Highways Preservation

Program Update
(Senate Transportation Committee)

Tim Rydholm, Deputy Director Capital Program Development and Management (CPDM)

September 17, 2024

Roger Millar, Secretary of Transportation

Mike Gribner, Deputy Secretary of Transportation

Preservation Overview

- What is Highways Preservation?
- How does WSDOT manage it?
- What makes up our Highway Preservation Program?
- What is the status and what are the challenges?

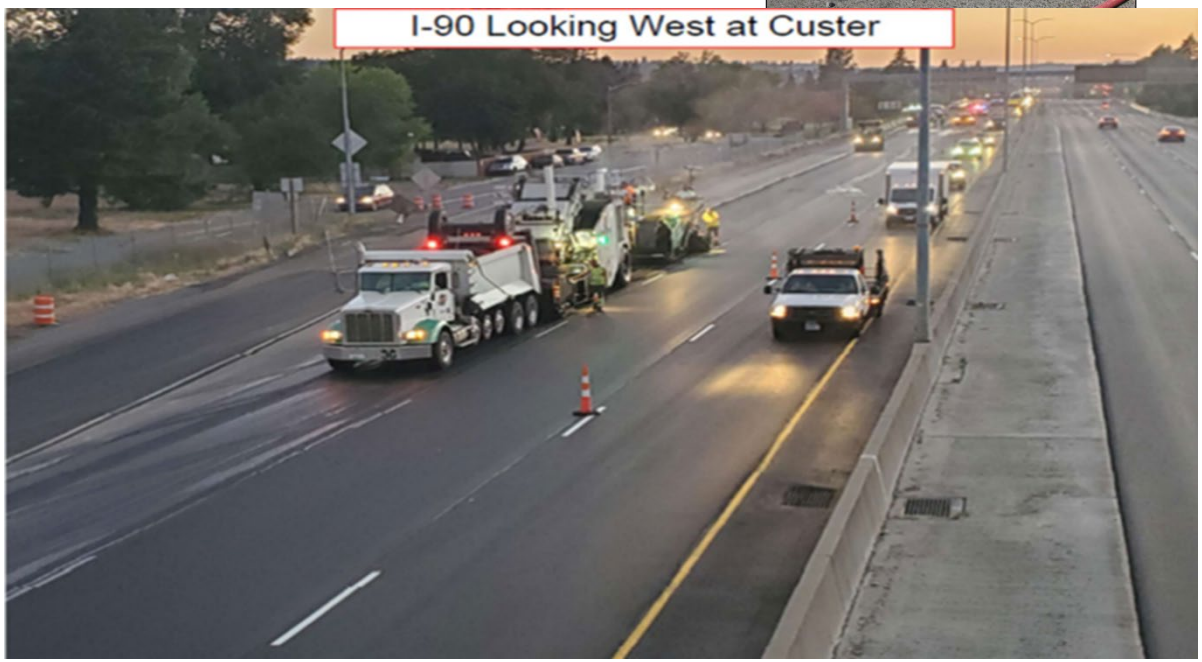
Key Takeaways

- Highways Preservation are large capital projects needed to keep the current highway system operational over its life.
- WSDOT uses Transportation Asset Management to define acceptable condition and seek practices and policies to minimize life cycle costs.
- Chronic underinvestment in Highways Preservation has the State Highway System in early stages of failure pushing the program to be reactive and costly instead of proactive and cost-efficient.

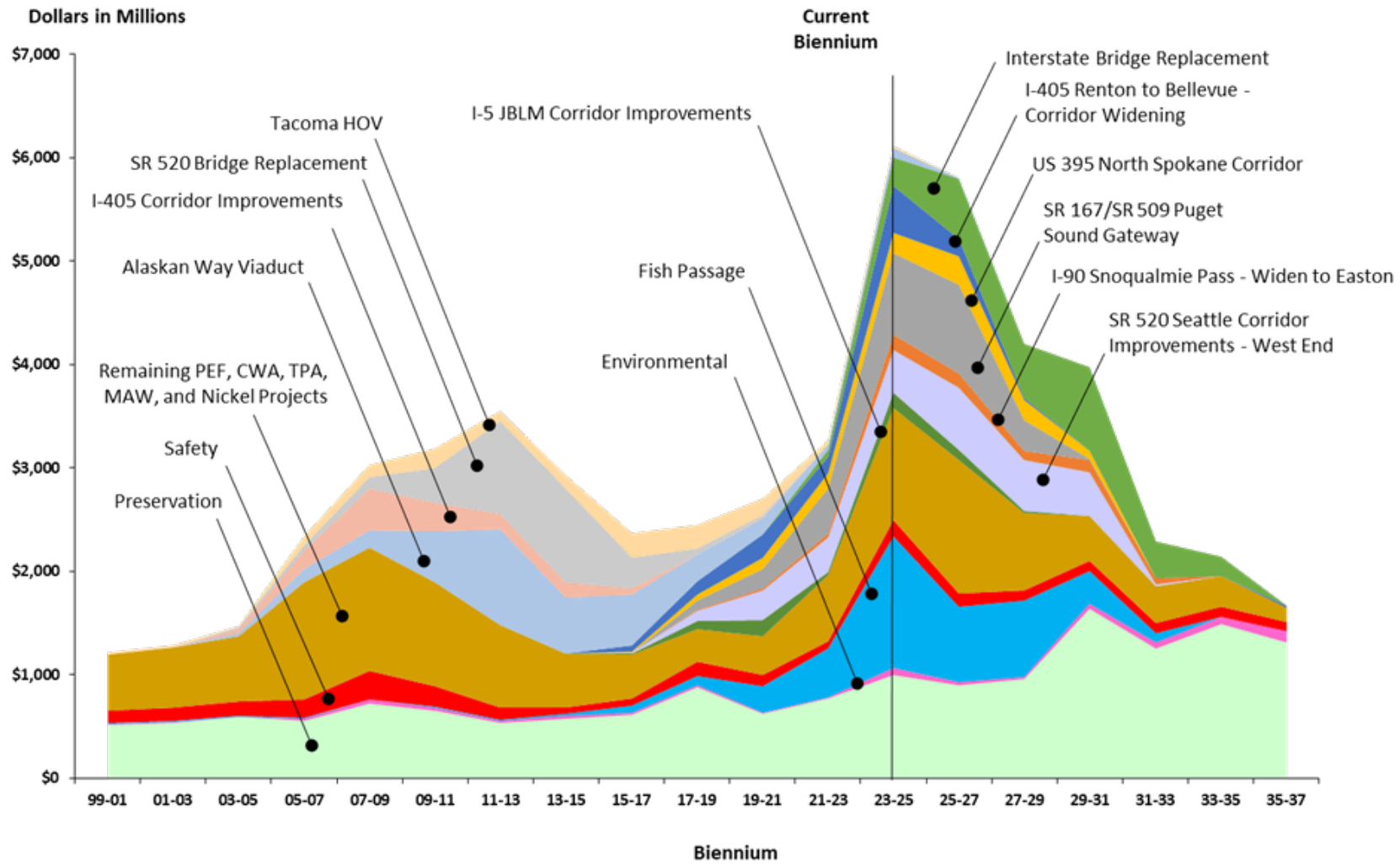
What is Preservation?

Operations & Maintenance makes short-term spot repairs between preservation projects

Preservation provides the longer-lasting work that extends the overall life of a roadway



Highway Construction Program



Highways Preservation

Washington State Approach

- RCW 47.04 – Preservation is one of six policy goals and is a priority along with Safety
- RCW 47.05 – Priority Programming for Highway Development
  - Preserve the system and consider life cycle costs
- Transportation Asset Management
  - WSDOT is a national leader in application and analysis of Transportation Asset Management

Highway Preservation - Pavement

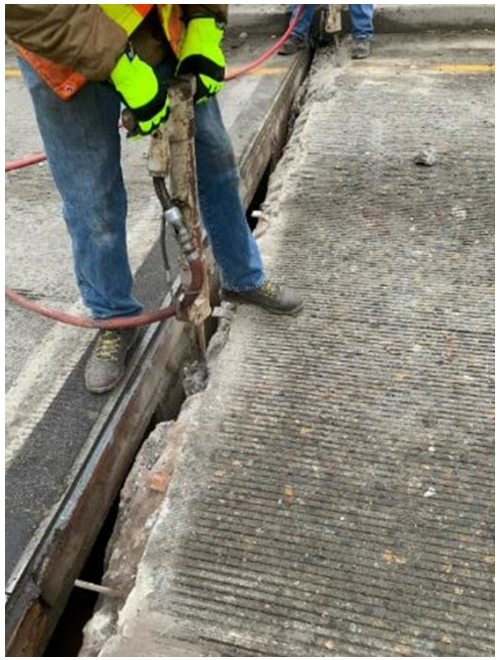
Highway preservation projects consist of targeted investments to preserve the structural integrity of the state highway system

- Pavement Preservation Program (P1)

Highway Preservation - Bridges

- Bridge Preservation Program (P2)

The bridge preservation program addresses the overall risk-based preservation of bridges and structures on the state highway system using an asset management approach.



Highway Preservation - Bridges

- Bridge Preservation Program (P2)

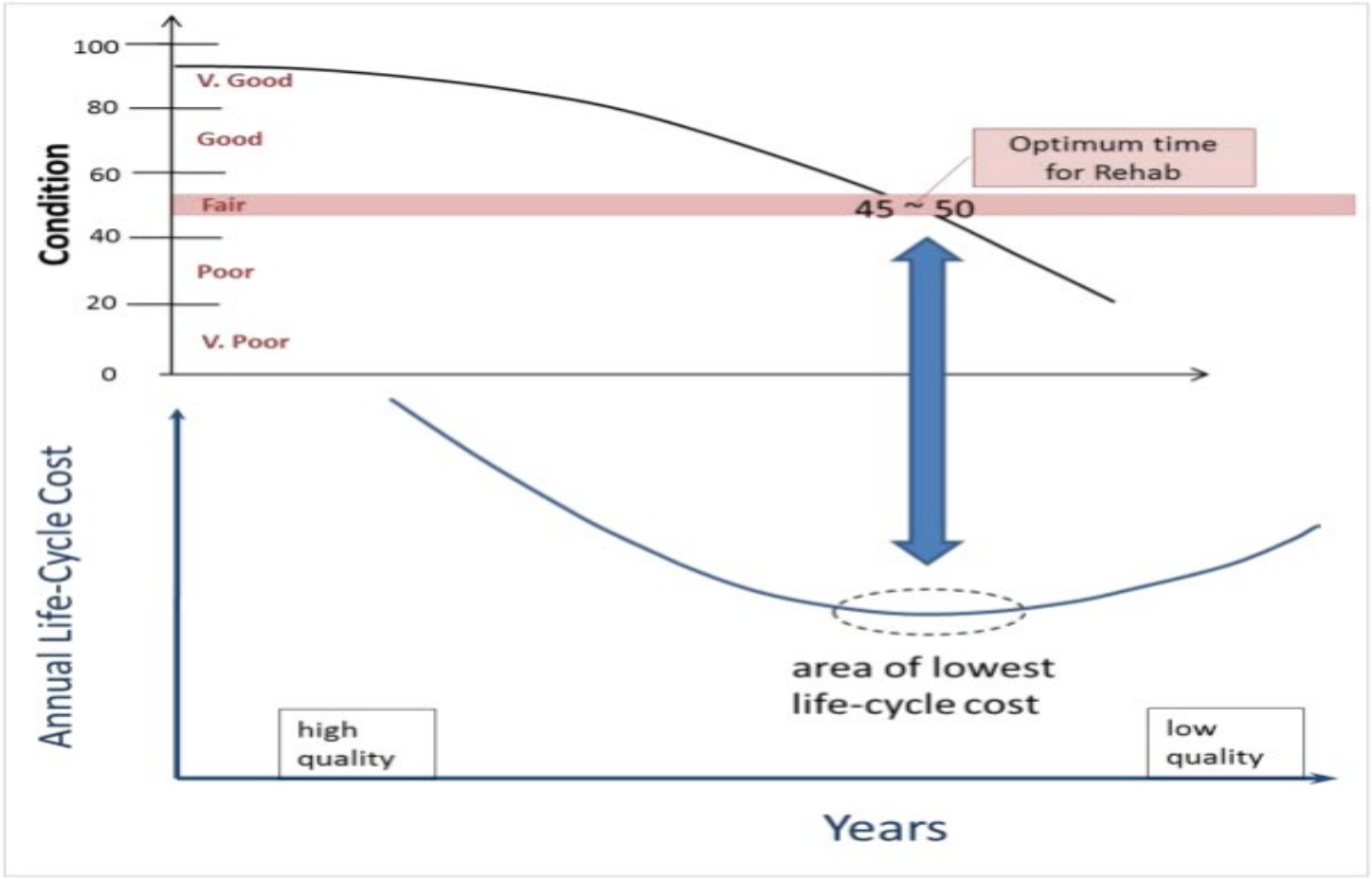
Highway Preservation - Bridges

- **Canoe and Deception Pass Bridges Preservation Work**

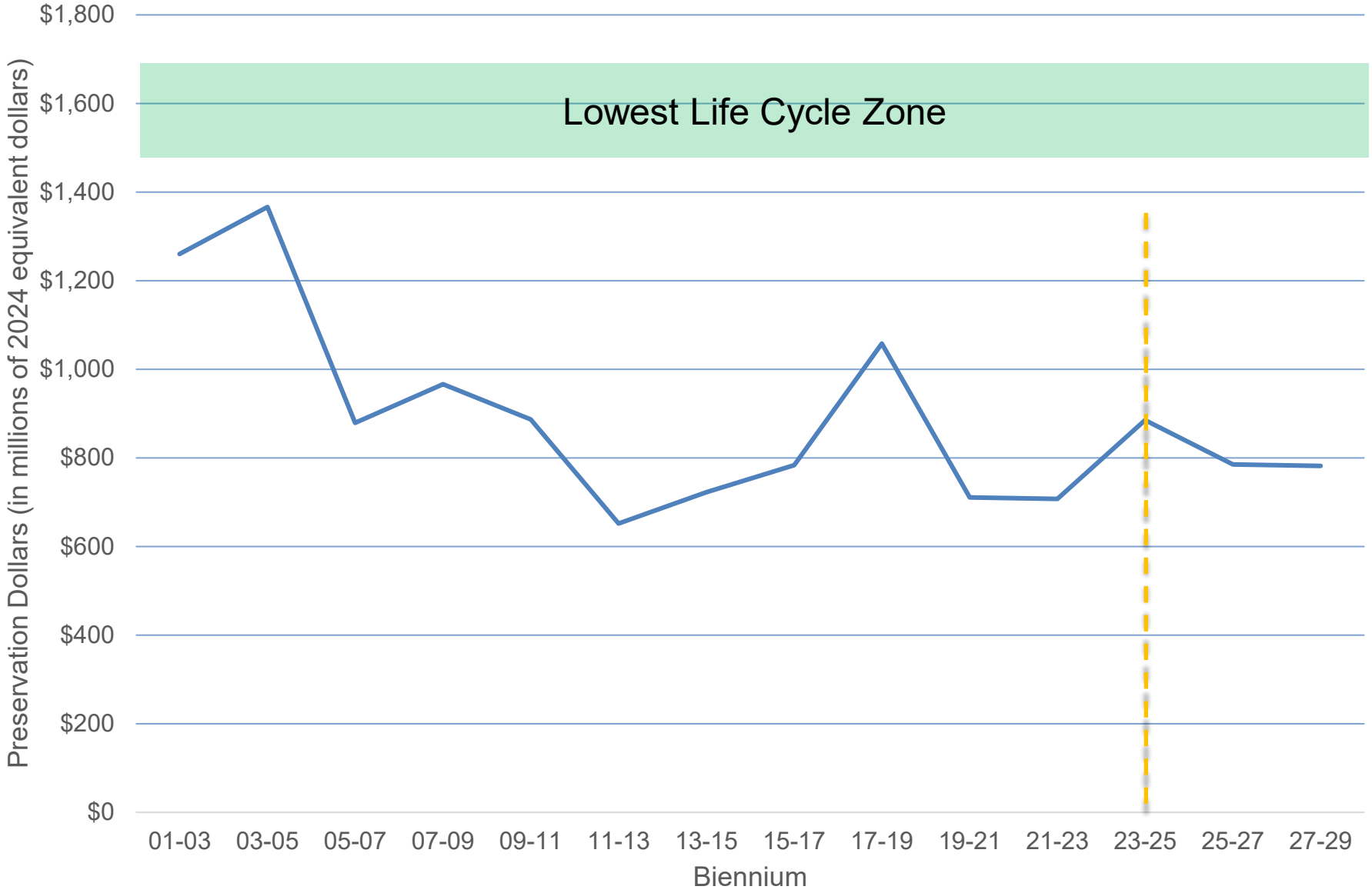
Highway Preservation – Other Facilities

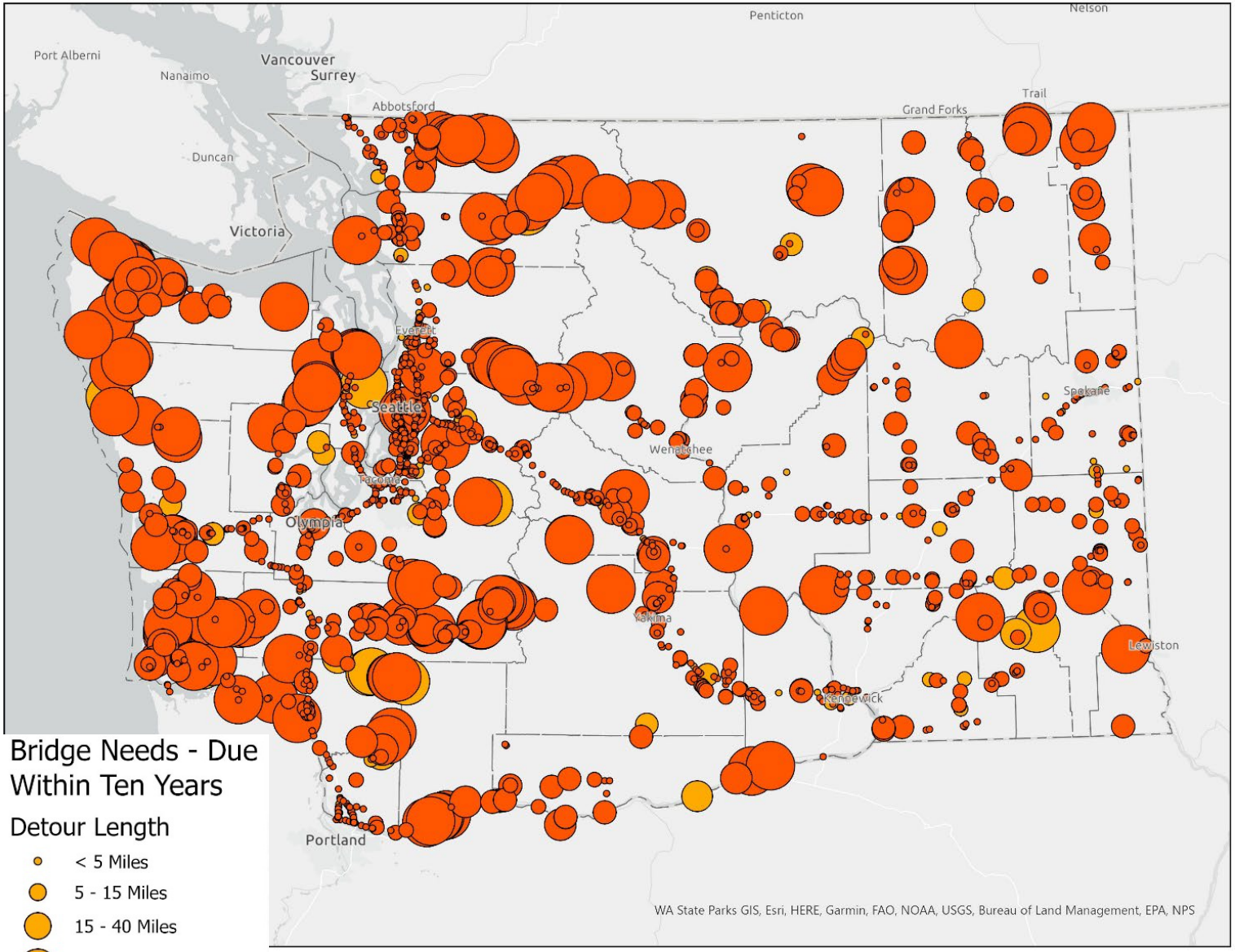
- Other Highway Facilities Preservation Program (P3)

Pavement Lifecycle – Lowest Lifecycle Cost



Highways Preservation Funding - 2001 through 2030





Bridge Needs - Due Today

Detour Length

- < 5 Miles
- 5 - 15 Miles
- 15 - 40 Miles
- 40 - 70 Miles
- > 70 Miles

Bridge Needs - Due Within Ten Years

Detour Length

- < 5 Miles
- 5 - 15 Miles
- 15 - 40 Miles
- 40 - 70 Miles
- > 70 Miles

Carbon River Bridge 165/10

Year built 1921

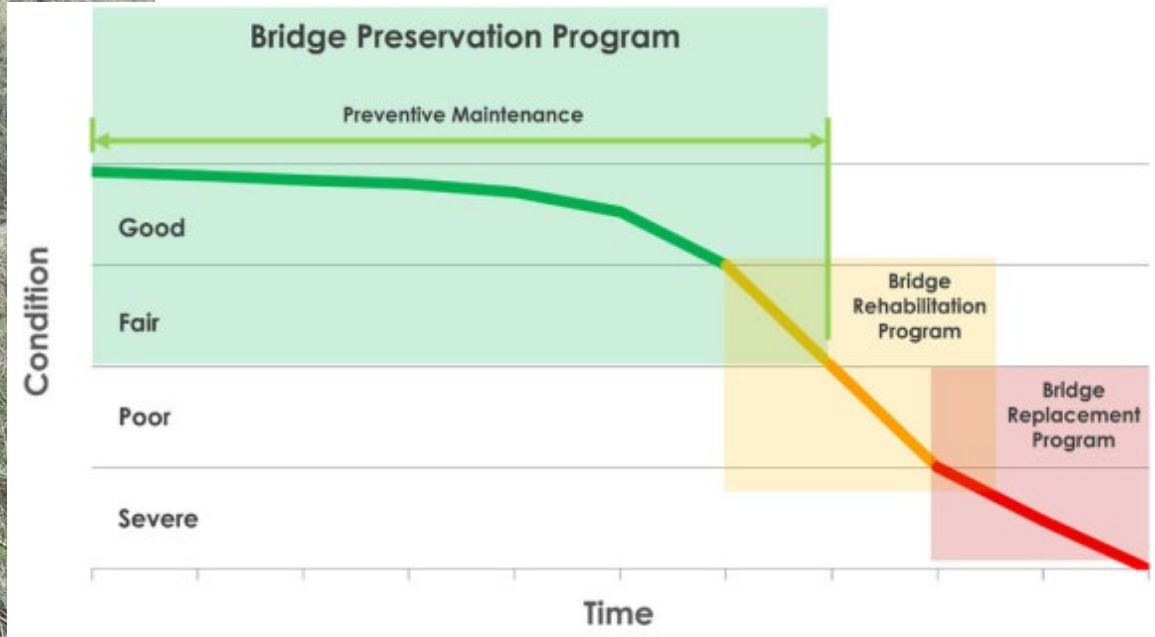
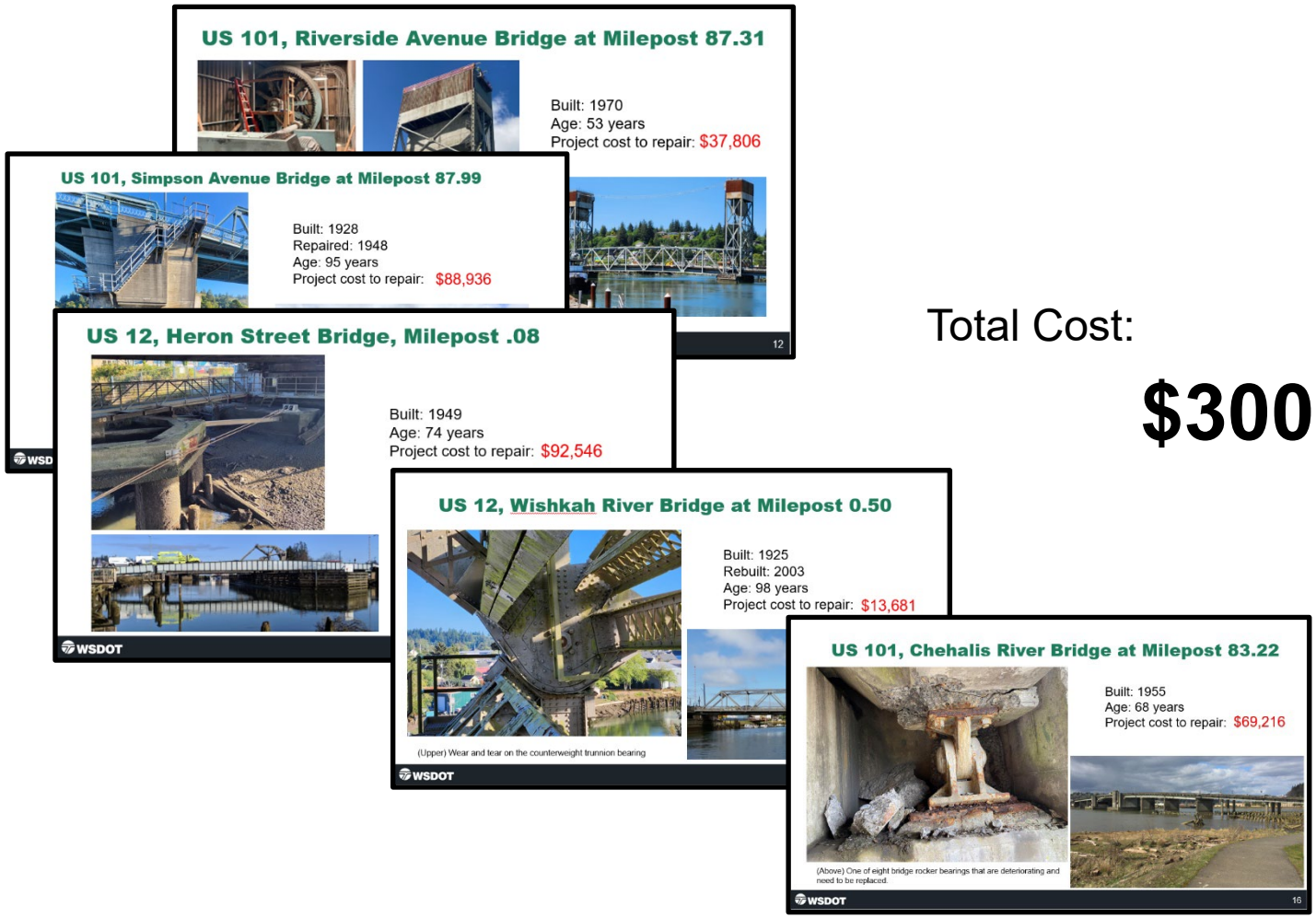


Figure 14. Bridge condition over time.

US 101 and US 12 Moveable Bridges



Total Cost:

$300+ million

Other Pressures…23-25 Emergent Work…so far

US 12/Schrader Ln 2023 - Emergency Project
SR 506/1.5 Miles N of Frontage Rd to I-5 - Emergency Bridge Repair NB
I-90 Et al/Four Lakes to Salnave Vic - Gray Fire Safety Restoration
SR 112/W Rasmussen Creek - Emergency Project
US 2/Coulee Meadows Rd West - Emergency Repair
SR 28 Trinidad Hill Emergency Repair
SR 20/Sourdough Wildfire - Replace Damaged Wire Mesh Slope Protection
SR 503 Spur/Unnamed Trib to Dog Creek - Emergency Temporary Culvert
SR 504/Spirit Lake Outlet Br - Emergency Replacement
SR 112/Pysht River - Emergency Repairs
I-5/Strander Blvd Vic to I-405 Vic-Emergency PCCP Replacement
I-82/2 Miles E of Donald Rd - Emergency Culvert Replacement
US 97/Liberty - Emergency Slope Repair
SR 112/W Jansen Creek - Emergency Project
SR 25/2 Miles N of Hunters - Emergency Culvert Replacement
SR 410/ Washout Repair
I-82 and I-90 Rest Area Lagoon Repair

Total Estimate To-Date – Over $30 million ($17+ million state funds)
(21-23 - $56 million, $16.5 million state funds)

23-25 and 25-27 Preservation Status
Pushing the Limit

- 23-25 fully programmed – managing closely
- No **new** contract expenditures this biennium (23-25)
- Over 25% of 25-27 budget committed with active 23-25 projects

Investments needed for a State of Good Repair 2024

Asset category	Replacement value	Average annual need	Current budget annual average spending	Average annual funding shortfall
Highways (includes delivering Complete Streets with preservation funds)	$148 billion	$1.52 billion	$540 million	**$980 million**
Multimodal (i.e. Aviation, Public Transportation, Rail)	$1 billion	$140 million	$60 million	**$80 million**
Intra-Agency (i.e. IT, Facilities, Fleet, Real Estate)	$84 billion	$220 million	$90 million	**$130 million**
Ferries	$6 billion	$610 million	$360 million	**$250 million**
TOTAL	**$239 billion**	**$2.49 billion**	**$1.05 billion**	**$1.44 billion**

Notes: Figures in millions of dollars, rounded to the nearest $5M.
State of Good Repair funding need is Preservation and Maintenance funding numbers combined.
It is assumed that approximately 50% of the additional Highways Preservation dollars provided by Move Ahead Washington, excluding the funding provided for Highway Maintenance, will be needed to implement the Complete Streets proposal in conjunction with those projects.
The funding numbers above (excluding Replacement Value) represent 10-year annual averages.

Unfunded Critical Priority - Preservation

- $3B over 10 Years Proposed in the Capital Improvement and Preservation Program (CIPP)
- Ramp up and deliver critical locations and begin to properly time a portion of lowest life cycle (LLCC) approaches
- For remaining locations unable to be addressed, the Complete Streets improvements also would be deferred
- *$3B is very likely to be the minimum amount to arrest catastrophic failures throughout the state*

Questions?

Tim Rydholm
WSDOT Deputy Director of
Capital Program Development and Management (CPDM)
Tim.Rydholm@wsdot.wa.gov