

# Montana Rail Planning

**Doug McBroom,  
Multimodal Programs  
Bureau Chief**

**March 2012**





# Presentation Topics

- **Passenger Rail in Montana**
  - Rail Plan
  - Amtrak Studies
  - Hiawatha
  - Empire Builder
    - Amtrak ridership numbers
    - Economic benefits of Empire Builder
- **Freight efforts in Montana**
  - Shelby Awarded Tiger Grant funds
  - MCOM – great northern corridor
  - Other Freight Activity



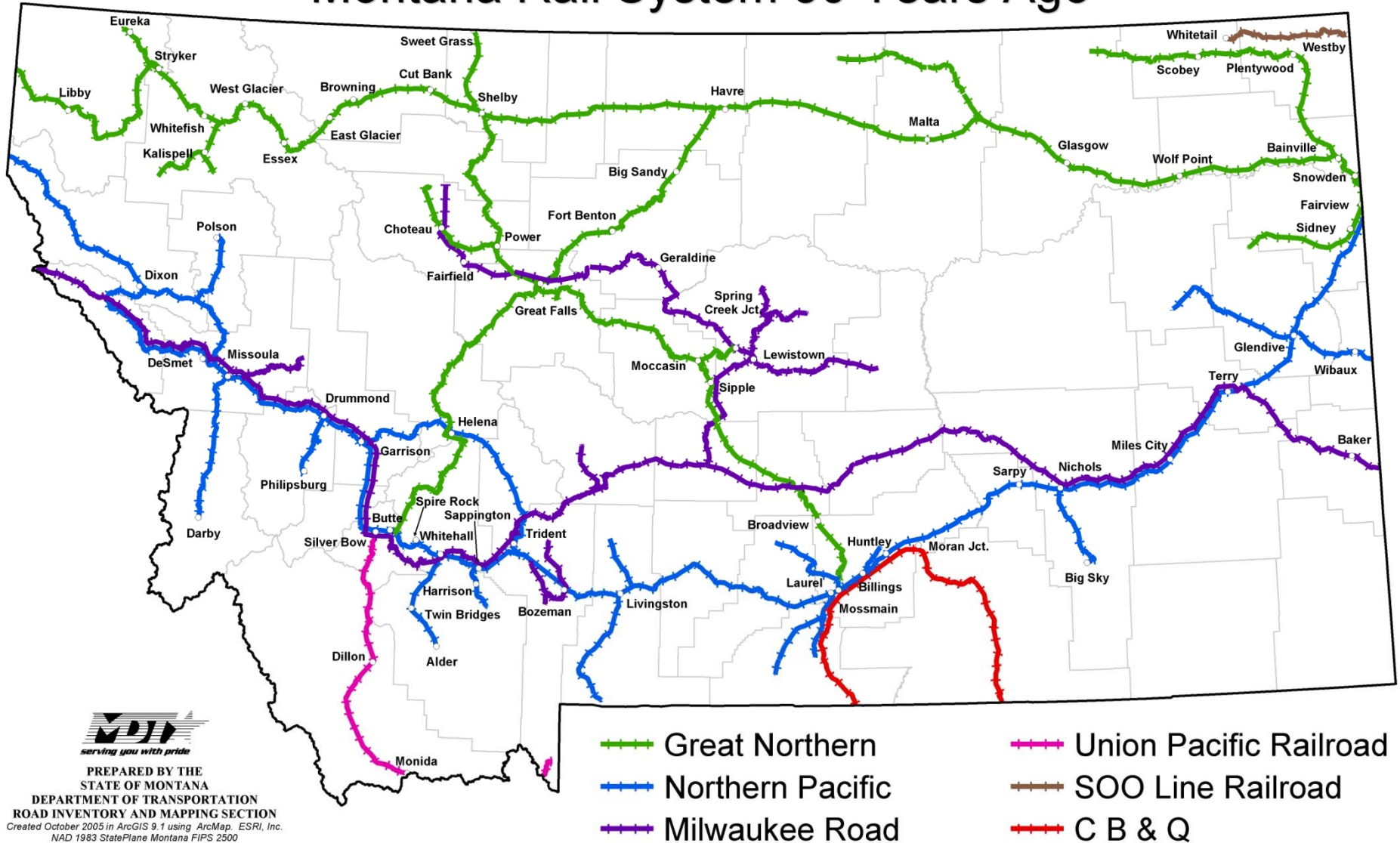
# State Rail Plan Update

## 2010 Rail Plan Update

- First developed in 1970's, last updated in 2000
- Key purposes: multimodal system coordination, abandonments and loan programs, passenger rail
- Technical information about Montana's rail system
- Identifies key challenges for Montana, such as
  - Impacts of 110-car grain shuttle loading facilities
  - Southern Montana passenger rail route
  - Freight rail funding sources
- See the Rail Plan at <http://www.mdt.mt.gov/pubinvolve/railplan/>

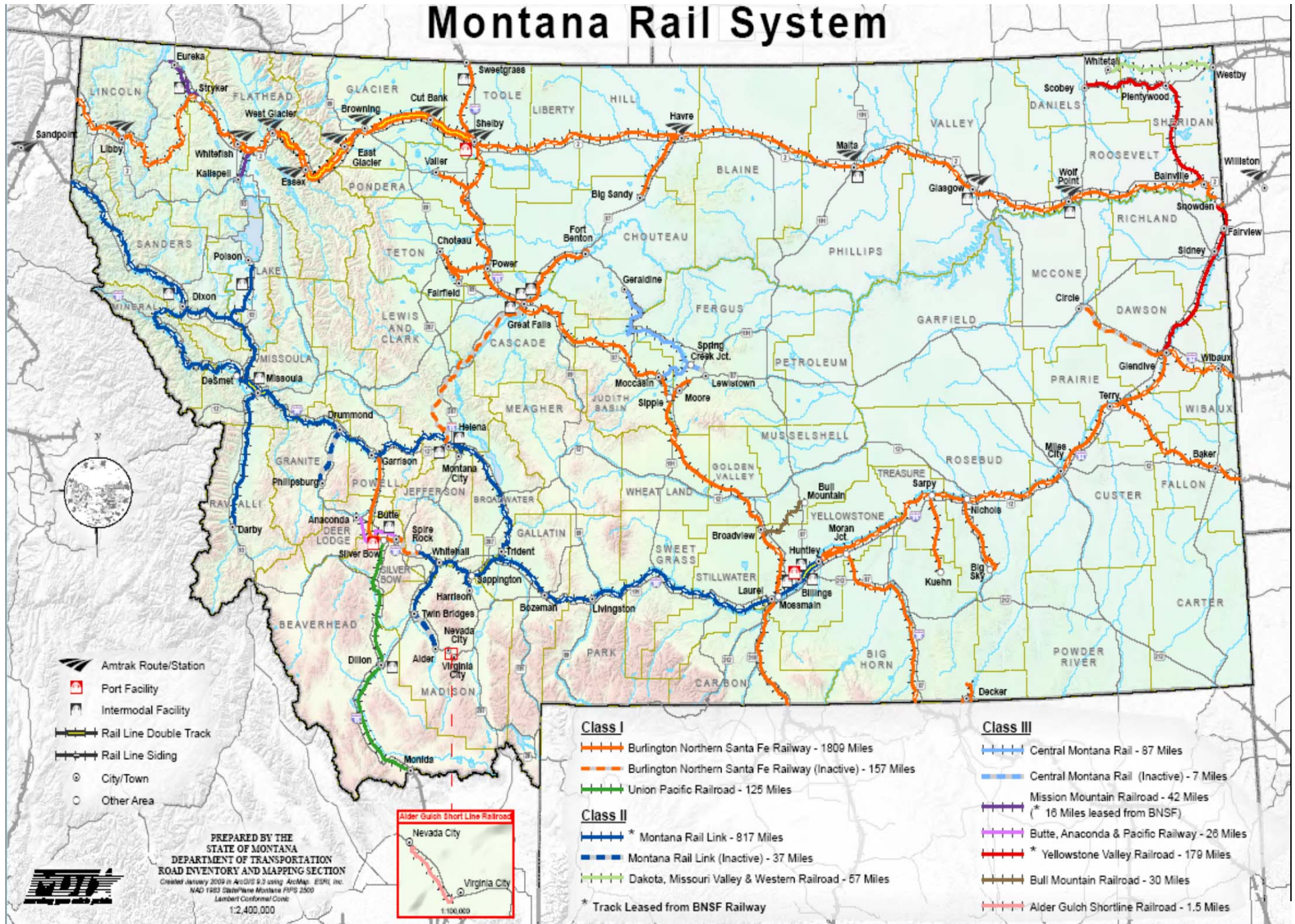


# Montana Rail System 50 Years Ago





# Montana Rail System





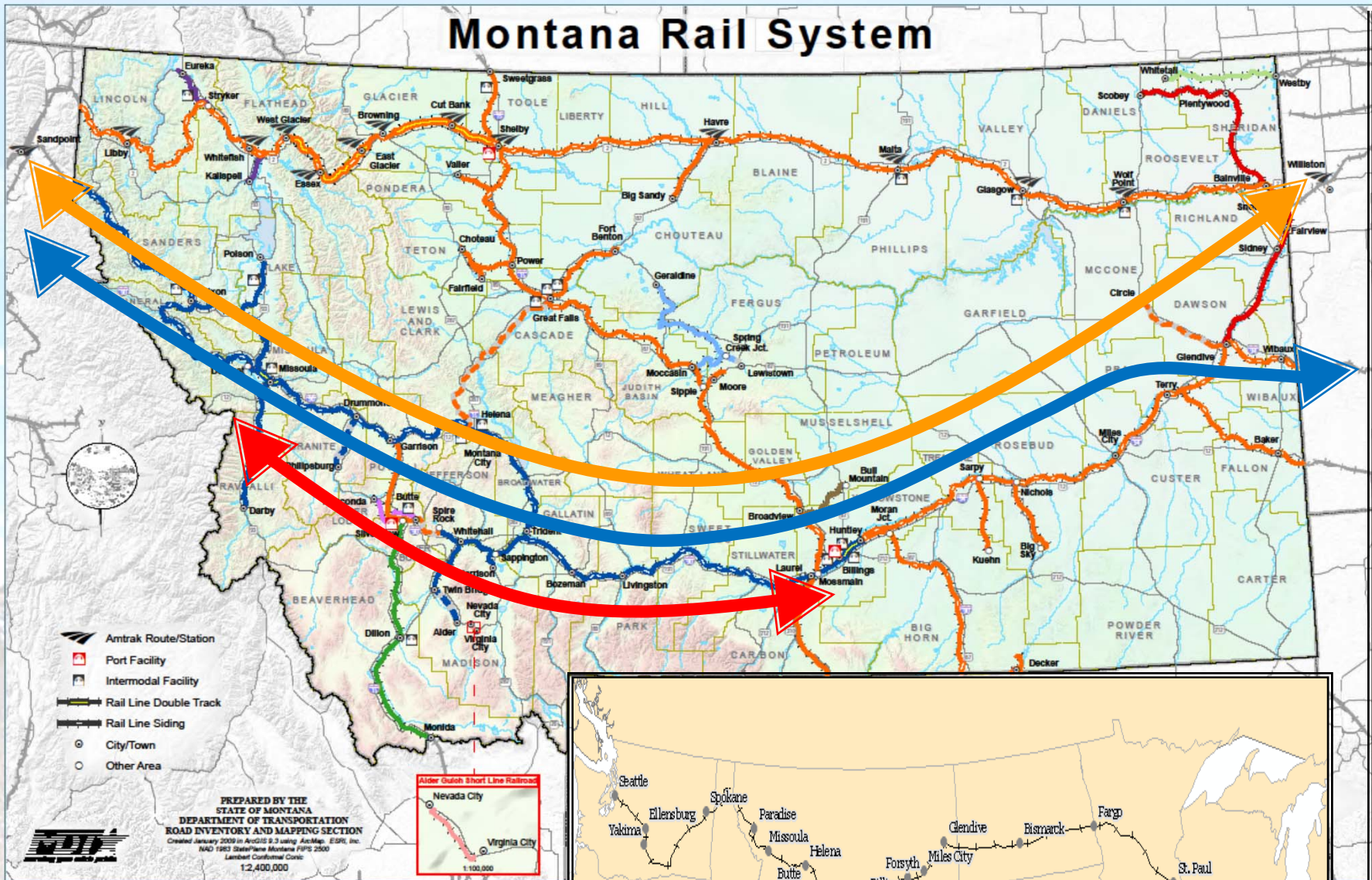
# Passenger Rail in Montana

## Current and Recent Developments

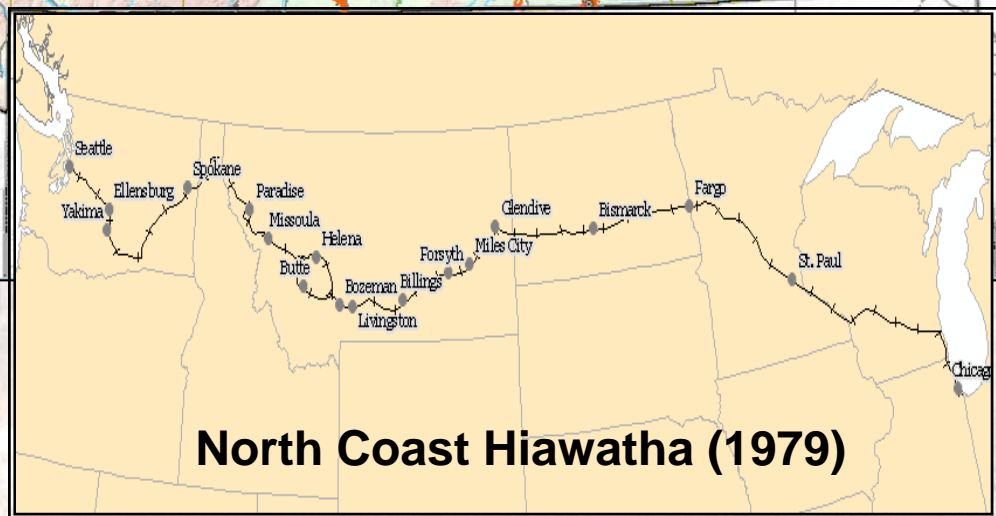
- **Montana Rail Plan update – Final Complete in 2010**
  - Janet Kenny-Passenger Rail
  - Hal Fossum-Freight Rail
- **MDT / Amtrak Southern Route Study**
- **Amtrak North Coast Hiawatha study**
- **Federal PRIIA and the National Rail Plan**



# Montana Rail System



- Tier I: Billings-Livingston-Bozeman-Helena/Butte-Missoula. Approx 355 miles
- Tier II: Williston, ND to Sandpoint, ID. Approx 865 miles total
- North Coast Hiawatha route: Chicago to Seattle





# Passenger Rail in Montana: Amtrak Report – Part One

## Amtrak Track Feasibility Report – *Williston, ND to Sandpoint, ID*

- Assess needed track improvements to meet future passenger rail needs and the operations of host railroad companies
- Track analysis does not include ridership forecasts, schedules or financial analysis of capital and operating costs



# Passenger Rail in Montana: Amtrak Report – Part One

## Route and Operating Characteristics

- The route segments studied were via Glendive, Miles City, Forsyth, Billings, Livingston, Bozeman, Helena, Missoula and Paradise.
- Amtrak worked with Montana Rail Link, BNSF and Yellowstone Valley Railroad to complete the assessment.



# Passenger Rail in Montana: Amtrak Report – Part One

**Entire route operates over three railroads:**

**Williston – Snowden – BNSF (26.1 miles)**

**Snowden – Glendive – YSVR (72.6 miles)**

**Glendive – Jones Jct. – BNSF (212.7 miles)**

**Jones Jct. – Sandpoint – MRL (564.6 miles)**

**Total Route – 876 miles**

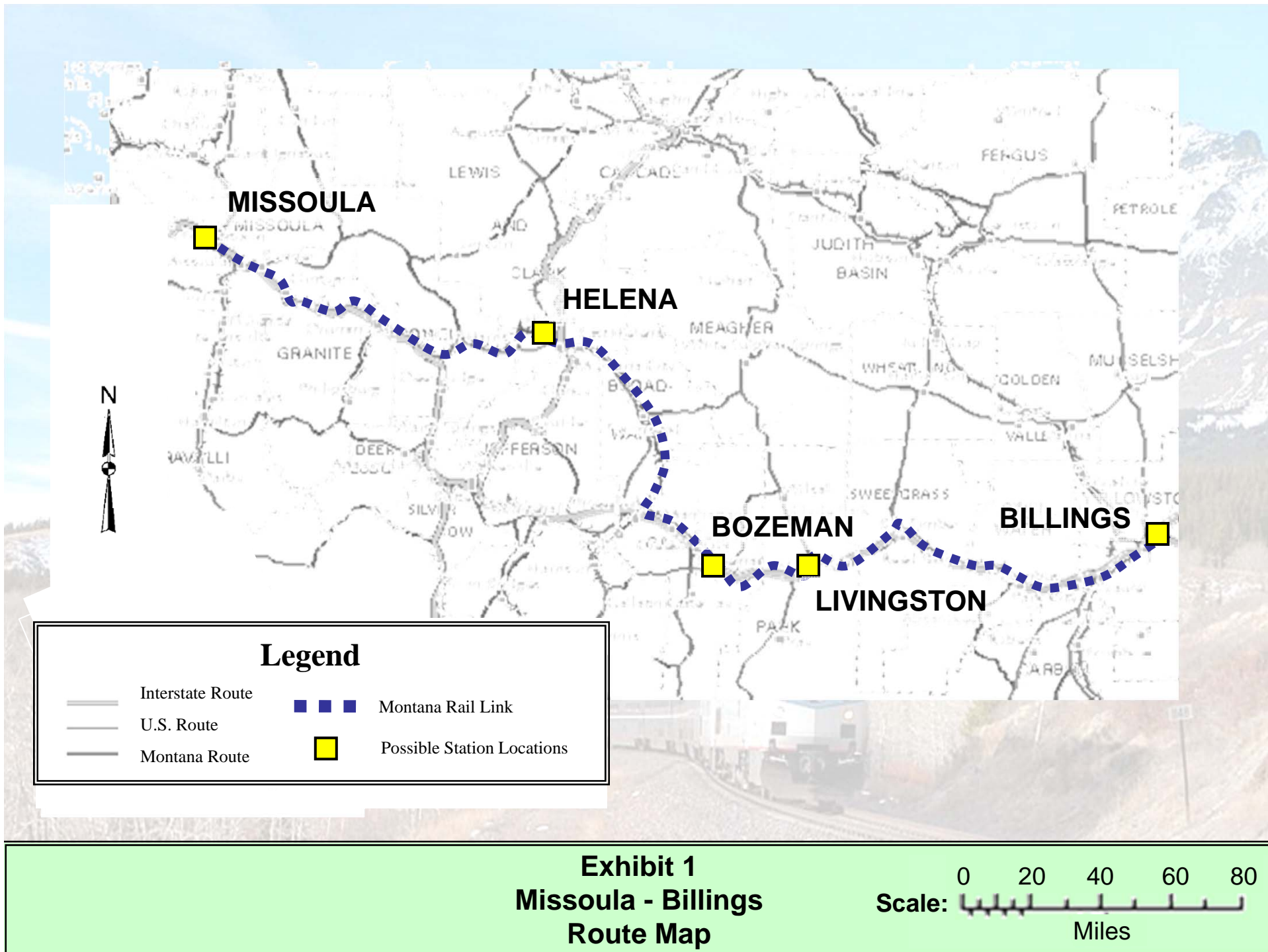


# Passenger Rail in Montana: Amtrak Report – Part Two

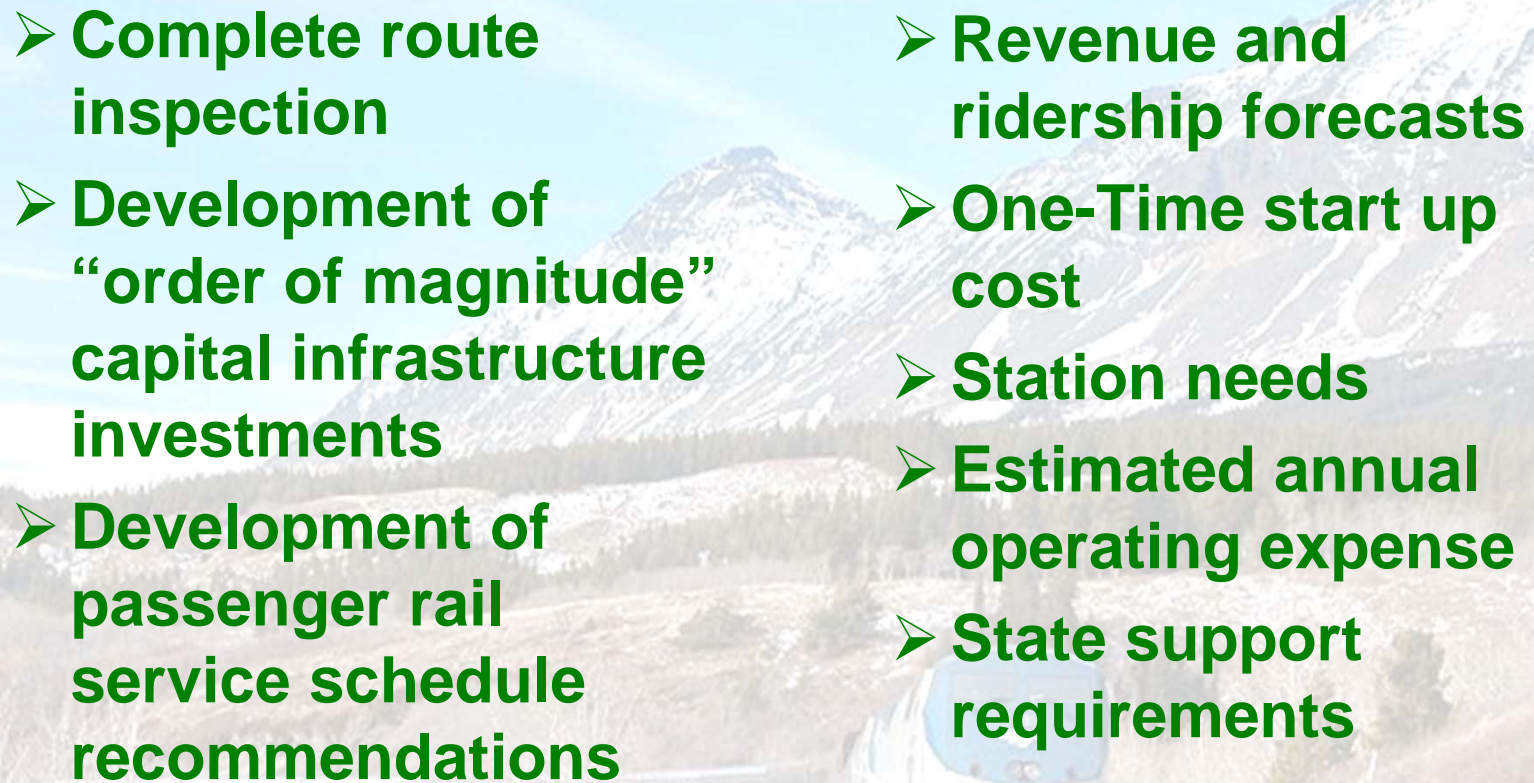
**Amtrak Feasibility Report of potential  
intercity passenger rail service through  
southern Montana between Billings  
and Missoula.**







# Passenger Rail in Montana: Amtrak Report– Part Two

- 
- Complete route inspection
  - Development of “order of magnitude” capital infrastructure investments
  - Development of passenger rail service schedule recommendations
  - Revenue and ridership forecasts
  - One-Time start up cost
  - Station needs
  - Estimated annual operating expense
  - State support requirements



# Passenger Rail in Montana: Amtrak Report - Part Two

## Route Track Inspection

- Amtrak worked with MRL to evaluate track infrastructure over the entire proposed Billings to Missoula route
- 358 total miles over three operating districts: MRL subdivisions Billings – Spurling (18 miles), Spurling – Helena (221 miles), and Helena – Missoula (119 miles)
- Maximum authorized speed is currently 60 mph, with several lengthy sections limited to lower speeds due to track curvature and grades.
- Several opportunities for 79 mph without major infrastructure improvements with grade crossing improvements.

# Passenger Rail in Montana: Amtrak Report - Part Two

## Challenges

- **Laurel is a major freight train intersection point and has the longest and most congested rail yard on the route, resulting in slow speeds and long wait time for trains**
- **A total 274-at-grade crossings on route with a significant number needing upgrades to meet passenger rail requirements**



# Passenger Rail in Montana: Station Facilities for Proposed Route



Missoula



Billings



Livingston



Bozeman



Helena

# Passenger Rail in Montana: Amtrak Report – Part Two

## Summary Route Information from Amtrak feasibility study of Billings – Missoula Proposed Passenger Rail Service

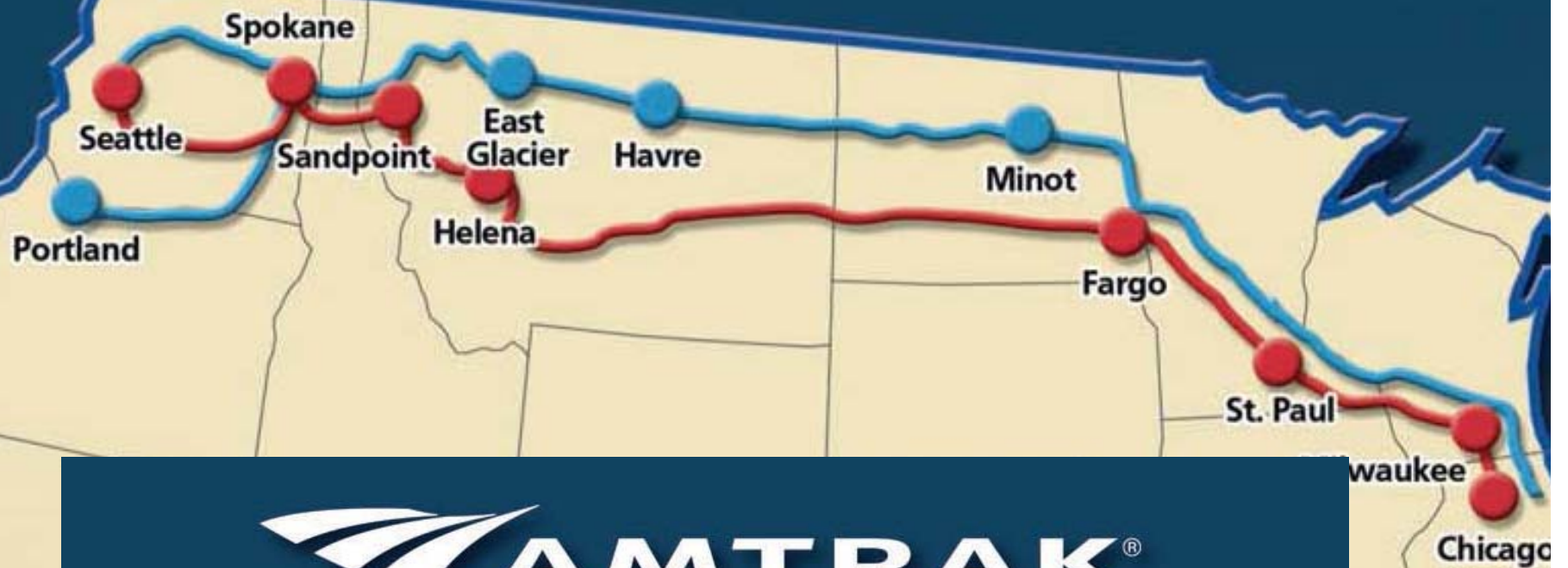
Amtrak Summary	Statistics
Length of Route	357.7
No of Host Rail Carriers( MRL)	1
Maximum Operating Speed	79 MPH
Proposed Scheduled Running Time	8 HRS, 15 MIN
Estimated Annual Ridership	15,300
Estimated Annual Revenue	\$0.4 million
Estimated Annual Operating Expenses	\$12.6 million
Estimated Annual Operating Subsidy	\$12.2 million
Estimated Rolling Stock Cost	<b>\$95.0 *</b> million
“Order of Magnitude” Infrastructure Capital Cost	<b>\$28.2 *</b> million
Estimated Mobilization Cost	<b>\$2.8*</b> million
Estimated Positive Train Control (PTC)	<b>\$33.0 *</b> million
<b>*Total One Time Capital Costs</b>	<b>\$159,050,000</b>



# Passenger Rail in Montana: Amtrak Report – Part Two

## Amtrak Conclusions

- Amtrak recommends state policymakers determine if passenger rail service should be developed on this route and if so, identify funding for both capital and annual operating expenses.
- Amtrak will work cooperatively with public and private partners to establish the service if the state is willing to make this commitment.



# North Coast Hiawatha Passenger Rail Study



# Passenger Rail in Montana: North Coast Hiawatha Rail Study

## Key Findings

- Seven-state route from Chicago to Seattle
- Up front capital and other costs: \$1.043 billion
- Projected ridership: 359,800 passengers annually
- Diverted from the Empire Builder: 65,800 (\$8 million in fares)
- Annual operating loss projected: \$31.1 million for entire seven-state route
- Farebox recovery: 58 percent
- Empire Builder cost recovery rate: 66 percent with \$33.8 million loss annually
- Population of Montana counties served : 460,348 (2007 population estimate)

# Passenger Rail in Montana: North Coast Hiawatha Rail Study

## Amtrak concludes:

- The North Coast Hiawatha would enhance Amtrak's route network and produce public benefits.
- Large expenditures required for initial capital costs
- Amtrak would work with federal and state partners to restore the service.
- 48 to 60 month implementation

## Amtrak recommends:

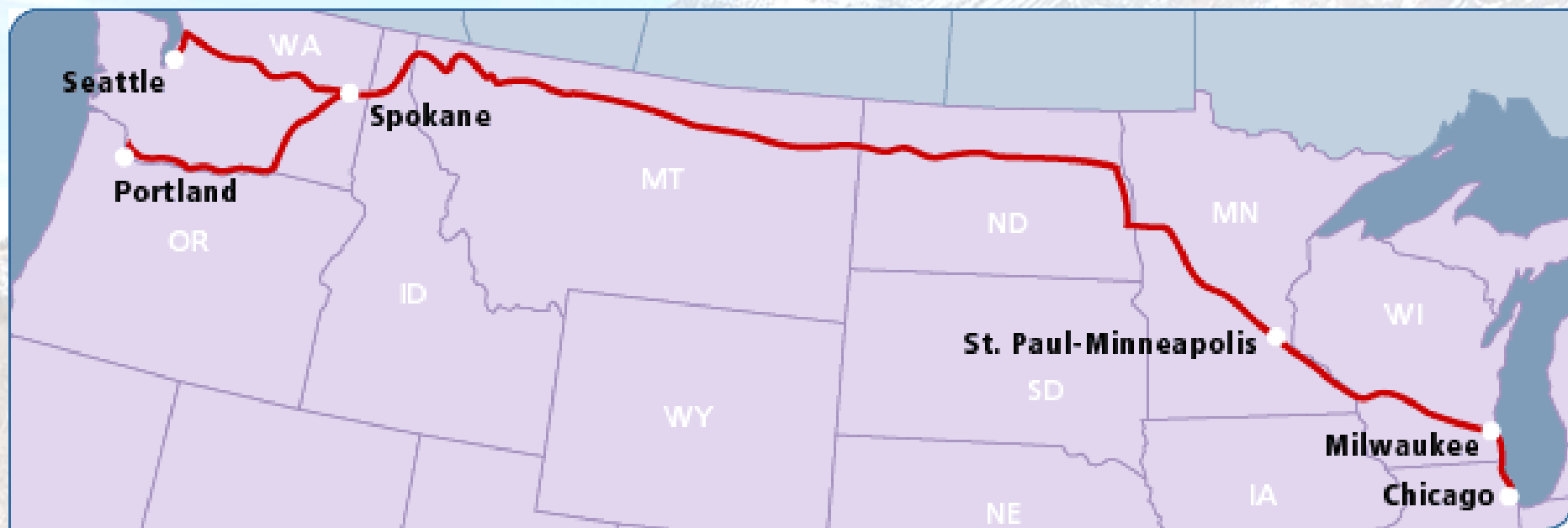
Federal and state policymakers determine if intercity passenger rail service along the former North Coast Hiawatha route should be reintroduced and, if so, that they provide the required levels of capital and operating funding to Amtrak.



# Passenger Rail Report Conclusions

- Under current federal law, states carry costs of new routes, including the Montana southern route
- Montana may pay a higher percentage of support for Missoula – Billings service
- Planning for long-distance, national passenger services may be best option
- North Coast Hiawatha could bring about 300,000 more people yearly to Montana by rail – and reduce Empire Builder riders by 65,000

# Passenger Rail in Montana: Empire Builder

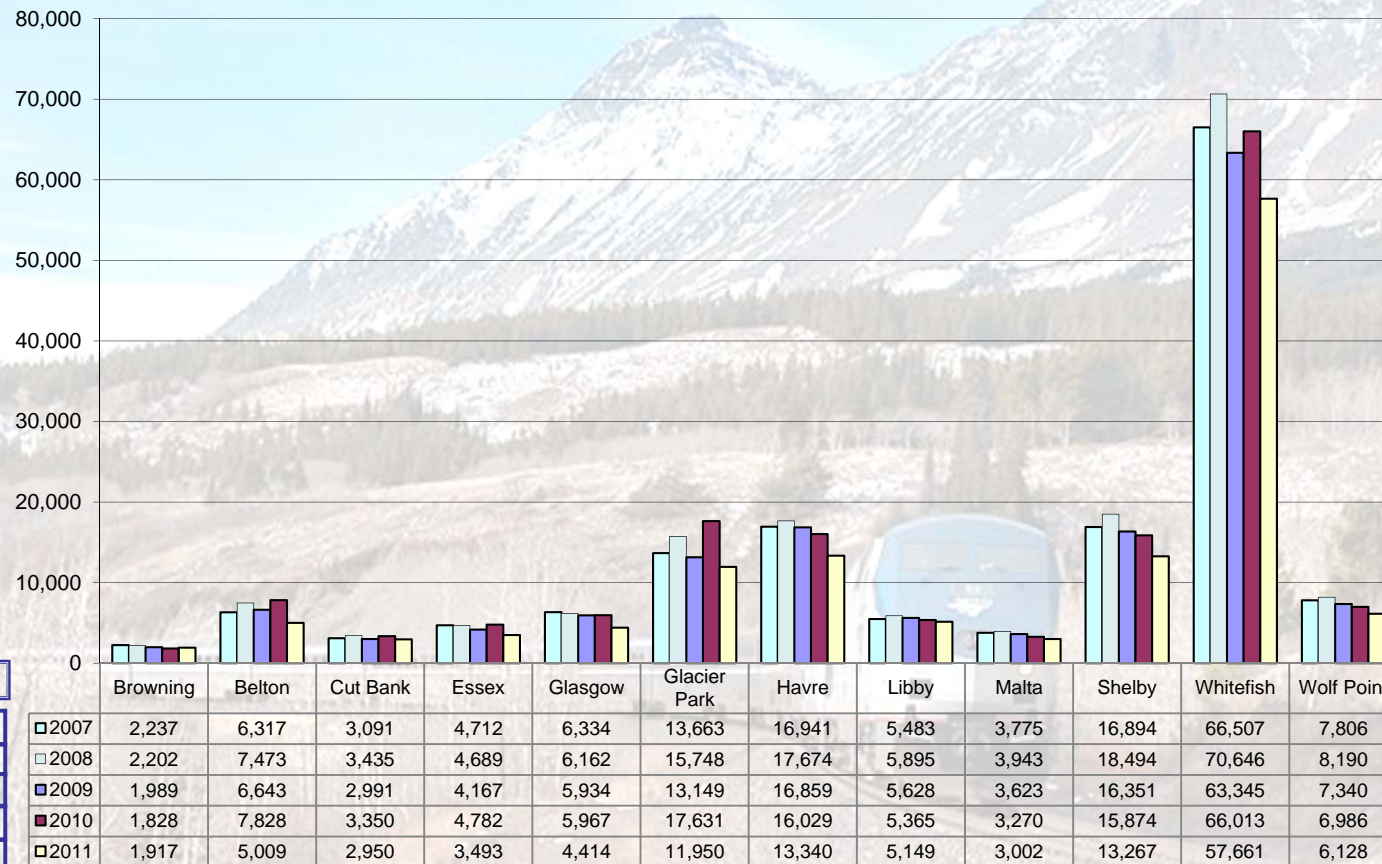




# Passenger Rail in Montana: Empire Builder

## Station Totals - Calendar Years 2007 – 2011

Passenger Boarding & Deboarding



### Year Total

153,760  
164,551  
148,019  
154,923  
128,280\*

Source: Amtrak Department of Governmental Affairs

\*Empire Builder service was greatly impacted by flooding during FY11.



Montana Department of Transportation  
Rail, Transit, & Planning Division

# Passenger Rail in Montana: Empire Builder

Route	Revenue	Direct Costs	Fairbox Recovery
Auto Train	58.4	66.7	87.6%
<b>Empire Builder</b>	<b>64.8</b>	<b>98.6</b>	<b>65.7%</b>
Palmetto	13.6	21.0	64.6%
City Of New Orleans	16.0	30.1	53.1%
Southwest Chief	44.4	84.4	52.6%
Silver Meteor	32.5	64.3	50.5%
Coast Starlight	32.8	67.4	48.7%
Capital Limited	18.8	39.4	47.9%
Crescent	28.6	60.6	47.3%
Texas Eagle	21.3	46.7	45.7%
California Zephyr	43.1	96.8	44.5%
Lake Shore Limited	25.6	58.3	43.8%
Silver Star	29.8	68.5	43.5%
Cardinal	7.2	20.0	35.8%
Sunset Limited	9.4	38.6	24.3%



# Passenger Rail in Montana: Empire Builder

## Summary of Benefits

Transportation	
Reduced Transportation Costs	\$4,011,000
Reduced Highway Costs	\$609,000
Reduced accident Costs	\$1,724,000
Reduced Pollution Costs	\$1,271,000
Nonresident Spending in Montana	\$7,600,000
Amtrak Direct Spending in Montana	\$3.7-\$4.1 million
<b>TOTAL</b>	<b>\$18.9 -\$19.3 million</b>
Personal Income for Montana Residents	\$2,450,000
State and Local Tax Revenue	\$642,000
Jobs in Montana	142

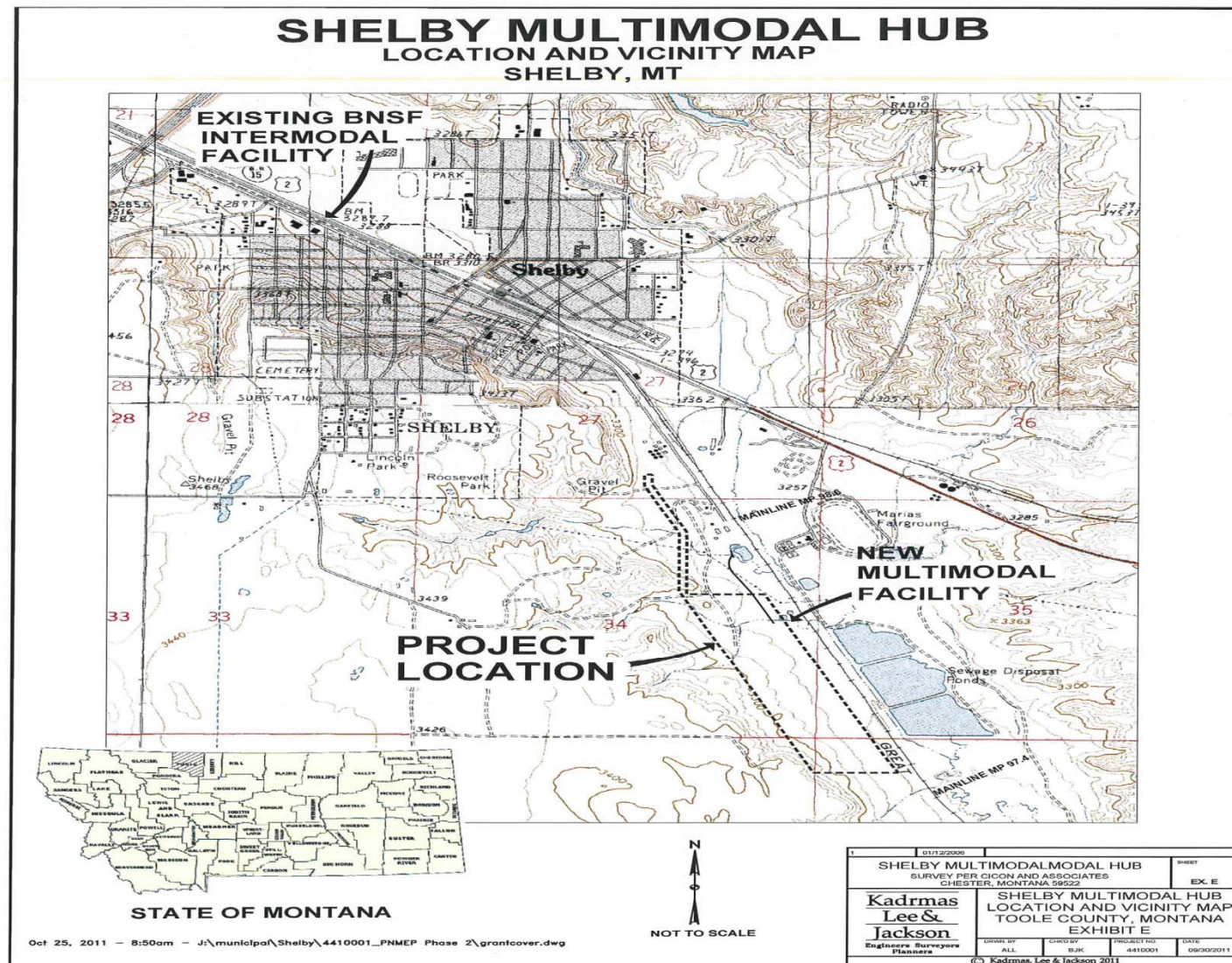
# Freight Efforts in Montana

## Freight Efforts in Montana

- **Shelby Awarded Tiger Grant funds**
- **MCOM – Great Northern Corridor**
- **Other Freight Activity**



# Freight Efforts in Montana: Shelby Intermodal Facility



# Freight Efforts in Montana: Shelby Intermodal Facility

- Requested and Received \$9.9 million for a completion of new multimodal facility
- Constructing 3,600 lineal feet of track, 20 acre laydown yard to stage oversized projects
- Funds will support fully functional inland port capable of accepting unit trains of containers and project cargo to support regional development and wind energy projects



# Freight Efforts in Montana: MCOM-Great Northern Corridor



# Freight Efforts in Montana: MCOM

- 
- Task 1. Establish Vision, Goals, and Objectives**
  - Task 2. Stakeholder Participation**
  - Task 3. Corridor Infrastructure and Operations Assessment**
  - Task 4. Freight Flows and Industry Trends**
  - Task 5. SWOT Analysis**
  - Task 6. Economic and Environmental Impacts Analysis**
  - Task 7. Freight Movement System Initiatives and Projects Analyses**
  - Task 8. Findings and Recommendations**



# Freight Efforts in Montana: Other

## **Rail Service Competition Council (RSCC)**

- First meeting in three years set for April 4

## **Montana Essential Freight Rail Loan**

- Two loans made in last two years totaling approx. \$500,000

## **Montana World Trade Center Study**

- Research that is conducting a modal analysis
- Cost and opportunity analysis

# Questions

