



PUBLIC WORKS
OPERATIONS

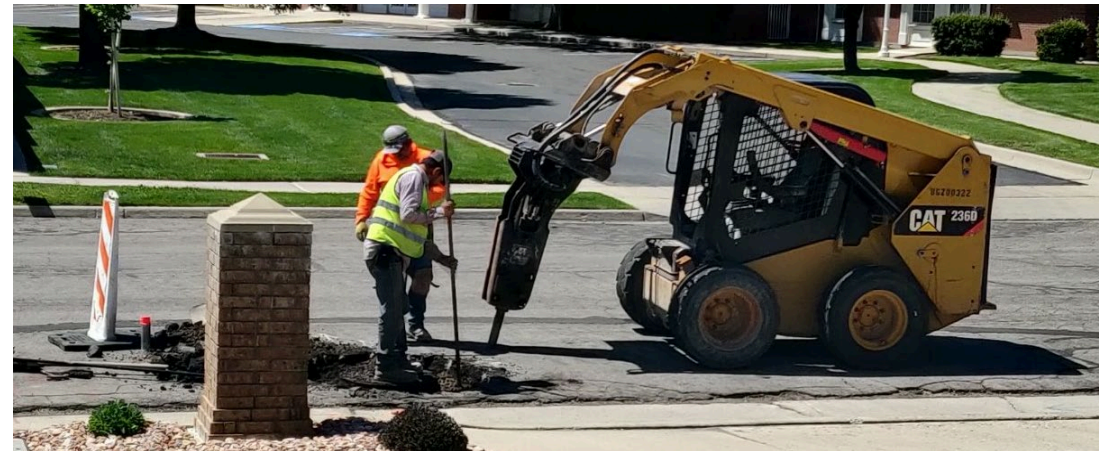
MSD Pavement Management

August 2025



Public Works Operations Provides the Following Services:

- Road inspections (3-year rotation)
- Data management
- Mill and overlays of asphalt surface (2")
- Repairs
 - Potholes
 - Crack sealing
 - Mastic patch
 - Asphalt patch
- Micropave (contracted)
- Slurry seals (contracted)

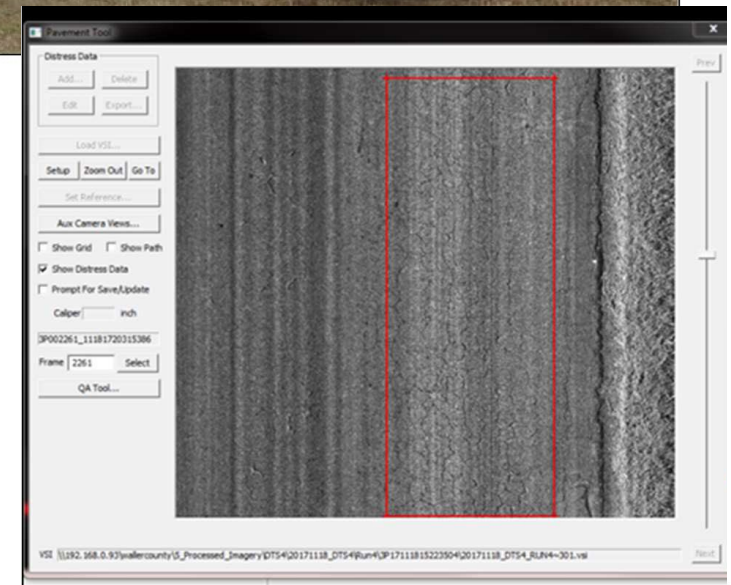


Pavement Preservation



Baseline Condition Assessment in 2021

- Performed by Data Transfer Solutions, LLC via Public Works Operations
- Mobile unit collecting roadway imagery to perform condition assessment via ASTM D6433-20 Standard
- Report provided 5 year budget plan for MSD as a whole.
- Recommendation for 3 - 5-year reevaluation.



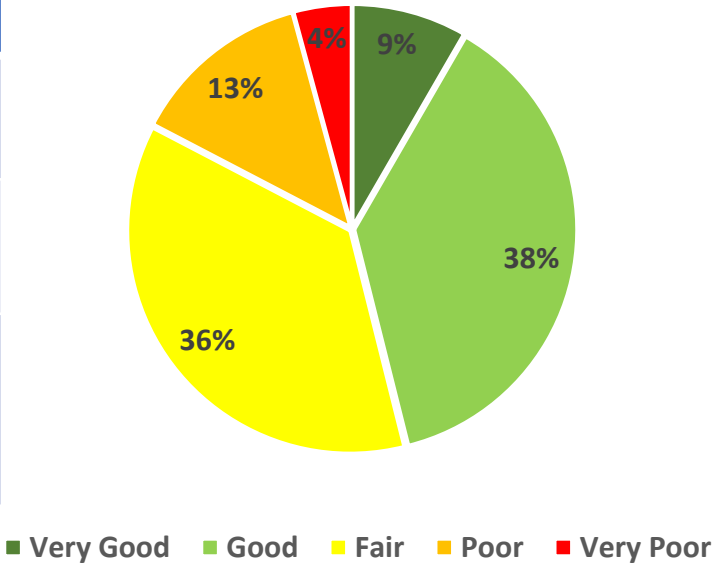
Pavement Preservation



	Very Good	Good	Fair	Poor	Very Poor	Total
Condition	9%	38%	36%	13%	4%	100%
Centerline Miles	26.5	109.2	104.9	37.4	10.0	287.9
Area Square Feet	4,037,156	17,275,131	16,510,276	6,011,749	1,927,859	45,762,173

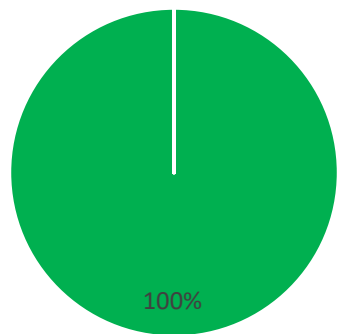
Average Road Segment OCI = 74.7

MSD Overall Condition

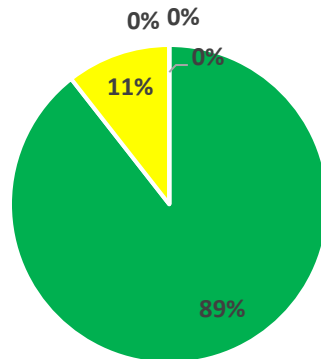


MSD Overall Current Condition

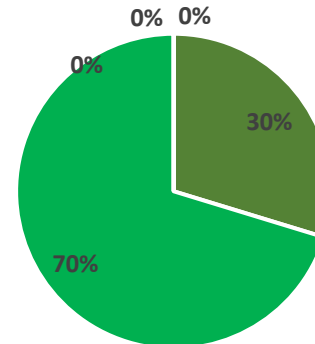
Brighton
1%



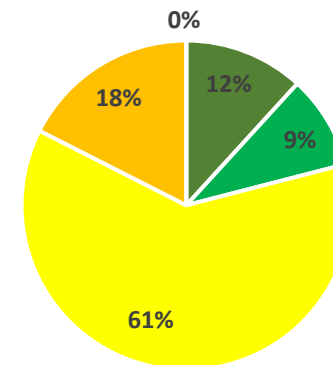
Copperton
1%



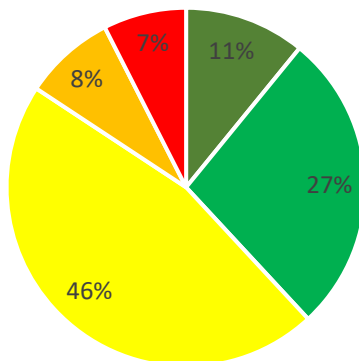
Emigration Canyon
4%



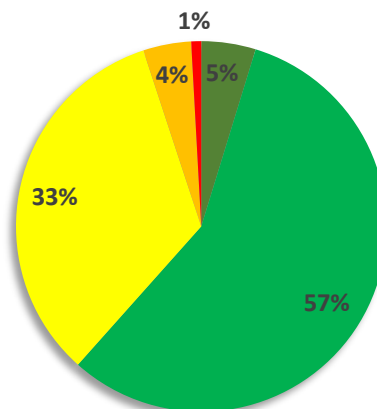
White City
6%



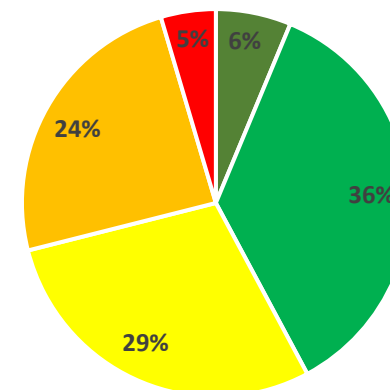
Magna City
31%



Unincorporated SLCo
24%



City of Kearns
33%



■ Very Good
 ■ Good
 ■ Fair
 ■ Poor
 ■ Very Poor

**Conditions current to Winter 2025 inspections.*



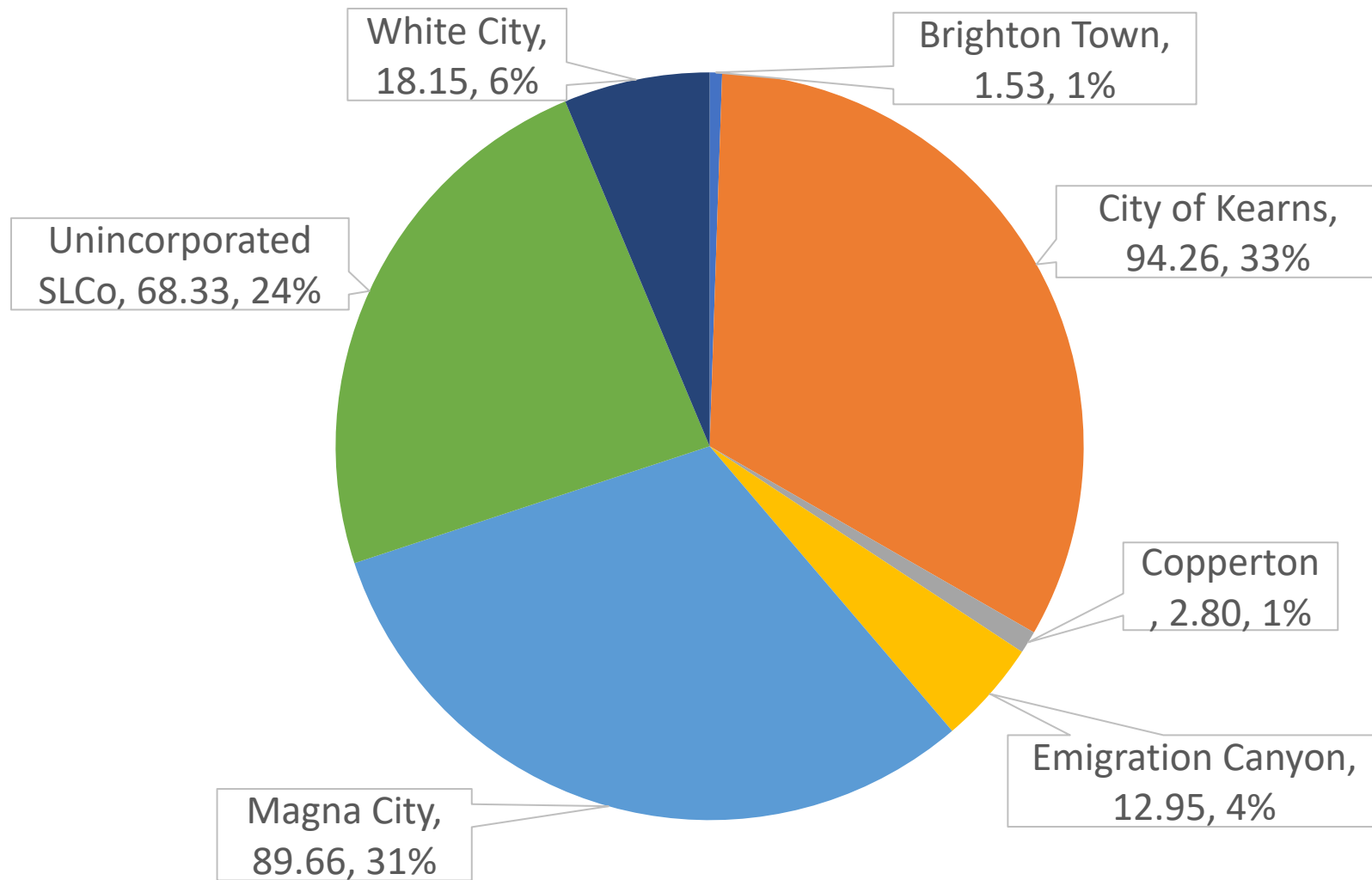
Budget Forecast Assumptions:

- Does not consider concrete improvements, asphalt maintenance only.
- Class B&C road fund allocations to jurisdictions in aggregate set at 2024 allocations plus 3% annual growth (avg. statewide from past 5-yr)
- Assume 1% annual population growth
- Linear deterioration rate of asphalt vs. 20-yr service life
- Construction inflation of 6.5%
- Engineering reconstruction projects available each year up to approximately ~200,000 – 300,000 SF.



2025-2045 Budget Forecast





GSLMSD Road Miles (July 2025)



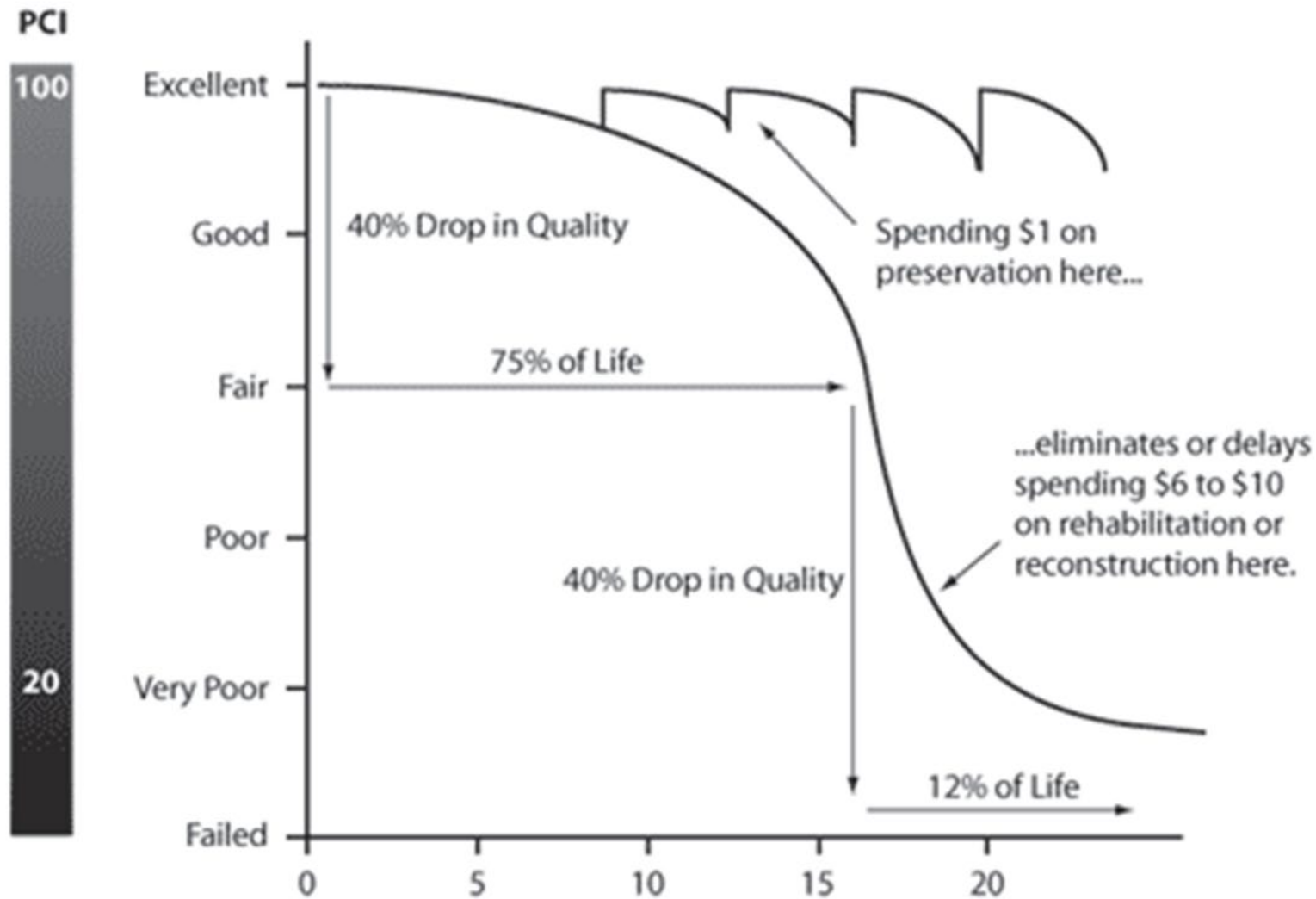
Treatment Type	Minimum (yrs)	Average (yrs)	Maximum (yrs)
Thin (< 2.5-inch) Hot-Mix Asphalt (HMA) Overlay	2	8	12
Thick (≥ 2.5-inch) HMA Overlay	6	10	17
Single Chip Seal	1	6	12
Double Chip Seal	4	9	15
Thin (< 2.5-inch) Mill and Fill	4	8	20
Thick (≥ 2.5-inch) Mill and Fill	6	10	17
Cold-In-Place HMA Recycling	5	10	20
Crack Sealing	2	3	10
Microsurfacing	4	6	10

Source: Federal Highway Administration. (2017). *Pavement performance measures and forecasting and the effects of maintenance and rehabilitation strategy on treatment effectiveness (Revised)* (FHWA-HRT-17-095). U.S. Department of Transportation.

<https://www.fhwa.dot.gov/publications/research/infrastructure/pavements/ltp/17095/003.cfm>

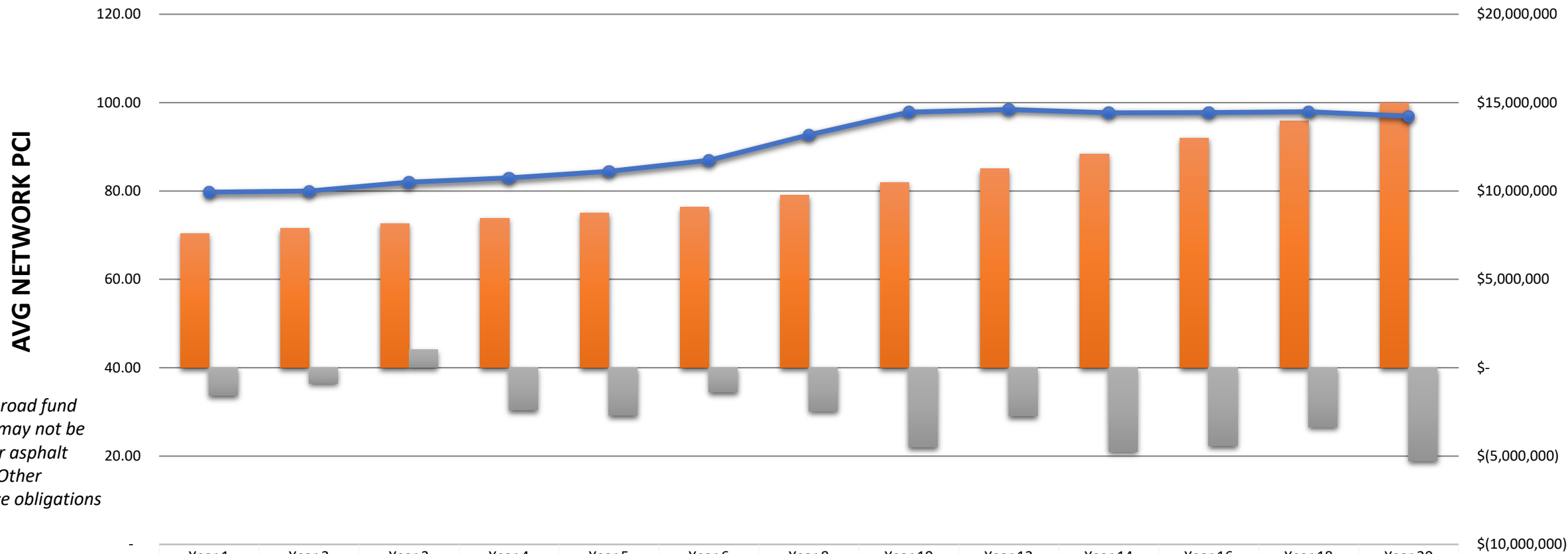
Treatment Performance





Pavement Preservation

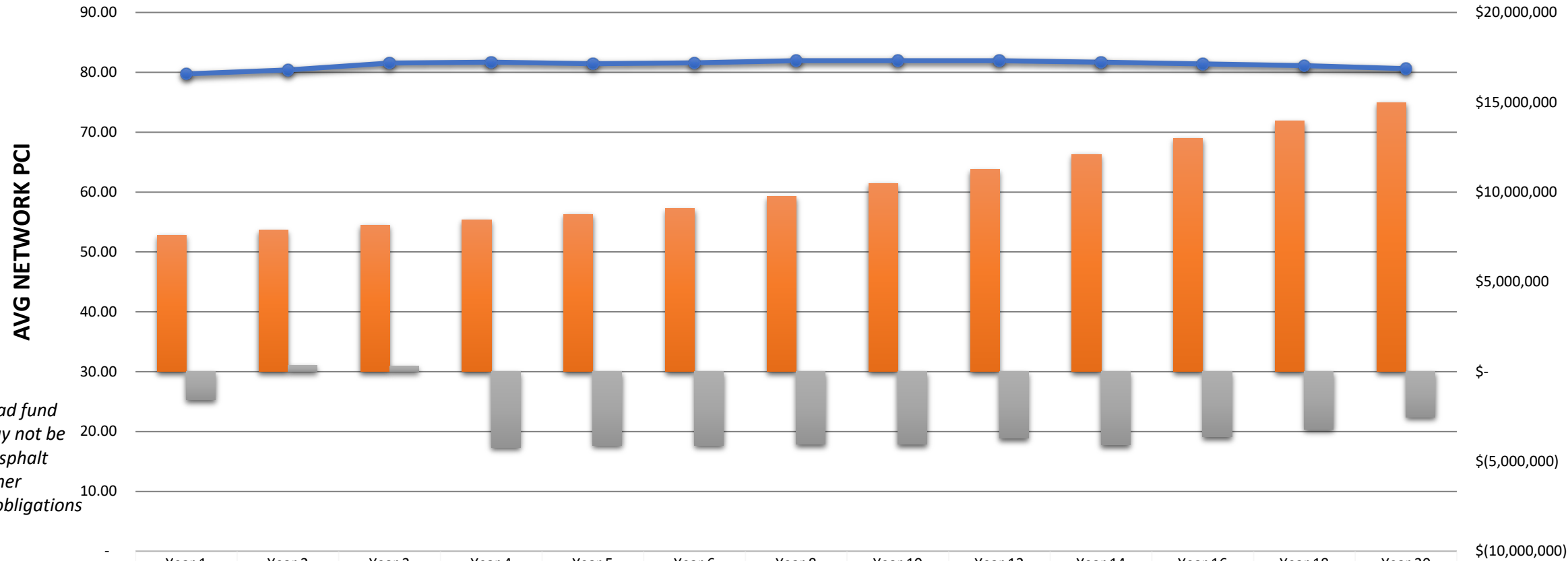
Average PCI vs Budget Combined Member City Models



2025-2045 Budget Forecast



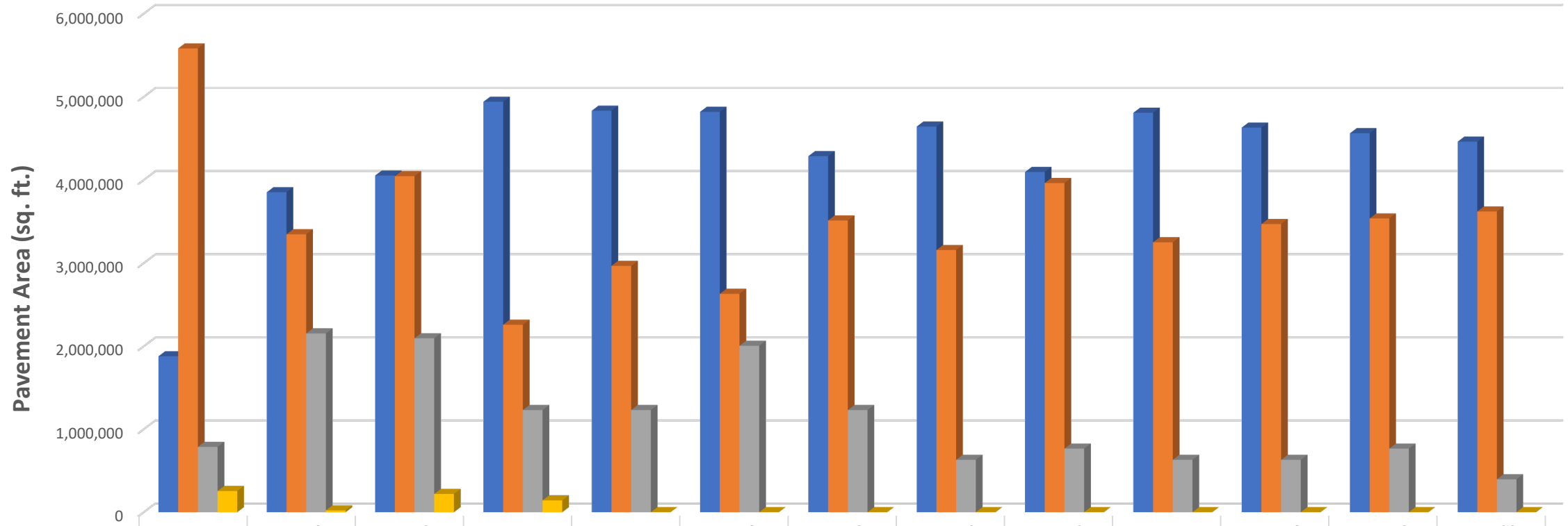
Average PCI vs Budget Optimized for MSD as Whole



2025-2045 Budget Forecast



Pavement Treatment Area by Type (sq. ft.) *Combined Member City Models*



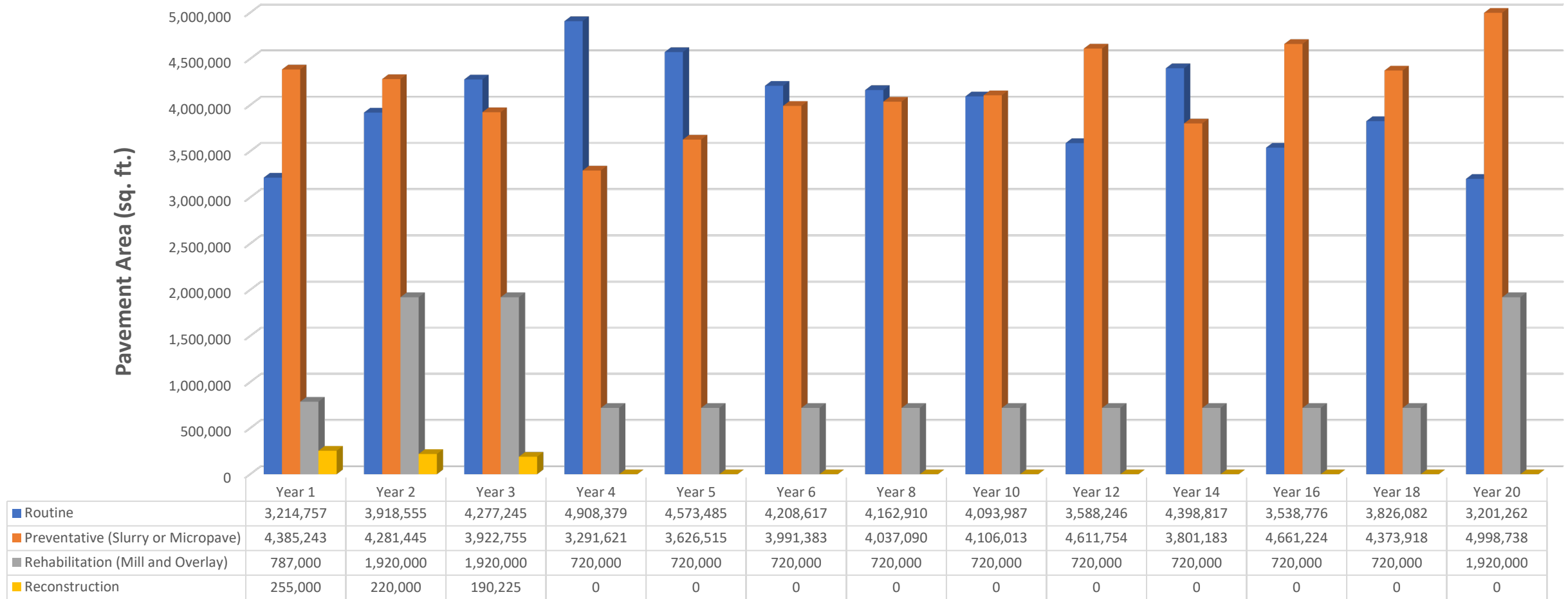
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 8	Year 10	Year 12	Year 14	Year 16	Year 18	Year 20
■ Routine	1,879,460	3,853,067	4,053,867	4,940,983	4,833,226	4,819,593	4,286,865	4,642,577	4,096,407	4,808,779	4,629,893	4,562,549	4,461,481
■ Preventative (Slurry or Micropave)	5,582,000	3,346,933	4,046,133	2,259,017	2,966,774	2,630,407	3,513,135	3,157,423	3,963,118	3,250,781	3,470,107	3,537,451	3,621,288
■ Rehabilitation (Mill and Overlay)	787,000	2,154,631	2,096,354	1,231,550	1,231,550	2,006,550	1,231,550	631,550	766,550	631,550	631,550	766,550	396,550
■ Reconstruction	255,000	21,780	220,000	142,521	0	0	0	0	0	0	0	0	0

2025-2045 Budget Forecast



Pavement Treatment Area by Type (sq. ft.)

Optimized for MSD as Whole



2025-2045 Budget Forecast



Interactive Web Map:

- Provide current pavement condition index (composite of 3-year data)
- Show planned Operations performed/managed:
 - Mill and Overlays (Red)
 - Micropave (Purple)
 - Slurry Seals (Blue)
- Includes recommended capital projects for MSD Engineering
 - Proposed (Orange)
 - Known funded capital projects (Green)

Link: [Operations Pavement Management Plan](#)

FY26-FY28 Pavement Plan



- Increase in mill & overlay, ~100 - 175% plus reconstruction suggested in first 3 - 9 years for, then level of service from PW Operations can then sustain target PCI.
 - **Recommend update to baseline condition study, \$150,000, with structural survey then prioritization with MSD engineering.**
- Increase of ~65% in preventative maintenance (e.g. slurry & micropave) suggested in first 3 years and ~30% increase through remainder of model.
 - **Recommend adding \$950,000 to FY26 budget for slurry, micropave, and related materials**
- Equilibrium of “good” condition can be maintained with 17% - 20% of road network receiving maintenance each year.
 - **Pavement planning annual target of 20% roadway network receiving service**

Takeaways & Recommendations



QUESTIONS?

