



PRIORITIZATION OF PROMINENT ROAD-RAIL CONFLICTS

Presentation to the Washington State
Transportation Commission

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PRESENTATION AGENDA

- History of Road-Rail Conflicts Discussions
- Overview of Phase 1 Study
- Overview of Phase 2 Study
- Prioritization Results
- Next Steps



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HISTORY OF ROAD-RAIL CONFLICT DISCUSSIONS

- 1873: Northern Pacific Railroad names Tacoma as its western terminus
- 1893: First state road established by the Legislature
- 1996: FAST Corridor Agreement signed
- 1997: Legislative FMAC recommendations released
- 1998: FMSIB created
- 2015: Legislature passes oil train legislation and directs study of crossings (Phase 1 by JTC)
- 2017: Phase 2 funded (FMSIB lead)



PHASE 1 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



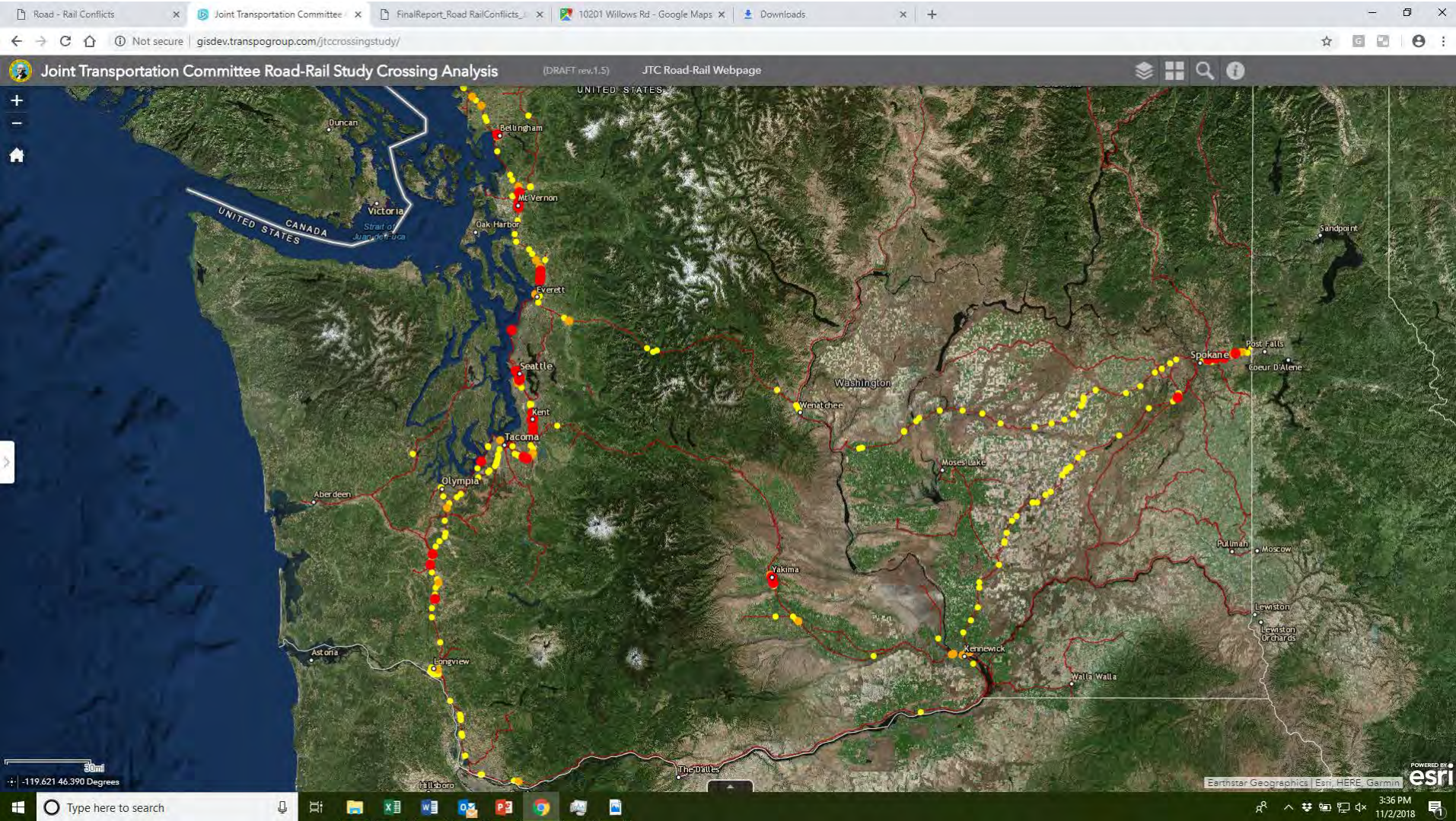
13. Employment Density
14. First/Last Mile Freight Facilities

Human Health



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

PHASE 1 CROSSING RANKS



LEGISLATIVE DIRECTION FOR PHASE 2

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**.

ROLE OF MPO'S/RTPO'S

- Validate Phase 1 Crossing Priorities
- Categorize Phase 1 Crossing Priorities into Project Readiness Tiers
- Review Phase 2 Project Prioritization Criteria
- Review Phase 2 Project Prioritization Methodology
- Review Phase 2 Project Prioritization



PHASE 2 - PROJECT READINESS

Projects that are in design and awaiting full construction

TIER 1



16 Projects (10 Fully Funded)

Projects that are planned with no design completed

TIER 2



34 Projects

A crossing in the Top 300, but no project has been studied, scoped, or identified

TIER 3



27 Crossings

PROJECT CATEGORIES FOR TIER 1 & 2

Category	Type of Improvement
Grade Separation	→ Bridge or Overpass
Pedestrian Only Grade Separation	→ Pedestrian Bridge
Safety Enhancements	<ul style="list-style-type: none"> • Signs • Gates • Lights • Quiet Zone
Mobility Solutions	<ul style="list-style-type: none"> • ITS / Adaptive Signal Control • Dynamic Signage / Traveler Information Systems • Signal Interconnects / Pre-emption
Railroad Enhancements	Reducing number of tracks, relocating tracks, operational changes

Grade Separation



Bridge or Overpass

Pedestrian Only Grade Separation



Pedestrian Bridge

Safety Enhancements



- Signs
- Gates
- Lights
- Quiet Zone

Mobility Solutions



- ITS / Adaptive Signal Control
- Dynamic Signage / Traveler Information Systems
- Signal Interconnects / Pre-emption

Railroad Enhancements



Reducing number of tracks, relocating tracks, operational changes

PHASE 1 (AND 2) EVALUATION CRITERIA

MOBILITY 50%, SAFETY 25%, COMMUNITY 25%



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Infrastructure Status



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RED HIGHLIGHTS: Criteria used to score the projects in Phase 2

PHASE 2 - PROJECT BENEFITS

TOTAL POINTS VERSUS TOTAL COSTS

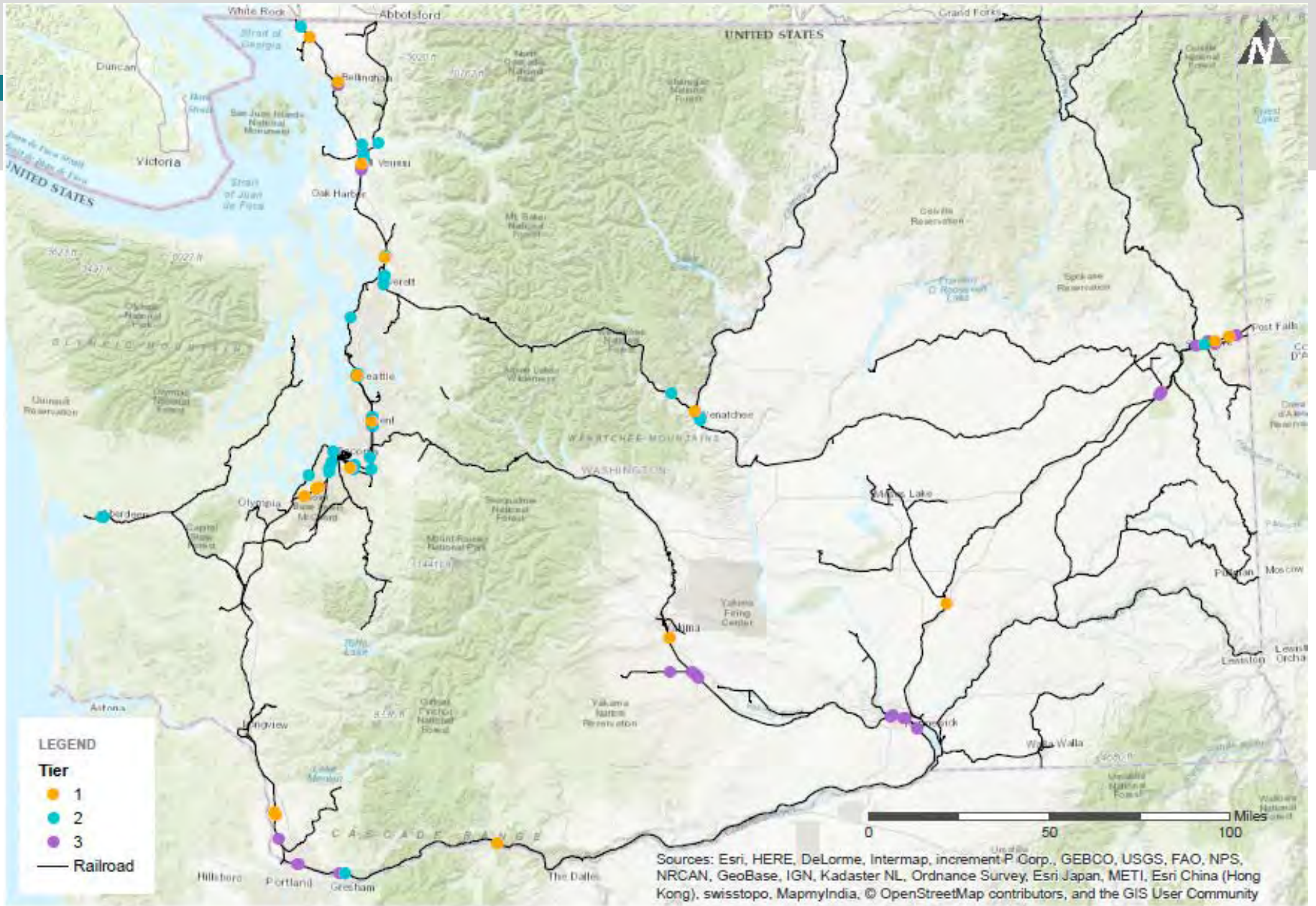
	<u>BEFORE</u>	<u>AFTER</u>	
1. PHASE 1 SCORE	52	+74	<ul style="list-style-type: none"> • Accounts for existing crossing characteristics • Less focused on project benefits
OTHER IMPACTED CROSSINGS			
2. ACCOUNT FOR CORRIDOR IMPROVEMENTS	#1 44 =	48	
	#2 60 =	67	
	Total increase	+11	+ +74 = +85

3. NORMALIZE USING TOTAL COST

$$\left(\$25,000,000 / 85 \right) / 1,000 = 294$$

WHAT WOULD BE FUNDED IN EACH TIER?

- Tier 1 funds Construction only.
- Tier 3 funds Planning only.
- Tier 2 project list contains projects in a variety of development states:
 - Early Tier 2: Only a Planning-level scope is available, project just starting design and environmental work. Cost estimate could be +/- 50-100%
 - Late Tier 2: Design nearing completion, permitting underway, R/W needs identified. Cost estimate likely to be +/- 15% or less.



Prioritized Projects by Tier

Rail-Road Project Prioritization

M:\15\1.15347.01 - WSDOT Road-Rail Project Prioritization\GIS\Maps\MXD\FIG2_CrossingsByTier_v2.mxd.mxd

FIGURE

NEXT STEPS

1. For FMSIB: Participate in legislative discussions around next steps.
2. For WSDOT and the UTC: Ditto.
3. For AWC, WPPA, and WSAC: To be determined.

Phase 1 and 2 Reports available at:
<http://www.fmsib.wa.gov/roadRail.cfm>