



Washington DOT State of the Practice



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Today's Presentation– 30 minutes

- ▶ Some basic Washington information
- ▶ Washington's preservation practices
 - How is WSDOT pavement organized?
 - What testing vehicles do we use?
 - P1 and P1M programs
 - Our Pavement Management System, WSPMS
- ▶ Budget and our future
- ▶ Questions

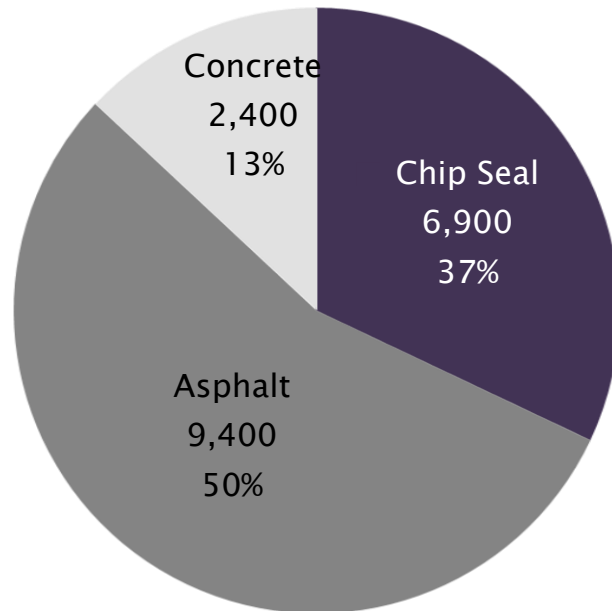
Fun facts about Washington State

- ▶ Washington (WSDOT) operates the largest ferry fleet in the US
- ▶ The first Starbucks was founded in Pike's Place, WA 
- ▶ Washington has the world's largest floating bridge (Evergreen Point)
- ▶ Washington state grows the most apples in the US 

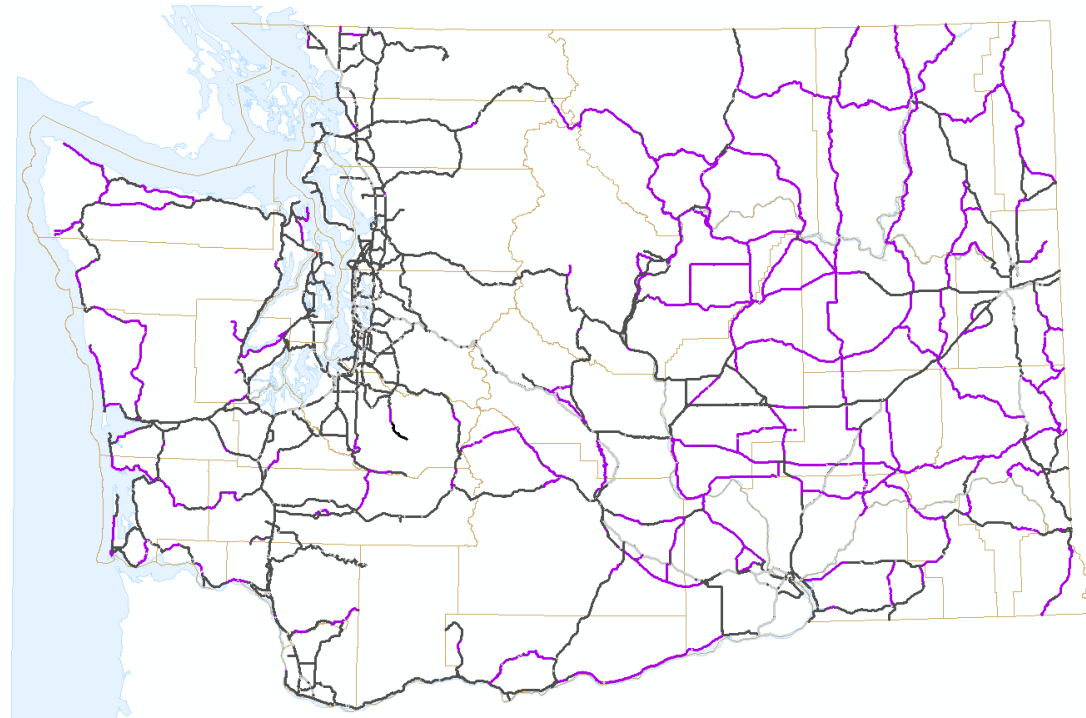


Washington Pavements at a glance

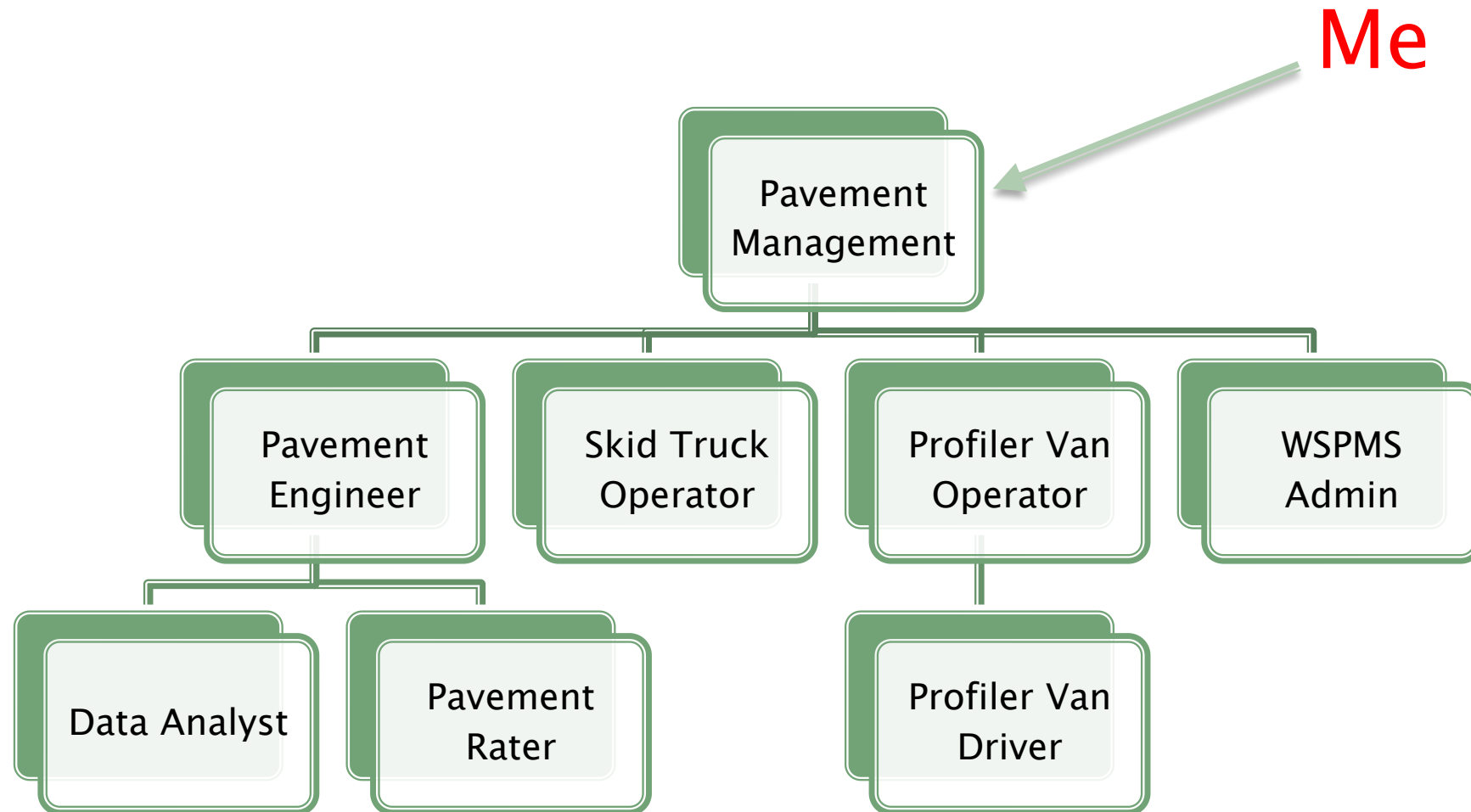
Statewide Lane Miles



18,700 lane-
miles total



Pavement Engineering at WSDOT: Management



Testing Vehicles

- Profiler Van
 - Images (used to identify cracking)
 - Roughness
 - Rutting
 - Faulting (conc)
- Friction Testing Truck and Trailer
 - Friction



Washington Preservation Budget

- ▶ “P1” Funds–
 - Funding for programmed, capital projects
 - Mostly sealcoats
- ▶ “P1M” Funds–
 - Funding for faster, non programmed projects
 - Mostly crack sealing



Washington Preservation Practices

- ▶ Types of preservation projects:
 - Crack sealing
 - Chipseals/seal coats
 - Fog coats (mostly on shoulders)
 - Mill and inlay
 - Diamond grinding
 - Slab replacement
 - Spall repair
 - Dowel Bar Retrofit



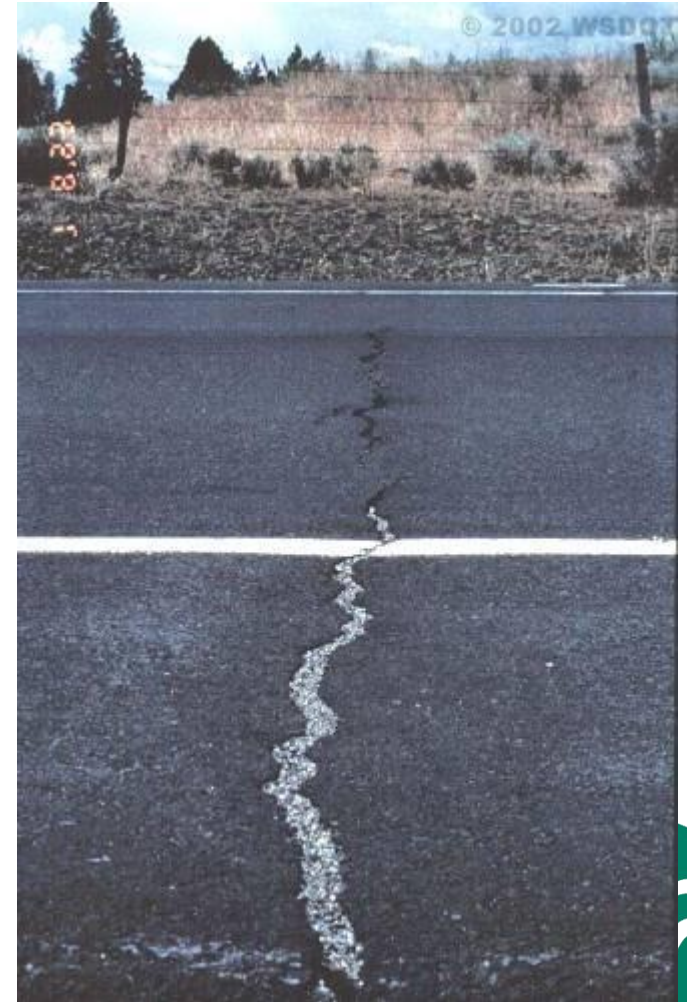
Washington Preservation Practices

- ▶ Statewide Preservation (“P1”) funds:
 - Capital program preservation projects
 - Typically sealcoats, thin overlays, thin mill and inlays (less than 2”)
 - Typical budget is \$1 Billion per biennium, which is funded at **50%** of need, has created backlog

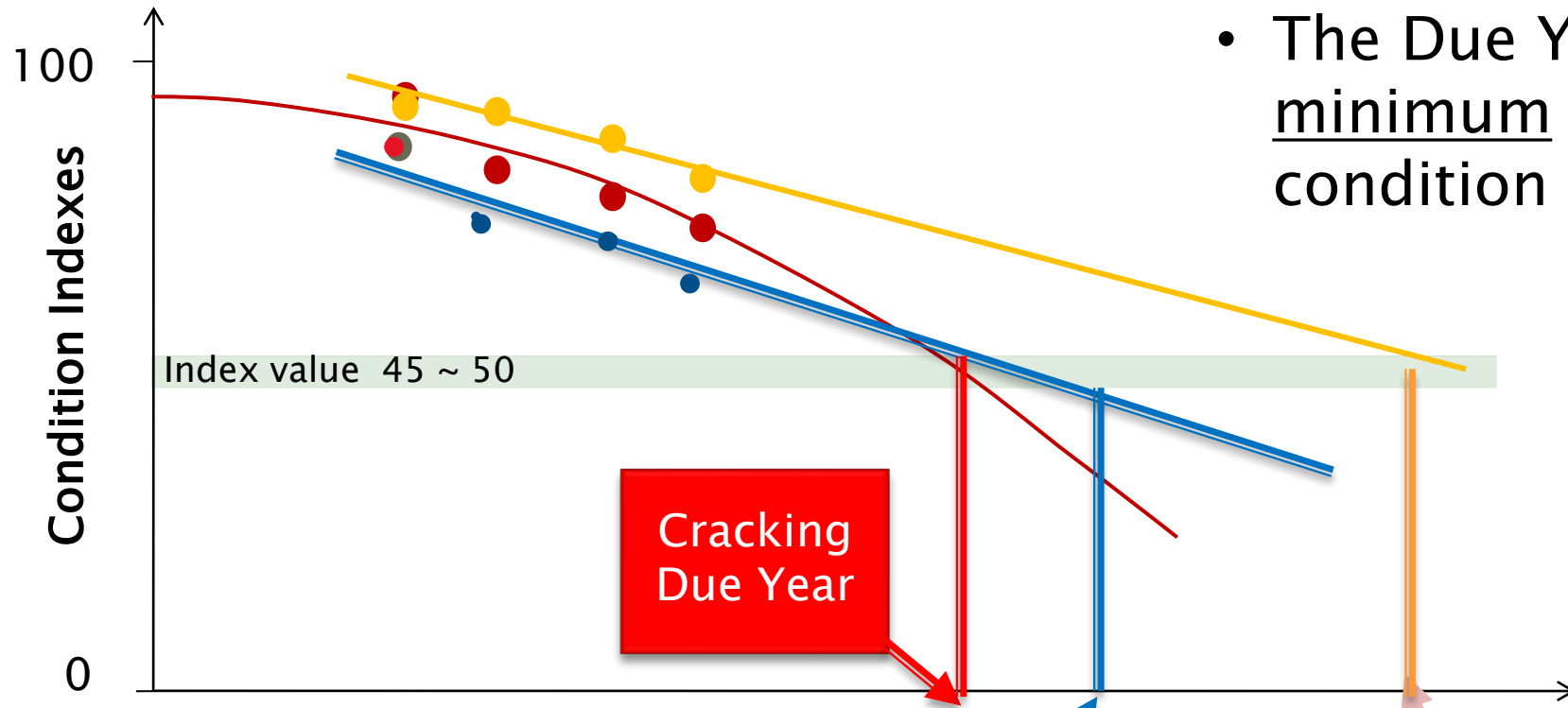


Washington Preservation Practices

- ▶ Strategic Maintenance (“P1M” funds):
 - Apply maintenance during early years of pavement to extend life
 - With budget constraints, maintenance is applied just before projects
 - Within 2 years before project construction
 - Typically crack sealing, patching
 - P1 has its own funding source



Pavement Due Years



- The Due Year is the minimum of the three condition due years.

Cracking
Due Year

Rutting
Due Year

Roughness
Due Year



Speaking of Preservation Backlog...

Due, Past Due, and Far Past Due (2019 – 2022)

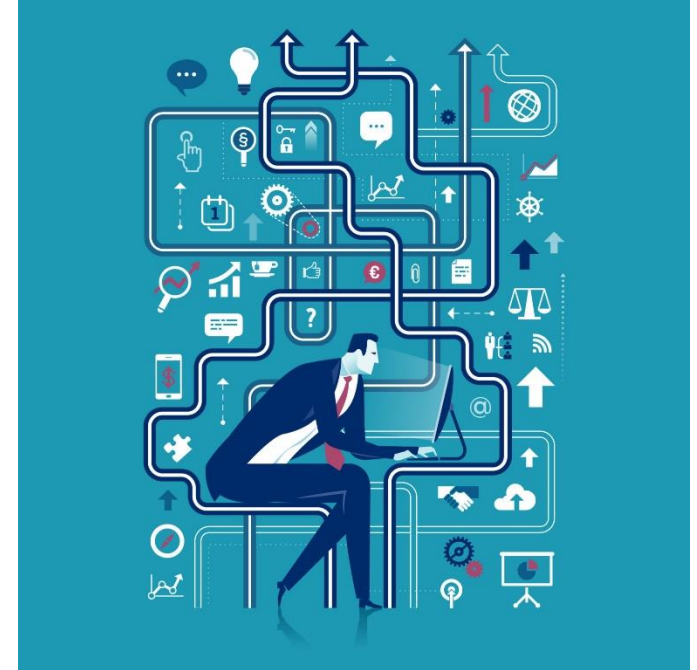
Year	2019	2020	2021	2022
Statewide Total (Mi.)	18390	18400	18390	18411
Far Past Due	635.42	1333.28	635.42	2313.46
Past Due	2457.89	3397.63	2457.89	3693.07
Due	3793.05	3622.87	3793.05	3490.35
Total (D, PD, FPD)	6886.36	8353.78	6886.36	9496.88
% of Statewide Total	37%	45%	37%	52%

How do we help choose preservation projects?

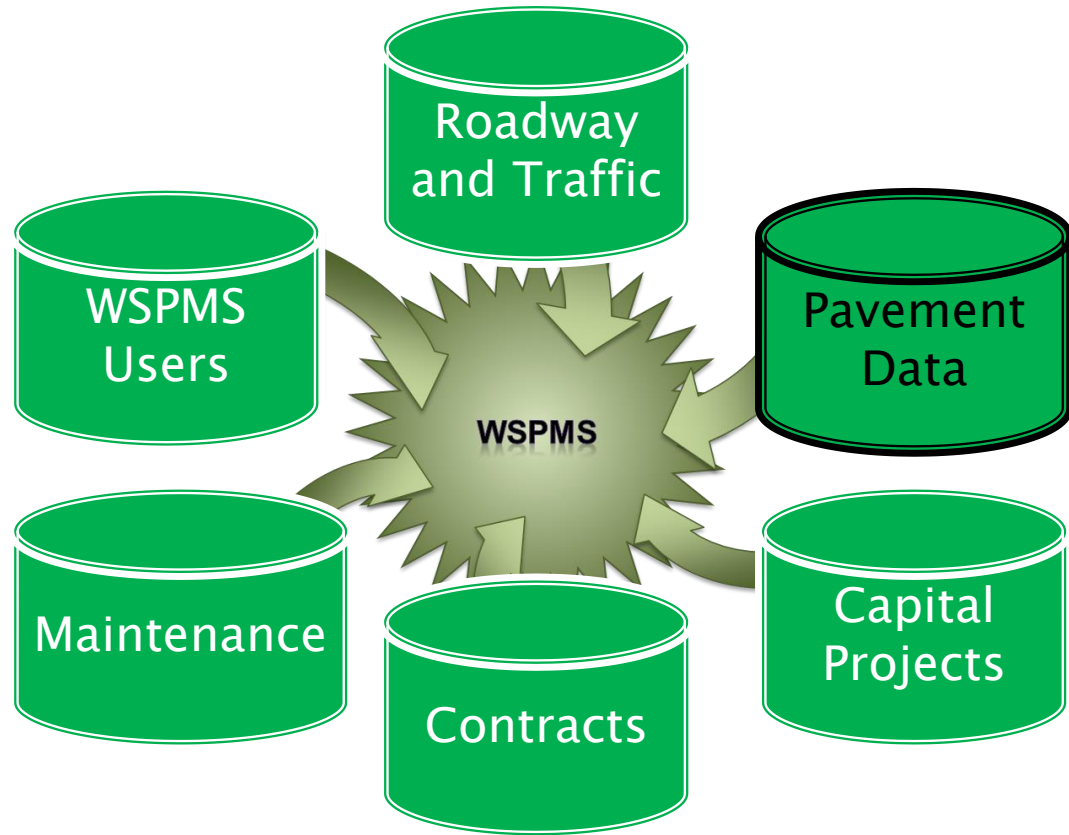


What data do we use to choose projects?

- ▶ Pavement condition
- ▶ Construction history
- ▶ Site visit
- ▶ Weather
- ▶ Past issues
- ▶ Profiler van, friction truck
- ▶ Maintenance information
- ▶ Truck traffic levels
- ▶ Etc...

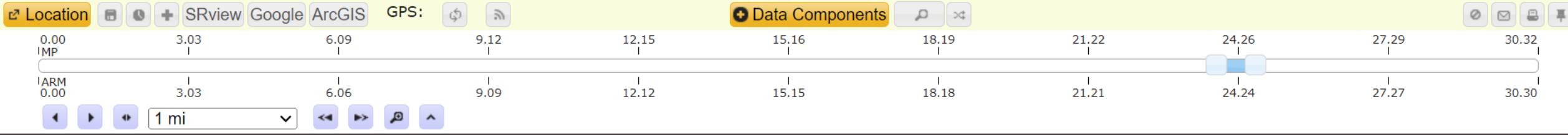


Where is the data? The WSPMS!



- Decision Support Tool
- Data Repository and Analysis Software

Route: 405 | Direction: I D B | SRMPs: 23.80 - 24.60 | ARMs: 23.78 - 24.58 | Length: 0.8



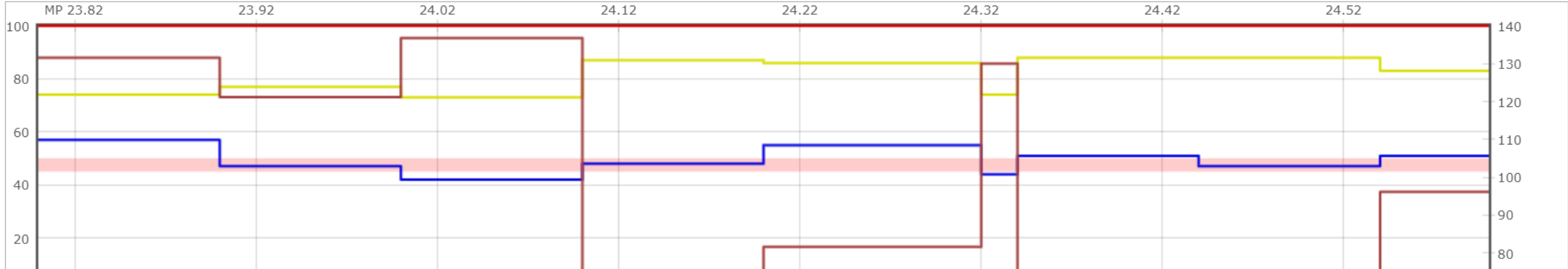
PIN 140561B (WSPMS Supplemental Information) Load
Press the Load button to load the Specialized Component. [Why?](#)

Condition Index Details Options Excel Show Data

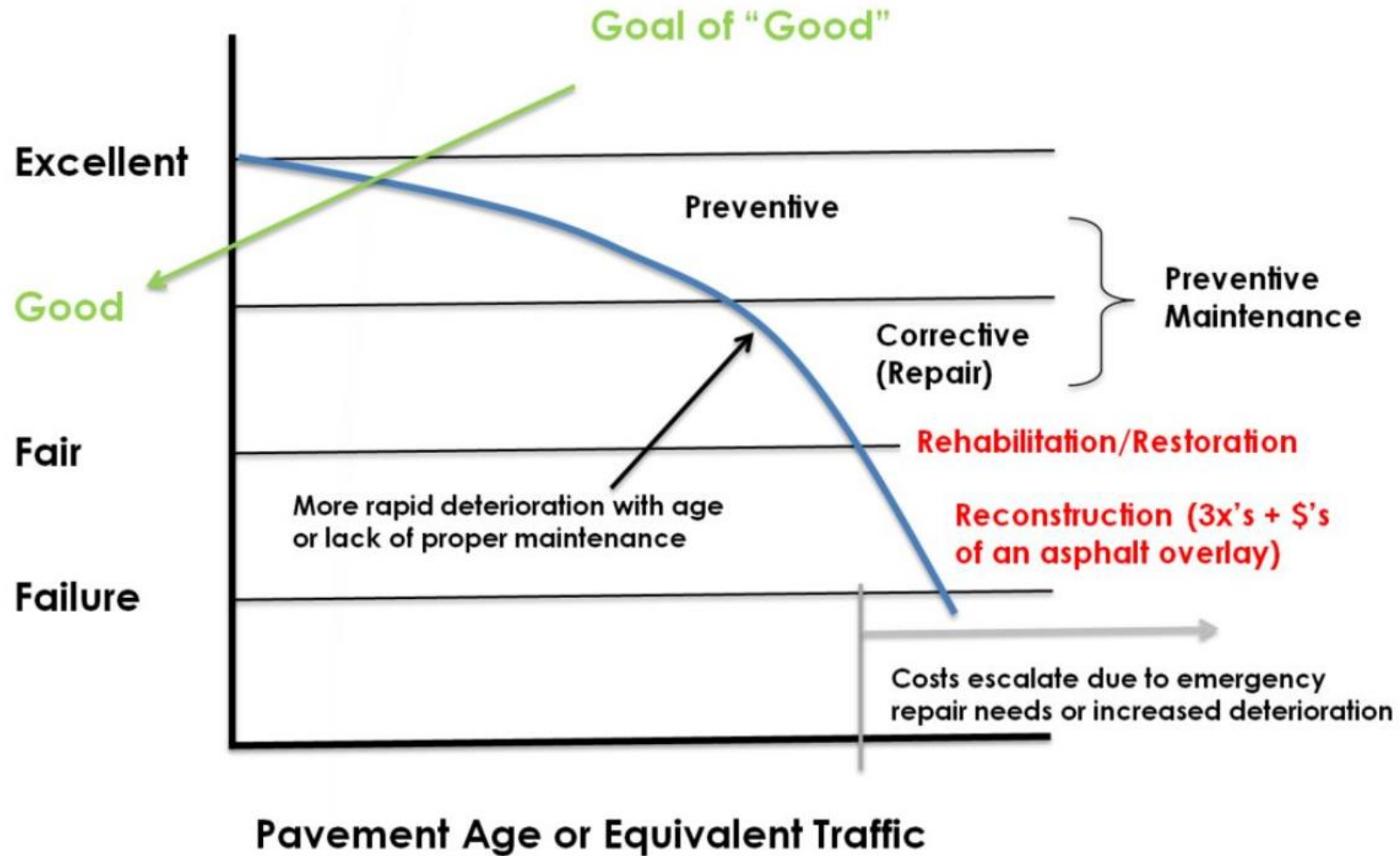
Showing Data For: 2022. Change Year:

Left Y Axis: Left Y Axis Fields Right Y Axis Fields

- PSC (Structural)
- PRC (Rutting)
- PPC (Profile)
- IRI [in/mi] (Roughness)



Pavement Deterioration Curve



Washington Preservation Budget

- ▶ A bill was passed in 2022 which indicated that \$1.5B of funding would be allocated to preservation to help reduce their backlog. YAY!
- ▶ WSDOT was grateful for money (but panicking about delivery)
- ▶ 2023, Legislature pulled funding package back and worse-
- ▶ Preservation is now funded at only 40% of need
- ▶ What does this mean for preservation?

Washington Preservation Budget

- ▶ The planning ahead and then pull back of funding means NO preservation projects funded for 2024.
- ▶ Backlog will continue to grow
- ▶ Roads will get worse
- ▶ WA is effectively moving from preservation back to “worst first”



Washington Preservation Budget

- ▶ Strategic maintenance is now “reactive maintenance”
- ▶ Statewide programming is less involved
- ▶ Regions are forced to be the reactive ones
- ▶ Heavier load on maintenance crews



What does the future hold?

- ▶ All is not lost!
- ▶ Leadership and Legislature are meeting frequently
- ▶ Continuing our message
- ▶ Hopeful for a funding change in 2025-2027



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