

City of Huntington Beach, CA
PAVEMENT MANAGEMENT
OVERVIEW
2014 - 2021



Background

- The City's largest asset with an estimated replacement cost of \$480 million

Pavement Maintenance Inventory

- 99,273,000 SF of pavement throughout City
- Arterial network – 167 miles
- Local network – 315 miles
- Alley network consists of 33 miles
- Bicycle and pedestrian paths – 739,000 SF
- 4,430,000 SF of AC Parking Lot



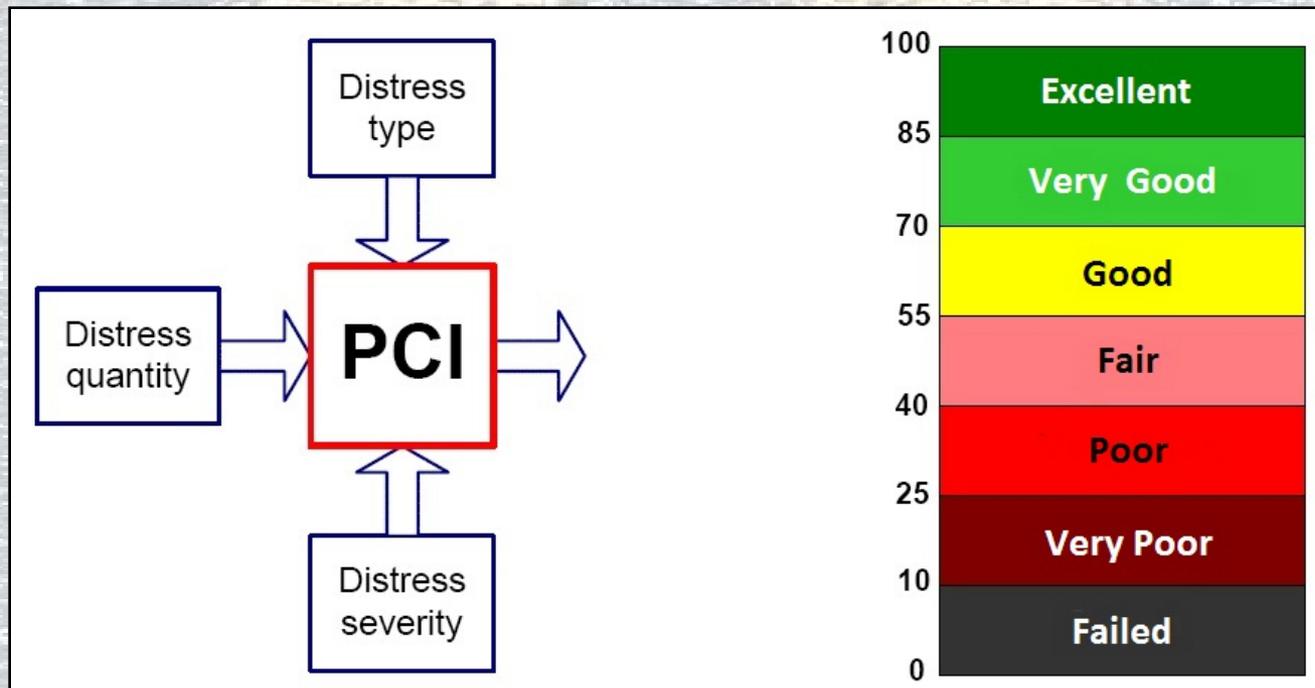
Factors That Effect Pavement Life

- Traffic volume and loads
- Weather (rain, extreme heat, freezing)
- Type of pavement
- Age of pavement
- Soil and base material under pavement
- Preventative maintenance efforts and available funding



Pavement Condition Index (PCI)

- The PCI is a condition rating that ranges from 0 to 100
- Citywide Weighted Average PCI = $\text{Sum of pavement section PCI} \times \text{its area} / \text{by the total area of the network}$



PCI = 85 to 100 (Very Good to Excellent)

Action → Preventative/Stop Gap



PCI = 65 to 85 (Fair to Good)

Action → Surface Treatment (Slurry Seal)



PCI = 25 to 65 (Poor to Fair)

Action → 2" – 3" Overlay



PCI = 0 to 25 (Very Poor to Failed)

Action → 4" to 6" Thick Overlay or Reconstruction



Huntington Beach Street Network

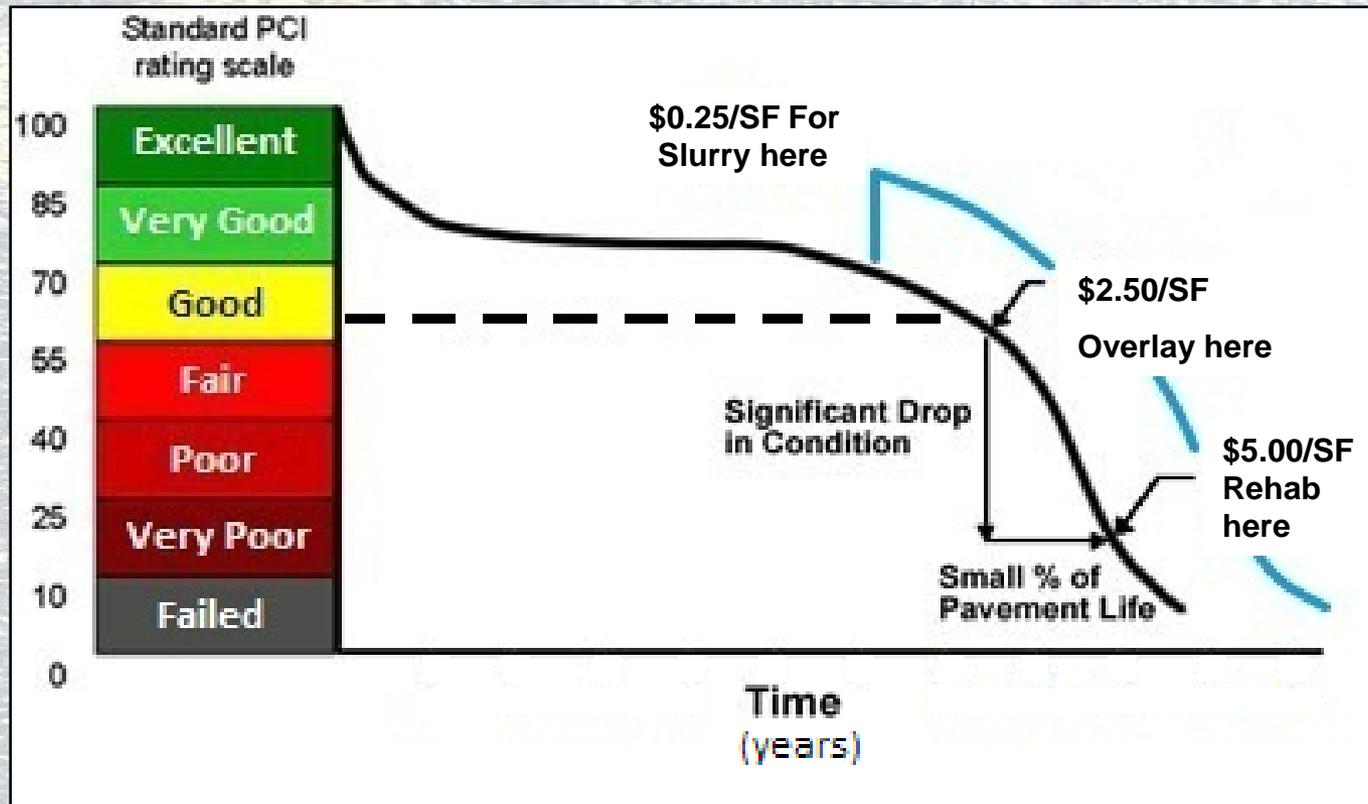
- The weighted average PCI for Arterials is **75.9**
- The weighted average PCI for the Local streets is **74.8**
- The weighted average PCI for the Alleys is **48.0**
- The overall citywide average PCI is **75.2**
(Does not include alleys)

PCI Comparison to Surrounding Cities

- Citywide Weighted PCI's
 - Irvine = 82.9
 - Newport Beach = 78.1
 - Costa Mesa = 77.6
 - Fountain Valley = 76.2
 - **Huntington Beach = 75.2**
 - Anaheim = 69.0
 - Santa Ana = 65.8



Asphalt Pavement Life Cycle



It is more cost effective to maintain a pavement section in good condition over its useful life in comparison to letting it deteriorate to the point that it requires a major overlay or reconstruction

Public Works Maintenance Zones

City of Huntington Beach

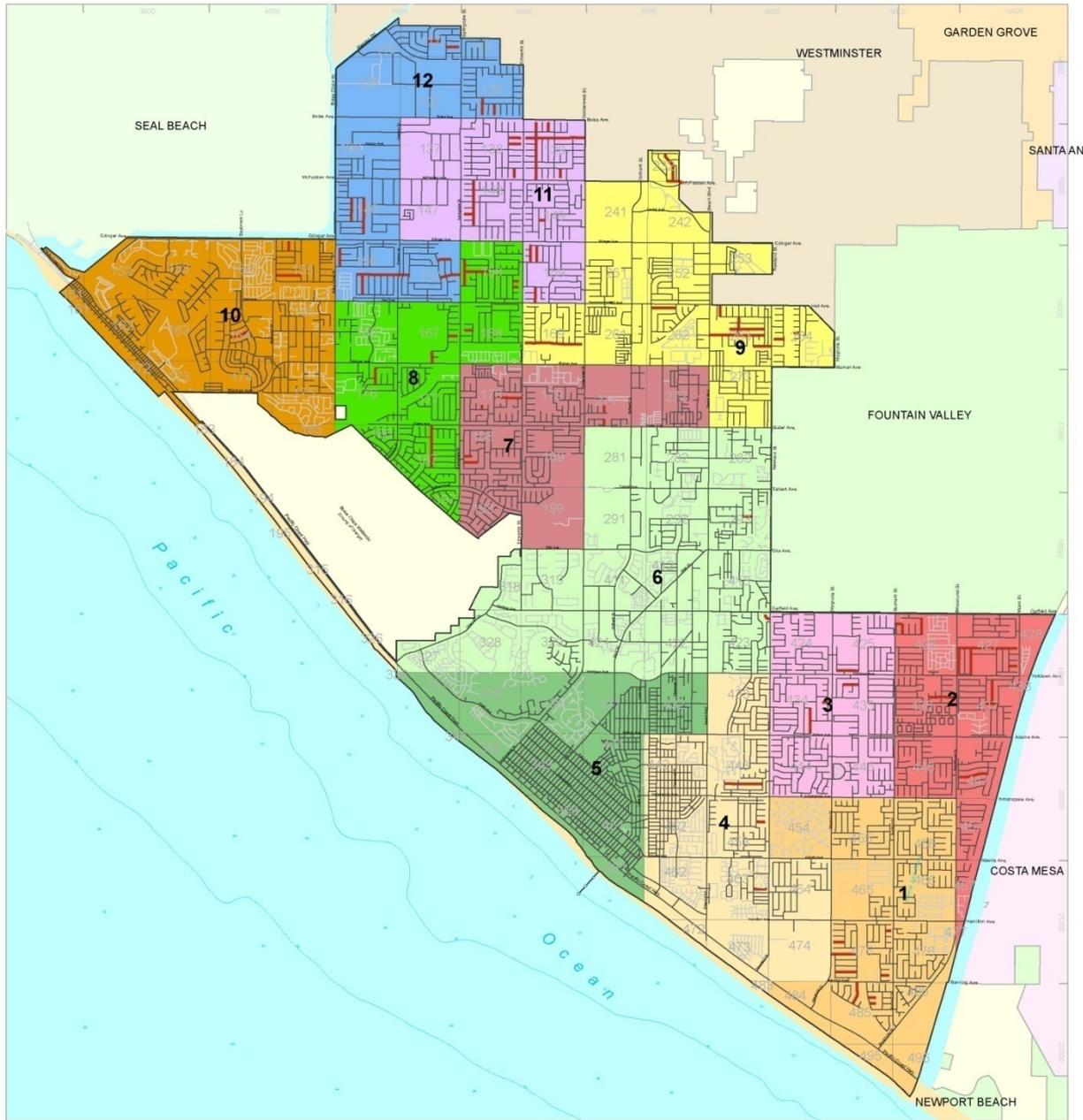


Maintenance Zone / Year

- Zone 1 / TBD
- Zone 2 / TBD
- Zone 3 / TBD
- Zone 4 / 2011-12
- Zone 5 / TBD
- Zone 6 / TBD
- Zone 7 / 2012-13
- Zone 8 / 2014-15
- Zone 9 / TBD
- Zone 10 / TBD
- Zone 11 / 2013-14
- Zone 12 / 2015-16

- Public Streets
- Other Streets
- Tree Petition

- City Boundary
- Harbors/Channels/River
- Beaches
- Reporting District Gridlines
- Isobaths
- Street Block Fronts
- Various Depth Soundings
- Maintenance Zone Numbers



Maintenance Zones

- The City is divided into 12 Maintenance Zones.
- The Zones are numbered from 1 to 12; starting from the South working towards the North
- Each Zone has approximately 26 miles of residential pavement.
- City wide there are 315 miles of residential pavement.
- Zone 8: 25 miles of pavement. 6.5 miles will receive an asphalt overlay. 11 miles will receive slurry seal treatment.

Next Five Years:

FY 2014-15 Zone 8 (in progress)

FY 2015-16 Zone 12

FY 2016-17 Zone 10

FY 2017-18 Zone 1

FY 2019-20 Zone 6

Completed Zones:

FY 2011-12 Zone 4

FY 2012-13 Zone 7

FY 2013-14 Zone 11

*Priority in selecting zone order are done

by a weighted PCI value.

Additional Activities Done in the Maintenance Zone

- **Tree Trimming/Tree Removals**
- **Concrete Replacement** (curb & gutter, sidewalk)
- **Tree Petition Streets**
- **Crack Seal** (overlays & slurry)
- **Localized Pavement Repair** (pre slurry prep)
- **Utilities Maintenance**
- **Traffic Signs and Markings**

Funding Analysis for PMP

Historical Progress

Year	Network PCI	MPAH PCI	Residential PCI
2006	65.0	64.1	65.0
2010	72.3	74.8	71.5
2014	75.2	75.9	74.8

Future Projection

\$2.2M (MPAH)

\$2.1M (Local)

FY	Current Funding	Network PCI	MPAH PCI	Local PCI
2014-15	\$4,300,000	75.2	75.9	74.8
2015-16	\$4,300,000	75.3	76.2	74.9
2016-17	\$4,300,000	75.3	76.6	74.7
2017-18	\$4,300,000	75.8	76.9	75.6
2018-19	\$4,300,000	75.9	77.2	75.8
2019-20	\$4,300,000	75.4	77.1	74.7
2020-21	\$4,300,000	74.8	76.5	73.8
	\$30,100,000			

Indicates current on-going PCI inspection results

Funding Outlook

Street / Transportation Related Funds

	<u>2014/15</u>	<u>2015/16</u>
Gas Tax	\$3.6 M	\$3.3 M
Proposition 42	\$2.1 M	\$1.0 M
Measure "M2"	\$3.1 M	\$3.1 M

Other Funding Challenges

New ADA requirement \$-200 k / year (Eligible for CDBG funding)

PMP Funding

\$3.3 M + \$1 M General/Infrastructure Fund

Impact to PMP

Overall PCI will drop.

\$1M = 4-5 PCI points over a 7-year period

Questions?

Engineering Division
Public Works Department

