

# Preservation vs. Renewal

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# Objectives of Presentation

- Qualify the presentation title
- Treatment vs. Treatment Strategy
- Timing is everything!
- Why do we need a plan?
- Thinking Strategically.



# Preservation vs. Renewal



Not combatants but allies in our duty to preserve our assets  
as a legacy for future generations

# Treatments

vs.

# Strategies

Chip seal

Micro-surfacing

Thin overlay

Fog seal

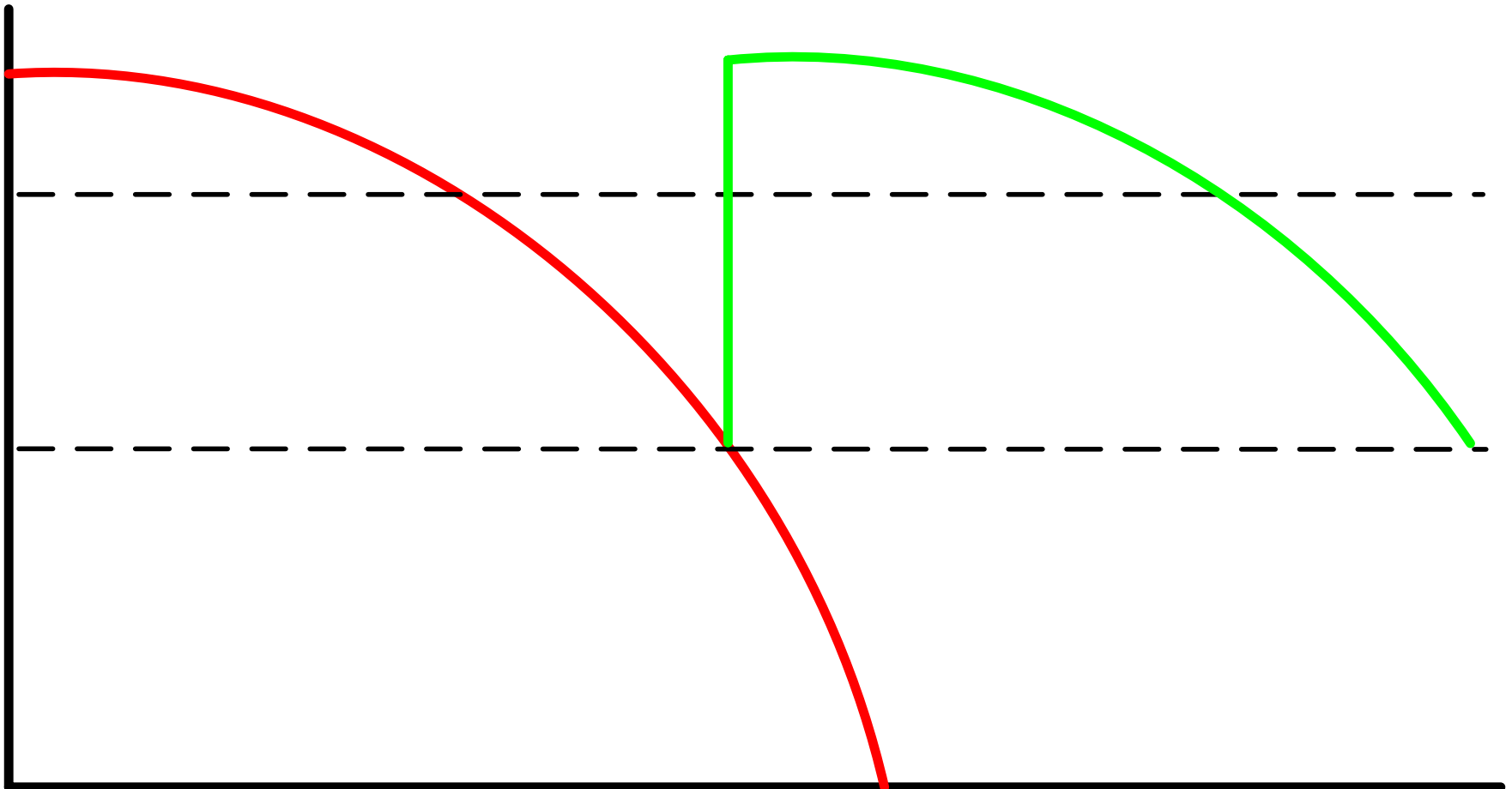
Slurry seal

Grinding

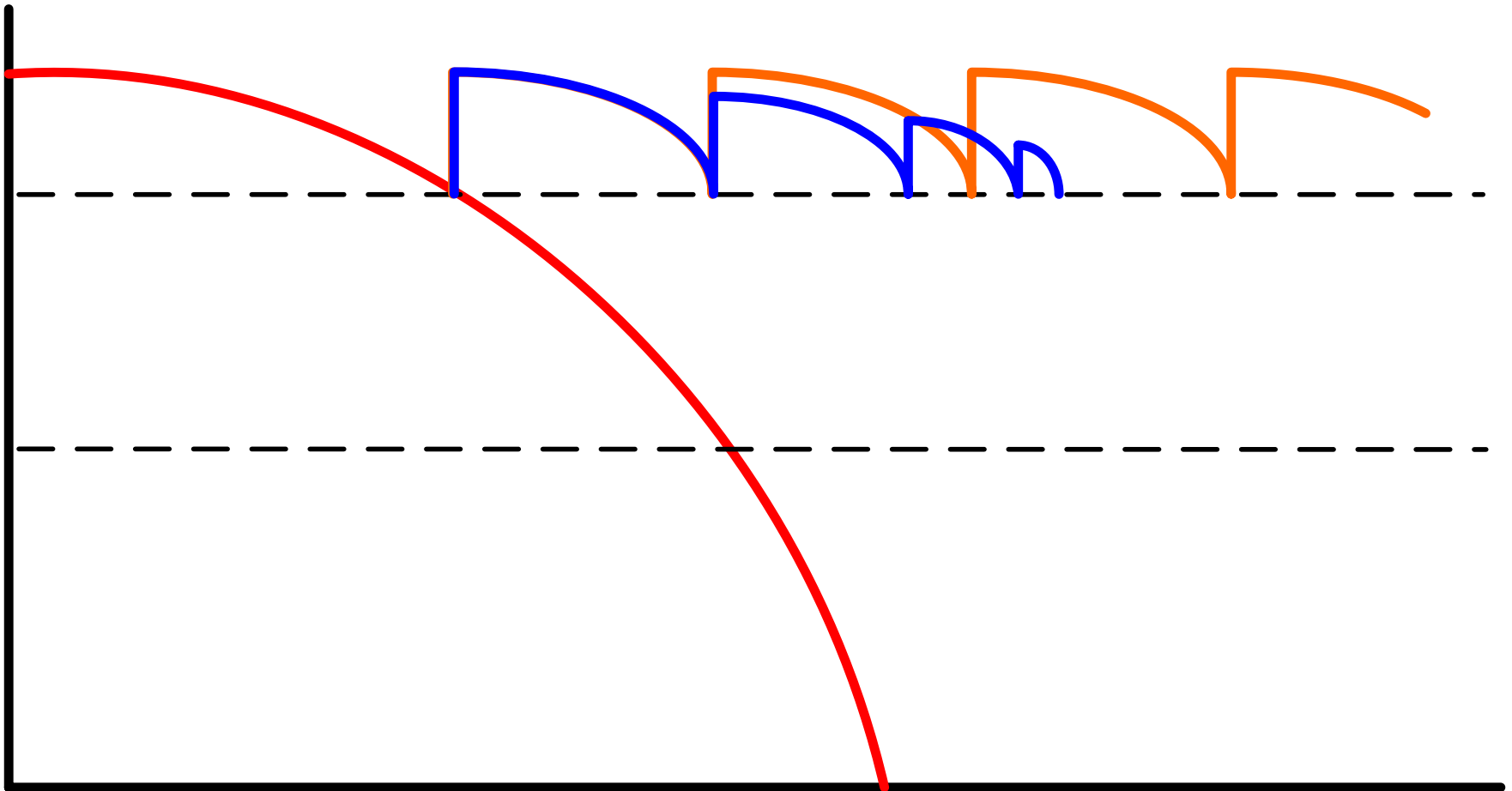
Dowel retrofit

A **combination** of one or more **treatments** applied to an asset element in response to some condition or policy based **trigger**, over a defined analysis **period**.

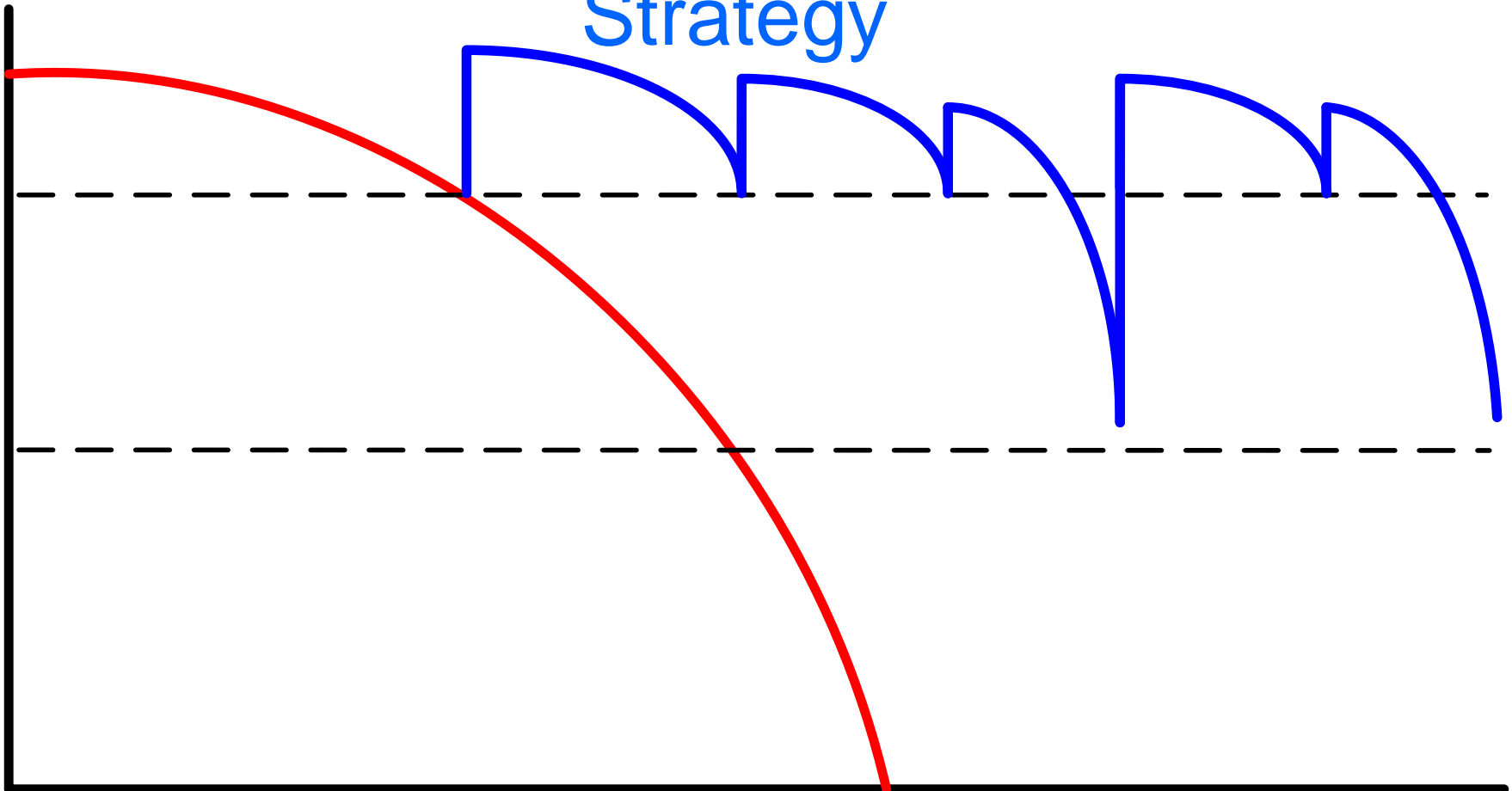
# Typical Reactive Treatment Strategy



# Preservation Treatment Strategy

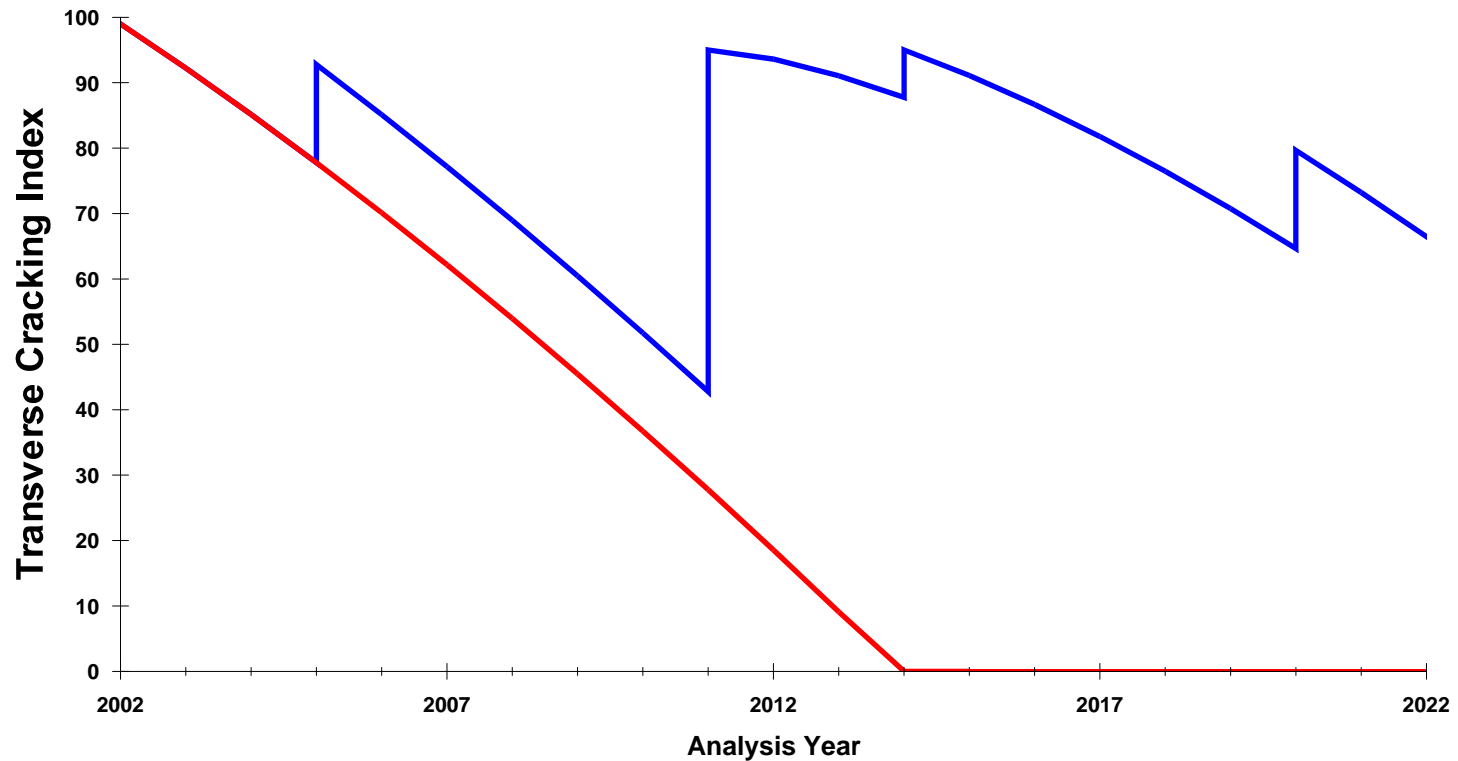


# Hybrid Preservation Treatment Strategy



# Actual Recommended Treatment Strategy

## Performance



Reg. Rd. # 14, 17,900.0 McLAUGHLIN ROAD, 19,290.0 CHINGUACOUSY ROAD



# Timing is Everything

- Critical window of opportunity
- Overshooting the window can:
  - Shorten the treatment's expected life
  - Render treatment inappropriate
- Properly triggered treatments will:
  - Effectively utilize funding
  - Extend pavement life
  - Curtail the need for high impact treatments
- Determining the right timing is the key.



# Why do we need a Plan?

- Right treatment, on the right road at the right time
- Tighter funding constraints
  - legislators, planners & upper management
- Traditional reactionary approach proven suboptimal
- Integration with pavement management program
- Effectiveness of preservation attracting more funding.



# Let's Think Strategically

- Success in marketing pavement preservation
- The next question...how much to dedicate?
- Strategic decision support from an operational level decision support tool.

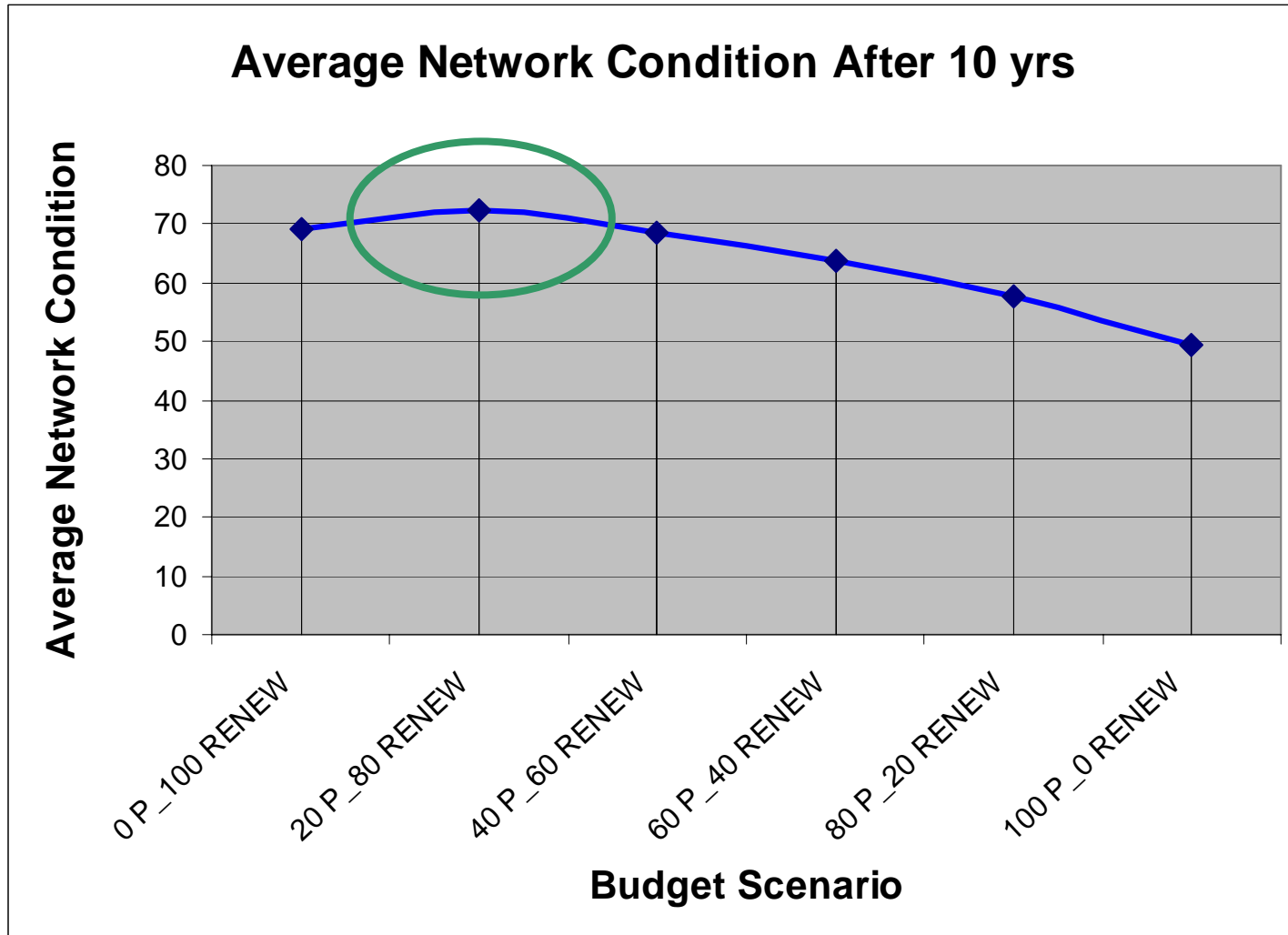


# Let's Think Strategically cont..

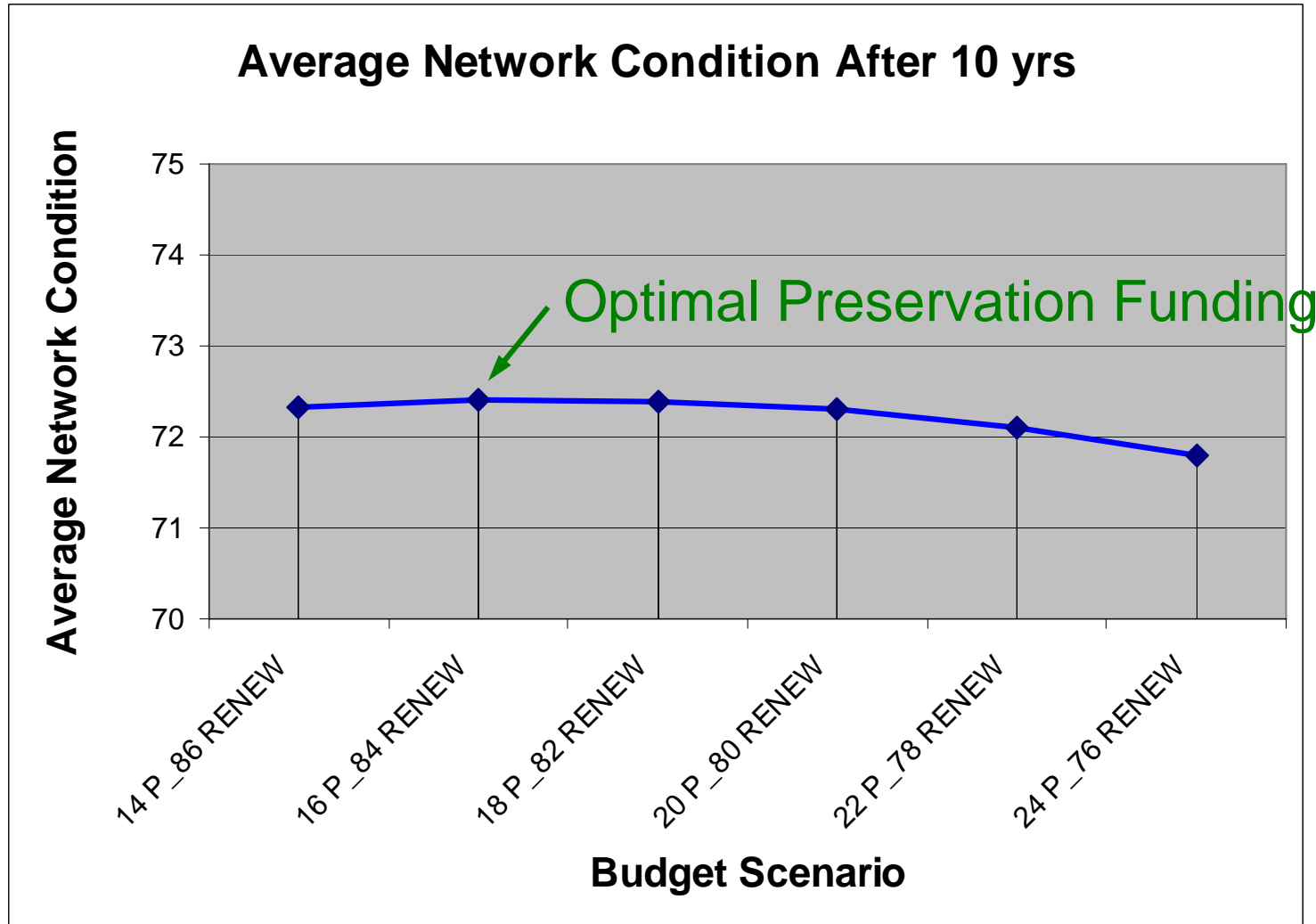
- Analyze our network with dedicated funding
- Find the optimal recommendation for several levels of dedicated funds within a series of constant dollar budget scenarios
- Plot the average network condition after 10 years for each level of dedicated funds.



# Let's Think Strategically...The results



# Let's Think Strategically...A little closer look



# Summary

- Preservation and Renewal are allies that need to be recognised separately by your management system
- Policy based triggering becoming more prevalent
- Management systems need to:
  - maintain dedicated funding for preservation and renewal treatments
  - recognise when pavement preservation is no longer applicable
  - Integrate preservation and renewal treatments into viable hybrid treatment strategies
- Strategic thinking must be used to ensure proper funding is dedicated to preservation treatments.