



PRIORITIZATION OF PROMINENT ROAD-RAIL CONFLICTS

FMSIB Advisory Group

October 25, 2017

MEETING AGENDA

- Welcome & Introductions
- Project Overview
- Recap of JTC Recommendations
- Opportunities for Data Improvements
- Project Prioritization Discussion
- Next Steps



LEGISLATIVE DIRECTION FOR THE PROJECT

Engrossed Substitute Senate Bill SB 5096 (2017), Section 206:

The appropriation in this section is subject to the following conditions and limitations: \$60,000 of the motor vehicle account—state appropriation is provided solely for the board, from amounts set aside out of statewide fuel taxes distributed to cities according to RCW 46.68.110(2), to manage and update the road-rail conflicts database produced as a result of the joint transportation committee's "Study of Road-rail Conflicts in Cities (2016)." The board shall update the database using data from the most recent versions of the Washington state freight and goods transportation system update, marine cargo forecast, and other relevant sources. The database must continue to identify prominent road-rail conflicts that will help to inform strategic state investment for freight mobility statewide. The board shall form a committee including, but not limited to, representatives from local governments, the department of transportation, the utilities and transportation commission, and relevant stakeholders to identify and recommend a statewide list of projects using a corridor-based approach. The board shall provide the list to the transportation committees of the legislature and the office of financial management **by September 1, 2018**.

PROJECT OBJECTIVES

**Based on Legislative Direction*

- Update the Road-Rail Conflicts Database
- Develop a Corridor-based Project Prioritization Process
- Identify and Recommend a Statewide List of Projects



SCOPE AND SCHEDULE

Phase 1: Completed by December 31, 2017

- Hold Advisory Group Meeting
- Document Database Improvement Opportunities
- Identify Project Prioritization Criteria and Corridor Evaluation Approach
- Develop Scope for Phase 2

Phase 2: Completed by September 1, 2018

- Prepare Statewide List of Prioritized Projects



FMSIB ADVISORY GROUP

MEMBERS

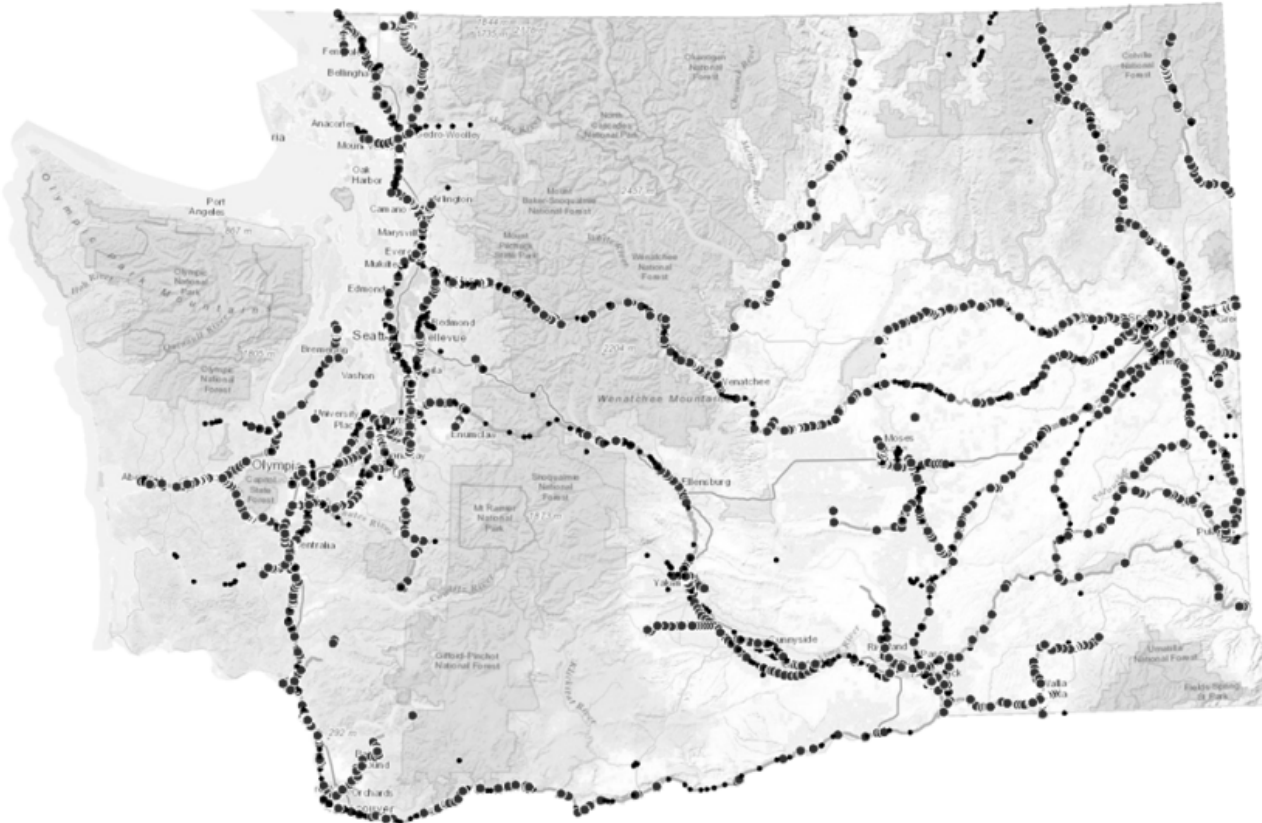
1. Paul Roberts, City of Everett, AWC
2. Mike Wallin, City of Longview, AWC
3. Sean Guard, City of Washougal, AWC
4. Lisa Janicki, Skagit County, WSAC
5. Al French, Spokane County, WSAC
6. Kevin Murphy, Skagit COG
7. Dave Danner, UTC
8. Chris Herman, WPPA
9. Ron Pate, WSDOT
10. Johan Hellman, BNSF
11. Sheri Call, Washington Trucking Association

RECAP OF JTC STUDY RECOMMENDATIONS

OVERVIEW OF THE PRIORITIZATION PROCESS

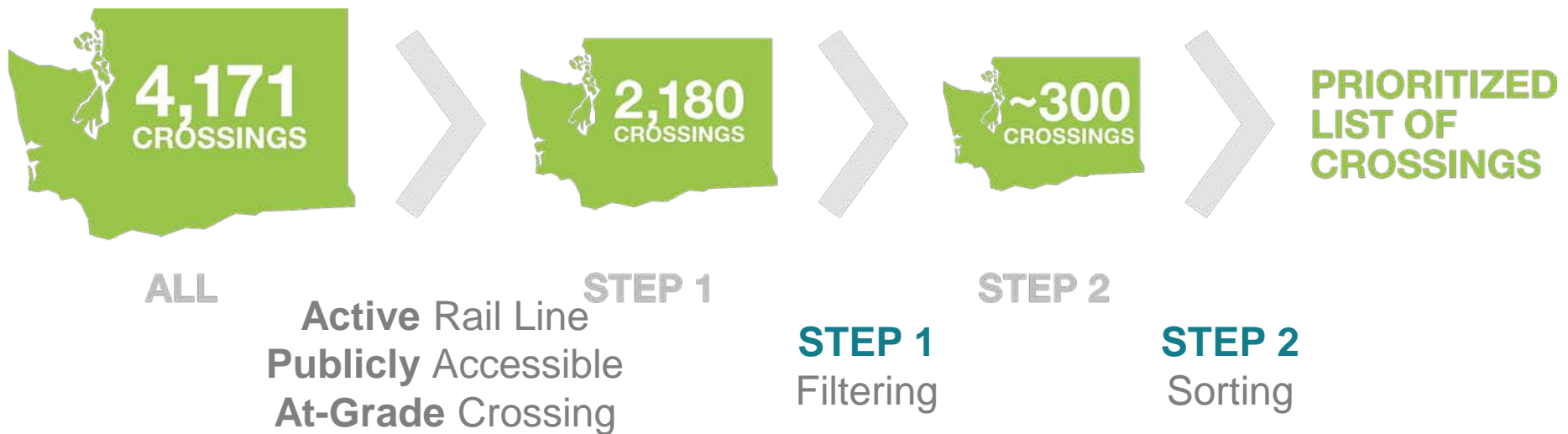
Approximately 4,171 crossings throughout the state

- **Active** and **Inactive** Crossings
- **Public** and **Private** Crossings
- **At-Grade** and **Grade Separated** Crossings



** 76% of active crossings are at-grade*

OVERVIEW OF THE PRIORITIZATION PROCESS



STEP 2 EVALUATION CRITERIA

MOBILITY 50%, SAFETY 25%, COMMUNITY 25%



Increase Risks



1. Number of Alternate Grade-Separated Crossings
2. Number of Mainline Tracks
3. Proximity to Emergency Services

Safety Record



4. Incident History: Total
5. Incident History: Severity

Infrastructure Status



6. Level of Protection



Freight Demand



7. Roadway Freight Classification

People Demand



8. Existing Vehicle Volumes
9. Future Vehicle Volumes

Mobility Barrier



10. Network Sensitivity
11. Crossing Density
12. Gate Down Time



Economic



13. Employment Density
14. First/Last Mile Freight Facilities

Human Health



15. Population Density
16. Daily Emissions
17. Noise: Quiet Zones
18. Percent Minority
19. Percent Low-Income

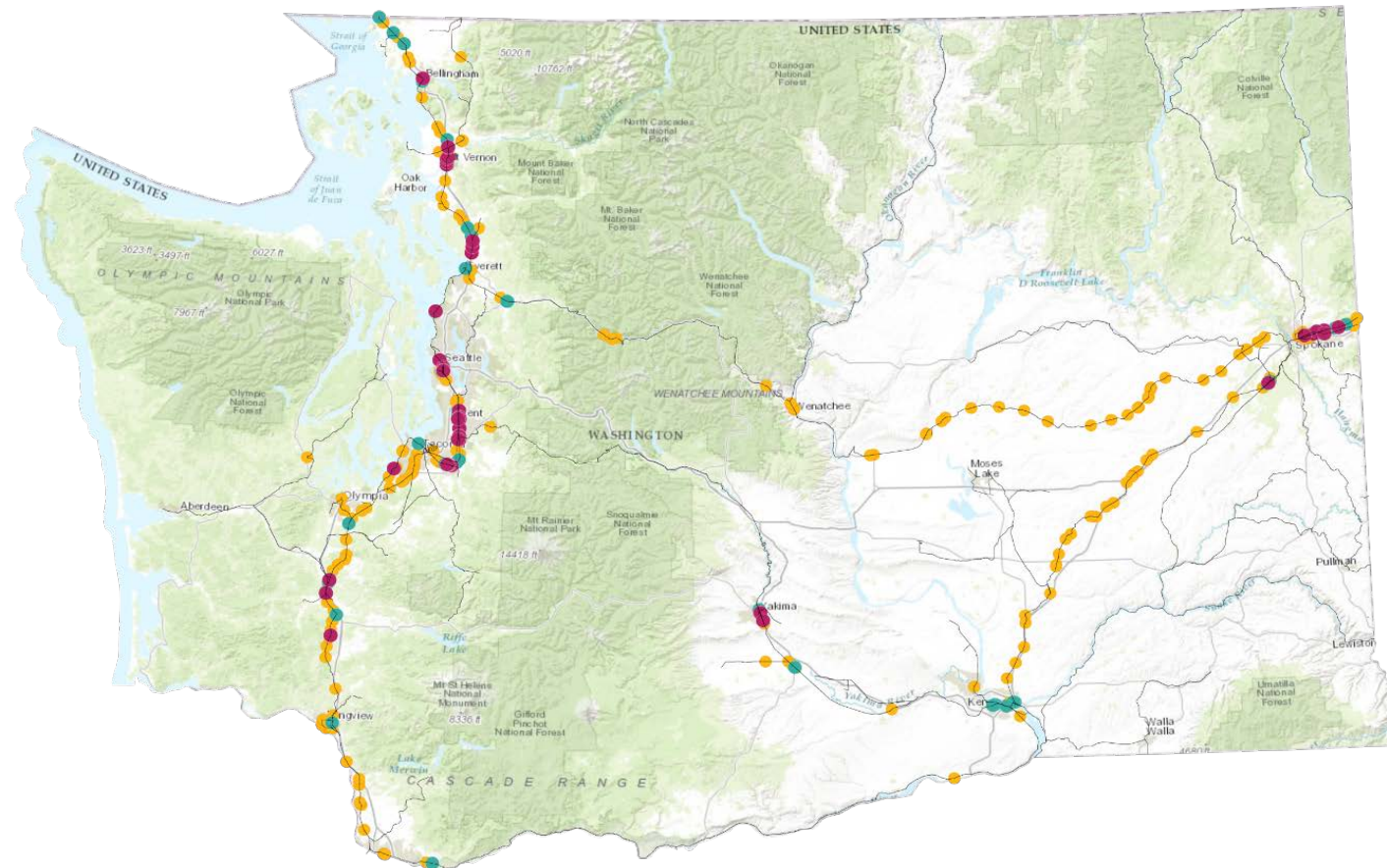
CROSSINGS SUMMARIZED BY PRIORITY GROUP

RANKINGS:

1-50

51-100

101-302

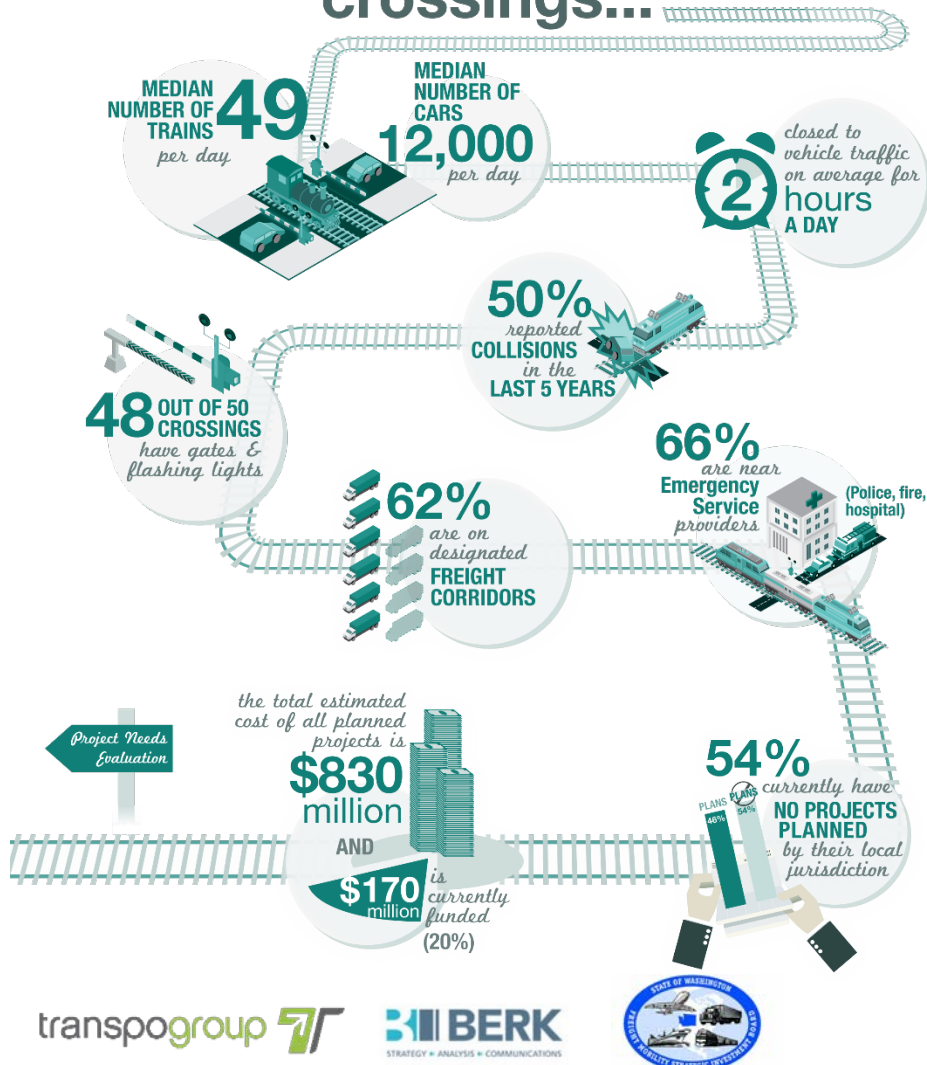


More Details in the Report

- Page 28 – List of Top 50 crossings
- Appendix C – Entire list of the 302 prioritized crossings

KEY FACTS FROM THE PRIORITIZATION RESULTS

Of the Top 50 crossings...



Closure to **road** traffic;
trains have the right-of-way
and are not stopped

SUMMARY OF FINDINGS AND RECOMMENDATIONS

1. The road-rail conflicts at the Top 50 at-grade crossings are substantial and there are few funding sources to address them.
2. The prioritization results point to a significant need for additional funding to address crossing improvements
 - a. *Establish a dedicated funding source to address mobility impacts not covered under the current crossing safety programs.*
 - b. *Secure additional funds for the safety programs.*
 - c. *Further analyze Top ranked crossings to identify potential solutions individually and at the corridor level*
3. The database and prioritization process allows analysis of crossing impacts on a statewide basis
 - a. *A multi-stakeholder committee should create standards for common usage and make decisions about future data enhancement or other changes.*
 - b. *Identify an agency to maintain the database and tool and serve as the coordinator for the multi-stakeholder committee.*

SUMMARY OF FINDINGS AND RECOMMENDATIONS

- 4. In some cases, projects prioritized locally did not rank high when evaluated on a statewide basis**
 - a. Identify specific policy objectives to guide investments in crossings on a statewide basis. This could include separate programs targeted at smaller communities or specific regions of the state.*
- 5. Safety data serves as a contributor towards mobility impacts, but further analysis is needed to confirm specific safety needs**
 - a. Coordinate efforts with WSDOT & WUTC programs to continue focusing on reducing collisions at crossings.*
 - b. Separately address mobility and safety impacts at crossings.*
- 6. The database and prioritization tool would benefit from future enhancements**
 - a. The agency hosting the prioritization tool will need additional resources to maintain, update and enhance the tool.*
 - b. Incorporate data from the Marine Cargo Forecast once it is complete.*

SUMMARY OF FINDINGS AND RECOMMENDATIONS

7. **Corridor evaluation and prioritization are most useful when defining a project to address crossing impacts**
 - a. *Utilize a corridor-based prioritization strategy to assist in developing solutions and prioritizing investments.*
8. **Some jurisdictions have not yet identified and prioritized crossing improvements**
 - a. *Ensure that local jurisdictions, state agencies, and other organizations, including RTPs and MPOs, are aware of the tool and the data it contains and how they might use it to assist with planning or funding decisions.*

DATABASE IMPROVEMENTS

DATA SOURCES



RTPOs/MPOs

Cities/Counties

Pacific Northwest
Marine Cargo Forecast



TYPICAL DATA CHALLENGES

- **Quality:** data is incorrect and inaccurate
- **Consistency:** data is not available for all crossings and/or from the same source
- **Availability:** data does not exist

DATA CONSIDERATIONS

Future enhancements of the database could improve or resolve the data challenges and assist with project prioritization.

- New data could be created to replace data that had consistency, availability, or quality concerns, such as existing vehicle volumes and gate-down time.
- Data that was not readily or publicly available could be assembled, such as near-miss data and regional growth projections.
- Data included in the database could be updated more regularly during future iterations of the tool.

DATA FOR PROJECT PRIORITIZATION

What other types of information are necessary for project prioritization efforts?

- Has a project been identified? If so, has there been any conceptual design or costing?
- Are there cost sharing opportunities?
- Does the project address multiple issues or locations?
- What is the cost-benefit of the project?

PRIORITIZATION DISCUSSION

CORRIDOR BASED PRIORITIZATION

Key Outcome from the JTC Study

Corridor evaluation and prioritization are most useful when defining projects to address crossing impacts

- A variety of corridors were considered, such as crossings along a rail corridor or within RTPD boundaries, but a finer geographic focus is likely necessary
- Corridor based prioritization requires more specific context about potential needs and solutions, such as type of crossing improvement or surrounding development patterns
- A corridor-based strategy could help evaluate solutions at a single crossing that address multiple crossings, or could evaluate a suite of solutions at multiple crossings that help traffic move through a larger corridor
- Corridor evaluation could be useful in identifying or evaluating specific project proposals, and addressing regional or urban/rural needs, otherwise high volume crossings will outrank lower volume rural crossings

Recommendation:

Utilize a corridor-based prioritization strategy to assist in developing projects and prioritizing investments

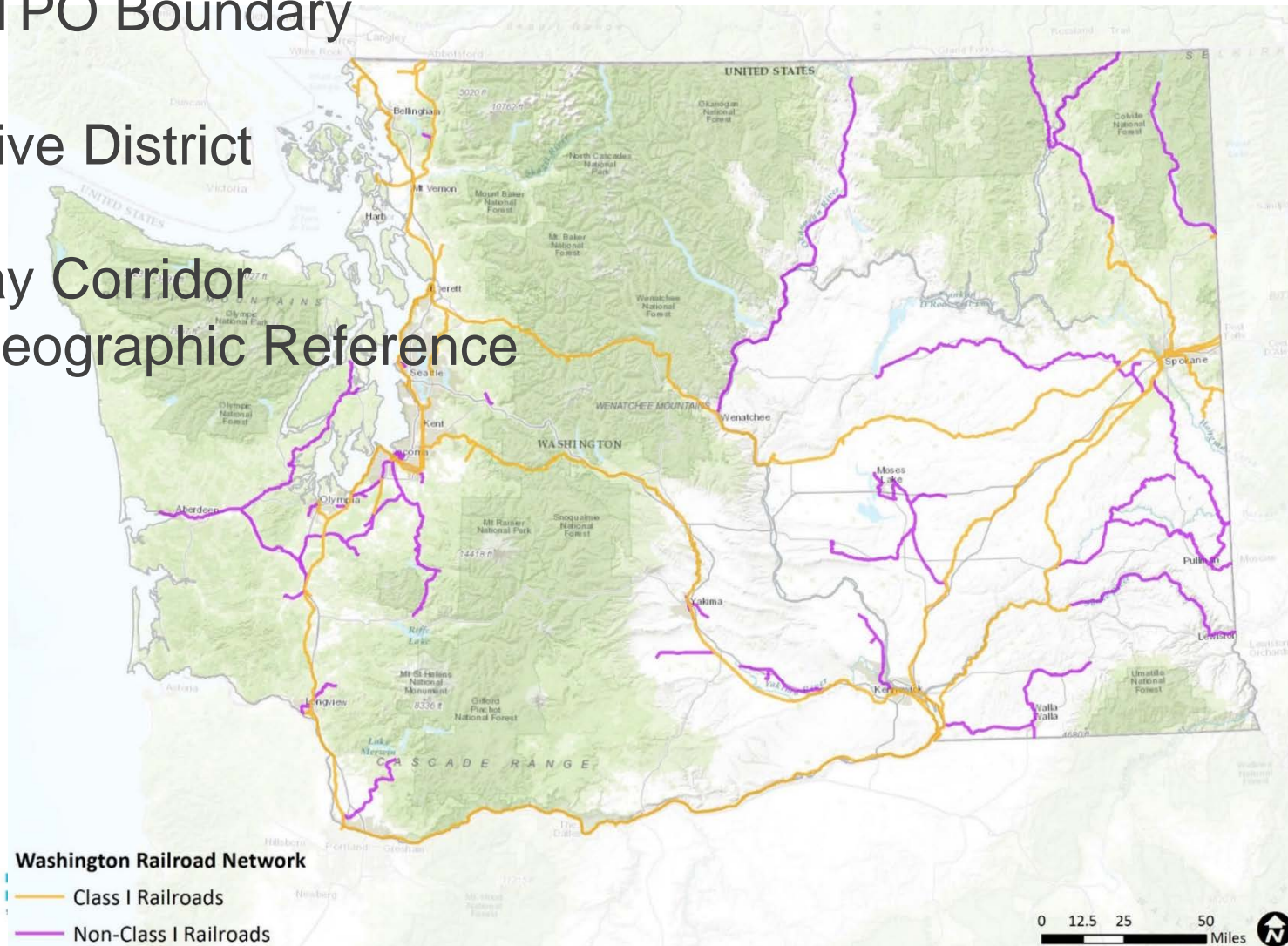
PROJECT PRIORITIZATION CONSIDERATIONS

- Crossing rank does not necessarily equate to project need or feasibility, so prioritization or funding allocation by corridor would need more information about projects
- Corridors should be scaled to match the type of projects envisioned, or how a group of crossings are inter-related
- A corridor-based approach might seek to address non-urban crossings separately from those within city limits

HOW SHOULD CORRIDORS BE DEFINED?

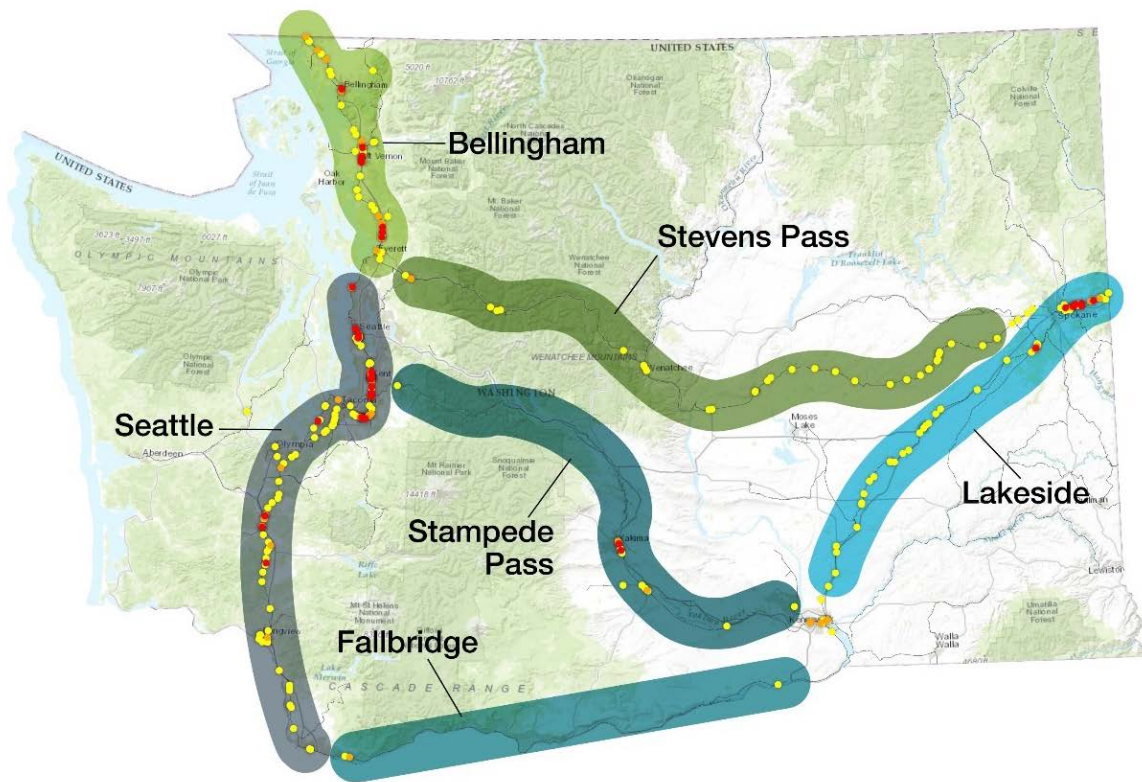
Initial Approaches Considered:

- By MPO/RTPO Boundary
- By County
- By Legislative District
- By City
- By Roadway Corridor
- By Other Geographic Reference

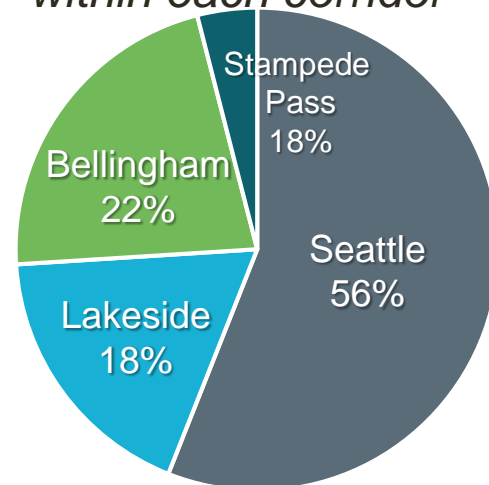


SUMMARY OF CROSSINGS BY RAIL CORRIDOR

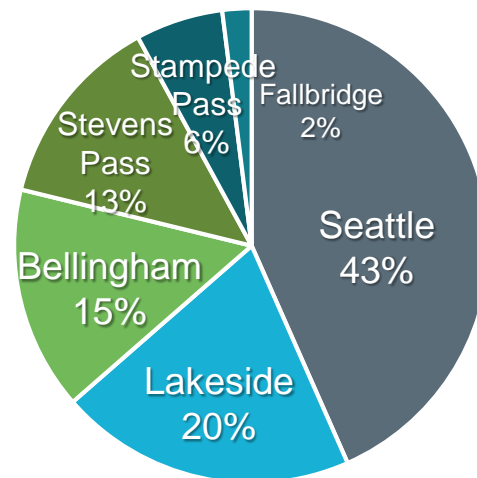
- Based on Marine Cargo Forecast corridors
- Top 50 crossings are only on 4 of the 6 corridors
- Top 302 crossings are primarily along 4 corridors



Percent of the Top 50 crossings within each corridor

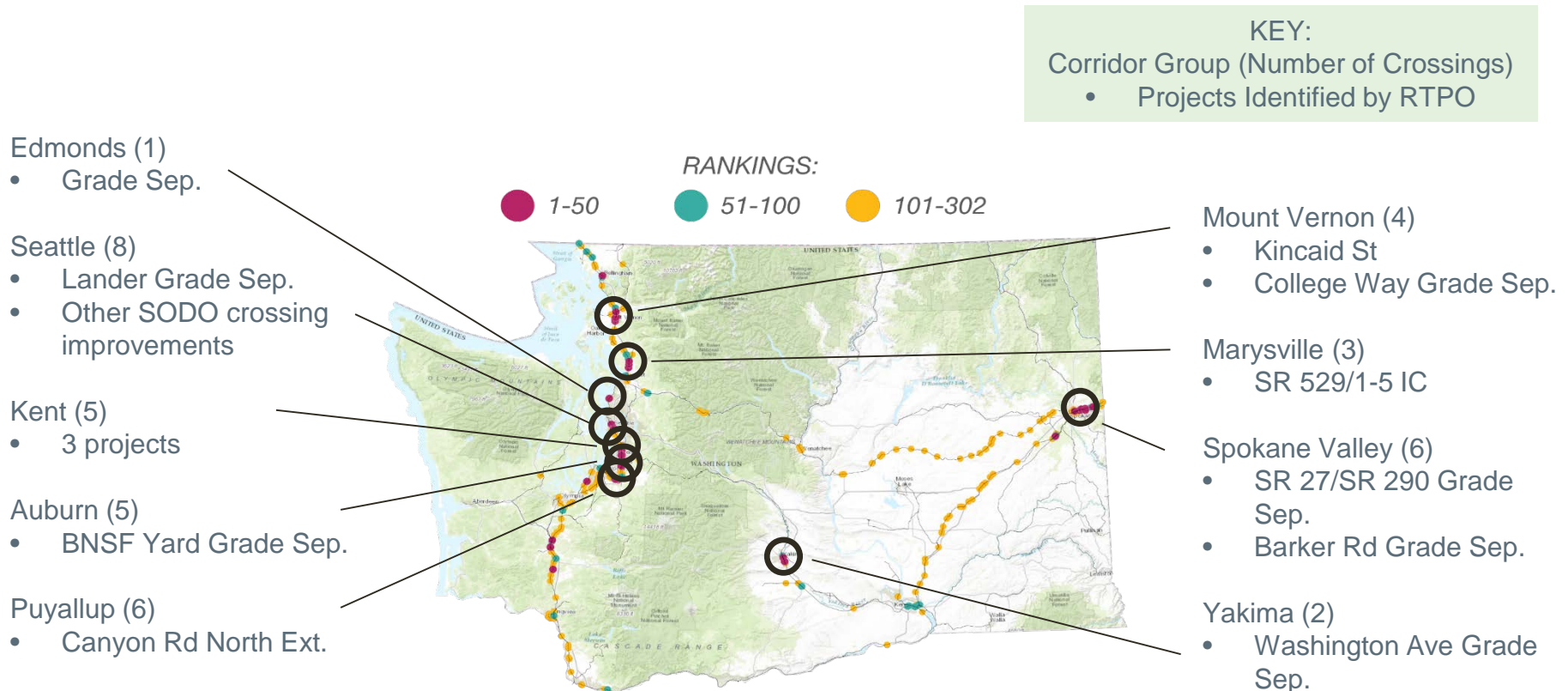


Percent of the Top 302 crossings within each corridor



GROUPING OF PROJECTS BY SMALLER CORRIDORS (EXAMPLE)

- Projects have already been identified to address impacts at many of the top crossings, but don't address all crossings within corridor group
- Easier to identify potential impacts and solutions at smaller corridor level



NEXT STEPS

1. Document Database Improvement Opportunities
2. Identify Data Request of MPOs/RTPOs
3. Develop Scope for Phase 2

MORE INFO

<http://leg.wa.gov/JTC/Pages/Road-Rail-Study.aspx>

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