COCONINO COUNTY ARIZONA

Transportation Funding Fundamentals

County Transportation Citizen Advisory Committee

October 30, 2013

Overview

- Maintained Roads are Fundamental to Jobs, Commerce & Daily Living
- Transportation Funding Fundamentals
- Transportation Funding is a National Issue
- Transportation Funding is a Local Issue
- Fundamentals of Road Maintenance

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Roads Important to Jobs, Commerce & Daily Life

- Roads are Fundamental to Job Creation & Retention
- Roads are Essential to a Vibrant Economy, Particularly in Coconino County Given Tourism is Key Element of Economy
- Roads are Essential to Daily Living – Getting to Work, School, Community
- Roads are Essential to Alternatives to Vehicular Transportation (Bus, Bike, Pedestrian)
- County Road Services are Highly Valued by County Citizens (County Citizen Survey, 2010)

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Historic Investments in Roads Transformed the Nation

- Major Road Infrastructure Investments in the 1950s and 1960s Transformed Commerce in the United States

- Investment Since that Time has Been on the Decline

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Historic Investments in Roads Transformed the Nation

- Theme Today is Infrastructure Failure
- Local Examples – Highway 89 Cameron Bridge & Leupp Road

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How is Transportation Funded?

How is Transportation Funded?

- Primarily Through Federal & State Gas Taxes
- Vehicle License Taxes
- Underground Storage Tanks
- Federal Grants (Mainly Funded by the Gas Tax)
- Secure Rural Schools & Roads

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When Were the Federal & State Gas Taxes Established?

- Revenue Act of 1932 Enacted by President Hoover – Response to Great Depression –

  1 Cent per Gallon
- Made Permanent in 1941 and Raised to 1.5 Cents
- Several Increases and Included Tire Rubber Tube Rubber & Sales Tax on Trucks, Trailers, and Buses During 1950s, 1960s & 1970s

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When Were the Federal & State Gas Taxes Established?

- 1990 – Omnibus Budget Reconciliation Act Increased by 5 Cents (½ to Highway Trust Fund & ½ to Deficit Reduction)
- 1993 – Increased by 4.3 Cents to Current Level of 18.4 Cents per Gallon with All of Increase to Deficit Reduction
- 1997 – Redirected 4.3 Cents to Highway Trust Fund
- **No Change in 16 Years at Federal Level**

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When Were the Federal & State Gas Taxes Established?

- 1941 – State Established Use Fuel Tax at 5 Cents per Gallon – 70% to State and 30% to Counties
- 1947 – Use Fuel Tax Can ONLY be Used for Highway Related Purposes
- Increases Over Time & Funding for DPS
- 1973/1974 – Established ADOT and Highway User Revenue Fund (HURF)

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When Were the Federal & State Gas Taxes Established?

- 1981/1982 – State Gas Tax Increased and Distribution Modified
- 1988 & 1990 – State Gas Tax Increased by 1 Cent per Gallon in 1988 & 1990
- State Gas Tax Now Totals 18 Cents per Gallon
- **No Increase in the State Gas Tax Since 1990 (22 Years)**

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HURF Formula

- Split Between State, Cities & Counties (Maricopa & Pima Get Larger Share)
- Allocation Between Counties Based Primarily Upon Two Criteria:
- Sale of Gasoline & Diesel Within the County
- Population Within the Unincorporated Area of the County

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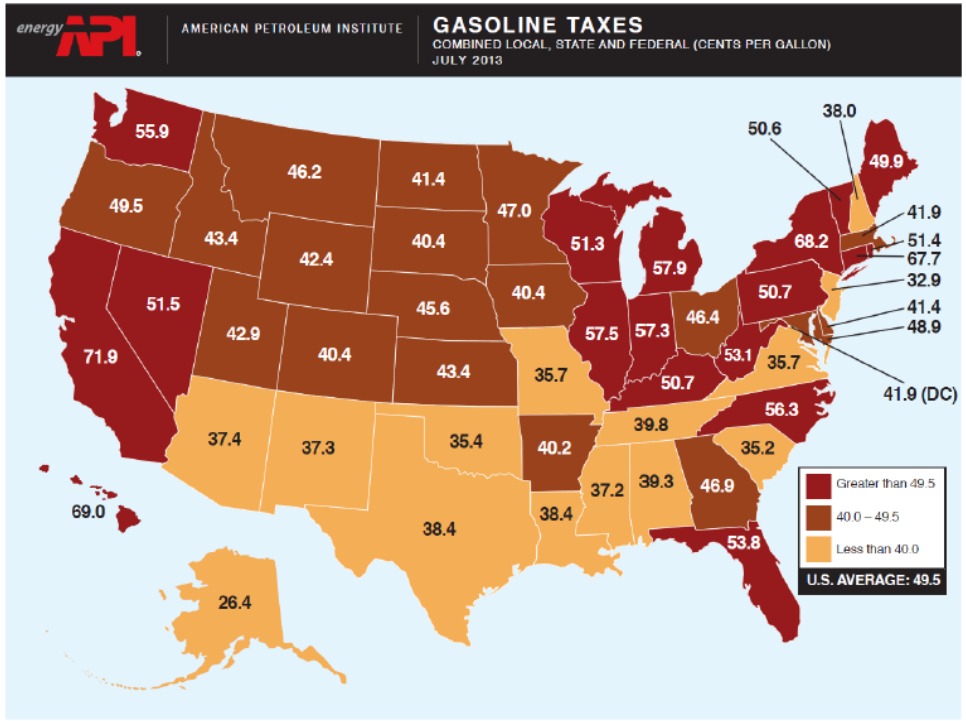
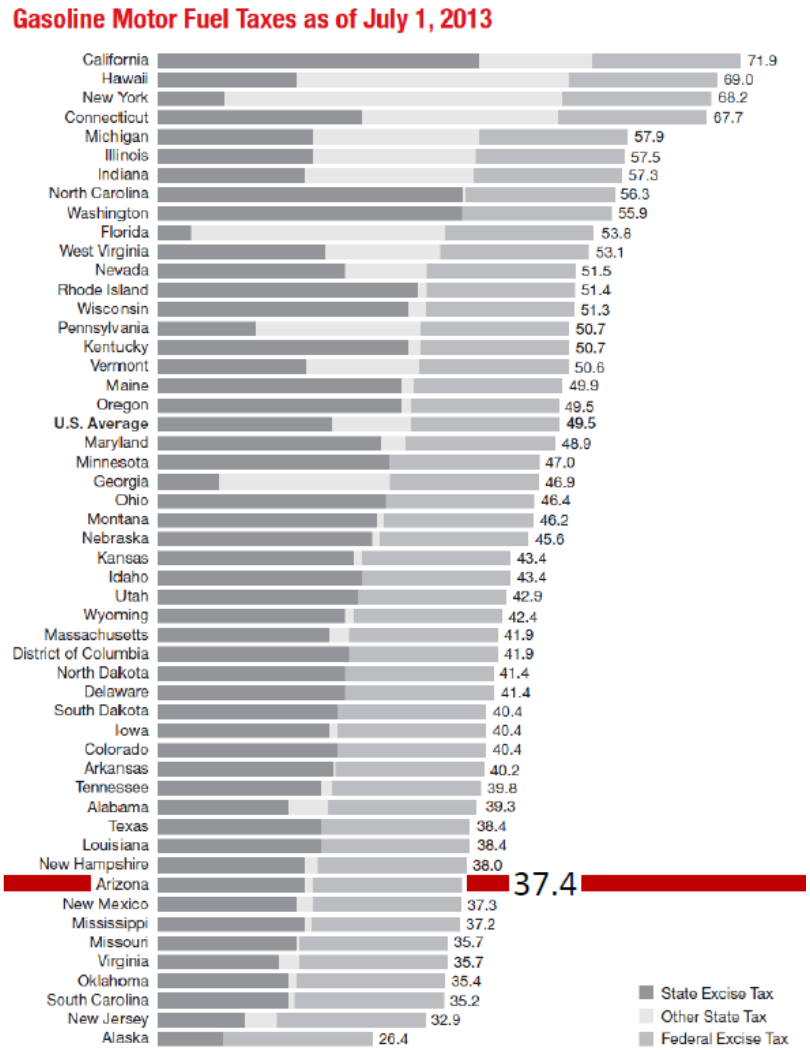
Total Gasoline Tax By State





Examples of Other State Taxes/Fees:

- Under Ground Storage Tank Charge
- Average Local Option
- Environmental Fees

Source: American Petroleum Institute (API) July 2013 Report

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Transportation Funding is a Nation-Wide Issue

Transportation Funding is a Nation-Wide Issue

- Federal Gas Tax Remains Unchanged & No Change Anticipated
- All States and Local Jurisdictions Experiencing Transportation Funding Issues
- Various Approaches Taken or Being Pursued to Increase Revenue to Address Transportation Funding Issues

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Transportation Funding is a Nation-Wide Issue

U.S. Chamber of Commerce: Raise Gas Tax to Fix Roads

By Jennifer Liberto @CNNMoney October 21, 2013

WASHINGTON (CNNMoney) The U.S. should raise federal gas taxes to help fix roads and bridges, according to an influential business group in Washington…

"Twenty years. It's been 20 years since we had an increase in the federal fuel tax. What kind of car were you driving 20 years ago?"

Thomas Donohue,
Chamber of Commerce President

CNNMoney
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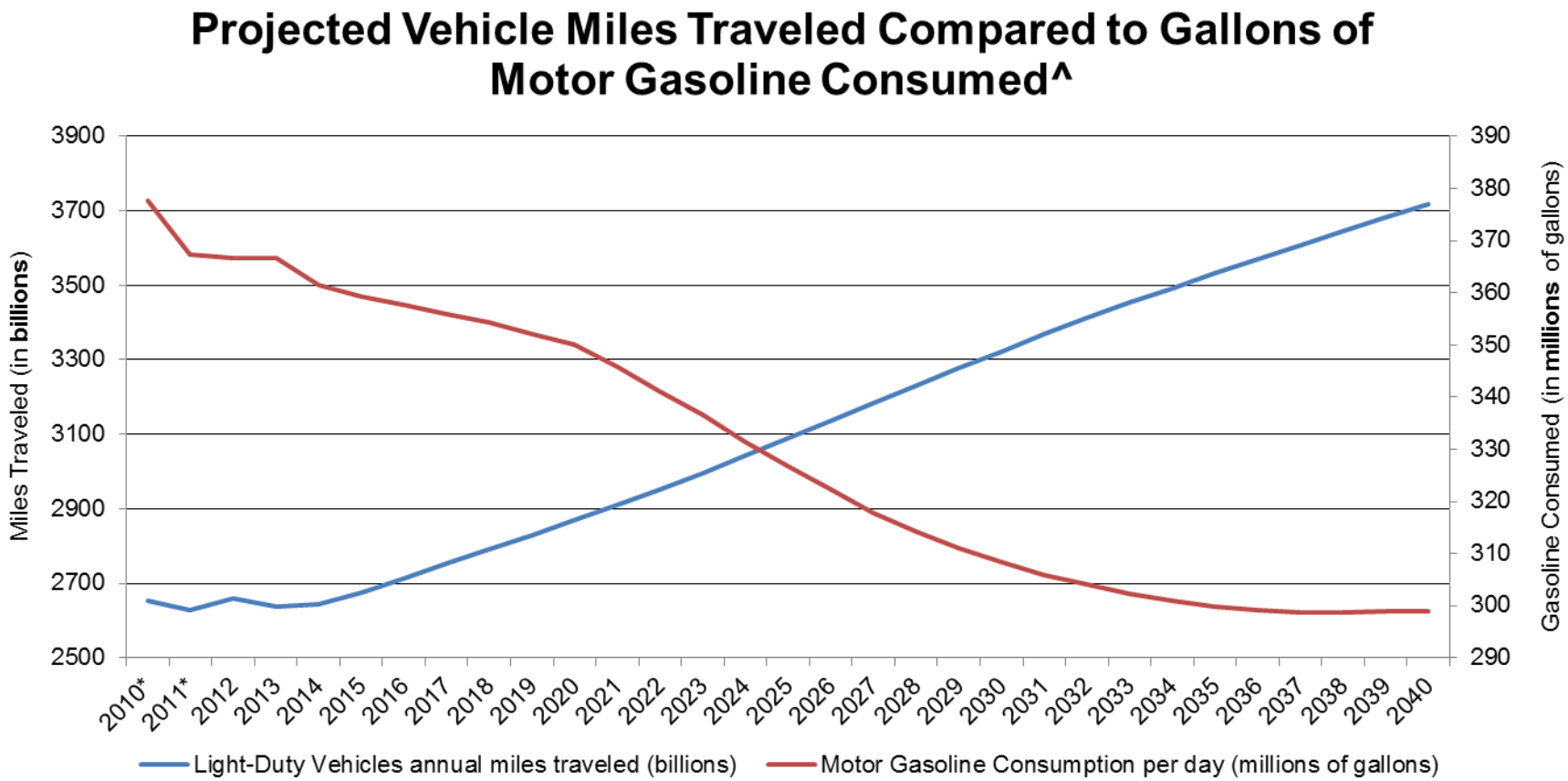
Projected National Trend



^U.S. Energy Information Administration (EIA) Annual Energy Review 2011; Reference Case Tables A7 & A11. Accessed at: http://www.eia.gov/analysis/projection-data.cfm#annualproj

*Represents actual data

Transportation Funding is a Nation-Wide Issue

- States Addressing Revenue Issue Include:

Wyoming	Kentucky
Virginia	Nebraska
Florida	Maryland
Oregon	Connecticut
Colorado	California
Georgia	
Utah	

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What is the Impact on Local Transportation Funding?

What is the Impact on Local Transportation Funding?

- 22 Years with No Increase in the Gas Tax – Can any Business or Family Replace or Maintain an Asset at the Same Cost as 22 Years Ago?
- The Gas Tax Does Not Reflect the Higher Cost of Gas
- Counties and Cities with Snow Removal Costs Get Hit with Additional Costs

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Transportation Funding is a Local Government Issue

- City of Flagstaff
- Gila County Renewing County Transportation Sales Tax
- Counties in Nevada – Clark County

Many Local Governments Seeking Local Control Given State Revenue Shifts and Lack of Federal Action

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Transportation Funding is a Nation-Wide Issue

Clark County, Nevada: September 2013

- County Commissioners Approved a County Gas Tax
- County Gas Tax Will Fund County Road Projects
- Tax Allows County to Bond Up to $700 Million in Road Projects
- Tied to Inflation Rate but Also Capped at 10 Cents
- 10-Cent **Per** Gallon Tax During the Next Three Years:
  - January 1, 2014: 3.24 Cents
  - Additional Gas Tax Hikes Between July 2014 & July 2016

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Why a Funding Issue Now? Show Me the Numbers?

What if the Gas Tax Was Adjusted for Inflation at CPI? CPI for 22 Years = 70%

Fiscal Year	County Gas Tax Revenue	Inflation Adjusted Revenue (+70%)	Revenue Uncollected
FY 2007	$12,000,000	$20,400,000	$8,400,000
FY2013	$8,000,000	$13,600,000	$5,600,000

If Gas Tax Was Adjusted for Inflation, then This Conversation Would Not Be Taking Place Now

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Why a Funding Issue Now? Show Me the Numbers?

What if the Gas Tax Was a Percent per Gallon Rather Than a Flat Rate?

Fiscal Year	Gas Price & Revenue Generated
FY 1991	Average Gas Price = $1.25/Gallon
FY 2013	Average Gas Price = $3.40/Gallon
FY 2013 Gas Tax Revenue with Percentage Tax	$21,760,000
FY 2013 Gas Tax Revenue Increase	$13,760,000

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Why a Funding Issue Now? Show Me the Numbers?

Gas Tax Down Significantly

Funding	Revenue	% of FY 2007
Secure Rural Schools & Roads (SRS)	$1,500,000	
FY 2007 Gas Tax	$12,000,000	
FY 2007 Total Resources	**$13,500,000**	**100%**
Decrease Due to Recession & State Revenue Shift	($4,000,000)	-30%
SRS Expiration	($1,500,000)	-11%
Snow Removal**	($2,000,000)	-15%
Total FY 2014 Resources for Roads O&M	**$6,000,000**	**44% of FY 2007**

Why a Funding Issue Now? Show Me the Numbers?

Gas Tax Revenues Are Not Adjusted for Snow Removal Costs

- **25% or $2M+/Year Used on Snow Removal**
- **Most Arizona Counties Do Not Incur Snow Removal Costs**
- **State Gas Tax Allocation Formula Does Not Adjust for Snow Removal Costs**

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Why Now?

The Revenue Necessary to Maintain Road Assets Did Not Get Spent – It Was Never Generated to Meet Mid or Long-Term Needs

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Conclusions

- Roads Fundamental to Jobs, Economy & Daily Living
- Federal & State Gas Taxes Unchanged for +- 20 Years
- Infrastructure Investment Has Not Kept up with Maintaining the Original Asset
- Gas Taxes Never Indexed
- Gas Tax Revenues Will Continue to Decline
- State and Local Govts Employing Different Strategies to Address Serious Funding Issue & Gain Greater Control Over Funding

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Questions & Discussion

Fundamentals of Road Maintenance

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County Dirt/Gravel Road Maintenance

- Blading
- Frequency (Service Level)
- Adding Road Material
- Drainage - Ditch & Culvert Cleaning
- Signage

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Pavement Types

- **Hot Mix Asphalt (HMA) – Estimated Life is 25 - 50 Years:**
  - Life Expectancy Varies Depending upon Traffic, Climate, Level of Maintenance, Pavement Design & Construction
- **Recycled Millings Pavement – Estimated Life is 15 – 20 Years:**
  - Life Expectancy Varies Depending upon Quality of Millings, Placement Methods and Thickness, Climate, Traffic, & Level of Maintenance
- **It is Estimated that Approximately 85% or 319 Miles of the County's Paved Roads are Hot Mix Asphalt**

Pavement Maintenance Activities

- Fog Sealing
- Chip Sealing
- Crack Filling & Patching
- Pothole Patching
- Drainage/Ditch Cleaning
- Signage
- Striping
- Shoulder Maintenance
- Mill and Fill
- Pavement Overlays

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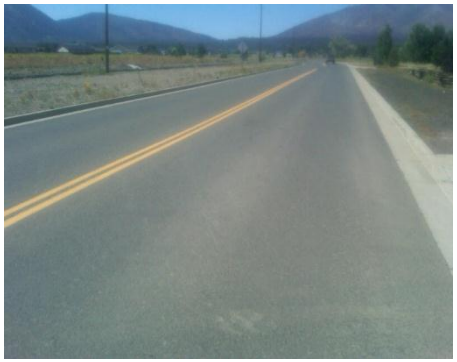
What is OCI?
Overall Condition Index

- The Pavement Overall Condition Index (OCI) is a Numerical Index between 0 and 100 and is Used to Indicate the Pavement Condition
- OCI is Widely Used in Transportation Planning for Investment Decisions
- OCI is a Statistical Measure and Requires Manual Survey of the Pavement

OCI Categories & Some Examples

Severe	Poor	Fair	Good
			
Munds Ranch Road	**Townsend/Winona**	**Cosnino Road**	**Campbell Ave**

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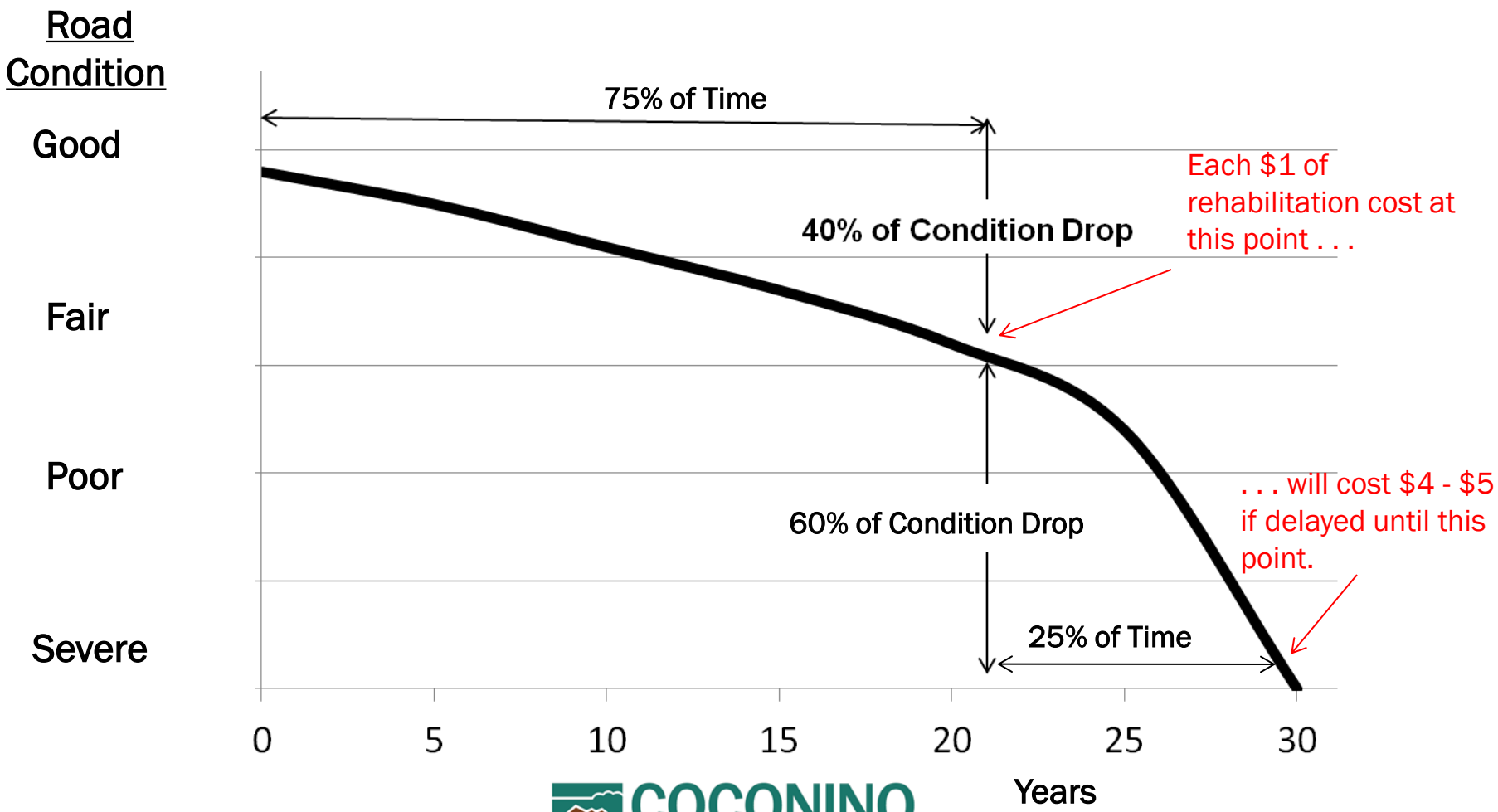
Pavement Preservation

Standard Pavement Deterioration Over 30 Year Life Cycle



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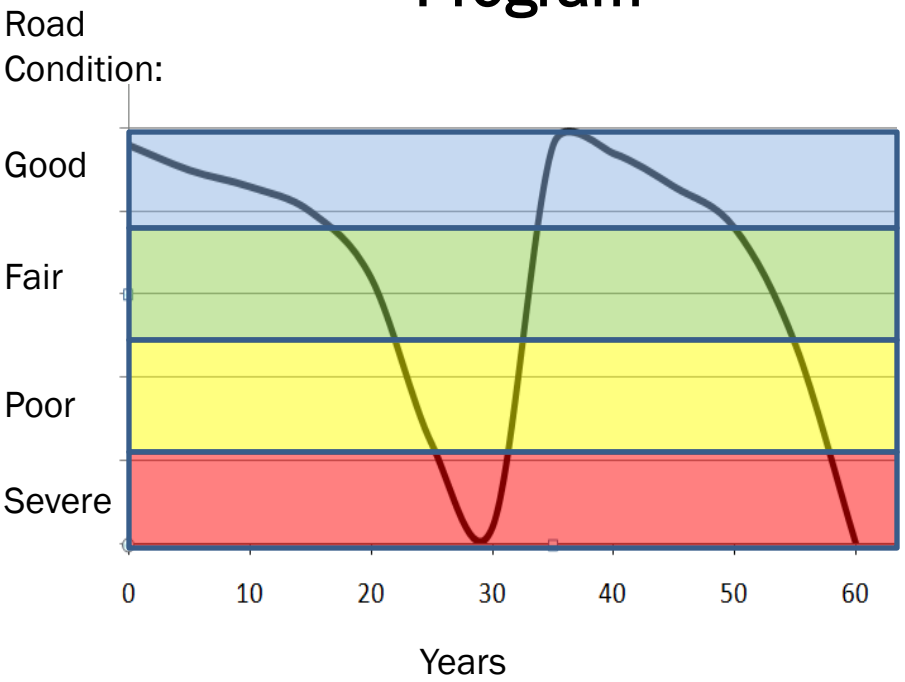
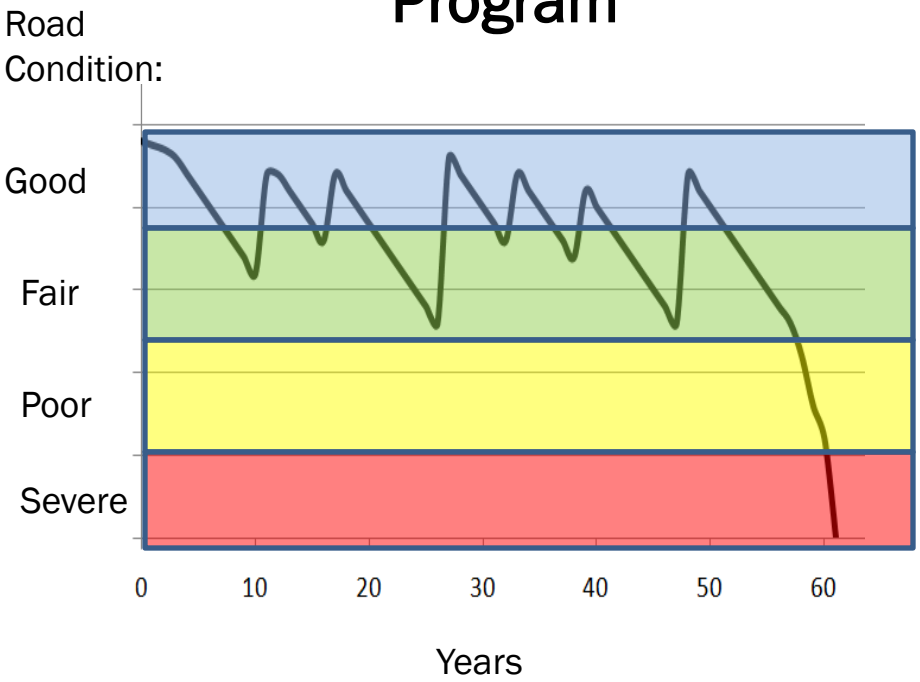
Pavement Preservation

No Maintenance Program



Effective Maintenance Program



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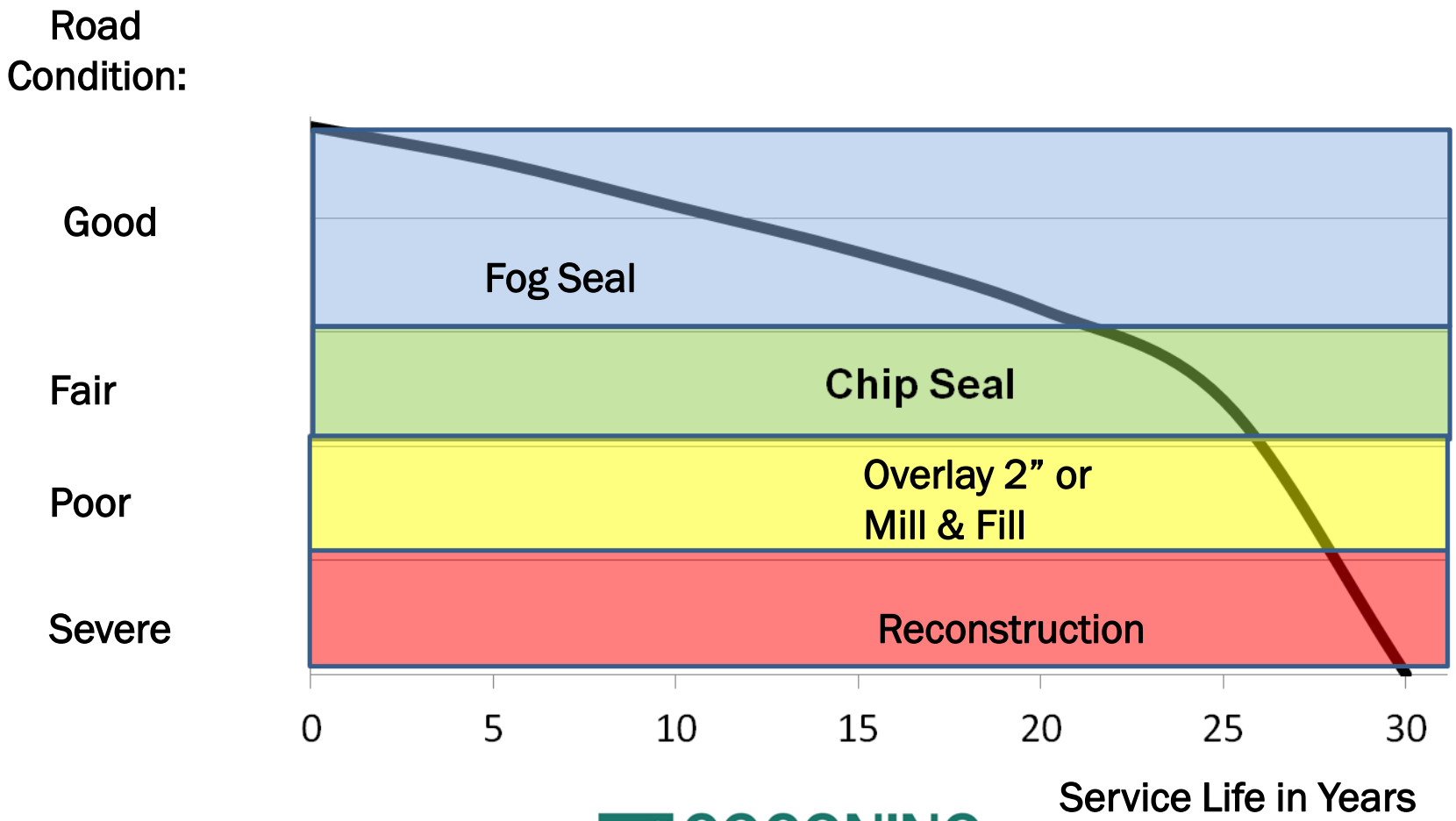
Pavement Preservation Treatments



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Pavement Maintenance Strategies Costs

	Fog Seal	Chip Seal	Overlay (2”)	Mill & Fill	Reconstruction/ Public Safety/ Growth
Cost Per Mile	$ 3K - $ 5K	$ 30K- $ 35K	$ 300K- $ 500K	$ 600K- $ 800K	$1 million – $5 million
Pavement Life Extension (years)	0-2	3-7	10-20	10-20	15-30
Examples of Strategies:	I-40 near Buffalo Range	Kachina Village	Fourth Street in Flagstaff	South Half of Lake Mary Road (FH3)	Campbell Avenue and Pinewood Boulevard

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Conclusions

- County Maintains Dirt & Paved Roads
- Dirt Road Maintenance Revolves Around Blading Frequency & Material Application
- Pavement Deteriorates Much More Rapidly Without Routine Maintenance
- Delayed and Deferred Maintenance Costs More Over the Long Term

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QUESTIONS & DISCUSSION