

State Rail Plan Update

Public Meetings

Springfield

November 9, 2016

Attleboro

November 21, 2016

Agenda

- **What is a State Rail Plan?**
- **Plan Goals**
- **Public Benefits of Rail**
- **Existing Rail System**
- **Short-Term Vision**
- **20-Year Vision**
- **Next Steps**

What is a State Rail Plan?

Objective: The State Rail Plan Update will seek to:

- Provide an analysis that will guide future rail investment decisions
- Incorporate *new* PRIIA Expectations (Multi-State Planning)
- Enable Massachusetts to Apply for Federal Rail Funding

ORIGINS: Federal Law (Section 303 of the Passenger Rail Investment and Improvement Act of 2008 (PRIIA))

FEDERAL GUIDANCE FOR STATE RAIL PLAN OUTLINE

- Role of Rail in Statewide Transportation
- Existing Rail Service
- Proposed Rail Improvements and Investments
 - Passenger
 - Freight
- **State's Rail Service and Investment Program**
 - Prioritization of investments – 20 year vision and 4 year program

State Rail Plan Goals

1. PRESERVE & MAINTAIN

- Preserve active and abandoned rail corridors.
- Perform recommended maintenance and rehabilitation for rail equipment and infrastructure systems.

2. PROMOTE ECONOMIC GROWTH

- Enhance passenger rail facilities to accommodate population and job growth.
- Develop strategic rail and intermodal connections to improve freight rail.

3. SAFETY & SECURITY

- Prioritize state of good repair projects that will result in improved safety.
- Improve grade crossing locations that pose safety hazards to vehicle and pedestrians.

State Rail Plan Goals

4. ENVIRONMENTAL STEWARDSHIP

- Reduce emissions and enhance energy efficiency through expanded use of rail and use of efficient railroad equipment.

5. IMPROVE SERVICE & INTERMODAL CONNECTIVITY

- Improve passenger access to commuter and intercity services.
- Increase rail share of intermodal freight traffic through improved highway-rail and water-rail intermodal connections.

6. EXPANSION AND MODERNIZATION FOR ECONOMIC GROWTH

- Improve the freight rail system to capture economic opportunities.
- Provide an efficient and sustainable multimodal passenger system that includes rail.

Public Benefits of Rail

■ Safety

- Because intercity train travel is safe, using intercity passenger rail (rather than driving) avoids approximately 5 fatalities per year in Massachusetts.

■ Energy efficiency

- Intercity passenger rail service uses 33% less energy per passenger mile traveled than automobiles and 12% less than airline travel.
- On average, freight railroads are four times more fuel efficient than trucks.

Sources: Association of American Railroads; Ian Savage, "Comparing the Fatality Risks in United States Transportation Across Modes and Over Time"; United States Department of Energy.

Public Benefits of Rail

■ Congestion relief

- Massachusetts rail system annually carries a volume of freight equivalent to approximately 850,000 trucks trips.

■ Emissions reduction

- Every ton-mile of freight moved by rail instead of truck reduces greenhouse gas emissions by 75%.

Sources: Association of American Railroads; United States Department of Energy.

Existing Rail Systems

- **Principal Passenger**
 - Commuter Rail - MBTA
 - Intercity - Amtrak
- **Principal Freight**
 - Freight Companies
 - Private and State-owned Rail Corridors

Existing Rail Systems

MBTA Commuter Rail System

- 14 Lines with services originating from North Station and South Station in Boston
- Special Event Trains to Foxboro and Seasonal Service to Cape Cod
- 121,600 Weekday Riders – the 6th Busiest in the Nation

Source: American Public Transit Association 2015

Existing Rail Systems

Amtrak System Services in Massachusetts

- Acela Express
- Northeast Regional
- Downeaster
- Lake Shore Limited
- New Haven-Springfield Shuttle
- Vermonter

Existing Rail Systems

Amtrak Top Stations in Massachusetts (2015 Annual)

■ Western and Central Massachusetts

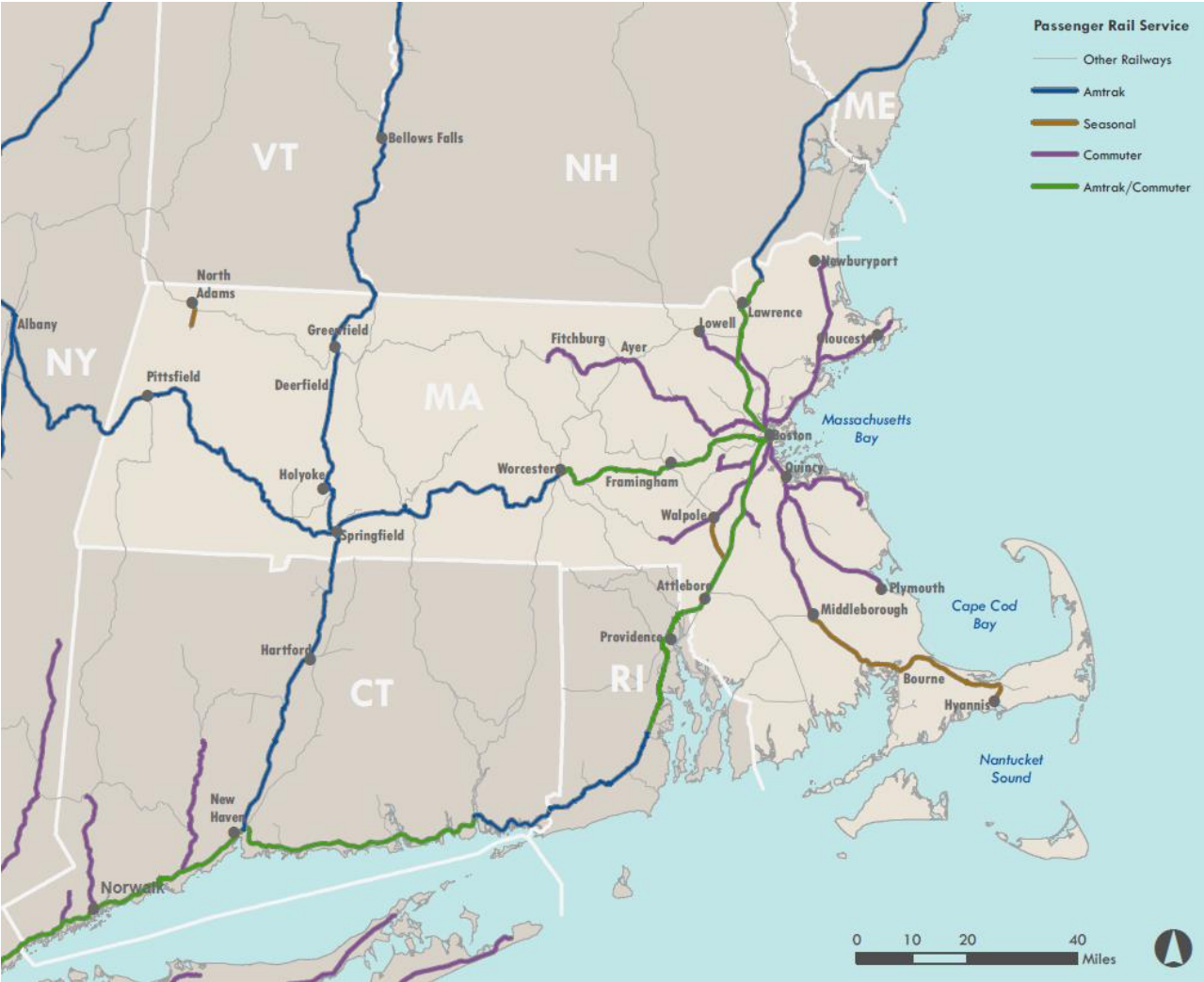
- Springfield Union Station: 123,000
- Northampton: 12,000
- Pittsfield: 7,500
- Worcester: 7,200
- Greenfield: 5,300

■ Eastern Massachusetts

- Boston (South Station and Back Bay): 2.1 Million
- Route 128 Station: 440,000
- Boston North Station: 354,000
- Haverhill: 35,000
- Woburn: 17,000

Existing Rail System

PASSENGER NETWORK



Existing Rail System

FREIGHT NETWORK: OWNERSHIP

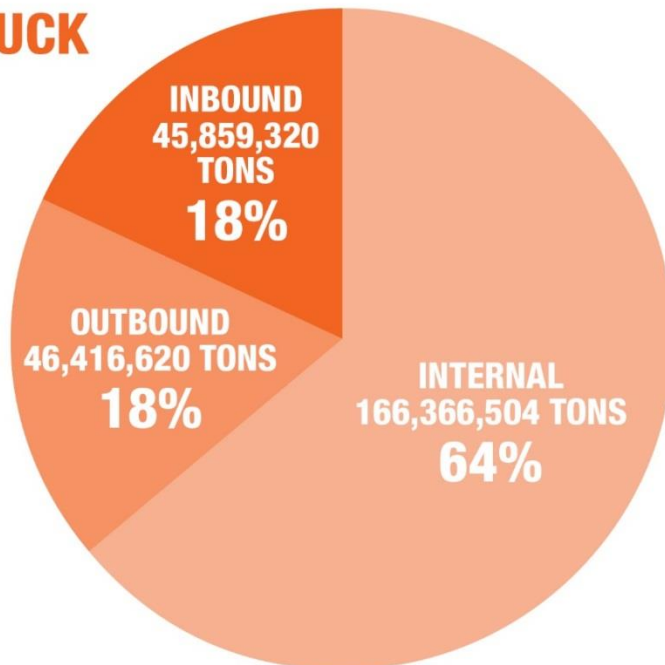


Freight Modal Share in Massachusetts

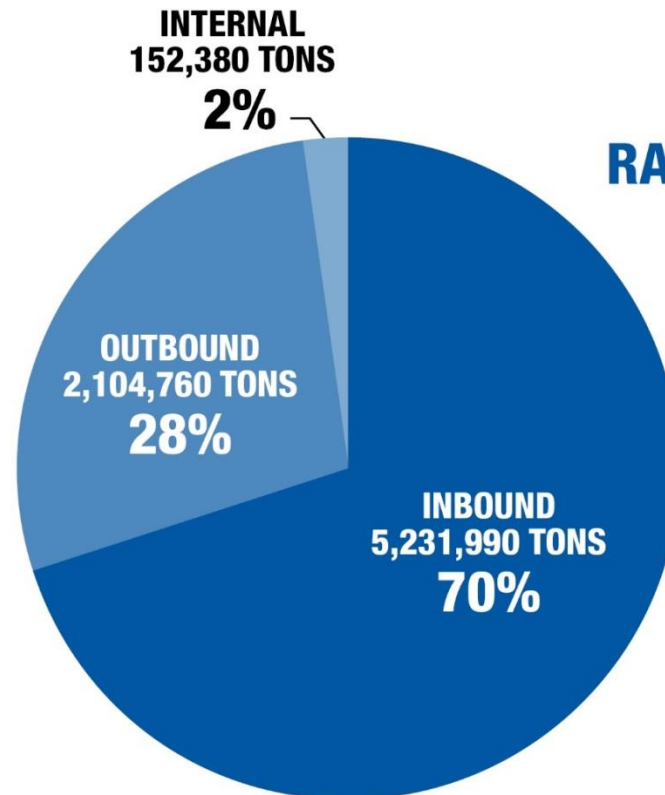
Primary Commodities Shipped by Rail in MA

- By Weight
- Other foodstuffs
- Newsprint/paper
- Waste/scrap
- Cereal grains
- Wood prods.
- Plastics/rubber
- Propane
- Basic chemicals
- Gravel
- Nonmetal min. prods.

TRUCK



RAIL



Existing Rail System

FREIGHT NETWORK: MAJOR FACILITIES



Rail Service Needs & Opportunities

Passenger Rail

- **State of Good Repair is an ongoing and priority need for the passenger rail system.**
- **Limited Capacity During Peak Periods at Terminals, Yards, Key Rail Corridors and Station Space constrains new services.**
- **Infrastructure Modernization desired to Maintain a Reliable System and meet new Government Standards.**

Rail Service Needs & Opportunities

Freight Rail

- **State of Good Repair is an ongoing need for the freight rail system.**
- **Yard Infrastructure constrains growth of Transloading and Intermodal operations in some areas.**
- **Existing Vertical Clearance Constraints foreclose Doublestack service on some lines.**
- **Rail Weight Restrictions limit a carrier's ability to "max-out" a railcar.**

Western Massachusetts - Recent Projects

■ Springfield Union Station Improvements

- Restored Historic Station is expected to open in 2017:
 - In January new Station Building and bus facility will allow direct connections between bus and rail.
 - Later in 2017 new platform will be available to Amtrak passengers.
 - \$60m in State and Federal transportation funds used to renovate building and build bus and rail facilities

■ Knowledge Corridor Improvement Program

- State and Federal funds used to purchase and improve freight line so it could be used for passenger service.
- Restoration of the Amtrak Vermonter Service began in December 2014.
- New Stations opened at Holyoke, Greenfield & Northampton.
- Track, Grade Crossing, and Signal Improvements that allowed for faster and more reliable passenger rail service.

■ Hoosac Valley Tourist Railroad

- Seasonal Tourist Railroad began in May 2016 after MassDOT purchased and improved Adams Line.

Southeastern Massachusetts - Recent Projects

■ Cape Flyer Service – 2013

- New Boston to Cape Cod Seasonal Service
- Stations located at Hyannis, Buzzards Bay, and Wareham

■ Corridor Improvements – 2011 – 2016

- Grade Crossing Improvements on the Southeastern Massachusetts Lines and Framingham Secondary using State and Federal funds used to upgrade rail lines.
- Tie Replacement and Ballast and Surfacing on Southeastern Massachusetts Lines from Middleboro to Hyannis and New Bedford to Fall River on the South Coast Lines
- Attleboro Secondary Ballast Improvement and Welded Rail

Overview

State's Rail Service and Investment Program

- **Short-Range Four-Year Program – State of Good Repair Focus**
- **Long-Range 20-Year Vision – Longer term investments that could facilitate economic growth by improving Massachusetts' rail system.**

State Rail Service & Investment Program

Short-Range Programs

- **Reliability / State-of-Good-Repair – primary focus**
 - Signal and Track Improvements
 - Bridge and Structure Improvements
 - Station ADA Accessibility Improvements

- **Modernization and Expansion**
 - Positive Train Control
 - Opportunities presented by discretionary Federal grants and other sources.

Western Massachusetts Short-Term Projects (CIP)

- **Adams Branch and Berkshire Line - SGR and maintenance**
 - Bridge Repairs and Replacements
 - Grade Crossing Repairs and Improvements
 - Track and Right-of-Way Improvements
- **Knowledge Corridor Program – SGR and maintenance**
 - Greenfield & Northampton Stations Platform Extension
 - Grade Crossing Repairs and Improvements
 - Track and Right-of-Way Maintenance
 - Bridge Maintenance and Repair
- **Other:**
 - NECR Mainline Enhancements
 - Rail Line Capacity Improvements for Improved Freight Movement
 - Federal Discretionary Funds (Pending)
 - PVPC Pilot

Southeastern Massachusetts Short-Term Projects (CIP)

- **Improvements to Freight and Passenger Lines in SE Mass, including:**
 - Cape Main Line
 - Framingham Secondary
 - Fall River Secondary
 - Middleboro Subdivision Improvements
 - New Bedford Secondary
 - Watuppa Branch
- **Improvements to these lines include:**
 - Grade Crossing Repairs and Improvements
 - Track and Right-of-Way Improvements
 - Equipment and Maintenance
 - Bridge Repairs and Replacements

State Rail Service & Investment Program

Long-Term Vision

■ Long-Term Reliability & Resiliency

- Maintain and improve the rail system in Massachusetts to enable efficient and dependable passenger and freight rail operations.

■ Modernization

- Improve existing systems to meet industry standards and federal regulations to ensure proper operations for both freight and passenger rail services.

■ Expansion

- Where fiscally and environmentally prudent, pursue expansion opportunities that promote economic development for Massachusetts citizens and businesses.

Western Massachusetts 20-Year Thoughts

“What We’ve Heard from You...”

- **Regional Passenger Rail Concepts**
 - *CT Rail New Haven-Springfield Service*
 - *Knowledge Corridor Improvement Program*
 - *Berkshire Line Service to NYC*
- **Intercity Rail Concepts**
 - *New Haven-Montreal via Springfield Intercity Rail*
 - *Inland Route – Boston to New Haven via Springfield*
 - *NEC Future*
- **Station Concepts**
 - *Springfield Union Station – Additional Improvements*
 - *Station in the Town of Palmer*

Southeastern Massachusetts 20-Year Thoughts

“What We’ve Heard from You...”

■ **Commuter Rail**

- *Buzzards Bay and Cape Cod Commuter Rail Pilot*
- *South Coast Rail Commuter Service*

■ **Intercity Rail**

- *NEC Future*

■ **Station**

- *Bourne & Wareham Rail Stations*
- *Stations Associated with South Coast Rail*

Next Steps

Evaluation Process

- **Initial Project Identification & Development of Evaluation Criteria**
 - Input from November Public Meetings & Stakeholders
 - MassDOT Rail Planning Goals & Objectives
 - Late November through Late March 2017
- **Phase 1 Evaluation Criteria**
 - Initial Evaluation/ Ranking of projects (including SGR needs) based on established criteria.
 - Late November through Late March 2017
- **Identification of Projects for Economic Analysis (Phase 2)**
 - Selection of Projects based on Phase 1 Evaluation/Ranking
 - April and Early May 2017
- **Phase 2 Benefit-Cost Analysis**
 - Determine the Long-Term Benefits of Top State-Wide Projects
 - Late April through Mid-August 2017
- **Finalization of State Long-Term Plan**
 - Fall 2017

MA State Rail Plan: Project Schedule Extension

- **State Rail Plan extended from January 2017 to Fall 2017.**
- **Purpose: To evaluate and rank rail projects to guide future rail investments.**
 - Advancing CIP projects for short term
 - Using economic growth as key metric for longer vision
- **Public Process (Spring/Summer 2017)**

Questions and Discussion



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