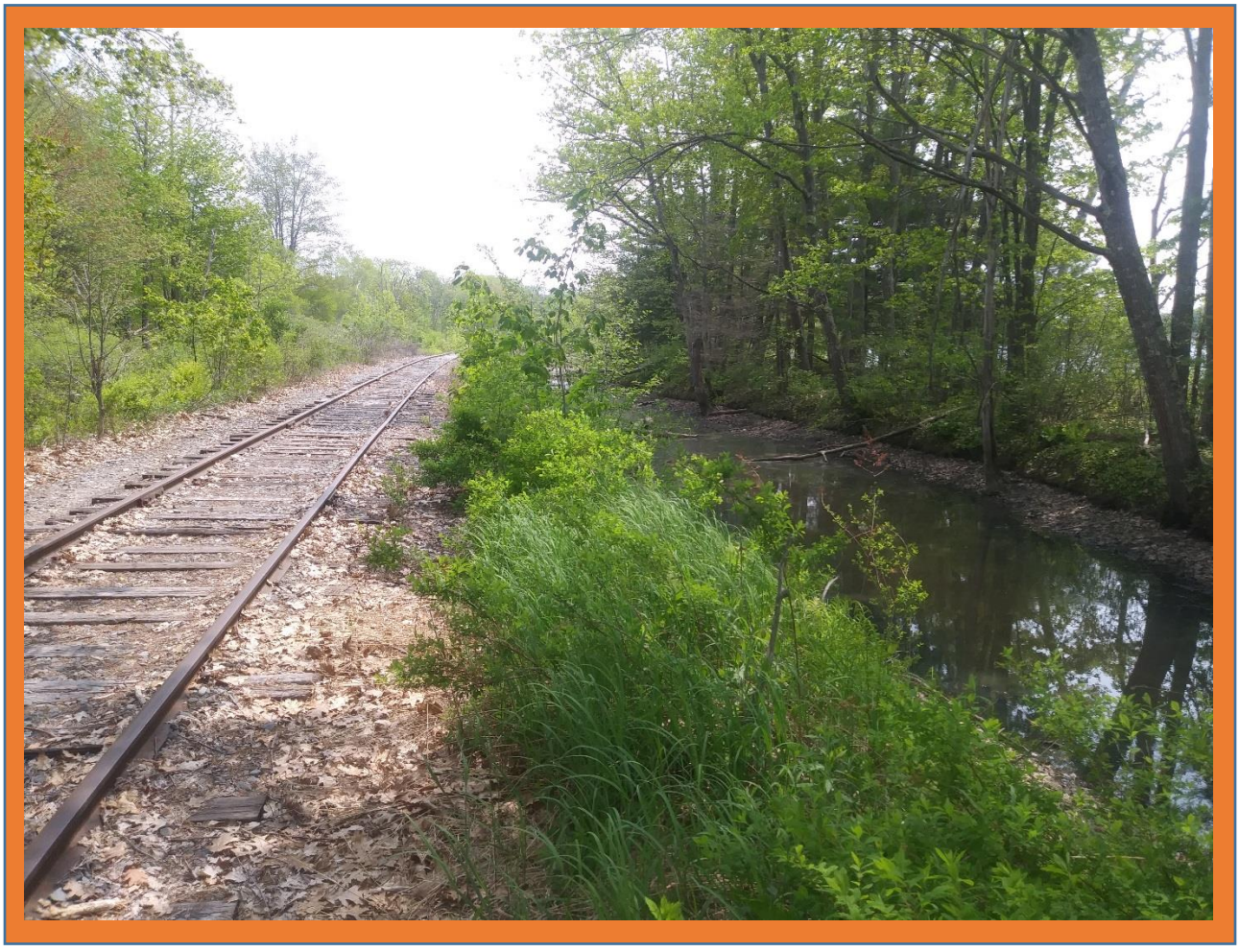
PRELIMINARY INVENTORY
and
ASSESSMENT REPORT
of
Lewiston Lower Branch Rail Corridor

Lewiston/Lisbon, Maine
September 14, 2018



Prepared for:

Lewiston-Auburn Railroad Company

Prepared By:

SEBAGO TECHNICS
CIVIL ENGINEERING • SURVEYING • LANDSCAPE ARCHITECTURE

Lewiston Lower Rail Corridor – Inventory and Assessment Report

Contents

1.0 INTRODUCTION

1.1 Scope of Work

We are pleased to present this Inventory and Assessment Report for the Lewiston Lower Railroad Corridor between Lewiston, Maine and Lisbon, Maine. The purpose of our services was to conduct a preliminary inventory and assessment of the general features and condition of the rail corridor for evaluating its potential use as a recreational trail.

These preliminary findings are also intended to provide information to assess the feasibility of constructing the proposed trail, identify preliminarily permitting considerations and/or restrictions and preliminary cost estimates. The information contained herein may be used to supplement other information that may be required to make decisions regarding pursuit of a recreational trail, seek potential funding opportunities and/or preliminary land development and environmental permits from the Maine Department of Environmental Protection (MDEP), Maine Department of Transportation (MDOT), U.S. Army Corps of Engineers (Corps), and/or the municipalities of Lewiston and Lisbon. Included in this report is information about wetland-related and transportation-related regulations and permitting requirements as they pertain to proposed development of the corridor.

The scope of our services has been limited to an inventory of the existence and condition of certain corridor features. This report has been prepared for the exclusive use of the Lewiston-Auburn Railroad Company for specific application to the Lewiston Lower Rail Corridor between Lewiston, Maine and Lisbon, Maine. The conclusions and recommendations presented in this report are based upon the data obtained from in the field explorations and specific information gathered relative to the areas explored.

1.2 Summary of Findings

The Lewiston Lower Branch Rail Corridor originates in downtown Lewiston, Maine and traverses roughly parallel to the Androscoggin River to Brunswick, Maine. The corridor is inactive through all of Lewiston and most of the Town of Lisbon. This subject section is currently owned by Pan Am Railways. From approximately its intersection with Route 125 in Lisbon to the Town of Brunswick the corridor is ‘active’, owned by the State of Maine and operated by Pan Am Railways.

The subject area of this report begins at Cedar Street in Lewiston and stretches for approximately 10.5 miles to the corridor’s intersection with State Route 125 in downtown Lisbon Falls. Sebago Technics’ staff walked, photographed and documented this the subject area over the course of several days in the late Spring/Early Summer of 2018. The corridor is overgrown yet shows multiple signs of active recreational use. It was found to be in relatively good condition. However, there are multiple areas of erosion of the rail bed. Bridge structures along the corridor are generally in good condition with varying improvements and upgrades needed for use as a recreational trail. The inventory of existing conditions includes:

- Fifteen (15) areas of erosion, ranging from minor to severe, were noted along the length of the corridor.
- Two (2) other areas which may present general engineering challenges were also noted on Locust Street and along steep banks leading down to a stream.
- Existing and non-existing track segments were documented and can be found on the included map sheets.

- Possible wetlands, wet areas, and water bodies have been located and photographed. These areas are shown on map sheets.
- Scenic areas, often coinciding with bridge crossings and notable wetlands, were also located, photographed, and can be found on the map sheets.
- Seven (7) Bridge crossings were noted including the structure type, approximate length and general condition.
- Fifteen (15) locations, ten (10) in Lewiston and five (5) in Lisbon, where the corridor crosses vehicular roadways, were located and photographed. Rails appear to have been either removed or paved over at each crossing.

The route of the corridor traverses both urban, suburban and rural areas of the two municipalities. In many locations the corridor is in close proximity to commercial, industrial or residential properties. The corridor crosses numerous roadways (highway, arterial and local) providing excellent access and connectivity. Numerous, but undocumented, historical structures and activities are adjacent to the trail providing a glimpse of its former use and role in the local economy and transportation. Scenic opportunities along the corridors offer an interesting aesthetic as well as excellent environmental learning opportunities.

Overall, the Lewiston Lower Rail Corridor appears to be an excellent candidate for the establishment of a recreational trail providing opportunities for pedestrians and bicyclists. Other recreational uses such as horses and snowmobiles would have to be further evaluated relative to their specific concerns and needs. Finally, the proposed trail provides easy potential connections to the Papermill Trail in Lisbon and the Riverwalk trail and bridge in Lewiston-Auburn. Therefore, the Lewiston Lower Corridor offers the opportunity to create a connected trail system providing more than 15 miles of recreational use to the area.

2.0 ENGINEERING ASSESSMENT

2.1 Engineering Challenges

The Corridor was originally constructed for railroad use. As such its design was for the transport of very heavy trains, their freight and passengers. Due to their engineering design most rail corridors are excellent candidates for less intensive recreational use. However, due to the age of the Corridor and its lack of use and maintenance there are numerous areas where improvements, repair, maintenance and potential reconstruction is needed.

From an engineering perspective there are areas of notable erosion along the corridor. These areas were located and photographed within the railroad corridor. Notable erosion was determined when significant scouring that may threaten rail bed integrity was observed beneath or adjacent to railroad ties. Fifteen such areas were observed along the corridor. Two other areas, including the need for a retaining wall on the southerly edge of the Androscoggin Mill, may present general engineering challenges and notable costs. Many of these areas will pose design and construction challenges due to their location. It is not possible to fully understand the extent of the erosion in each case without further geotechnical exploration. In addition, it will be important to understand the causes of the erosion in order to engineer solutions to properly restore the rail bed and prevent future erosion. It should also be noted that due to general overgrowth of the rail corridor there may by additional areas of erosion or unstable rail bed that will need to be repaired or replaced with an engineered solution.

The bridges along the corridor appear to be in relatively good condition for the proposed use. These structures were designed to support many tons of weight. However, there are visible signs of needed repairs and further investigation.

All assessments of the condition and assessment of the rail bed, structures and areas of erosion have been developed based upon visual observation only. No testing, analysis or preliminary engineering was performed as part of the scope of this report.

Photos of erosion and other engineering challenges may be found in Appendix A.

Locations are depicted on map sheets in Appendix B.

2.2 Rail Bed and Corridor

The Corridor appears to vary in width throughout its length of 10.5 miles. On average the rail right-of-way appears to be between 60 and 70 feet in width. Note: A common right-of-way width was four rods or 66'. Many areas of the rail right-of-way are wider or jut out due to grading, sidings, wetlands, etc. The rail bed ranges from raised to cut gorges to relatively level with surrounding topography. Except in a few locations of parallel tracks or sidings the rail bed is approximately 8'-12' in width. Railroad ties and rail remain for most of the length of the corridor. In many cases the former track and ties have been filled in with soil and plant growth over the years. Sections of the trail show active recreational use with a beaten path running parallel to the rail and ties. Tree and plant overgrowth has impacted many sections of the corridor obscuring visibility and making passage difficult.

A number of locations along the corridor show visible signs of erosion of the rail bed. In some instances, track and ties are suspended above washed areas of the rail embankment. Identification of the sources of erosion were not part of this study, however, they would need to be further explored and engineered prior to developing solutions for repair/replacement. As

was common with the railroad engineering of the time, little evidence of stormwater systems is evident. Most stormwater is conveyed via trackside ditches with occasional conveyance of stormwater, streams or rivers via structures or bridges. Over time these ditches have filled in and may need to be cleaned or re-established in order to provide proper drainage.

2.3 Existing Rail

Most of the rail (train track) that existed as part of the railroad operations appears to remain in place along the corridor. In most instances the rail is still fastened to rail ties by means of rail spikes. The rail is primarily single track, but there are several locations of dual, parallel track or rail sidings.

Existing rail segments were located and photographed at their beginning and end points. In some cases, the end of a rail segment coincided with the intersection of a paved road, where rails either stopped abruptly or were paved over. Some roadway crossings showed evidence or exposure of rail. However, several major roadway crossings are presumed to have had rail removed coincident with roadway improvements.

All existing Rail segments are depicted on map sheets in Appendix B.

Photographs of railroad crossings where rail has been paved over can be found in Appendix A.

Photographs of areas of notable erosion can be found in Appendix A.

2.4 Roadway Crossings

Over the course of its 10.5 miles the corridor intersects with fifteen (15) public roadways. Three of these crossings are above grade and the remainder are at grade. Each crossings poses slightly different design needs, but in general each crossing is readily adaptable to serve as a safe, recreational intersection.

An inventory, summary condition, and future design considerations of each crossing is noted below.

LEWISTON:

Locust Street – The intersection of the corridor with Locust Street is marked by the absence of the original railroad bridge. A replacement structure would need to be constructed to permit above-grade crossing. Pedestrian or bicycle access to Locust Street at this location would be difficult and costly.

South Avenue – The intersection of the corridor with South Avenue is wide open with good visibility both to the north and south of the rail corridor. The crossing is relatively flat and the rail appears to have been paved over or removed with the advent of roadway improvements. Future improvements would include advance signage, trail bollards and on the road markings.

Alfred Plourde Parkway – The corridor is crossed, above-grade, by Alfred Plourde Parkway near Exit 80 of the Maine Turnpike. This crossing is located well below the vehicular travel way with little opportunity to reasonably access the road from the rail corridor. Due to its location and depth below the road surface, for future improvements may want to consider placing lighting under the Plourde Parkway bridge to illuminate the corridor for safety.

Pleasant Street – The rail corridor crosses outer Pleasant Street in an area where numerous buildings were once served by rail access. The crossing has good visibility and is relatively flat. Future improvements would include advance signage, trail bollards and on the road markings.

Rt. 196/Lisbon Street – As the corridor approaches this intersection there are numerous areas where abutting properties have assumed use of the original corridor. These areas would need to be evaluated to determine the best route to establish a trail. The original rail corridor crossed the roadway at an acute angle creating an extended length to the crossing. A crossing of 90^0 would be preferred to create a shorter distance and visibility. Vehicular speeds and traffic volume along the roadway would warrant a highly visible pedestrian/bicycle crossing marked with advance signage, self-activated flashing lights, reflective pavement markings and trail bollards.

Maine Turnpike (US Interstate 95) – The interstate highway crosses above the rail corridor parallel to Lisbon Street/Rt. 196. The overhead bridge structure is supported by concrete piers which serve to narrow the rail corridor. No improvements would appear to be needed at this location.

Gould Road – Gould Road is a short roadway connecting Lisbon Street/Rt. 196 with Old Lisbon Road. The rail corridor crosses the narrow roadway at about a 90^0 angle in an open, visible location. Future improvements would include advance signage, trail bollards and on the road markings.

Old Lisbon Road – The rail corridor crosses Old Lisbon Road at about a 45^0 angle just after a curve in the road way. If possible within the rail/roadway right of way, it would be desirable to design a corridor crossing at a 90^0 angle. Future improvements would include advance signage, trail bollards and on the road markings.

Crowley Road – The rail corridor crosses Crowley Road near a bridge over No Name Brook. The area of the crossing has good sight distance and overall visibility. A pedestrian/bicycle trail crossing should be designed to intersect the roadway at about 90 degrees. Future improvements would also include advance signage, trail bollards and on the road markings.

Jordan Road – This very narrow, rural roadway crosses the rail corridor at about a 45 degree angle. Sight distance is relatively good for what is a low speed, low traffic roadway. Rails are still visible and present within the road. Future improvements would include advance signage, trail bollards and on the road markings.

LISBON:

Lisbon Road/ Rt. 196 – The rail corridor crosses Rt. 196 for the second time just across the Lisbon town line. This section of Rt. 196 is higher speed with significant traffic volumes. The roadway is wide with paved shoulders. The rail corridor becomes obscured on both sides of the roadway and would require the clearing of trees and brush for access and visibility. There is good sight distance in both the easterly and westerly directions on the roadway. Vehicular speeds and traffic volume along the roadway would warrant a highly visible pedestrian/bicycle crossing marked with advance signage, self-activated flashing lights, reflective pavement markings and trail bollards.

Moody Road – Moody Road is a relatively narrow, rural roadway as it intersects with the rail corridor. There is good sight distance along the roadway and the corridor crosses at

approximately a 90^0 angle. Future improvements would include tree/brush clearing, advance signage, trail bollards and on the road markings.

Winter Street – After traversing close behind a number of residences the rail corridor crosses Winter Street at approximately a 90^0 angle. Sight distance along Winter Street is good for the posted speed. Future improvements would include advance signage, trail bollards and on the road markings.

Village Street/Ferry Road/Pinewoods Road – The rail corridor crosses the intersection of Village Street, Ferry Road and Pinewoods Road in Lisbon. Two tracks of rail are still present and visible in the intersection. The corridor crosses directly through the T-intersection of the roads. Accordingly, the design of a pedestrian/bicycle trail crossing would need to pay particular attention to both through traffic (Village Street) and stopped traffic (Pinewoods Road). Sight distance is good along both roadways. Future improvements would include advance signage, trail bollards and on the road markings.

River Road – The rail corridor crosses River Road in Lisbon just south of its intersection with Rt. 196. The corridor crosses at less than a 90^0 angle, however, there is good sight distance in both directions. Future improvements would include advance signage, trail bollards and on the road markings.

3.0 ENVIRONMENTAL ASSESSMENT

Sebago staff sought to identify various environmental conditions and features along the corridor. The purpose of the environmental assessment was to note wetlands, water bodies and scenic areas. These areas also may need to be identified and considered in any future design and environmental permitting.

3.1 Possible Wetlands, Wet Areas, and Water Bodies

Sebago deployed one of its Environmental Scientists to inventory environmental conditions along the corridor. Though the inventory notes multiple locations of wetlands, streams, and water bodies these areas were not delineated nor assessed for the purposes of environmental permitting. They were simply noted relative to their proximity to the corridor. Many of the noted wetlands, streams and water bodies may have permitting, regulation and design implications. Due to the scope of our work and time of year we also did not inventory or identify potential vernal pools along the corridor.

Photographs of selected areas can be found in Appendix A.

Possible wetlands, wet areas, and water bodies are depicted on map sheets in Appendix B.

3.2 Scenic Areas

Scenic areas were located and photographed. These locations are generally subjective and may not reflect all possible scenic locations within the project boundary. Androscoggin River adjacency was considered scenic; however, photos were not taken all along the river.

Photographs of scenic areas are depicted in Appendix A.

Scenic area locations are depicted on map sheets in Appendix B.

4.0 PRELIMINARY STRUCTURAL ASSESSMENT

4.1 Bridge Crossings

Bridge crossings were located and photographed. Six bridges were found within the project boundary. All bridges showed signs of human traffic. Field personnel were able to safely cross each bridge. The Locust Street intersection bridge is the only one to have been removed, anecdotally to raise the maximum height for vehicular traffic.

Photos of bridges can be found in Appendix A

Bridge crossing locations are shown on maps in Appendix B.

Locust Street – The bridge that used to cross Locust Street was a significant steel girder structure. Originally spanning approximately 50'-60', it was removed in the early 1990's due to its height being a safety hazard for tractor trailer truck traffic on Locust Street. The large granite block abutments are in good condition, however, may require repointing for structural stability. The top of each abutment is overgrown with small trees and brush and would need to be cleared.

Androscoggin Mill Cross Canal (Bridge Crossing #1) – This bridge is the most significant along the rail corridor spanning more than 100'. It is supported by granite block abutments that rise high over the combination cross canal and streamway that serves as the outlet for the Upper Canal system. The channel empties directly into the Androscoggin River. The bridge is constructed of steel girders that appear to be in good condition. Ties currently supporting the rails are rotten in several areas and would need to be replaced. To be used as a pedestrian/bicycle bridge rails would need to be removed, ties replaced and some type of solid decking installed. Railings and a higher fence would also need to be installed due to the height of this structure.

Promenade Ravine – SW of the Promenade Mall the railroad crosses a deep ravine with an elevation change of 30'+/-. The railbed is non-existent for approximately 500 l.f. No bridge structure currently exists. Depending upon final design grades the approaches to the ravine will need to be raised and a new bridge structure or large culvert will need to be installed.

Crowley Road – West (Bridge Crossing #2) – This small bridge structure is located approximately 130' to the west of Crowley Road in Lewiston. The structure spans about 20' and is supported by concrete abutments. Some rail ties would need to be replaced and new decking installed for use as a pedestrian bridge.

Crowley Road – East (Bridge Crossing #3) – This is a steel girder bridge located approximately 115' easterly of Crowley Road in Lewiston. It spans about 30' and rests upon granite block abutments.

No Name Brook (Bridge Crossing #4) – This bridge is located approximately 225' northwesterly of Rt. 196 just over the Lisbon town line. The bridge spans about 40' and shows signs of erosion around the abutments on either end. Rail ties would need to be replaced and decking installed.

Whitney Street (Bridge Crossing #5) – This small bridge spans about 10'-12' and lies just east of Whitney Street in Lisbon. Ties on the land side of the bridge are rotten and in need of replacement. Rotten ties would need to be removed, replaced and decking installed for use as a pedestrian bridge.

Sabattus River (Bridge Crossing #6) – This bridge crosses the Sabattus River at its outlet to the Androscoggin River. It is located approximately 90' parallel to the Rt. 196 bridge which also spans

the Sabattus River. It is a steel girder bridge supported by granite block abutments which appear to be in good condition.

All bridge locations will require further structural and geotechnical investigation prior to assessment of the suitability, modification or cost of engineered solutions for their reuse for the intended purposes.

5.0 PERMITTING ANALYSIS

The permitting of recreational trails along former railroad corridors can span numerous local, state and federal requirements. Environmental, transportation and local abutter concerns are the most common permitting considerations. Generally speaking, the Maine Department of Environmental Protection (MDEP) and US Army Corps of Engineers (USACOE) have jurisdiction over various environmental, wetland and water body considerations. Local Planning Boards, Building Inspectors and State Transportation officials are typically concerned with safety, intersection design, and structures such as bridges.

A summary of various natural resources permitting considerations is as follows:

5.1 Natural Resources

Stream Regulations and Permitting

Streams are Protected Natural Resources under the MDEP Natural Resources Protection Act (NRPA). Stream alteration, or soil or vegetation disturbance within 25 feet of a stream, generally requires an Individual permit from the MDEP. Soil or vegetation disturbance between 25 feet and 75 feet from a stream or a stream crossing generally requires filing of a MDEP Permit-by-Rule (PBR) Notification. Streams are also protected by USACOE. Any direct alteration of a stream requires a permit from USACOE.

Wetland Classification, Regulations, and Permitting

MDEP

The MDEP uses two categories to classify wetlands for permitting purposes; “Wetlands of Special Significance” (*WOSS*) and “Wetlands Not of Special Significance”. A *WOSS* is defined in the NRPA, Chapter 310 – Wetlands and Waterbodies Protection, Section 4. The following eight criteria are used in determination of a *WOSS*:

1. **Critically imperiled or imperiled community**. The freshwater wetland contains a natural community that is critically imperiled (S1) or imperiled (S2) as defined by the Natural Areas Program.

2. **Significant wildlife habitat**. The freshwater wetland contains significant wildlife habitat as defined by 38 MRSA § 480-B(10).

3. **Location near coastal wetland**. The freshwater wetland area is located within 250 feet of a coastal wetland.

4. **Location near a Great Pond**. The freshwater wetland area is located within 250 feet of the normal high water line, and within the same watershed, of any lake or pond classified as a great pond under the Great Pond Act (GPA) 38 MRSA § 465-A.

5. **Aquatic vegetation, emergent marsh vegetation or open water**. The freshwater wetland contains, under normal circumstances, at least 20,000 square feet of aquatic vegetation, emergent marsh vegetation, or open water, unless the 20,000 or more square foot area is the result of an artificial pond or impoundment.

6. **Wetlands subject to flooding**. The freshwater wetland area is inundated with floodwater during a 100-year flood event based on flood insurance maps produced by the Federal Emergency Management Agency (FEMA) or other site-specific information.

7. **Peatlands**. The freshwater wetland is or contains peatlands, except that the department may determine that a previously mined peatland, or portion thereof, is not a wetland of special significance.

8. **River, stream, or brook**. The freshwater wetland area is located within 25 feet of a river, stream or brook.

Activities that alter "Wetlands of Special Significance" require an individual permit. Activities that alter greater than 4,300 ft^2 of wetlands classified as "Wetlands Not of Special Significance" generally require a permit, as follows:

1. Alterations of between 4,300 ft^2 and 15,000 ft^2 require a Tier 1 NRPA permit.

2. Alterations of between 15,000 ft^2 and 43,560 ft^2 require a Tier 2 NRPA permit.

3. Alterations of greater than 43,560 ft^2 require a Tier 3 NRPA permit.

Tier 2 and 3 NRPA permit applications generally require further submissions, such as wetland data forms, a wetland functional assessment, and a wetland mitigation plan. Data for these submissions must be collected during the growing season, between about May 01 to October 15 in Maine.

U.S Army Corps of Engineers (USACOE)

USACOE jurisdiction on a project is triggered by, among other criteria, alteration of a wetland that is connected by "significant nexus" to a stream or navigable water. Most projects that involved wetland fill are permitted by the Corps through their General Permit process. Activities that alter between 1 ft^2 and 15,000 ft^2 of wetland on this property will likely require filing of a Category 1 Notification Form with USACOE. USACOE will generally accept the MDEP Tier application for alterations between 4,300 ft^2 and 3 acres. Alterations over 3 acres require a USACOE Individual Permit.

5.2 Roadway Crossings

Maine Department of Transportation (MDOT)

State Roadway crossings, such as State Route 196, will fall under the jurisdiction of the MDOT. The MDOT will be concerned for pedestrian/bicycle safety and the impact upon vehicular movement. Intersection design, roadway signage, signals and pavement markings will all require MDOT review and approval.

Summary

Our experience is that State and Federal agencies generally look favorably upon the re-establishment of a rail corridor as a recreational facility. Certain requirements relative to wetlands and stormwater treatment often receive consideration as existing conditions. However, depending on the scope and potential impact of any repairs to areas of erosion, structures and water bodies, regulatory agencies could require extensive permitting, impact analysis and design alternatives.

6.0 PRELIMINARY COST ESTIMATE

For the purposes of discussion and potential pursuit of funding opportunities, Sebago Technics has developed a preliminary cost estimate for reconstruction of the Lewiston Lower Rail Corridor as a recreational trail. It should be noted that the scope of Sebago Technics' investigation and assessment was observational and preliminary in nature. In addition, Sebago was not provided with any preferred design nor can we adequately assess the impact of any permitting, structural or unknown conditions at this time. Therefore, the estimates provided are conceptual only and based upon typical recreational trail design considerations.

Preliminary Cost Estimate:

Trail Conversion/Construction (based upon 10.5 miles – 10' wide – 6" base gravel – 2" pavement)		$1,080,900
Bridges		$ 670,000
- Retrofit of Six (6) Bridges	$132,500	
- New Bridges (Locust Street and Promenade Ravine)	$520,000	
- Overpass Lighting/Improvements	$ 17,500	
Roadway intersections (15 crossings)		$ 364,500
Scenic Turnouts (17 locations)		$ 73,050
Embankment Stabilization		$ 138,500
Estimated Construction Cost:		$2,326,950
Contingency (15%)		$ 349,000
Total Estimated Construction Cost		**$2,675,992**
Estimated Cost Per Mile – Construction (10.5 miles)		*$ 254,856*
Design, Engineering and Permitting		**$ 294,000**
- Survey/Wetlands	$ 95,000	
- Civil Engineering (5%)	$134,000	
- Structural Engineering (allowance)	$ 25,000	
- Geotechnical Engineering (allowance)	$ 15,000	
- Permitting	$ 25,000	
Construction Administration and Inspection (assume 200 days @$560/day)		**$ 112,000**
Total Conceptual Cost Estimate		**$3,081,992**
Total Estimated Cost Per Mile – Design, Permitting and Construction		*$ 293,523*

7.0 FINDINGS AND RECOMMENDATIONS

Based upon Sebago Technics inventory and assessment of the Lewiston Lower Rail Corridor we find it suitable and feasible for conversion to a recreational trail facility. Engineering and permitting of the proposed trail appears achievable based upon our limited review and due diligence.

To further progress the project's potential, we recommend that the LARR, City of Lewiston, Town of Lisbon and other interested parties consider the following steps:

1) Further explore funding options to conduct further due diligence.
2) Preliminary structural assessments of the bridges to better determine condition and conversion costs.
3) Exploratory geotechnical/engineering investigations of areas of significant erosion to identify causes, solutions and costs.
4) Delineation/identification of wetlands and vernal pools in preparation for permitting.
5) Preparation of a sketch plan of the proposed trail with sample cross sections for project advocacy and presentation to public officials and regulators.
6) Meetings with MDEP and MDOT to better understand their concerns and requirements in the permitting and design of the trail facility.
7) Development of revised costs and timeline based on all of the above.

8.0 CONCLUSION

The Lewiston Lower Rail Corridor represents a unique opportunity to create a recreational and connectivity corridor for the municipalities of Lewiston, Auburn and Lisbon. Overall, the corridor is in relatively good condition for conversion from a railroad facility to a trail for pedestrians and bicyclists. Such a conversion will not be without expense and challenges. The retrofitting/replacement of bridge structures, removal of ties and rails, repair of areas of erosion and installation of appropriate roadway crossings are all important to creating a safe, maintainable and enjoyable recreation facility. However, the scenic and recreation opportunities coupled with improved non-vehicular connectivity will provide valuable community and regional benefits for many years to come.

It has been a pleasure to be of assistance to you with this phase of your project. If you have any questions, or if we may be of further assistance, please do not hesitate to contact us.

Sincerely,

Sebago Technics, Inc.

APPENDIX A

PHOTOS

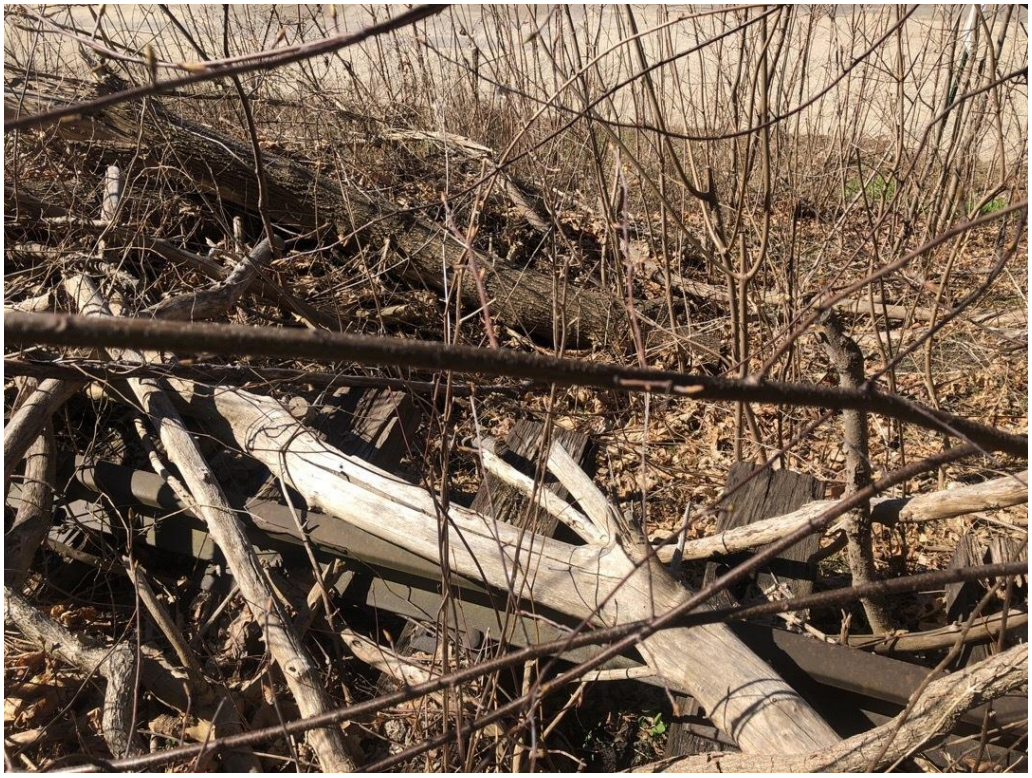


Photo 1. – behind Lepage Bakery facility

Medium severity erosion beneath rail.

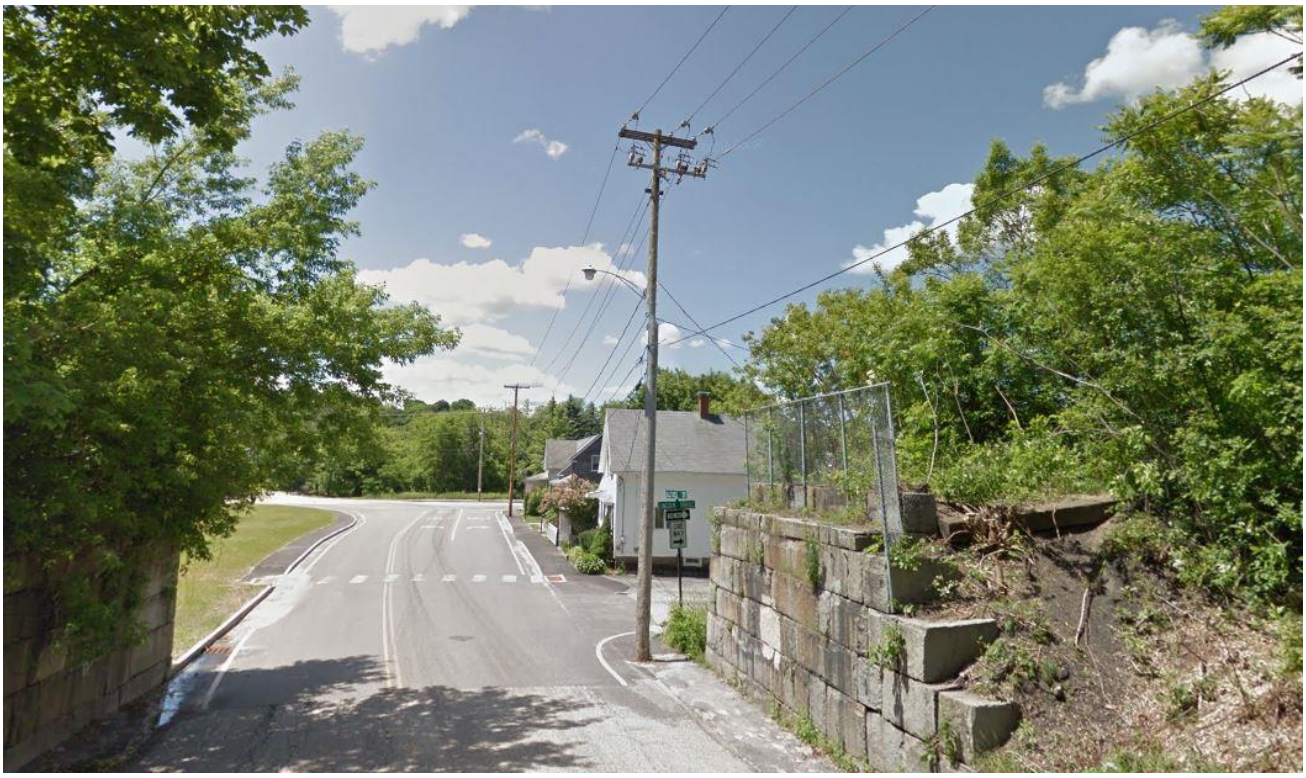


Photo 2. Locust Street
Removed bridge on Locust Street. Height of new structure would be a concern.

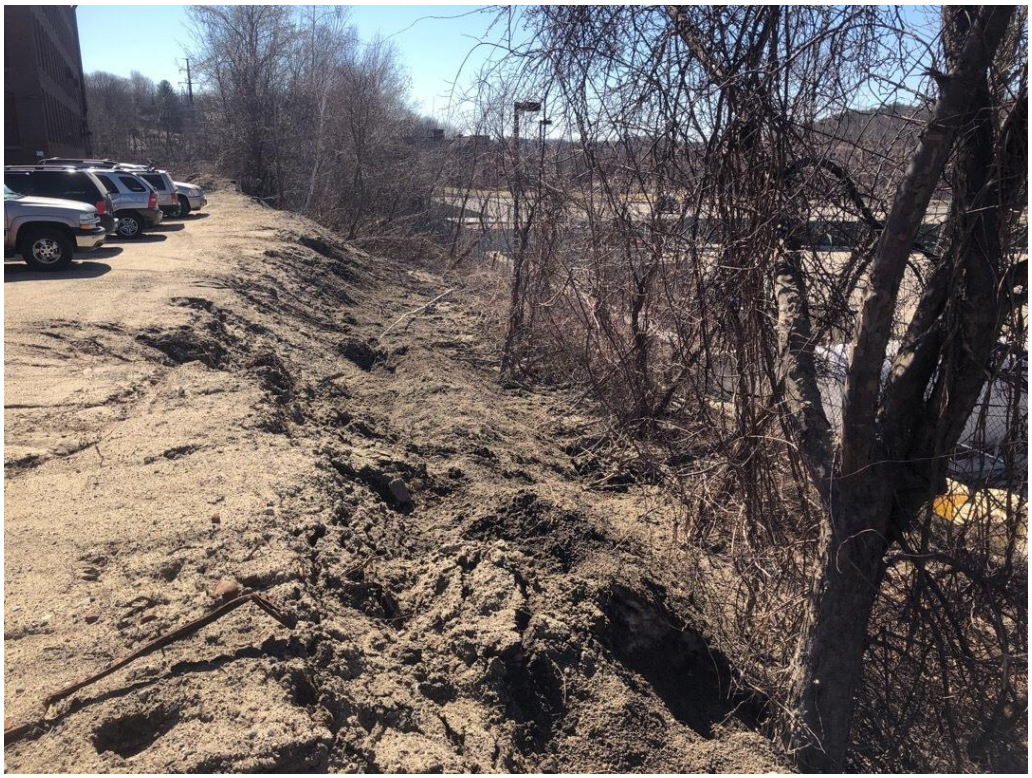


Photo 3. – Beside Marden's Distribution facility
Severe erosion and overfill from the Marden's Distribution Center parking lot on Locust Street accumulating on rail. A retaining wall may be necessary.

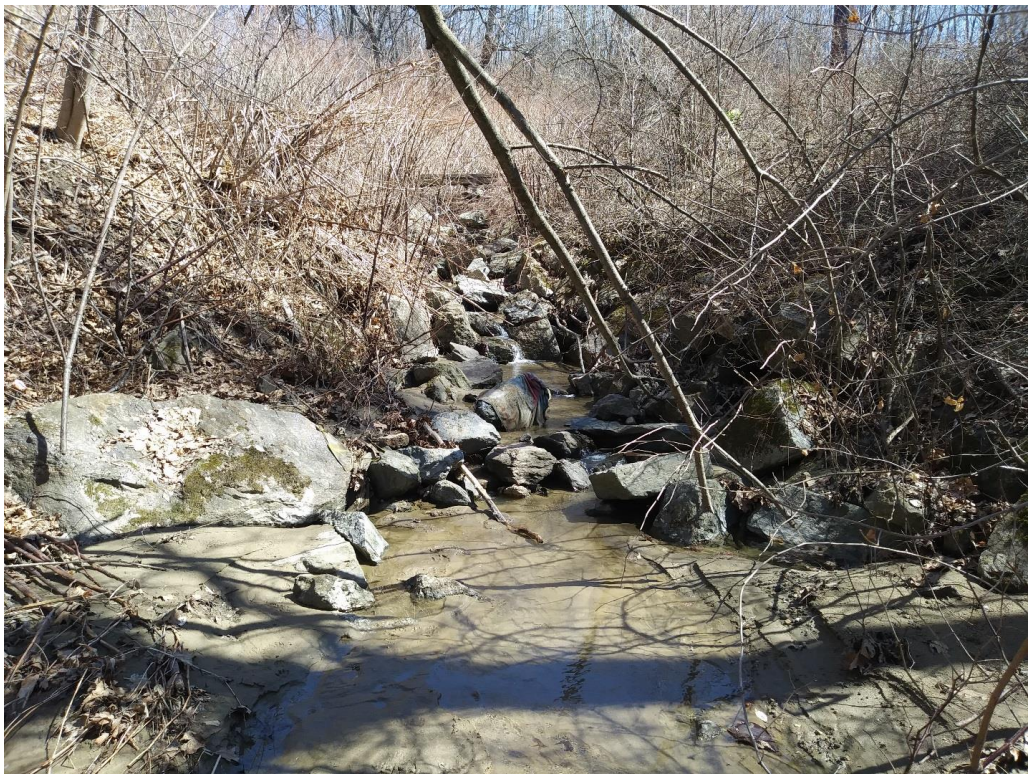


Photo 4. Promenade Ravine
Both ties and rail are absent on the steep slope leading down to this stream and floodplain.

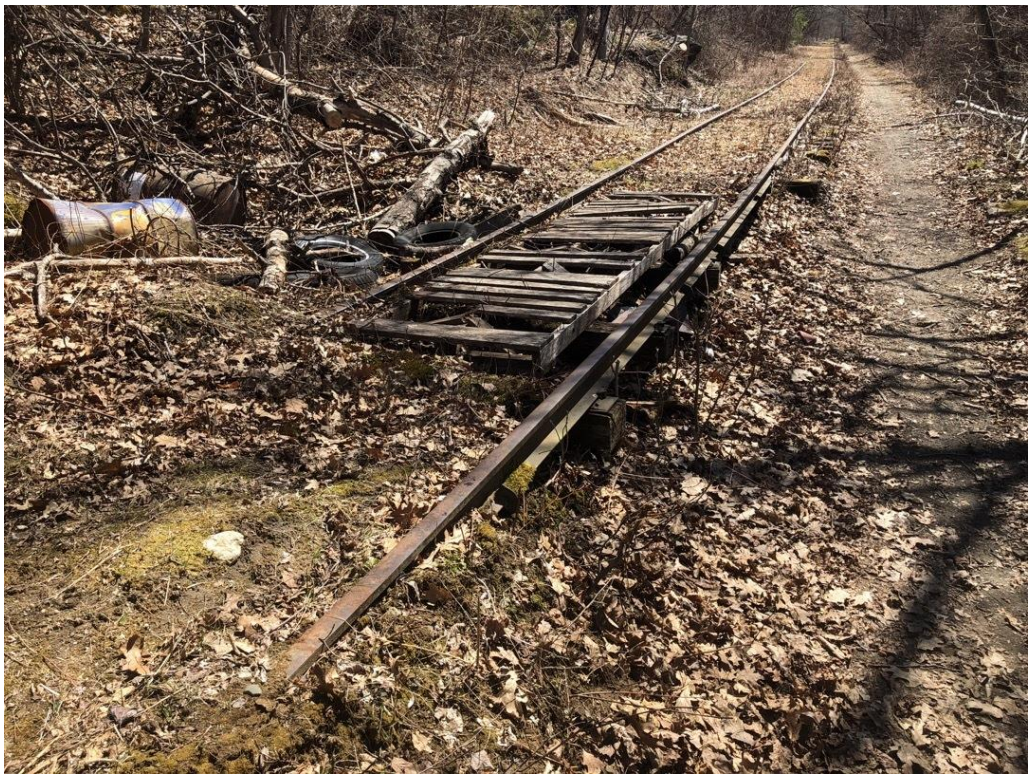


Photo 5. Approaching South Avenue
Medium severity erosion beneath rail.

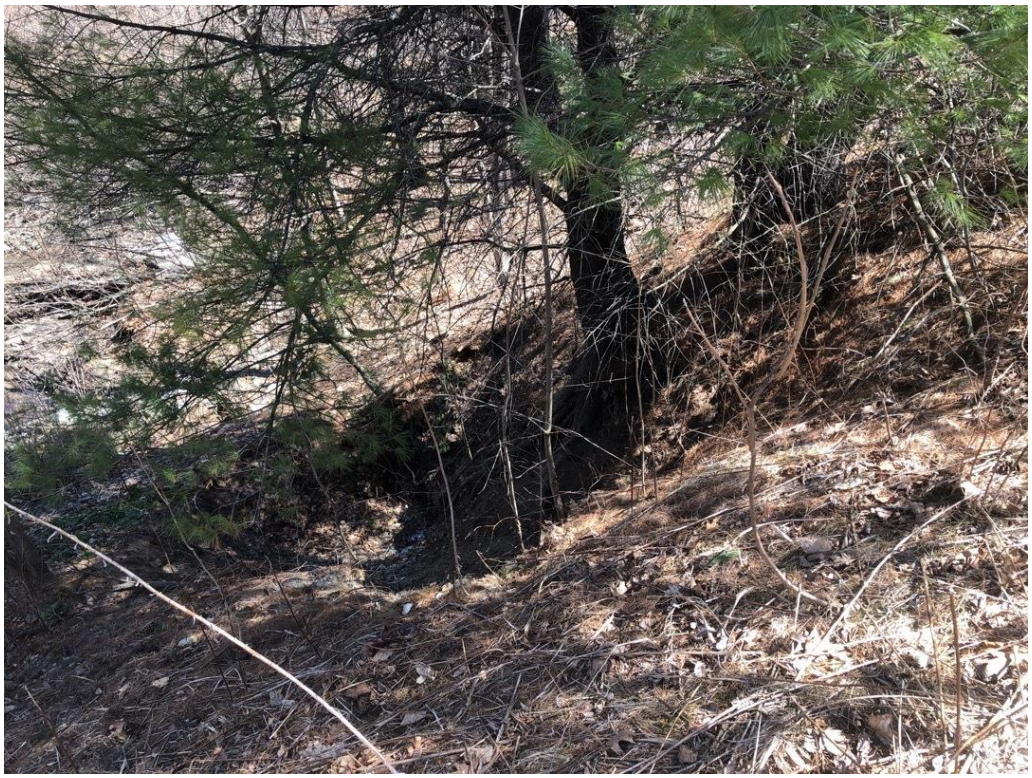


Photo 6. Near Goff Brook
Medium severity erosion on a steep slope beside rail bed.

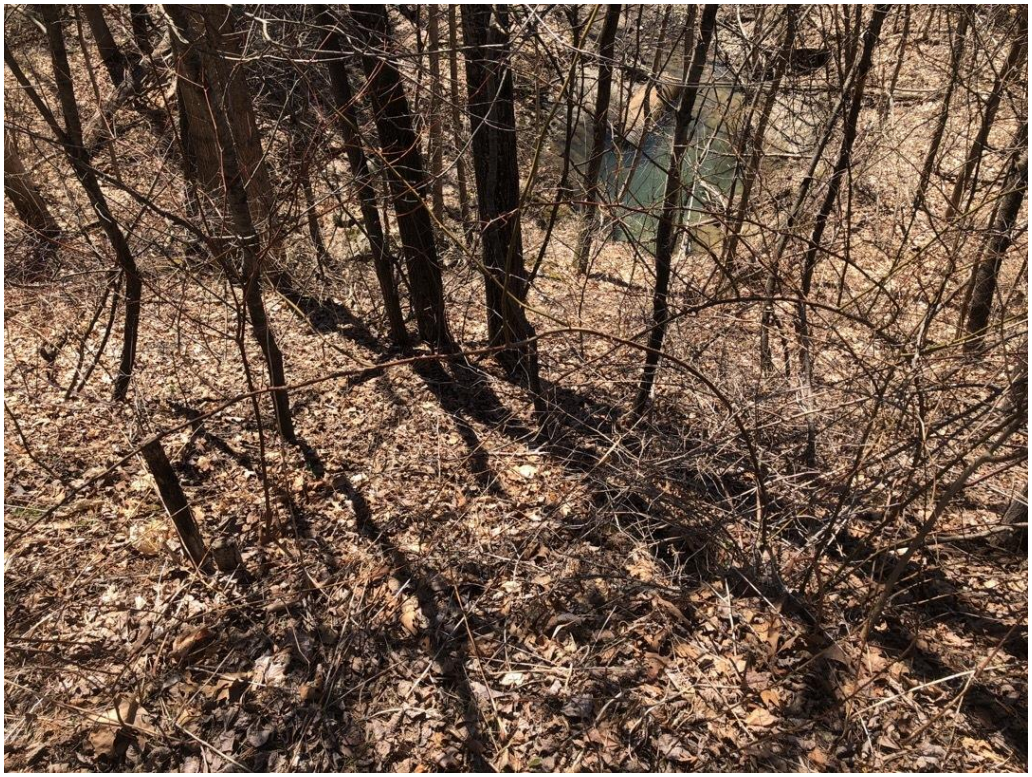


Photo 7. Near Goff Brook
Scenic view of wetland and stream.

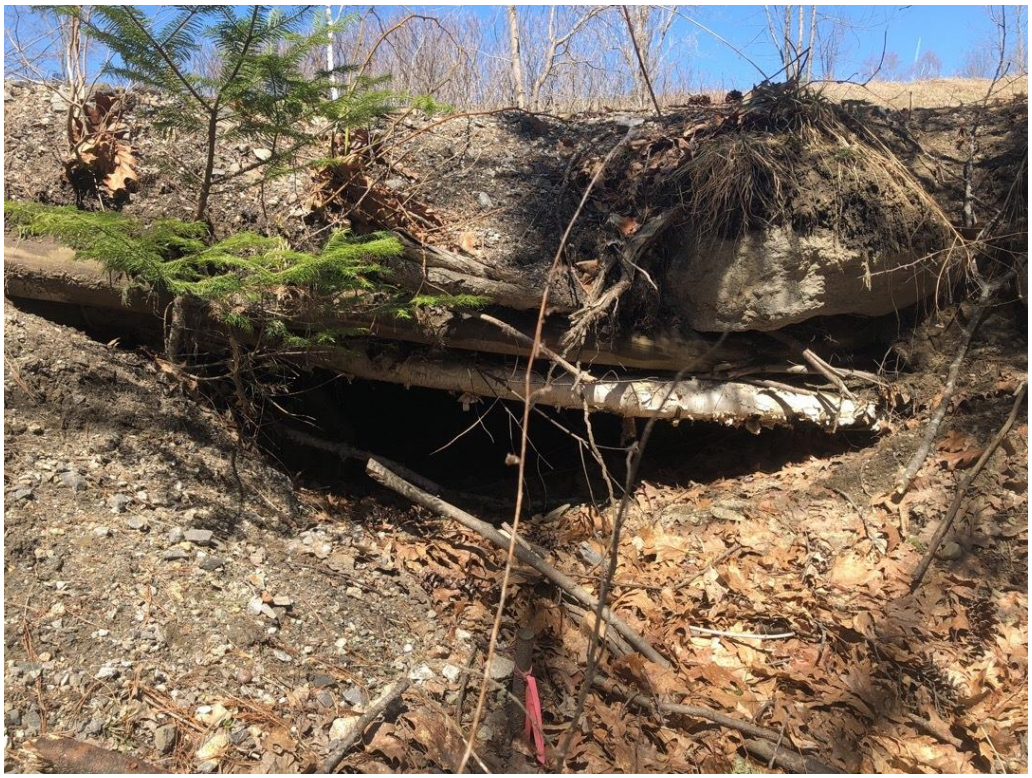


Photo 8. South of Olive Avenue
Medium severity erosion beneath rail.

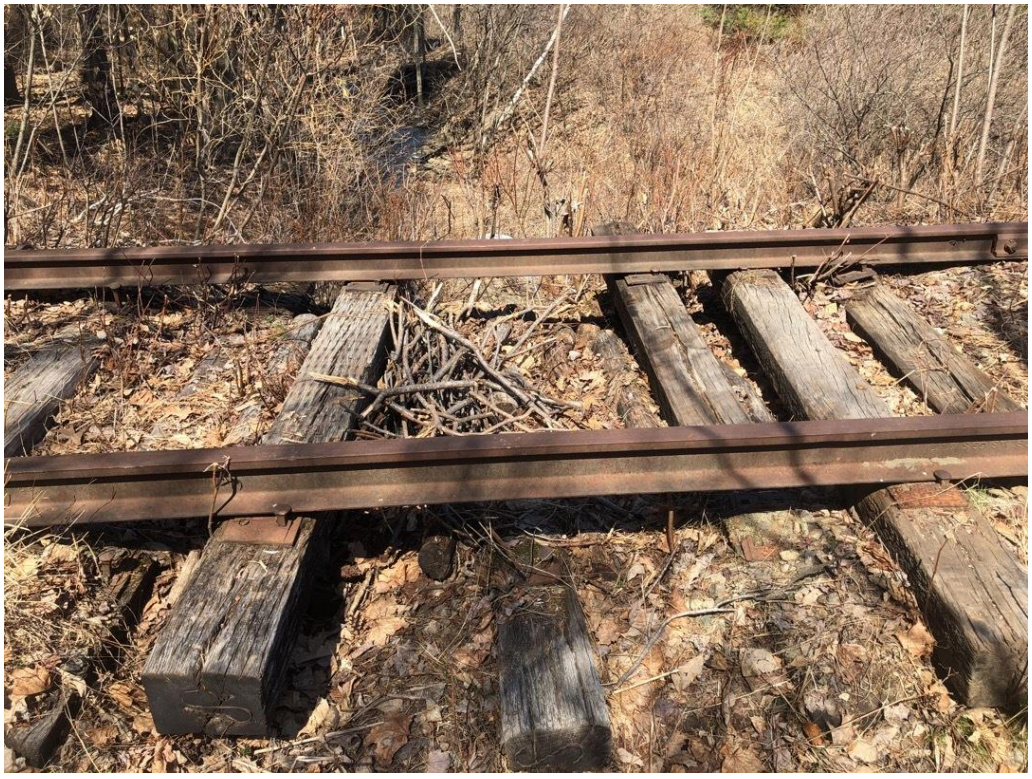


Photo 9. West of Liberty Mutual
Medium severity erosion beneath rail. Wetland and stream in background.

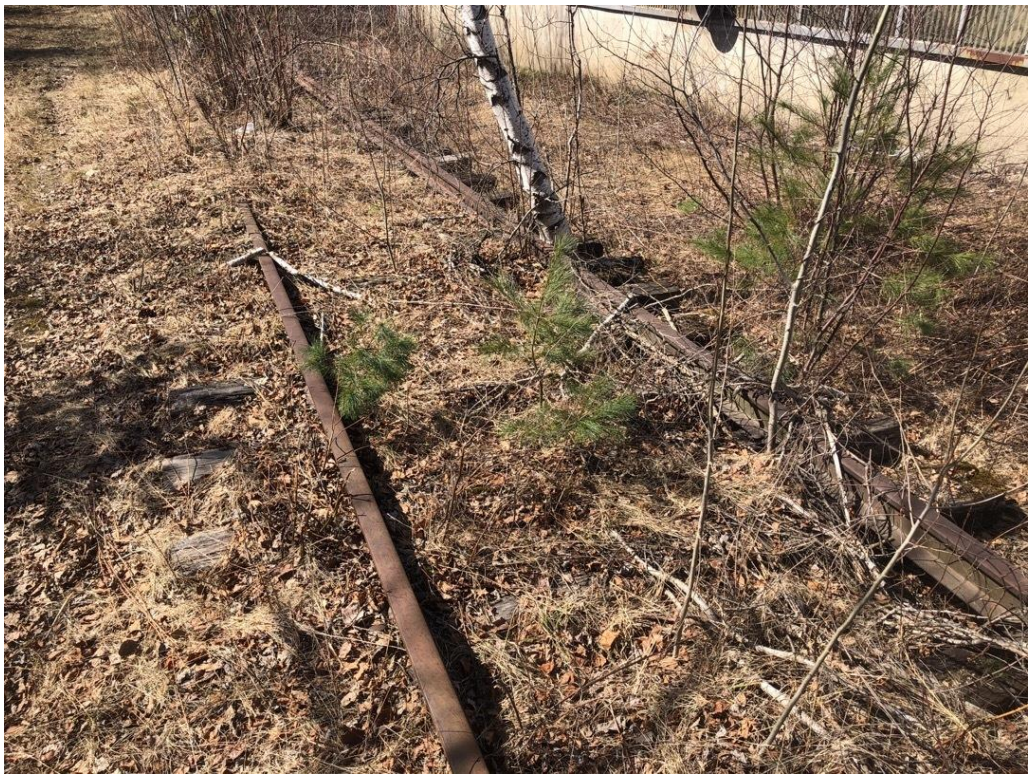


Photo 10. East of Pleasant Street
Minor erosion beneath rail. Wet area adjacent to rail.

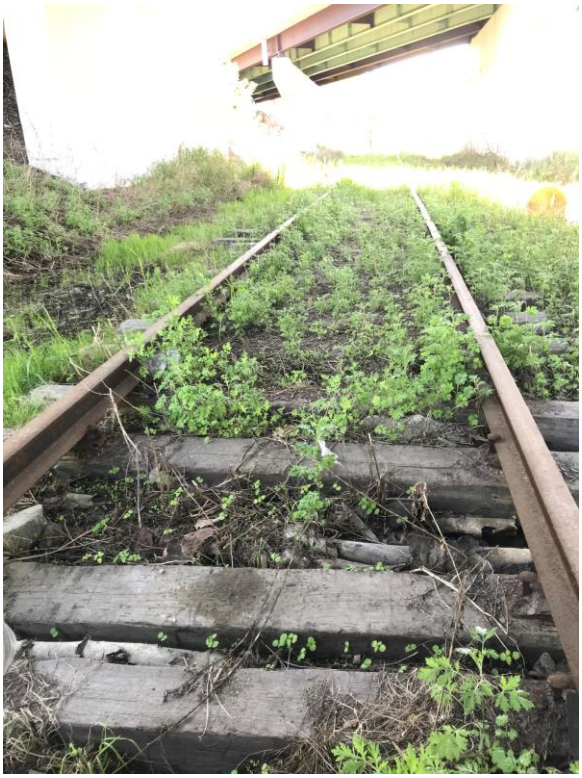


Photo 11. Near Turnpike Overpass – Rt. 196
Minor erosion beneath rail.

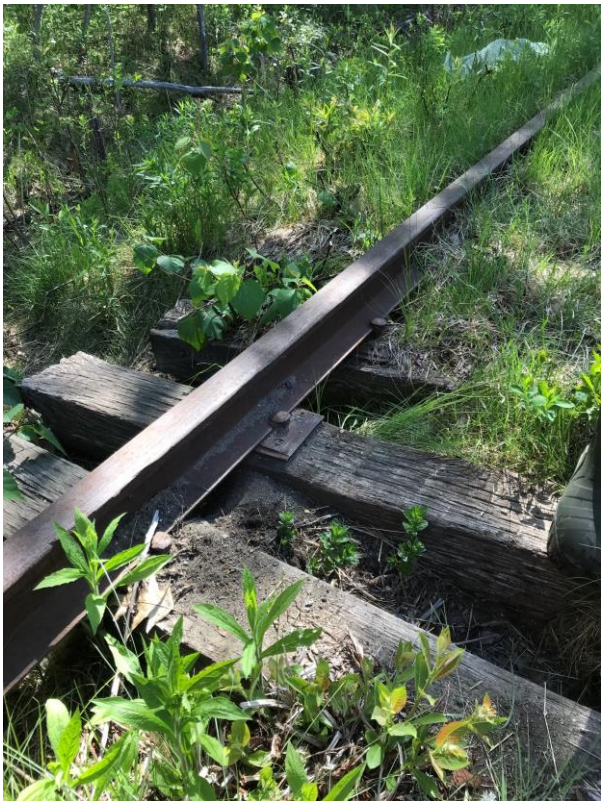


Photo 12. East of Turnpike Overpass
Minor erosion beneath rail.

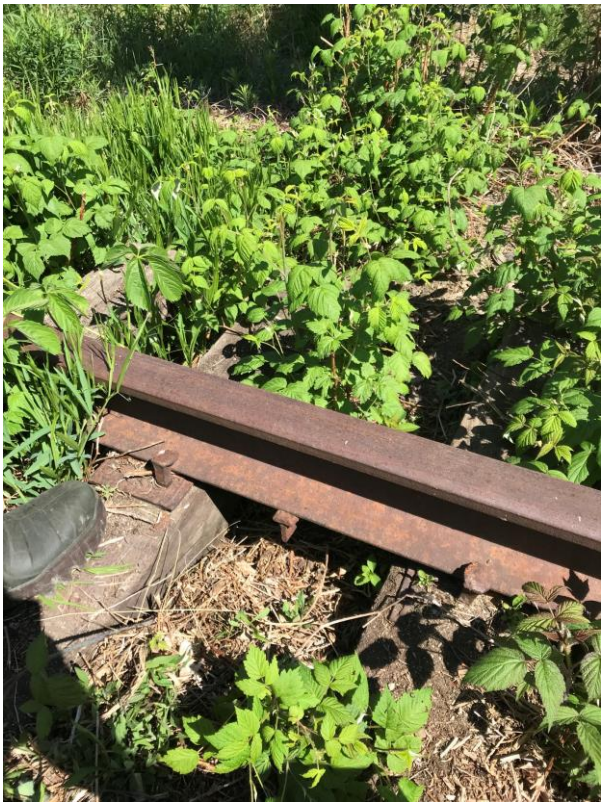


Photo 13. East of Gould Road
Minor erosion beneath rail.

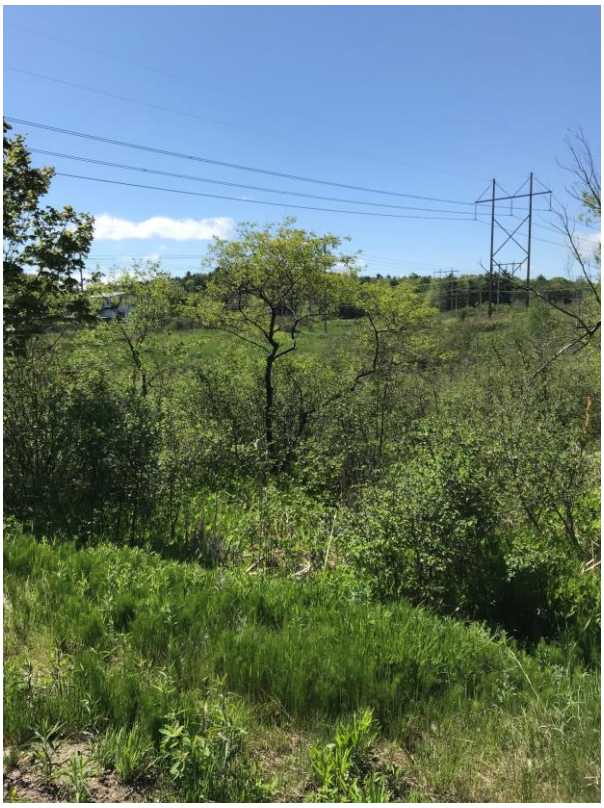


Photo 14. East of Gould Road
Scenic wetland adjacent to rail.

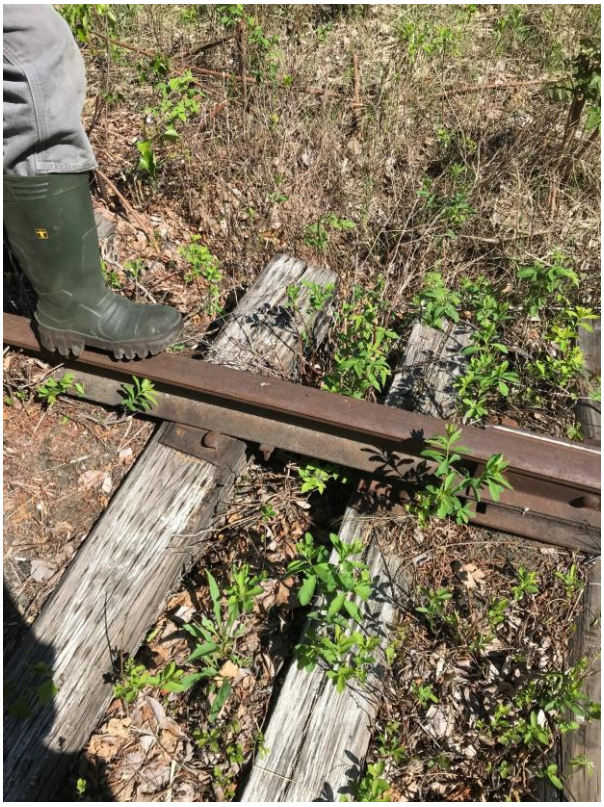


Photo 15. Near Old Lisbon Road
Minor erosion beneath rail.

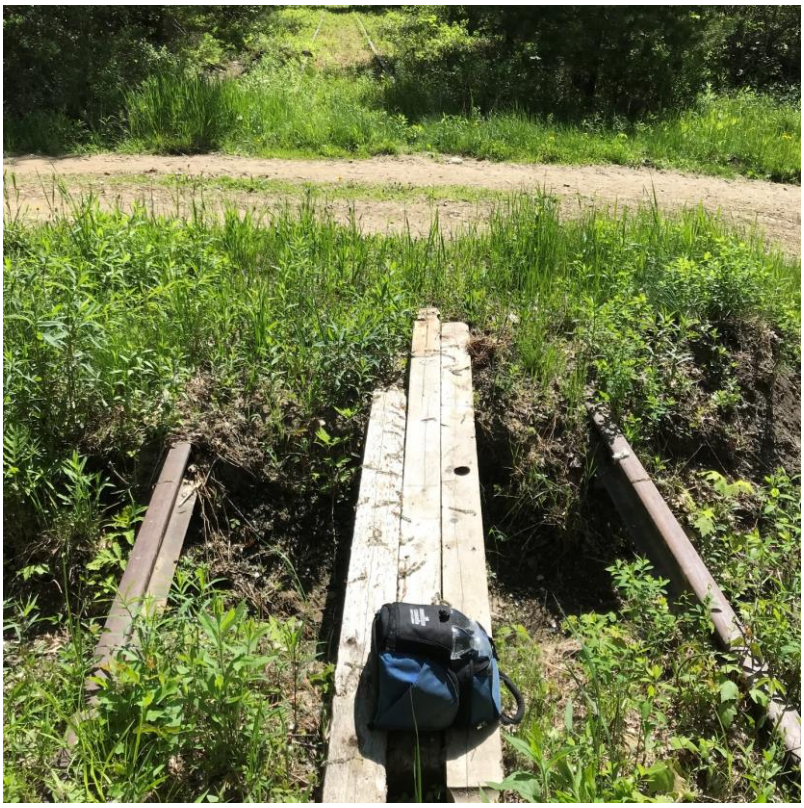


Photo 16. Between Old Lisbon and Crowley Roads
Medium severity erosion beneath rail.

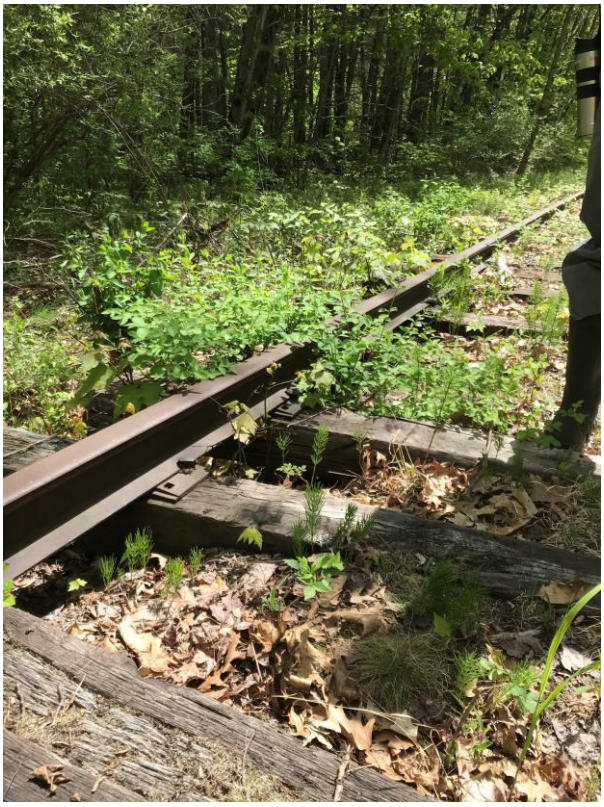


Photo 17. North of Foss Road
Minor erosion beneath rail.

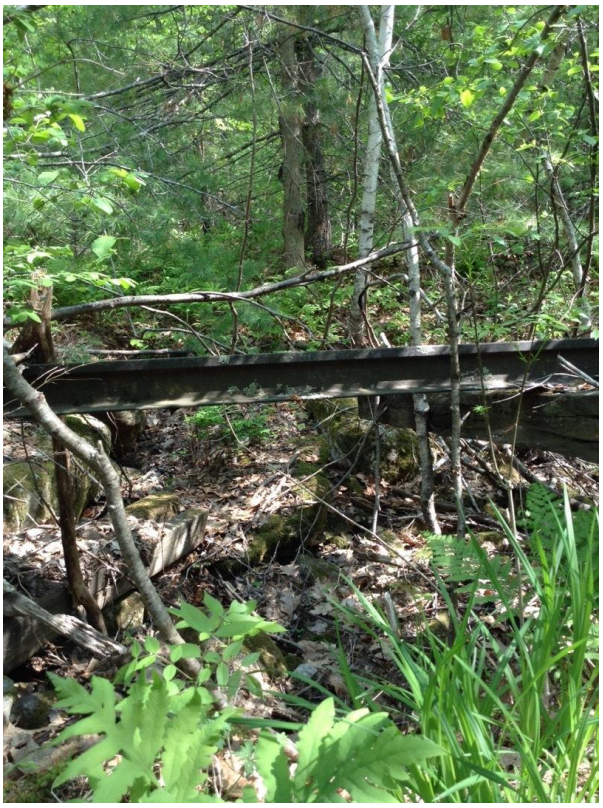


Photo 18. West of River Road, Lisbon
Severe erosion beneath rail.

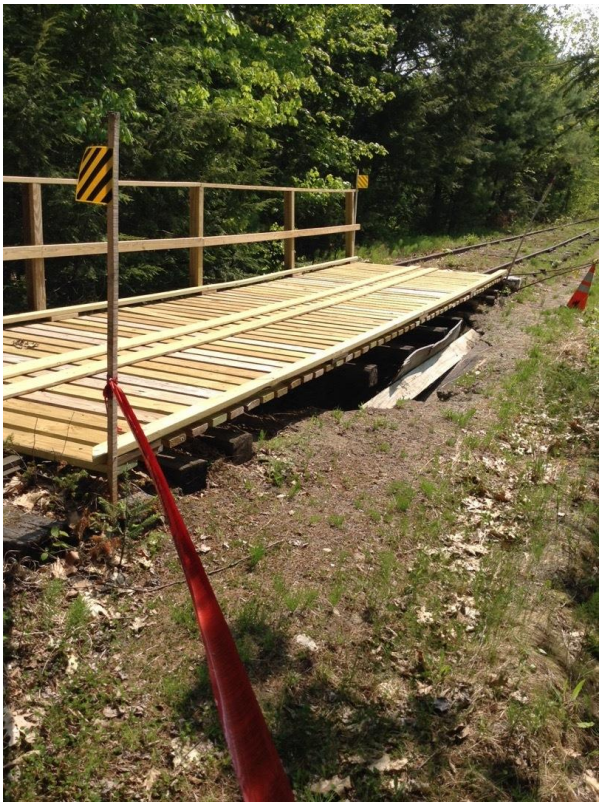


Photo 19. Near River Road, Lisbon
Severe erosion beneath rail resulted in a pedestrian bridge.

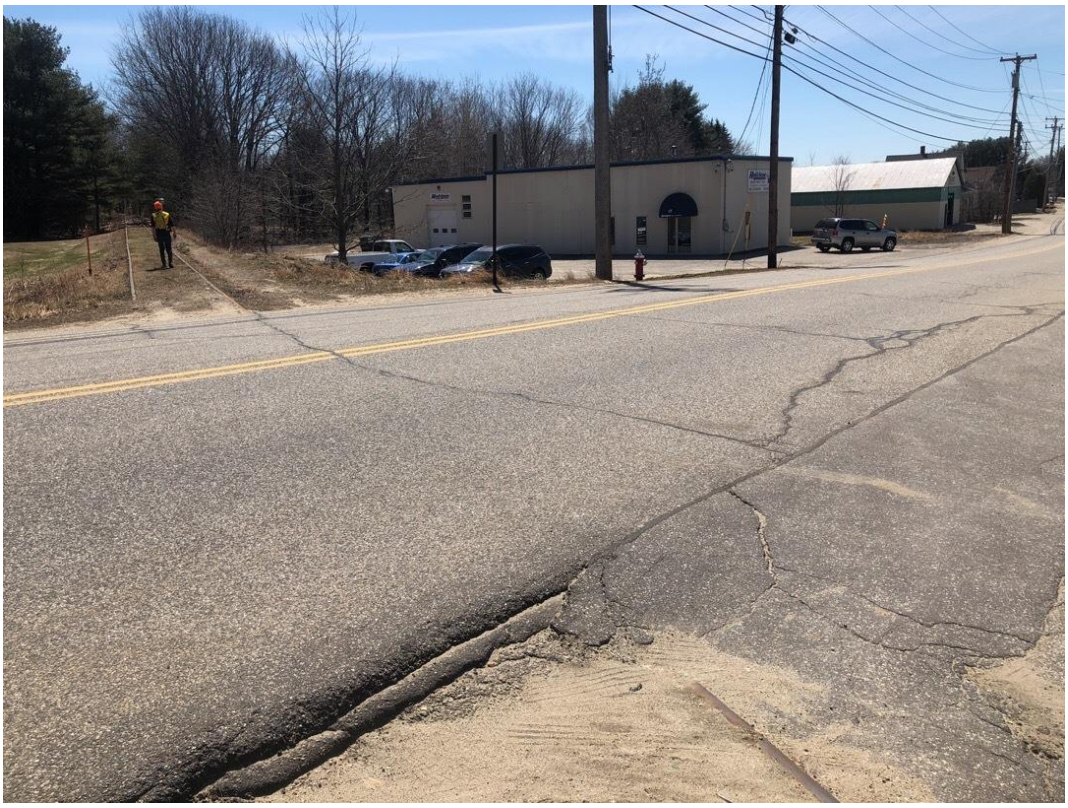


Photo 20. South Avenue Crossing.
Rail paved over.

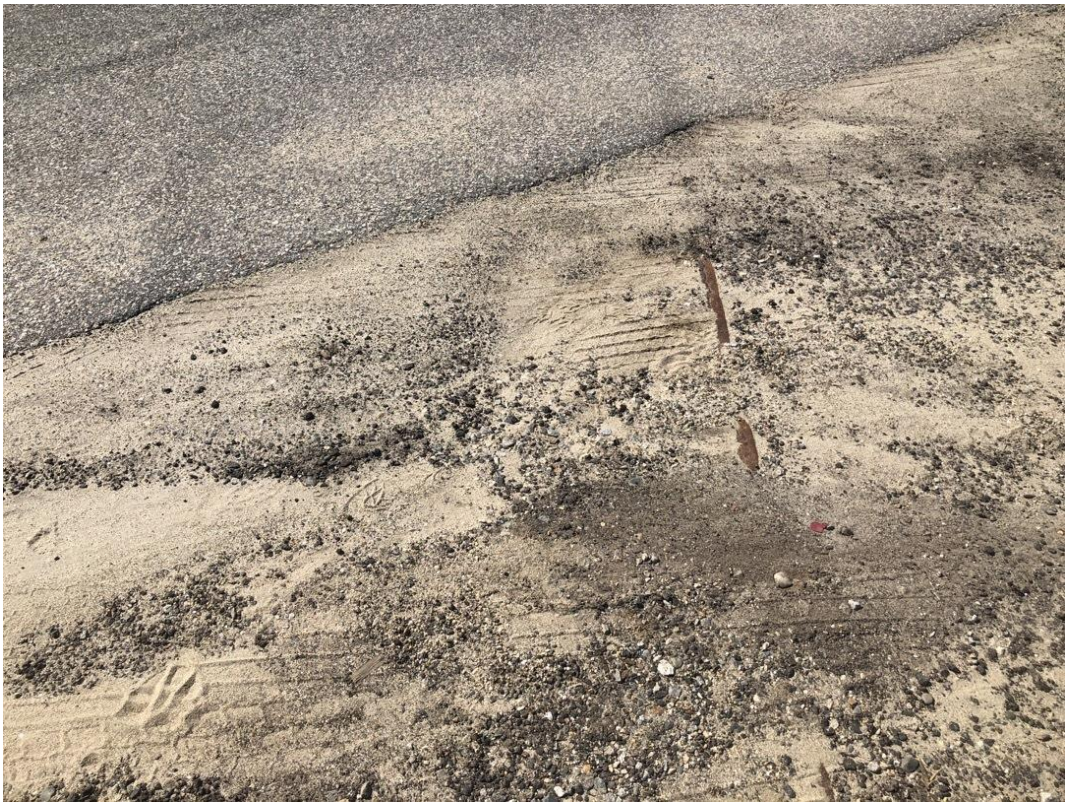


Photo 21. Pleasant Street Crossing.
Rail paved over.

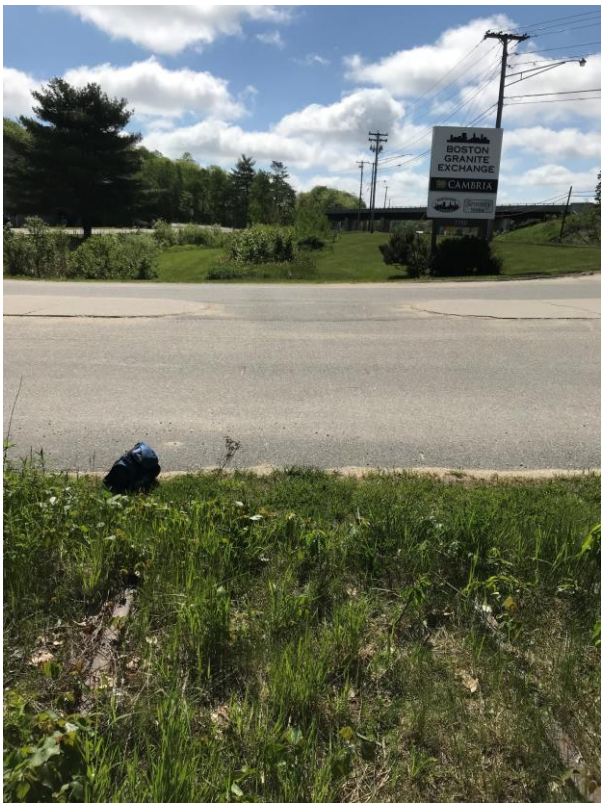


Photo 22. Driveway Crossing (Boston Granite)
Rail paved over.

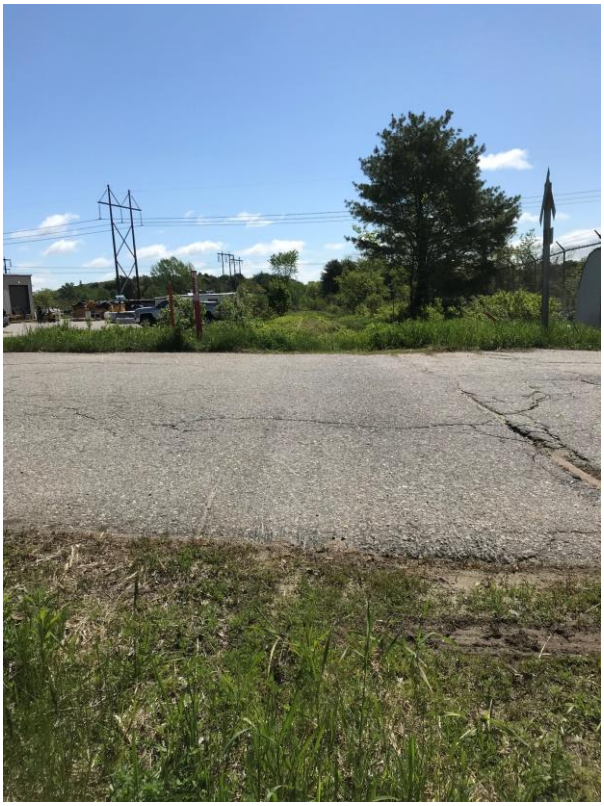


Photo 23. Gould Road Crossing.
Rail paved over.

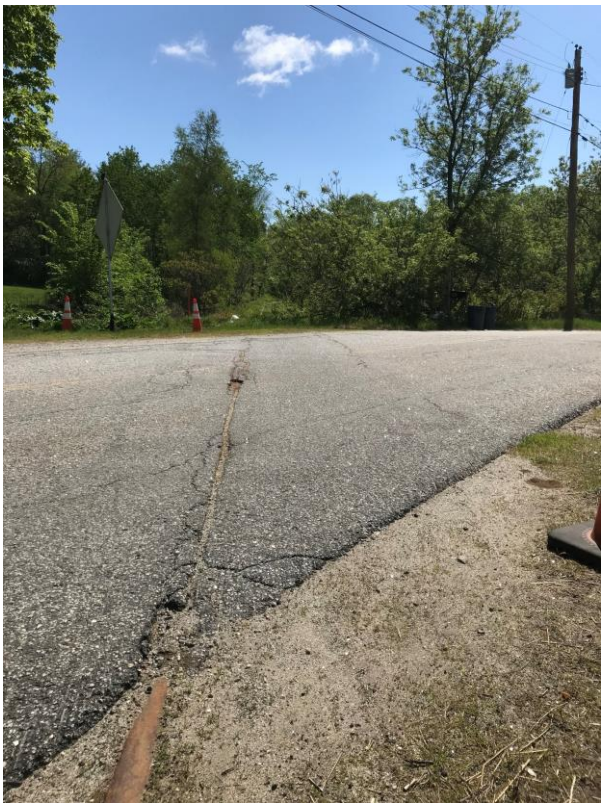


Photo 24. Old Lisbon Road Crossing.
Rail paved over.

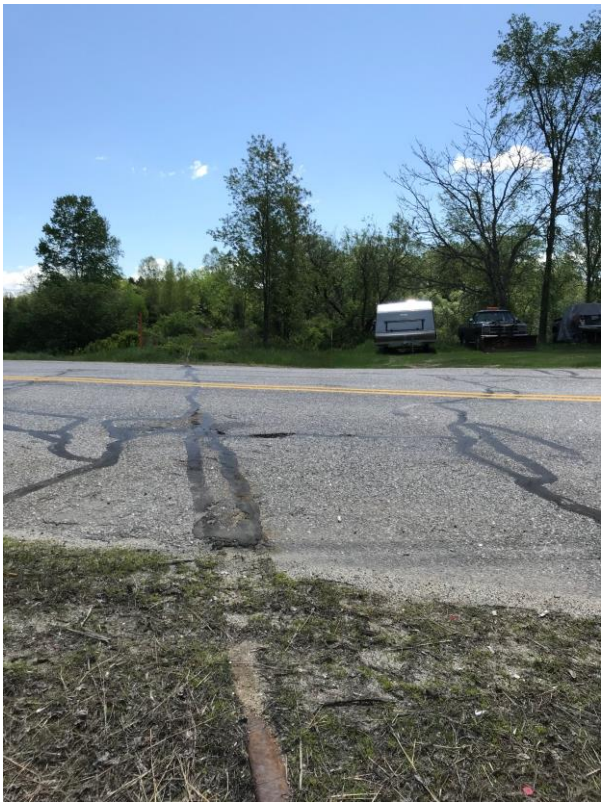


Photo 25. Crowley Road Crossing.
Rail paved over.

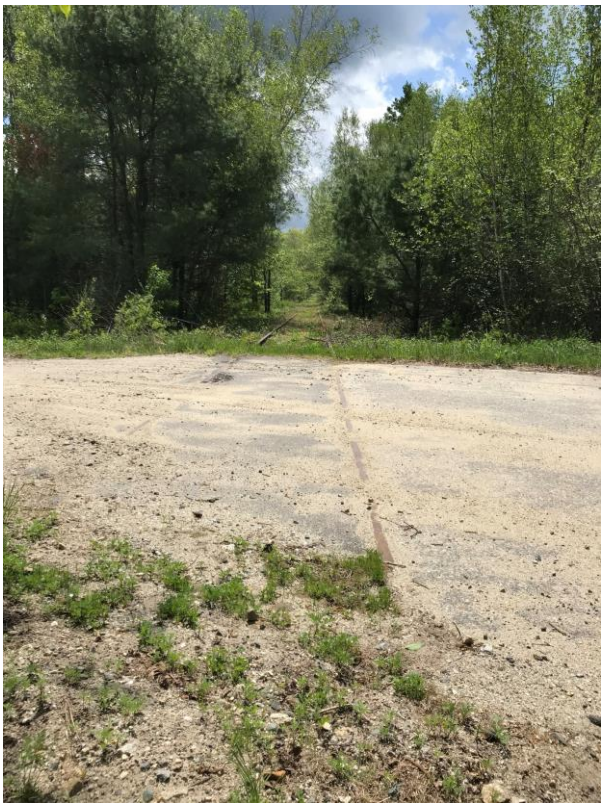


Photo 26. Jordan Road Crossing.
Rail paved over.

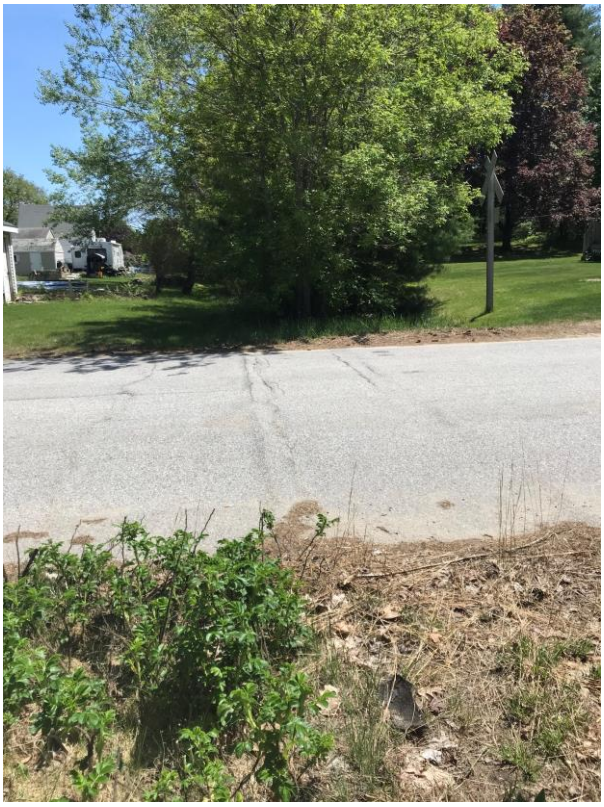


Photo 27. Winter Street Crossing.
Rail paved over.

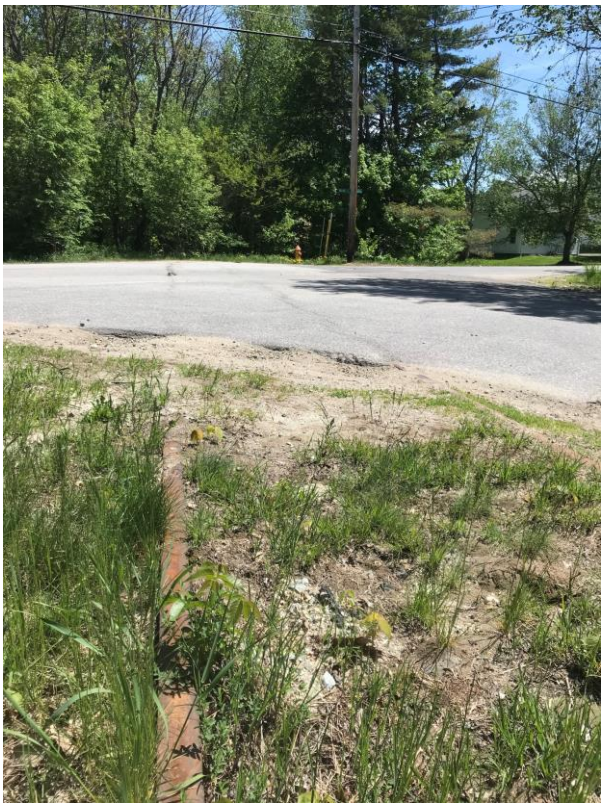


Photo 28. Village Street/Ferry Road Crossing.
Rail paved over.

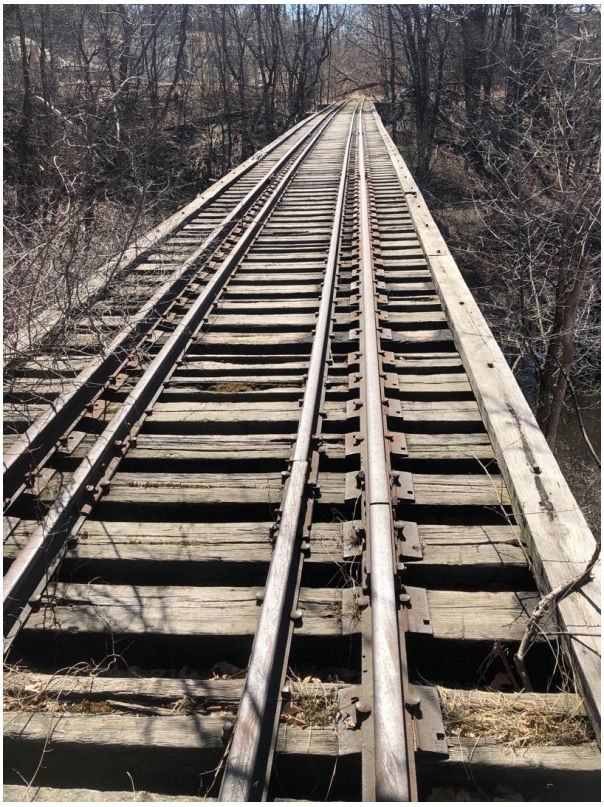


Photo 29. Rail Bridge #1, crossing unnamed canal.
Scenic view of surrounding canal.

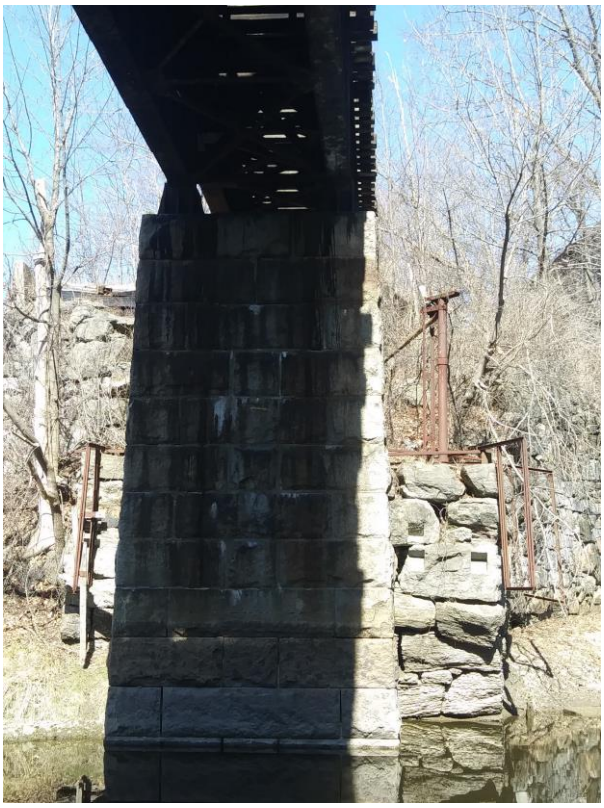


Photo 30. Rail Bridge #1
abutment and canal.

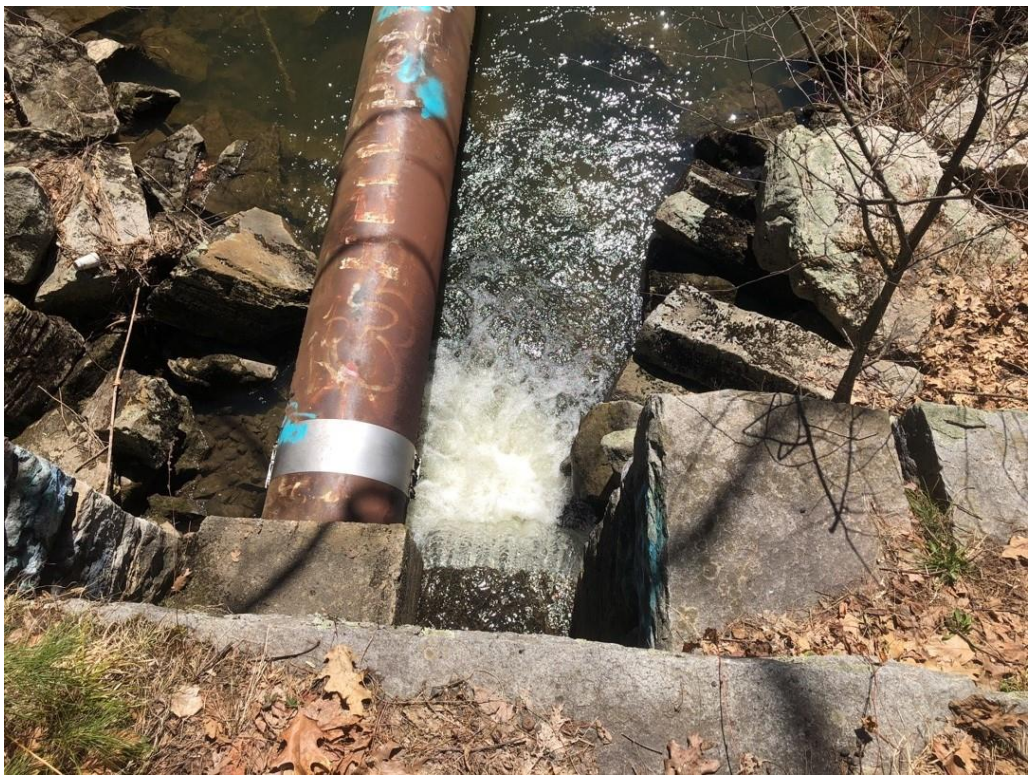


Photo 31. South of MTA Park and Ride
Granite culvert and sewer line beneath rail bed. Scenic view of stream.

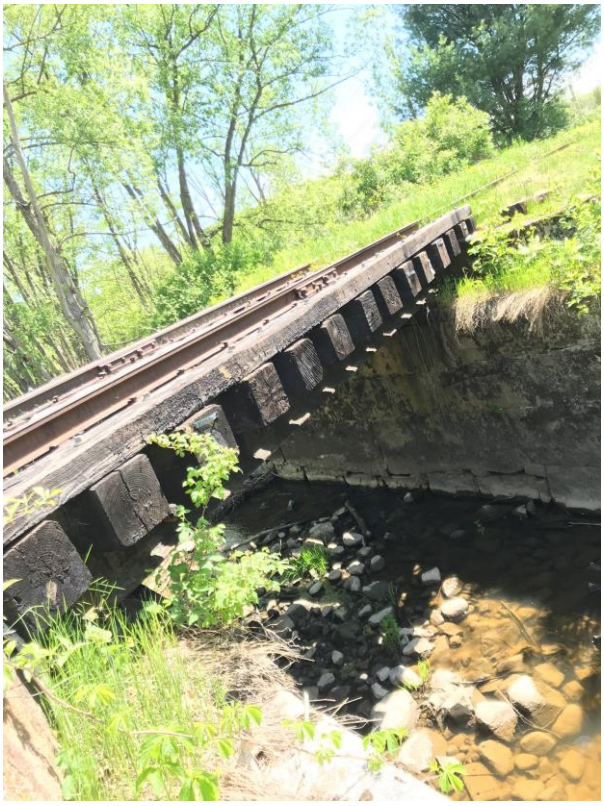


Photo 32. Bridge Crossing #2 over stream west of Crowley Road.
Scenic area with adjacent wetland.

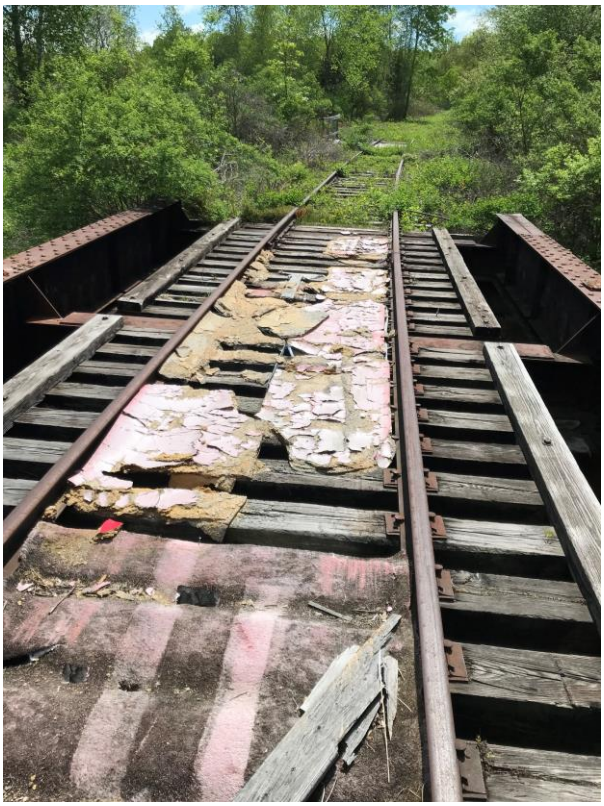


Photo 33. Bridge crossing #3 over stream east Crowley Road.
Scenic area with adjacent wetland.

Photo 34. West of Crowley Road
Scenic pond and wetland area adjacent to rail bed. There is a trash pile near the pond.

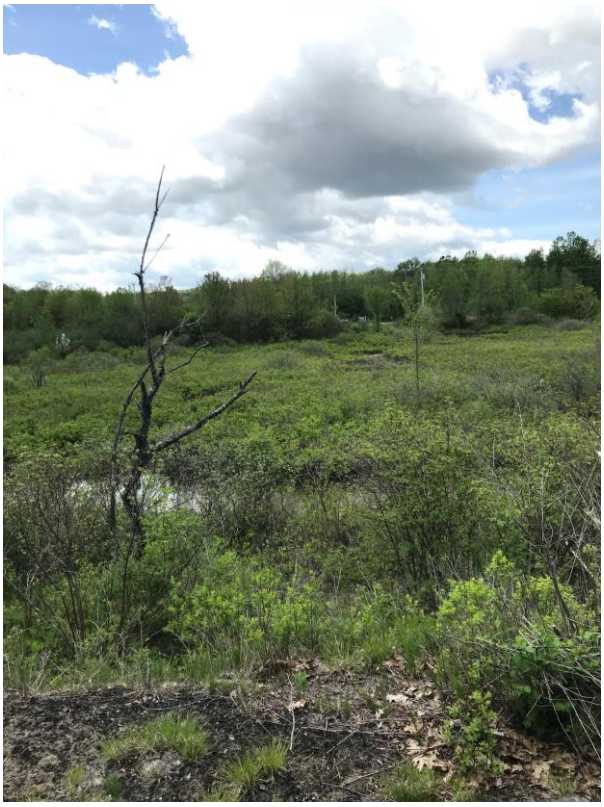


Photo 35. North of Foss Road
Scenic wetland adjacent to rail

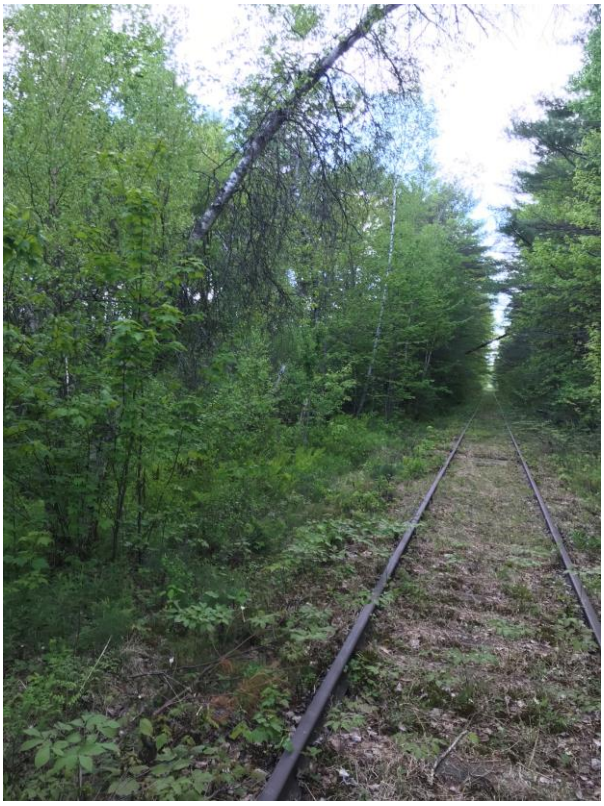


Photo 36. Behind Central Distributors
Scenic wetland adjacent to rail.

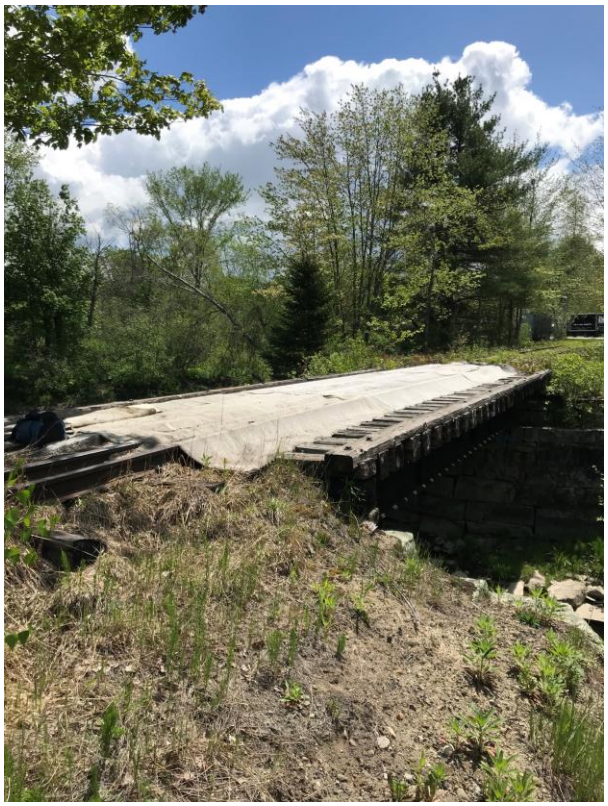


Photo 37. Bridge crossing #4 over No Name Brook.

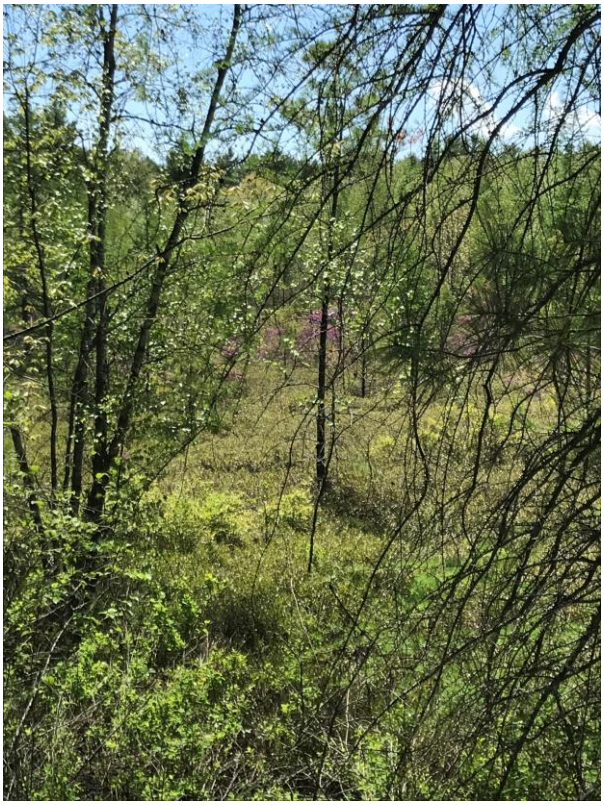


Photo 38. Near Farm Road
Scenic wetland area adjacent to rail.

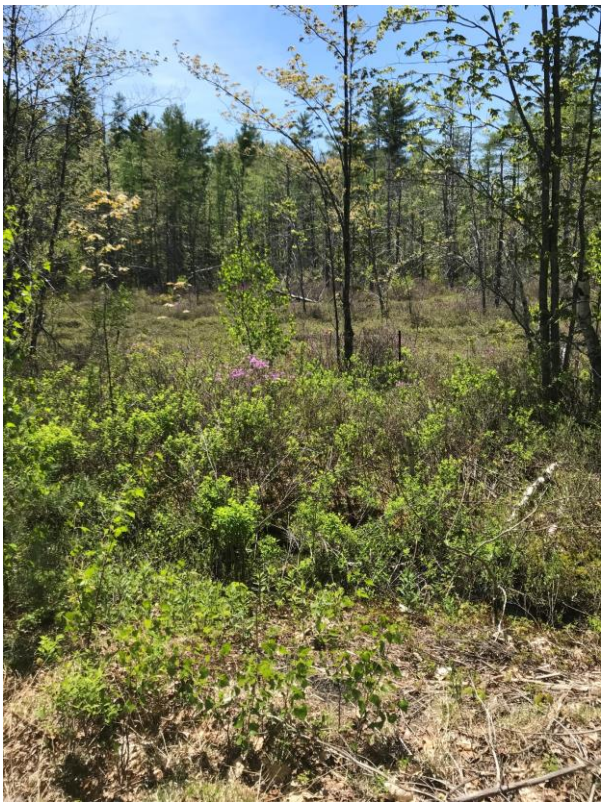


Photo 39. East of Farm Road
Scenic wetland area adjacent to rail.

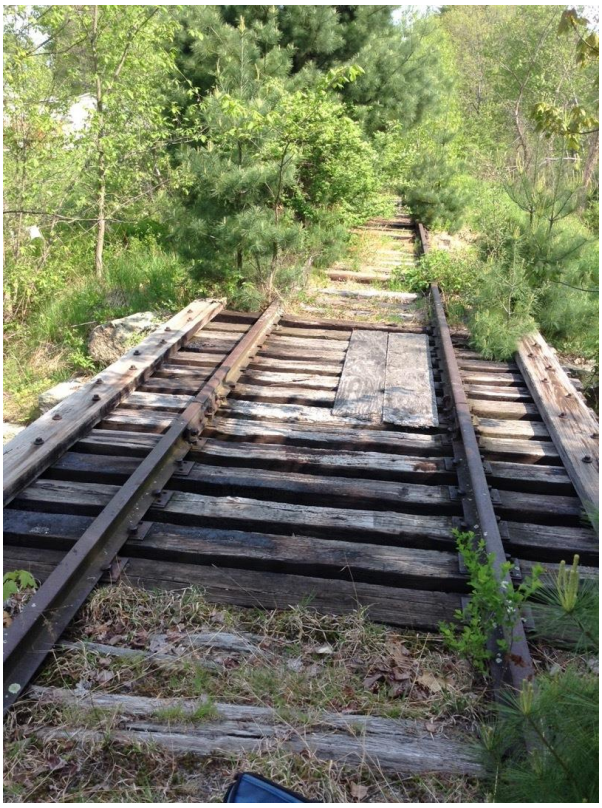


Photo 40. Bridge crossing #5 near Whitney Street.
Scenic wetland and stream adjacent to rail.

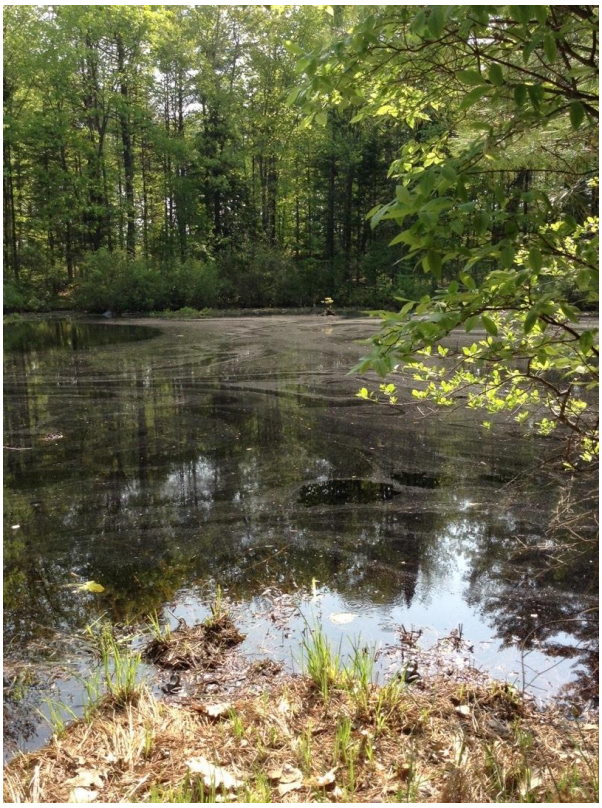


Photo 41. Near Emery Street
Scenic pond adjacent to rail.

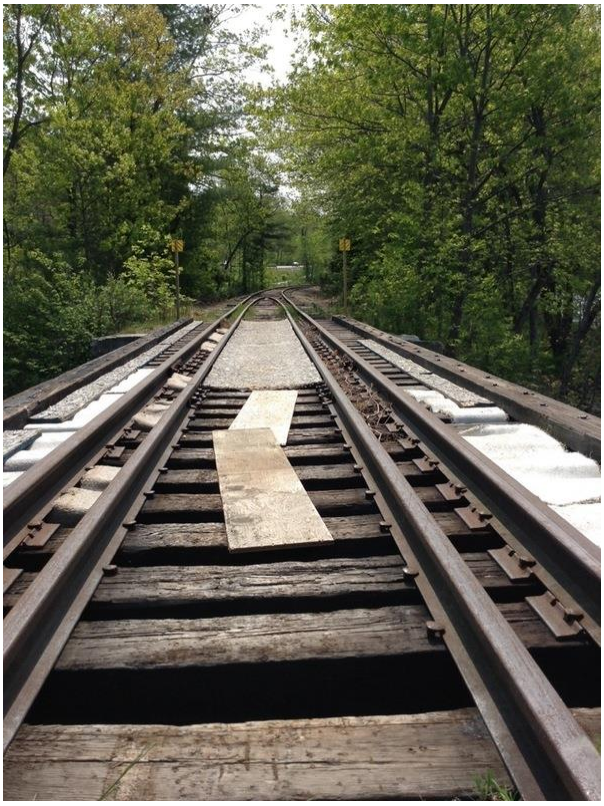


Photo 42. Bridge Crossing #6 over the Sabattus River.
First scenic views of the Androscoggin River.

Photo 43. Near Bridge Crossing #6
Scenic view of Androscoggin River.

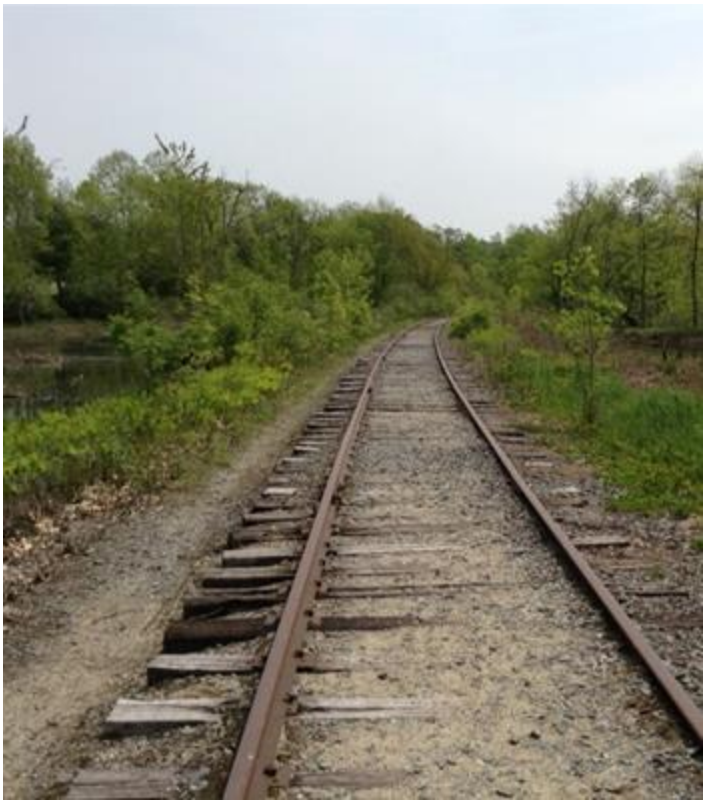


Photo 44. Near Capital Avenue
Scenic view of wetlands on both side of rail. Scenic view of Androscoggin adjacent to wetland.

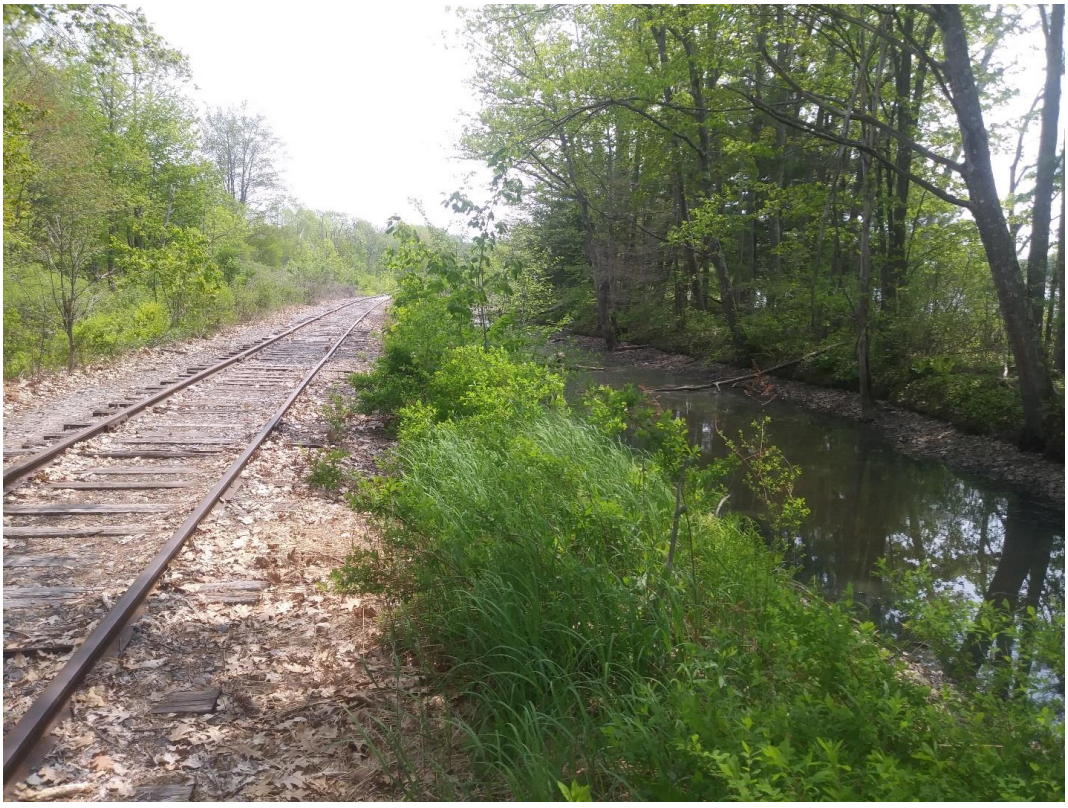


Photo 45. South of Davis Street
Scenic view of wetland area adjacent to rail. Androscoggin River behind strip of trees.

APPENDIX B

MAP SHEETS