

Mahican-Mohawk Bike Trail Feasibility Study



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I. INTRODUCTION

The Mahican-Mohawk hiking trail, which recreates the historic trail used by Native Americans in the area, currently runs from the Connecticut River in Deerfield, MA to the eastern side of North Adams, MA. When completed, it will run all the way to Stillwater, NY, connecting the Connecticut and Hudson Rivers. The Mahican-Mohawk Bike Trail would add to the Mahican-Mohawk trail by extending a multi-use trail from downtown North Adams into Williamstown.

This bike trail was proposed for two main reasons, both more relevant now than ever. First, the number of people who commute between these two towns is huge. In Williamstown, people drive to North Adams on nearly a daily basis, whether for work, shopping, or other errands. In North Adams there are many people who work in Williamstown and have to commute every day. At the moment, the only feasible way to make this commute is by car. Biking along Route 2 or Mass. Ave. is possible, but it is not very safe and is fairly unpleasant. Imagine the possible benefits if we could give people a way to commute between the two communities on their bikes.

The second reason focuses on the very underappreciated Hoosic River. The Hoosic connects North Adams and Williamstown, but many people do not even realize it exists, or else they just take it for granted and never pay any attention to it. While the Hoosic runs along either Route 2 or Massachusetts Avenue for most of the distance between North Adams and Williamstown, it is only visible at bridges. Access to the river is limited to a canoe drop on Ashton Avenue in North Adams and a small park and nature trail in Williamstown.

The Mahican-Mohawk Bike Trail would change all this. It would create a way to commute between North Adams and Williamstown, connect attractions like the Clark Art Institute and the Williams College Museum of Art in Williamstown with the Massachusetts

Museum of Contemporary Art (Mass MoCA) in North Adams, and give town residents and tourists alike a way to enjoy the Hoosic River.

This report focuses its analysis on the section of the trail from Cole Ave. in Williamstown to Ashton Ave. in North Adams. We chose this section because a smaller focus allows a more thorough analysis and the North Adams Bikeways Committee has analyzed building a trail from the center of North Adams to the canoe launch on Ashton Ave. in their study of extending the Ashuwillticook trail from Adams to North Adams.¹

Three potential trail route alternatives are considered in this report: an off-road alternative, a rail-with-trail alternative, and a diamond-marked bike lane alternative (see Figure 1). The off-road alternative would make use of a corridor of land on the south side of the Hoosic River already cleared for the Hoosic Water Quality District interceptor sewer line running from North Adams to the treatment plant in Williamstown. The rail-with-trail alternative would travel along the existing Boston & Maine Railroad tracks on the north side of the Hoosic River. The diamond-marked bike lane would create a lane especially for cyclists along Route 2.

II. BACKGROUND

A. Client goals

Our client is Lauren Stevens, the director of the Hoosic River Watershed Association (HooRWA). Lauren stated that the goal of HooRWA is to increase access to the Hoosic River for citizens, particularly local citizens, because HooRWA strongly believes that increased access will lead to stronger stewardship. His hope is that by creating a bike path along the Hoosic River, more people will visit the river and come to appreciate its value. This increased appreciation will also cause people to take better care of the river, whether they actively help clean it up or just think about how their actions affect the river.

B. Community profile

Williamstown and North Adams are two neighboring but very different communities in northwestern Massachusetts. Both Berkshire County communities share many sources of recreation and employment, but there is a history of tension between them.

North Adams, Massachusetts is a city of 14,681 people. It has an area of 20.57 square miles, with a population density of 822 people per square mile. The city is 95% white, and the remaining minority population is made up largely of African Americans (1.7 %). A mayor and city council govern the city, incorporated as a town in 1878 and as a city in 1895.²

There are 7,088 housing units in the city, with approximately 6,311, or 89%, of those currently occupied. 52% of the occupied housing units are owner occupied, and the remaining 48% are rented. 906, or 12.83% of the units are subsidized housing.³ This is one of the highest percentages of subsidized housing in all of Massachusetts.

In March 2002, North Adams had a 5.2% unemployment rate, slightly above the state average of 4.8%.⁴ In 2000, 6,057 jobs were on the payroll within North Adams, with an average annual salary of \$27,295. Trade, services, manufacturing and government are the four largest sources of employment. Trade and services each provide about 1700 jobs, and manufacturing another 1,000. Government employs about 900 people.⁵

North Adams is home to the Massachusetts Museum of Contemporary Art (Mass MoCA) the largest gallery space for contemporary art in the country.⁶ This museum has become an

¹ Town of Adams, City of North Adams, 2001. Ashuwillticook River Trail Extension Feasibility Project.

² Massachusetts Department of Housing and Community Development, North Adams Community Profile <http://www.state.ma.us/dhcd/iprofile/213.pdf>, May 7, 2002

³ Ibid

⁴ Massachusetts Division of Employment and Training <http://www.detma.org/lmi/laus/monthly/laus0203.txt>, May 7, 2002

⁵ Massachusetts Division of Employment and Training http://www.detma.org/lmi/local/North_Ad.html, May 7, 2002

⁶ Mass MoCA Fact Sheet http://www.massmoca.org/press_releases/background/Factsheet.html, May 7, 2002

enormous tourist draw, drawing visitors from Boston and New York City and has fueled development in the surrounding area of North Adams, including an upscale hotel and restaurant. North Adams hopes to increase its tourist draw by combining the attraction of Mass MoCA with the surrounding natural recreational activities including hiking, biking, and skiing.

Other local attractions include the Hoosac Tunnel, regarded as the greatest engineering feat of its day when built in the 1860s; Western Gateway Heritage State Park, one of several unique urban parks in Massachusetts; the Mount Greylock State Reservation, which features the State's highest peak, and Natural Bridge State Park, which offers tours of the abandoned quarry and the only naturally formed marble bridge in North America.⁷

North Adams underwent a drastic population decrease in the mid-20th century when many of the textile mills that supported a large portion of the economy went out of business. However, North Adams is now experiencing a period of urban renewal with the influx of high tech businesses and the opening of Mass MoCA.

Williamstown is a smaller town, with a population of 8,424, which has remained stable despite significant (3.2%) population declines in Berkshire County in the past decade.

Williamstown is expected to experience very slow or negative population growth over the next decade.⁸ Williamstown has an area of 46.89 square miles, with a population density of 175 people per square mile. The board of selectmen, along with citizen voting in open town meetings, governs the town. The town is 90.8% white, 3.1% Asian, and 2.7% African American.⁹

⁷ North Adams Massachusetts Living Environment <http://www.bcn.net/nadams/living.html>, May 7, 2002

⁸ Williamstown Master Planning Presentation

⁹ Massachusetts Department of Housing and Community Development Williamstown Community Profile <http://www.state.ma.us/dhcd/iprofile/341.pdf> May 7, 2002

There are 3,053 total housing units in Williamstown, of which only 173 are vacant. 2015 of those units are owner occupied and 738 are renter occupied. Only 128 of the units are subsidized.¹⁰

Unemployment in Williamstown in March 2002 was 2.7%, considerably below the state average.¹¹ In 2000, service was by far the largest source of employment in Williamstown, with 58% of the town's payroll provided by service firms, the largest of which is Williams College. Similar to North Adams, trade, manufacturing and government are the next three most common sources of payroll but they each represent a much smaller proportion of total jobs in Williamstown than in North Adams.¹²

Williamstown has abundant sources of recreation, including two renowned museums, the Clark Art Institute and the Williams College Museum of Art. Only 22% of Williamstown's land area has been developed for residential, commercial or industrial use, leaving ample space for outdoor recreation.¹³ The town boasts many areas for hiking, biking and skiing, as well as the Taconic Golf Course, one of the top golf courses in the country.

C. Physical site description

The project site is an approximately six mile long corridor along the Hoosic River connecting Williamstown and North Adams. The western edge of the site is bordered by Photech, an old textile mill complex last used for the manufacturing of photographic supplies. Heading east, the southern half of the site runs along the Hoosic Water Quality District sewer line easement through a town park and over the Green River, past town wells, and into a cornfield belonging to The Spruces mobile home community. The northern side of the river in

¹⁰ Ibid.

¹¹ Massachusetts Division of Employment and Training <http://www.detma.org/lmi/laus/monthly/laus0203.txt>, May 7, 2002

¹² Massachusetts Division of Employment and Training <http://www.detma.org/lmi/local/Williamt.html>, May 7, 2002

this stretch is largely occupied by railroad tracks owned by Guilford Rail System and is bounded by North Hoosac Road/Massachusetts Avenue, which at times is very close to the river. The site on the southern side then goes through the Spruces mobile home park, along a tributary stream, and past another cornfield to Galvin Road in North Adams. At Galvin Road an historic bridge crosses the Hoosic River. This bridge is in disrepair and is closed to motorized traffic. While the structural components of the bridge are metal, the decking is made of dry wood, which is beginning to fall apart. This bridge has been given to the UMass Amherst Engineering Department and will be removed and transported to Amherst in the next year or so.¹⁴ Future plans for this bridge site have not been finalized, but it is hoped that a pedestrian/cyclist bridge will be erected.

From the Galvin Rd. bridge, the site continues on the north side along the railroad tracks and behind houses to Ashton Ave. On the south side, the site passes alongside a private home, through another small cornfield, and onto well-established muddy four-wheeling tracks. From the four-wheeler tracks, the site joins Kateley Lane, a subdivision off of Ashton Ave. Ashton Ave. provides another bridge over the Hoosic.

From Ashton Ave. on the north side of the Hoosic, the site again runs along the railroad tracks and past private homes. Massachusetts Avenue through this area of historic Blackinton is a two-lane road with a wide shoulder used for parking. The south side of the road has a 3-foot wide sidewalk, which is periodically narrowed by telephone poles. On the south side of the river, the state Department of Fish and Wildlife owns a tract of land on the riverbank extending for 1/3 mile until the bank becomes very steep. At this point, the sewer line crosses under the Hoosic River. The bank of the river rises about 30 vertical feet to Rt. 2 near Stop and Shop. The

¹³ Williamstown Master Planning Presentation

¹⁴ Personal communication with Tom Galvagni, MassHighway, May 1, 2002

shoulder of Rt. 2 is relatively wide, with another 3-4 feet of room to expand on the other side of the guardrail. When the river again turns away from Rt. 2, a wide berm above the river provides good views of the western end of the North Adams flood control project. The berm is soon blocked by a chain-link and barbed wire fence encircling the flood control project and the old North Adams sewage treatment plant. Rt. 2 is about 3 feet south of the fence, with a sidewalk on the opposite side of the road. The fence moves away from the road to pass behind Our Lady of Mercy church. The Appalachian Trail footbridge then crosses both the river and the railroad and consists mostly of ramps with switchbacks and a couple of stairs.

Just east of the AT bridge, the south side of the river is bounded by 10-foot tall cement walls adjacent to private housing, then opens up to a high berm, about 8 feet wide at the top. This berm continues along the river to the Protection Ave. bridge. On the north side of the river, Massachusetts Ave. continues through Blackinton. The railroad near the AT bridge is very close to both the river and the houses on Mass. Ave. The railroad and Mass. Ave cross Sherman Brook and continue along the river to Protection Ave. By Protection Ave, the railroad is further from the river and separated by a berm, which is open at the eastern end and tree-covered closer to Sherman Brook.

East of Protection Ave., the Hoosic channel cuts towards Rt. 2 and is bounded by high berms. The southern berm adjoins the backyards of houses, but is not incorporated into these yards. The river then goes under Rt. 2 and takes a $\frac{3}{4}$ mile meandering loop towards Mt. Williams, passing under Rt. 2 again near Roberts Drive. The channel then cuts northeast past Central Radio and Appliance and under a railroad trestle. Past the railroad trestle, the northern bank of the river slopes steeply up to Massachusetts Avenue, about 60 feet above the river. This hillside is dotted with outcrops of quartzite bedrock and littered with tires, lawn tractors, and

other large trash items. After an initial steep descent from the railroad, the riverbank widens a bit to accommodate an old sluiceway, which creates a high berm along the river. After the sluice entrance, the terrain again becomes steep and is covered with dense honeysuckle underbrush. Past the honeysuckle, a power line access road opens up and leads to Mass. Ave. The southern bank of the river appears to be flatter and possibly easier to traverse in this section.

The river follows Mass. Ave. east of this point all the way to Mass MoCA. For the first $\frac{1}{4}$ mile, the river flows in concrete chutes behind an auto repair shop and other buildings to the Brown St. bridge. Past this bridge is the confluence of the Hoosic River's north and south branches, which creates a v-shaped peninsula on which Mass MoCA sits. On the south side of the river at Brown St. is an electric company substation full of transformers and other equipment and surrounded by high fences and barbed wire. On the north side of the river is a small, grassy city park with benches and a chain link fence along the top of the flood control chute. This park in theory will eventually extend the full $\frac{1}{2}$ mile to Marshall St, but currently occupies only half of that. The last $\frac{1}{4}$ mile to the Marshall St. bridge currently houses a car wash, Sunshine Pool and Fence, and other businesses. Across the street is a new upscale inn called The Porches.

The Marshall St. bridge provides access to Mass MoCA and downtown North Adams. This art museum has large parking lots and a multi-building campus. This campus has a bridge over the south branch of the Hoosic, allowing access to the proposed end of the Ashuwillticook bike trail in Heritage State Park by following a path under Rt. 2 and crossing the Rt. 8 access ramp to a footbridge over the railroad into the park. Marshall St. itself also intersects the Rt. 8 access ramp, providing another possible way to access Heritage State Park.

III. SITE HISTORY

A. Mahican-Mohawk Trail

The Mahican-Mohawk Trail is a 100-mile corridor that begins at the confluence of the Deerfield and Connecticut Rivers in Deerfield, Massachusetts and follows the Deerfield River west through Shelburne, Buckland and Charlemont. Where the Deerfield River curves north in Florida, the Mahican-Mohawk Trail continues to head west, running alongside and eventually crossing the Cold River east of the North Adams center. At the heart of North Adams, the trail links up with Hoosic River and runs along its north bank. Eventually, the trail passes through Pownal, Vermont, ending at the confluence of the Hoosic and the Hudson River in Stillwater, New York.¹⁵

Archaeological evidence dates Native American use of the Hoosic Basin to as early as 4,000 B.C.¹⁶ The trail connected Native American tribes in the Northeast, linking the Mahican tribe of western Massachusetts and the eastern shore of the Hudson River to the Mohawk Tribe on the west bank of the Hudson and the Mohawk River in central New York.¹⁷ There is also evidence that the Pocumtuck Native American tribe in New York used the Mahican-Mohawk Trail.¹⁸

During colonial times, the trail was used as provisioning routes for the French and Indian War and the Revolutionary War. Fort Massachusetts was built purposely close to the trail in 1744, and Colonel Ephraim Williams commanded it and other forts in the area from 1754 until 1763. During the Revolutionary War, Benedict Arnold used the trail, traveling it in May of 1775

¹⁵ Mahican-Mohawk Trail Brochure

¹⁶ Hoch, Bill, et al. *Land Preservation and Pollution Monitoring along the Williamstown, Massachusetts Portion of the Hoosic River*. ENVI 302 Project, Williams College. May 1988.

¹⁷ Historic Deerfield Website <http://www.historic-deerfield.org/about/trail.html>, May 17, 2002

¹⁸ Mahican-Mohawk Trail Brochure

to capture Fort Ticonderoga.¹⁹ The trail has also felt the feet of literary giants, such as Ralph Waldo Emerson, Nathaniel Hawthorne, and Henry David Thoreau. Hawthorne traveled the trail on his way to Williams' Commencement exercises, and Thoreau followed the trail a year before writing *Walden*, eventually deviating from its path to reach the top of Mount Greylock.²⁰

B. Industrial History of the Hoosic River Corridor

Beginning in the early 1800s, the river corridor between Williamstown and North Adams nursed the Industrial Revolution in the area. Textile mills and factories were situated close to the Hoosic River, in order to make the best use of the power and cooling capacity the water provided. The railroad tracks, which run along the south bank of the Hoosic in much of North Adams and then switch to the north bank when they near Williamstown, were built in the mid-1800s to bring in supplies for the booming producers in the area. The railroad station on Cole Avenue was erected in 1859.²¹ The mills were up and running all the way through the turn of the century, and their decline began near the time of the Great Depression. Many mill buildings are still standing, either being used for other operations or lying vacant in the area. The segment of the Mahican-Mohawk Trail on which we have focused is marked on both ends by mill buildings, both with colorful histories that we explore in greater detail.

C. Mass MoCA

In North Adams, the trail would end at or near the Massachusetts Museum of Contemporary Art (Mass MoCA), which is located in a 12-acre, 27-building mill complex designated as a historic site in the National Historic Register. Mass MoCA is situated on a peninsula created by the confluence of the north and south branches of the Hoosic. The Army

¹⁹ Personal communication with Lauren Stevens, Head of the Hoosic River Watershed Association, 5/1/02.

²⁰ Personal communication with Lauren Stevens, Head of Hoosic River Watershed Association, 5/1/02

²¹ Hoch et al.

Corps of Engineers erected massive concrete flood control walls in the area, and the river in the area flows through these channels.

The mill was built in 1872 by Arnold Print & Dye works, and, like the Greylock Mill at the foot of Cole Avenue in Williamstown, continued operations until the Depression. In 1940, Sprague Electric Company purchased the complex, and was one of the most successful producers of electronics in the world, and employed 4,000 workers – by far the largest employer in North Adams. However, in the 1970s, competition and changing technology led to a steady decline in profits for Sprague, and it shut down in 1985, contributing to the economic recession in North Adams.

In 1987, the idea for MassMoCA came about, in large part through the efforts the Director of the Williams College Museum of Art at the time, Thomas Krens. After a \$35 million matching grant to the City of North Adams, reconstruction and renovation began in 1995, and the museum opened in 1998. It has contributed substantially to an urban revitalization in North Adams.²²

D. Photech

The large brick mill complex on Cole Avenue near the intersection of North Hoosac Road, now known as Photech, was originally built in 1852 as Greylock Mill. This cotton mill used the Hoosic River for power: water amounted to 7/8 of the building's power source, and steam was the other 1/8. The mill also used river water for cooling, and as a depository for mill wastes.²³ Due to financial pressures brought on by the Depression, Greylock Mill shut down in 1931.²⁴

²² Massachusetts Museum of Contemporary Art website, <http://www.massmoca.com>

²³ Hoch, et al. pp 16 and 20

²⁴ Personal communication with Mike Card, 5/7/02.

The recent history of the site affects our project significantly. In the 1940s, the mill complex was used for photographic paper and dye processing, and changed ownership and names several times. In the late 1970s, the site changed hands again and became known as Photech.²⁵ In 1989, its owners fled town, leaving its employees suddenly without jobs and the site with more than \$600,000 in unpaid property taxes and utility bills. Over 10 years later, those responsible for the site still cannot be found.²⁶

The site lay vacant until a tip alerting the Mass Department of Environmental Protection of suspicious-looking 55-gallon drums on the site led to the Environmental Protection Agency testing the site. The EPA found methanol, a flammable liquid, in the drums, as well as significant contamination of cadmium, chromium, arsenic and silver. As a point of reference, the legal cadmium limit for drinking water is 5 parts per billion. At Photech, concentrations of 6600 parts per million were found. The EPA classified Photech as a Superfund site – though not on the National Priorities List (NPL) because it was a removal-only site – and removed contamination from October 1997 to February 1998. They took out 188 tons of contaminated wastewater treatment sludge containing extremely high levels of cadmium and silver; 150 drums containing hazardous materials; 40 cubic feet of asbestos-containing insulation and pumped 40,000 gallons of wastewater from the wastewater treatment system.²⁷

In August 1999, the Commonwealth of Massachusetts pledged \$750,000 to Williamstown for demolition of some buildings at Photech. However, in late 2000, a wood expert was called in, and revealed that because of structural concerns, three out of the four buildings would have to be razed – at an approximate cost of \$1.5 million. Williamstown

²⁵ Ibid.

²⁶ Bush, Susan. "Photech mill demolition moving forward." 1/8/02 Berkshire Eagle Online

publicly acknowledged that it did not have the necessary \$800,000 to put up for the demolition.²⁸ However, the state's grant will expire in June 2003, so Williamstown must use it by then. Shortly thereafter, it was also discovered that leaky roofs allowing rain to penetrate the buildings had caused all four to become contaminated with asbestos insulation.²⁹ Williamstown has completed the asbestos removal.³⁰

The town and many developers have been reluctant to purchase the site because of liability concerns. However, it is possible that Photech may qualify in the future for Brownfields legislation funds; designation could significantly reduce the liability burden for owners of previously contaminated sites.³¹ As of now, the site is controlled by the town tax collector, Helen Kaiser.³²

The most recent Master Plan draft recommends the building for light industrial use and urges that buffers – like a bike trail – be put in place at the site to reduce any possible effects on adjacent neighborhoods and the Hoosic generated by industrial reuse.

The location is excellent for the bike path, since the Williamstown Nature Trail exists right next to Photech, and many children already ride their bikes on it in the afternoon. The idea has already been put forth in the draft Master Plan, and at the draft Master Plan meeting on May 9, the board was supportive and receptive to this project.

²⁷ "EPA Completes Cleanup at Photec (sic) Superfund Site" and "The Photech Superfund Site Cleanup is Complete!" EPA Environmental News, Region 1, New England. February 11, 1998. Release #98-02-05 & Community Flier #2.

²⁸ Bush, Susan. "???" Berkshire Eagle, 1/30/02.

²⁹ Bush, Susan. "Photech mill demolition moving forward." Berkshire Eagle, 1/8/02.

³⁰ Personal communication with Mike Card, 5/7/02.

³¹ Massachusetts Department of Environmental Protections Brownfields website: <http://www.state.ma.us/dep/bwsc/brownfld.htm>, 5/17/02.

³² Bush, Susan. "Photech mill demolition moving forward." Berkshire Eagle, 1/8/02.

IV. PROJECT HISTORY

Various parties, including HooRWA, have discussed creating a trail along the Hoosic for over 30 years. A project for a Political Economy 340 class at Williams College written in May 1969 detailed that the Conservation Commissions in both Williamstown and North Adams had proposed this bike trail in 1968.

The Mahican-Mohawk Trail stepped into the limelight in 1992, when Williams College students explored the history of the trail during a Winter Study Project.³³ The project contributed to the trail being re-established from Deerfield all the way to the eastern boundary of North Adams, at the Rock Manor Mobile Home Park.

Bike paths in general got a boost when the Massachusetts Highway Department published the Massachusetts Statewide Bicycle Plan in 1998, which provides funding and encouragement for the creation of new off-road bike paths, bike lanes, bike lockers, and other bicycle-related capital projects. Much of the funding so far has gone to urban areas in the eastern part of the state.

In 1999, the Hoosic River Watershed Association and the Williamstown Rural Lands Foundation evaluated the feasibility of creating a greenway along the Hoosic River between Mass MoCA and the northern boundary of Williamstown, eventually looking for it to extend to Pownal, Vermont. This study found that creating a greenway – though for hiking, not biking – was “a feasible and attainable goal.”³⁴

In 2000, North Adams established a Bikeways Committee, over which Gail Cariddi, Chair of the City Council, presided. The Committee did a feasibility study and recommended a

³³ Mahican-Mohawk Trail brochure.

³⁴ Mahican-Mohawk Trail Greenway Feasibility Study, 1999.

route from the heart of North Adams to Ashton Road. Their work was the primary reason we chose to focus our alternatives analysis on a route between Ashton Road and Cole Avenue.

In 2001, HooRWA filed a grant application requesting \$9600 with the Recreational Trails Program of the Massachusetts Department of Environmental Management. The funds would have been used for a pre-engineering feasibility study that would build upon the work already done in the 1999 Greenways report. Peter Fohlin, the town manager for Williamstown, was the official signatory on the grant application.

V. POLICY CONSIDERATIONS AND LEGAL ISSUES

A. Issues Pertaining to the Sewer Easement

In considering the use of the Hoosic Water Quality District (HWQD) intercept sewer-line easement for an off-road section of the trail from Photech to either Galvin Road or Ashton Avenue, we saw two broad areas of concern. The first centered on the physical aspects of using the easement: would HWQD be cooperative in allowing this project? Would the building of a bike path hinder sewer line maintenance by paving over areas that might need to be dug up? Or would the bike path actually make maintenance easier by facilitating access to the sewer line? The second area of concern centered on the legal aspects of using the easement, principally, whether or not the easement allows for uses other than activities related to the sewer. If not, then would property owners be willing to give a new easement?

In addressing the physical aspects of using the easement, HWQD seems to think that building the path is a good idea, yet they have some reservations about how it will affect their sewer line. First, the building material of the path is of great importance: a paved path going directly over the sewer line itself could impede access to the sewer line, forcing HWQD to tear

up a section of the path whenever they need access to the line.³⁵ For example, in the next five years, much of the sewer line will need to be torn up to examine it for leaks.³⁶ Since the bike trail will most likely not be built within the next five years, putting a paved path on top of the sewer line could still be a feasible option if HWQD can be reasonably confident that it will not need to rip up large sections of the trail for a long time after this current phase of maintenance is finished. On the other hand, according to Tim Kaiser, Williamstown Director of Public Works, a path could actually make maintenance easier, since currently the town needs constantly to fight back vegetation to keep the easement open and accessible.³⁷

Another option, which would help to circumvent the access problem, would be to build the trail within the easement but not directly on top of the sewer line. This option is dependent on the easement being wide enough to accommodate both the sewer line and a trail. According to the Northern Berkshire Registry of Deeds in Adams, the easement is 20 feet wide in Williamstown and 25 feet wide in North Adams.³⁸ Considering that the sewer line itself most likely runs through the middle of the easement, this would likely not leave enough space for an 8-12 foot wide bike path next to the sewer line, especially in Williamstown. The need to acquire a new easement, however, which will be discussed below, could still make this option feasible. It seems, then, that if we work closely with HWQD, we can design a trail that will serve the needs of cyclists without hindering the operation of the sewer line.

As for the legal aspects of using the easement, the current easement is for the sewer line only – it does not allow for any other activities unrelated to the sewer line, including a bike

³⁵ Personal communication with George Heisler, HWQD, April 22, 2002

³⁶ Personal communication with Bill Fox, former chair of HWQD, April 22, 2002

³⁷ Personal communication, April 23, 2002

³⁸ Visit to Northern Berkshire Registry of Deeds, Adams, MA, May 6, 2002

trail.³⁹ To use the sewer line, we would need to obtain a new easement, which could prove difficult with the current ownership of abutting properties. Bay Colony Mobile Home Parks, owner of The Spruces, has been very uncooperative in the past concerning property issues, even forcing the Town of Williamstown to take land from them for another project by eminent domain. With Bay Colony putting the trailer park up for sale, however, the property-owner situation could change drastically in the next few months.⁴⁰ We hope that the new owners will be open to the idea of a bike path running through their property and perhaps even consider a bike path to be a benefit of the property.

Past The Spruces, between Galvin Road and Ashton Avenue, the sewer easement passes through 10 privately-owned abutting properties,⁴¹ potentially creating difficulties if even one of those landowners is opposed to the idea of a path running through the easement. The legal aspects, then, could prove to be more difficult to overcome than the physical aspects, depending especially on the new owner of The Spruces.

The good news about a new easement being required is that it opens up the possibility of widening the current easement to accommodate the path running next to the sewer line, if HWQD deems this necessary for the operation of the line.

B. River and Wetland Policy Issues

Two of our proposed alternatives – the sewer easement trail and the rail trail – run right along the Hoosic River and would thus be subject to the Rivers Protection Act. The Rivers Protection Act was passed in 1996 by the Massachusetts legislature (it is formally known as "An Act Providing Protection For the Rivers of the Commonwealth"). This important law amends

³⁹ Ibid.

⁴⁰ Personal communication with Tim Kaiser, Williamstown DPW, April 23, 2002

⁴¹ City of North Adams, Assessor's Office

the Wetland Protection Act⁴² and provides protection to rivers by regulating activities and limiting development within a newly established wetland resource area known as the Riverfront Area. In rural areas, including Williamstown and North Adams, the Riverfront Area is 200 feet wide on either side of the river and is measured outward from the mean annual high water line of the river. The water subject to protection under the Rivers Protection Act is defined as any river or stream that is a naturally flowing body of water that empties into any ocean, lake, or other river and that flows throughout the year.

This Act identifies eight purposes, which are the same as the Wetlands Protection Act's interests: protection of private or public water supply, protection of groundwater, flood control, prevention of storm damage, prevention of pollution, protection of land containing shellfish, protection of wildlife habitat, and protection of fisheries. The Rivers Protection Act establishes a state policy for protecting rivers and establishing open space along them.

There are several exemptions to the Rivers Protection Act, including minor activities such as unpaved walkways for private use, provided that the exempt activity is not within any other protected resource area. Any riverfront area that is now or formerly associated with historic mill complexes is also exempt from the Act. While our trail would not qualify for an exemption (with the possible exception of those areas immediately adjacent to the mill complexes like Photech), it would still be possible to apply for an Order of Conditions from the Williamstown and North Adams Conservation Commissions. This Order would essentially be a special permit allowing the path to run through the Riverfront Area.⁴³ Generally, the benefits of a riverfront recreation path – including providing residents access to the river, enhancing appreciation of the river, and creating a buffer next to the river – outweigh the physical impact

⁴² Massachusetts General Laws, Chapter 131, Section 40

⁴³ Personal communication with Sarah Gardner and Beth Goodman, April 25, 2002

that it brings, so we feel that the Conservation Commissions would grant an Order of Conditions for this project.

The sewer easement alternative also passes through two small non-riverfront wetlands areas just west of The Spruces.⁴⁴ This fact could make those sections of the trail subject to the original Wetlands Protection Act, meaning that an additional Order of Conditions would need to be obtained from the Williamstown Conservation Commission to allow for the building of the path through these wetlands.

Even though the benefits of the rail trail and the sewer easement trail would outweigh their drawbacks, the environmental nature of this project would only make it appropriate that the trail designers take all necessary steps to avoid or minimize (and mitigate if necessary) its environmental impacts.

C. Railroad Policy Issues

Railroads currently are fighting a losing battle to keep trespassers off their tracks. Active tracks are dangerous places for people to cross: in 2000 alone, railroads experienced 877 accidents with trespassers, 463 of which were fatal.⁴⁵ However, only 32 states have trespassing laws with specific language for railroad property.⁴⁶ Because trespassing is such a problem for railroad companies, they often hesitate to invite thousands of people to bike or walk along trails near rail lines.

Liability is another big issue with railroads. If a trail were to go in next to the active rail line on the north bank of the Hoosic River, it is certain that a liability agreement would have to be made with Guilford Rail System, the owner and operator of the rail. A current trend shows that rail operators are “increasingly requiring trail managers to indemnify them against liability

⁴⁴ Anne Southworth, *Williamstown Wetlands*, Honours Thesis, May 1986

⁴⁵ Federal Railroad Administration website, <http://safetydata.fra.dot.gov/OfficeofSafety/Default.asp?page=stats.asp>

for accidents."⁴⁷ In a study of 61 rails-with-trails in 2000, 26% were required to release the corridor's owner from liability. However, 92% of the trails were covered by existing city, county, state, or park district insurance policies. The remaining 8% were insured privately by the trail managers or were hoping to be included in the city and county insurance policies.⁴⁸ Fortunately, Massachusetts has a law protecting private landowners against liability when they allow people onto their property for recreational purposes,⁴⁹ so we hope that this will ease any liability concerns.

The third issue related to bike trails with railroads is that of land ownership and right-of-way. In our case, the ownership of the rail line is established: Guilford, operating as the Boston & Maine Railroad, both owns the rail corridor and operates the tracks. In order to use the rail line for the trail, the trail managers would need to obtain access to the corridor. The methods of obtaining the right to use the corridor can take many forms. The managers can try to buy the land they propose to use for the trail, lease the land, or obtain some sort of easement. Railroads may set conditions before selling or leasing the land. CSX Railroad, for example, is requiring the planners of the Three Rivers Heritage Trail in Pittsburgh, Pennsylvania, to erect a chain link fence next to the rail along the entire length of the trail before beginning trail construction as a condition of the sale agreement.⁵⁰

D. Funding Issues

The largest amount of money available for bike path construction stems from federal sources. In 1991, the Intermodal Surface Transportation Efficiency Act (ISTEA) was passed,

⁴⁶ Alta Consulting, April 1, 2002. *Rails-with-Trails: Lessons Learned*, Draft Final Report.

⁴⁷ Rails-to-Trails Conservancy, 2000. *Rails-with-Trails: Design, Management, and Operating Characteristics of 61 Trails Along Active Rail Lines*.

⁴⁸ Ibid.

⁴⁹ Massachusetts General Laws, Chapter 21, Section 17C

⁵⁰ Alta Consulting, April 1, 2002. *Rails-with-Trails: Lessons Learned*, Draft Final Report.

providing money for, among other things, bike paths and trails. In June 1998, Congress amended and reauthorized ISTEA, renaming it the Transportation Equity Act for the 21st Century (TEA-21). Modifications expanded the original bill, making it easier for trails to have access to more federal funds.

There are seven different categories when it comes to qualifying for TEA-21 funds. The eligibility categories that would likely apply to this project are "construction of new recreational trails" and "acquisition of easements or property for recreational trails or recreational trail corridors." Until the bill is reauthorized in 2003, \$50 million is available annually for the entire country - a significant increase from ISTEA levels.⁵¹

Massachusetts, however, has a poor record when it comes to using TEA-21 funds. TEA-21 requires a 20 percent state government match (instead of the 50 percent required under ISTEA). According to Allison Lasso, the Department of Environmental Management's Berkshire Bikeways/Greenways Planner, Massachusetts has rarely put up the necessary funds, and is ranked one of the worst in the country for using TEA-21 money. Allison explained that the failure to ante up the money was more a result of timing and budget restrictions than a philosophical or ideological opposition to bike paths.⁵² The 20 percent does not have to come only from the state government; a "soft match" is allowed, which means that the project sponsor - a private organization or a public agency - can supply the funds. In addition, up to 95 percent of the total money can come from the federal level, if federal agency project sponsors get involved.⁵³ Whatever the reason, if supplemental non-federal funds are not made available, granted TEA-21 money is taken back, making it harder for Massachusetts trails to be granted funds in the future.

⁵¹ Department of Transportation TEA-21 fact sheet, <http://www.fhwa.dot.gov/tea21/factsheets/rec-trl.htm>

⁵² Personal communication with Allison Lasso, Massachusetts DEM, April 23, 2002

The good news is that despite Massachusetts' poor record with TEA-21, federal funds are still being made available for bike path construction in the region. The Ashuwillticook Trail, the most recent and relevant example of a successful local bike path, was funded not through TEA-21, but through a federal budget earmark secured by Representative John Olver. Presently, \$1.4 million of the \$3 million earmark remains, expiring at the end of the current fiscal year in October. These funds, as stipulated by the terms of the earmark, can only be used for actual construction of trails, meaning that they could not be used for this project, since it is unrealistic to expect that construction could begin by October 2002.⁵⁴ If the remaining funds are not used by the end of this fiscal year, they will be returned to the federal government, which again may have a negative impact on other bike path developers in the future who need funding. With Rep. Olver supporting this project, however, we hope that he may be able to obtain other earmarks in the future to help fund this project.

⁵³ Department of Transportation TEA-21 fact sheet, <http://www.fhwa.dot.gov/tea21/factsheets/rec-trl.htm>

⁵⁴ Personal communication with Allison Lasso, Massachusetts DEM, May 13, 2002

VI. ALTERNATIVES

A. Do Nothing Alternative

- Pros:
 - No expense
 - No harm to wetlands
- Cons:
 - Biking along the road is dangerous
 - No recreational area created along
 - No stewardship benefits to the Hoosic



Traffic along Route 2 in North Adams

The do-nothing alternative means that we leave the route between North Adams and Williamstown as it is. There are some positive points to this option - there is, of course, no expense, since nothing would be done. Technically, Route 2 and Massachusetts Avenue are available for bicyclists, who in some places have shoulders to ride on, and in other places would travel in a lane with traffic. Similarly, there would be no harm to wetlands or the river, since

nothing would be changed. Finally, Williamstown and North Adams are close to other recreational bicycling options, such as the Ashuwillticook Trail, and mountain biking trails on local mountains.

The downside of the do-nothing option is that accidents between cars and bicyclists could potentially pose a serious problem. There is no designated bike lane, or even any ‘Share the Road’ signs and leaving bicyclists with no commuting options besides heavily traveled Route 2 and narrow, windy Mass. Ave. puts anyone who wants to travel by bike in a dangerous situation.

The do-nothing alternative also does not provide additional economic benefit. Small businesses that can crop up around recreational bike paths do not have a place in the Mass Ave or Route 2 corridor as it now is, since the corridor does not support recreational biking. Quite obviously, the Route 2-Mass Ave corridor does not provide recreational options, but merely an unattractive and potentially dangerous commuting route. Lastly, this option ignores the goals of our client. It does not create a recreational area along the Hoosic River, therefore, there would be no stewardship benefits to the river, and no increased appreciation of this incredibly undervalued resource.

B. Sewer Easement

- Pros:
 - Aesthetically pleasing
 - Safe
 - Most fully realizes client’s goals by increasing stewardship of river
- Cons:
 - Expensive
 - Largest amount of engineering work
 - Potential for large environmental impacts



The sewer easement is visible to the left of the stand of trees.

This alternative for the trail involves the use of the easement for the intercept-sewer line of the Hoosic Water Quality District. The trail would begin at the Photech site at the bottom of Cole Avenue. While the town does not yet know what will become of Photech, we hope that whatever reuse is proposed for the site will be compatible with having a bike trail terminus there. From Photech, the trail travels east along the south bank of the Hoosic River, following the line of the sewer easement. A major physical obstacle along this route is the crossing of the Green River, which is only about $\frac{1}{4}$ mile from Photech. A bridge is required here to span not only the river, but also a good part of the floodplain, which is low and wide. From here, the trail continues east along the sewer line, passing through forests and cornfields until it reaches The Spruces mobile home park. The section of trail going through The Spruces would most likely need to be located on the existing roads in the park until it reaches the eastern edge of the park, where

another small bridge would be needed to cross a small brook. From this point, the trail continues along either the sewer line, or a combination of existing trails and abandoned roads until it reaches Galvin Road, the first possible endpoint for this alternative of the trail. Here, the trail could cross over the Hoosic and continue on the rail trail alternative, or it could be extended along the south side of the river to Ashton Avenue. To do this, the trail would need to cut very close to some homes before rejoining the sewer line and emerging on Ashton Avenue, near the canoe launch on the Hoosic. Past Ashton Avenue, the sewer line option becomes unfeasible, due to the line crossing the Hoosic to the north side.

There are a number of advantages to this alternative. First, it is aesthetically pleasing. It passes through beautiful forests and fields, offering great views of the river and of the surrounding mountains. Second, this alternative would be safe because there is no automobile or rail traffic to worry about. Furthermore, despite the reputation that bike paths have as being prime locations for crime, numerous studies have shown that bike paths are no more dangerous than any other area in a community. In fact, they often become safer as locals take on a sense of responsibility for the trail and become more vigilant about activities going on there.⁵⁵ Finally, this alternative would most fully realize our client's goal of increasing stewardship of the river. The sewer easement is always in view of the river, offering easy access for fishing, swimming, picnicking, and a myriad of other activities.

There are also a number of drawbacks to this alternative. First, it would be quite expensive and require a large amount of engineering work. We would need to build two bridges, including one substantial bridge to cross the Green River. Designing the trail to coexist with the sewer line and to minimize wetlands impact would also add to the cost and engineering. Second, this alternative has the potential for large environmental impacts. The entire path would be

located within the 100-year floodplain of the Hoosic (see figure 2), making it susceptible to damage in the event of a flood. Also, as noted above, this option traverses through two wetlands areas, in addition to being entirely within the Riverfront Area of the Rivers Protection Act. The entire path is also located in the state's *estimated* habitat for rare species,⁵⁶ although we know of no inventory that has been done to see if any rare species are actually present. Impact studies for all of these environmental factors should be done if we want to consider seriously this alternative.

C. The Rail-With-Trail Alternative

- Pros
 - Near river
 - Flat and open
 - Low environmental impact
- Cons
 - Safety
 - Engineering

⁵⁵ Personal communication with Marge Cohan, BBPC, April 12, 2002

⁵⁶ *Massachusetts Natural Heritage Atlas*, 2000-2001 edition. (Westborough, MA: Natural Heritage & Endangered Species Program, Massachusetts Division of Fisheries and Wildlife, 1999)



The river is visible from the rail corridor near the Galvin Rd. bridge

The third alternative is to route the trail along the existing railroad corridor. The Boston & Maine Railroad tracks, now owned by Guilford Rail System, run along the north bank of the Hoosic River from Williamstown, crossing the river near Roberts Drive in North Adams and entering a tunnel under Rt. 2 to Heritage State Park as they approach the center of North Adams. The railroad right-of-way used to hold two tracks, but one was removed in the early 1990s.⁵⁷ The remaining track is used by freight trains, which travel this section of rail approximately four times per day in each direction at a maximum speed of 40 mile per hour, though some temporary 10 and 25mph restrictions exist due to unstable soil conditions.⁵⁸

⁵⁷ Personal communication with Steve Belfordi, Guilford Rail System, May 16, 2002.

⁵⁸ Ibid.

Placing the trail along the existing rail corridor has several advantages. The rail corridor is already fairly level and cleared of brush. This corridor runs very close to the Hoosic River and offers scenic views of the river and surrounding mountains at several points. Following the north side of the river also avoids most of the major tributary crossings (the Green River crossing, for example).

Most of the disadvantages of the rail-with-trail option are related to safety and liability issues. Fast-moving (and even slow-moving) trains pose a serious health hazard to all who stand in their path. Any trail located near an active rail line must have measures to prevent users from falling or riding into the path of an oncoming train.⁵⁹ These can take the form of physical barriers, grade separation, or even simply distance. The rail corridor between Williamstown and North Adams is not wide enough to have a large separation between the trail and the tracks, nor is there a natural grade separation, so some sort of physical barrier will be required. This barrier can take several forms, from a concrete barrier to a fence to a vegetative barrier. A physical barrier will also take care of the problem of trains kicking up debris onto the trail and injuring trail users.

A trail along the rail corridor between Williamstown and North Adams also will face problems when the tracks go over train trestles. These trestles are often only one track wide and would be very dangerous for cyclists and pedestrians. Foot/bike bridges may have to be built alongside these trestles, either as separate structures or as additions to the existing structures.

One of the largest problems the rail-with-trail option faces is simply getting the railroad to approve the use of the rail corridor. As noted earlier, railroads worry about trespassing on the tracks and about liability for injuries sustained by trail users. In order to actually build a trail on

⁵⁹ Rails-to-Trails Conservancy, 2000. *Rails-with-Trails: Design, Management, and Operating Characteristics of 61 Trails Along Active Rail Lines*.

this property, the trail managers will have to obtain the right to use the trail through a land purchase, lease, or some form of easement. The managers will also have to work out a liability agreement with the railroad and quite possibly indemnify them from all liability in trail user accidents. This process of land acquisition and liability negotiation can be lengthy and expensive.

D. Route 2 Bike Lane

- Pros
 - Smooth surface
 - No topographical, environmental issues
- Cons
 - Removed from river
 - Easements
 - Engineering
 - Expense



Route 2 near the intersection with Ashton Ave.

The possibility of altering Route 2 to accommodate a bike lane is real, if difficult. The Massachusetts Highway Department (MassHighway) has, in the past few years, published several booklets that attempt to aid in creating a more bicycle-friendly atmosphere both off and on roads. *The Massachusetts Statewide Bicycle Transportation Plan* was published in 1998, and *Building Better Bicycling: A Manual for Improving Community Bicycling Conditions* was published in 1994 and again in 1999.⁶⁰

One of the positive aspects of the bike lane alternative is that MassHighway funds could be used exclusively, without outside federal or non-governmental money. In addition, the substantial topographical and logistical problems that crop up along parts of the river corridor would not be an issue, since Route 2 already exists. We would not have to make surfacing decisions, since a paved lane would certainly be the action undertaken. Finally, it is unlikely that a bike lane would create any substantial additional environmental impacts.

The bike lane has some significant drawbacks, however. While MassHighway funds could be used, the expense would be substantial - \$500,000 per mile, in the estimation of Mass Highway's Tom Galvagni. To justify spending several million dollars, the preliminary work would have to be detailed and convincing. Galvagni advised that a feasibility study – including preliminary design, an impact study, and a description of possible land takings – would have to be completed by either (or both) Williamstown and North Adams before MassHighway would consider the project.⁶¹

In addition, we expect that the Route 2 corridor would not be wide enough to legally accommodate a bike lane in most places. According to Galvagni, a six-foot wide bike lane is

⁶⁰ Massachusetts Highway Department bicycle information, <http://www.state.ma.us/mhd/paths/bikep.htm>, May 10, 2002

standard, and in many cases, bike lanes need to run on both sides of the street. “It would be a battle to get it through,” he said, noting that many people, especially those along the road, would not like to see the road widened. Easements would have to be procured. According to the Registry of Deeds in Adams, 52 easements had to be obtained for a 1988 widening of Route 2 in the Williamstown section alone.

While the bike lane may be a physically or environmentally low-impact option, it is not in line with our client's primary goal, which is to increase access to the Hoosic. The indirect goal of fostering environmental stewardship would not be met, even if the bike lane did allow for recreational biking (as opposed to the do-nothing alternative).

VII. ALTERNATIVES ANALYSIS

In order to take a more concrete look at the different alternatives for the path, we used a numerical alternatives analysis adapted from the feasibility study for the Ashuwillticook Trail.

We divided the part of the trail we studied into two segments: from Cole Avenue to Galvin Road and from Galvin Road to Ashton Avenue. Since there is a bridge over the Hoosic at Galvin Road, there is the option to switch alternatives at this point. One route would not have to be used for the path over the entire corridor.

We looked at five major groups of pros and cons that would apply to any trail (see appendix A). The 3 categories of cons were ‘physical environment’, which included environmental impacts and existing development; ‘transportation’, which included the number of driveways and roads the path crossed and the danger of the location; and ‘building considerations’, which included the number of bridges, private parcels, and other engineering considerations. The two categories of pros were ‘physical amenities’, which included shaded areas, interesting views, open space and proximity to river; and ‘community amenities’, which

⁶¹ Personal communication with Tom Galvagni, 5/1/02.

included the utility of the path for transportation, and recreational and cultural places along the route.

When raw data was available, it was recorded in the data column (e.g. the percentage of the route protected by the Rivers Protection Act, or in estimated rare species habitats, or the number of roads the path crosses). This data was then converted into a 0-4 scale with 0 being not applicable and 4 being the greatest impact. When no data was available, only the points system was used, but on the same 0-4 scale. Each individual factor was then given a subjective weight based on its impact to the trail and the needs of our client. The points for each factor were multiplied by the weight to get a score. All the cons received negative scores, while the pros received positive scores. The scores were added to get a total for each segment of each alternative.

Cost was not included as a factor in the alternatives analysis because it is directly related to the engineering considerations, but estimates for the costs of the different alternatives were obtained. The sewer easement between Cole Ave. and Galvin Rd. was estimated at \$700,000.⁶² This includes \$640,000 for the 1.6 miles of trail, and \$58,000 for a 120-foot bridge across the Green River.⁶³ The second sewer easement segment, which has no bridges, runs 0.4 miles and was estimated at \$160,000. For the Rail Trail alternative, the 1.5 mile segment between Cole Avenue and Galvin Road was estimated at \$600,000 and the 0.3 mile segment from Galvin Road to Ashton Avenue would be about \$120,000. The Route 2 bike lane was estimated to be half a million dollars per mile, or \$650,000 for the 1.3 miles between Cole Ave. and Galvin Rd. and \$400,000 for the .4 miles from Galvin Rd. to Ashton Ave.⁶⁴

⁶²Personal communication with Tom Galvagni, Mass Highway, May 16,2002

⁶³ Hoosic River Watershed Association and Williamstown Rural Lands Foundation. Mahican Mohawk Trail Greenway Feasability Study. May 1999

⁶⁴ Personal Communication with Tom Galvagni, Mass Highway, May 16, 2002

<u>Alternative</u>	<u>Cost for Cole Ave.- Galvin Rd.</u>	<u>Cost for Galvin Rd.- Ashton Ave.</u>
Sewer Easement	\$700,000	\$160,000
Rail Trail	\$600,000	\$120,000
Route 2 Bike Lane	\$650,000	\$400,000

The filled out data sheets for each segment and alternative are included in this report (see appendix A). For the first segment (Cole Ave. to Galvin Rd.), the sewer easement received the highest score, a 25. Do nothing scored -9, the rail trail had 24 and the Route 2 bike lane had a score of -1. For the second segment (Galvin Rd. to Ashton Ave.) the rail trail had the highest score, a 21. Do nothing scored -7, the sewer easement had a score of 16, and the Route 2 bike lane had -1.

The alternatives running along Route 2 (do nothing and the bike lane) received very negative scores for danger, because of the high traffic levels along Route 2, and received very few points for their physical surroundings, because Route 2 is so highly developed. The bike lane gained points for its utility for everyday transportation. The railway received mostly medium impact rankings, since for the most part it requires less engineering than the sewer easement path (and obviously more than doing nothing), and has more undeveloped natural surroundings and proximity to the river than Route 2, but not nearly as much as the Cole Ave-Galvin Rd. sewer easement segment. The first sewer easement section, from Cole Avenue to Galvin Road received very high scores for its undeveloped surroundings, its proximity to the river, and the other physical amenities. Past Galvin Rd., the sewer easement runs along a more developed section and so did not gain as many points for the physical amenities category. Both

the rail trail and the sewer easement ran completely within the riverfront area under the Rivers Protection Act and in estimated endangered species habitats, and so received negative scores for their environmental impact.

Based on this alternatives analysis, we are making a recommendation for the trail. We believe that for the first segment, a trail should be built along the sewer easement, then at Galvin Rd. the path should cross the Hoosic river and run along the railroad corridor from Galvin Rd. to Ashton Ave.

There are several reasons why the recommendations and the results of the alternatives analysis differ between the two segments. Between Cole Avenue and Galvin Rd, the sewer easement includes the current Williamstown Nature Trail and runs in a natural, fairly undeveloped tract right along the river, passing through only one private parcel. On the other hand the Galvin to Ashton sewer easement segment runs through a much more developed area and passes through the land of ten different private owners.

However, one of the most important points about these recommendations is that there are two viable options – the sewer easement and rail trail both received high positive scores for both segments. We realize that private landowners are the factor that can make or break this trail, and by having two feasible options, a refusal from a single landowner will not completely block the creation of this trail. If it is not possible to work with the railroad, then the trail could still possibly run along the sewer easement for both sections, and vice versa. The ideal route for the second segment also depends on what North Adams decides to do with their section of the trail, running from downtown North Adams to Ashton Ave. If this part of the trail runs along the sewer easement, then this might make the Galvin-Ashton sewer easement section more attractive because the entire trail could stay along one route.

VIII. FUTURE TASKS

- Funding
- Contact property owners
- Engineering
- Public Support
- Maintenance

Having examined this trail in detail, there are still several important areas that need to be addressed to make it actually happen and get it out of the idea stage, where it has been since 1968. The major tasks that need to be addressed fall into five categories: funding, landowners, engineering, public support, and maintenance.

Funding is one of the big issues to deal with in order to get this trail started. Constructing any trail costs a considerable amount of money and money is required for an extensive feasibility study before any construction or land acquisition can begin. In the immediate future, money for that feasibility study (possibly up to \$80,000) needs to be obtained to get the planning and design for this trail started. The feasibility study would involve detailed cost-benefit analysis, a closer look at the engineering, and a more complete look at the environmental impacts, including a determination of what actual rare species habitats lie along the corridor. In the long term, funding sources need to be found for land acquisition and construction. There are many possibilities for this funding, including federal TEA-21 money, earmarked money from John Olver, and scenic byway money, since Route 2 is a designated scenic byway.

As mentioned earlier, the private property owners are possibly the most important factor for this trail. In order to get this project underway, contact needs to be established with the rail company and the landowners along the sewer easement. Allison Lassoë is already making preliminary contact with the railroad company, and the results of this communication should be

available shortly after this report is written. Another important landowner is the owner of the Spruces Mobile Home Park and associated land. Since this land has been put up for sale by Bay Colony Mobile Homes and we are not yet aware of who the new owner will be, it is impossible to contact the person involved right now.

Another important task is addressing the engineering issues already mentioned, especially the two bridges needed for the first sewer easement segment and the difficulty in creating a flat, open path on some parts of the route.

This project is fortunate enough to already have a dedicated coalition of people supporting its development, including the North Adams bikeway committee, which studied the trail from downtown North Adams to Ashton Ave., Mayor Barrett of North Adams, Mass MoCA and others, such as Marge Cohan of Berkshire Bike Path Council, Gail Cariddi of the North Adams city council, Marge Ware of the Williamstown Board of Selectmen, and Allison Lasso with the state's D.E.M. It is very important to continue this support and to expand it to the general community. It is vital that both the communities involved in this trail are really supportive of it, and for it to be successful the communities must stay informed and involved.

The issue of community involvement also relates to the final future task: figuring out how the trail will be maintained. It would be terrible to get a trail built only to have it fall to pieces, so it is important to make sure there is a plan for maintenance ahead of time. Ideally, we would like to see a community ownership program for the trail so community members are involved in maintaining and protecting it.

After seeing the success of the Ashuwillticook Trail, we hope to bring some of the same excitement to Williamstown and North Adams. These two towns already benefit from being in the most beautiful part of the state, and the Mahican-Mohawk Bike Trail would provide yet

another way to take advantage of that beauty. We are very pleased with the enthusiasm that this project has already generated in these two towns; it is our deepest hope that the enthusiasm will translate into action in the near future.

VIII. ACKNOWLEDGEMENTS

Many people contributed their time and expertise to this project. Many thanks to Lauren Stevens, Sarah Gardner, Beth Goodman, Tom Galvagni, Marge Cohan, Karen Briggs, Mayor John Barrett III, Christopher Solari, Matt Jungers, Allison Lasso, and Sharon Macklin.

Appendix A

Alternatives Analysis Forms

Alternatives Evaluation Form

Segment: Cole Ave- Galvin Rd
Alternative: Do Nothing

Total Score: -9

Data: When available, raw data was used in the data column.

Points: All data was then converted to a 0-4 point scale, or when data was not available, the category was ranked on a 0-4 scale where 0 meant the factor was not applicable, 1 was low impact, and 4 was most impact.

Weight: All factors were weighted according to our client goals where 1 = least important, 2 = moderately important, and 3 = most important.

Score: The points were multiplied by the weight and totaled. All cons were given a negative score, while all pros were given a positive score.

Cons: Physical Environment

Factor	Data	Points x	Weight	= Score
Wetlands		0	2	0
River Protection Act area	0%	0	1	0
Natural Heritage & Endangered Species	10%	1	1	1
100-yr floodplain	5%	1	1	1
Existing development		4	1	4
subtotals		(6)		

Cons: Transportation

Times route crosses roads or rails	3 left 6 right	4	1	4
# driveways route will cross	34 left 41 right	4	1	4
Danger		4	3	12
Rough traffic levels on adjacent roads		4	1	4
subtotals		(24)		

Cons: Building Considerations

# bridges to be built	0	0	1	0
# private parcels to go through	0	0	2	0
Additional engineering considerations		0	2	0
subtotals		0		

Pros: Physical Amenities

Shade/sheltered areas		1	2	2
Interesting views/vistas		1	3	3
Proximity to river		1	3	3
Protected open space		1	1	1
Undeveloped/natural surroundings		0	3	0
subtotals		9		

Pros: Community Amenities

Connects to other recreational/cultural places		2	2	4
Utility for everyday transportation		1	3	3
Availability/potential for parking/facilities		2	2	4
Interesting features on/directly near trail		1	1	1
subtotals		12		

Alternatives Evaluation Form

Segment: Galvin Rd- Ashton Ave.

Total Score: -7**Alternative: Do Nothing****Data:** When available, raw data was used in the data column.**Points:** All data was then converted to a 0-4 point scale, or when data was not available, the category was ranked on a 0-4 scale where 0 meant the factor was not applicable, 1 was low impact, and 4 was most impact.**Weight:** All factors were weighted according to our client goals where 1 = least important, 2 = moderately important, and 3 = most important.**Score:** The points were multiplied by the weight and totaled. All cons were given a negative score, while all pros were given a positive score.**Cons: Physical Environment**

Factor	Data	Points x	Weight	= Score
Wetlands		0	2	0
River Protection Act area	0%	0	1	0
Natural Heritage & Endangered Species	0%	0	1	0
100-yr floodplain	0%	0	1	0
Existing development		4	1	4

subtotals (4)

Cons: Transportation

Times route crosses roads or rails	1 left 1 right	2	1	2
# driveways route will cross	15 left 12 right	3	1	3
Danger		4	3	12
Rough traffic levels on adjacent roads		4	1	4

subtotals (21)

Cons: Building Considerations

# bridges to be built	0	0	1	0
# private parcels to go through	0	0	2	0
Additional engineering considerations		0	2	0

subtotals 0

Pros: Physical Amenities

Shade/sheltered areas		1	2	2
Interesting views/vistas		1	3	3
Proximity to river		1	3	3
Protected open space		0	1	0
Undeveloped/natural surroundings		0	3	0

subtotals 8

Pros: Community Amenities

Connects to other recreational/cultural places		2	2	4
Utility for everyday transportation		1	3	3
Availability/potential for parking/facilities		1	2	2
Interesting features on/directly near trail		1	1	1

subtotals 10

Alternatives Evaluation Form

Segment: Cole Ave- Galvin Rd

Alternative: Sewer Easement**Total Score: 25****Data:** When available, raw data was used in the data column.**Points:** All data was then converted to a 0-4 point scale, or when data was not available, the category was ranked on a 0-4 scale where 0 meant the factor was not applicable, 1 was low impact, and 4 was most impact.**Weight:** All factors were weighted according to our client goals where 1 = least important, 2 = moderately important, and 3 = most important.**Score:** The points were multiplied by the weight and totaled. All cons were given a negative score, while all pros were given a positive score.**Cons: Physical Environment**

Factor	Data	Points x	Weight	= Score
Wetlands		2	2	4
River Protection Act area	100%	4	1	4
Natural Heritage & Endangered Species	100%	4	1	4
100-yr floodplain	100%	4	1	4
Existing development		1	1	1

subtotals (17)

Cons: Transportation

Times route crosses roads or rails	2	2	1	2
# driveways route will cross	8	2	1	2
Danger		1	3	3
Rough traffic levels on adjacent roads		1	1	1

subtotals (8)

Cons: Building Considerations

# bridges to be built	2	4	1	4
# private parcels to go through	1	2	2	4
Additional engineering considerations		4	2	8

subtotals (16)

Pros: Physical Amenities

Shade/sheltered areas		4	2	8
Interesting views/vistas		4	3	12
Proximity to river		4	3	12
Protected open space		3	1	3
Undeveloped/natural surroundings		4	3	12

subtotals 47

Pros: Community Amenities

Connects to other recreational/cultural places		2	2	4
Utility for everyday transportation		2	3	6
Availability/potential for parking/facilities		3	2	6
Interesting features on/directly near trail		3	1	3

subtotals 19

Alternatives Evaluation Form

Segment: Galvin Rd.- Ashton Ave.

Total Score: 16**Alternative: Sewer Easement****Data:** When available, raw data was used in the data column.**Points:** All data was then converted to a 0-4 point scale, or when data was not available, the category was ranked on a 0-4 scale where 0 meant the factor was not applicable, 1 was low impact, and 4 was most impact.**Weight:** All factors were weighted according to our client goals where 1 = least important, 2 = moderately important, and 3 = most important.**Score:** The points were multiplied by the weight and totaled. All cons were given a negative score, while all pros were given a positive score.**Cons: Physical Environment**

Factor	Data	Points x	Weight	= Score
Wetlands		0	2	0
River Protection Act area	100%	4	1	4
Natural Heritage & Endangered Species	100%	4	1	4
100-yr floodplain	50%	3	1	3
Existing development		2	1	2

subtotals (13)

Cons: Transportation

Times route crosses roads or rails	1	1	1	1
# driveways route will cross	6	1	1	1
Danger		2	3	6
Rough traffic levels on adjacent roads		2	1	2

subtotals (10)

Cons: Building Considerations

# bridges to be built	0	0	1	0
# private parcels to go through	10	4	2	8
Additional engineering considerations		3	2	6

subtotals (14)

Pros: Physical Amenities

Shade/sheltered areas		3	2	6
Interesting views/vistas		3	3	9
Proximity to river		4	3	12
Protected open space		1	1	1
Undeveloped/natural surroundings		2	3	6

subtotals 34

Pros: Community Amenities

Connects to other recreational/cultural places		2	2	4
Utility for everyday transportation		2	3	6
Availability/potential for parking/facilities		3	2	6
Interesting features on/directly near trail		3	1	3

subtotals 19

Alternatives Evaluation Form

Segment: Cole Ave.- Galvin Rd.

Total Score: 24**Alternative: Rail Trail****Data:** When available, raw data was used in the data column.**Points:** All data was then converted to a 0-4 point scale, or when data was not available, the category was ranked on a 0-4 scale where 0 meant the factor was not applicable, 1 was low impact, and 4 was most impact.**Weight:** All factors were weighted according to our client goals where 1 = least important, 2 = moderately important, and 3 = most important.**Score:** The points were multiplied by the weight and totaled. All cons were given a negative score, while all pros were given a positive score.**Cons: Physical Environment**

Factor	Data	Points x	Weight	= Score
Wetlands		0	2	0
River Protection Act area	100%	4	1	4
Natural Heritage & Endangered Species	100%	4	1	4
100-yr floodplain	5%	1	1	1
Existing development		2	1	2

subtotals (11)

Cons: Transportation

Times route crosses roads or rails	0	0	1	0
# driveways route will cross	0	0	1	0
Danger		2	3	6
Rough traffic levels on adjacent roads		0	1	0

subtotals (6)

Cons: Building Considerations

# bridges to be built	0	0	1	0
# private parcels to go through	1	2	2	4
Additional engineering considerations		3	2	6

subtotals (10)

Pros: Physical Amenities

Shade/sheltered areas		2	2	4
Interesting views/vistas		3	3	9
Proximity to river		3	3	9
Protected open space		2	1	2
Undeveloped/natural surroundings		2	3	6

subtotals 30

Pros: Community Amenities

Connects to other recreational/cultural places		2	2	4
Utility for everyday transportation		3	3	9
Availability/potential for parking/facilities		3	2	6
Interesting features on/directly near trail		2	1	2

subtotals 21

Alternatives Evaluation Form

Segment: Galvin Rd. – Ashton Ave.

Total Score: 21**Alternative: Rail Trail****Data:** When available, raw data was used in the data column.**Points:** All data was then converted to a 0-4 point scale, or when data was not available, the category was ranked on a 0-4 scale where 0 meant the factor was not applicable, 1 was low impact, and 4 was most impact.**Weight:** All factors were weighted according to our client goals where 1 = least important, 2 = moderately important, and 3 = most important.**Score:** The points were multiplied by the weight and totaled. All cons were given a negative score, while all pros were given a positive score.**Cons: Physical Environment**

Factor	Data	Points x	Weight	= Score
Wetlands		0	2	0
River Protection Act area	100%	4	1	4
Natural Heritage & Endangered Species	100%	4	1	4
100-yr floodplain	25%	2	1	2
Existing development		2	1	2

subtotals (12)

Cons: Transportation

Times route crosses roads or rails	1	1	1	1
# driveways route will cross	0	0	1	0
Danger		2	3	6
Rough traffic levels on adjacent roads		1	1	1

subtotals (8)

Cons: Building Considerations

# bridges to be built	0	0	1	0
# private parcels to go through	1	2	2	4
Additional engineering considerations		2	2	4

subtotals (8)

Pros: Physical Amenities

Shade/sheltered areas		2	2	4
Interesting views/vistas		3	3	9
Proximity to river		3	3	9
Protected open space		2	1	2
Undeveloped/natural surroundings		2	3	6

subtotals 30

Pros: Community Amenities

Connects to other recreational/cultural places		2	2	4
Utility for everyday transportation		3	3	9
Availability/potential for parking/facilities		2	2	4
Interesting features on/directly near trail		2	1	2

subtotals 19

Alternatives Evaluation Form

Segment: Cole Ave.- Galvin Rd.

Total Score: -1**Alternative: Rt. 2 Bike Lane****Data:** When available, raw data was used in the data column.**Points:** All data was then converted to a 0-4 point scale, or when data was not available, the category was ranked on a 0-4 scale where 0 meant the factor was not applicable, 1 was low impact, and 4 was most impact.**Weight:** All factors were weighted according to our client goals where 1 = least important, 2 = moderately important, and 3 = most important.**Score:** The points were multiplied by the weight and totaled. All cons were given a negative score, while all pros were given a positive score.**Cons: Physical Environment**

Factor	Data	Points x	Weight	= Score
Wetlands		0	2	0
River Protection Act area	10%	1	1	1
Natural Heritage & Endangered Species	0%	0	1	0
100-yr floodplain	5%	1	1	1
Existing development		4	1	4

subtotals (6)

Cons: Transportation

Times route crosses roads or rails	3 left 6 right	4	1	4
# driveways route will cross	34 left 41 right	4	1	4
Danger		3	3	9
Rough traffic levels on adjacent roads		4	1	4

subtotals (21)

Cons: Building Considerations

# bridges to be built	0	0	1	0
# private parcels to go through	0	0	2	0
Additional engineering considerations		2	2	4

subtotals (4)

Pros: Physical Amenities

Shade/sheltered areas		1	2	2
Interesting views/vistas		1	3	3
Proximity to river		1	3	3
Protected open space		1	1	1
Undeveloped/natural surroundings		0	3	0

subtotals 9

Pros: Community Amenities

Connects to other recreational/cultural places		2	2	4
Utility for everyday transportation		4	3	12
Availability/potential for parking/facilities		2	2	4
Interesting features on/directly near trail		1	1	1

subtotals 21

Alternatives Evaluation Form

Segment: Galvin Rd.- Ashton Ave.

Total Score: -1**Alternative: Rt. 2 Bike Lane****Data:** When available, raw data was used in the data column.**Points:** All data was then converted to a 0-4 point scale, or when data was not available, the category was ranked on a 0-4 scale where 0 meant the factor was not applicable, 1 was low impact, and 4 was most impact.**Weight:** All factors were weighted according to our client goals where 1 = least important, 2 = moderately important, and 3 = most important.**Score:** The points were multiplied by the weight and totaled. All cons were given a negative score, while all pros were given a positive score.**Cons: Physical Environment**

Factor	Data	Points x	Weight	= Score
Wetlands		0	2	0
River Protection Act area	0%	0	1	0
Natural Heritage & Endangered Species	0%	0	1	0
100-yr floodplain	0%	0	1	0
Existing development		4	1	4

subtotals (4)

Cons: Transportation

Times route crosses roads or rails	1 left 1 right	2	1	2
# driveways route will cross	15 left 12 right	3	1	3
Danger		3	3	9
Rough traffic levels on adjacent roads		4	1	4

subtotals (18)

Cons: Building Considerations

# bridges to be built	0	0	1	0
# private parcels to go through	0	0	2	0
Additional engineering considerations		3	2	6

subtotals (6)

Pros: Physical Amenities

Shade/sheltered areas		1	2	2
Interesting views/vistas		1	3	3
Proximity to river		1	3	3
Protected open space		0	1	0
Undeveloped/natural surroundings		0	3	0

subtotals 8

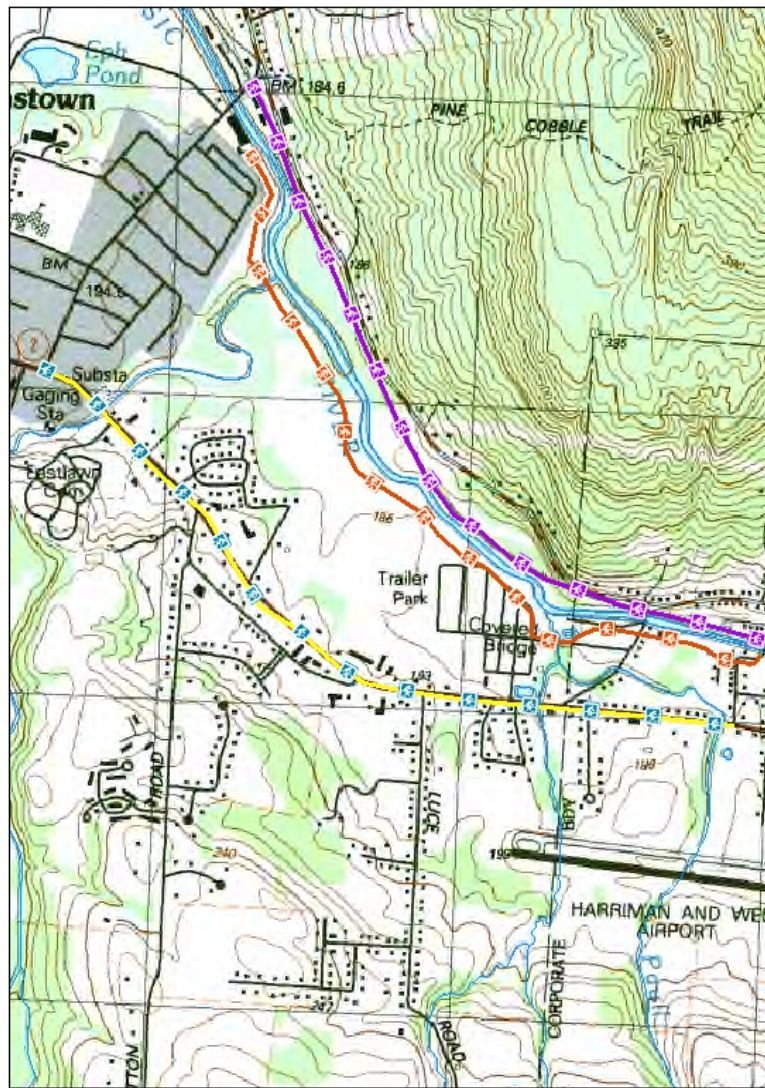
Pros: Community Amenities

Connects to other recreational/cultural places		2	2	4
Utility for everyday transportation		4	3	12
Availability/potential for parking/facilities		1	2	2
Interesting features on/directly near trail		1	1	1




subtotals 19

Figure 1

Cole Avenue - Ashton Avenue: Three Alternatives



Legend

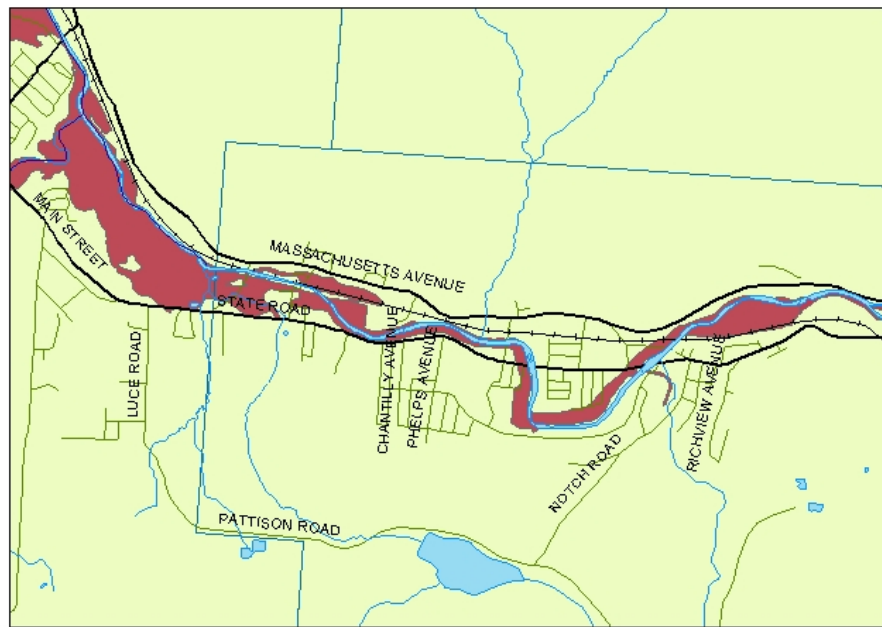
-  Route 2 Bike Lane
-  Rail Trail
-  Sewer Easement Trail



Map created by Jordan Goldwarg, Joanna Tugger, Chrissy Fletcher,
and Michelle Ruby, ENVI 302, May 7, 2002

Figure 2

The Hoosic River from the Confluence in North Adams to Cole Avenue



0 0.3 0.6 1.2 1.8
Miles

Legend

-  water
-  Railroad
-  Main Roads
-  Secondary Streets
-  100-year flood plain

