

State Rail Plan update

An integrated plan for freight & passenger rail

Washington State Transportation Commission

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State Rail Plan update

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



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 passenger rail

- Station access
- Schedule coordination
- Shared passes

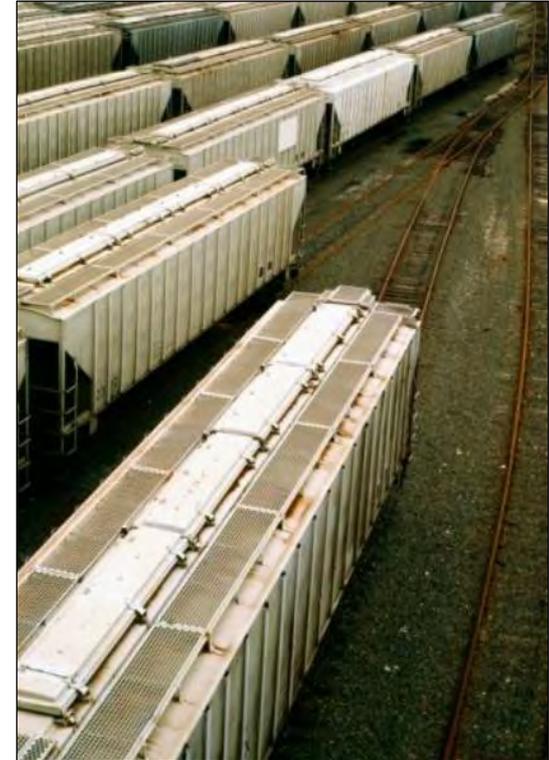
The rail system in communities

- At-grade crossing safety and trespassing
- Rail crossing conflicts
- Energy products transportation
- Corridor preservation
- Diesel emissions
- Fish passage
- Resiliency

DRAFT freight rail forecast scenarios

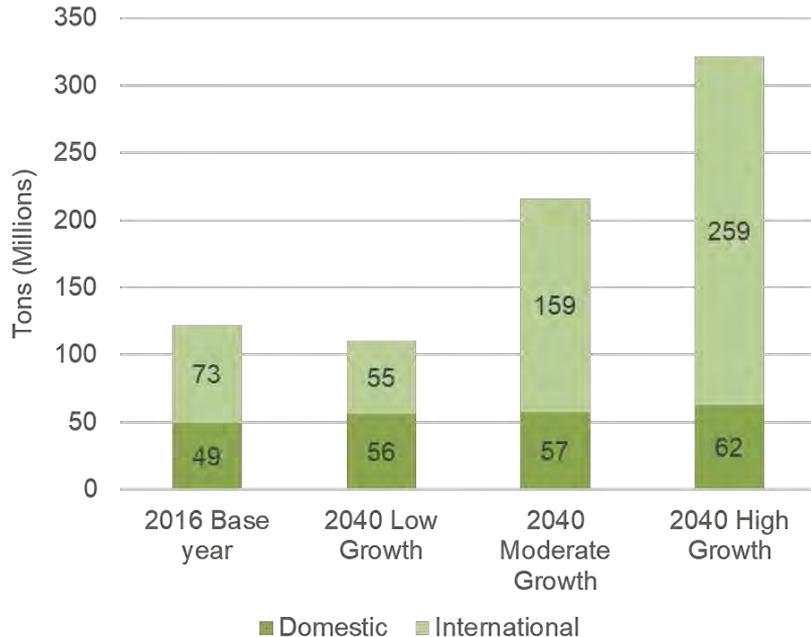
DRAFT growth scenarios: 2016-2040

- **2016 base year**
 - 122 million tons moved annually
 - Predominantly bulk products
- **Low growth scenario assumptions**
 - Significant decrease in cargo volumes resulting from prolonged tariff and trade tensions
- **Moderate growth scenario assumptions**
 - No long-term impacts from tariff and trade tensions
 - Growth driven by increases in agricultural exports
 - Steady 2% growth in intermodal container volumes
- **High growth scenario assumptions**
 - Tariff and trade tensions abated
 - Additional increase caused by proposed bulk shipment facilities for coal and oil



DRAFT freight rail forecast results

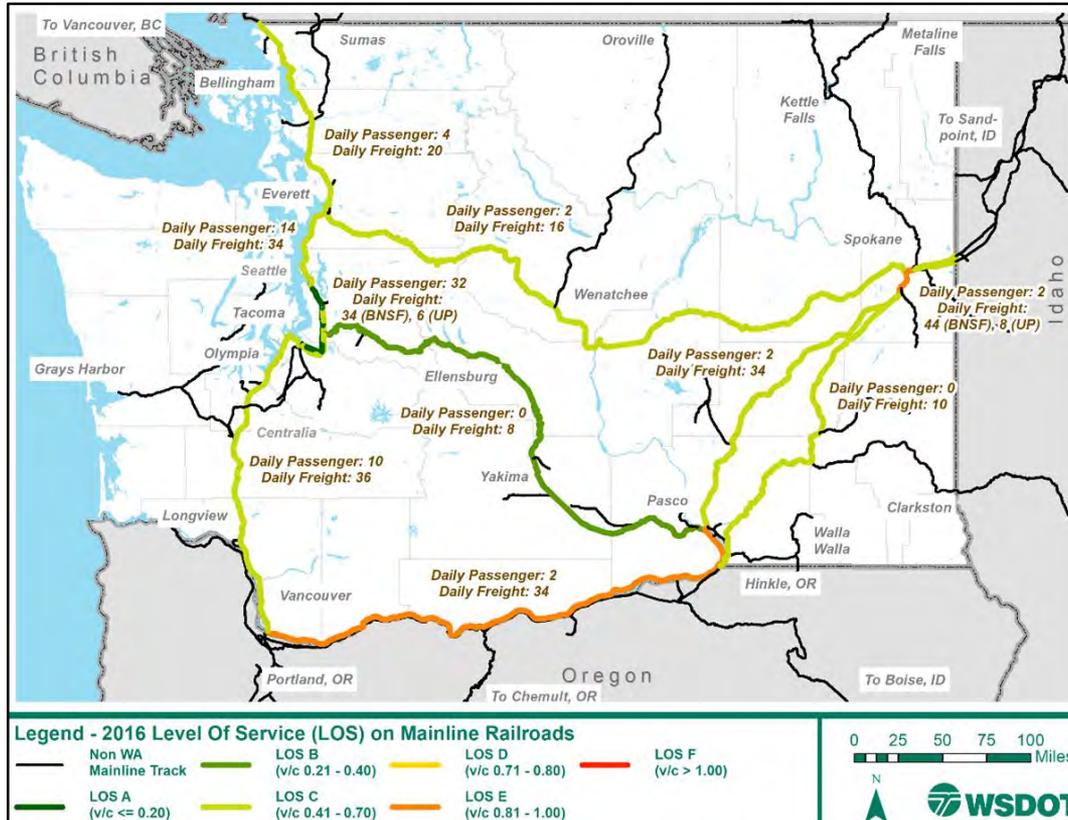
Total annual tonnage, 2016 and forecasted 2040 scenarios



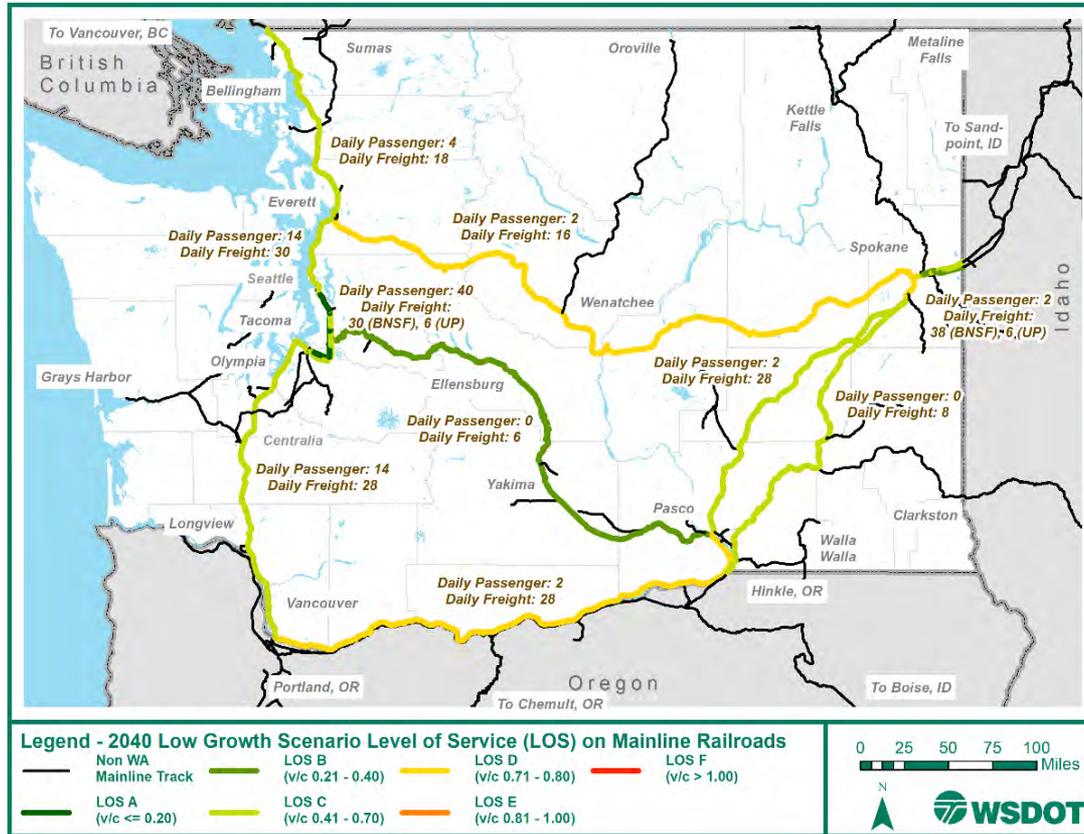
- **Low growth scenario compound annual growth rate (CAGR):**
Domestic 0.6% / International -1.2%
110 million tons
- **Moderate growth scenario CAGR:**
Domestic 0.7% / International 3.3%
216 million tons
- **High growth scenario CAGR:**
Domestic 1% / International 5.4%
312 million tons

High international growth driven by cereal grains, and agricultural products

DRAFT capacity map – 2016



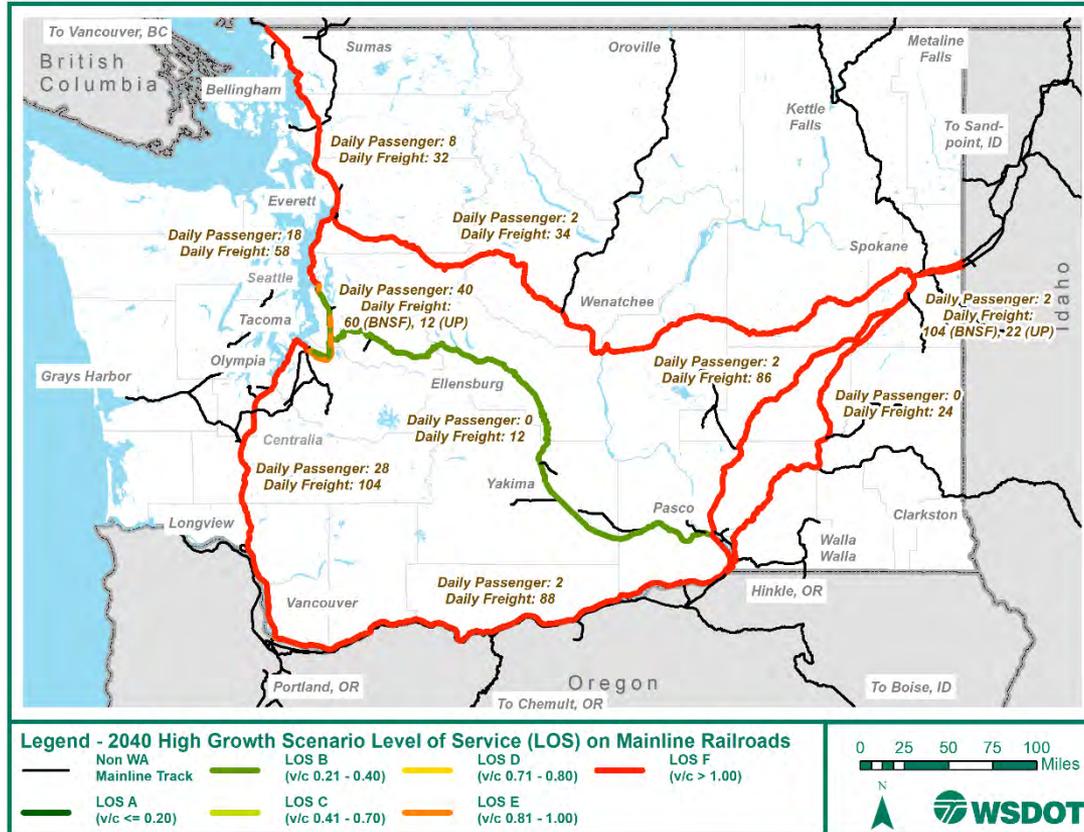
DRAFT capacity map – low growth



DRAFT capacity map – moderate growth



DRAFT capacity map – high growth



Palouse River and Coulee City rail system

Longest short line rail system in Washington

- Three branches: CW, P&L, and PV Hooper
- Connects eastern Washington communities to international markets

Rehabilitating to state of good repair

- 25 mph operating speed
- 286,000-pound capacity equipment

CW Branch		Begin	End	Cost
Priority 1 Project - Cheney to Geiger Spur	MP 1	MP 7.9	COMPLETE	
Priority 2 Project - Geiger Spur to Davenport	MP 7.9	MP 41.74	\$27,880,000	
Priority 3 Project - Davenport to Wilbur	MP 41.74	MP 74.44	\$22,660,000	
Priority 4 Project - Wilbur to Coulee City	MP 74.44	MP 108.4	\$16,180,000	
CW Branch Total			\$66,720,000	
P&L Branch		Begin	End	Cost
Priority 1 Project - Bridge Replacement & Repair	MP 10.5	MP 29.5	IN PROGRESS	
Priority 2 Project - Marshall to Garfield	MP 1	MP 50	\$24,010,000	
Priority 3 Project - Garfield to Palouse	MP 50	MP 59.2	\$17,910,000	
P&L Branch Total			\$41,920,000	
PV Hooper Branch		Begin	End	Cost
Priority 1 Project - Hooper Jct to Endicott	MP 26.47	MP 57.9	\$21,560,000	
Priority 2 Project - Winona to St. John	MP 0	MP 18.3	\$12,110,000	
Priority 3 Project - Endicott to Mockonema	MP 57.9	MP 72.5	\$7,940,000	
PV Hooper Branch Total			\$41,610,000	
Total PCC System			\$150,250,000	

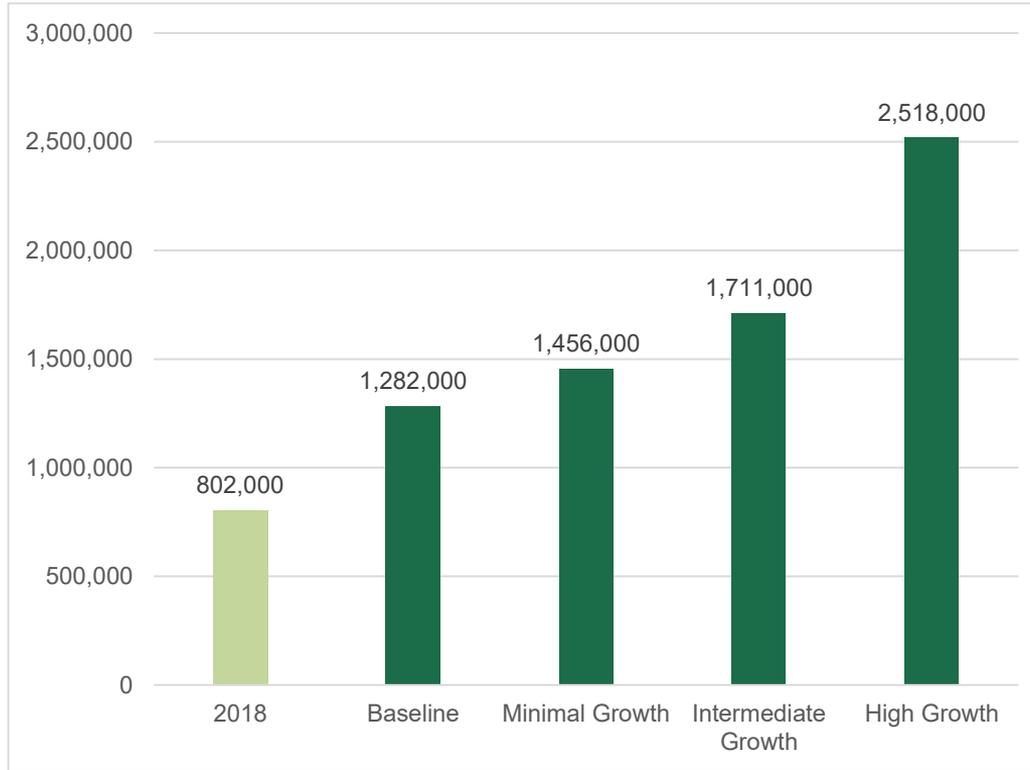
DRAFT 2040 ridership forecast scenarios

Amtrak Cascades

Scenarios	Daily Frequency and Travel Time by Segments			Reliability	Train Capacity (seats)
	Vancouver BC to Seattle	Seattle to Portland	Portland to Eugene		
2018 Base Year	2 round trips 245 minutes travel time	4 round trips 210 minutes travel time	2 round trips 155 minutes travel time	56%	268
Baseline	2 round trips 240 minutes travel time	6 round trips 200 minutes travel time	2 round trips 155 minutes travel time	88%	268
Minimal growth	2 round trips 240 minutes travel time	8 round trips 190 minutes travel time	2 round trips 155 minutes travel time	90%	300
Intermediate growth	3 round trips 230 minutes travel	8 round trips 190 minutes travel time	4 round trips 145 minutes travel time	90%	300
High growth	4 round trips 157 minutes travel time	13 round trips 150 minutes travel time	6 round trips 140 minutes travel time	95%	300

DRAFT 2040 ridership forecasts

Amtrak Cascades – corridor-wide



Improving service

Reinstating 2017 service levels

- Replacement of lost train set and aging equipment

Service Development Plan

- Identifying infrastructure improvement and equipment needs

Collaborating with Amtrak and BNSF to improve:

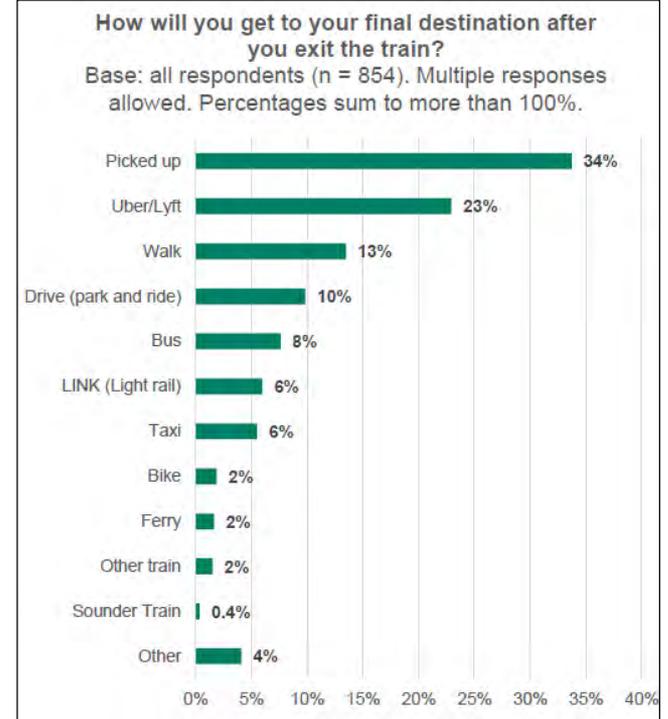
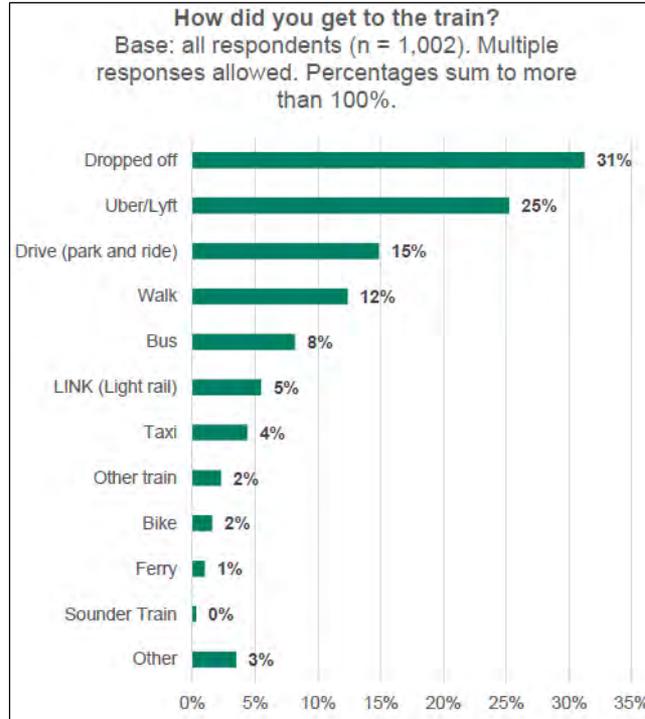
- Reliability
- Amenities (Wi-Fi, food service, etc.)
- Customer service (ticketing, traveler information)



On-board passenger survey findings

Highlights

- Most took 30 minutes or less to get to train station
- A third were picked up/dropped off at the train station
- A quarter took Uber/Lyft
- A sixth used transit



Multimodal connectivity analysis framework

Categories & Measures	Measures	Maximum Points	Maximum Score
LAND USE	2	6	2
Station Location Context & Attractors		3	
Zero Car Household		3	
MOBILITY	3	9	3
Transit Service		3	
Private Transportation Connection Options		3	
Human Services Transportation		3	
CONNECTED TRANSPORTATION NETWORK	5	15	5
At-Grade Railroad Crossings		3	
Sidewalks		3	
Bicycle Facilities		3	
Drop-off/Pick-up Areas		3	
Wayfinding		3	
Station Connectivity-Total	10	30	10

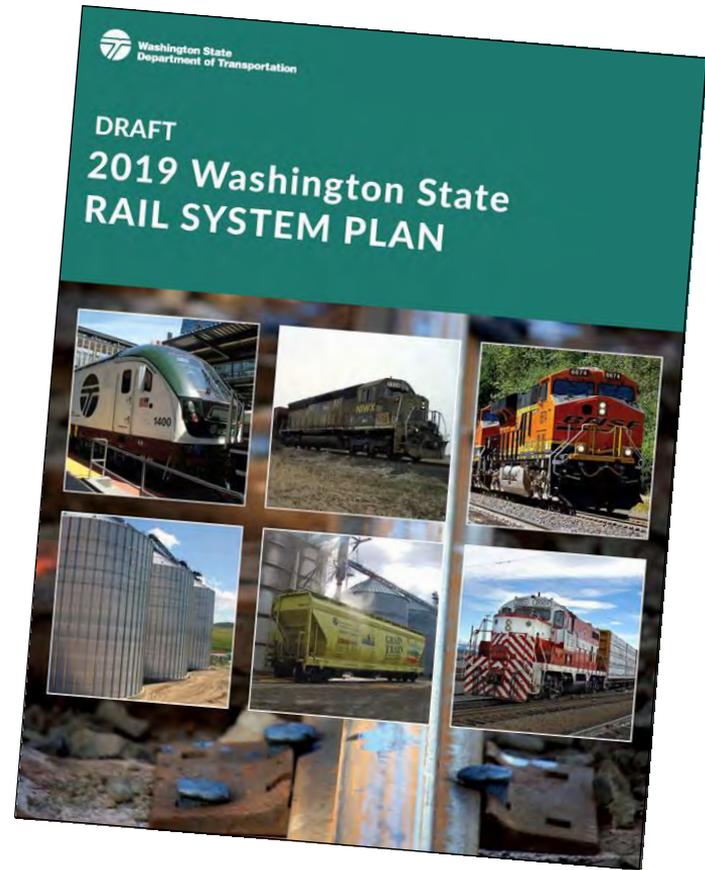
Multimodal connectivity analysis

DRAFT scoring results

	Station	Land Use	Mobility	Connected Transportation Network	Connectivity
1	Portland, OR	●	●	●	●
2	Vancouver, WA	●	●	●	●
3	Kelso-Longview	●	●	●	●
4	Centralia	●	●	●	●
5	Olympia-Lacey	●	●	●	●
6	Tacoma	●	●	●	●
7	Tukwila	●	●	●	●
8	Seattle	●	●	●	●
9	Edmonds	●	●	●	●
10	Everett	●	●	●	●
11	Stanwood	●	●	●	●
12	Mount Vernon	●	●	●	●
13	Bellingham	●	●	●	●
14	Vancouver, BC	●	●	●	●
Maximum Score		2	3	5	10
Legend					
Low Score		●			
Medium Score		●			
High Score		●			

Next steps

- Stay engaged with stakeholders through plan development and review process
- Post draft plan online for public comment
- Finalize and publish *State Rail System Plan* – 1st Q 2020
- Begin *Service Development Plan* work in 2020



Thank you



For more information:

www.wsdot.wa.gov/Rail/StateRailPlan

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