



Carson City RTC – Status Report

December 20, 2012

Pavement Management System

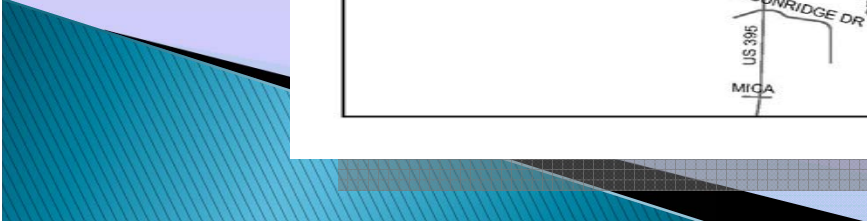


Maintenance of Street System

- ▶ The Street system of Carson City is a large, valuable asset – estimated reconstruction cost about \$140 million.
- ▶ Deterioration occurring constantly citywide – nature of any infrastructure asset.
- ▶ An updated pavement management system was developed in 2011.
 - Consistent data collected in 2011 regarding conditions of all pavements in Carson City
 - Overall Condition Index (OCI) determined by segment
 - 260 miles of roads – 76 miles (183 lane miles) of arterials and collectors and 184 miles (377 lane miles) of local streets (unpaved roads not included)

Current condition of Carson City Street System

- ▶ OCI is a scale from 0–100
 - Excellent: 85 – 100
 - Acceptable: 55 – 84.9
 - Poor: 0 – 54.9
- ▶ Current average OCI of all streets – 69.3
 - Arterials and collectors – 75.1, goal is 80
 - Locals – 65.7, goal is 70



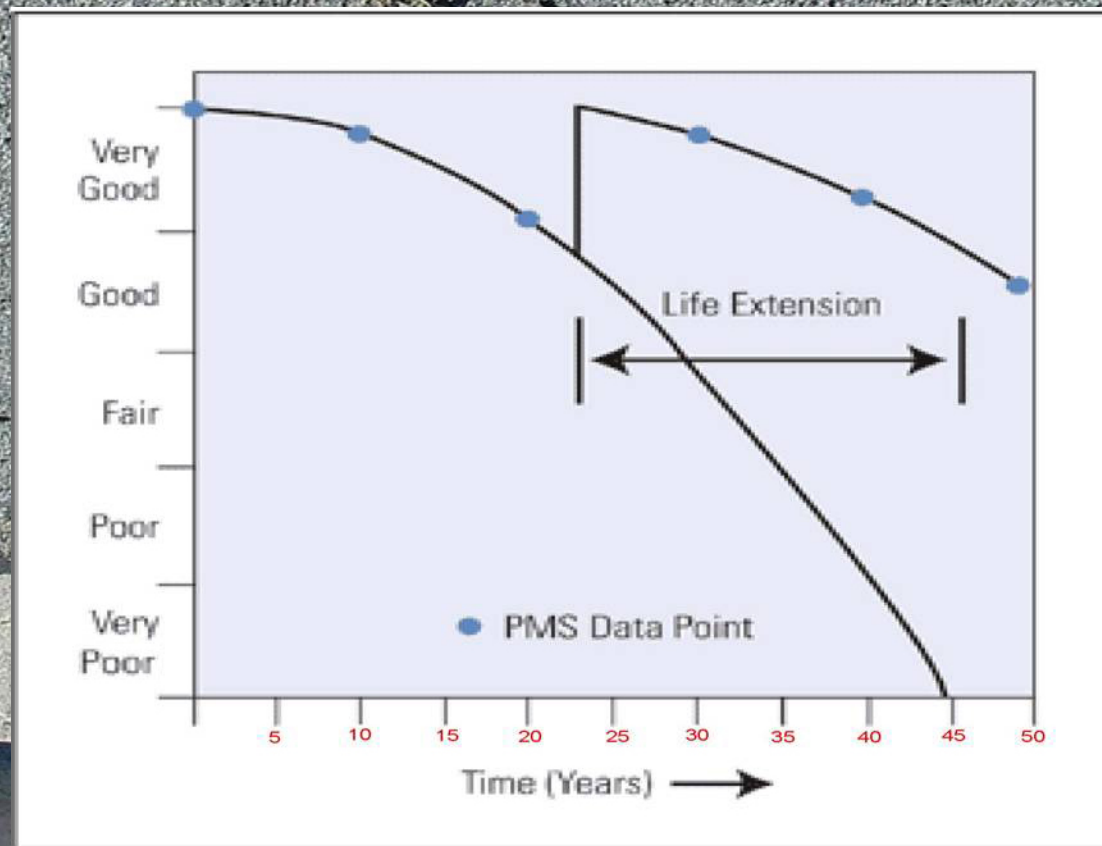
Pavement Management System – Inputs

- ▶ System is a complex one with many inputs and variables:
 - Road segment information
 - Surface type
 - Surface condition – distresses and ride
 - Maintenance activities
 - Type
 - Cost – current and inflation factor
 - Impact/benefit

Pavement Management System – Inputs (continued)

- Update history
- Coordination of activities
- Time frame of analysis
- Roads included in analysis (limit by functional class)
- Two primary methods to run
 - Budget-based
 - OCI– driven (target average condition)

Pavement Management System – Deterioration Curve



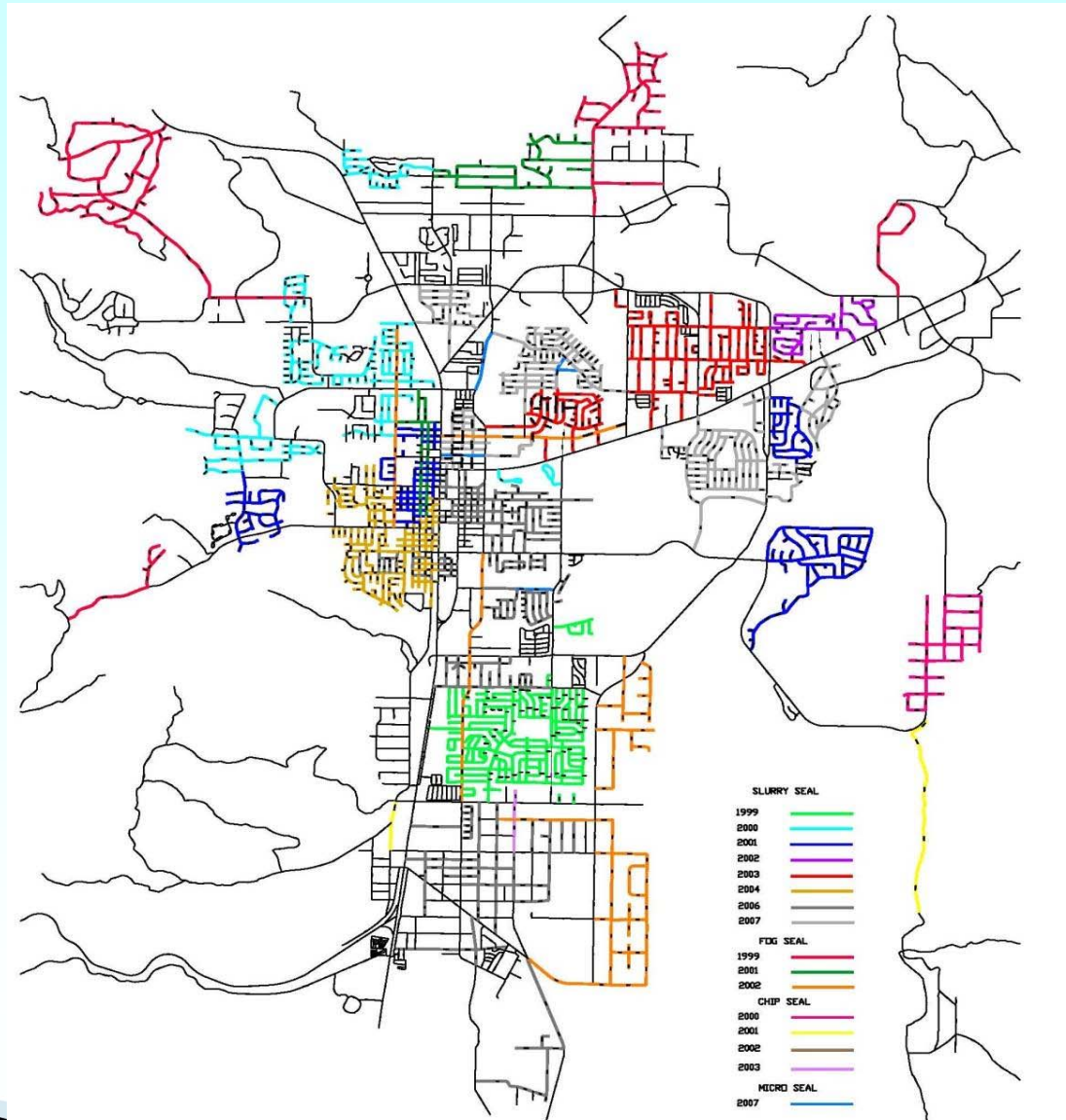
Pavement Management System Cost – Results



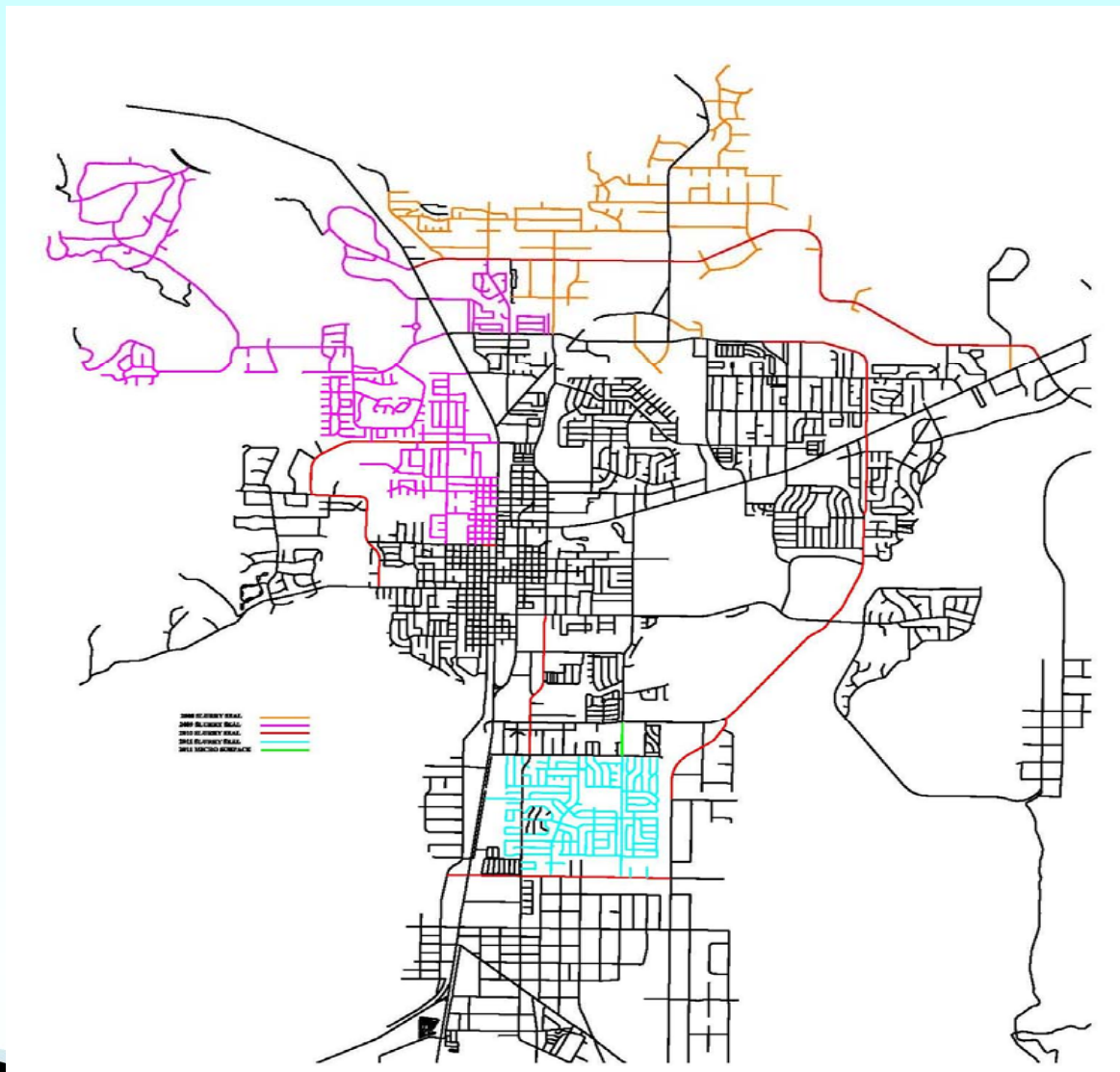
- ▶ Maintenance of current system important
 - Overall system deterioration slow, but individual segment deteriorate quickly if not maintained, and will accelerate system wide deterioration.
 - Estimated cost to maintain system (five year analysis)
 - Arterials and Collectors: \$700,000 per year
 - Locals: \$1,400,000 per year
- ▶ Total overall need is about \$2,100,000; spending \$900,000

Maintenance Activities

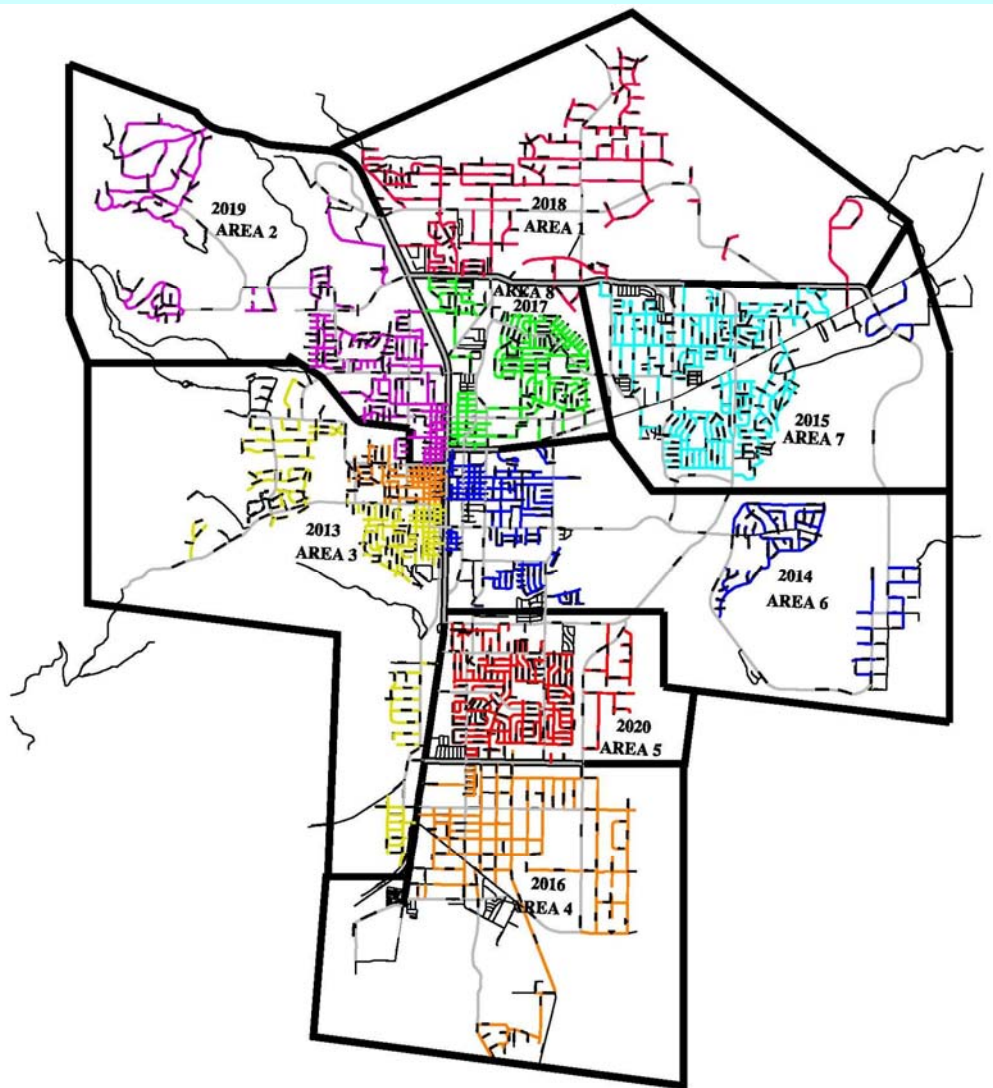
Street Sealing 1999-2007



Street Sealing 2008-2011



Sealing Schedule 2013-2020



Significant Recent Improvements (Roadways)

- ▶ Roop Street Phase I – 2005
- ▶ Curry Street Phase I – 2007
- ▶ Fairview Drive – 2008
- ▶ Hot Springs Road – 2008
- ▶ Clearview Dr/Carson St Intersection – 2008
- ▶ Curry Street Phase II – 2009
- ▶ N. Stewart Street – 2010
- ▶ Eagle Station/Carson St Intersection – 2010
- ▶ Roop Street Phase II – 2011
- ▶ Other improvements through water projects:
Conte, Bigelow, Snyder, E. Robinson, Butti



Significant Road Projects 2008–2011

Timing of projects

- ▶ Very competitive bidding climate
- ▶ Reduced traffic levels
- ▶ Improved road network consistent with transportation plans
- ▶ Attractive bond terms
- ▶ Helped support local economy during difficult economic times



Current Revenues

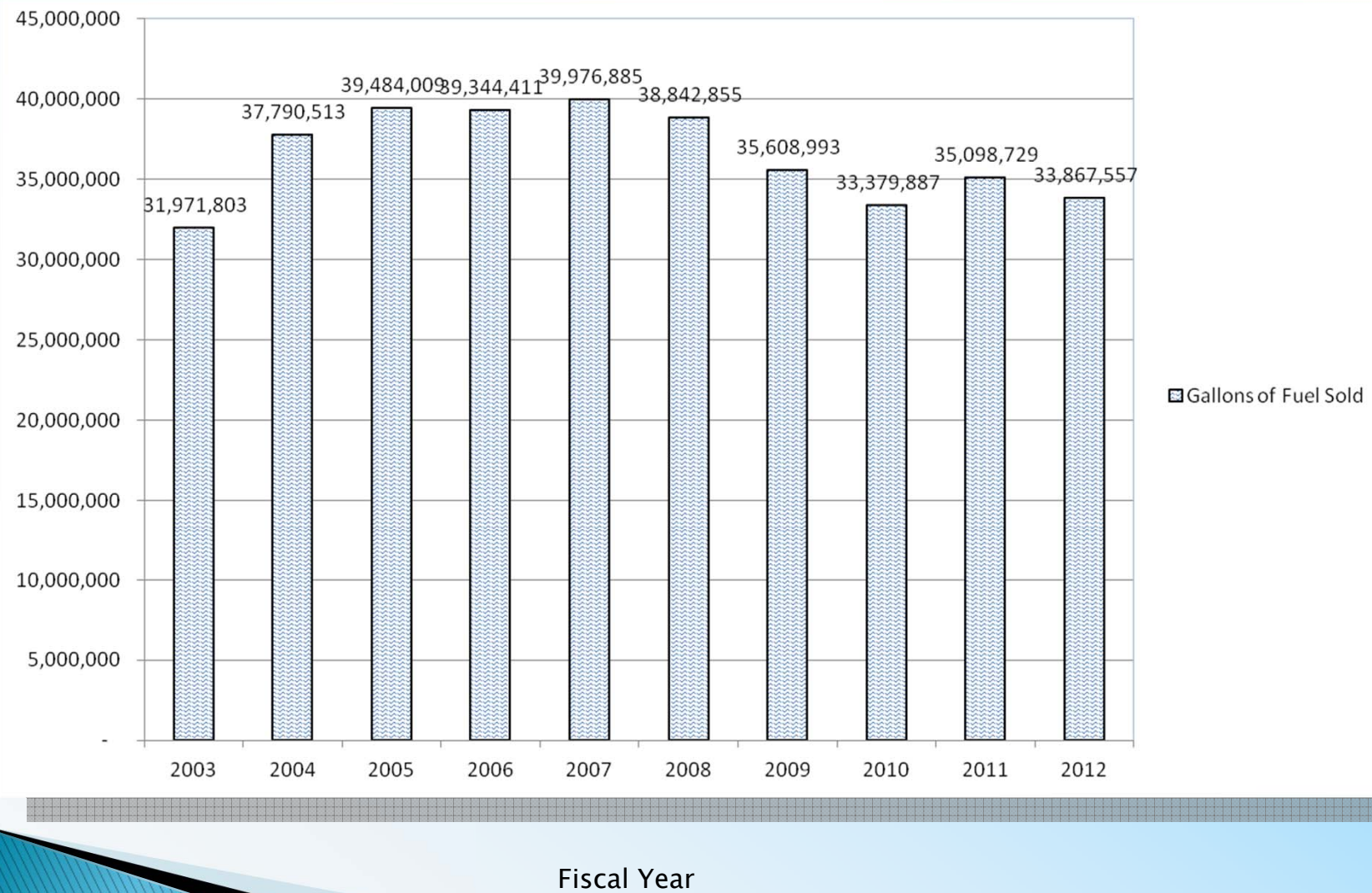


Primary Revenue Sources

- ▶ RTC : Motor Fuel Tax is Primary funding source for RTC Fund – 9 cents per gallon
- ▶ Street Fund:
 - Motor Fuel Tax – 6.35 cents per gallon (about 45 percent of Streets Revenue in FY12)
 - Sales Tax – $\frac{1}{4}$ cent citywide sales and use tax (about 55 percent of Streets Revenue in FY12)
- ▶ Other Motor Fuel Taxes Collected:
 - Federal – 18.4 cents
 - State – 18.455 cents



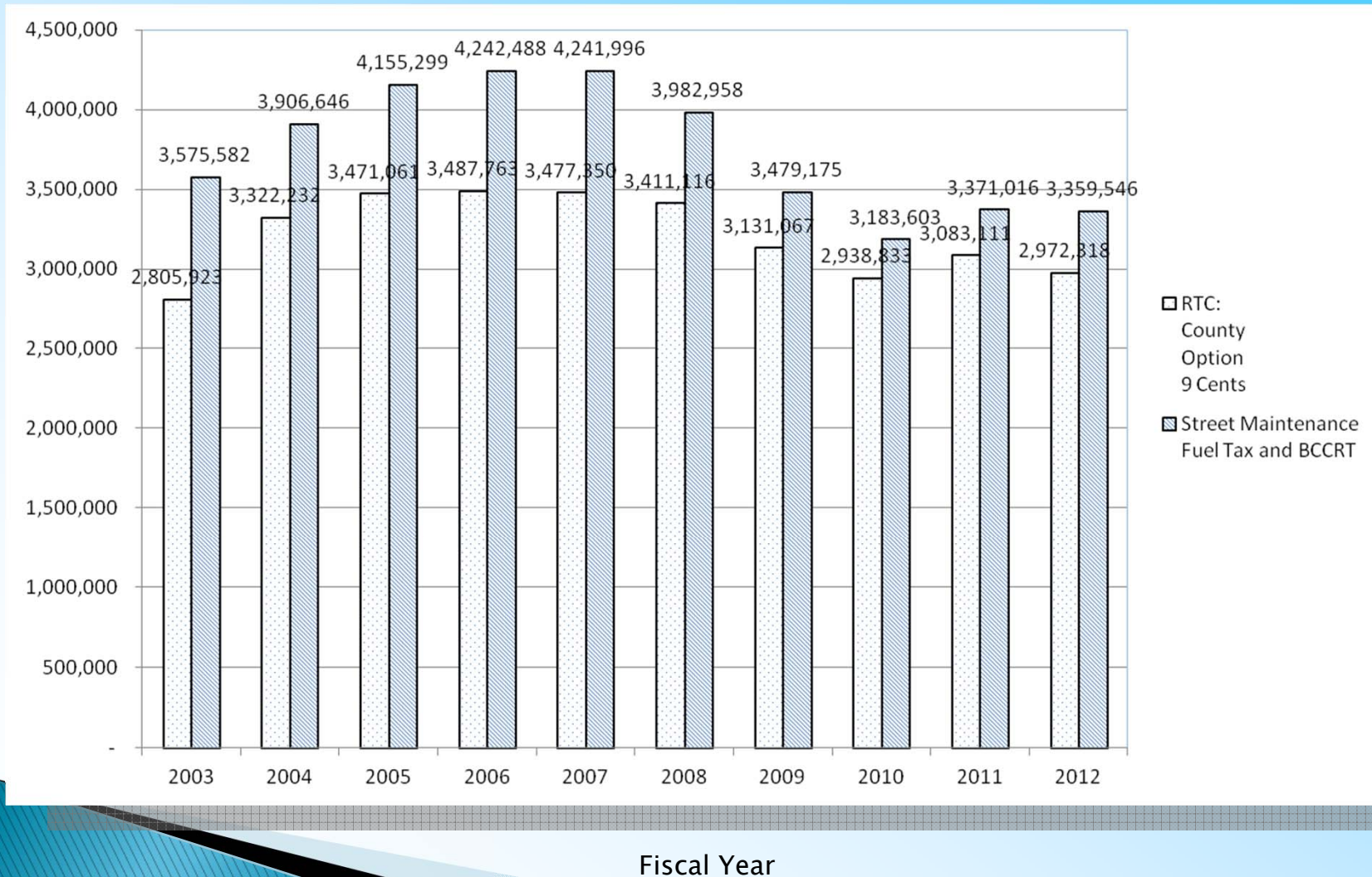
Amount of Fuel Sold in Carson City



Why the Decrease in Fuel Sold?

- ▶ Carson City's decrease from 2007 to 2012 was 15.3%.
- ▶ Multiple factors, including:
 - Recession (reduced construction)
 - Traffic volumes down
 - Fuel efficient vehicles
 - Fuel prices

Revenues Reflect Fuel Sold and Sales Tax (Only Streets Fund Receives Sales Tax)



Current Needs and Expenditures on System Preservation

► Grants

- ARRA grant in 2010 provided for street maintenance activity of micropaving – done in lieu of that year's annual slurry seal project
- Other grants have made, and will continue to make, improvements to the City's multimodal transportation system, but they do not address pavement system preservation.

Highway Revenue Improvement Bond Commitments

- ▶ Total Annual Cost of Repayment of All Bonds in FY 2013: \$1,718,435
 - Expires FY 2015, Original Issue 2003: \$5,785,000 (partially refunded 9/2012) \$810,000 still outstanding, FY 2013 Annual Cost: \$285,450
 - Expires FY 2024, Original Issue 2012: \$3,140,000, FY 2013 Annual Cost: \$136,205, increases to \$425,305 in FY 2016
 - Expires FY 2028, Original Issue 2008: \$9,055,000, Annual Cost: \$648,843
 - Expires FY 2030, Original Issue 2010: \$7,900,000, Annual Cost: \$647,938

Revenue Options

Alternatives for Increasing Gas Tax



- ▶ Index Gas Tax – annual increase based on CPI or PPI
 - CPI – Revenue increase of about \$134,000/year
 - PPI – Revenue increase of about \$1,057,000/year

Alternatives for Increasing Gas Tax (continued)



▶ Index Gas Tax

- CPI and PPI each require vote of the people.
- PPI implementation would require change to state law (population threshold change).
- Nearby example is Washoe County, which used CPI and now uses PPI.

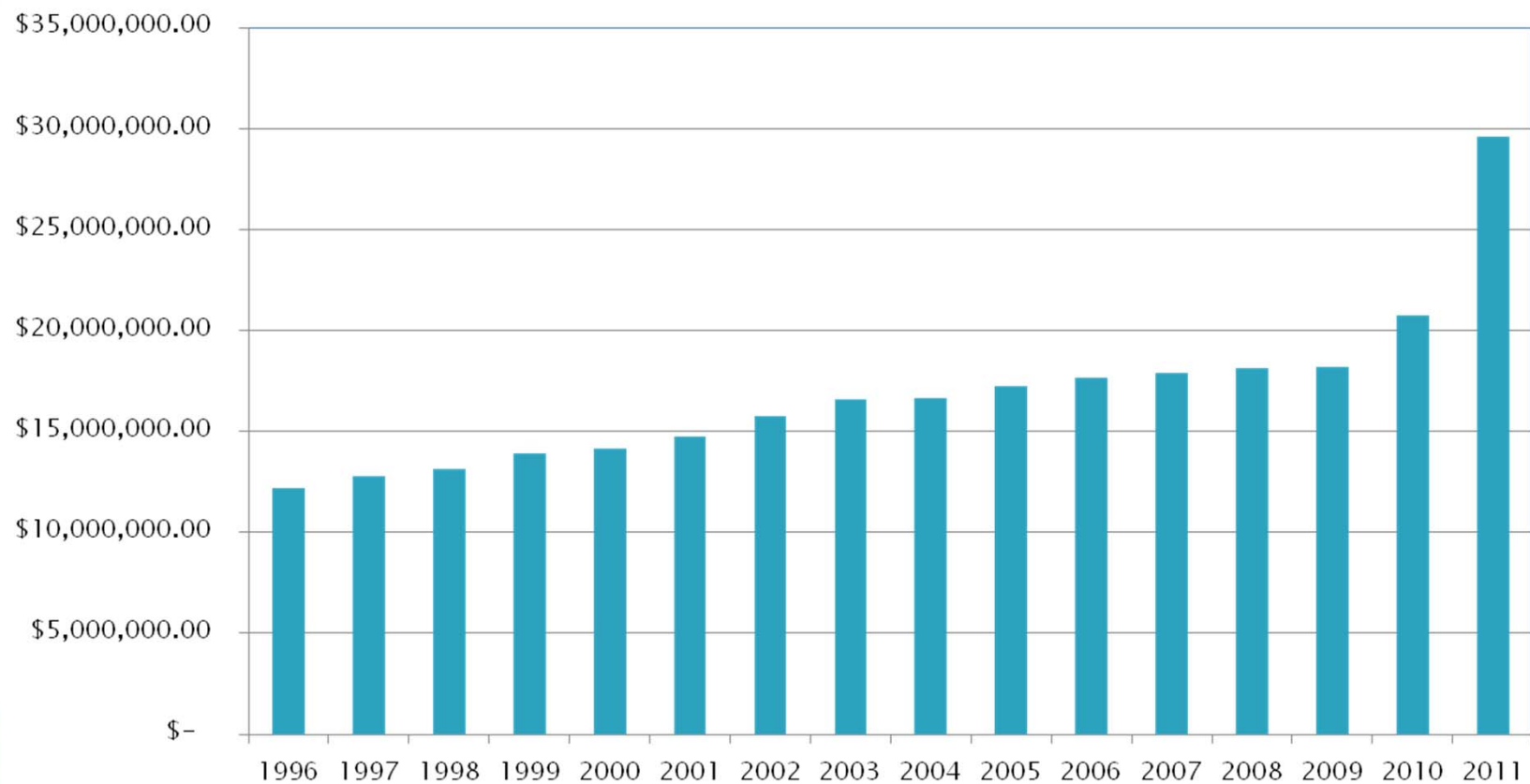
Washoe County – Motor Fuel Tax Changes



- ▶ Implemented increases in fuel tax per gallon allowed under Nevada law (consumer price index)
 - Approved by voters
 - Modest increases implemented beginning in October 2003 – Increases averaged 0.26 cents per year
- ▶ Pursued a change in Nevada law to allow for indexing of gas tax to PPI (producer price index)
 - Approved by voters
 - More substantial increase implemented in April 2010
 - 2.9 cents in 2010
 - 2.6 cents in 2011

Washoe RTC Revenue Increase Resulting in Improved Road System and Creating Jobs

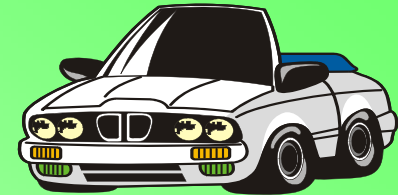
Washoe RTC Fuel Tax Revenue



Carson City RTC Revenue – if Indexing had been Implemented



Government Services Tax



- ▶ State law allows the implementation of a tax of no more than 1% on the value of vehicles
 - Collected at annual vehicle registration in addition to existing costs
 - Increases with vehicle value per statute
 - Requires vote of the people
 - Currently implemented by Churchill County and previously used by White Pine County
 - Revenue increase would be about \$1,170,000/year.

Sales Tax for Infrastructure

- ▶ Under State law, the City can levy a sales tax of up to 1 / 4 cent to fund infrastructure.
- ▶ 1 / 8 cent has already been levied to support the V & T
- ▶ 1 / 8 cent additional could be levied by the Board of Supervisors and be used for street maintenance activities.
- ▶ The estimated amount of revenue that would be generated by such an increase is about \$950,000 per year.

“Do Nothing” Revenue Alternative

- ▶ Without additional revenue, overall pavement conditions will continue to deteriorate.
- ▶ Deterioration will not be consistent – “spot” failures will require more costly replacement.
- ▶ The rate of deterioration will accelerate as the pavements are not maintained adequately.

Approximate
Status of many roads
in Carson City

