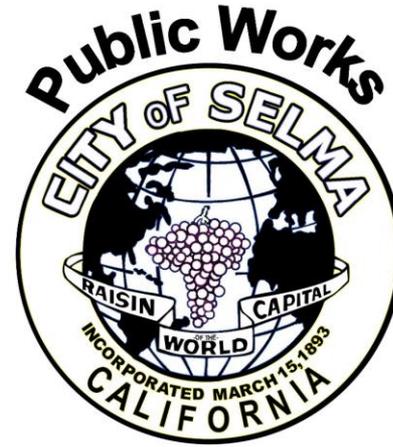




Fresno Council of  
Governments



# Fresno County Multi-Jurisdictional Pavement Management System

Completed in: October 11<sup>th</sup>, 2019

## Background:

With the passage of Senate Bill 1 (SB 1), Fresno COG has allocated funds to develop the Multi-jurisdictional PMS for nine local cities within the Region that currently do not have such a program in place.

*Broadly, a “... pavement management system (PMS) is designed to provide objective information and useful data for analysis so that ... managers can make more consistent, cost-effective, and defensible decisions related to the preservation of a pavement network.”*

# What is a Pavement Management Program?

- A cost-effective decision-making tool
- Answers 4 main questions
  1. What streets and roads are in the network?
  2. What condition are they in?
  3. What repairs are needed & when?
  4. How much funding is needed to maintain or improve the pavement network?
- StreetSaver software used



# Study Objectives:

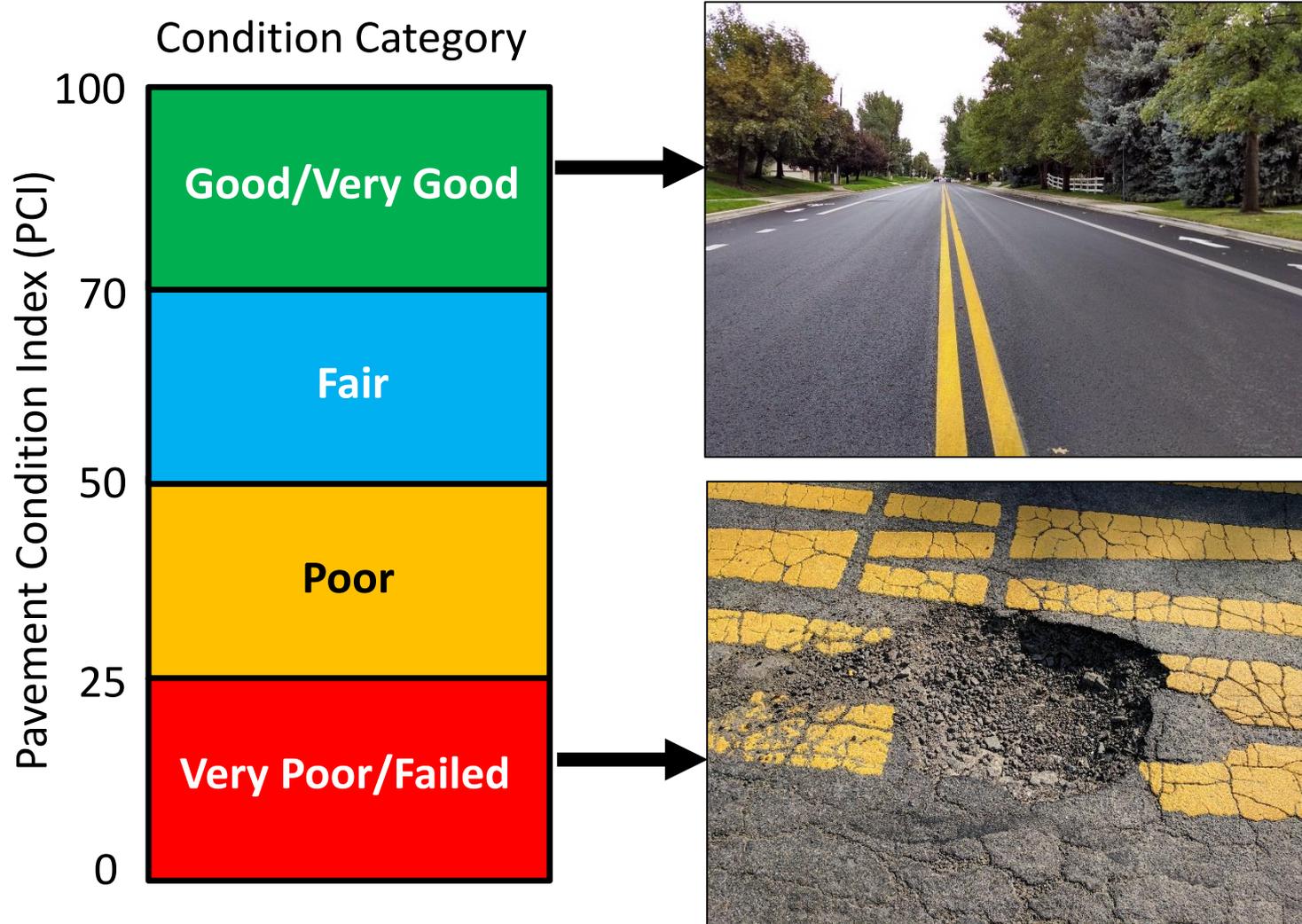
- Establish an inventory of the street network
- Perform pavement condition inspections of the entire street network and determine the PCI of each street section as well as the average network PCI.
- Develop appropriate M&R strategies.
- Perform budgetary analyses and determine the M&R funding needs.
- Present a strategy for the most cost-effective program.

# Value of Street Network

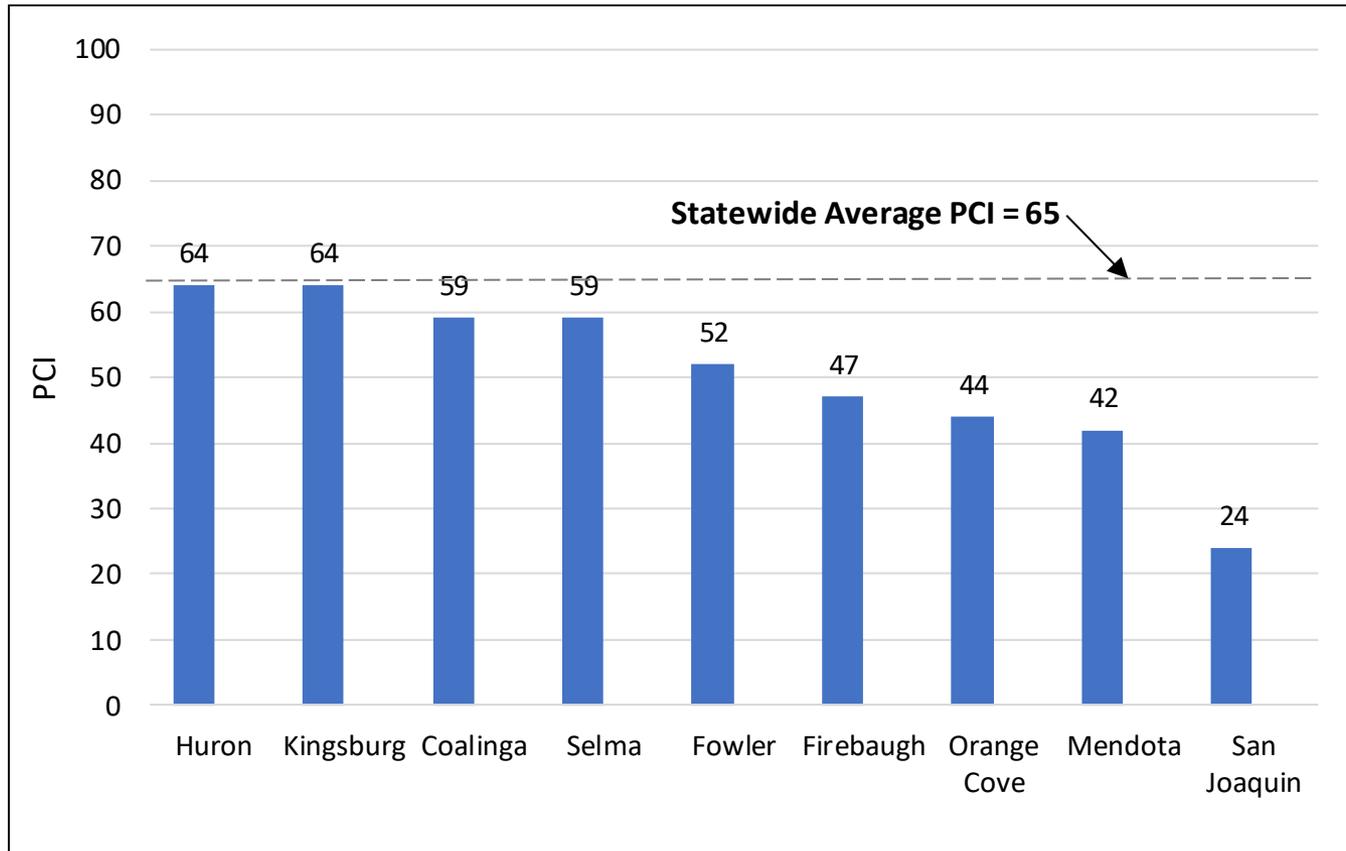
Jurisdiction	Paved Centerline Miles	Paved Area (sf)	Gravel Centerline Miles	Gravel Area (sf)
Coalinga	48.2	10,602,495	0.1	9,396
Firebaugh	20.6	4,316,818	0.6	87,758
Fowler	37.5	7,876,435	0.0	0
Huron	10.9	2,375,491	5.4	674,234
Kingsburg	49.1	9,842,248	0.1	24,792
Mendota	27.1	5,837,844	3.6	336,119
Orange Cove	31.9	6,389,638	4.1	310,952
San Joaquin	14.1	2,892,939	0.4	44,636
Selma	80.2	17,283,576	0.3	37,840
<b>Region</b>	<b>319.6</b>	<b>67,417,484</b>	<b>14.6</b>	<b>1,525,727</b>

**Total Asset Value = \$379.5 Million**

# How is Pavement Condition Measured?



# What Condition are the Streets in?



**PCI=100**



**PCI=71**



**PCI=55**



**PCI=37**

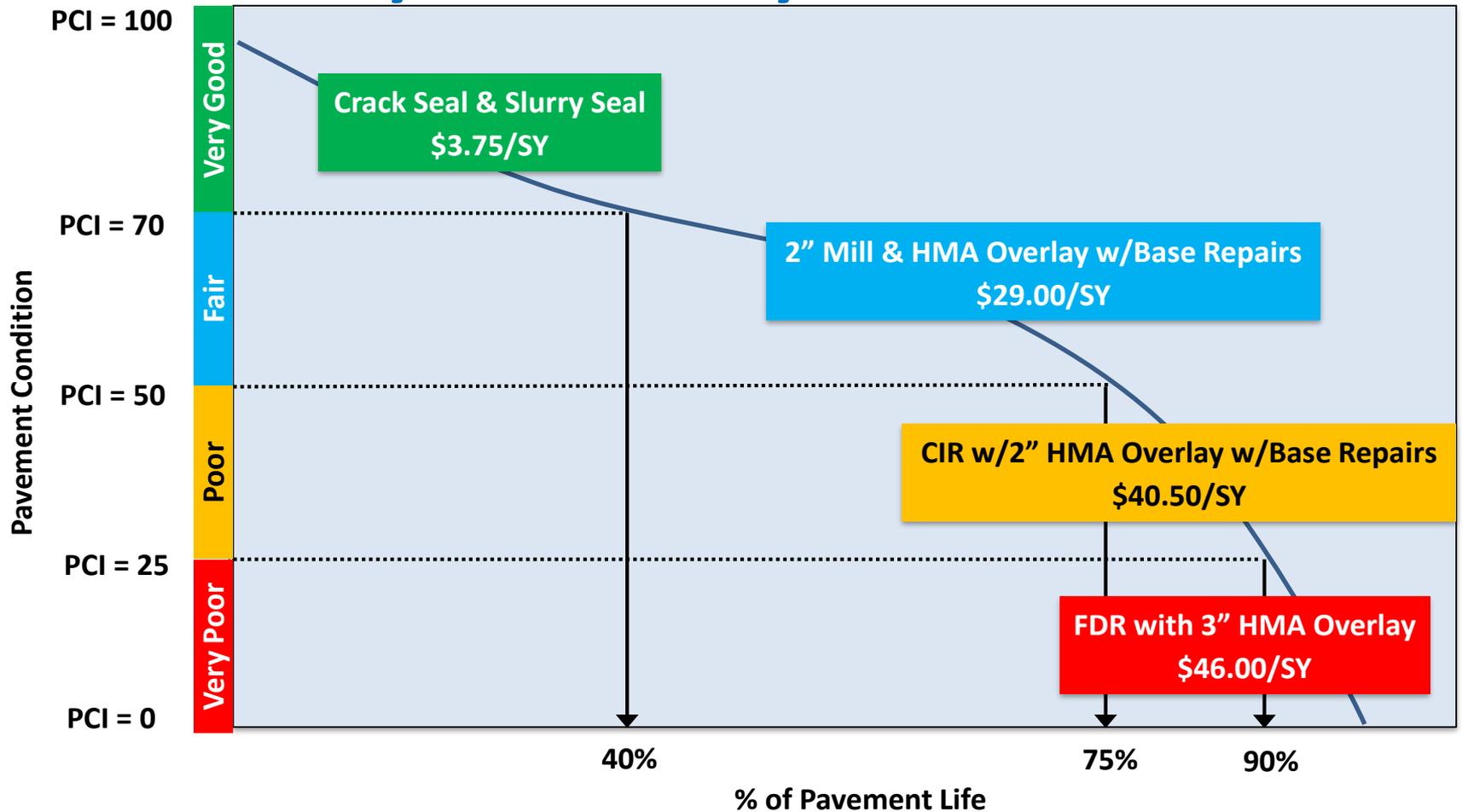


**PCI=14**



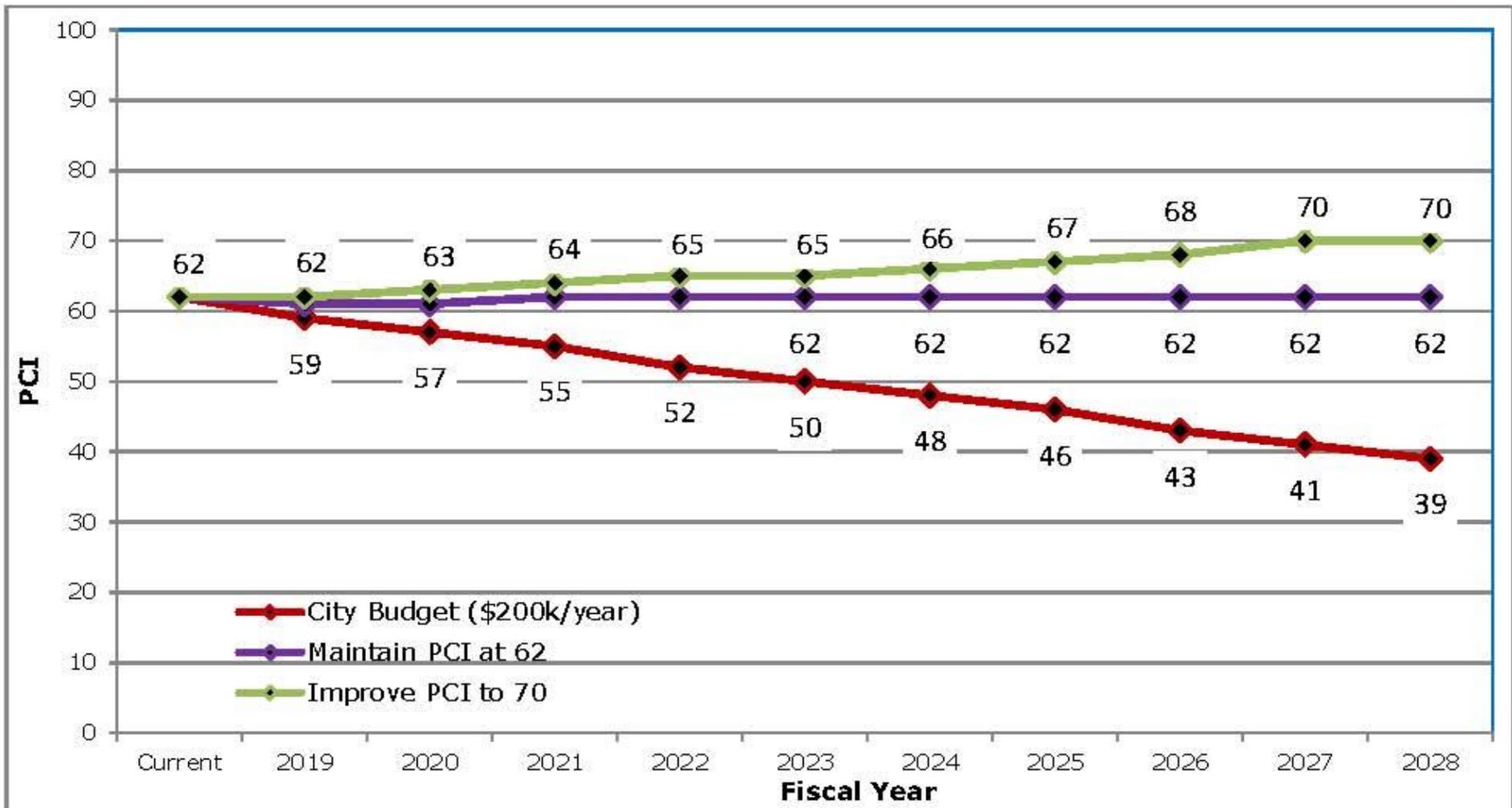
# Types of Treatment Strategies

## “Pay Now or Pay More Later”

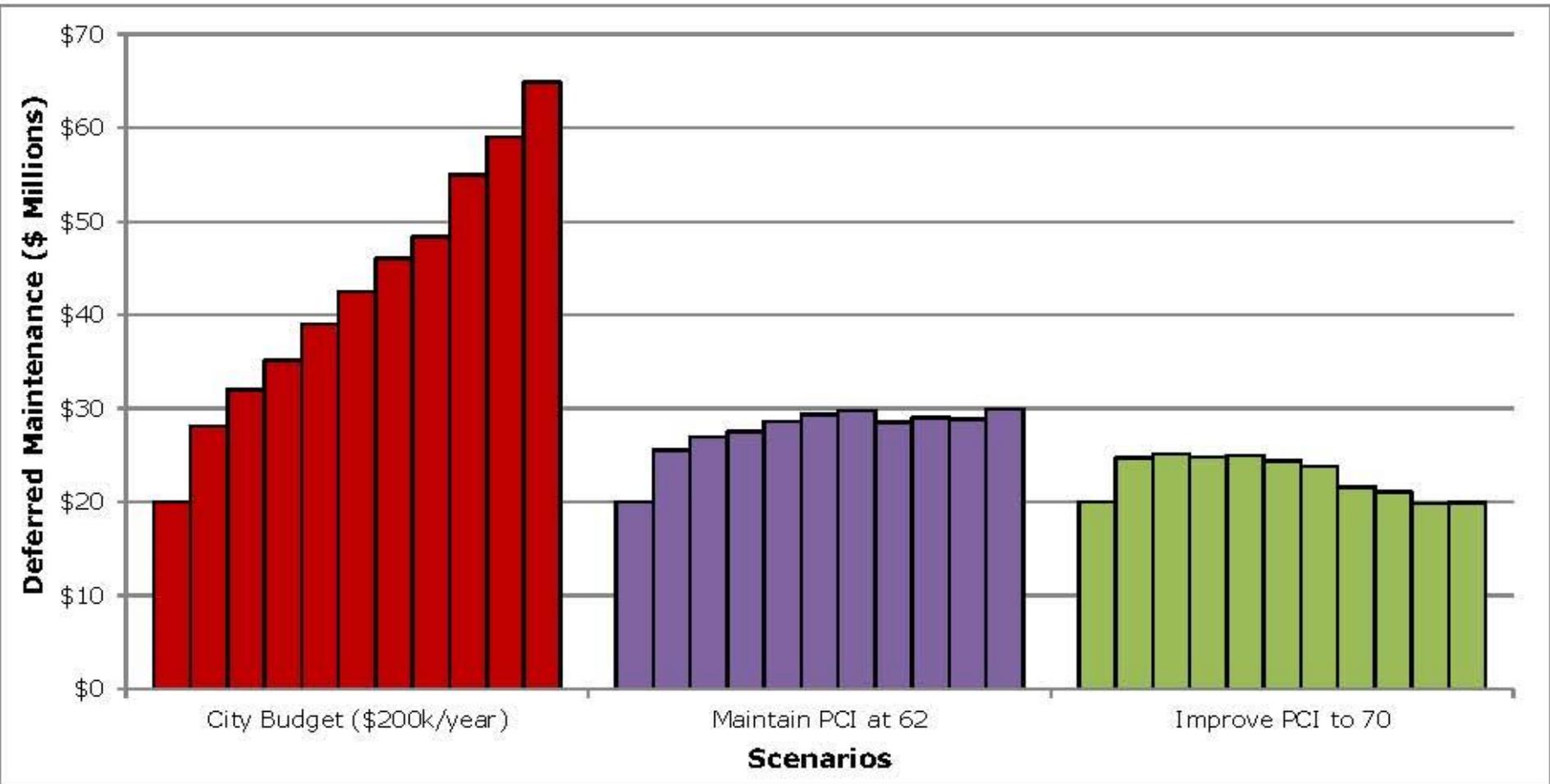


## Funding Scenarios

- **Scenario 1: City's Budget (\$200,000 per year)** – The City's anticipated funding for paving projects is approximately \$200,000 per year. The network PCI is expected to decrease from 62 to 39. Additionally, the deferred maintenance will increase from \$28.30 million to \$64.9 million by 2028.
- **Scenario 2: Maintain PCI at 62 (\$2.7 million per year)** – The City will need to spend approximately \$2.7 million per year in order to maintain the current network PCI at 62 over the next ten years. The deferred maintenance will increase to \$29.96 million by 2028.
- **Scenario 3: Improve PCI to 70 (\$3.6 million per year)** – At approximately \$3.6 million per year, the network PCI will increase to 70 and deferred maintenance will decrease to \$19.98 million by 2028.



**Figure 9: PCI Comparisons between Scenarios**



**Figure 10: Deferred Maintenance Comparisons between Scenarios**



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