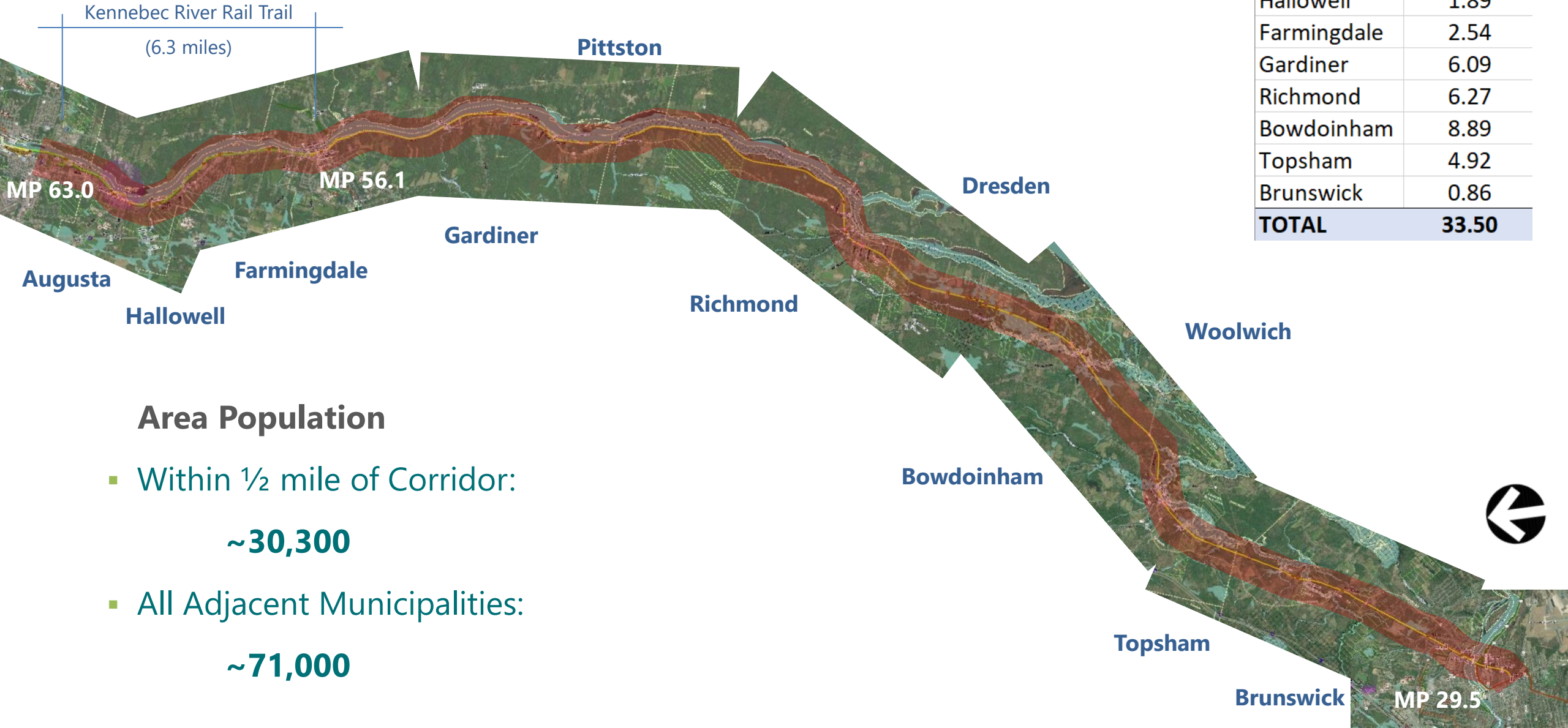


Lower Road Rail Corridor
RAIL USE ADVISORY COUNCIL MEETING
February 22, 2023



Lower Road Rail Corridor Context



Town	Miles
Augusta	2.05
Hallowell	1.89
Farmingdale	2.54
Gardiner	6.09
Richmond	6.27
Bowdoinham	8.89
Topsham	4.92
Brunswick	0.86
TOTAL	33.50

Area Population

- Within ½ mile of Corridor:
~30,300
- All Adjacent Municipalities:
~71,000



Preliminary Cost Estimates

Order of Magnitude Cost Estimates*

1. Restoration of Rail Service
 - Option 1A: Freight Only - Class 1 Track
 - Maximum Authorized Speed (MAS) = 10 mph
 - Option 1B: Passenger Service - Class 3 Track
 - MAS = 60 mph, Passenger / 40 mph, Freight

2. Interim Trail Configuration
3. Rail with Trail Configuration
4. Annual Maintenance Costs

- includes 30% contingency, 10% design, and 15% construction administration

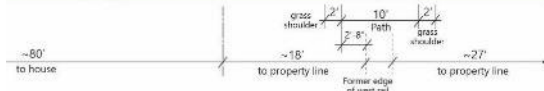


Route 24 / River Road crossing in Bowdoinham

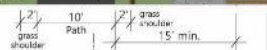
- Preliminary Cost Estimates will NOT include typical track patrol and maintenance activities currently performed by MaineDOT or other maintenance currently performed by non-rail users (considered baseline for RUAC).

Interim Trail *and* 3. Rail with Trail (RWT) Configurations

Interim Trail



Rail with Trail



Capital Costs

MP 29.5 - 56.3 & 62.3 - 63.0	Stonedust/ Gravel Path	Paved Path
Interim Trail	\$34,200,000	\$42,900,000
Rail with Trail	\$146,300,000	\$151,800,000

Maintenance Costs (annual)

	Annual Cost (per mile)	Annual Cost (26.8-mile corridor)
Gravel Path	\$3,500 - \$5,500	\$93,800 - \$147,400
Paved Path	\$3,000 - \$5,000	\$80,400 - \$134,000

NOTES:

- Maintenance costs can vary widely depending on context, trail design, and seasonal conditions
- Estimated costs are based on 2015 study by the Rail to Trails Conservancy and Pennsylvania Dept. of Conservation and Natural Resources
- MaineDOT policy for other trails across the state typically have agreements with local municipalities or non-profit entities to fund maintenance of the trail

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Restoration of Freight Service: MP 29.5 to MP 63.0

Key Components/Assumptions

- Single Mainline Track
 - Maintain to Class 1 conditions (10 mph Freight Only)
 - No mainline signal system
- Spot Rail & Tie Replacement
 - 800+ ties/mile (average) & 115# Rail (10% of line)
- Track Resurfacing: Alignment & Grade (end to end)
- Restore at-grade XINGS (to previous conditions)
 - Track/Pavement Surface Replacement = 10 XINGS
 - Replace AHCW devices = 50% (20 of 39 XINGS)
- Culvert work (10% = 26 Locations)
- Short RAR Track on northern end (1,000 FT +/-)
- Includes new bridge in Richmond



View from Gardiner Street crossing in Richmond

- Freight Estimate excludes future siding install/construction costs (Covered by Customer)

Restoration of Freight Service: MP 29.5 to MP 63.0



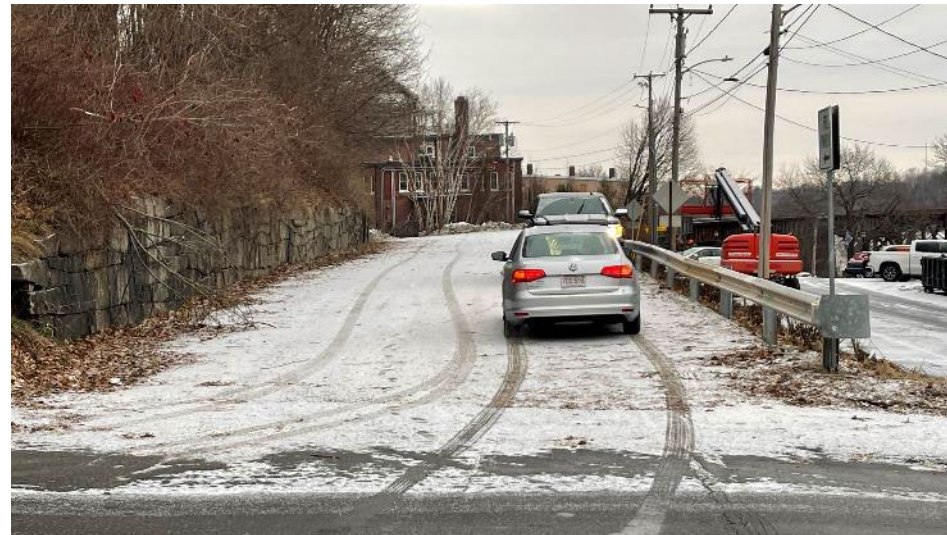
Route 24 – Bowdoinham (Good Condition)



Browns Point Road – Bowdoinham (Old AHCW Devices)



Restore Rte. 24 Bridge - Richmond (Image from Google - Sept. 2016)



Bridge Street / Parking Area – Augusta (Tracks Removed)

1A. Restoration of Freight Service

Cost Estimate

- Restoration of Freight Rail Service (Corridor Only)
 - Conservative: No Capital Track Improvements completed within last 20 years. (i.e. No “Low-End” and “High-End” Estimate to Support Freight)
 - Primary Consideration: Occasional movement of Freight Cars for potential Customers
 - RUAC Study Limits for purposes of assessing entire corridor (MP 29.50 to MP 63.04).

	Freight Only Service
Total Cost	\$55,000,000

1B. Upgrades for Passenger Service: MP 29.5 to MP 63.0

Key Components/Assumptions

- Operate at Class 3 track conditions
- Passing Sidings (~2 Miles of Double Track section in every 10 miles) to allow for operation of multiple train sets
- Tie Replacement (Average = 1,625 ties/mile)
- Replace existing jointed rail with CWR
- Install New CAB signal system with PTC/ATC
- Rehab all public roadway at-grade XINGS
 - New Track, Pavement, Enhanced Active ACHW Devices
- Farm XINGS: Replace Timber Decks + Signage/Striping
- Culvert work (25% = 65 Locations)
- Excludes improvements/costs for passenger station construction
- Includes new bridge in Richmond



Farm road crossing in Topsham

Restoration of Passenger Service: MP 29.5 to MP 63.0



Route 196 – Topsham (Single Track Bridge)



Center Street– Bowdoinham (Former 2 Track ROW)



Weymouth Road – Richmond (Former Platform & Signal)



Kennebec River Bridge – Augusta (OOS - 1 Track Removed)

1B. Upgrades for Passenger Service

Cost Estimate

- Future Passenger Rail Service (Corridor Only – No Stations)
 - Conservative Assumptions:
 - Infrastructure improvements to support inter-city passenger rail service along Lower Road Corridor only.
 - No dependence on FRA Waivers to construct or support service operations (i.e., Install PTC/ATC)
 - Considerations: More Frequency of Service vs. Freight; Public Safety enhancements at Grade XINGs
 - RUAC Study Limits for purposes of assessing entire corridor (MP 29.50 to MP 63.04).

	Passenger Rail Service Only
Total Cost	\$363,000,000

4. RAIL: Routine Maintenance Cost Estimates

- Cost includes routine track/signal system inspection and cyclic maintenance
- Track maintenance generally includes:
 - Surfacing
 - Cross tie replacement
 - Grade crossing panel replacement
 - Switch maintenance
 - Brushcutting
- Signal system maintenance generally includes:
 - Correcting signal malfunctions
 - Repairs to crossing safety equipment
 - Upgrades to obsolete components



Tamper for Track Surfacing



Signal Bungalow Interior

4. RAIL: Routine Maintenance Cost Estimates

	Annual Cost (per Track Mile)	Annual Cost (33.5-mile corridor)
Freight Service	\$82,000	\$2,747,000
Passenger Service	\$90,000	\$3,015,000

NOTES:

- Costs are based on maintenance of similar services in New England
- Higher cost for passenger service is due to additional signal system requirements