

2019 Washington State Rail Plan

An Integrated Plan for Freight and Passenger Rail

PSRC Freight Advisory Committee

June 10, 2020

WSDOT Rail, Freight and Ports Division

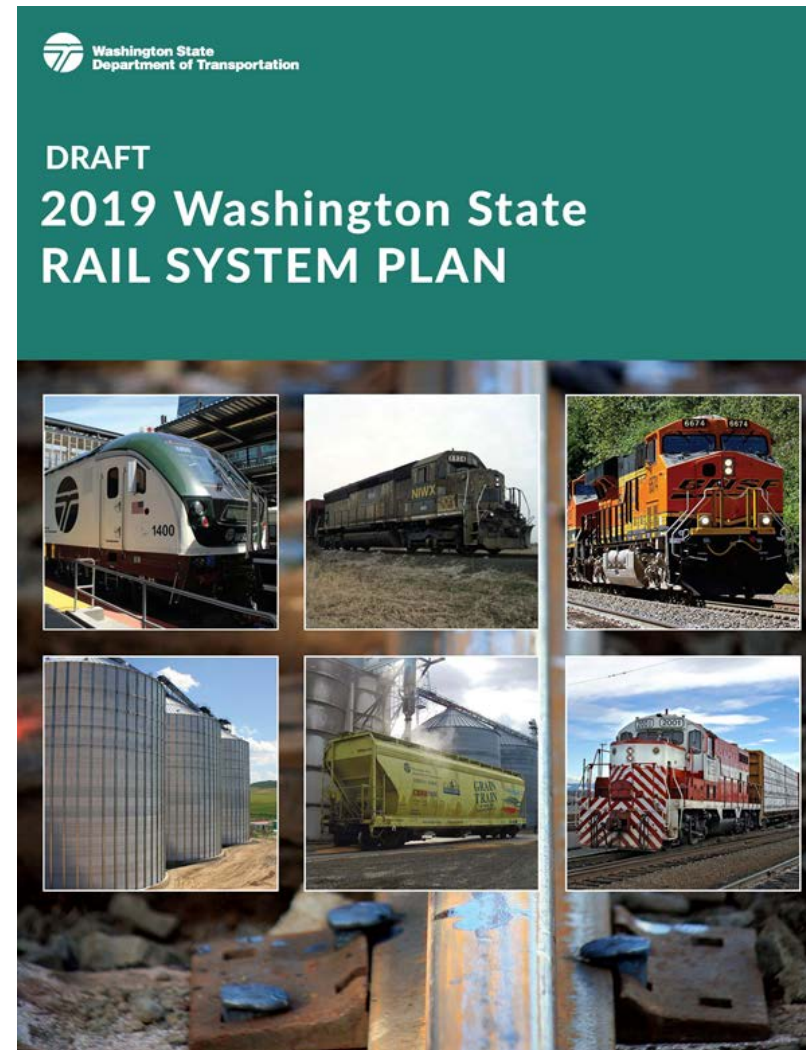
Roger Millar, Secretary of Transportation

Keith Metcalf, Deputy Secretary of Transportation

2019 Washington State Rail Plan

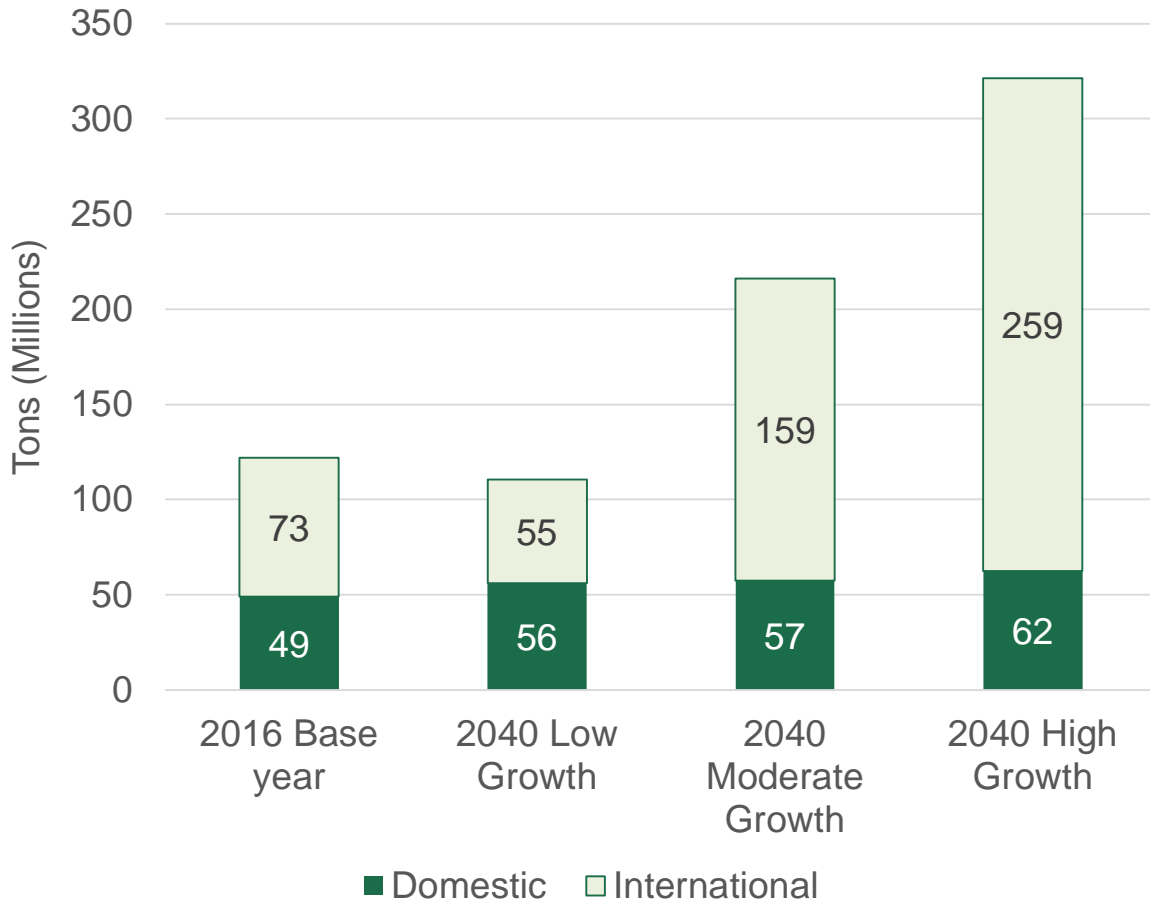
Purpose of the Rail Plan

- Identify system assets and capacity
- Identify potential improvements and investments to maintain and optimize freight and passenger rail
- Highlight system benefits to the state
- Identify system trends and needs
- Assess station connectivity needs
- Chart growth and prepare for the future



Freight Rail Forecast Results

Total Annual Tonnage, 2016 and 2040 Forecast Scenarios



- **2016 Base year**
 - Tonnage: 122 million (40% domestic / 60% international)
- **Low growth scenario**
 - Annual growth rate: domestic 0.6% / international -1.2%
 - Tonnage: 110 million (51% domestic / 49% international)
- **Moderate growth scenario**
 - Annual growth rate: domestic 0.7% / international 3.3%
 - Tonnage: 216 million (27% domestic / 73% international)
- **High growth scenario**
 - Annual growth rate: domestic 1% / international 5.4%
 - Tonnage: 321 million (19% domestic / 81% international)

International trade drives Washington rail tonnage, particularly cereal grains and other agricultural products

Passenger Rail Ridership Forecasts

Amtrak Cascades intercity passenger rail forecasts

- Multiple scenarios representing different incremental levels of service up to the full implementation of the Long Range Plan (High Growth Scenario)

Amtrak Cascades High Growth Scenario

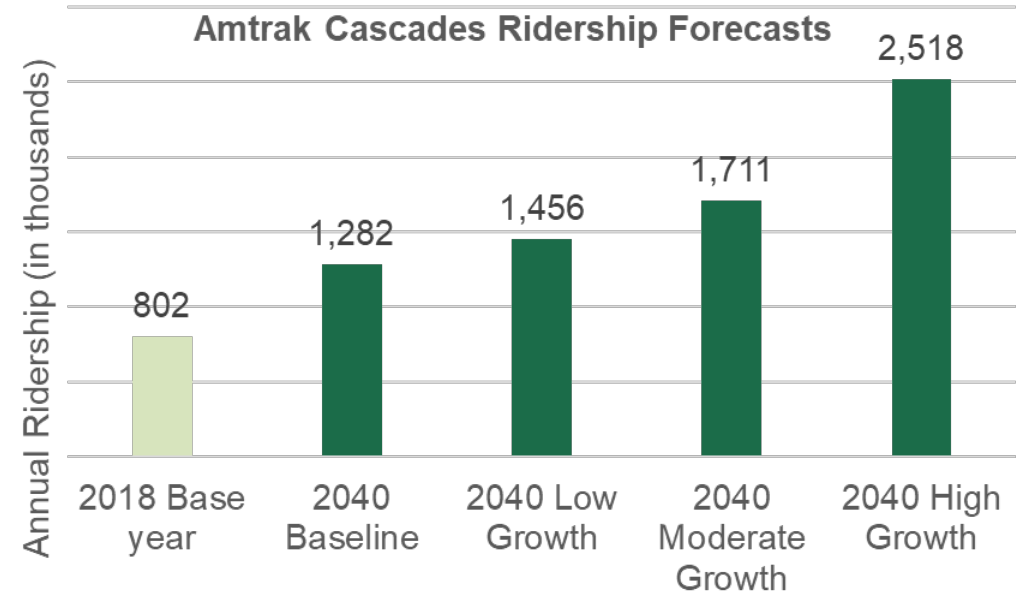
- Seattle-Portland round trips - **13**
- Seattle-Vancouver, BC round trips - **4**

Sounder commuter passenger rail forecasts

- As of today, ST3 investments include Sounder South projects to extend service to Dupont, increase train capacity, and potentially add up to three additional round trips
- Sounder commuter rail ridership is projected to reach 8 to 11 million by 2040 with ST3 investments

Sounder highest growth scenario

- Seattle-Tacoma round trips - **16**
- Seattle-Everett, round trips - **4**



Amtrak Cascades and Sounder

Maximum Cumulative Trips

If Amtrak Cascades service increases to 13 round trips and Sounder South adds 3 more round trips by 2040, **60** passenger trains would travel between Seattle and Tacoma every weekday, compared to the **40** expected by the end of this year.

Rail Capacity Analysis

What it is and why we do it

- Applies future freight and passenger demand forecasts to the existing rail system if **no** additional capacity or operational improvements were made to the network
- Identifies parts of the system that could require actions (infrastructure investments or operational changes) to keep the system functioning
 - *Privately-owned railroads are expected to address capacity issues as they emerge on their networks*
- Provides information to consider when developing multimodal transportation policies and investment strategies to address mobility needs at the state, regional, and local levels

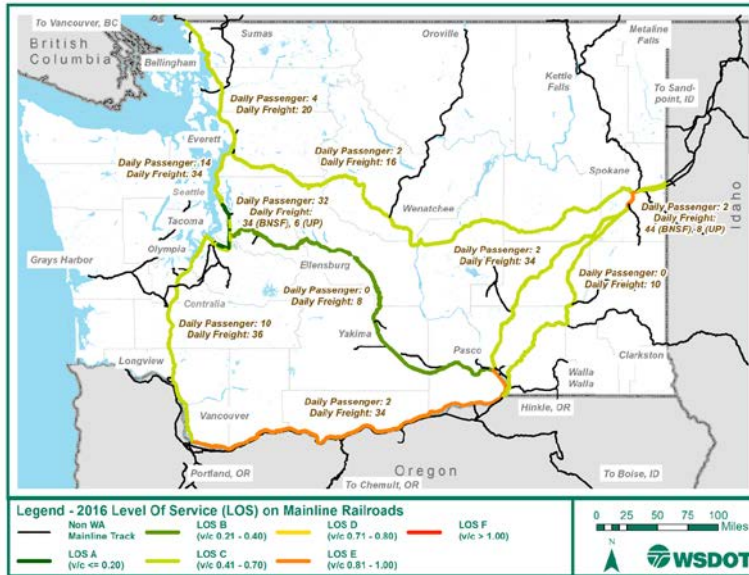


Rail System Capacity Maps

Analysis assumes future growth with no additional capacity or operational improvements made

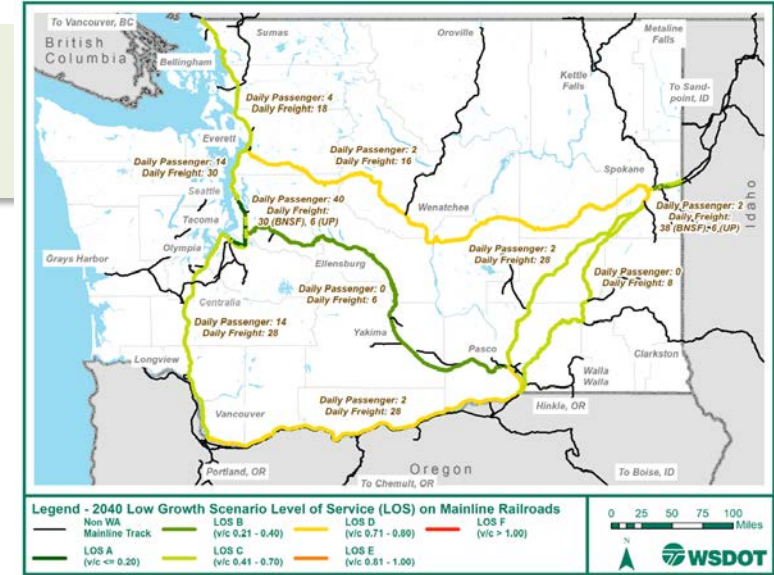
2016

Most of the system not congested



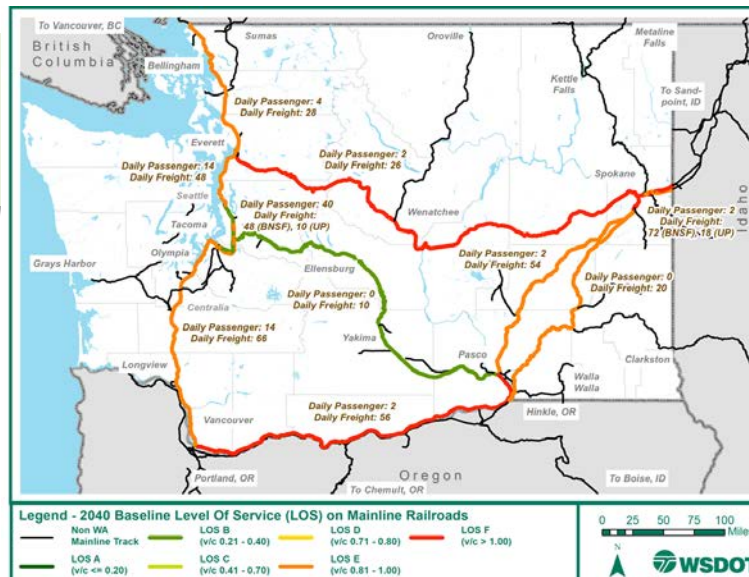
Low Growth

Fewer trains, less congestion



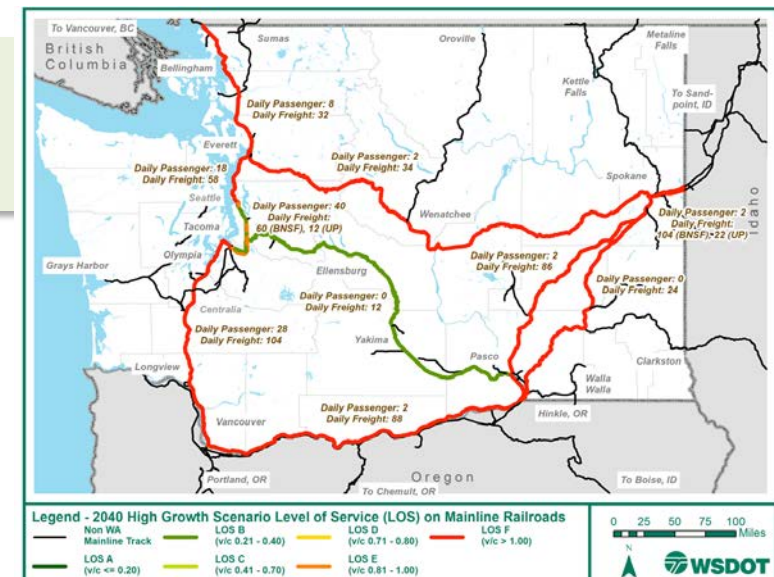
Moderate Growth

Primary east-west routes and I-5 corridor more congested



High Growth

All primary routes highly congested. Only Stampede Pass and UP between Seattle and Tacoma uncongested



Questions about the forecasts and capacity analysis?



Rail System Issues and Needs Summary

Freight Rail

- **Class I railroads**
 - Increasing capacity to meet demand
- **Short line railroads**
 - Addressing deferred maintenance and optimizing for economic sustainability
 - River navigation (Columbia River System Operations)

Passenger Rail

- **Long distance**
 - On-time performance
 - Equipment replacement
- **Intercity**
 - On-time performance
 - Equipment replacement
 - Planning for future demand
- **Commuter**
 - Planning for future demand

Integrated Rail System

- **Rail system capacity**
- **Multimodal connectivity for freight rail**
 - Land use
 - Washington ports
 - First/last mile connectors
- **Multimodal connectivity for freight rail**
 - Station access
 - Schedule coordination
 - Shared passes
- **The rail system in communities**
 - At-grade crossing safety and trespassing
 - Rail crossing conflicts
 - Energy products transportation
 - Corridor preservation
 - Diesel emissions
 - Fish passage
 - Resiliency

Freight Rail Issues, Needs & Strategies

Class I Railroads

Managing capacity to meet future demand

Operational adjustments

- Longer trains
- Directional running on parallel routes
- “Precision Scheduled Railroading”

Business changes

- Pricing actions
- Service frequency

Infrastructure improvements

- Additional main track, sidings, storage tracks
- East-west capacity

Corridor partnerships



Integrated Rail System Issues, Needs & Strategies

Freight Rail Multimodal Connectivity

Land use

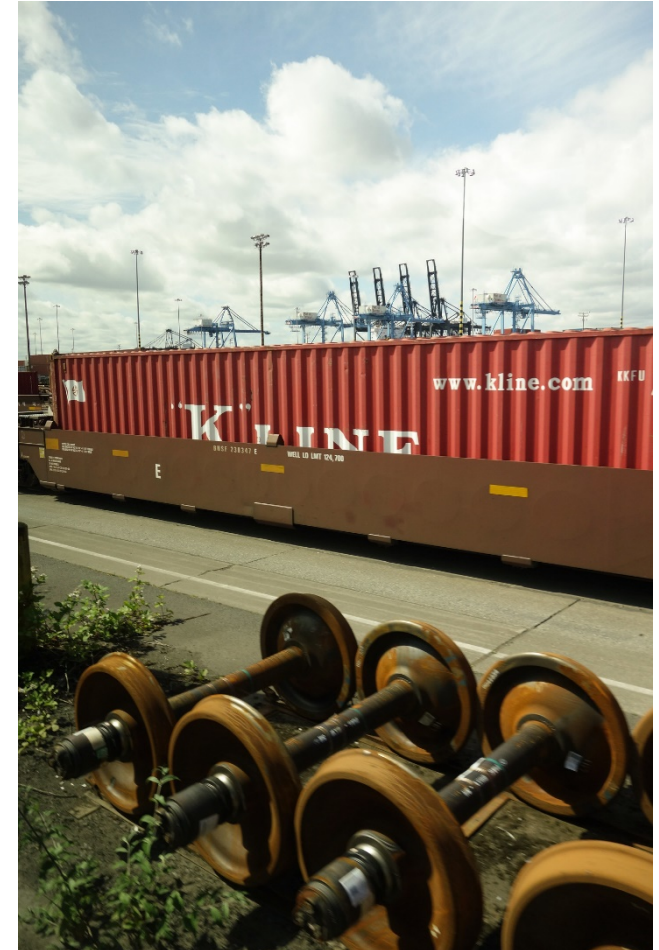
- Local jurisdictions can ensure compatible land uses adjoin rail lines

Washington ports

- Ports and railroads can invest in improvements that make operations more efficient
- Public agencies can coordinate planning to ensure freight can easily move to and from rail terminals
- Northwest Seaport Alliance can continue exploring the viability of an inland seaport and analyze potential opportunities

First/last mile connectors

- WSDOT and other agencies can use the Freight and Goods Transportation System to focus freight connectivity investments
- Regional and local agencies can include intermodal connections in their planning activities
- Railroads and public agencies can continue to improve intermodal connector routes



Passenger Rail Issues, Needs & Strategies

Intercity Passenger Rail

On-time performance improvements

- Collaborate with Amtrak and BNSF to improve OTP towards achieving 88% target
- Implement preclearance to reduce customs delays

Equipment replacement

- Begin a multi-year process to acquire new passenger rail cars to replace aging equipment

Plan for future demand

- Amtrak Cascades improvements
- East-west intercity rail service study (JTC)
- Ultra-high speed ground transportation



Passenger Rail Issues, Needs & Strategies

Commuter Passenger Rail

Accommodating growing commuter demand

Service enhancements

- Longer trains
- Station access improvements
- Sounder South extension to DuPont
- Additional trips



Integrated Rail System Issues, Needs & Strategies

Passenger Rail Multimodal Connectivity

Schedule coordination

- Local transit agencies can consider passenger rail coordination when planning schedules and additional service

Shared passes

- WSDOT and Sound Transit can explore expanding the RailPlus program

Planning coordination

- Regional and local planning can identify passenger rail stations as multimodal hubs
- WSDOT, Amtrak, Sound Transit and other transportation providers can coordinate planning efforts to ensure systems are well integrated



Integrated Rail System Issues, Needs & Strategies

Rail System in Communities

At-grade rail crossing safety and trespassing

- Railroads and public agencies can partner on education initiatives
- Public agencies and railroads can cooperate on at-grade crossing modifications and maintenance
- Communities can identify safer alternate routes for pedestrians
- Railroads can work with communities to address homeless encampments



Rail crossing conflicts in communities

- Local jurisdictions can take the lead on grade separation projects in their communities
- Review and refine prioritized project lists and identify funding sources
- Confirming project readiness can direct funds to projects ready to use them



Questions about issues, needs, and strategies?



Rail Plan Coordination with Regional Plans

Recommendations

Freight Rail

- Include policies that encourage land use and transportation planning that reflects multimodal freight travel patterns

Passenger Rail

- Integrate intercity passenger rail planning into regional plans
- Specifically address multimodal connectivity and supportive land uses at passenger rail stations

Rail/Community

- Identify and plan for compatible land uses adjacent to active rail lines
- Clearly identify and prioritize road-rail conflicts
- Look at railroad trespassing data to identify areas where improvements to regional and local active transportation networks may be needed

Rail Plan Coordination with Regional Plans

Rail in PSRC Planning

Freight Rail

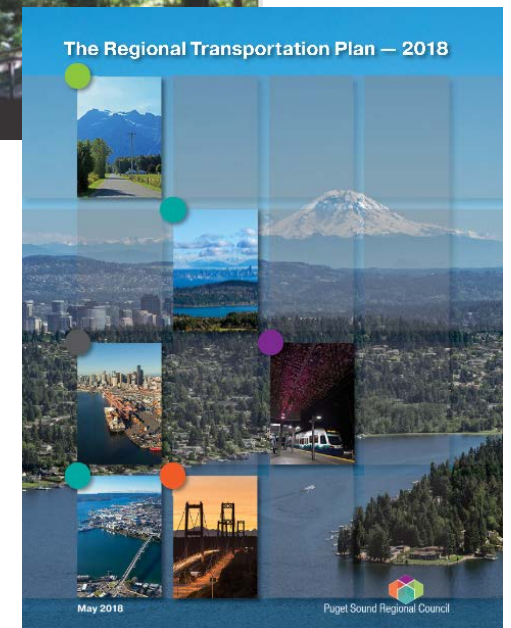
- Policy: Ensure the freight system supports growing needs of freight
- Policy: Maintain and improve the existing multimodal freight transportation system in the region to increase reliability, and efficiency, and mobility, and prepare for growth
- Policy: Coordinate regional planning with rail line capacity expansion plans
- Policy: Continue to conduct research, data collection and analysis of the growth and impacts of freight and goods movement and delivery

Passenger Rail

- RTP: Adopts intercity rail passenger rail improvements detailed in the 2006 Amtrak Cascades Long Range Plan

Rail/Community

- Policy: Integrate transportation systems to make it easy for people and freight to move from one mode or technology to another
- Policy: Protect industrial zoning and manufacturing/industrial centers from encroachment by incompatible uses and development on adjacent land
- RTP: Includes grade separation projects
- RTP: Includes commuter rail station access projects



Rail Plan Coordination with Regional Plans

Opportunities

Freight Rail

- How can we manage growth of freight warehousing and distribution activities that require rail access to minimize negative effects on communities?

Passenger Rail

- How can we integrate Ultra High Speed Ground Transportation into regional planning?
- What can be done to focus more attention on multimodal connectivity around passenger rail stations?

Rail/Community

- How can we further efforts to address road-rail conflicts?

Next Steps

State Rail Plan

Final publication – Spring 2020

Amtrak Cascades

Service Development Plan Alternatives Analysis - 2022

Ultra High Speed Ground Transportation

Governance Development Study – December 2020



Thank You



For more information:

<http://www.wsdot.wa.gov/Rail/staterailplan.htm>

Paul Krueger
KruegeP@wsdot.wa.gov

Jason Beloso
BelosoJ@wsdot.wa.gov