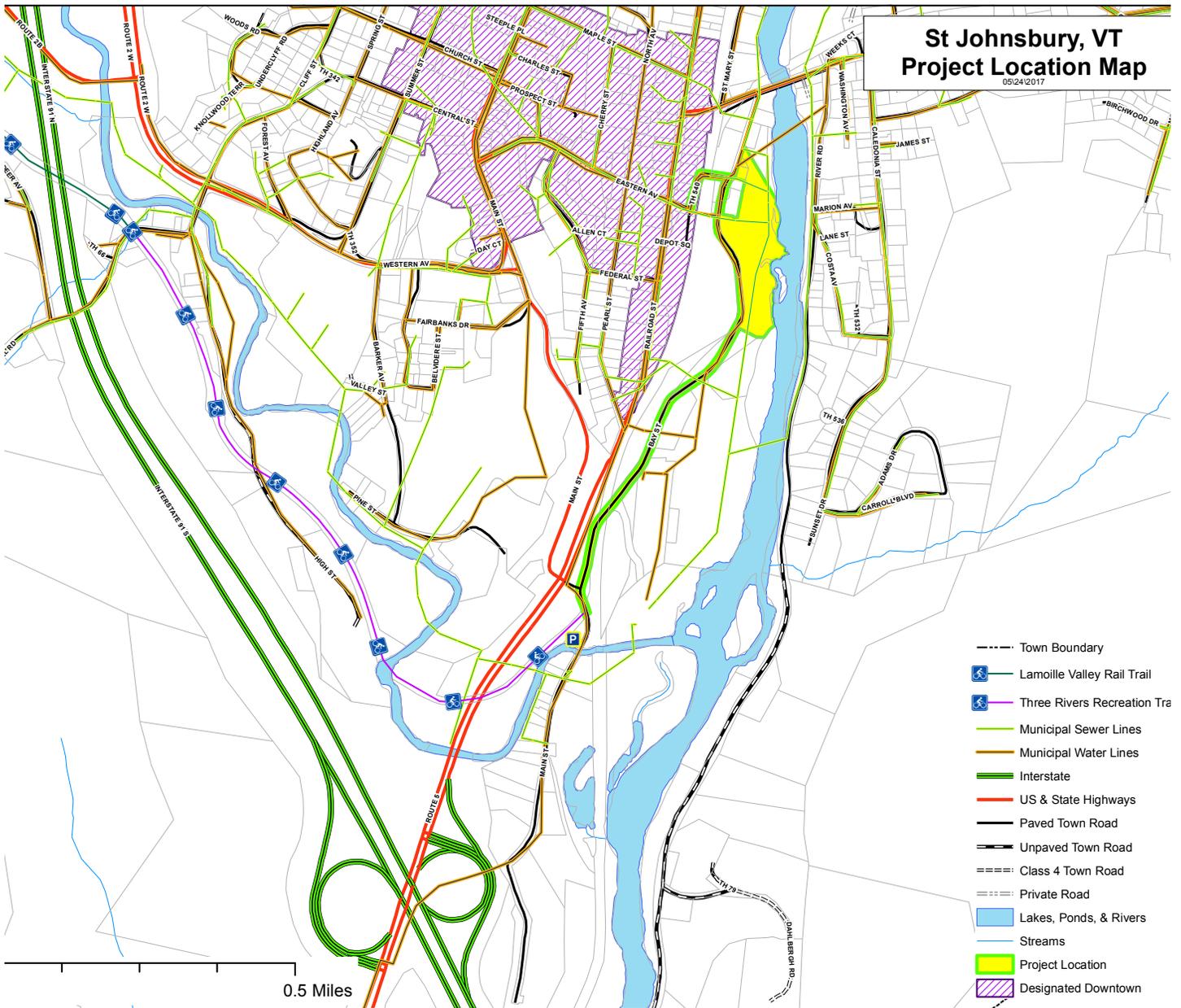
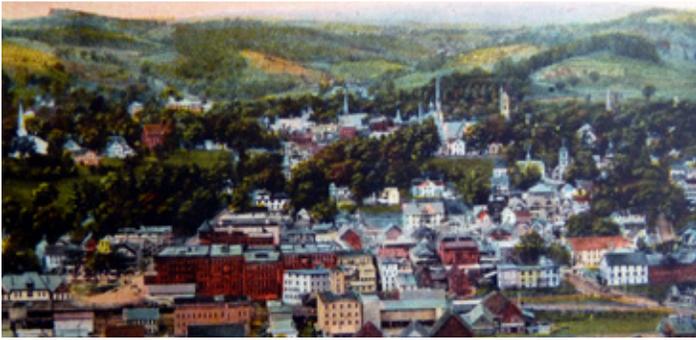
Bay Street Bicycle and Pedestrian Improvements to the Lamoille Valley Rail Trail

9. **Added Details** for trail design, wayfinding and interpretation.

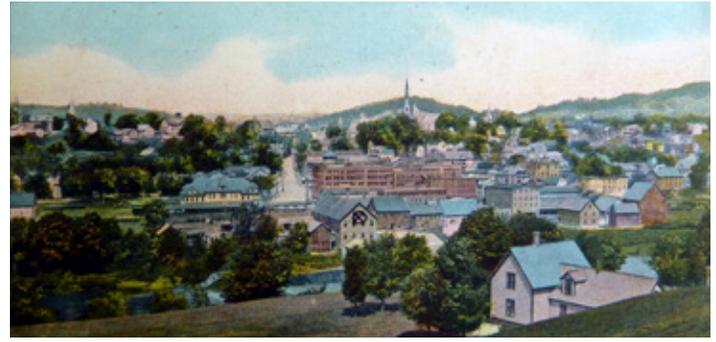
10. **Overview of Project Costs**

11. **Overview of and Project phasing coordinated with funding Sources and strategies.**





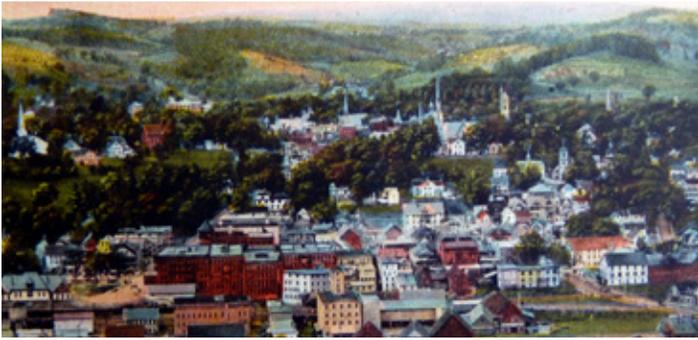
Project area Map: St. Johnsbury, VT



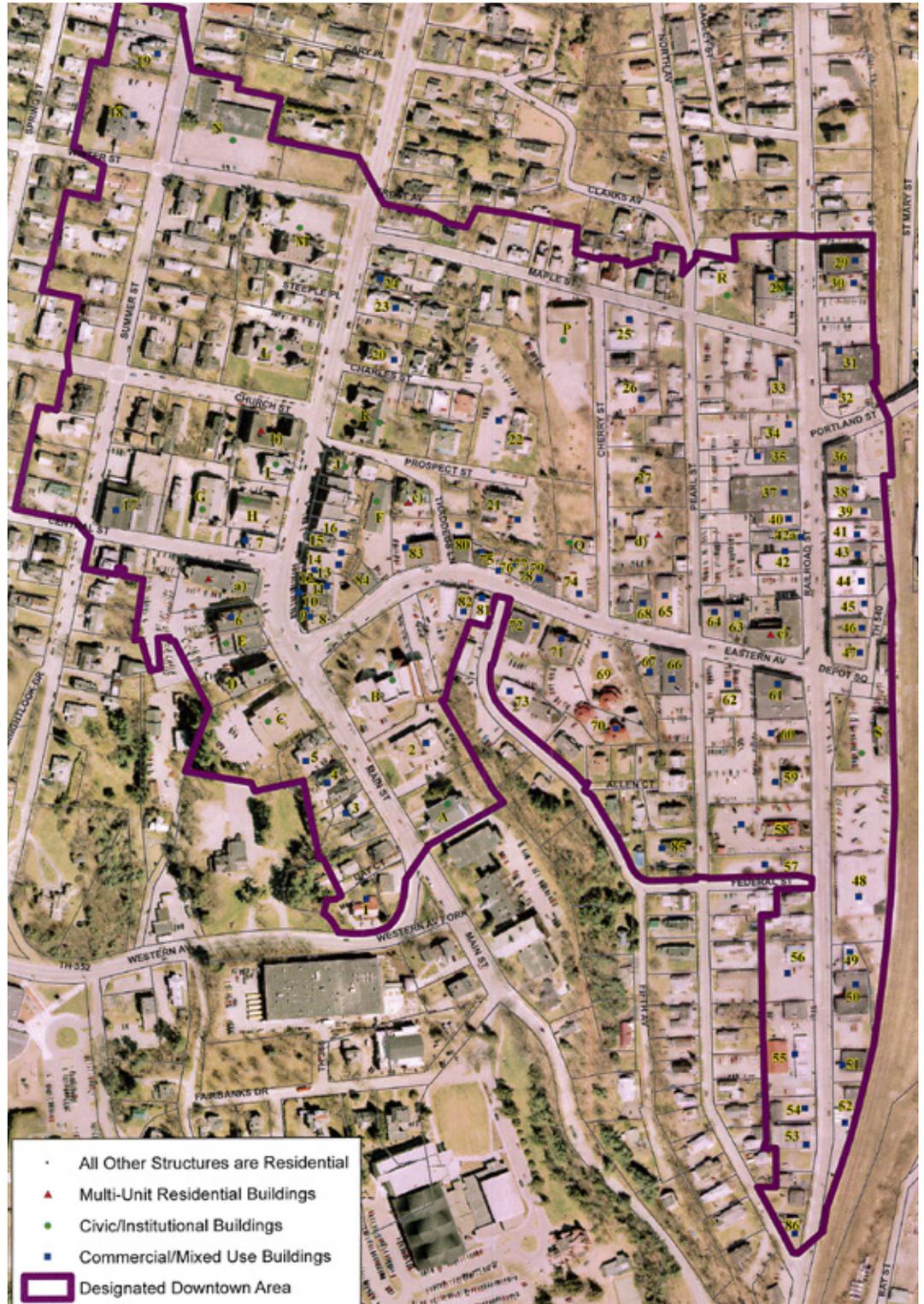
3. PROJECT GOALS AND OBJECTIVES:

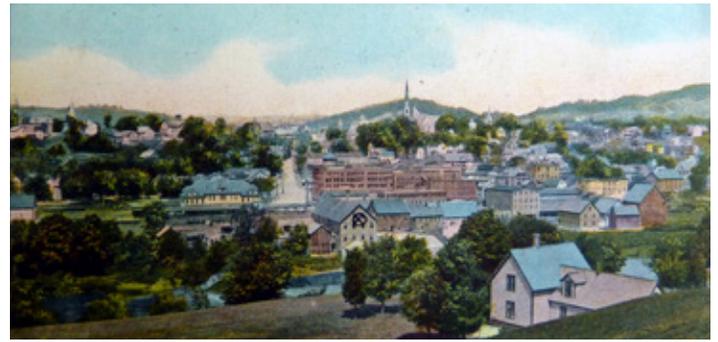
The riverfront committee and general public wanted the plan to include the following:

1. Connect to and utilize the Connecticut Scenic Byways Visitors Center and downtown.
2. Improve the safety and comfort of the sidewalks through the honking tunnel.
3. Develop a new town park on the corner of Bay street at the Portland Street bridge and connect with sidewalks via Bay Street.
4. Instead of demolishing the KT rentals building - now owned by the town - do selective demolition and clean up - then allow it to be leased to a trail head business operator.
5. Develop trail head for parking on Bay Street so that people can follow the river path downstream through Green Mountain Power parcels from Bay Street to the rail trail.
5. Engage the Interesting natural and built features along the riverbanks and woods.
6. Interpret the historical and archaeological sites.
7. Footpath or bikepath for continuous access.
8. Walk - in canoe and kayak access with parking.
9. Create park areas for recreation and enjoyment of river access and open spaces.
10. Integrate river access with river related infrastructure improvements to the storm-sewer outfalls.



Designated Downtown
Map: St. Johnsbury, VT

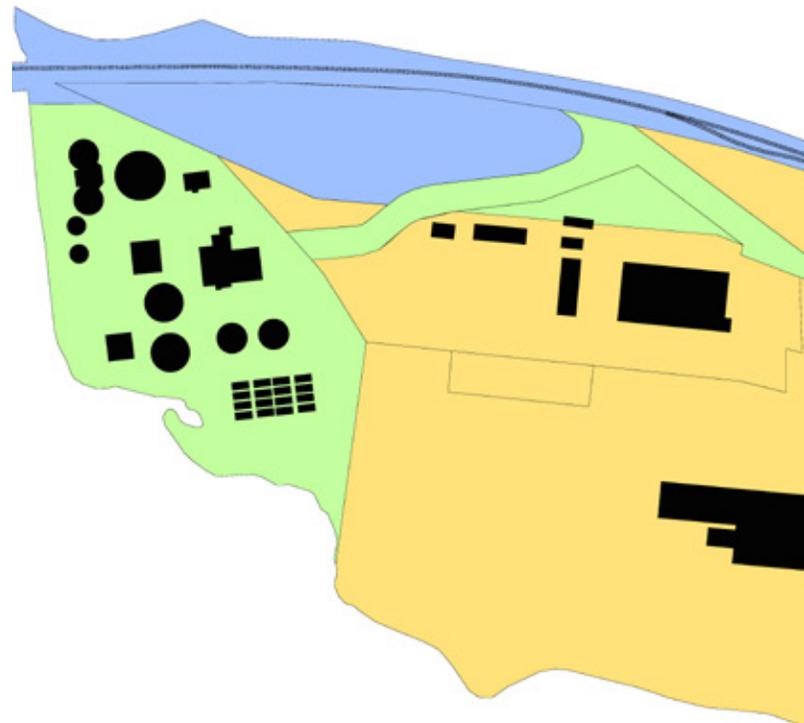


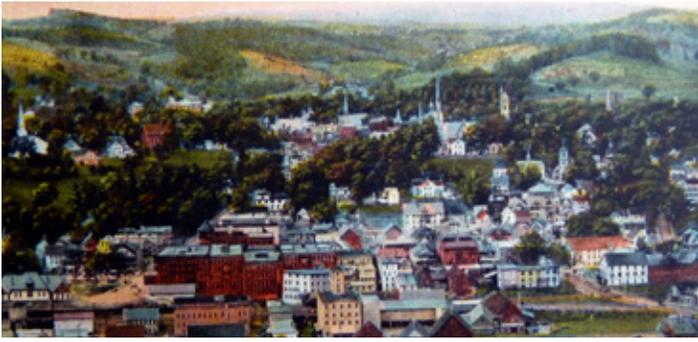


4. PROPERTY OWNERSHIP:

Parcel Number	Cama Number	Property Address	Owner Name
023-008-035-002	023-008-035-002	25 DEPOT SQUARE	C INNOVATIONS LLC
023-008-051-000	023-008-051-000	51 DEPOT SQUARE	ST JOHNSBURY TOWN OF
024-003-022-000	024-003-022-000	PORTLAND ST	MAINE CENTRAL RAILROAD INC
024-003-023-000	024-003-023-000	BAY ST	WSI ST JOHNSBURY TRANSFER STATION
024-003-024-000	024-003-024-000	119 BAY ST	WSI ST JOHNSBURY TRANSFER STATION
024-003-025-000	024-003-025-000	145 BAY ST	ALLEN LUMBER COMPANY
024-003-026-000	024-003-026-000	136 BAY ST	TREMBLAY WILLIAM J & ELIZABETH A
024-003-027-000	024-003-027-000	202 BAY ST	IDE E T & H K
024-003-028-000	024-003-028-000	258 BAY ST	ALLEN LUMBER COMPANY
024-003-029-000	024-003-029-000	256 BAY ST	ALLEN LUMBER COMPANY
024-003-031-000	024-003-031-000	249 BAY ST	ALLEN LUMBER COMPANY
024-003-033-000	024-003-033-000	195 BAY ST	ST JOHNSBURY TOWN OF
024-003-058-000	024-003-058-000	42 COSTA AVE	TOWLE TRACY C
024-003-059-000	024-003-059-000	257 RIVER RD	LEE ANGELA
026-002-026-000	026-002-026-000	492 BAY ST	BAY STREET PROPERTY LLC
026-002-052-000	026-002-052-000	RAILROAD ST	VERMONT STATE OF
026-002-061-000	026-002-061-000	MAIN ST	VERMONT STATE OF
028-000-033-000	028-000-033-000	507 BAY ST	507 BAY STREET LLC
028-000-034-000	028-000-034-000	483 BAY ST	BROWN C N COMPANY

Map of property ownership:



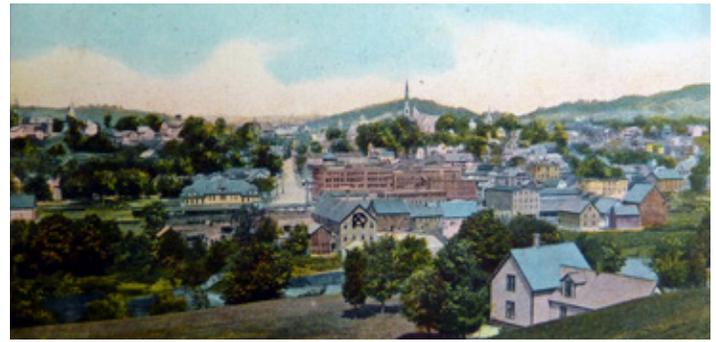


Ownership Diagram

Scale 1" = 100'

- Town Owned
- State Owned
- Utility Owned (CVPS)
- Privately Owned





Coordination with property owners:

The following meetings took place either in person or via email or telephone with staff from NVDA, the Town and project team with property owners in the project area:

2-8 Bay Street - Portland St. Park property:



The owners of the WSI parcels have been working with the Riverfront Committee, the St. Johnsbury Development Fund and the Vermont River Conservancy to sell the property for the purpose of a public path.

The property is under some constraint because of Brownfield contamination and it is under a Brownfield order. A Stone Environmental Bay Street Area Wide Assessment dated December 2011 acknowledges the SMAC for this property, but indicates (page 13) that there are several unassessed RECs on these parcels. A SMAC was issued in June 2011, with the caveat that “This SMAC designation is not an endorsement by the SMS that the standard of All Appropriate Inquiry has been met for the entire property or for all conceivable future uses of this property.”

A grant application was made to the Vermont Housing and Conservation Trust in the spring of 2016 to acquire this property but was not funded.

Allen Lumber property:

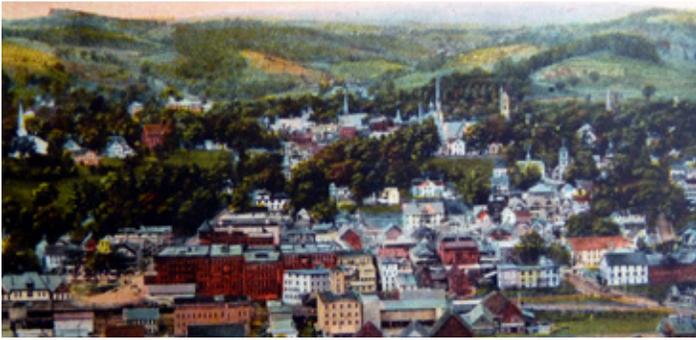
The project coordinator from NVDA and Assistant Town Manager met with the Allen family in regards



to their property and other properties around the project area.

Green Mountain Power

Representatives from Green Mountain Power have been extremely supportive of the project and reminded us that they have been always in that position even when the project was previously owned by the Central Vermont Public Service. It has always been the intention of GMP to cooperate with an easement agreement for a pathway to be developed through the property. GMP representatives clarified that the property is not under any FERC jurisdiction and so they have no requirements to provide recreational access to the public in this place, but they do feel it to be a wonderful community project to which they are supportive.



Green Mountain Power provided permission for access through this area on the site walk and the company has been a supportive partner in the project. It made sense to everyone in discussion to move an easement proposal forward with GMP as a core parcel and cooperative relationship.

copied to the town. However, it was noted that the GMP part of the project has always been in a position to proceed because of their cooperation. The challenging part about project agreement for the path project funded through VTrans was the inability to agree upon a route through the Ralston property.



The Town of St. Johnsbury

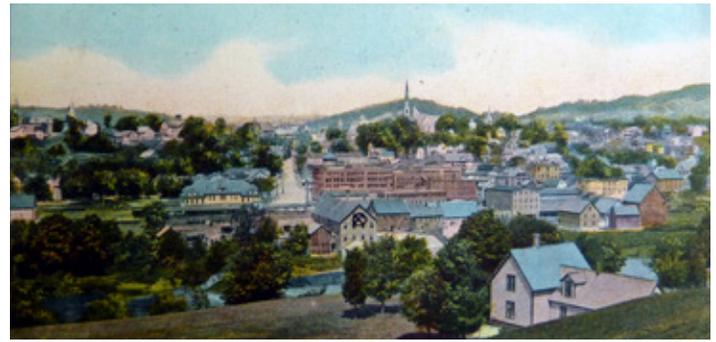
Meetings with St. Johnsbury Town administrative staff including the Town Manager, Assistant Town manager and Public Works director have been held with the project team and NVDA staff. There is enthusiasm in Town hall for the project but there are balancing concerns about cost and phasing both for the early phases of design and permitting in engineering as well as carrying it through and the cost of construction.

Other considerations of the properties owned by the town include the following:

There is definitely planning fatigue from the VTrans Three Rivers Bike Path project that while intensely active for well over 15 years, had not gone anywhere in terms of VTrans and property owner approvals and most of the project files had been discontinued to inactivity. Cad files retrieved from the VTrans engaged engineering firm by the project team and

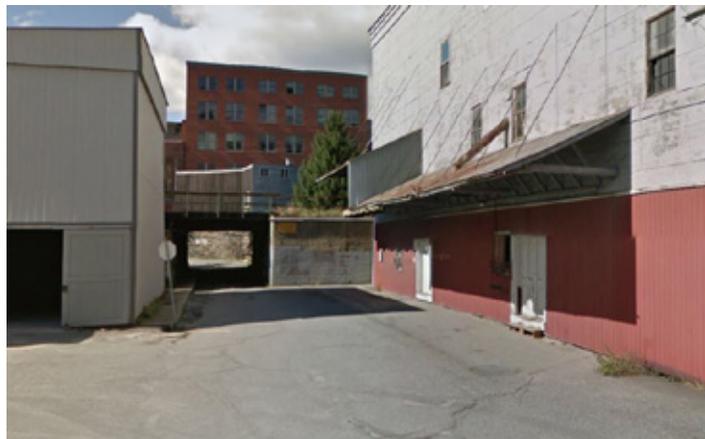
The town has acquired the **KC Rental property** on the corner of Bay Street. The previous intention of the town was to remove the building with its asbestos and lead paint contamination, and its impediment to the completion of the Three Rivers Path project as a contaminated site. The town received an engineer’s opinions of proper probable cost ranging from \$106 - \$132,000 to remove the structure and stabilize the site. The town has not authorized local funds to do this at this time, and grants were being considered.

The riverfront committee and NVDA and project team members talked about opportunities to approach that building differently and that the building



partially could be removed at less cost - then redeveloped to be an economic value for the town as a trail head oriented business. This would not be redundant with the present function of the visitor center but could be specifically oriented towards an economic activity such as bicycle rental for people wanting to bicycle along the river trail and connect to the rail trail and also to reinforce a downtown connection.

Follow up discussions about making the tunnel one - way were discussed with no resolution. It is the project team’s recommendation that a camera system be included in sidewalk plans with signals oriented in each direction so that cars maybe stopped for other traveling vehicles. The details of that system are a detailed topic for future study.

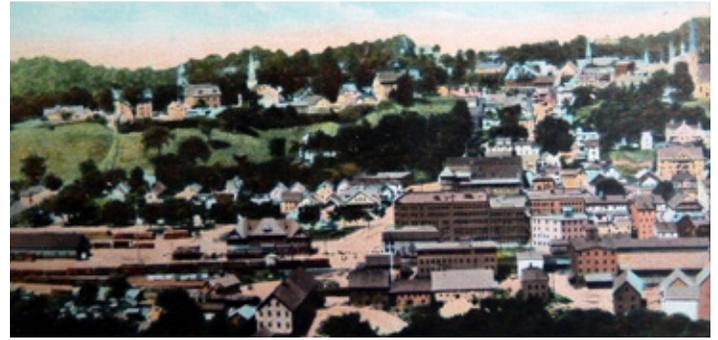
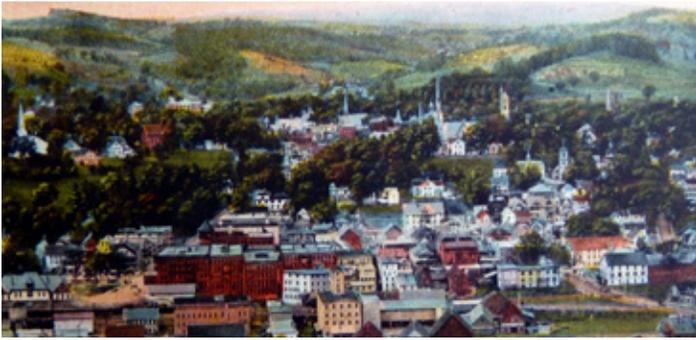


The town has provided an estimate for what they thought locally built sidewalk, curbing and crosswalk improvements might cost, and they are commensurate with the project teams estimate.

Likewise the town is supportive of a striped bicycle lane along Bay Street to connect over to the Lamoille Valley Rail Trail. Traffic volumes and speeds on Bay Street are relatively low and a safely defined painted bike lane seems adequate at this time to make the connection. Plans in the future could look at a widened pathway buffered from the road.

Everyone in town wants the visitor center to be well connected to the River trail, and so a crosswalk across the parking lot at the base of Eastern Avenue in Depot Square is an important part of the project. The town officials expressed interest to complete the improvements to sidewalks to and through the honking tunnel as well as some kind of safety system for traffic through the tunnel.





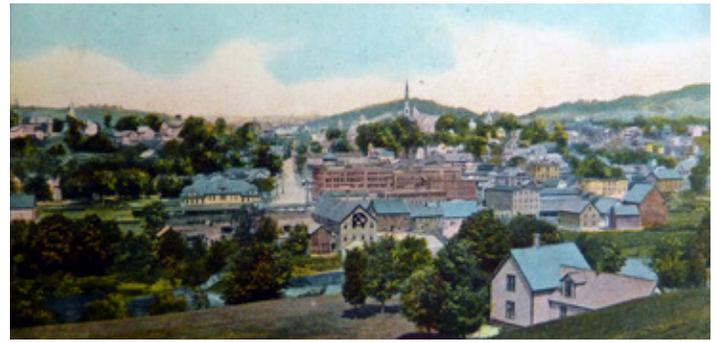
The Ralston property

This large property and the immense Ralston Mill building have been searching for a redevelopment future for over 20 years. Present uses for offices and storage occupy the lower floors, but the upper floors are unused.

The owner, Bruce Ralston communicated to the project team that he really does not want to enter into any formal agreements for a trail to precede across his property. With that in mind, the project must basically exit from the Green Mountain Power property out to Bay Street for the completion of the path connection to the Lamoille Valley Rail Trail.

Perhaps in the future, either Mr. Ralston or a future owner or developer of the property will reconsider the combined value of the trail or the economic value of the property as a mutually beneficial combination, but that time is not now.

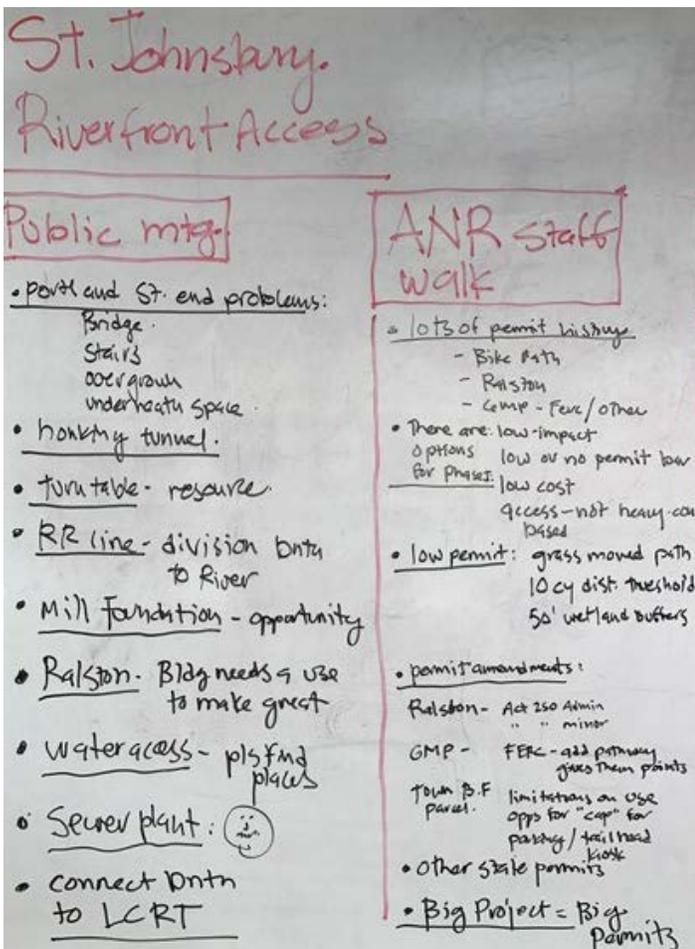




5. PUBLIC PARTICIPATION:

Public Participation in the planning process

Several opportunities for the community to input their dreams and aspirations for a Riverside trail and park for St. Johnsbury have been afforded in this project:



Community River Walk:

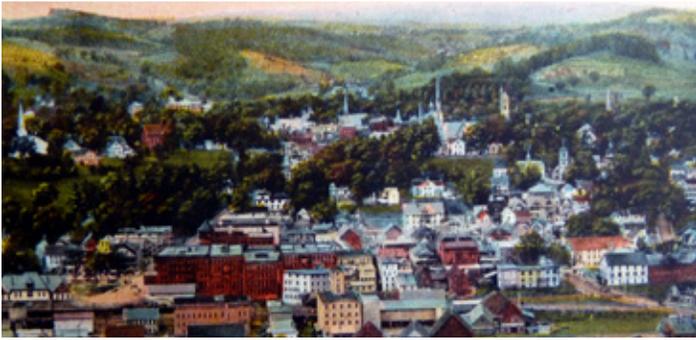
In July 2016, the project team, the town, and NVDA hosted a community site walk along the River Trail area, with the consent of the property owners along the possible route of a river trail.

With the consent of Mr. Ralston and the assistance of the town public works department, PWD staff on a tractor brush hogged a path through the area from the Ralston mill south to the town sewage treatment plant. The area was previously impenetrable with 6 feet grasses and knot weed was opened up in a 6 foot swath of accessibility that brought people along the river bank with excellent views up and downstream.

There was an overall introduction and questions and answers before the walk began, and the group proceeded in a north - to - south direction from the visitor center, through the honking tunnel to the park site near Portland Street and then along the river.

The areas viewed included:

- The proposed Park site on property on the northeast corner of Bay Street as it meets Portland Street. This land is been considered as a potential acquisition for a Riverside Park.
- Walking along Bay Street, the need for sidewalks for safety and comfort of pedestrians was discussed and noted.
- The town owned parcel of the building on the corner of Bay Street - KC rental was viewed, as well as the open space adjacent that is owned by Green Mountain Power Company (GMP) that provides access to the riverfront.
- We walked through the GMP property on relatively level ground on the terrace above the river proceeding southbound parallel to the river along a town sewer line easement.
- Side trips were made on fishing paths out to the

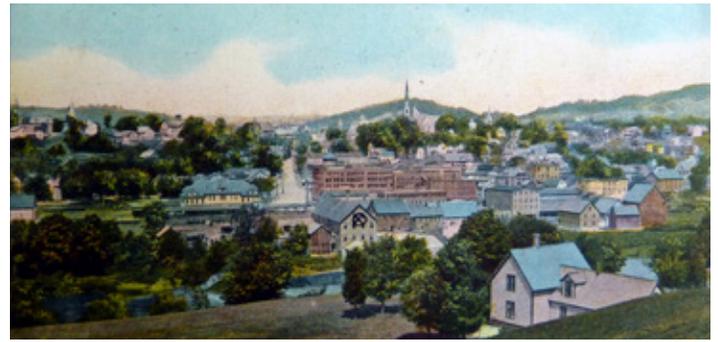


waters edge for people to view the river and the riverbank vegetation.

- What emerged quite quickly was that access to the river and enjoyment of it as an amenity - was something that most people in town had never experienced and it was a revelation to many.
- We proceeded in a southerly direction paralleling the river below the GMP power substation. For a short section of a few hundred feet, the topography became steeper and more challenging and we discussed the need to define a trail corridor through there involving regrading the steep slope. Refuse was also noted with some concern about contamination. We scrambled up the hill to the open meadow areas where the power lines cross the river.
- An expansive open area of meadows on an elevated terrace with views of the river extends for the next several hundred feet south. All this is on property owned by GMP.
- Additional side trips were taken to the rivers edge through the floodplain forests and to view combined storm sewer outfalls along this area. What were noted were the areas where storm sewer pipes came out of the hillside, there were eroded channels out to the river from

the storm water erosive impacts. We discussed opportunities that restoration of those areas for water quality could also be combined with stabilization for recreational boat access also - because they created an inlet that could provide canoe landing and informal trail access. We liked the idea that those improvements could be combined to have multiple functions for a single investment.

- Proceeding south we arrived at the foundation of the archaeological remains of an old sawmill or factory. This is a dramatic feature in the site, with concrete walls that elevate almost 20 feet above the topography below. We decided that it would be a great interpretive and experience opportunity for people along the River trail, but the safety improvements for a handrail and accessible path would be necessary parts of the project if undertaken there.
- Proceeding from the foundation south we crossed a broad meadow and then went into the woods going along the islands that are defined by channels parallel to the river. This area is all a floodplain forest and is highly constrained in terms of alterations for trail development. State and federal agencies are reluctant to allow



permanent construction in here because it will be flooded and there could be hazardous results or the replacement impact and cost.

- We meandered through the woods and then returned back out to the Meadows lands as we approached the Ralston properties, which are by far the largest single ownership in the Area under consideration for the study.

“A unique and special experience”

“A game - changer in perception of the river and its beauty”

...Were among comments made.

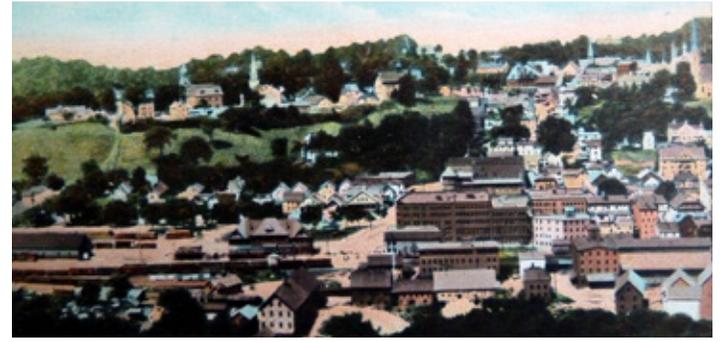
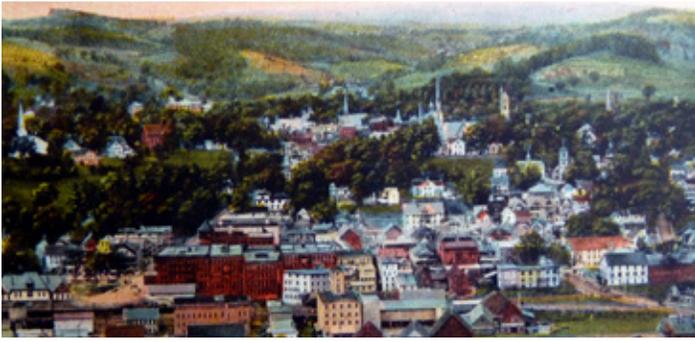
- We emerged from the Ralston property to the sewage treatment plant and walked along the access road from the sewage treatment plant back to Bay Street. At that point we were out of time, but the extension of Bay Street to the terminus of the Lamoille Valley Rail Trail was noted, with the expectation that the trail head parking improvements would be completed in the use of the rail trail could grow considerably with its completion.
- A strong desire to have a river trail connect to the rail trail as a single unified corridor was expressed by many.

Community Forum:

That evening after the site walk, a public workshop was held in the visitor center lobby with about 25 people present:

These were the major points of this discussion:

- Access to the river is an experience that is not widespread to residents of St. Johnsbury and no one coming to visit the area really notices the river.
- Making access possible could be a profound change of paradigm for the whole downtown area connected to a beautiful natural amenity. It could be new, different, and very good.
- There were questions about cost and design and maintenance that would be involved on the town's part in the event of a trail being established.
- One thing that was discussed was the challenge of the park property on the north not necessarily being in the flow of people movement through the honking tunnel out to the river in that it is off to the side - so it would need to be well-connected
- Challenges of making the area more pedestrian desirable in the industrial traffic uses of the road were considerations of some concern.
- Some concern about safety with campsites and unwelcoming people.
- Some concern about it being a natural enclave and not being overrun with people.
- The project team agreed to have contact with all the property owners that might be affected.
- Receive detailed surveys from the past bike path project.



6. COORDINATION WITH PERMITTING AGENCIES:

Agency River Walk:

In July 2016, the project team, the town, and NVDA hosted a state agency staff site walk along the project area. Agencies included: ACT 250 District Commission. Vt Agency of Natural Resources

In addition to state agency representatives, a representative from the Vermont River Conservancy also attended.

The project team and NVDA gave an overall introduction to the project. Many resource agency staff were familiar with the site from the past VTrans bike path project in years prior. There was recollection of past debates about trail location on various private properties along the river.

Generally it was thought that if the trail design just kept simple and straightforward and not looking to build a paved roadway - that the permitting level of detail would be more appropriate to a trail project assessed at a lower permitting threshold. The site walk with agency staff stopped at the Northern Ralston area terminus due to time limitations.

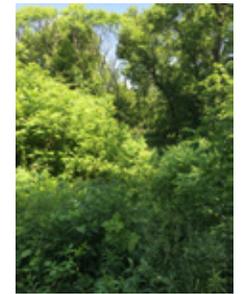
Agency staff from the Vt Division for Historic Preservation was not included in the site walk but will be consulted as the project proceeds. Prior bike path locations along the river edge had archeological issues but this alignment of the path is all on disturbed areas.

The entire project area has a legacy of brownfield issues. A review of the area with NVDA has identified areas where brownfields have been re-mediated but there do not appear at this time to be brownfield issues that would preclude this vision to proceed with due diligence.

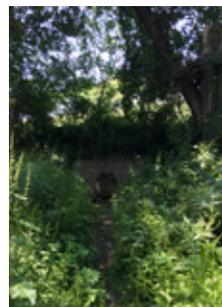
Agency regulated resources in the project area:
The Passumpsic River waterway:



Floodway and floodplain areas mapped by FEMA with natural riverbank areas of the floodplain forests that are both vulnerable and protective.

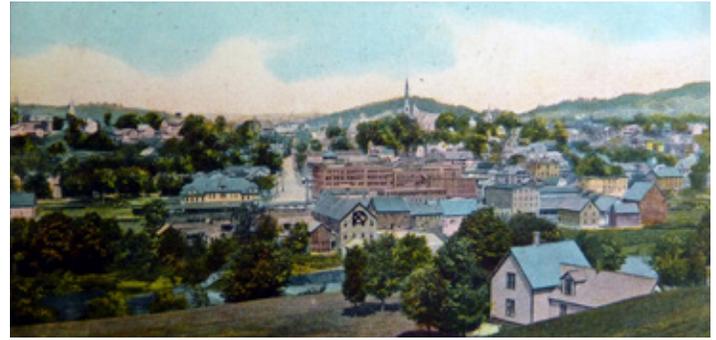


Stormwater and sewer outfalls from town infrastructure:



Sites with history and archeology:

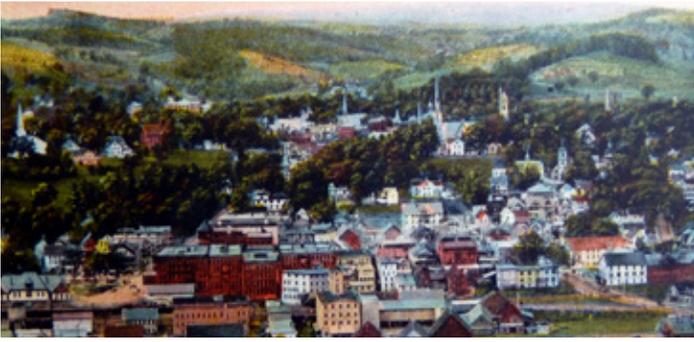




7. A TIME LINE OF PREVIOUS WORK

EVENTS and DATES - 2001 - Present

St. Johnsbury Charrette 2001: A Community Planning and Design Workshop (VT Chapter of American Society of Landscape Architects, et al)	26-Apr-01	Town takes title to former "KC Rentals" property	Oct-12
VT CDBG Awarded to Town of St. Johnsbury for Riverfront/Bay Street Corridor Study	7-Apr-03	Phase II Environmental Assessment completed for former "KC Rentals" property	29-Aug-13
Tony Pomerleau Donates Former Railroad Station to the Town of St. Johnsbury	Spring 03	Contract Documents & Specifications prepared for Demolition of former KNTT Building ("KC Rentals")	July 28 -14
Bay Street Redevelopment Project Plan (ORW, et al)	Oct-04	St. Johnsbury "Community Visit" facilitated by VCRD. St. Johnsbury Riverfront Committee formed.	Apr-15
Proposal for Renovating the Bay Street Area (St. Johnsbury Academy Student Katherine Tolman)	23-May-05	Mt. Vernon Street Bridge Completed, connecting the Three Rivers Bike Path to the Lamoille Valley Rail Trail	Fall -15
VTrans Comments on Bay Street Development Conceptual Plan	8-Jun-05	Route 5/South Main Street Intersection Scoping Study Completed (Dubois & King)	Dec-15
Renovation of St. Johnsbury Welcome Center begins	1-Jan-06	Town of St. Johnsbury is awarded an \$8,000 Municipal Planning Grant (FY2016) from ACCD to commission a Riverfront Access Concept Plan	Dec-15
Renovated St. Johnsbury Welcome Center Opens	11-Aug-08	VHCB Funds Appraisal of two Bay Street Parcels at Portland St. Bridge (owned by ADI) targeted for future waterfront park	Mar-16
Area Wide Assessment of Bay Street, prepared by Stone Environmental for the VT Dept. of Environmental Conservation	31-Dec-11	St. Johnsbury Development Fund, with Town of St. Johnsbury support, applies to VHCB for Conservation Grant to acquire ADI parcels for riverfront park (grant denied)	Apr-16
St. Johnsbury Three Rivers Bike Path completed, with trail end on South Main St.	15-Aug-12	Riverfront Access Concept Plan Complete (GPI)	May-17
Phase I Environmental Assessment completed for KNTT Investments ("KC Rentals")	19-Oct-12		



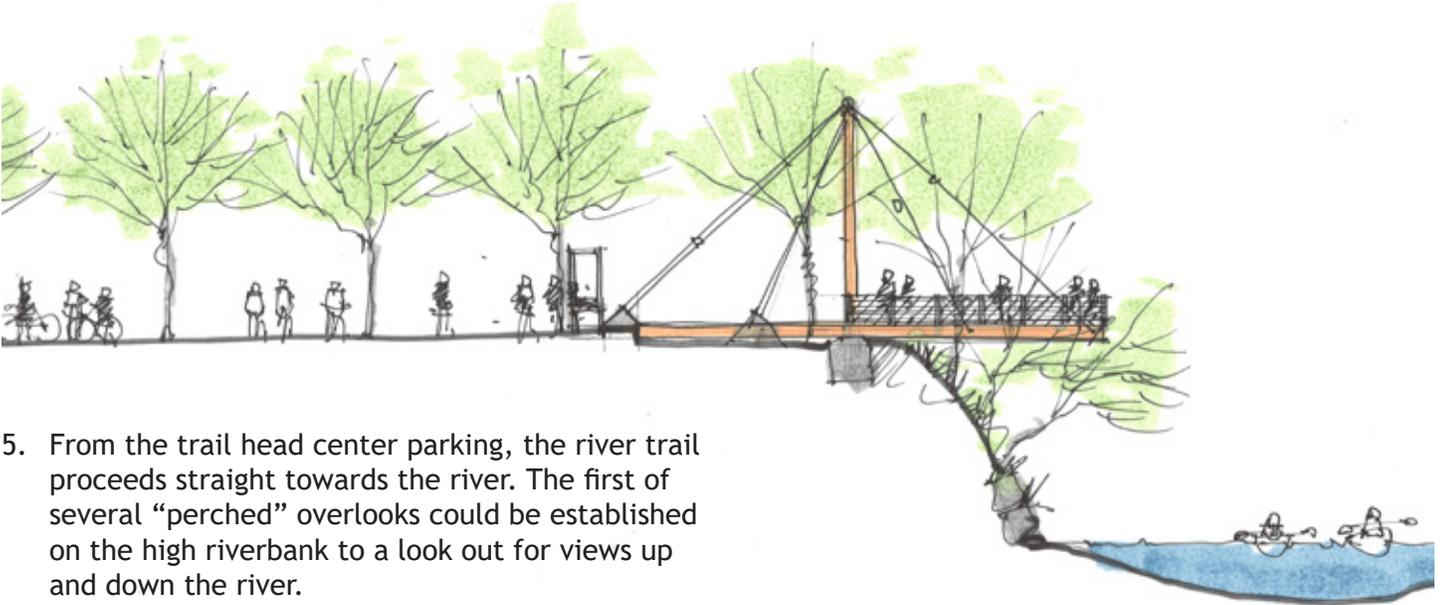
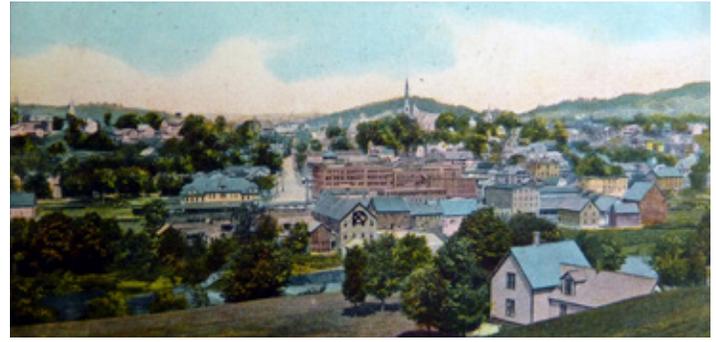
8. AREA DESCRIPTIONS OF THE PROPOSED IMPROVEMENTS:

Connection from Downtown to Bay Street:

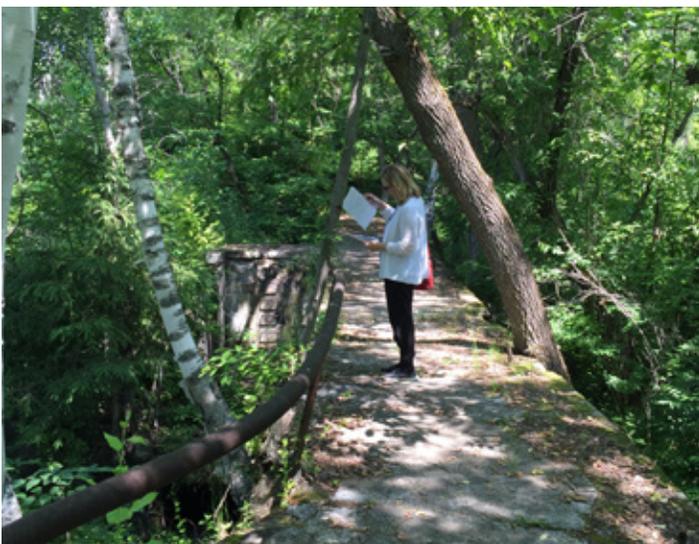
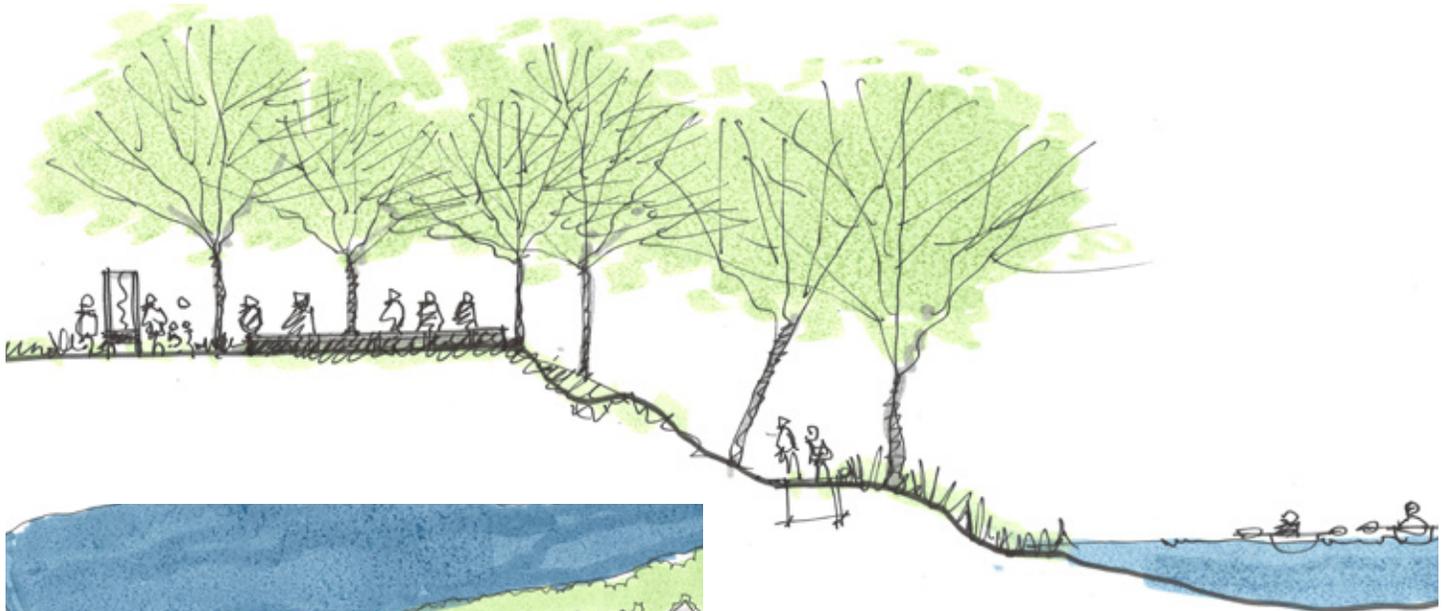
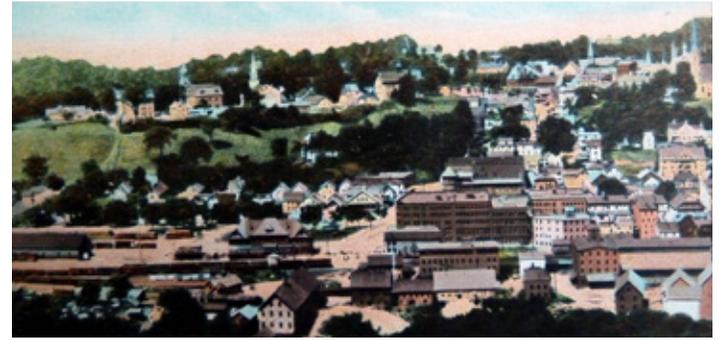
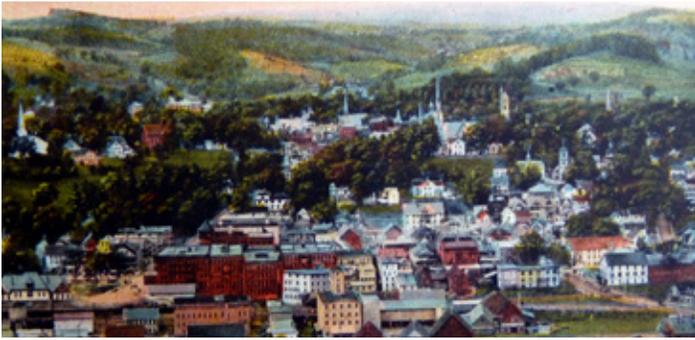
1. An anchor to downtown at Depot Square with the visitor center serving for public information.
2. A crosswalk and sidewalk improvements improvement across the base of Eastern Avenue as it meets Depot Square and proceeds through the honking tunnel.
3. Approximately 550 feet of sidewalk replacing the existing deteriorated sidewalk would be necessary including granite curbing, concrete sidewalk and a repaved road.
4. A safety camera controlled traffic light system for vehicles approaching from each direction of the honking tunnel would make for better traffic management in light of increased pedestrian use of the sidewalk.
5. The sidewalk underneath the honking tunnel should have additional lighting, and the stone and concrete walls of the tunnel could be cleaned to be more attractive.
6. Curbing and sidewalk across the intersection from the tunnel to Bay Street southbound through Allen Lumber and northbound to the proposed park site would better define the intersection for safety and pedestrian use. The configuration of this should still allow for truck traffic to Allen Lumber and through the area for existing businesses.
7. The sidewalk should connect to the park site on Bay St. north heading towards Portland Street. That sidewalk is approximately 500 feet long, and would require a designated crosswalk at the lumberyard driveway.
8. The sidewalk through the honking tunnel straight across Bay Street points straight towards the river and the alignment of the sidewalk as it connects to become the River Trail.

Passumpsic River Trail and Three Rivers Pathway extension:

1. A prominent gateway and wayfinding to the River Trail should be established in this location to encourage people walking from downtown to go to the riverfront.
2. For people coming through the tunnel looking to drive and park for the trail head, wayfinding signs to a parking lot to the left/north of the town owned building should be located.
3. A parking lot with capacity of about 20 to 30 cars with a gravel surface can provide trail head parking to the River Trail. This would be accomplished and also would mutually serve access for Green Mountain Power into the northern part of their property for any service or maintenance needs through the parking area drivable aisle.
4. It is proposed rather than tearing down the town owned rental building completely, that a partial take-down of the one story addition that blocks a direct trail to the River would be preferred. It would be less expensive for demolition and also allow the investment to have an economic return for the redevelopment of the remaining two - story part of the structure that is the more prominent part of the building. Through shared funds from the town in grant sources, as well as private development, much of the building could be renovated to be either a seasonal or year-round trail head business center with the rental bicycles, cross country skis or snowshoes and a warming hut. These could be operated by local businesses as seasonal operations.

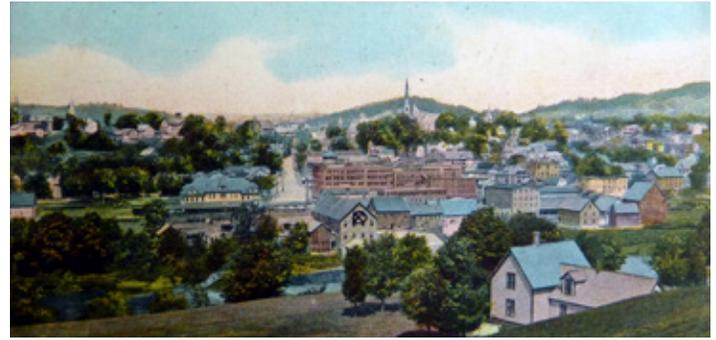


5. From the trail head center parking, the river trail proceeds straight towards the river. The first of several “perched” overlooks could be established on the high riverbank to a look out for views up and down the river.
6. Also north of the trail center, is the proposed park property. This is seen as a community amenity area. Unfortunately, the grade change between the level of the park terrace and the water - approximately 20 feet, is not able to provide direct access into the water from the park but there are nice views from the elevated position. Assuming a proper cleanup of the site and eventually development of it into a park, perhaps there could be a performance area and attractive lawns and landscaping to make it a place that people would like to go as a contrast to the urban downtown of Railroad and Portland Street. Conceptual sketches of the Park property are provided on pages 22 - 23 showing some of those features.
7. Back on the river trail, proceeding south from the first overlook, the trail follows the level terrace that is also a sewer line that parallels the river. First it is flat, then gradually sloping, in the end has a short section of about 200 feet that will require regrading of the steep slopes to create the trail surface. This will require excavation, grading, probably some removal of refuse that has been discarded in this area, and the establishment of a trail base and surfacing.
8. Upon arriving at the upper terrace, the trail proceeds across level and gradually sloping land of GMP turning to offer overlooks of the river and then meandering through the meadow in the southerly direction parallel to the river. This includes a stop at a large historic mill foundation.
9. Intermittent side trails are also developed to riverside locations, as there are several storm/ sewer outfalls through this area.
10. Side trails also provide several locations where canoe and kayak access can be created using a combination of river restoration techniques as well as ecological restoration of the storm=sewer outfall areas.
11. The trail proceeds south across the meadows with additional views out to the river from the high terrace. There, one reaches the southern end of the GMP property as the trail swings west across the meadow it rises in a traverse across the embankment of Bay Street to reach the end of a dead end lane, then proceeds to Bay Street.



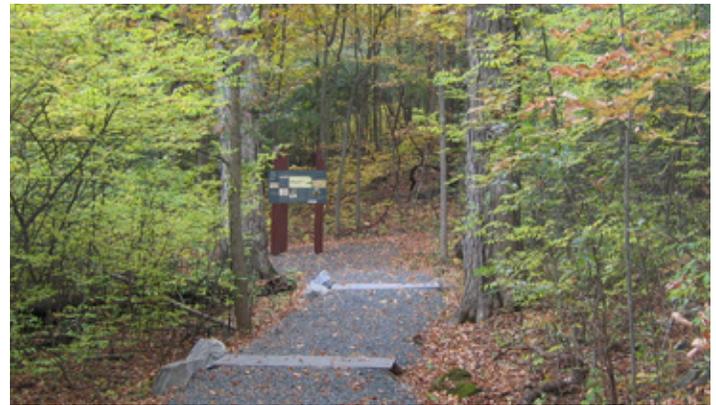
Bay Street to Lamoille Valley Rail trail

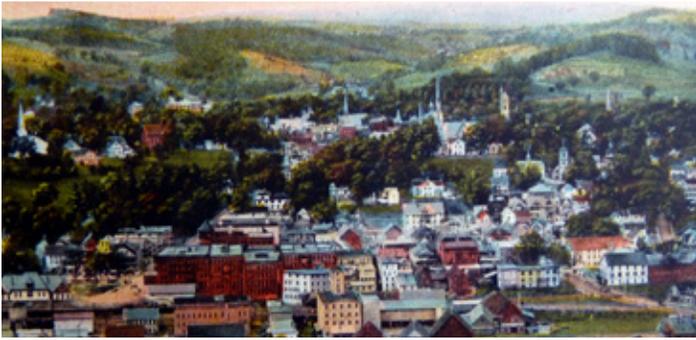
1. When path reaches Bay Street, The connection over to the Lamoille Valley Rail Trail is via a striped bicycle lane the length of Bay Street.
2. Staying on the eastern side of Bay Street, bicycle traffic is defined by a striped and colored bike lane defined out of the width of the street for bicycle travel. This extends for about a quarter of a mile and has several driveway crossings, a Rr crossing, then up the hill to the intersection where the bike route would cross S. Main St. onto a widened sidewalk to the Lamoille Valley Rail Trail trail head.



The pathway route has a variety of materials:

- Across Depot Square, a painted crosswalk on the asphalt pavement will define a walking route so that people are not walking in between the parked cars of the wine bar.
- Sidewalks from Depot Square through the honking tunnel and along Bay Street would be a typical downtown St. Johnsbury public sidewalk of a granite curb with concrete surfacing.
- The river path as proposed, would be a crushed gravel or ledge stone surface approximately 4 inches deep over a 12 inch deep base of bank run gravel for stability.
- Much of the Passumpsic River Trail and Three Rivers Pathway extension can have direct applied surfacing over geotextiles with some of the base on existing grade. In the case in the floodplain, a cut - out for to not increase the depth of soil in the floodplain may be required. This would be locally permitted by the town with state input.
- As mentioned, there is an approximately 200-foot section of steep topography where additional grading and earthwork will be necessary in the form of a regraded terrace for the trail.
- There has been some discussion of making the path “passable” just by grading and mowing a route for the trail, and many stretches, the level areas across the meadows are in fact suitable for this as the initial way to establish the route. In order to make this successful in the steep section, though, it would be better to grade in the full trail width along the slope.
- The road section along Bay Street includes traditional shoulder striping and signage for a bicycle lane. The entire quarter mile does not have to have colored pavement but it is recommended at the driveway crossings.
- Driveway crossings that are excessively wide could be narrowed.





River Trail Branding, Wayfinding and Interpretive signage and river trail access

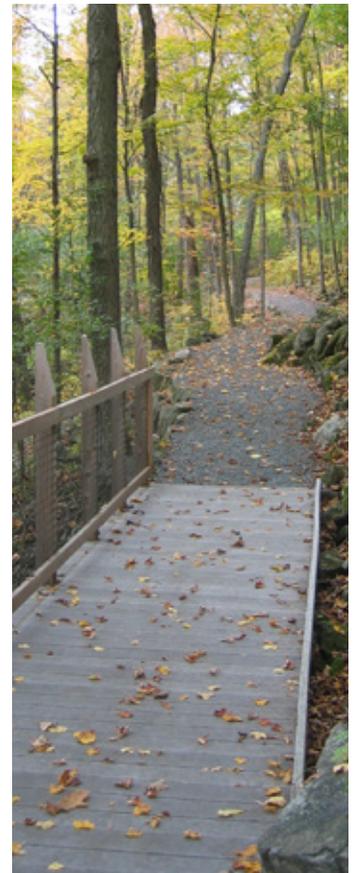
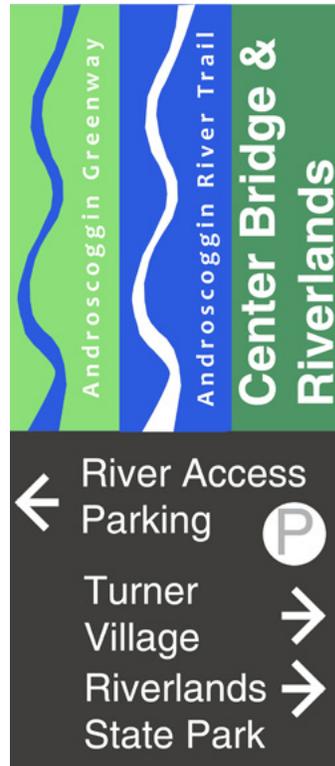
It would be nice to brand the river trail to give it identity, to make residents and visitors comfortable that they are on an official trail, and to give them directions and information.

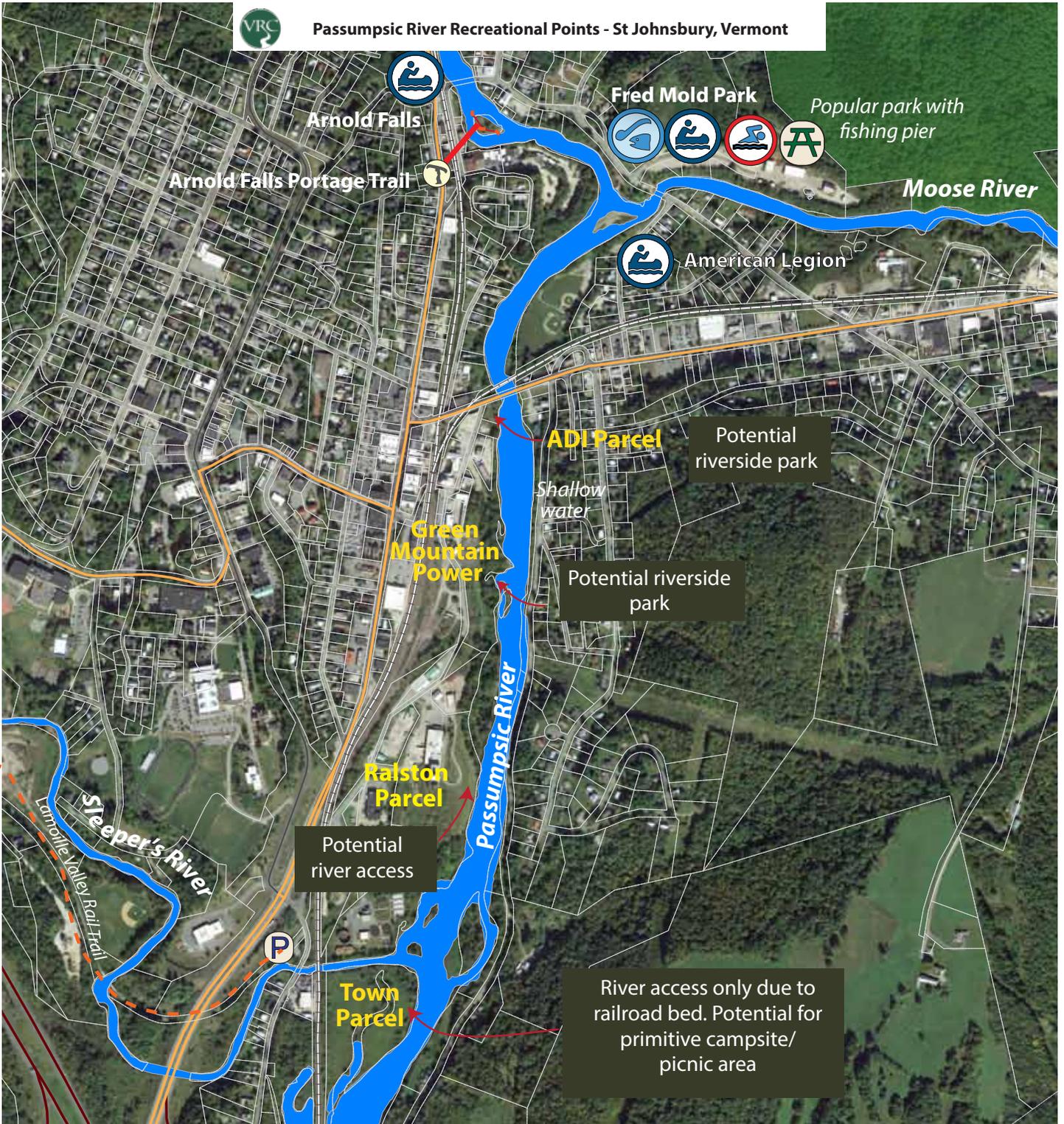
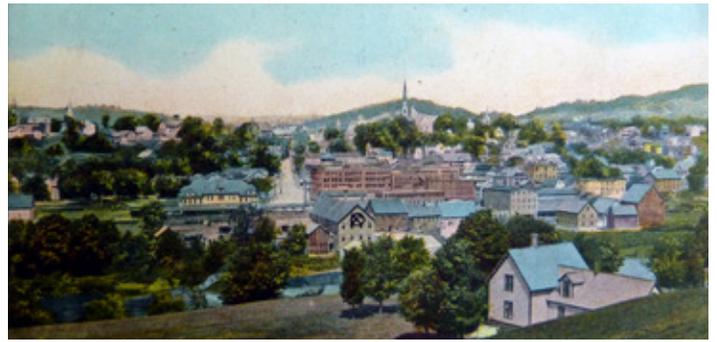
- The river trail would benefit from a branding logo or symbol of some kind, and it would be nice if that spoke to a specific St. Johnsbury identity.

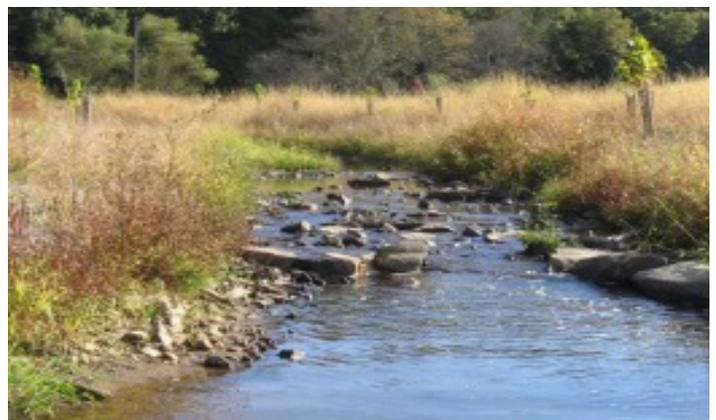
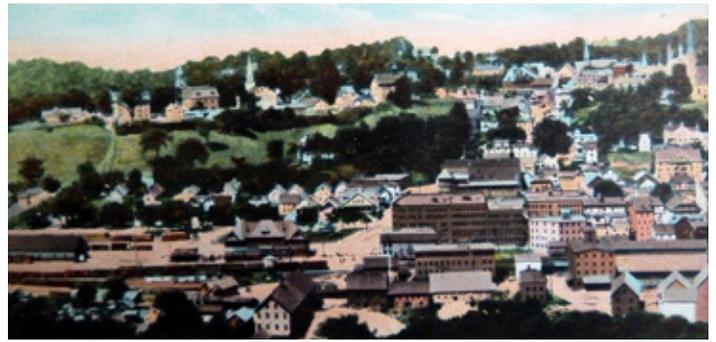
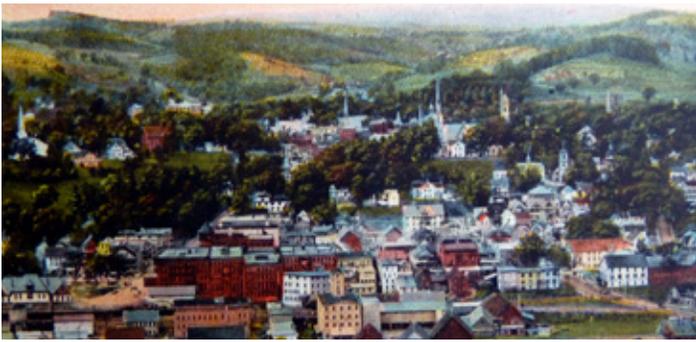
A hierarchy of signs would support the River Path:

- Trail head kiosks including a map in the area information. This could show area services for hungry walkers, skiers and bikers to encourage them downtown after their trip. Some kiosks even post menus and Q codes for local establishments at trailheads.
- Trail directional signs pointing to features while giving distances and destinations.
- Trailblazers, small plastic or metal markers, nailed to trees or to marker posts.
- Interpretive signs with narrative and graphics in locations along the way to impart environmental, historical, cultural, recreational, and other information.

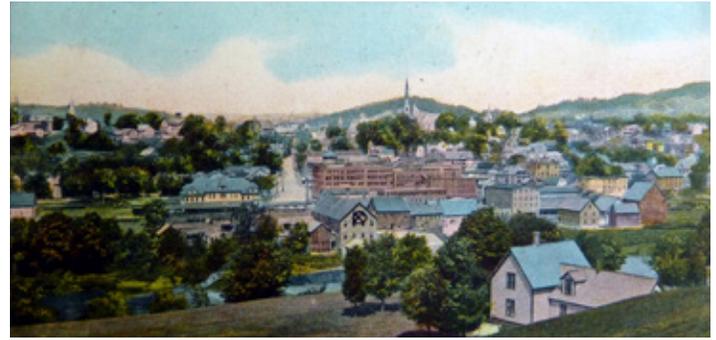
Wayfinding could be expanded to public arts, and made personal with guided walking tours and expanded area docents and interpretation sites such as the massive foundation of the former industrial complex could interpret a unique story about the town, industry and waterpower and the river. An approach path from the river trail at wheelchair accessible grades would also be desirable.







Examples of canoe/kayak put-in and landing designs to be incorporated into combined storm/sewer outfalls restorations areas. These are combined with the riverbank restoration work.



9. OVERVIEW OF PROJECT COSTS

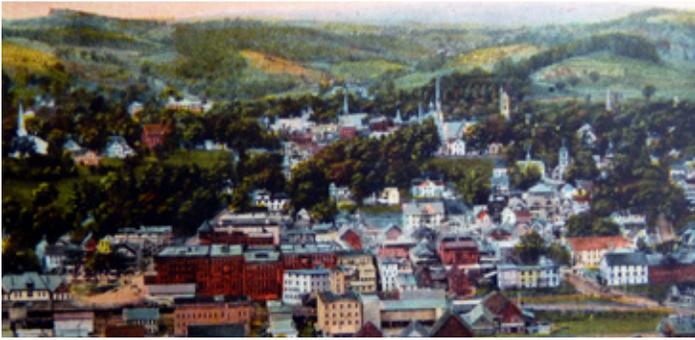
The budget provided is in support of a major grant application on the town's behalf.

The grant program through the Northern Border Regional Commission provides access to as much as \$500,000 in funds. Adding a local or other grant source match of 20% the funding could be \$600,000 or greater, depending on local match other grants and town completed efforts.

At this conceptual level of development, the grant application has a budget as follows:

Opinion of Probable cost: based upon conceptual plans

ITEM	UNIT	AMT.	UNIT VALUE	COST
Sidewalks to dntn				
Granite Curb	L.F.	530	\$ 30.00	\$ 15,900.00
6' wide asphalt paved sidewalk	L.F.	530	\$ 55.00	\$ 29,150.00
crosswalks	L.F.	450	\$ 10.00	\$ 4,500.00
subtotal				\$ 49,550.00
contingency and design/engineering	25%			\$ 61,937.50
Three Rivers Pathway extension				
excavation/filling in steep area	allowance	1	\$ 50,000.00	\$ 50,000.00
4" Hard pack pathway surfacing	L.F.	1350	\$ 50.00	\$ 67,500.00
riverbank allowance	allowance	1	\$ 10,000.00	\$ 10,000.00
kiosks	allowance	2	\$ 5,000.00	\$ 10,000.00
subtotal				\$ 137,500.00
contingency and design/engineering	40%			\$ 192,500.00
Trailhead Center and Parking at Town parcel				
Granite Curb	L.F.	120	\$ 35.00	\$ 4,200.00
6' wide asphalt paved sidewalk	L.F.	120	\$ 165.00	\$ 19,800.00
crosswalks	L.F.	30	\$ 10.00	\$ 300.00
4" Hardpack Path surface	L.F.	240	\$ 60.00	\$ 14,400.00
Hardpack paving for car parking	per space	30	\$ 1,250.00	\$ 37,500.00
Landscaping and placemaking allowance	allowance	1	\$ 25,000.00	\$ 25,000.00
Demolish partial building and remove hazardous	allowance	1	\$ 90,000.00	\$ 90,000.00
subtotal				\$ 191,200.00
contingency and design/engineering	40%			\$ 267,680.00



Sidepaths and enhancements

Vt YCC for sidepaths and river restoration	allowance	1	\$	25,000.00	\$	25,000.00
Foundation boardwalk	S.F.	480	\$	65.00	\$	31,200.00
Other site interpretations and overlooks	allowance	1	\$	25,000.00	\$	25,000.00
subtotal					\$	81,200.00
contingency and design/engineering	25%				\$	101,500.00

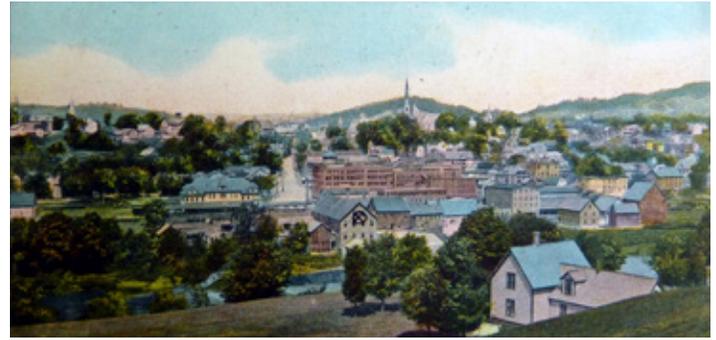
Striped bike route along Bay Street

striping	L.F.	1320	\$	5.00	\$	6,600.00
contingency and design/engineering	15%				\$	7,590.00

Total Estimated Cost **\$ 631,207.50**

North Park and sidewalk connection

Fine grade lawn areas	sq. ft.	50000	\$	0.10	\$	5,000.00
topsoil	sq. ft.	30000	\$	2.50	\$	75,000.00
walkways	sq. ft.	7500	\$	3.50	\$	26,250.00
lawn seeding	sq. ft.	30000	\$	0.05	\$	1,500.00
misc finish work	allowance	1	\$	10,000.00	\$	10,000.00
trees etc	allowance	1	\$	10,000.00	\$	10,000.00
overlooks	allowance	1	\$	10,000.00	\$	10,000.00
electrical service	allowance	1	\$	5,000.00	\$	5,000.00
Granite Curb	L.F.	300	\$	35.00	\$	10,500.00
6' wide asphalt paved sidewalk	L.F.	300	\$	110.00	\$	33,000.00
subtotal					\$	186,250.00
contingency and design/engineering	25%				\$	232,812.50
Total Estimated Cost					\$	258,112.50



10. OVERVIEW OF PHASING COORDINATED WITH FUNDING STRATEGIES:

Approaches to phasing:

Grant funded capital project:

The basis for this phasing approach is in support of the current grant application to the Northern Border Regional Commission.

Grant phases:

Phase 1: Project organization and management

Phase 2: Design plans for grant funded project

Phase 3: Permitting and clearances

Phase 4: Sidewalk project from Depot Square to Bay Street

Phase 5: Trail head center building clean up and parking facilities, kiosks etc.

Phase 6: Trail on even ground for approaches then steep terrace construction.

Phase 7: overlooks and water access points with combined sewer outfalls.

Phase 8: Side trails

Future phases:

Phase 9: sidewalk to north park property

Phase 10: North park property funding and acquisition

Phase 11: Gateway Park development

Locally funded incremental project:

The basis for this phasing approach is to put a simple pathway in place to gain access to the area and use minimal town staff machinery and labor, donated volunteer and locally fund raised efforts.

Phase 1: Volunteer and town staff organization.

Define an action plan and schedule

Define local project management for different aspects of the path project: marketing, town liaisons, volunteer communications etc.

Define design approach and plans

Seek low impact project clearances

GMP easement documents

Incremental Phase 2:

Bike lanes stripes from LVRT to GMP property - town

Incremental Phase 3:

Trail ready pathway across the GMP meadows - skim trail surface from grass. seek route through even terrain if possible - clear out thickets for improved access.

Incremental Phase 4:

Donated funds to be used for the steep section to regrade into pathway terrace.

Incremental Phase 5:

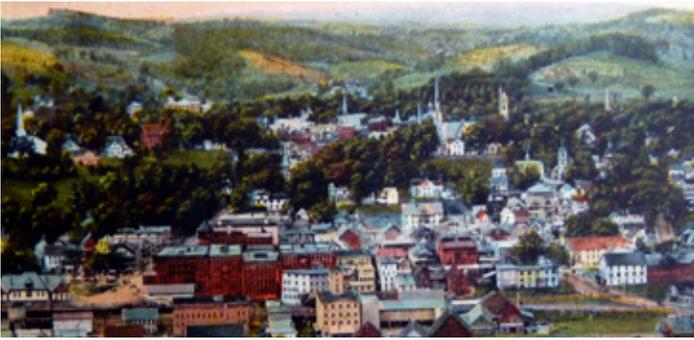
Path completion to Bay Street

Incremental Phase 7:

Trail head parking and information

Incremental Phase 8:

Trail head center



Concluding thoughts: Why a river path for St. Johnsbury and what's so important about it?

St. Johnsbury has aspired to greater economic wealth in its business district for almost 20 years. Looking for new business, comparing itself to nearby business competition in Littleton and other area cities. At the same time - recent years have seen the downtown regain new vibrancy and its looking into itself that has garnered the great new changes. Local business, local places of pride and culture, and access to natural areas that bring people to the area for visiting and tourism, it can be a source of local pride and support of the local economy.

The connection of the downtown to the river and to the LVRT offers promise that makes St. Johnsbury the best of itself - for itself. The resources are local and the revenues are local also. Case in point. The opening of the LVRT in July 2016 garnered some 20,000 seasonal visitors to the trail to walk, bike and ski. With only a small parking area and not connected to downtown - imagine just the transfer of those 20,000 people to come downtown for dinner, to shop and enjoy the area. Its a new demographic that jobs and population growth cannot cover at this present time.

It's a new economy for the town. The payoff of a river trail and river park project for those 20,000 people each year spending even \$20.00 apiece for dinner and miscellaneous expenses would add \$400,000 of income to downtown St. Johnsbury's economy annually. Simplistically, that would be a 2 - year payoff for the investment in the trail as economic return. Other economic returns could come later. Engaged residents in a natural environment in downtown would have other benefits as well.