



Quantifying the Impact of Preservation

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Planning for the Future

Readily Deteriorating Pavement Infrastructure

- Current Network Condition Rating: 6.0
- Increased usage of pavements

Money Management

- Pavement Preservation Budget prior to 2012:
 - 2009: \$2 Million pilot preservation project
 - 2009-2010: Estimated \$22 Million strictly from ARRA legislation
 - 2011: Approximately \$55 Million

**Strategic
Pavement Preservation**

2012 Pavement Preservation Overview

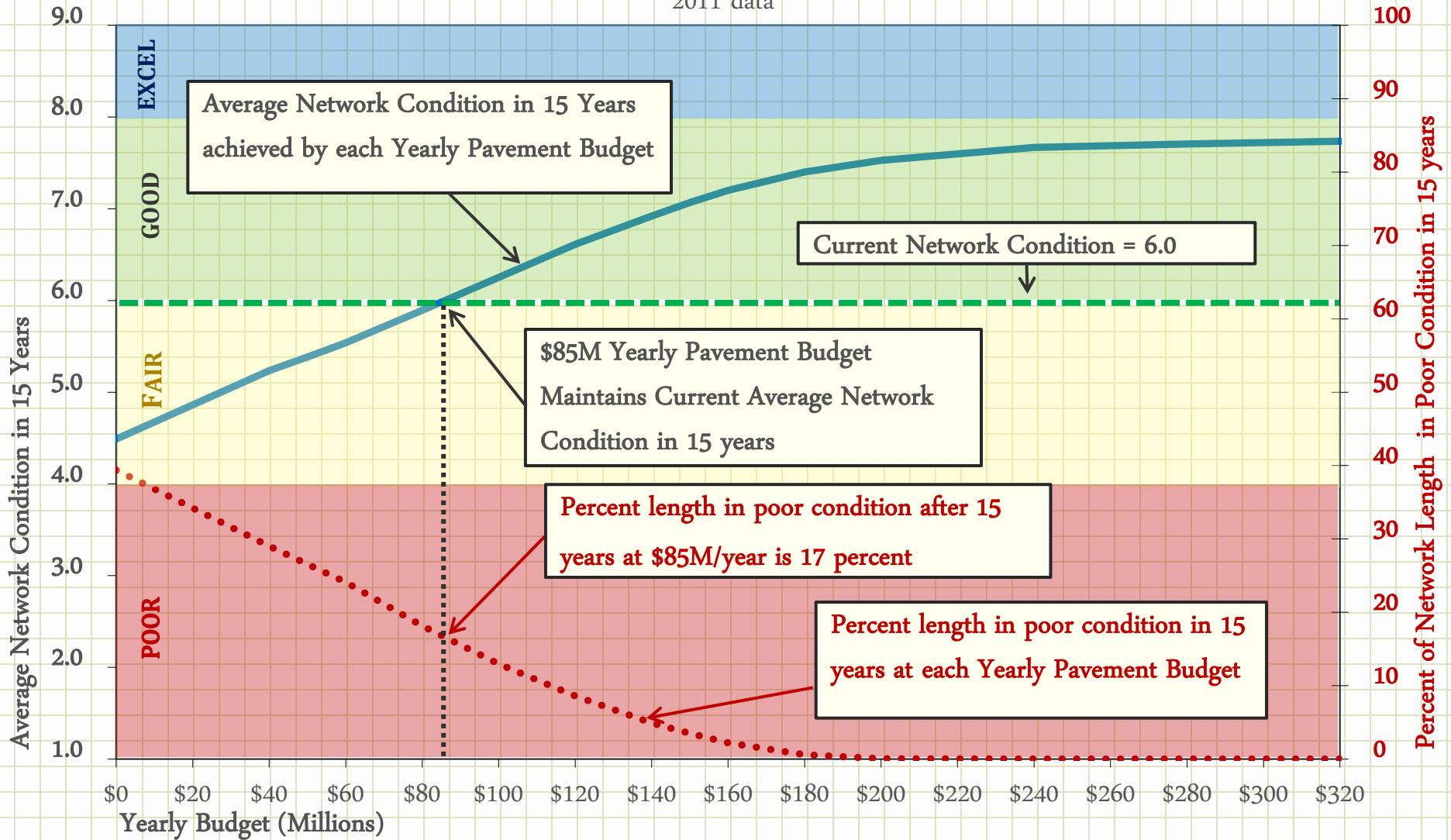
	Mainline	Mainline and Shoulders
Cumulative	347.03 Lane Miles	477.76 Lane Miles
Ultrathin	105.34 Lane Miles (30 Percent)	117.23 Lane Miles (25 Percent)
Mill and Fill	241.68 Lane Miles (70 Percent)	360.53 Lane Miles (75 Percent)

Majority of projects on limited-access roadways

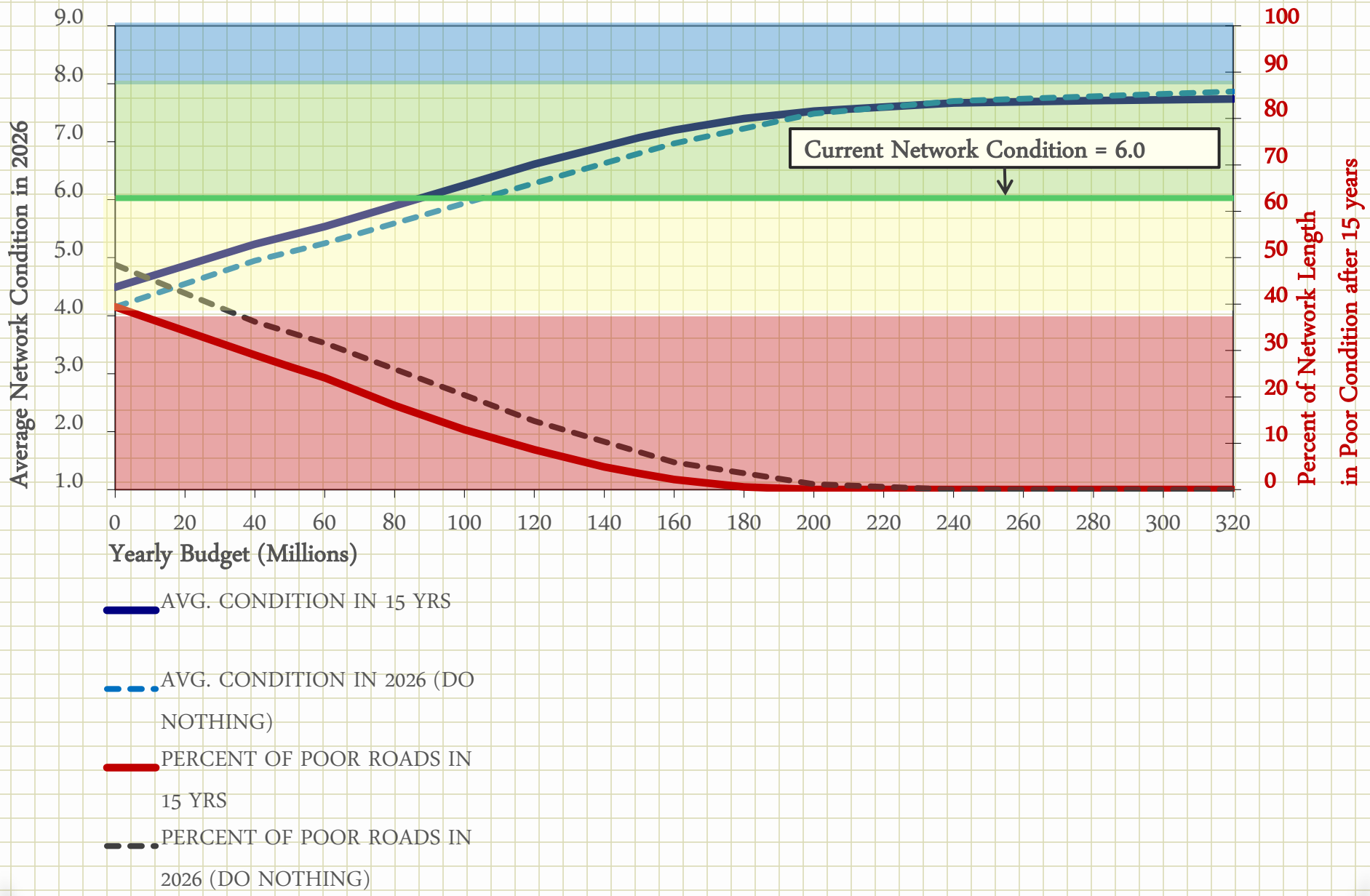
Future Network Pavement Condition (15 years) at Various Yearly Investment Levels

Network Lengths Analyzed: 3,732 centerline miles, 10,455 mainline lane miles, 13,995 lane miles including paved shoulders

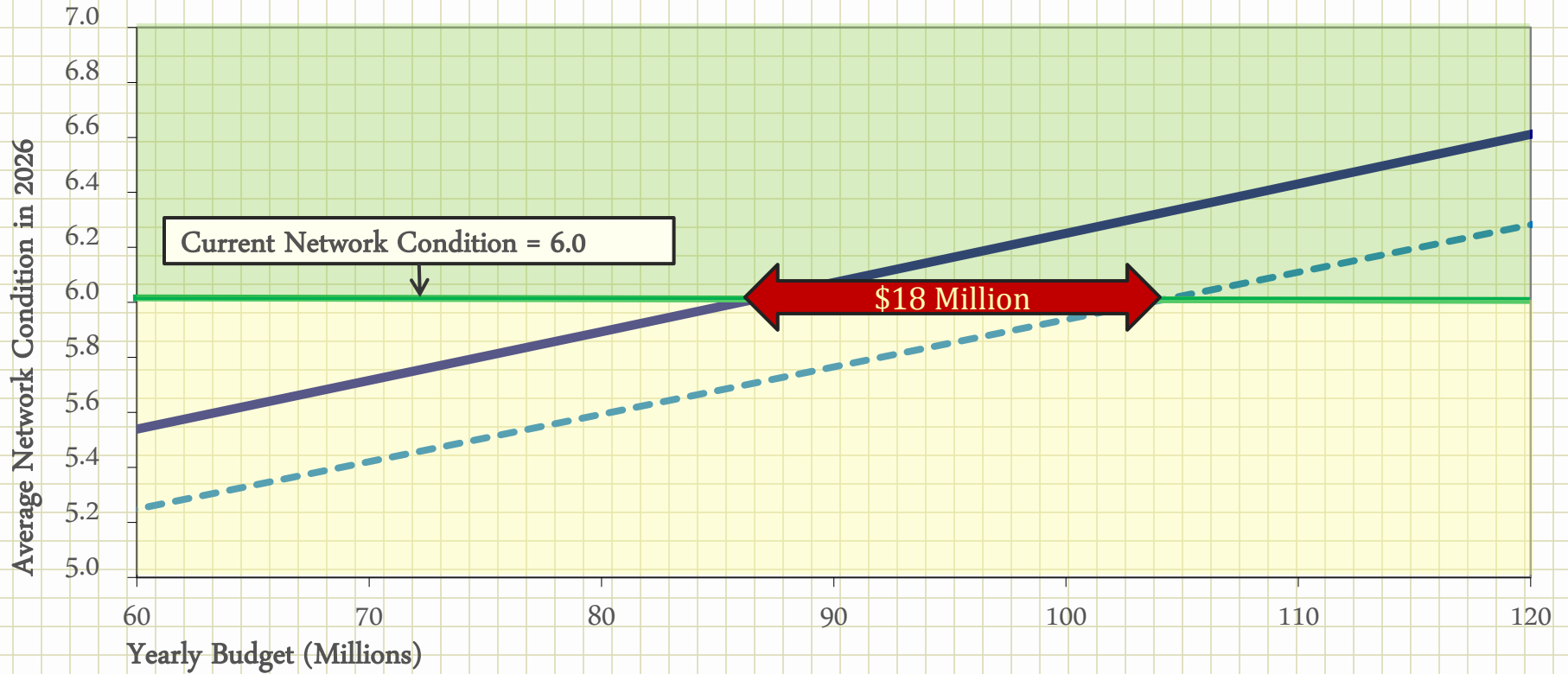
2011 data



Annual Budget vs. Condition in Yr. 2026 Vs. % Poor Roads in 2026



Annual Budget vs. Condition in Yr. 2026



— AVG. CONDITION IN 15 YRS

- - - AVG. CONDITION IN 2026
(DO NOTHING)

Financials

2012 Pavement Budget: \$135 Million

- 2012 Pavement Preservation Investment: \$78 Million

2013 and Forward Pavement Budget: \$85 Million

- 2013 and Forward Pavement Preservation Budget: \$30 Million

Net Present Value: \$200 Million (4 Percent Discount)

Internal Rate of Return: 10.25 Percent

Yearly Budget Savings: \$18 Million Per Year

The benefit is strictly agency costs - no user costs are included

- These would tend to increase the rate of return based on:
 - Decreased vehicle operating costs
 - Reduced delays due to construction for more complex treatments

Database Limitations

If projected further than 15 years, the slope showing network condition vs. annual budget should steepen as we approach ZERO investment

Investment program includes \$57 Million of resurfacing projects that did not follow pavement-preservation philosophy

Concluding Thoughts

What quantity of preservation investments of similar caliber can be implemented to one pavement network to achieve similar return on investment?

Is it possible to sustain this size of a preservation program?

How feasible is this preservation effort for other States?

Are there any Questions?

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