Adirondack Rail Corridor

Economic Impact Study

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EXECUTIVE SUMMARY

Camoin Associates (CA) and Barton & Loguidice (B&L) were retained by AdkAction.org to determine the relative costs and economic impacts of upgrading the 34-mile rail bed between Tupper Lake and Lake Placid to expand Adirondack Scenic Railroad's offering, versus converting the rail bed to a multi-use recreational trail. B&L utilized existing New York State Department of Transportation (DOT) documentation of the rail corridor, conducted a site assessment to verify the conditions reported in the DOT documents, and collected costs for recent rail upgrade projects and rail-to-trail conversions across New York State in order to develop concept-level opinions of cost for three construction scenarios:

1. Upgrade the rail line to FRA Class III (60 mph) between Tupper Lake and Lake Placid.
2. Permanent conversion of the rail line between Tupper Lake and Lake Placid to a recreational trail built to best-practice standards.
3. Temporary conversion of the rail line to a trail built to best-practice standards, retaining and storing re-usable rails so they could, if needed, be re-installed in the future.

CA developed a detailed series of assumptions regarding visitor spending and utilization of an expanded rail excursion and a multi-use recreational trail in order to calculate the amount of "net new" tourism spending that would be added to the economy of Franklin & Essex Counties (the Study Area) each year as a result of either scenario. This new spending was then entered into the input-output model developed by Economic Modeling Specialists, Inc. to calculate the total spending, jobs and earnings that would be generated in the Study Area as a result of either project. CA also used B&L's construction cost estimates to calculate the one-time economic impact of each construction scenario. The table on the following page summarizes the key findings of this analysis.

In summary, extension of rail service to Tupper Lake produces $758,000 in net new regional spending and 13 jobs, plus a one-time employment boost of 171 job years during the construction phase. Similarly, the conversion of the corridor to a recreational trail creates $1.2 million in net new spending and 20 permanent jobs, with a one-time employment boost equivalent of 300 job years. Roughly the same number of temporary construction jobs would be created in both trail scenarios. The difference in cost between the two trail scenarios is due to the fact that a salvage credit is applied in the permanent conversion scenario, which reduces that cost, and a storage cost is added to the temporary scenario to store any re-useable rails. For purposes of estimating the economic impacts from construction, similar work required in both scenarios, so construction will have the same impact on the region.

Summary of Key Findings			
	Upgrade Rail	Permanent Conversion to Trail	Temporary Conversion to Trail
Costs			
Initial Capital Costs	$10,600,000	$14,600,000	$18,800,000
Annual Debt Service*	($779,967)	($1,074,294)	($1,383,337)
Benefits			
Annual Net New Spending in Region	$758,014	$1,223,165	$1,223,165
Permanent Job Creation	13	20	20
Annual Earnings - Permanent Basis**	$307,000	$489,000	$489,000
Temporary Construction Job Years	171	300	300
Earnings from Construction Phase**	$6,814,000	$11,957,000	$11,957,000
*Assumes 20 year bond is issued locally to finance construction. Interest rate of 4%.			
**Earnings includes w ages earned by local w orkers and profit earned by local business ow ners.			

Key Points to Take Away:

- All three scenarios will produce a positive economic benefit to the region.
- The construction costs are based on the assumption that professional engineering and construction firms will be contracted to carry out all the work. Lower costs may be achieved in any of the scenarios through volunteerism, donations of time and materials, and alternative designs (for trail conversion). While this would affect the one-time jobs and earnings impact of the construction phase, it would have no bearing on permanent job creation and earnings for the region.
- The cost-benefit is improved in all scenarios by obtaining outside funding (state or federal) to offset the initial capital costs, thereby reducing local annual debt service.
- Most amenities such as these do not typically pay for themselves in the way that a business operator would expect a business investment to pay for itself. If this were the case, no one would ever build parks, playgrounds, museums or community centers. The qualitative benefits to the region of an expanded rail excursion or multi-use trail are also important to consider as each makes the region more attractive to residents and visitors alike.

INTRODUCTION

Camoin Associates (CA) and Barton & Loguidice (B&L) were retained by AdkAction.org to determine the relative costs and economic impacts of two theoretical uses of the 34-mile, 100-foot wide[1] rail corridor between Tupper Lake and Lake Placid:

- Upgrade the existing rail line to facilitate enhanced rail use.
- Convert the existing rail line to a recreational trail (construction cost estimates were developed for both permanent and temporary rail-to-trail conversion scenarios).

The topic of what to do with the rail corridor has been the subject of community debate in recent years. AdkAction.org commissioned this study in an effort to provide factual information to the community to inform the debate over the use of the corridor and to help bring resolution to the issue. The hope is that this study will allow the corridor communities to come together in support of one scenario so that the hard work of lobbying and fundraising required to realize either one can begin.

The reader should note that the objective of this study was to develop concept level opinions of probable construction costs and estimates of economic impact based on a series of reasonably supportable assumptions built from existing information. A detailed description of how the assumptions were developed is contained in this report and a comprehensive bibliography and all back up data and research are included at the end of this report for the benefit of the reader.

This study does not comment on the likelihood of any of the scenarios occurring. Our research was not focused on the legal and regulatory issues that must be resolved in order for any change of use on the corridor to occur. At present, the 119-mile Remsen-Lake Placid corridor, of which the 34-mile Tupper Lake-Lake Placid corridor is a part, is owned by the State of New York and governed by a Unit Management Plan (UMP) signed by the Department of Transportation and the Department of Environmental Conservation in 1996. The primary permit holders for the corridor are the Adirondack Scenic Railroad (ASR) and the New York State Snowmobile Association. Both organizations operate in partnership with the State to maintain the corridor to facilitate use by their respective organizations.

According to the Department of Transportation, there are no plans to revise the existing UMP at this time, which means no change of use has recently been considered by the State. In addition, the entire corridor is listed on the State and National Register of Historic Places, which DOT believes has implications for its future use[2]. However, rail-to-trail conversions have been completed in other corridors in the U.S. that are also on the Historic Register, so the implications of this status are not clear. In any case, DOT states that if the UMP were to be revisited, "…the state agencies, permit holders, communities, and other interested parties along the 119-mile corridor will be invited to comment."[3] Based on this information, it is assumed that permanent conversion of the rail bed to a trail would require an act of the State Legislature.

An additional note to the reader is that this study does not examine the possibility of adding a recreational trail alongside the existing rail line due to the nature of the corridor and the

[1] The "rail corridor" is the 100-foot wide right-of-way currently owned by the NYS Department of Transportation. The "railroad bed" is the 10-20 foot wide bed, within the corridor, on which the railroad track lays.
[2] September 2, 2010 letter from DOT Region 2 Director Michael Shamma to Kate Fish, Executive Director of the Adirondack North Country Association.
[3] Ibid.

significant environmental impacts that would result from such a project. The following background is provided to further illustrate why this decision was made.

Trains that used to carry goods along the rail corridor were unable to ascend steep slopes. Therefore, to make traversing the mountainous terrain of the Adirondacks possible, the relief of the land along the corridor was reduced by grading the natural topography.[4] The rail corridor includes the rail bed and a 100-foot wide right-of-way, currently owned by the New York State Department of Transportation. In low-lying areas fill was used to elevate the railroad bed and in areas with steep terrain, rock was excavated, creating the relatively level 10-20 foot wide railroad bed that exists today. In addition, the 25-mile section of the corridor between Saranac Lake and Tupper Lake contains several causeways and bridges that cross streams and wetland areas.

The existing rail bed is not currently wide enough to accommodate a rail line and a bike trail. Much of the 100 foot wide right-of-way is steeply sloped to create rock cuts and embankments needed to level the rail bed. To accommodate both amenities in accordance with safety standards and allowing for adequate separation between rail and trail, the rail bed would need to be widened by around 20 feet. As a result, the additional grading to increase the width of embankments and rock cuts would have a much greater impact on the natural, cultural and visual environment than either a stand-alone rail or stand-alone recreational trail project utilizing the existing rail bed.

The Adirondack Park is one of the most heavily protected and regulated regions in New York State. Major portions of the region in which the rail corridor is located are classified as "Forever Wild", which means *they shall not be leased, sold or exchanged, or be taken by any corporation, public or private, nor shall the timber thereon be sold, removed or destroyed.*[5] As shown on the map in Appendix I, the corridor transects areas with rare plants and animals, significant natural communities, and classified water bodies.[6] Additionally, the entire region is located within a wetland check zone, a region that is adjacent to state-regulated wetlands that may also contain wetlands.

Upgrading the existing rail line or constructing a recreational path on the existing rail bed would leave these environmental resources relatively undisturbed, whereas the rails-with-trails option would undoubtedly require the significant disturbance of state and federally protected resources. This is clearly illustrated by the pictures of the rail corridor provided in Appendix J.

This means that the rails-with-trails option, even if the legal and environmental barriers could be surmounted, is likely more time-consuming, more difficult and therefore more costly to undertake. For this reason, AdkAction.org chose to focus this initial study on estimating the cost and economic impact of each scenario separately to provide local communities with information that may help them determine support for either scenario separately, or to determine if further study should be undertaken to estimate the cost and economic impact of a rails-with-trails option.

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[4] In geographical terms, relief is defined as the difference in elevation between two points.
[5] NYS Department of Environmental Conservation, New York's Forest Preserve: http://www.dec.ny.gov/lands/55849.html.
[6] Classified Waterbody: Each waterbody (stream, lake, etc.) in NYS has been assigned a classification, which reflects the designated "best uses" of the waterbody. These best uses typically include the ability to support fish and aquatic wildlife, recreational uses (fishing, boating) and, for some waters, public bathing, drinking water use or shellfishing. Water quality is considered to be good if the waters support their best uses. <http://www.dec.ny.gov/lands/48041.html>

CONSTRUCTION COST ESTIMATES

B&L's scope entailed developing concept level opinions of probable cost for the following three construction scenarios:

1. Construction Scenario #1 – Rails without Trails – consists of repairing and or rebuilding the rail line for improved passenger transport from Tupper Lake to Lake Placid.

2. Construction Scenario #2A – Permanent Conversion to Trail – consists of the permanent conversion of the rail corridor to a multi-use recreational path, with right-of-way by permanent trail easement and rail use permanently abandoned.

3. Construction Scenario #2B – Temporary Conversion to Trail – consists of a temporary conversion of the rail corridor to a multi-use recreational path, with a use agreement being established between DOT and the trail organization. This option allows for future train use of the railway corridor in place of the temporary path.

B&L performed a site investigation of the rail line on October 19, 2010, utilizing the services of a rail-rider vehicle and driver provided by the Adirondack Scenic Railroad (ASR), which currently operates a rail excursion between Saranac Lake and Lake Placid. Data collected from the site investigation was used in support of the development of budget cost estimates and timelines for the above described construction scenarios. The field investigation performed was limited in scope, and did not include a detailed assessment or engineering study. The scope of the field investigation included visual assessments, observations of current conditions, and confirmation of previous detailed condition data collected as part of this project.

Previous Studies

Existing data was used to provide base information and condition assessments to be verified in the field. B&L obtained reports related to the operation and conditions on the ASR from various sources, including a ground survey of the Lake Placid to Ray Brook segment prepared by the engineering firm URS and the 2009 New York State Rail Plan. Two condition assessments were obtained from the NYS Department of Transportation Region 2 offices, including the most recent Unit Management Plan (UMP) for the rail corridor and the 2002 Update of the UMP ("Update") (which also appears to have been partially updated with hand-written notes by DOT staff as recently as 2004), both of which provided a wide variety of base data for the field assessment.

A GIS-based map was prepared of the rail corridor from Tupper Lake to Lake Placid using available USGS digital quadrangle maps and transportation layers available from the NYS GIS Clearinghouse. The resulting map provides an overview of the entire corridor and serves primarily for orientation and general information. A set of orientation maps of the corridor was also provided based on the GIS overview map (see Appendix L).

Documentation Methods

The main objectives for the site condition verification were to view the entire rail corridor and to verify the conditions documented in previous studies. Documentation was accomplished by completing data forms for the major culvert crossings, road crossings, rock cuts and bridges. A general condition form was also prepared to document general conditions along each mile of the corridor. Data from the UMP and the Update were provided in each of the forms for verification in the field. Finally, the condensed track profiles from the Update were provided to guide

verification of conditions and to document whether work shown on the sheets as 'anticipated work' had been completed.

B&L has designed more than 50 miles of multi-modal trails along railroads, with some involving conversion of existing railroad bridges to ADA compliant pedestrian bridges. B&L has been involved in many projects for, or in coordination with railroads, such as railroad bridges and bridges over railroads, sidings, at-grade crossings, and signalization design. B&L is also on a team to provide site design, utilities, and transportation engineering for the new Norfolk Southern/Pan Am Intermodal and Automobile Facility project in Halfmoon and Mechanicville, New York.

Staffing the field condition verification were qualified Albany B&L staff members representing 50 years of combined expertise in the engineering field: Robert Sipzner, P.E., a structural engineer with extensive bridge and rail bridge design experience; and Don Fletcher, P.E., a civil engineer with a variety of rail engineering experience including rail track, drainage and rail bridge rehabilitation work and intermodal design and construction experience. Prior to commencing the field visit, the field staff reviewed the study objectives including the intended 'build' scenarios.

General Observations

B&L's field staff verified that, in general, the Update documentation accurately depicts the existing conditions of the railway. Stops were made to inspect culverts 48" or greater in diameter, all bridges, each road crossing and at train stations. Key general observations and related implications to the scenarios:

- Railroad Ties and Track: Overall railroad ties are in poor condition, with the exception of the 1% that have been replaced over the past 15 years, which appeared in excellent condition. The UMP documents recommend tie replacements over much of the 10 mph rated segments. Many of the ties will not be salvageable under the Conversion Scenarios.

- Rail Embankment: Rail embankment heights varied along the corridor from nearly flush with the surrounding landscape to several feet above. Gradients shown in the UMP vary little from nearly level to short stretches of one to two percent. The clear width at the top of the rail embankment was typically between 9 - 12 feet, narrower (9-10 feet) in the Lake Colby and Lake Clear areas and wider (15-20 feet) for short distances near Little Clear Pond and Tupper Lake.

- Maintenance: Maintenance on the currently active segments was reported to be excellent; however, clearing of vegetation (a maintenance activity) will be necessary between Tupper Lake and Saranac Lake.

- Road Intersections: Road intersections were in good condition and included typical crossing signage. Field investigations included evaluation of the rail embankment for suitability as a trail-way, as well as evaluation of major road crossings for construction of trail head facilities including parking. Six road crossings currently require trains to stop and flag. These will require automation under the Rail Upgrade Scenario.

- Bridges: Bridge superstructures appeared to be in good condition, with varying degrees of repairs needed to wing walls, abutments and adjacent slopes. The clear width of bridges was generally 17 feet as each bridge also provided walkways on each side of the tracks.

- Culverts and Drainage: While most of the culverts appeared to be functioning properly, standing water was observed in swales and other areas. Low-lying sections of the corridor are susceptible to flooding from normal seasonal high water and from beaver dam related flooding.

- Environmental Factors: Environmental observations included an extensive network of wetlands that exists for significant portions of the corridor. Avoidance of state and federal wetlands would likely limit the path width to eight feet, with one-foot wide shoulders on either side (total of ten feet), a width adequate for a multi-use trail. Wetland mitigation and replacement would be needed to attain the American Association of State Highway and Transportation Officials' recommended multi-use path width of 12 feet with an additional two feet of shoulder on both sides (total of 16 feet). Regardless of the total width of the trail, some environmental impact will result from the need to re-grade parts of the rail bed, conduct work at road crossings, and address erosion and sediment control due to the change in surface. No substantial changes to rail bed are needed for the repair and upgrade of the railroad facility; therefore, that scenario will likely produce less environmental impact.

- Train Stations: Stations and other passenger facilities were all reportedly in excellent condition. The existing stations will provide necessary facilities in support of any of the construction scenarios.

- Other Factors: Beaver dams could be a significant factor as washouts may occur as a result of beaver dam ponding and retention, or from beaver dam removals and failures. This problem was observed to be more prevalent between Lake Placid and Saranac Lake and along low-lying portions of the Tupper Lake to Saranac Lake segment. Beaver mitigation is likely to be an ongoing maintenance requirement for the corridor regardless of the development scenario.

Environmental, Permitting, Legal and Other Issues

During the field investigations, B&L noted several potential issues that would be relevant to particular construction scenarios. As previously mentioned, the establishment of a multi-use path built to best practice standards at the optimal width of 12 feet plus two-foot-wide shoulders on both sides (total of 16 feet) would require not only removal of track and ties but re-grading of the rail bed, additional clearing and drainage improvements and placement of suitable trail material. For the purposes of this analysis, AdkAction.org requested the cost comparison be made based on an eight foot wide trail with one foot wide shoulders on each side, which is acceptable as there are no regulations in place stipulating how wide a recreational trail must be.

Since the existing corridor is currently owned by the New York State Department of Transportation and an up-to-date UMP for use as a railroad facility exists, it will likely take several years to transition the segment from Tupper Lake to Lake Placid as a trail only corridor. This may require an act of the New York State Legislature before a formal abandonment of use for rail can be put in place. Formal change of use will likely need to be completed before construction work can take place and on other similar change-of-use projects DOT indicated an average of a six-year turnaround. Absent a legislative mandate, this translates into an additional six-year cost escalation for the permanent trail scenario.

Since all of the scenarios are assumed to be developed without significant modification (earthwork, realignment, etc…) of the existing corridor, environmental impacts of all three scenarios will be minimized to the greatest extent feasible. The change of use and abandonment required for the permanent rail-to-trail scenario will likely trigger additional agency actions as illustrated below. In addition, please refer to Appendix I, which provides a map illustrating the various environmental constraints in the vicinity of the corridor.

Environmental, Permitting, Legal and Other Issues Impact Matrix			
	Scenario 1: Rail Upgrade	Scenario 2B: Permanent Trail Conversion	Scenario 2A: Temporary Trail Conversion
Environmental			
State and Federal Wetlands	--	--	--
Threatened and Endangered Species	X	X	X
Storm Water	--	--	--
Erosion and Sedimentation	--	X	X
Grading and Clearing for 8 foot trail	--	--	--
Visual Impacts	--	--	--
Permitting			
Adirondack Park Agency	--	X	X
NYS Historic Preservation Office	--	X	X
NYSDEC Permit	--	X	X
US Army Corps Permit	--	X	X
NYS DOT Highway Work Permit	X	X	X
NYSDEC SPDES Permit	X	X	X
Legal			
Modification of Unit Management Plan	--	X	X
Abandonment of Rail Use	--	X	--
Right-of-Way Acquisition	--	--	--
Other			
Maintenance	X	X	X

Conceptual Budgets

Basis for Development of Conceptual Budget Cost Estimates

As stated above, the estimates were developed based upon a comparison of field observations to the conditions indicated on previous condition assessments. Based on B&L observation, the engineers applied certain assumptions for track, ties, bridges, etc, then worked forward to a per mile cost. Published costs of similar rail restoration and rail trail conversion projects were evaluated on a per mile basis. Documentation of these costs includes the current update of the NYS DOT Pay Item Catalog, the *2010 RE Means Heavy Construction Cost Data* and costs obtained on four B&L rail-to-trail conversion projects bid and constructed in 2009-2010. Finally, these

costs were compared to other established costs for similar upgrades and rehabilitation projects as a check including estimates reported in the *2009 NYS Rail Plan* and a 2009 Western New York Short Line Freight Rail Initiative TIGER Discretionary Grant Application. A list of railroad upgrade projects is provided in Appendix K.

A basic assumption for all the cost estimates contained herein is that professional engineering and construction firms would be contracted to carry out all the work according to standard practices in these industries for rail and trail projects at average costs for labor and materials. However, in all of the scenarios lower-cost alternatives may be achieved through volunteerism, donations and alternative designs (for trail scenarios).

Scenario 1: Rail Upgrade

The Rails without Trails scenario involves improvements to the rail bed that would allow for a decrease in train travel time between Tupper Lake and Lake Placid by restoring the Federal Railroad Administration (FRA) Class III rating, which allows trains to travel at speeds of up to 60 MPH. The level of improvements for this scenario (whether related to track, ties, etc.) is therefore based on this level of upgrade. At present, one-way travel time between Tupper Lake and Lake Placid is approximately four hours, due to much of the 25-mile segment between Tupper Lake and Saranac Lake being rated for 10 MPH (FRA Class I) train operation. The FRA Class III upgrade scenario will also include crossing improvements where needed based on field notes, and minor bridge repairs where needed.

- B&L assumed the 'Worst Case Scenario' for tie replacement for the 25-mile segment between Tupper Lake and Saranac Lake, which requires replacement of eight (8) ties per track segment. B&L assumed two (2) ties per segment require replacement on the Saranac Lake to Lake Placid segment, which is currently rated at FRA Class II. B&L assumed resurfacing and re-alignment of the rails is required over the entire length of the rail bed.

- Automated crossing protection for the six existing stop and flag crossings is assumed to be needed to improve travel time.

- Four of the 30 existing crossings were identified as requiring major repairs; those improvements will include repaving a 50 foot length of roadway and restriping.

- Seven of the 30 crossings were identified as needing some repairs; those repairs were assumed to consist of repaving immediately adjacent to the tracks.

- Bridge and support structure repairs were assumed to be minor and consist primarily of concrete work at wing walls where damage from spalling and scouring has occurred.

- Culvert repairs/replacement was assumed at four locations including replacement of four 48 inch culverts and all associated work.

- Fence repair/replacement was assumed requiring 1,000 feet of new 6 feet chain link in the Village of Saranac Lake.

- Existing stations were observed to be in excellent condition and no improvements were needed. Two new platforms and restroom facilities were assumed to be constructed between Saranac Lake and Tupper Lake.

ADKACTION.ORG RAIL CORRIDOR STUDY			
2010 Dollars			
Scenario 1: Repair & Upgrade Rail			
ITEM	DESCRIPTION	TOTAL COST	
1	Track Reconstruction	$	5,090,000
2	Bridge & Sub Structure Repairs	$	260,000
3	Crossing Improvements	$	30,000
4	Crossing Repairs	$	50,000
5	Automated Crossing Protection (6 crossings)	$	1,350,000
6	Culvert Repairs/Replacement	$	400,000
7	Fencing (New/Replacement)	$	10,000
8	Station Rehabilitation/Repairs	$	490,000
	Subtotal:	$	7,680,000
	Contingency (15%):	$	1,152,000
	Subtotal:	$	8,832,000
	Engineering, Legal, Const. Admin. (20%)	$	1,766,400
	TOTAL:	$	10,598,400
	ROUNDED TOTAL:	$	10,600,000
	TOTAL (Incl. Rounded Escalation to the Midpoint of Construction, assume 6 yr inflation @ 17%)	$	12,500,000

Note: The 17% cost escalation is based on the average of the five most recent projects that B&L has been involved in that required a six-year cost escalation. Actual inflation rates will vary going forward.

Scenario 2A: Permanent Conversion to Trail

The Permanent Conversion to Trail scenario would involve the removal of all track (to be salvaged or recycled), ties and signals within the corridor, and the construction of a multi-use path. Other assumptions include:

- No acquisition costs for the corridor were included in this scenario. We assumed that an act of the State Legislature would be required to abandon rail use on a permanent basis and that a use agreement between the state and a trail management organization would have to be developed.

- The existing Unit Management Plan in place for the corridor will have to be updated in order to abandon the rail between Tupper Lake and Lake Placid. DOT estimated that without a legislative mandate, such a change of use could take up to six years to complete. As a result, a six year projected cost escalation factor of 17% (the average from five recent B&L projects) should be applied to the construction costs for this scenario

(six year cost escalation is provided for all scenarios to facilitate comparison).

- Removal and disposal of existing, non-reusable ties was assumed to be similar in cost and scope to other recently constructed rail-to-trail conversions.
- Credit will be applied for scrapping the existing steel rails.
- Credit will be applied for salvage of useable ties.

ADKACTION.ORG RAIL CORRIDOR STUDY		
2010 Dollars		
Scenario 2A: Abandon Rail - Permanent Conversion to Trail		
ITEM	DESCRIPTION	TOTAL COST
1	Track Removal	$ 2,100,000
2	Salvage Credit for Ties	$ (1,300,000)
3	Salvage Credit for Rails	$ (1,400,000)
4	Regrading Ballast for Trailbed	$ 1,200,000
5	Bridge & Sub Structure Repairs / Modifications for Trail	$ 260,000
6	Culvert Repairs / Replacements	$ 400,000
7	Trail Installation	$ 6,200,000
8	Timber Guiderail on Embankments	$ 900,000
9	Road Crossing Treatment	$ 300,000
10	Erosion & Sediment Control	$ 1,100,000
11	Trail Facilities/Amenities	$ 200,000
12	Access Control (Bollards and Gates at Road Crossings)	$ 300,000
13	Legal Fees & Permitting	$ 350,000
	Subtotal:	$ 10,610,000
	Contingency (15%):	$ 1,591,500
	Subtotal:	$ 12,201,500
	Engineering, Legal, Const. Admin. (20%)	$ 2,440,300
	TOTAL:	$ 14,641,800
	ROUNDED TOTAL:	$ 14,600,000
	TOTAL (Incl. Rounded Escalation to the Midpoint of Construction, assume 6 yr inflation @ 17%)	$ 17,100,000

Note: The 17% cost escalation is based on the average of the five most recent projects that B&L has been involved in that required a six-year cost escalation. Actual inflation rates will vary going forward.

Scenario 2B: Temporary Conversion to Trail

The Temporary Conversion to Trail scenario would also create a similar multi-use path, and would involve much of the same construction as the permanent conversion, with the following differences:

- Track would be stored for potential re-installation. Therefore, no salvage credit will be applied. Ties in good condition would be stored for potential reinstallation
- Signal equipment would be salvaged and stored for potential reinstallation
- Right-of-way would not be permanently acquired, but rather an easement granted to a trail management entity for use of the path.

ADKACTION.ORG RAIL CORRIDOR STUDY		
2010 Dollars		
Scenario 2B: Temporary Conversion to Trail		
ITEM	DESCRIPTION	TOTAL COST
1	Track Removal	$ 2,100,000
2	Track Storage (10 Years)	$ 500,000
3	Regrading Ballast for Trailbed	$ 1,200,000
4	Bridge & Sub Structure Repairs / Modifications for Trail	$ 260,000
5	Culvert Repairs / Replacements	$ 400,000
6	Trail Installation	$ 6,200,000
7	Timber Guiderail on Embankments	$ 900,000
8	Road Crossing Treatment	$ 300,000
9	Erosion & Sediment Control	$ 1,100,000
10	Trail Facilities/Amenities	$ 200,000
11	Access Control (Bollards and Gates at Roads)	$ 300,000
12	Legal Fees and Permitting	$ 150,000
	Subtotal:	$ 13,610,000
	Contingency (15%):	$ 2,041,500
	Subtotal:	$ 15,651,500
	Engineering, Legal, Const. Admin. (20%)	$ 3,130,300
	TOTAL:	$ 18,781,800
	ROUNDED TOTAL:	$ 18,800,000
	TOTAL (Incl. Rounded Escalation to the Midpoint of Construction, assume 6 yr inflation @ 17%)	$ 22,000,000

Note: The 17% cost escalation is based on the average of the five most recent projects that B&L has been involved in that required a six-year cost escalation. Actual inflation rates will vary going forward.

General Assumptions for Both Trail Scenarios 2A & 2B: It is assumed that the path construction would need to fit reasonably well within the existing top width of the current rail 'prism' to avoid significant excavations or fills or cuts within the rail corridor (which could trigger environmental impacts). Access for construction operations in many areas is quite limited – with the rail corridor being the main access route. This limitation factors into the overall construction costs, for example some stone dust stabilizers will require on site mixing with the stone dust and water. Other assumptions include:

- All bridge and culvert repairs assumed for Scenario 1 will also be required for the trail scenarios 2A/2B.

- Re-grading of the existing ballast (the bed of crushed stone upon which the rail ties are laid) includes work to reduce super-elevation in some areas and undercut to accommodate compacted sub-base and trail surfacing.

- Installation of an eight-foot wide three-inch thick stabilized stone dust paved surfacing over six inches of compacted sub-base and geo-textile fabric.

- One foot wide shoulder (also termed recovery area) on each side of path consisting of sub-base material.

- Crossing replacement for each public road crossing will include replacement of 50 feet of asphalt road. Crossings at private or dirt roads will be a 12 foot wide by 30 foot long asphalt apron.

- Timber pedestrian guiderails for all bridges.

- Bridge decks will be asphalt paved for the entire deck width.

- Erosion and sediment control is required to maintain stability of the trail bed after re-grading and installation of new materials. This work is assumed to be consistent in scope and cost for other similar recent (2009-2010) B&L rail-to-trail conversion projects.

- Additional erosion and sediment control will be required at road crossings, trail heads, and other locations along the trail where ballast surfaces will be converted to turf or other ground cover.

- Trailhead facilities (informational kiosk, two benches, two bicycle racks, trash receptacle and recycling receptacle) and parking for ten cars to be provided at six key locations along the route.

- Access control and signage for each road crossing includes half gates, timber access control bollards, and all required road/trail warning signs.

- Timber trail guiderails will be required on both sides of major embankment areas (approximately 1/3 of each mile requires guiderail on both sides).

Comparison of Scenarios

Per Mile Cost Comparison – 2010 Construction $$	
Costs shown without six year 17% Escalation	
Scenario 1: Rail Upgrade	$ 320,000
Scenario 2A: Permanent Trail Conversion*	$ 440,000
Scenario 2B: Temporary Trail Conversion	$ 550,000

*As noted in the text, similar change of use on other portions of DOT controlled rail corridor have taken six years on average to achieve. The cost with six year escalation for this scenario would take the total to approximately $510,000 per mile.

ANNUAL MAINTENANCE COSTS

Annual Rail Corridor Maintenance Costs

The entire 119-mile Remsen – Lake Placid rail corridor is owned by the State of New York and governed by a Unit Management Plan signed jointly by the NYS Department of Transportation and NYS Department of Environmental Conservation. The two primary permit holders on the corridor are the Adirondack Scenic Railroad and the NYS Snowmobile Association. Both organizations work in partnership with DOT to conduct routine maintenance and repairs to keep the corridor open for use by their respective organizations. As such, most of the regular maintenance work is carried out on the ground by volunteers. ASR owns all the equipment necessary to maintain the rail bed and corridor, such as rail riders, brush cutters and other rail-specific equipment.

The State reimburses ASR for part of its annual maintenance of way costs, which include salaries, insurance, leases, repairs, and fuel. The work ASR volunteers presently conduct on a regular basis includes brush cutting, tree removal, and emergency repairs of wash outs caused by beaver dams and inclement weather. Other regular maintenance required along the length of the 119-mile corridor includes repair of heat kinks (high temperatures can cause overheated tracks to expand and no longer be constrained by cross ties) and signal repairs. DOT provided the total costs incurred by the State to maintain the 119-mile corridor over the past nine years, shown in the table below. This also includes the cost of electricity for crossing signals.

Annual Rail Corridor Maintenance Costs	
Time Period	DOT Spending on Remsen-Lake Placid Corridor Maintenance
2002-2004	$270,000
2004-2006	$270,000
2006-2008	$600,000
2008-2010	$278,000
9 Year Total	$1,418,000

Source: NYS DOT

CA used this information to estimate the cost to the State attributable to the Tupper Lake – Lake Placid portion of the corridor on an annual basis. As shown in the following table, the average annual maintenance cost incurred by the State is approximately $158,000 for the entire 119-mile corridor. This breaks down to an average cost per mile of about $1,300. By multiplying $1,300 by the 34 miles of corridor between Tupper Lake and Lake Placid, the annual maintenance cost incurred by the State is estimated at $45,000.

Tupper Lake - Lake Placid Corridor Maintenance Cost Estimate	
Average Annual Cost for 119-mile Corridor	$157,556
Per Mile Annual Cost	$1,324
Tupper Lake - Lake Placid Projected Annual Cost	$45,016

The arrangement between ASR and DOT is that ASR volunteers and staff conduct the vast majority of maintenance and repair work. ASR keeps track of its costs and submits a request for reimbursement to DOT for a portion of total costs each year. According to ASR, its 2010 maintenance of way costs were roughly $100,000. CA was unable to confirm in time for the printing of this report if that total is for the 34-mile stretch between Tupper Lake and Lake Placid or for all 119 miles of the Remsen – Lake Placid corridor. If the costs are not specifically for

Tupper Lake to Lake Placid, 2010 may have been a relatively inexpensive year for maintenance of the corridor, which would account for the fact that ASR's total costs are lower than the average annual reimbursement amount by the State, shown in the table above. In any case, given that ASR is a private non-profit organization, its portion of the annual maintenance costs are not borne by tax payers.

Annual Trail Maintenance Costs

Based on a survey of 39 multi-use recreational trails by the Rails to Trails Conservancy, annual maintenance costs are estimated at $1,500 per mile.[7] This equals roughly $51,000 each year for a 34-mile trail between Tupper Lake and Lake Placid. The difference between maintenance of a paved vs. unpaved trail is negligible. Paved trails require less routine maintenance, which is expensive when conducted. Unpaved trails require more routine maintenance, but maintenance tasks are less costly each time they are conducted. This maintenance estimate is based on the actual experience of many trail organizations, which accounts for the fact that many rely on a significant amount of volunteer labor to conduct maintenance.

[7] *Rail-Trail Maintenance and Operation: Ensuring the Future of Your Trail*, Rails-to-Trails Conservancy Northeast Regional Office, July 2005.

ECONOMIC IMPACT ESTIMATES

CA's scope of work entailed estimating the economic impact of the rail and trail scenarios. This requires use of an industry standard input-output model. In order to build the model, a study area must be defined. Based on CA's experience, county-level data are the most reliable, so we recommended creation of a study area comprised of Franklin and Essex Counties ("Study Area"). For purposes of this analysis, there is no difference in the on-going annual economic impact of the permanent vs. temporary trail conversion scenarios. However, CA also estimated the one-time economic impact of the construction phase of each project, and that section includes a separate impact for the permanent and temporary trail conversion scenarios.

Net New Spending

The first step required in order to estimate the on-going annual economic impact of the rail and trail scenarios is to determine the level of new tourism spending that will occur in the Study Area as a result of either amenity. This spending is referred to as "net new" and in each scenario is defined as spending that would not otherwise take place in the Study Area if not for the existence of the amenity in question.

Based on discussions with tourism experts in Franklin and Essex Counties, most visitors are presently attracted to the region because of the unique natural environment and array of outdoor recreational opportunities offered by the Adirondacks. Most visitors do not come for one specific amenity, but are attracted to the Adirondack region as a whole. During their stay, visitors to the region often take part in a variety of different activities, even in a single day. The provision of an expanded scenic train or a new recreational trail has the potential to cause some visitors to extend their stay to take advantage of the new amenity. However, that is not to say that some new visitors overall won't be attracted to the region specifically because of either amenity. Both situations result in net new visitor spending and are evaluated together within this study.

Per Capita per Day Visitor Spending

In a comparative economic impact study regarding tourism spending, it is common for researchers to categorize visitors based on their particular spending habits (day trippers vs. overnighters, families with young children vs. retired empty nesters, etc.). However, discussions with local tourism experts and business owners in the Study Area indicate that an assortment of different visitor types, emulating the diverse mix of tourists that currently visit the region, would likely utilize both an upgraded rail excursion and a multi-use recreational trail. Therefore, the average daily spending figures are assumed to be the same for new train riders and trail users. Note: the spending habits of snowmobilers are derived using a different methodology, discussed under "Snowmobilers" in the "Trail Scenario" section of this report.

To capture the diverse spending patterns of visitors to the region, the *2006 Economic Impact of Expenditures by Tourists on Northern New York State* (study by the Northern NY Travel & Tourism Research Center at SUNY Potsdam) was used to derive the per capita per day visitor spending figures applied to train and trail users below. The data in the 2006 study are organized by county. As such, figures for both Franklin and Essex Counties were combined to estimate daily visitor spending in the Study Area, shown in the table below. This daily visitor spending per capita figure represents the mix of spending by all the different types of visitors that currently come to the Study Area, including day-trippers and weeklong vacationers, campers and hotel guests, outdoor recreationalists and shoppers. The $124 per capita per day is a weighted average of the daily spending by all of these different types of visitors.

Visitor Spending Per Capita		
Spending Categories	Visitor Spending Per Day [1]	Visitor Spending Per Half Day
Food	$27.81	$13.91
Retail	$28.53	$14.27
Recreation	$33.06	$16.53
Lodging	$23.85	$11.92
Transportation	$11.22	$5.61
Total	$124.47	$62.23

1. 2006 Economic Impact of Expenditures by Tourists on Northeastern New York State, 2006.

The 2006 Northern NY Study spending figures were compared to per capita per day spending data for Essex County from the *2009 Leisure Travel Information Study for Essex County* and for the U.S. from the 2002 *Expenditure Patterns of Travelers in the United States* by the Travel Industry Association and found to be very similar. CA ultimately chose to use the 2006 Northern NY study because it includes data for both Essex and Franklin Counties from the same year.

Rail Scenario: Data and Assumptions

CA researched other excursion trains across the U.S., examined the existing offerings and ridership on ASR's Utica-Thendara line, and considered the existing ridership on ASR's Lake Placid-Saranac Lake line to develop a conservative estimate of projected ridership if the rail is upgraded as described in the construction cost estimates section above. See Appendix B & C for detailed information that supports the projected 75% increase in ridership shown in the table below, which is a conservative estimate based on our research.

The table below also shows how many of the 10,500 new riders are assumed to contribute "net new" spending to the Study Area. According to ASR, approximately 20% of the current riders are local residents. It is assumed that the ratio of local to non-local riders would remain consistent under the rail upgrade scenario. Local riders cannot be counted as contributing net new spending, so we deduct that 20% from the 10,500, resulting in approximately 8,400 new non-local riders annually.

Net New Train Ridership	
Existing Annual Ridership Lake Placid to Saranac Lake [2]	14,000
% Increase in Ridership	75%
Projected New Ridership on Expanded Rail	10,500
Projected Total Ridership Post Rail Upgrade [1]	24,500
% of Ridership that are Non-Local Riders [2]	80%
Net New Rail Visitors	8,400

1. Based on research on five excursion rails across the U.S.
2. Adirondack Scenic Railroad (ASR)

CA then assumed that on average, the net new riders will expend a half-day more of daily visitor spending in the Study Area than they otherwise would have as a result of riding the train. Total net new spending by train riders is shown in the following table.

Spending by 8,400 Train Riders		
Spending Categories	Spending (1/2 Day) [1]	Total Spending
Food	$13.91	$116,808
Retail	$14.27	$119,835
Recreation	$16.53	$138,867
Lodging	$11.92	$100,155
Transportation	$5.61	$47,104
Total	$62.23	$522,769

1. On average, visitors w ill expend 1/2 a day's spending in the Study Area as a result of riding the trail.

Trail Scenario: Data and Assumptions

It is anticipated that the two types of visitors most likely to spend additional money in the Study Area as a result of this new trail are bicyclists and snowmobilers. The trail will also be used for walking, running, hiking, x-country skiing, etc. However, there are many existing trails throughout the Study Area for these activities. Trail users that are walking, running, hiking or cross-country skiing on this trail were not considered as contributing net new tourism spending to the Study Area because, even if this particular trail did not exist, there is a very good chance those users would be spending their money in the Study Area anyway. To illustrate how many trail options currently exist for various types of outdoor recreation, the following information was collected from *The Adirondack Atlas: A Geographic Portrait of the Adirondack Park* by Jerry Jenkins :

- The Adirondacks contain 1,500 miles of designated hiking trails, plus an equal or greater mileage of old roads and undesignated trails.

- Studies suggest that between 200,000 and 300,000 hikers visit the park each year.

In addition, the Olympic Regional Development Authority's Olympic Sports Complex provides over 50 km of cross country and snowshoeing trails in the Lake Placid area, and the website www.lakeplacid.com lists the Cascade X-Country Ski Area, the Jackrabbit Trail, Lake Placid Resort and the Whiteface Club as offering additional cross country ski trails in the Lake Placid area.

Therefore, we assume that the new trail will only influence the behavior of bikers and snowmobilers because there are currently limited options for these users in the Study Area.

Bikers

Interviews with local bike shop owners indicated that visitors of all types would likely utilize the trail, from families with small children to empty nesters to expert cyclists. To determine the potential number of bike users on the trail, reports for 19 multi-use trails (all are rail-to-trail conversions) located throughout the U.S. were reviewed. Once the usage data were compiled, it was clear that use, spending, and the proportion of local vs. non-local users varies significantly from trail to trail. We then applied the following criteria to narrow down the case studies that we would rely on. The trail must:

1. Be primarily rural in nature
2. Direct users directly into downtown areas and not divert users around communities
3. Provide scenic views
4. Be reasonably similar in length to the proposed trail

In the end, usage data from the following six rail-to-trail conversions were used:

- Sugar River Trail in Wisconsin (23.5 miles)
- Red Cedar Trail in Wisconsin (14.5 miles)
- Pine Creek Trail in Pennsylvania (62.6 miles)
- Virginia Creeper Trail in Virginia (35 miles)
- Elroy-Sparta Trail in Wisconsin (32 miles)
- Ghost Town Trail in PA (36 miles)

Detailed information about each of these trails can be found in Appendix D. The methodology employed to determine the total number of trail users is based on the average number of monthly users per mile of these six trails. The table below shows the estimated number of net new bikers that we assume will spend a half-day's worth of daily visitor spending in the Study Area as a result of using the trail.

Net New Trail Users (Bikers)	
Total Users in One Month	9,198
Estimated Months of Trail Utilization	8
Total Annual Trail Users	73,586
Annual Non-Local Bikers (1,2,)	18,847
1. 47% of the users on the six comparable trails were non-locals	
2. 55% of trail users are bikers according to NYS OPRHP	

The information in the table above was derived as follows:

- The total monthly users figure was derived from the user data on the six trails listed above. Please see Appendix D for a table summarizing this calculation.

- CA multiplied the number of monthly users by eight months because we assume this is the number of months bikers could utilize the trail.

- CA then deducted 47% of the estimated annual trail users to take out the local residents (based on the average percentage of local users on the six comparable trails shown in Appendix D). Spending by local residents is not considered net new. Locals are assumed to spend a fixed amount of recreation and entertainment spending in the local area, based on their disposable income, not the recreation offerings in the local area.

- CA then deducted another 45% of the estimated users who are assumed to be non-bikers (based on a 2008 trail user survey of several trails throughout New York State conducted by the NYS Office of Parks & Recreation). As stated above, due to the many trail options that currently exist for non-bike trail users in the region, CA assumes that those users would likely spend their money in the region regardless of the addition of this new trail.

CA then assumed that on average, these net new bikers would spend a half-day more of typical daily visitor spending in the Study Area as a result of using the trail. Note that this is on average – some of these bikers will ride the entire length of the trail, others will travel shorter distances. Total net new spending from trail users is shown in the table below.

Net New Spending by 18,847 Trail Users (Bikers)		
Spending Categories	Spending per Capita (1/2 Day)	Net New Spending
Food	$13.91	$262,076
Retail	$14.27	$268,866
Recreation	$16.53	$311,567
Lodging	$11.92	$224,713
Transportation	$5.61	$105,684
Total	$62.23	$1,172,907

Snowmobilers

Currently, snowmobile clubs can only groom the rail corridor trail when there is at least two feet of snow covering it. In contrast, trails that do not have rail road track underneath can be groomed when there are just 8-12 inches of snow. According to the NYS Snowmobile Association, and a local club member that grooms the corridor, removing or covering the tracks would increase the amount of time snowmobilers would be able to utilize the corridor on either end of the season, as well as a few weeks in the middle of the season during a typical January thaw. The table below shows that approximately 9,200 snowmobile days would be added to the Study Area if the railroad tracks were removed or covered. The information in the table was derived as follows:

- Total snowmobile days in the Adirondacks by non-locals was derived from the total number of registered snowmobiles in New York State, a survey of snowmobile owners conducted by the New York State Office of Parks and Recreation (OPRHP) in 2003, and the 2009-2010 Snowmobile Season Report by OPRHP. See Appendix F for a detailed description of this calculation.

- The percentage of total trail in the Adirondacks that the new trail (34-mile stretch between Lake Placid and Tupper Lake) would comprise is based on the Snowmobile Plan for the Adirondack Park/FGEIS (2006). It was then assumed that the new stretch of trail would capture roughly the same percentage of total snowmobile days as all other trail mileage, assuming these riders spread equally through the Adirondack region.

- Total potential rail corridor snowmobile days were then divided by the 12 weeks of the snowmobiling season (based on interviews with the NYS Snowmobile Association) to get the weekly potential snowmobile days that could be captured.

- Our interviews indicated that at present snowmobilers are currently unable to use the corridor for approximately eight weeks out of the season when the snow coverage is less than two feet.

Net New Snowmobile Days: Based on Trail Mileage Inside the Blue Line	
Total Snowmobile Days inside the Blue Line by Non-Local Residents	731,035
Total Trail Mileage in Adirondacks [1]	1,800
Length of Rail Corridor Trail	34
Rail Corridor's % of Adirondack Snowmobile Trail Network	2%
Potential Rail Corridor Snowmobile Days	13,808
Average Number of Weeks in Snowmobile Season in Adirondacks	12
Potential Average Weekly Rail Corridor Days	1,151
Weeks Unable to Groom Rail Corridor Trail [2]	8
New Snowmobile Days in Rail Corridor by Non-Local Residents	9,206

1. *Snowmobile Plan for the Adirondack Park/FGEIS.* NYSDEC & NYSOPRHP. 2006.
2. Interview : NYS Snow mobile Association & local volunteer groomer.

Since snowmobilers exhibit different spending patterns than other types of visitors in the Study Area, CA used per capita per day spending figures specific to snowmobilers, shown in the table below. These figures were derived from a number of surveys of snowmobilers conducted across the U.S. (see Appendix H). These spending figures are slightly higher for lodging (snowmobilers tend to stay in cabins or hotels because it is winter) and transportation (they fill up their sleds often and require more gas to get to and from their destination due to big trucks towing trailers) and lower for shopping.

Snowmobiling is a touring style of recreational activity during which participants often travel great distances in a single day. According to the International Snowmobilers Manufacturing Association, the average "touring" snowmobile trip covers between 100 and 150 miles per day, so CA first assumed that the average daily spending of a snowmobiler should be distributed over a 125-mile trip and then multiplied by the average number of miles each new snowmobiler might travel on the corridor.

Net New Snowmobile Spending (9,206 people traveling 45 miles on average on corridor)			
Spending Categories	Spending Per Snowmobile Day [1]	Corridor Spending per Snowmobiler	Total
Food	$32.45	$11.68	$107,529
Retail	$11.51	$4.14	$38,155
Lodging	$38.73	$13.94	$128,341
Transportation	$28.26	$10.17	$93,654
Total	$110.95	$39.94	$367,680

1. Derived from a number of surveys of snow mobilers conducted across the U.S.

Based on how far snowmobilers travel in a day, interviews with the NYS Snowmobile Association, and the snowmobile trail maps shown in Appendix E, CA assumed that on average, each net new snowmobiler would travel on the corridor for a total of 45 miles. The following example trips are provided to illustrate how widely usage could vary:

- Originating from the north, traveling southward to access the corridor in Lake Clear, then traveling westward to Tupper Lake, and returning along the same route.

- Originating from the north, traveling southward to access the corridor in Saranac Lake, then traveling eastward to Lake Placid, and returning along the same route.

- Originating south of Tupper Lake, traveling all the way to Lake Placid along the corridor, then going back on the trail to Saranac Lake to take a different loop back to point of origin.

Existing Train Riders

The rail and trail scenarios are considered mutually exclusive for purposes of this study because it is not financially feasible for ASR to do maintenance on its fleet if it cannot move cars from Lake Placid to Thendara and Utica due to the expense and logistics of getting access to the required heavy equipment, which is located in Thendara and Utica. As such, for purposes of estimating the impact of the trail, it is necessary to net out the existing net new spending of the current ASR ridership on the Lake Placid – Saranac Lake line. The following table shows the estimated number of existing "net new" visitors for which a half day's spending will need to be subtracted from the new spending generated under the trail scenario to account for the loss of the existing rail excursion:

Existing Rail Visitors	
Existing Ridership	14,000
% of Non-Local Riders	80%
Existing "Net New" Visitors	11,200

Existing net new spending in the Study Area attributable to ASR ridership is shown in the table below.

Net New Spending by Existing 11,200 Train Riders		
Spending Categories	Spending (1/2 Day)	Existing Rail Spending
Food	$13.91	$155,744
Shopping	$14.27	$159,780
Recreation	$16.53	$185,155
Lodging	$11.92	$133,540
Transportation	$5.61	$62,805
Total	$62.23	$697,025

The table below shows the total net new trail spending, accounting for bikers, snowmobilers and the netting out of existing net new spending attributable to ASR.

Net New Trail Spending				
Spending Categories	Net New Biker Spending	Net New Snowmobiler Spending	Existing Train Rider Spending	TOTAL
Food	$262,076	$107,529	-$155,744	$213,861
Shopping	$268,866	$38,155	-$159,780	$147,242
Recreation	$311,567	$0	-$185,155	$126,412
Lodging	$224,713	$128,341	-$133,540	$219,514
Transportation	$105,684	$93,654	-$62,805	$136,534
Total	$1,172,907	$367,680	-$697,025	$843,562

Economic Impact

Once the annual net new spending is determined, the next step is to use an industry standard input-output model to determine how the net new spending affects the Study Area economy. CA employs the input-output model developed by Economic Modeling Specialist's Inc. (www.economicmodeling.com). See Appendix A for a detailed description of what an economic impact study measures and how an input-output model works.

Rail Scenario: Annual Economic Impact

The table below shows the total economic impact of the net new spending by train riders on the Study Area, along with the associated indirect effects of additional rounds of spending by local businesses and employees that result from the net new direct spending. The Rail Scenario will result in approximately $522,000 of net new direct spending at local businesses annually. The direct and indirect impacts of net new visitor spending will result in a total of approximately $758,000 in sales at local businesses, which will support 13 jobs paying $307,000 in wages to local workers.

Rail Scenario: Annual Economic Impact of Net New Spending			
Impact Category	Direct	Indirect / Induced	Total
Spending	$522,769	$235,246	$758,014
Jobs [1]	10	3	13
Earnings	$201,974	$105,026	$307,000

Source: EMSI, Camoin Associates

1. Represents Full-Time Equivalent (FTE) jobs, 1 FTE jobs is equal to 2,080 hours worked in one year.

Trail Scenario: Annual Economic Impact

As shown in the following table, the Trail Scenario is expected to generate $843,562 in net new direct spending at local businesses each year. The direct and indirect impacts result in approximately $1.2 million in total sales. These sales will support approximately 20 new jobs paying approximately $489,000 in wages to local workers.

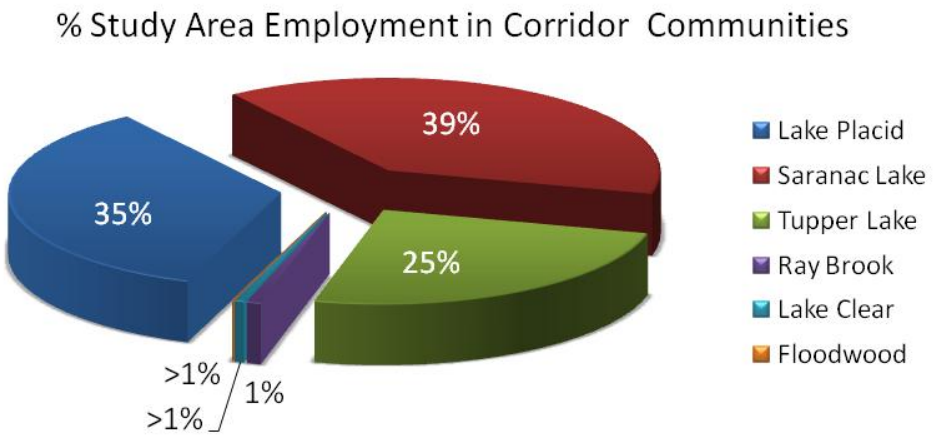
Trail Scenario: Annual Economic Impact of Net New Spending			
Impact Category	Direct	Indirect / Induced	Total
Spending	$843,562	$379,603	$1,223,165
Jobs [1]	15	5	20
Earnings	$319,608	$169,392	$489,000

Source: EMSI, Camoin Associates

1. Represents Full-Time Equivalent (FTE) jobs, 1 FTE jobs is equal to 2,080 hours worked in one year.

Impact on Tri-Lakes Communities

The graph below shows the percentage of Study Area employment in each of the communities along the rail corridor.



Based on the percentages above, the total number of jobs that would be created by the on-going operation of the rail and trail were distributed to Tupper Lake, Saranac Lake and Lake Placid (which is where 99% of the job creation would likely be concentrated) to illustrate the jobs impact to each of the three communities, shown in the table below.

Job Creation Within Tri-Lakes Communities		
Community	Rail Scenario Jobs	Trail Scenario
Tupper Lake	3	5
Saranac Lake	5	8
Lake Placid	5	7

One-Time Construction Impacts

Construction of the rail or trail scenarios will have a one-time impact on spending, jobs, and earnings over the course of the construction phase. Construction costs for each scenario represent direct spending within the Study Area, assuming that local companies from Franklin or Essex Counties are hired to carry out the work. If the work is awarded to firms from outside the Study Area, the direct spending in the Study Area would be lower, as would the indirect spending, since some of the business-to-business purchases might then occur outside the Study Area and the profit earned by the main contractor would also leak out. This would result in lower spending numbers overall. However, even if an outside firm was selected to do the work, there would still be a significant local impact. The workers would probably be a mix of locals and outsiders housed locally so they would all be spending money locally.

Rail Upgrade Scenario

The rail upgrade scenario will result in the creation of 171 job years and $6.8 million in earnings over the course of the construction phase. If the construction period is assumed to last two years, the total number of jobs created will be 86 (171 divided by two).

Construction Impacts - Rail Upgrade Scenario			
	Direct	Indirect / Induced	Total
Job Years	110	61	171
Earnings	$4,832,624	$1,981,376	$6,814,000

Trail Scenarios

The construction of the trail would result in approximately 300 job years and nearly $12 million in earnings. If the construction period is assumed to last two years, the total number of jobs created will be 150 (300 divided by two). Roughly the same level of construction jobs and earnings would be created in both trail scenarios, despite the difference in cost. The difference is due to the fact that a salvage credit is applied in the permanent conversion scenario, which reduces that cost, and a storage cost is added to the temporary scenario to store any re-useable rails. But for purposes of the economic impacts from construction, the work required is similar in both scenarios and will have a similar impact.

Construction Impacts - Trail Scenarios			
	Direct	Indirect / Induced	Total
Job Years	194	106	300
Earnings	$8,480,142	$3,476,858	$11,957,000

POTENTIAL FUNDING SOURCES

The following tables provide basic information on a variety of funding sources that may be pursued to raise funds for whichever project ultimately comes to fruition.

Program Name	Rail Line Relocation and Improvement Capital Grant Program
Agency	U.S. Department of Transportation
Use of Funds	Grant program to provide financial assistance for local rail line relocation and improvement projects.
Eligibility	State or political subdivision is eligible for a grant for any construction project that improves the route or structure of a rail line and 1) involves a lateral or vertical relocation of any portion of the rail line, or 2) is carried out for the purpose of mitigating the adverse effects of rail traffic on safety, motor vehicle traffic flow, community quality of life, or economic development.
Deadline/Schedule	On September 10th, 2010, a Notice of Funding Availability was published. The deadline for applications was October 29th, 2010. Applications are not being accepted at this time. A notice of funding availability has not been published for 2011.
Maximum Grant	Undetermined – Grants ranged from $3.8 million to $47,000 in 2009.
Website	http://www.fra.dot.gov/rpd/freight/2008.shtml

Program Name	Surface Transportation Infrastructure - Discretionary Grants for Capital Investments II
Agency	U.S. Department of Transportation
Use of Funds	Requires that grants be provided to a State, local government, transit agency, or a collaboration among such entities on a competitive basis for surface transportation projects that will have a significant impact on the Nation, a metropolitan area, or a region.
Eligibility	States or local governments, transit agencies, builders/ contractors/ developers, major cities, and other urban, suburban, or rural areas.
Deadline/Schedule	Contact the headquarters or regional office, as appropriate, for application deadlines.
Maximum Grant	Not less than $10,000,000 and not greater than $200,000,000, however, projects located in rural areas will have a minimum grant size of $1,000,000.
Website	https://www.cfda.gov/index?s=program&mode=form&tab=step1&id=8097eee0bb045ebe7b64ba01333b0ca6

Program Name	2005 NYS Transportation Bond Act
Agency	New York State Department of Transportation
Use of Funds	The $2.9 billion Rebuild and Renew New York Transportation Bond Act of 2005 provides $135 million for railroad and port facility improvements and supplied $27.4 million of funding projects. More than $80 million in Bond Act funding has already been apportioned to rail and port projects across New York, with another $27 million remaining.
Eligibility	Track improvements, grade crossing eliminations or upgrades, and construction or modernization of intermodal facilities. Selected based on a number of criteria, including project readiness; environmental impacts; and a project's ability to improve or support safety, security, economic development and sustainability.
Deadline/Schedule	2011 Notice of Funding not yet posted.
Maximum Grant	Undetermined for 2010. Grants ranged from $38,000 to $4.2 million in 2009.
Website	http://www.state.ny.us/governor/press/092810Rail_Port_Improvements.html

Program Name	EB-5 Immigrant Investor Program
Agency	Upstate New York Regional Center
Use of Funds	This program provides visas to immigrants who invest a minimum of $1 million in U.S. businesses (or $500,000 in a targeted area with an unemployment rate 150% of U.S. average).
Eligibility	This program is available to immigrants seeking to enter the United States in order to invest in a new commercial enterprise that will benefit the U.S. economy and create at least 10 full-time jobs. There are two ways to invest: creating a new commercial enterprise or investing in a troubled business.
Note:	In addition to the Upstate New York Regional Center, which covers 22 upstate NY Counties, Franklin County itself is currently in the process of applying for regional center status but the outcome of this process will be unknown for some time.
Website	http://www.uscis.gov/portal/site/uscis/menuitem.eb

Program Name	Recreational Trails Program
Agency	New York State Office of Parks, Recreation and Historic Preservation (OPRHP)
Use of Funds	Purpose of this program is to provide and maintain recreational trails for both motorized and non-motorized recreational trail use.
Eligibility	The proposed project must be legally and physically accessible to the public, or be a portion of an identified trailways project which, when completed, will be legally and physically accessible to the public. The proposed project must be physically and environmentally developable as a trailway. The proposed project must be planned and developed under the laws, policies and administrative procedures of the State.
Deadline/Schedule	No information available at this time.
Maximum Grant	No information available.
Website	http://nysparks.state.ny.us/grants/recreational-trails/default.aspx

Program Name	Transportation Enhancement Program
Agency	New York Department of Transportation
Use of Funds	Transportation Enhancement (TE) activities offer funding opportunities to help expand transportation choices and enhance the transportation experience through 12 eligible TE activities related to surface transportation, including pedestrian and bicycle infrastructure and safety programs, scenic and historic highway programs, landscaping and scenic beautification, historic preservation, and environmental mitigation.
Eligibility	Municipality, County, State agency, Authority, or NGO. (Non-profit applicants must be sponsored by a governmental entity.)
Deadline/Schedule	Historically, the project selection cycle occurs every two-to-three years. The next call for proposals is to be determined.
Maximum Grant	$2,500,000, with a typical local match of 20%
Website	http://www.fhwa.dot.gov/environment/te/ http://www.enhancements.org/profile/NYprofile.php

BIBLIOGRAPHY

Allegheny Trail Alliance & the Progress Rund's Trail Town Program. The Great Allegheny Passage Economic Impact Study (2007-2008). Web. Sep 2010. <http://www.adventurecycling.org/routes/nbrn/resourcespage/GAPeconomicImpactStudy200809.pdf>.

Blue Ridge Scenic Railway. n.d. Web. Dec 2010. <http://www.railsusa.com/cgi-bin/links/go.cgi?id=244>.

Campos, Inc. "2008 Trail Town Economic Impact Study." Great Allegheny Passage. 2008 <http://www.gaptrail.org/au/impact.cfm>.

CASS Scenic Railroad State Park. 2009. Web. Dec 2010. <http://www.cassrailroad.com/bald.html>.

Cumbres & Toltec Scenic Railroad. n.d. Web. Dec 2010. <http://www.cumbrestoltec.com/>.

Davidson-Peterson Associates. "2006 Economic Impact of Expenditures by Tourists on Northern New York State." Northern New York Travel & Tourism Research Center, SUNY Potsdam. Kennebunk, ME. 2006. <http://www.nnytourismresearch.org/nnytourismresearch/reports.asp>.

Eton, Wally. "Slow-speed Trail: Bicycle Tourism and Local Economies in New York State" Talk of the Towns & Topics. Volume 24, Number 5. Association of Towns of the State of New York. Oct. 2010. Web. 10 Oct. 2010. <http://www.ptny.org/pdfs/e-news/AoTSept10.pdf>.

Every Mile Counts: An Analysis of the 2008 Trail User Surveys. Funded by the NYS Office of Parks, Recreation, & Historic Preservation. Sep. 2010. Web. Oct 2010. <http://nysparks.state.ny.us/recreation/trails/documents/StatewideTrailsPlan/StatewideTrailsPlanAppendixC.pdf>.

Friends of the Bruce Freeman Rail Trail. "Statewide Trail Usage Counts" Sep 2007. Web. Oct. 2010. <http://www.brucefreemanrailtrail.org/TrailUsageCounts/>.

Graefe, Alan, Harry Zinn, Elizabeth Covelli. Recreation on the Tiadghton and Tioga State Forest: A Survey of User Characteristics, Behaviors, and Attitudes. Pennsylvania Bureau of Forestry Department of Conservation and Natural Resources. Nov 2008. Print.

Great Smokey Mountain Railroad. n.d. Web. Dec 2010. <http://www.gsmr.com/about/schedules.php>.

Grimes, George A. Ph.D., P.E., Christopher P.L. Barkan, Ph.D. *Cost-Effectiveness of Railway Infrastructure Renewal Maintenance*. Journal of Transportation Engineering. August 2006. Print.

International Snowmobile Manufacturer Association. n.d. Web. 25 Nov. 2010. <http://www.snowmobile.org/index.asp>.

Larsen, Ryan., Garth Taylor, Steve Hines. "The Economic Impact of Snowmobiling in Valley County." University of Idaho. July 2006. <http://www.cals.uidaho.edu/edcomm/pdf/BUL/BUL844.pdf>.

Ledbetter, Erik G. "Lessons from the Strasburg at 50" May 2008. Web. Oct 2010. <http://www.strasburgrailroad.com/pdf/Strasburg-at-50.pdf>.

Levy, Marvin, N. Russell. National Survey of Pedestrian & Bicyclist Attitudes and Behaviors. 2003.

Maplesden, Helen C., et al. Expenditure Patterns of Travelers in the U.S. 2002 Edition. Travel Industry Association of America. Washington, DC. 2002.

Minnesota Department of Employment and Economic Development. n.d. Web. Nov. 2009. <http://www.leg.state.mn.us/lrl/lrl.asp>.

North Shore Scenic Railroad. Web. Nov 2010. <http://www.northshorescenicrailroad.org/Home/history.asp>.

N.C. Department of Transportation, Division of Bicycle and Pedestrian Transportation. Pathways to Prosperity: the Economic Impact of Investments in Bicycle Facilities. April 2004. Web. Oct 2010. <http://atfiles.org/files/pdf/NCbikeinvest.pdf>

NYS Department of Transportation. "New York State Rail Plan: Strategies for a New Age." 2009. <https://www.nysdot.gov/divisions/policy-and-strategy/planning-bureau/state-rail-plan/repository/State%20Rail%20Plan%202009-02-10.pdf>

NYS Department of Environmental Conservation, NYS Office of Parks, Recreation, and Historic Preservation. Snowmobile Plan for the Adirondack Park/Final Generic Environmental Impact Statement. October 2006.

NYS Historic Preservation Office, Environmental Resource Mapper. Accessed in October 2010.

NYS Office of Parks, Recreation, & Historic Preservation. 2003 Snowmobile Owners Survey. New York State. 2003.

NYS Office of Parks, Recreation, & Historic Preservation's Snowmobile Unit. "2009-2010 Snowmobile Season Report." <www.nysparks.com>.

Osceola & St. Croix Valley Railway. n.d. Web. Nov 2010. <http://www.mtmuseum.org/oscv.shtml>.

Regional Office of Sustainable Tourism. Leisure Travel Information Study: 2009 Return on Investment – Conversion Rate Analysis – Visitor Profile. Essex County, NY. 2009. <http://www.lakeplacidmedia.com/uploads/PDF/2009_Conversion.pdf>.

The Elroy-Sparta State Trail. n.d. Web. Nov 2010. <http://www.elroy-sparta-trail.com/>.

Toma, Michael, Jennifer Hoag, Robert Griffin. Coastal Georgia Greenway Market Study & Projected Economic Impact. Armstrong Atlantic State University. Dec 2003. Web. Oct 2010. <http://coastalgeorgiagreenway.org/CGG_2003.pdf>

Tomes, Patricia, Carl Knoch. Trail User Survey. Pine Creek Rail Trail 2006 User Survey and Economic Impact Analysis. 2006. Web. Oct 2010. <http://www.railstotrails.org/resources/documents/resource_docs/RTC_PineCreekGuide_web.pdf>.

Tomes, Patricia, Carl Knoch. Trail User Survey and Economic Impact. A Comparison of Trail User Expenditures. 2009. Web. Oct 2010. <http://www.railstotrails.org/resources/documents/resource_docs/Comparison_of_Trail_Users_Surveys_FINAL.pdf>.

Tomes, Patricia, Carl Knoch. Ghost Town Trail User Survey and Economic Impact. A Comparison of Trail User Expenditures. 2009. Web. Oct 2010. <http://www.railstotrails.org/resources/documents/wherewework/northeast/Ghost_Town_Trail_User_Survey_LR.pdf>.

Tran Systems. Adirondack Scenic Railroad Regional Impact Analysis. Warren, PA. 2007. Print.

U.S. Department of Transportation: Office of Safety Assurance and Compliance Track and Structures Division. *Federal Railroad Administration Track Safety Standards Compliance Manual: Chapter 5 Track Safety Standards Classes 1 through 5*. April 1, 2007. Print.

U.S. General Accounting Office. Report to the Honorable Sam Brownback, U.S. Senate. *Surface Transportation: Issues Related to Preserving Inactive Rail Lines as Trails*. October 1999. Print.

Venegas, Ernesto C. Economic Impact of Recreational Trail Use in Different Regions of Minnesota. University of Minnesota Tourism Center. Nov 2009. Web. Oct. 2010. <http://www.tourism.umn.edu/prod/groups/cfans/@pub/@cfans/@tourism/documents/asset/cfans_asset_167538.pdf>.

Warren County Board of Supervisors. Public Works Committee – Park Recreation, and Railroad: Meeting Minutes. January 14, 2010.

WMTH Corporation. Economic Impact of Biking. Vol 2. N.d. Web. Nov 2010. <http://www.trailsrus.com/swvirginia/finalreport/volume2/biking.pdf>.

INDIVIDUALS INTERVIEWED

- Bill Branson – Adirondack Scenic Railroad, President
- Bob Kronenburgh - The Wild Center, Director of Administration and Finance
- Brian Delaney - High Peaks Cyclery, Owner
- Charles Rowlee- Adirondack Scenic Railroad, Train Master
- Cliff Welz- Upper Hudson River Railroad, Operations Manager
- Dawn Klemm – NYSDOT, Remsen-Lake Placid Travel Corridor Manager
- Dave Perkins – New York State Snowmobile Association, Executive Director
- David Van Pelt – Adirondack Scenic Railroad
- James McKenna - Essex County Regional Office of Sustainable Tourism, President
- Julie Voss - Placid Planet Bicycles, Owner
- Ken Beuler - North Shore Scenic Railroad, President
- Kim Albraton – Great Smokey Mountains Railroad, Marketing Manager
- Larry Blake – Hocking Valley Scenic Railroad, Former President
- Mary Snighter – CASS Scenic Railroad State Park, Office Assistant
- Marvin Casias – Cumbres & Toltec Scenic Railroad, General Manager of Operations
- Neil Seymour – Franklin County Tourism, Tourism Director
- Ted Schafer – Ohio Rail Tourism Association, President

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APPENDIX A: OVERVIEW OF AN ECONOMIC IMPACT MODEL

The purpose of conducting an economic impact study is to ascertain the total cumulative changes in employment, earnings, and output in a given economy due to some initial "change in final demand". To understand the meaning of "change in final demand", consider the installation of a new widget manufacturer in Anytown, USA. The widget manufacturer sells $1 million worth of its widgets per year exclusively to consumers in Canada. Therefore, the annual change in final demand in the United States is $1 million because dollars are flowing in from outside the United States and are "new" dollars in the economy.

This change in final demand translates into the first round of buying and selling that occurs in an economy. For example, the widget manufacturer must buy its inputs of production (electricity, steel, etc.), must lease or purchase property and pay its workers. This first round is commonly referred to as the "Direct Effects" of the change in final demand and is the basis of additional rounds of buying and selling described below.

To continue our example, the widget manufacturer's vendors (the supplier of electricity and the supplier of steel) will enjoy additional output (i.e. sales) that will sustain their businesses and cause them to make additional purchases in the economy. The steel producer will need more pig iron and the electric company will purchase additional power from generation entities. In this second round, some of those additional purchases will be made in the U.S. economy and some will "leak out". What remains will cause a third round (with leakage) and so forth and so on in ever-diminishing rounds of spending. These sets of industry-to-industry purchases are referred to as the "Indirect Effects" of the change in final demand.

Finally, we know that the widget manufacturer has employees and those employees will spend their wages. As with the Indirect Effects, the wages spent will either be for local goods and services or will "leak" out of the economy. The purchases of local goods and services will then stimulate other local economic activity and so on, such effects referred to as the "Induced Effects" of the change in final demand.

Therefore, the total economic impact resulting from the new widget manufacturer are the initial $1 million of new money flowing into the U.S. economy, plus the Indirect Effects and the Induced Effects. The ratio between Direct Effects and Total Effects is called the "multiplier effect" and is often reported as a dollar-of-impact per dollar-of-change. Therefore, a multiplier of 2.4 means that for every dollar ($1) of change in final demand, an additional $1.40 of indirect and induced economic activity occurs, for a total of $2.40.

Camoin Associates uses an industry standard economic impact model developed by Economic Modeling Specialists, Inc. (www.economicmodeling.com) to calculate the impact of the estimated net new spending that we develop through our research and assumptions. The EMSI model receives our direct spending as the primary input and then reports back the change in total sales, jobs and wages that will result in the study area. The impacts reported by the EMSI model are geography-specific. Industry specific multipliers for the geography in question are calculated and combined by the EMSI model, based on EMSI's nationwide employment and establishment database.

Key information for the reader to retain is that this type of analysis requires rigorous and careful consideration of the geography selected (i.e. how the "local economy" or "study area" is defined) and the implications of the geography on the computation of the change in final demand. If our analysis wanted to consider the impact of the widget manufacturer on the entire North American continent, we would have to conclude that the change in final demand is zero and, therefore, the

economic impact is zero. This is because the $1 million of widgets being purchased by Canadians is not causing total North American demand to increase by $1 million. Presumably, those Canadian purchasers will have $1 million less to spend on other items and the effects of additional widget production will be cancelled out by a commensurate reduction in the purchases of other goods and services.

Changes in final demand, and therefore Direct Effects, can occur in a number of circumstances. The above example is easiest to understand: the effect of a manufacturer producing locally but selling globally. If, however, 100% of domestic demand for a good is being met by foreign suppliers (say, DVD players being imported into the US from Korea and Japan), locating a manufacturer of DVD players in the U.S. will cause a change in final demand because all of those dollars currently leaving the U.S. economy will instead remain in the U.S. economy. We could envision a situation where a producer is serving both local and foreign demand and we would have to be careful in calculating how many "new" dollars the producer would be causing to occur domestically.

In the case of a tourism related project, the change in final demand is typically due to the infusion of new tourism dollars in the defined study area that results from brand new visitors coming to the study area as a result of the project or existing visitors extending their stay in the study area and spending dollars that they would not have spent if the project/amenity in question did not exist in the study area.

APPENDIX B: DATA FROM RAIL CASE STUDIES

Name of Scenic Rail	Location	Miles	Total Trip Time (Hrs.)	Annual Ridership	Monthly Riders	Monthly Riders per Mile
North Shore Scenic Railroad - Two Harbor Train	Duluth, MN	27	6	8,000	1,333	49
CASS Scenic Railroad	Bald Knob, WV	22	5	14,000	2,333	106
Cumbres & Toltec Scenic Railroad	Colorado/NM Border	64	7	40,000	6,667	104
ASR Utica - Thendara Regular Season Trip	Utica, NY	57	5 / 9	8,200	1,367	24
Great Smokey Mountains Railroad	Byson City, NC	32	6	100,000	12,500	391
			AVERAGE	**34,040**	**4,840**	**135**

Note: Monthly Riders is based on the assumption that all trains operate for six months out of the year.

The data above reflect annual ridership on relatively long excursion rails across the U.S. (5-7 hours in total trip length, including stops and layovers). Based on the data above, it is reasonable to assume that the number of people who might choose to ride the expanded rail excursion from Lake Placid all the way to Tupper Lake could be as high as 18,000 each year (135 monthly riders per mile x 4 months x 34 miles). This is higher than the 10,500 additional train riders that CA conservatively assumed ASR would serve if they offered a lengthy excursion on the Tupper Lake to Lake Placid line. The more conservative figure was used based on consultation with ASR.

However, as illustrated by total ridership of around 35,000 annually on ASR's Utica-Thendara line, total ridership on the expanded line is likely to include many more people than just those who ride the long excursion all the way from Lake Placid to Tupper Lake. The Utica-Thendara line offers the lengthy excursion and a wide variety of shorter rides and themed excursions throughout the year. It is a good illustration of the mix and types of excursions that ASR could offer between Lake Placid and Tupper Lake. The list below was taken from ASR promotional materials to illustrate the range of offerings provided by ASR on its Utica-Thendara line.

Utica's Union Station:
During our busy season, we typically run trains from Wednesday-Sunday, with several choices of times and events.

- ***Utica to Thendara with Layover:*** *Trip duration 9:15am-6:30pm. Runs Wednesday, Thursday & Saturday*

  Enjoy the railroad's longest scenic tour (2 hours each way) and ride our complimentary shuttle bus into Old Forge. Spend your afternoon enjoying the atmosphere in the Adirondack shops, restaurants, and outdoors. Train departs Thendara for Utica at 4:30pm. Food and beverages available a la carte in the cafe car. You can bring bicycles with you for just $2 per bike or canoes for $4 per canoe. Thursdays in July and August, enjoy a woods talk by forester and storyteller Bernard Davies during the trip north.

- ***Utica to Thendara without Layover:*** *Trip duration 11:30am-4:30pm. Runs Friday and Sunday Enjoy the railroad's longest scenic tour (2 hours each way) without spending all day on a trip. Relax and enjoy the scenery as you travel from Utica to Thendara and back. Food and beverages available a la carte in the cafe car.*

- ***Wine & Beer Tasting Trains:*** *Trip duration 6:30pm-8:30pm. Friday nights twice a month from April through October.*

  Enjoy wine or beer tasting on board the train hosted by representatives from the Saranac Brewery or a Finger Lakes winery and receive a complimentary wine or beer glass! Travel from Utica's Union Station north to Remsen Depot, where there will be a 20-minute train break, and return. Snacks provided. Food also available for purchase in the cafe car and at Remsen Depot.

- ***Buffalo Head Train:*** *Trip duration 12 noon-4:30pm. Sundays twice a month from June-November.*

  Ride north from Utica's Union Station to Forestport Station across from the Buffalo Head Restaurant. Enjoy a leisurely meal and return to Utica. Train arrives in Forestport at 1:15pm and departs at 3:15pm. Food and beverages available a la carte in the cafe car.

- ***Doo Wop Train:*** *Trip duration 2:00pm-6:00pm. Sundays once a month from May through September.*

  Ride from Utica's Union Station to the Soda Fountain, Remsen's '50s-themed restaurant! Dance to your favorite '50s tunes in the baggage car with the Soda Fountain girls. Dinner included - limited menu. Call the Utica station or check our website for further details.

We also run many annual events, such as the Easter Bunny Train, the Halloween trains (one for families and one for adults), the Adirondack Christmas Train on Black Friday, and the Polar Express, which runs from Thanksgiving through mid-December. Trains are also available for private charter parties, receptions, or travel.

Thendara Station:
Trains running out of our Thendara Station also run Wednesday-Sunday, three trips per day, from Memorial Day through mid-October.

- ***Thendara to Carter Station:*** *Trip duration 10:00am-11:10am.*

  Ride from Thendara Station north to the site of the old Carter Station and back. No layover at Carter Station.

- ***Thendara to Otter Lake:*** *Trip duration 12:30pm-1:50pm and 3pm-4:20pm.*

  Ride from Thendara Station south over the Moose River to Otter Lake and back. No layover at Otter Lake.

- ***Loomis Gang Train Robbery with The Mystery Company:*** *Wednesdays in July and August at 10am, 12:30pm and 3pm. Trip duration 1 hour and 20 minutes.*

An annual favorite, back this year with a brand new story from The Mystery Company of the Finger Lakes! Your train north to Carter Station is stopped by train robbers on horses from Adirondack Saddle Tours. Experience the adventure, be a part of the actiona and get robbed on this interactive trip! Fun for all ages!

- ***Woods Walk:*** *Departs 12 noon, every Thursday in July and August.*

  Travel from Thendara Station north to the site of old Carter Station and disembark for a talk about Adirondack flora, fauna, and history. Featuring forester and renowned storyteller Bernard Davies.

- ***Magic Fridays:*** *on trips to Otter Lake on Fridays in July and August.*

  Enjoy an up close and personal magic show as Illusionist Leon Etienne performs throughout the train during your trip! For more information about Leon Etienne, please visit www.LeonEtienne.com.

- ***Elf Train:*** *Black Friday at 2pm and 4pm. Trip duration 1 hour and 20 minutes.*

  Travel from Thendara Station south to Otter Lake and back. Enjoy holiday storytelling, music and refreshments. This event benefits the Old Forge Library.

APPENDIX C: HYPOTHETICAL RAIL EXCURSION SCENARIO – CAPACITY CHECK

The following scenario was developed by CA to verify that the projected ridership of 24,500 riders under the rail expansion scenario is achievable when considering the capacity of the train, timing of excursions, and annual schedule. This scenario is hypothetical only and is not an actual program.

In this hypothetical scenario, the expanded rail scenario is assumed to operate under a conceptual schedule of two round trips each weekend day (Friday, Saturday, Sunday) during the months of May through October and one round trip each weekday during the summer months of June, July and August. As shown in the list of offerings on the Utica-Thendara line in Appendix B, actual offerings would probably vary daily, meaning the train might not necessarily run all the way between Lake Placid and Tupper Lake for every excursion. The reader should also consider that riders have the option of getting on the train at Saranac Lake and two other platforms along the route which were included in the construction cost estimates. The following conceptual weekend day schedule is offered only to illustrate the possibility of accommodating two round trips that run the entire Lake Placid to Tupper Lake line in one day.

Train 1:
Depart Lake Placid at 9:00 am
Arrive Tupper Lake at 10:30 am
3.5 hour layover in Tupper Lake (with shuttle to Wild Center & back)
Depart Tupper Lake at 2:00 pm
Arrive Lake Placid at 3:30 pm

Train 2:
Depart Lake Placid at 5:00 pm
Arrive Tupper Lake at 6:30 pm
2.5 hour layover in Tupper Lake (with shuttle to play or concert in the park or lecture at Wild Center or historical society)
Depart Tupper Lake at 9:00 pm
Arrive Lake Placid by 10:30 pm at the latest (train can return at higher speed to complete trip in 45 minutes or less)

The table below shows current total ridership (Lake Placid to Saranac Lake) and projected total ridership (Lake Placid to Tupper Lake), and number of round trips and riders per round trip under the existing and expanded rail scenarios for comparative purposes.

Average Riders per Trip	
Current Ridership	14,000
Current Number Round Trips*	174
Average Riders per Round Trip	80
Projected Ridership	24,500
Projected Weekend Round Trips	144
Projected Summer Weekday Round Trips	48
Total Projected Round Trips	192
Average Projected Riders per Round Trip	128

* www.adirondackrr.com

APPENDIX D: DATA FROM TRAIL CASE STUDIES & CAPACITY CHECK

Case Studies:

The table below shows user data on the six comparable rail-to-trail conversions that CA used as the basis for estimating the number of trail users and bikers on the recreational trail.

Case Study Trails						
Trail	State	Miles	Annual Users	Heavy Use Months	Monthly Users	Monthly Users per Every 1 Mile of Trail
Sugar River Trail	WI	23.5	47,566	8	5,946	253.01
Red Cedar Trail	WI	14.5	40,000	8	5,000	344.83
Pine Creek Trail	PA	62.6	125,000	8	15,625	249.60
Virginia Creeper Trail	VA	35.0	130,172	12	10,848	309.93
Elroy-Sparta Trail	WI	32.0	50,000	8	6,250	195.31
Ghost Town Trail	PA	36.0	75,557	8	9,445	262.35
Averages			**78,548**		**8,734**	**270.54**

Trail User Calculation:

The table below summarizes the calculation of potential trail users on the Adirondack trail.

Monthly Users on ADK Trail	
ADK Corridor Distance (miles)	34
Average Monthly Users per Every 1 Mile of Trail	271
Total Users on Corridor in One Month	**9,198**

Capacity Check:

The table below is provided to illustrate the average number of trail users and bikers that are estimated to use the Adirondack trail each day based on the assumptions made in this report.

Average Trail Users per Day	
Annual Trail Users	73,586
Annual Bikers on Trail (55%)	40,472
# Vacation Days (June - August)	92
# Weekend Days in Shoulder Season (May, Sept, Oct)	36
Approximate User Days in Year	128
Users per User Day	**575**
Bikers per User Day	**316**

APPENDIX E: SNOWMOBILE TRAIL MAPS

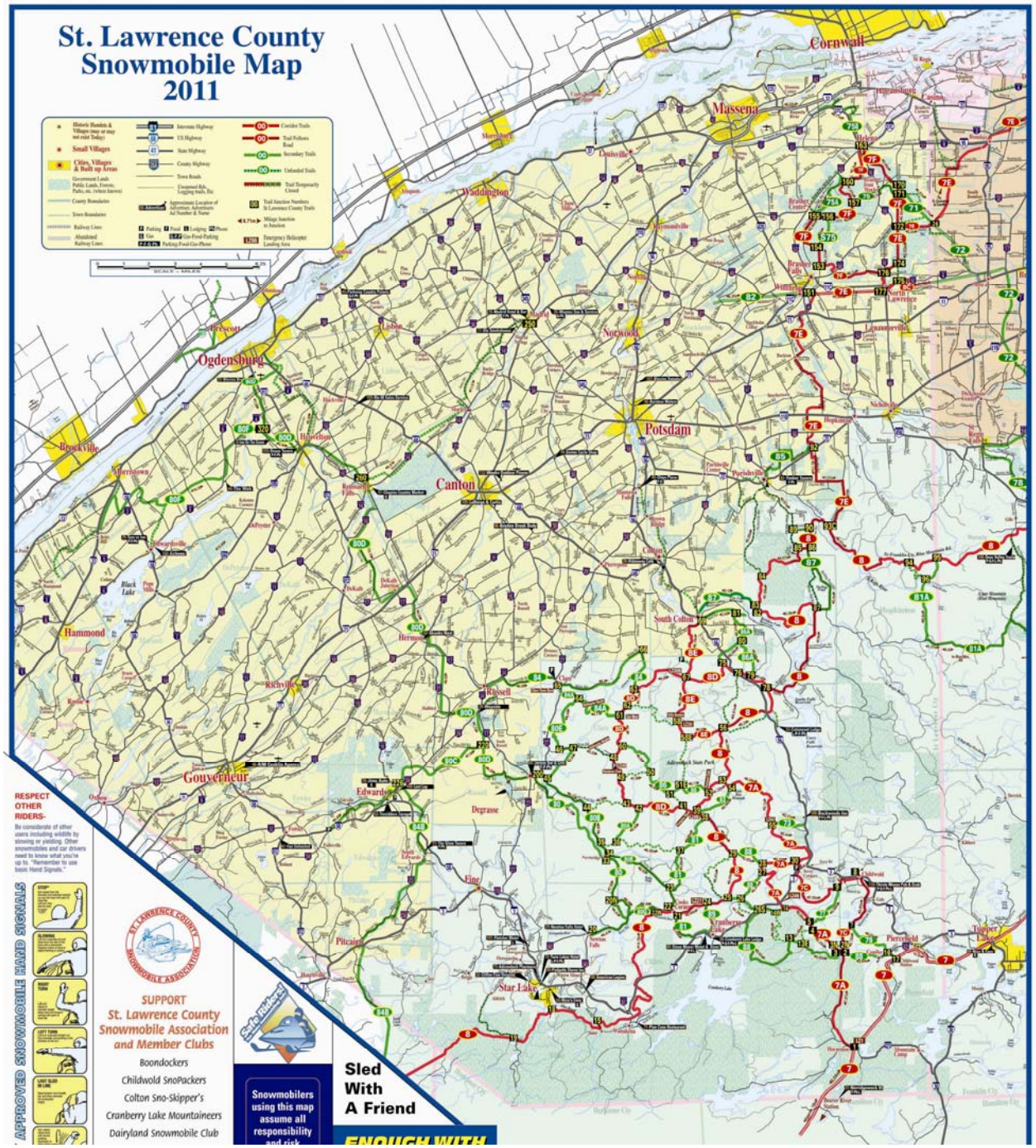
Franklin County Snowmobile Trails

Source: http://www.adirondacks.com/franklinsnowmobiling.html

Essex County Snowmobile Trails

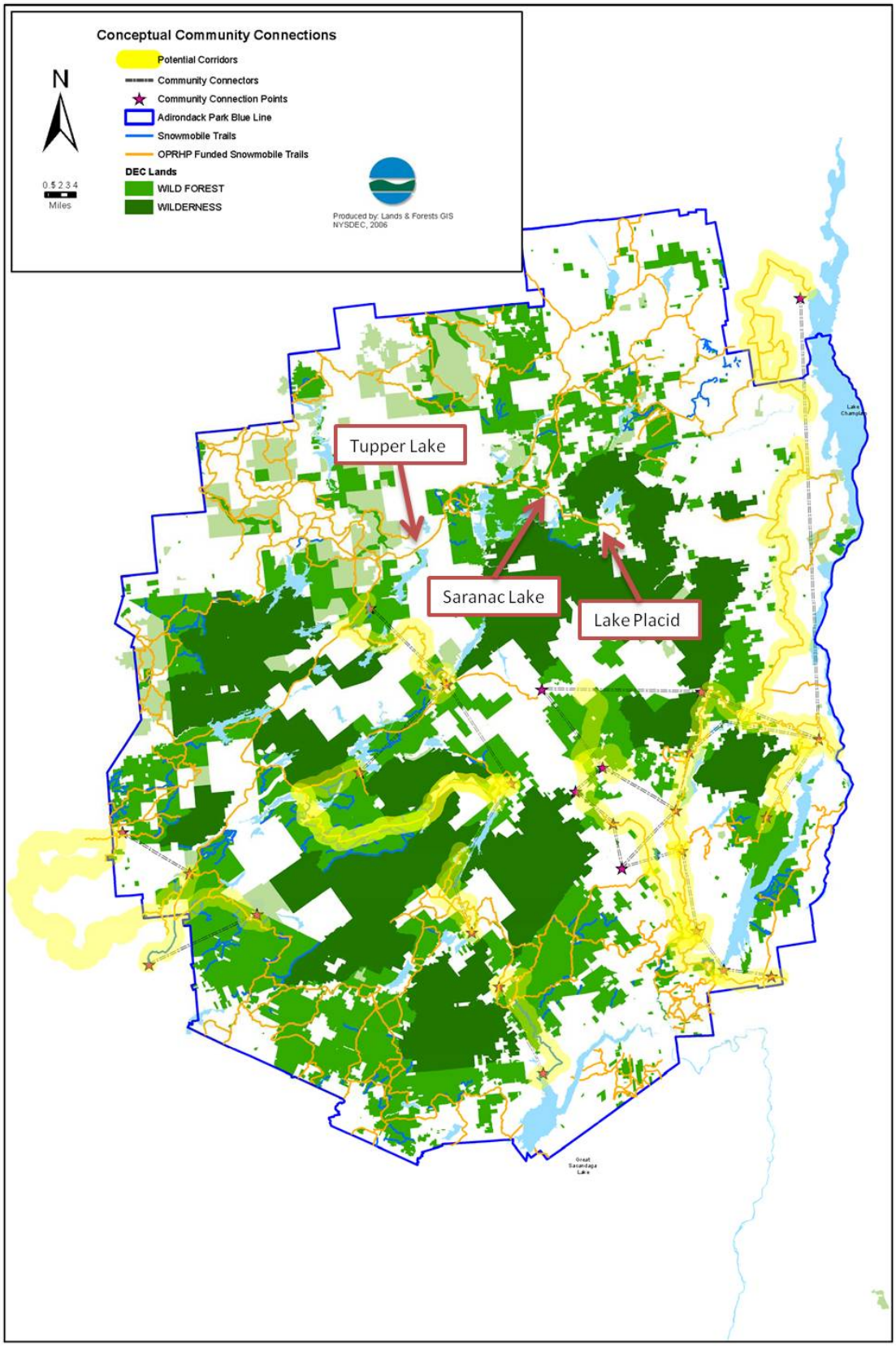
Source: http://www.adirondacks.com/essexsnowmobiling.html

St. Lawrence County Snowmobile Trail Map



Source: http://www.slcsa.org/2010-2011snow%20map.pdf

NYS DEC Snowmobile Trail Map



Source: http://www.dec.ny.gov/docs/lands_forests_pdf/snplfnlconm.pdf

APPENDIX F: CALCULATING SNOWMOBILE DAYS INSIDE THE ADIRONDACKS

The following table outlines the methodology used for estimating the number of "snowmobile days" inside the Adirondack Region (i.e. the "Blue Line"). This number is used in the analysis to estimate the amount of snowmobiler spending that could occur within the Study Area, if the rails were removed from the corridor, thereby allowing additional snowmobiler dollars to be captured in the Study Area.

Much of the data from this calculation came from the 2003 Snowmobile Owner Survey ("2003 Survey"), completed by the NYS Office of Parks, Recreation, and Historic Preservation. This survey went out to 5,000 owners of snowmobilers registered in NYS, and had a 27% response rate. NYS Department of Motor Vehicles (DMV) provided the balance of the information regarding the number of registered snowmobilers in NYS and the Study Area.

The first step in the calculation is to determine the total number of snowmobile days in New York State. According to the 2003 Survey, each snowmobile registered in NYS (over 131,000 in 2009) is ridden an average of 26 days. Since every snowmobile ridden in NYS must be registered in New York, the 3.4 million snowmobile days in NY includes both NYS residents and non-residents. According to the 2003 Survey, approximately 23% of those snowmobile days are spent within the Blue Line, which results in over 787,000 days.

The next step is to net out the snowmobile days inside the Blue Line spent by local Study Area residents by determining the number of locally registered snowmobiles and estimating the number of days they are ridden within the Adirondacks versus other areas of NYS. According to the DMV 2009-2010 season report, 2,888 snowmobiles are registered to residents of Franklin and Essex Counties.

Based on responses to the 2003 OPRHP Survey, snowmobilers spend approximately 63.1% of their time riding within their "county of residence". CA assumes that this percentage should be higher for locals in the Study Area because they generally have easier access to trails than other NYS residents have to trails in their own county. Therefore, CA assumes 75% of the local snowmobiler days are spent riding inside the Blue Line. CA then subtracted the 56,316 snowmobile days estimated for local Study Area residents from the total number of snowmobile days spent inside the Blue Line to arrive at an estimate of 731,035 snowmobile days spent inside the Blue Line by snowmobilers from outside the Study Area.

Total Snowmobile Days in the Adirondacks (i.e. the "Blue Line")	
Snowmobiles Registered in NYS[1]	131,664
Average Days Driven per Registered Snowmobile [2]	26
Total Snowmobile Days in NYS	3,423,264
% of Snowmobile Days Spent Inside the Blue Line [2]	23%
Snowmobile Days Spent Inside the Blue Line	787,351
Locally Registered Snowmobiles [3]	2,888
Total Snowmobile Days by Local Residents	75,088
% Snowmobile Days Spent in County of Residence [2]	75%
Snowmobile Days inside the Blue Line by Local Residents	56,316
Total Snowmobile Days inside the Blue Line by Non-Local Residents	731,035

1. All snow mobiles driven in NYS must be registered in NYS.
2. Snow mobile Ow ners Survey, OPRHP, 2003.
3. Season Report 2009-2010, OPRHP

APPENDIX G: NET NEW SNOWMOBILE DAYS BASED ON 1998 COUNT DATA

During the research for this study, Camoin Associates uncovered a 1998 report by the NYS Snowmobile Association that contains laser-counting data for the southern portion of the rail corridor at Beaver River. Located on the Tug Hill Plateau, Beaver River receives considerably more snowfall than the Central Adirondack Region, and in turn, significantly more snowmobilers. Therefore, this study would logically provide a basis for calculating a very high case estimate of snowmobile days on the rail corridor. CA used the Beaver River Study as an extra check on the snowmobile numbers used in the calculation of net new spending for the trail scenario to make sure the numbers used seem reasonable, based on the differences in climate and availability of snowmobile trails between the two regions.

The trail count information was used to develop a method for estimating a high case number of net new snowmobile days along the rail corridor under the trail scenario (shown in the following table). The information was derived as follows:

- The 1998 traffic study estimated a 10% error rate in the counting data, resulting in approximately 159,872 snowmobiles on the trail. Based on the proximity of the counting station to other snowmobile trails, it is assumed that one in three actual counts on the trail were return trips of individuals previously counted. Deducting these return trips, leaves us with 106,582 actual snowmobilers on the trail.

- The portion of local vs. non-local riders (75%) is based on a 2003 Snowmobile Owners Survey completed by NYS Office of Parks, Recreation & Historic Preservation.

- Total non-local snowmobile days were by 12 weeks to arrive at a weekly average, and then multiplied by the 8 weeks that these snowmobilers cannot access the rail corridor due to lack of snow, according to interviews.

Net New Snowmobile Days: Based on 1998 Trail Count Data	
Raw Data for 3 Months at Beaver River Station	177,636
% Error (Animals, humans, etc.)[1]	10%
Error Count	17,764
Total Counts Net Error	159,872
Rate of Return Trips (1 in 3) [2]	33.33%
Return Trips Counted	53,291
Total Snowmobile Days On Corridor During Study Period	106,582
% Snowmobile Days Spent in County of Residence [3]	75.0%
Local Residents During 3 Months	79,936
Snowmobile Days in Season - Non-Locals	26,645
Weeks in Season	12
Non-Local Snowmobile Days per Week on Corridor	2,220
# Weeks Unable to Groom Trails	8
New Snowmobile Days in Rail Corridor by Non-Local Residents	17,764

1. Error estimate provided in the 1998 report.
2. Estimated based on geography of existing trails in the region.
3. Snow mobile Ow ners Survey, OPRHP, 2003.

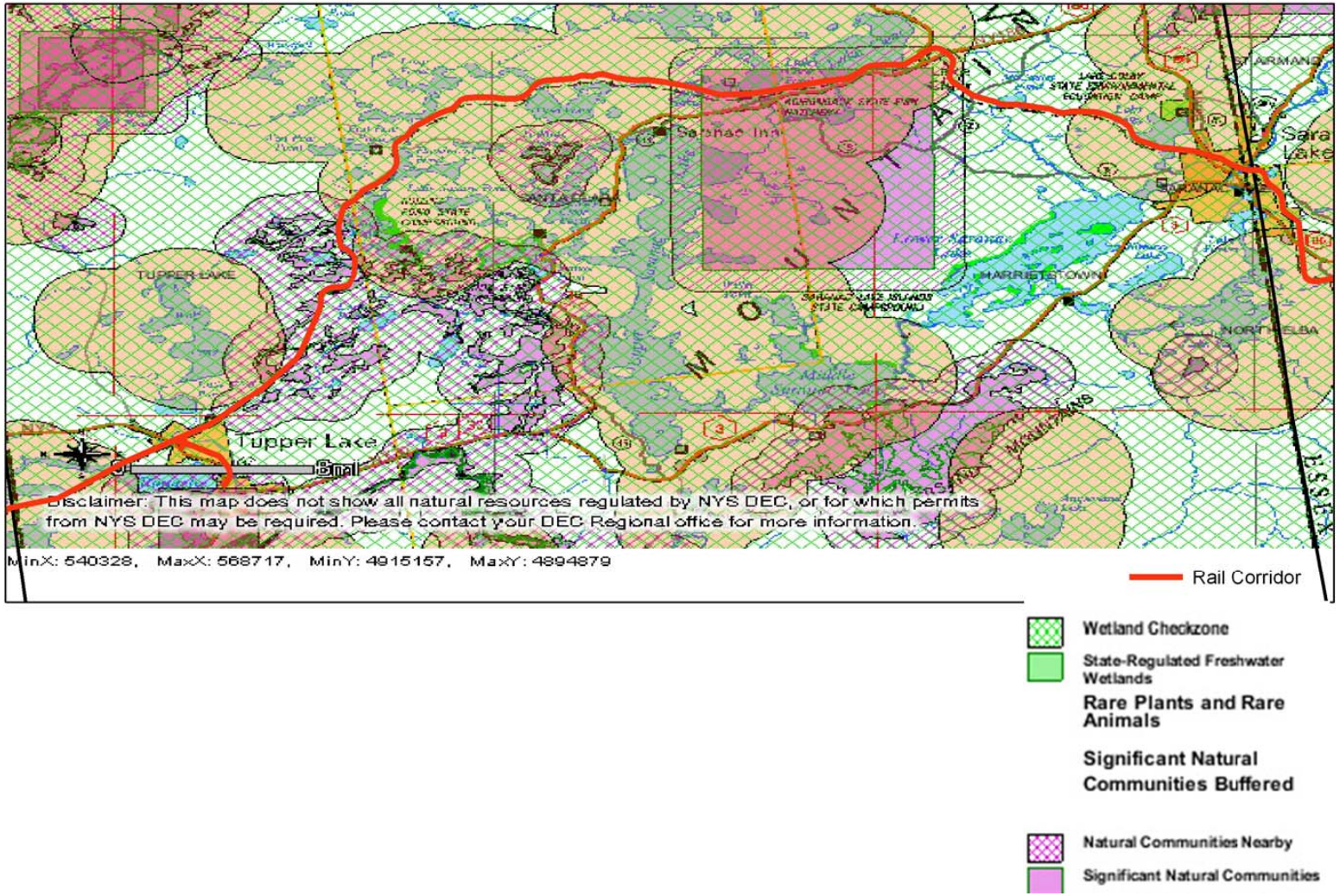
APPENDIX H: SNOWMOBILE SPENDING CASE STUDIES

The following table summarizes the per capita per day spending figures from six surveys of snowmobilers in different locations across the U.S.

State	Snowmobiler Spending per Day
New Hampshire	$88.30
Michigan	$123.16
Wyoming	$98.99
Wisconsin	$78.23
Montana	$171.00
Idaho	$106.00
Average	**$110.95**

APPENDIX I: ENVIRONMENTAL CONSTRAINTS MAP

The following map illustrates the various environmental constraints along the corridor.
Source: NYSDEC Environmental Resource Mapper *(Note: Orange areas indicate rare plants and rare animals.)*



APPENDIX J: PHOTOGRAPHS ALONG CORRIDOR

The following images of the rail corridor were taken during the B&L site-visit, in October 2010.

Picuture 1

Picutre 2

Picture 3

Picutre 4

APPENDIX K: COMPARISON TO OTHER NEW YORK RAILROAD UPGRADE ESTIMATES

The following table lists several railroad upgrade projects completed throughout New York State. Since these examples were all upgraded to FRA Class II rail, they cost less per mile than the rail excursion rail upgrade outlined in Scenario 1, which consists of upgrading of the line to FRA Class III.

NY Track Upgrade Costs Comparison						
Railroad	Type	Upgrade Description	L (Mi.)	Cost	Cost/Mile	Notes
Buffalo Southern RR	Freight	Upgrade to FRA Class 2 including tie replacement, adding ballast, resurfacing and aligning track, bridge rehab	9	$1,269,000	$141,000	
Cen NY RR/Clarendon & Pittsford RR	Freight	Upgrade to FRA Class 2 including 8700 tie replacement, adding ballast, resurfacing and aligning track	28.8	$2,920,000	$101,388	Average 2.25 Ties/39' Rail
Depew, Lancaster and Western RR	Freight	Upgrade to FRA Class 2 including 6000 tie replacement, adding ballast, ditches, two 500' sidings	5.05	$970,000	$192,079	Average 3.15 Ties/39' Rail
Falls Road RR	Freight	Upgrade to FRA Class 2 including 12000 tie replacement, adding ballast, resurfacing and aligning track, bridge rehab	10	$1,270,000	$127,000	Average 2.0 Ties/39' Rail
Finger Lakes RR	Freight	Upgrade to FRA Class 2 including 17500 tie replacement, adding ballast, resurfacing track	38.5	$2,783,000	$72,285	Average 3.35 Ties/39' Rail
Livonia, Avon & Lakeville RR	Freight	Upgrade to FRA Class 2 including tie replacement, adding ballast, resurfacing and aligning track, bridge rehab	5.13	$1,360,000	$265,107	
Mohawk, Adirondack and Northern RR	Freight	Replace 500 ties, 15 weld plugs, repari four old stone arch bridges	NA	$1,200,000	NA	
NY and Lake Erie RR	Freight	Upgrade to FRA Class 2 including 5 miles from Class 1 and 4.5 miles from excepted	9.5	$1,350,000	$142,105	
New York and Ogdensburg	Freight	Rehabilitation including 10000 tie replacement, adding ballast, resurfacing and aligning track	6	$1,050,000	$175,000	Average 12.3 Ties/39' Rail
New York, Susquehanna and Western	Freight	Upgrade to FRA Class 2 including tie replacement, switch timbers, adding ballast, resurfacing and aligning track, twelve bridge and culvert rehab.	71.74	$2,950,000	$41,120	

Owego & Hartford RR	Freight	Rehabilitation including 14000 tie replacement, adding ballast, resurfacing and aligning track	14	$1,550,000	$110,714	Average 7.4 Ties/39' Rail
Rochester and Southern RR	Freight	Rehabilitation including tie replacement, adding ballast, resurfacing and aligning track	58	$1,400,000	$24,137	

APPENDIX L: ORIENTATION MAPS OF THE RAIL CORRIDOR (TUPPER LAKE TO LAKE PLACID)

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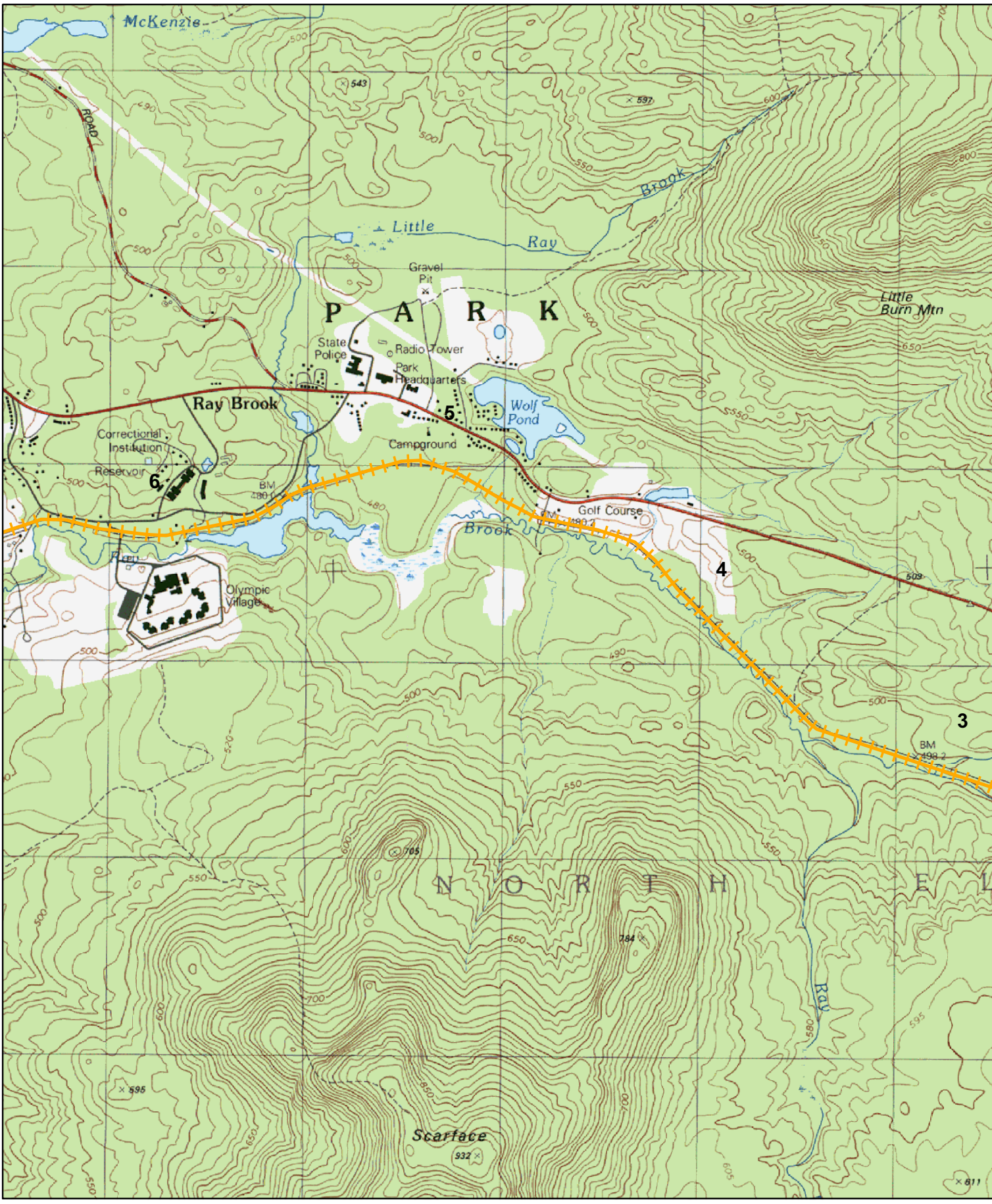

Barton & Loguidice, P.C.

Engineers · Environmental Scientists · Planners · Landscape Architects

1 inch

= 2,000 feet

ADK Action

Rail Corridor Economic Impact Study

Conditions & Features Map

Essex & Franklin Counties 10/15/10 New York

Figure 1

Project No. 1359.001


Saranac Lake Station (MP 9.79)
Lake Colby
Substation
Adirondack Educational Center
Sewage Disposal
Gravel Pit
Hospital
Picnic Area
Mt Pisgah Ski Area
Trudeau
Radio Tower
Mt Pisgah
LAKE COLBY
Little Colby Pond
Ampersand Bay
SARANAC LAKE
Baker Mtn
Moody Pond
Pine Ridge Cem
St Bernards Cem
Athletic Field
High Sch
Middle Sch
Pius X Central High Sch
Townhall
Library
Park
North Country Community College
BROADWAY
UPPER
SARANAC
SKI LIFT
BLOOMINGDALE
MC KENZIE
ESSEX CO
FRANKLIN CO
RIVER
12
11
10
9

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Rail Corridor Economic Impact Study
Conditions & Features Map

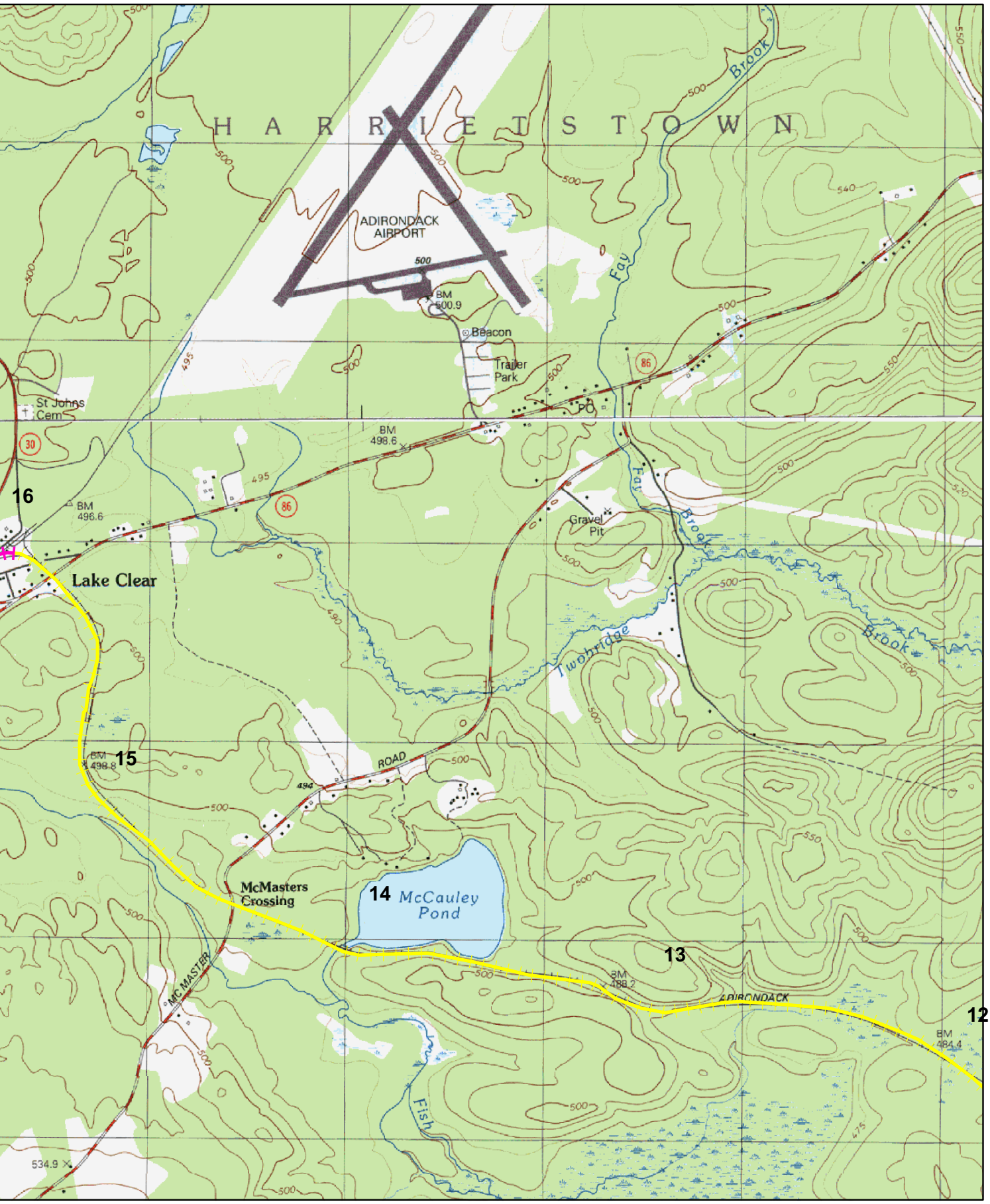
Essex & Franklin Counties 10/15/10 New York

Figure 2

Project No. 1359.001

Barton & Loguidice, P.C.

1 inch



N

= 2,000 feet

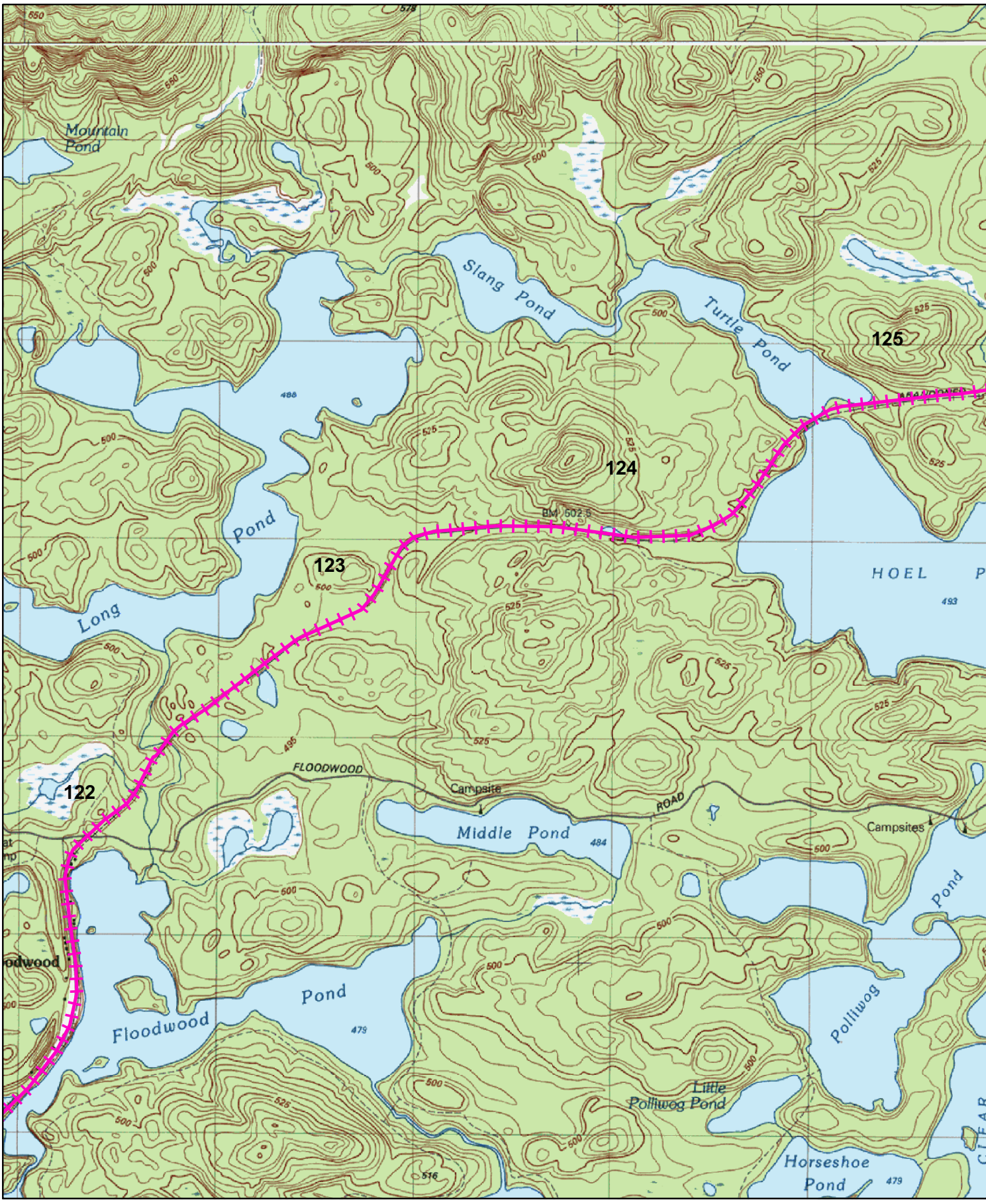
ADK Action

Rail Corridor Economic Impact Study
Conditions & Features Map

Essex & Franklin Counties 10/15/10 New York

Figure 3

Project No. 1359.001



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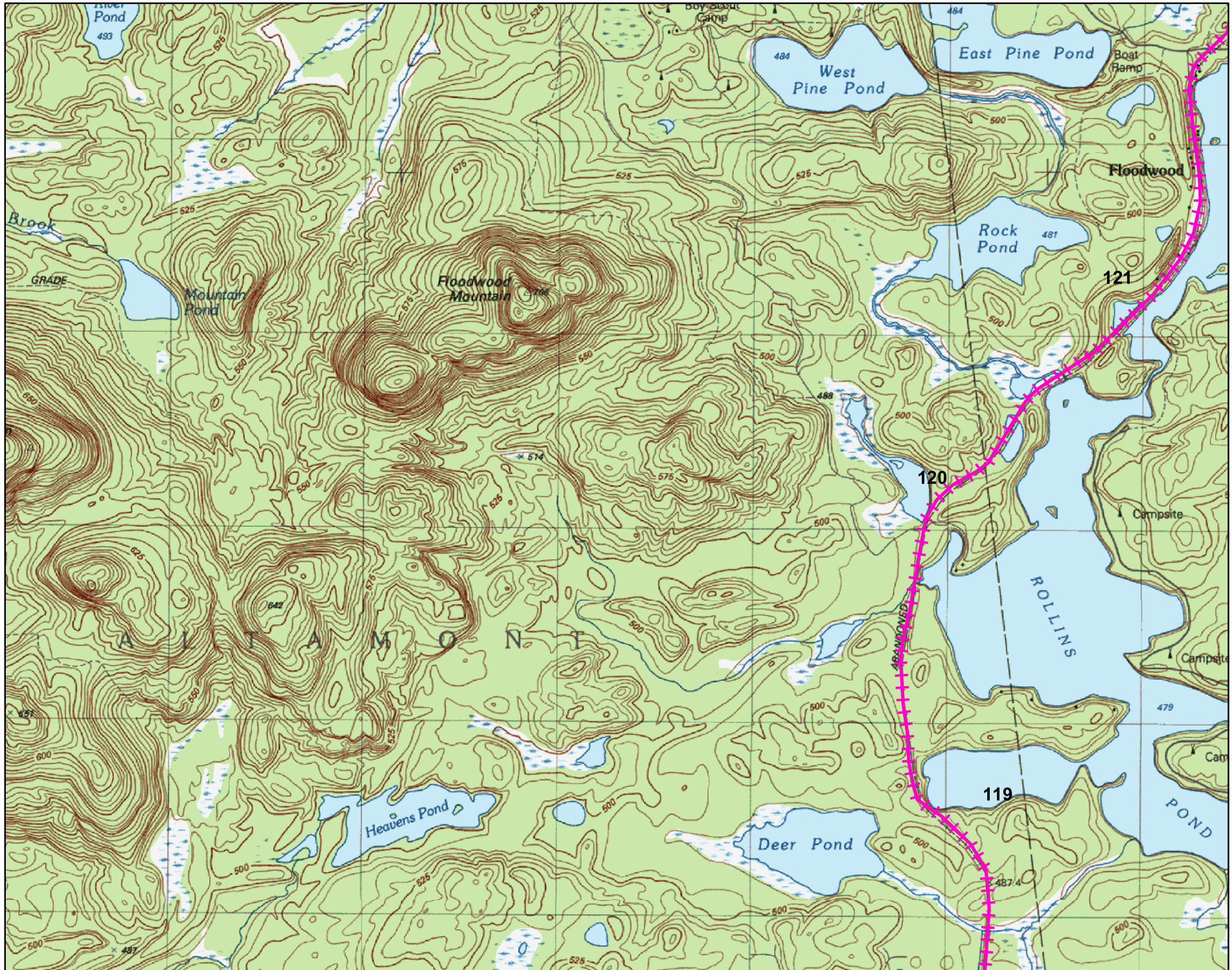
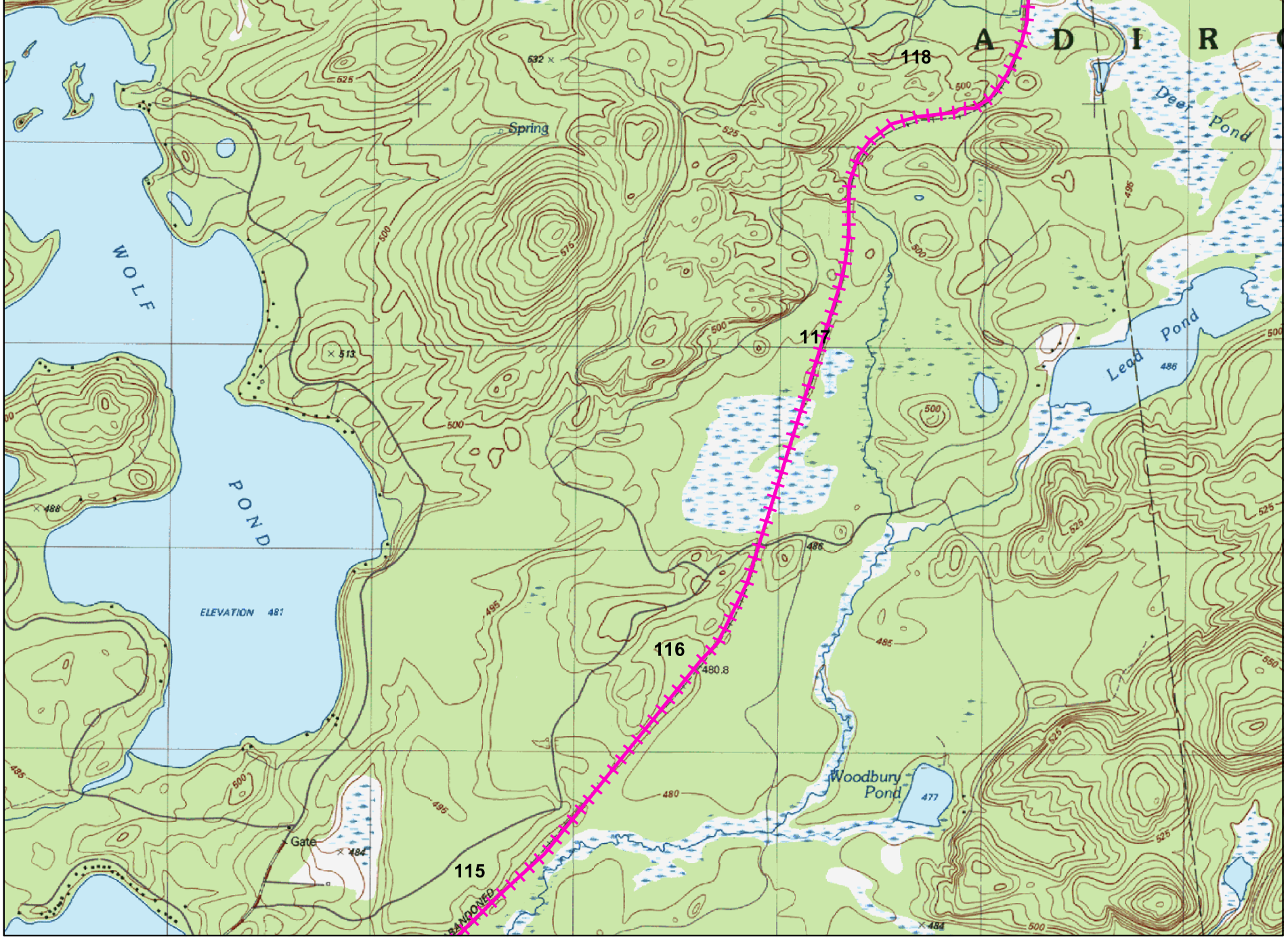
Conditions & Features Map

Essex & Franklin Counties 10/15/10 New York

Figure 4

Project No. 1359.001


Boy Scout Camp
West Pine Pond
East Pine Pond
Boat Ramp
Floodwood
Rock Pond
121
Brook
GRADE
Mountain Pond
Floodwood Mountain
120
Campsite
ROLLINS
ABANDONED
Campsite
119
POND
Heavens Pond
Deer Pond
ALTAMONT



1 inch = 2,000 feet

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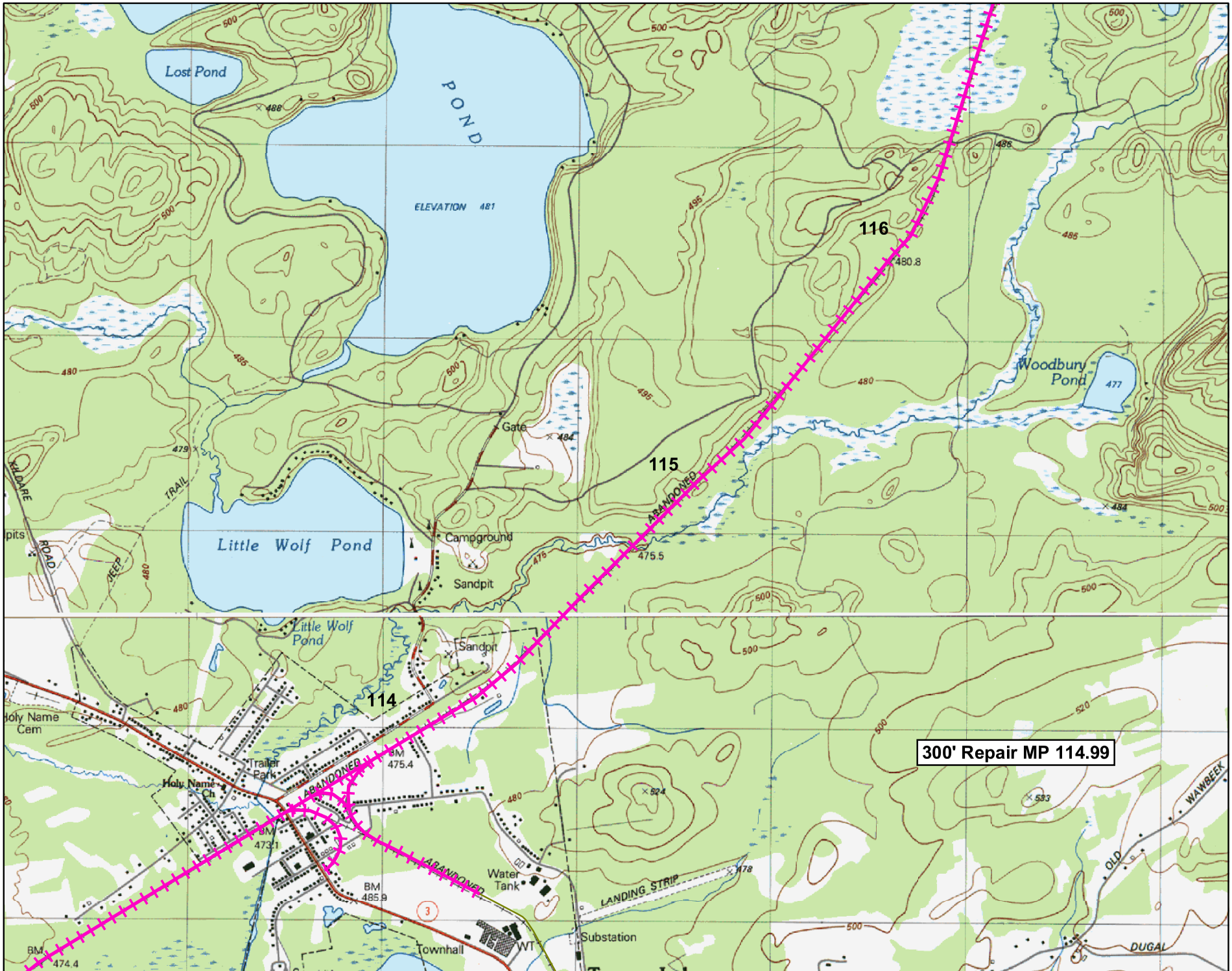
Rail Corridor Economic Impact Study
Conditions & Features Map

Essex & Franklin Counties 10/15/10 New York

Figure 5

Project No. 1359.001


Lost Pond
POND
ELEVATION 481
116
480.8
Woodbury Pond
477
Gate
484
115
ABANDONED
Campground
475.5
Sandpit
Little Wolf Pond
KILDARE ROAD
JEEP TRAIL
Little Wolf Pond
Sandpit
114
Holy Name Cem
Trailer Park
ABANDONED
BM 475.4
Holy Name Ch
BM 473.1
ABANDONED
Water Tank
BM 485.9
LANDING STRIP
478
524
533
Townhall
WT
Substation
BM 474.4
OLD WAWBEEK
DUGAL
300' Repair MP 114.99

1 inch = 2,000 feet

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Conditions & Features Map
Essex & Franklin Counties 10/15/10 New York

Figure 6
Project No. 1359.001