



***Analysis of U.S. Forest Service Roads,
Bonding as a Financing Option &
Legislative Update***

***Board of Supervisors
Work Session
May 13, 2014***

Today's Excursion

- **“On the Road Again”**
 - **Review Trip Planner**
- **Where Have We Travelled?**
 - **Recap of Key Milestones**
- **Today's Excursion**
 - **Analysis of U.S. Forest Service Roads**
 - **Bonding as a Financing Option**
 - **Legislative Update**

Trip Planner

Series of Board Work Sessions:

- **April 8 – Aligning Future Expenditures with Future Revenues**
- **April 15 – Results of Independent Pavement Assessment**
- **April 22 – Transportation, Jobs & the County’s Economy**
- **May 13**
 - **Results of Analysis Of U.S. Forest Service Roads**
 - **Discussion of Bonding as Financing Option**
 - **Legislative Update**

Recap of Key Milestones



Should you pay a higher gas tax?

By Jeanne Sahadi @CNMoney May 5, 2014



PHOTO: RJ SANGOSTI/THE DENVER POST VIA GETTY IMAGES

The Fundamental Issue

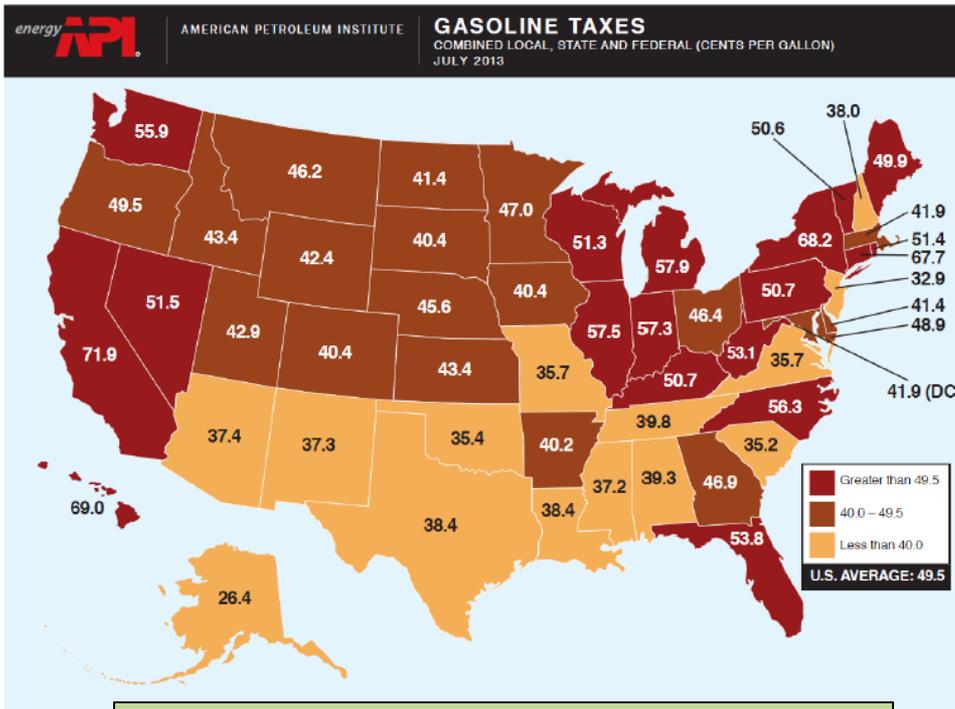
***Gas Tax Revenue Comprises 70% of the
County's Road Maintenance Budget***

- **Gas tax is not indexed to inflation**
- **No increase in more than 20 years**
- **Gasoline sales have declined and will continue to decline due to improved vehicle efficiency**

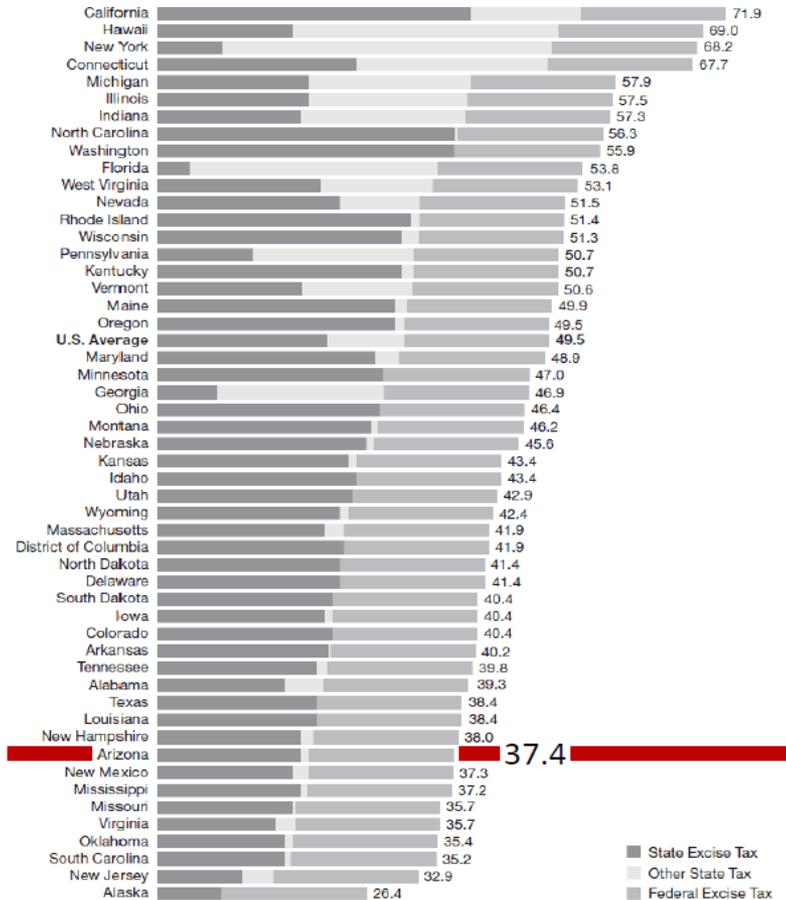
Result:

Current Service Level is NOT Financially Sustainable

Total Gasoline Tax By State



Gasoline Motor Fuel Taxes as of July 1, 2013



Examples of Other State Taxes/Fees:

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

Source: American Petroleum Institute (API) July 2013 Report

Review of Revenue Challenges

- **Secure Rural Schools (SRS)**
 - Approximately \$1.5M allocated for roads annually
 - Expired in 2013 – final payment received in 2014
 - Not sufficient to address structural deficit even if renewed
- **Payment in Lieu of Taxes (PILT)**
 - Supports General Fund – not used for road maintenance

Great Recession Strategies

- **Insulating the Public: Short-Term Strategies**
 - **Salary Savings through Holding of 15% to 28% Vacancies (31.8 FTE's)**
 - **Deferred Equipment Replacement**
 - **Deferred Capital Investment**
- **Provided Short-Term Ability to Extend Fund Balance**

What Have We Done to Lower Costs Long-Term

Long-Term Permanent Efficiency Strategies Being Implemented:

- Eliminated Positions
- Extended equipment replacement point
- Balanced equipment utilization
- Reduced fleet size
- Strategic deployment of human resources
(load leveling)
- 2013/2014 Snow Plan
- Evaluating Service Agreements

Strategies above create about \$2M/year in cost reductions

Strategies for Addressing the Transportation Financial Issue

Align Future Expenditures to Future Revenues

- **Reduce Service Levels**
- **Develop Potential Revenue Opportunity**

Review of Potential Revenue Opportunities

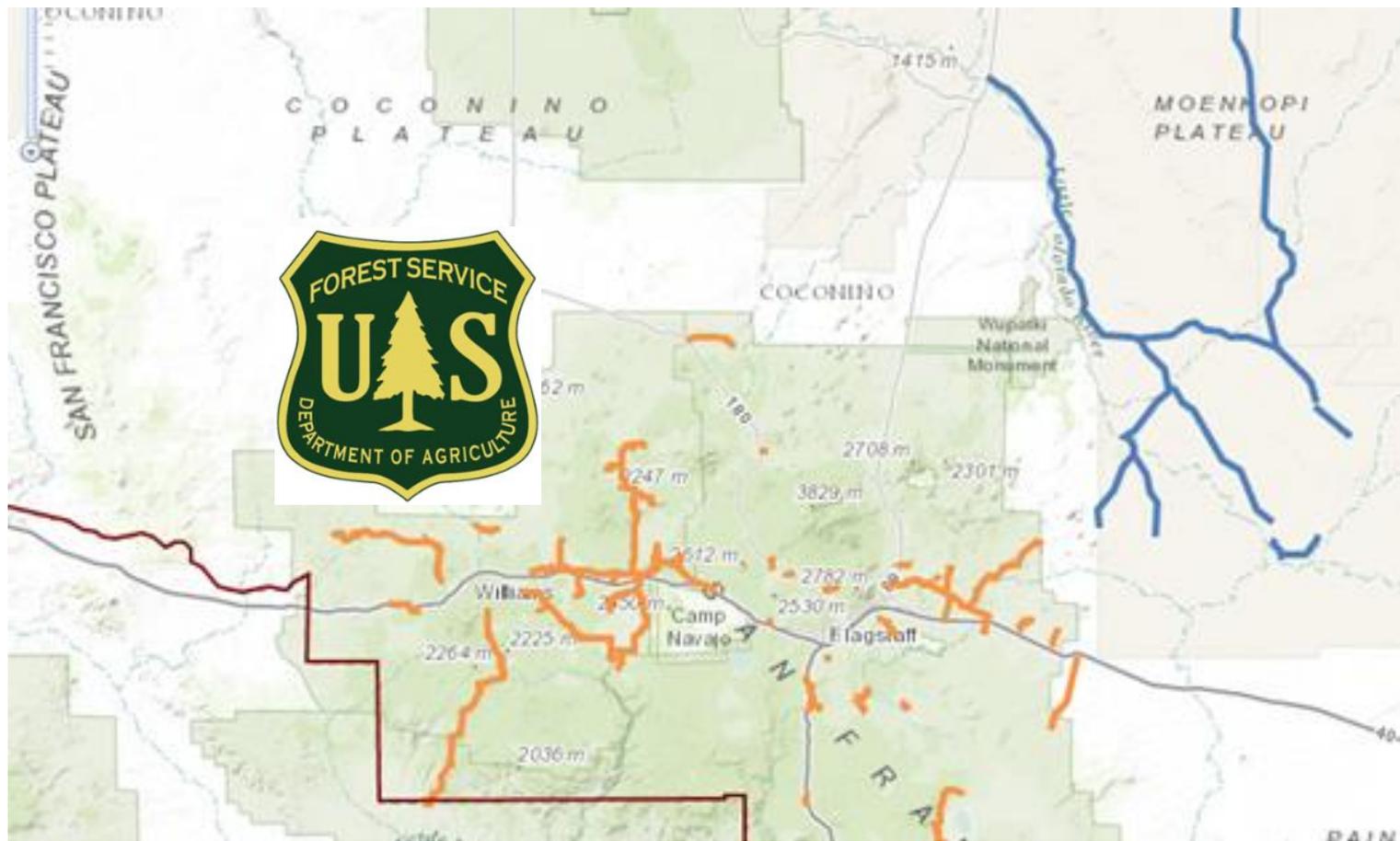
Revenue Opportunity	Possible Revenue Amount	Recurring or One-Time?	Results in Public Debt?	Funds Operations and Maintenance, or Capital?	Local Control?	Funded by County Property Owners or by All Sales Tax Payers?	Public Vote Required?	Defined Sunset?
Transaction, Use, or Impact Fees	Minimal with Respect to Need	Recurring	No	Both	No: State Action Required	Individual Permittees	No	Defined by State Legislature
Grants	Average of \$1.4 Million/Yr Secured over Last 10 Years	One-Time	No	Capital Only	No	Matching Funds Provided by County	No	Defined by Grant Term
Property Tax Override	Approximately \$800,000/Yr	Recurring	No	Both	Yes	County Property Owners	Yes	7 Years
Capital Projects Sales Tax	Tied to Specific Capital Projects	One-Time	No	Capital only	Yes	All Sales Tax Payers	Yes	Once Total Amount Collected
General Obligation Bonds	Approximately \$264 Million	One-Time	Yes	Capital Only	Yes	County Property Owners	Yes	Once Debt Service is Paid in Full
County Transportation Sales Tax	Annual Average Over 10 Years: 1/4 Cent = \$6.1M 3/8 Cent = \$9.1M 1/2 Cent = \$12.2M	Recurring	No	Both	Yes	All Sales Tax Payers	Yes	Approved by Voters (Generally 15 to 30 Years)



Recap County Maintenance of U.S. Forest Service Roads



County Maintained Forest Service Roads

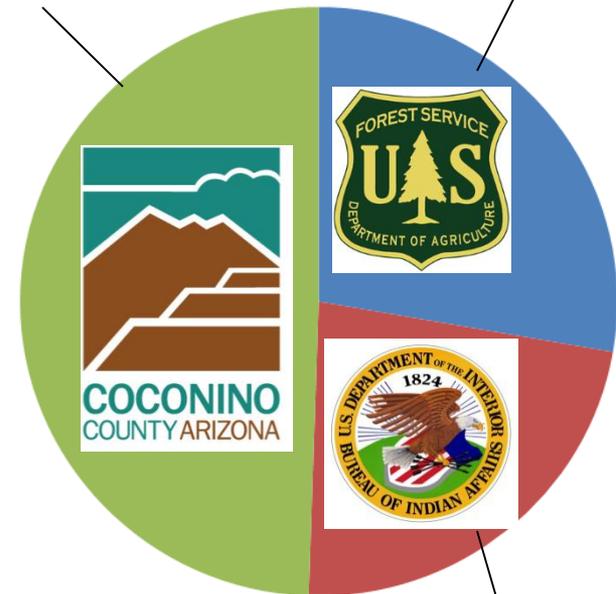


Road Ownership

- 930 Total Miles Maintained:
- 460 Miles Statutorily Owned & Maintained by the County
- 258 Miles of Forest Service Roads Maintained primarily through Schedule A Agreement (Not Mandated)
- 212 Miles of Navajo Nation Roads Maintained Through IGA with BIA (Not Mandated)

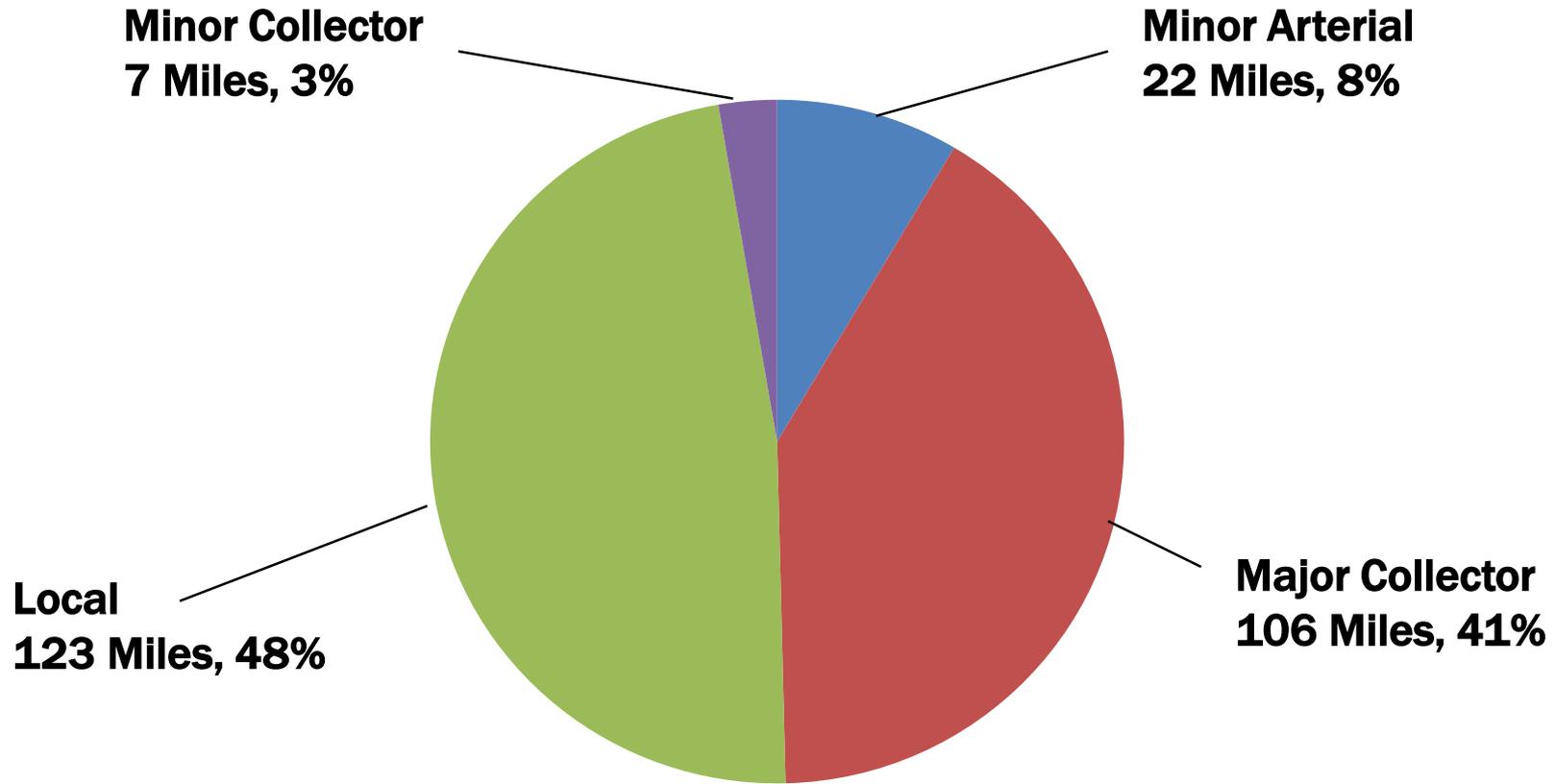
County Owned,
460 Miles,
49%

USFS,
258 Miles,
28%

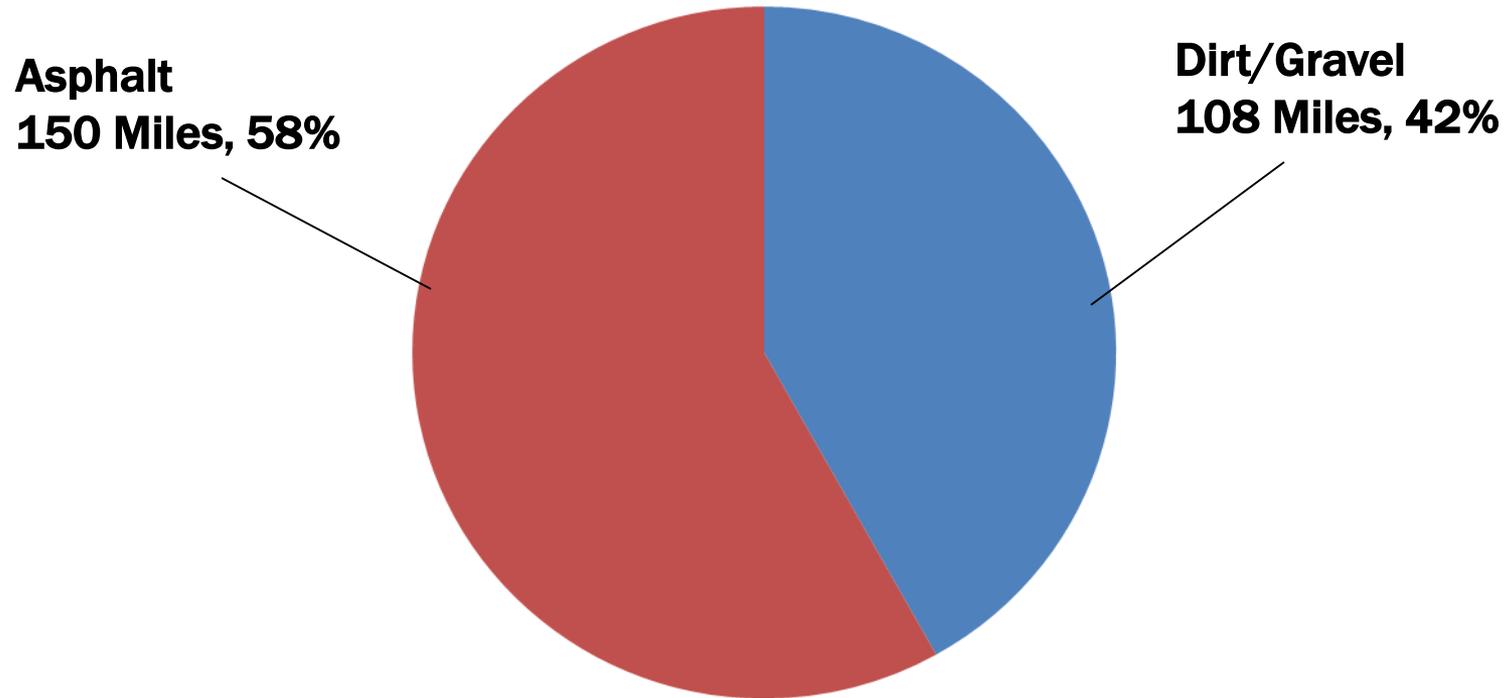


BIA,
212 Miles, 23%

U.S. Forest Service Road Classification



U. S. Forest Service Roads Road Surface

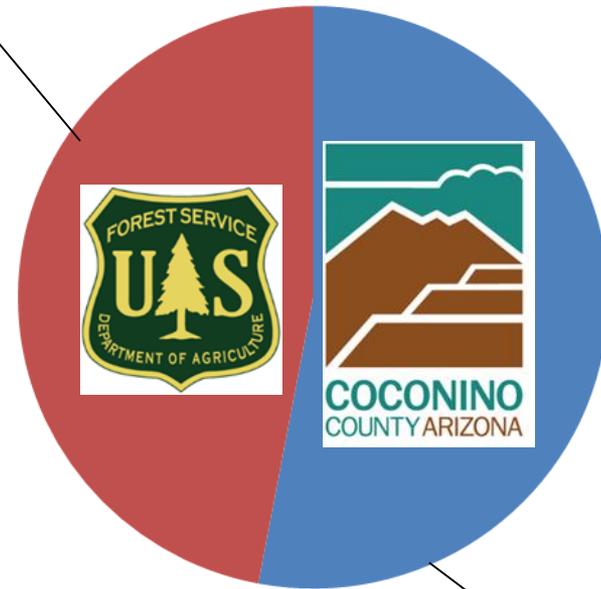


Asphalt Surface Roads

Surface Type

- Of the County's Total 319 Asphalt Miles, 150 miles (47%) are USFS Roads
- 58% of USFS Roads are Asphalt (many minor arterials and collectors)

USFS
150 Miles, 47%



County
169 Miles, 53%

U.S. Forest Service Roads Authority to Maintain

- **Maintenance is NOT a State Mandate**
- **Authorized Primarily Through Road Maintenance Agreement (Schedule A)**





U.S. Forest – County Road Maintenance Agreement



History of Maintaining U.S. Forest Service-Owned Roads

- **Environmental Litigation & Other Factors Lead to Reduction of and Ultimate Closing of Lumber & Timber Industries in 1980s & 1990s**
- **Timber Industry Paid Fees to USFS & Was Responsible for Building & Maintaining USFS Roads Used to Support Logging Operations**
- **Federal Forest Revenues Declined Sharply & Industry No Longer Invested in Roads**

Forest Service Roads Agreement

- **Agreement Established in 1987 to Maintain USFS Owned Roads in Response to a Request for Cooperative Assistance**
- **The Agreement Included a List of 171 Miles of Forest Service Roads to be Maintained (Schedule A Roads)**
- **The Number of Miles to be Maintained Increased to 283 in 1998**

Forest Service Roads Agreement

- **Maintenance Defined within the Agreement as “Preserving and Keeping the Roads as Nearly as Possible in their Original Condition as Constructed or Reconstructed to Provide Satisfactory and Safe Road Service”**

County Maintenance of U.S. Forest Service Roads



Maintaining USFS-Owned Roads

- **Over 1/2 of County-Maintained USFS Roads are Minor & Major Collectors or Minor Arterials and Serve as “Core” Transportation Routes (Leupp, Townsend, Lake Mary, Perkinsville Roads)**
- **Public Works Has Not Distinguished Between USFS Roads And County Roads**
- **Maintenance Was Performed Based on Greatest Need**
- **Historical Average - \$700,000 for USFS Winter Road Maintenance**

USFS Dirt/Gravel Road Maintenance

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



USFS Paved Road Maintenance

- Focus is chip sealing
- Ten-Year Plan updated annually
- Chip Sealing improves the most roads with limited funds
- FY2012 \$28,000 per mile for 32 miles
- FY2013 \$29,000 per mile for 31 miles
- \$500,000 to \$900,000 Investment Annually
- FY 2014 - \$0 Invested



Independent Pavement Study

- Conducted by Pavement Expert with Kimley-Horn & Associates
- Identified \$70 Million of investment needed in 2014
- Increases to \$109 million by 2019 given no maintenance and continued degradation plus 2% escalation in costs annually
- More recently asked to prioritize – identified road segments with OCI figures between 30 – 90 OCI, which totals \$40 million in 2014 and \$80 million in 2019



U.S. Forest Service Road Related Maintenance & Funding Issues



Key Issues – Forest Service Roads

- **SRS Funding Did NOT Replace Historic Federal and Private Funding of USFS Road Maintenance**
- **SRS is Not Required to be Used to Maintain Forest Service Roads – County Elected to Maintain USFS Roads Irrespective of No Funding Source Historically**
- **Now SRS Funding Has Expired & HURF Funding is Significantly Reduced**
- **Key Decision – Level of HURF Subsidy to Maintain Forest Service Roads in Relationship to Maintaining County-Owned Roads – Subsidy Now +/- \$1.8 M/Year**

Key Issues – Forest Service Roads

- **Schedule A Paved Roads Need Major Investment Due to Deterioration**
- **Impacts & Costs to Road Maintenance from 4FRI**
- **USFS Travel Management Plan Impacts**
- **Requests to Maintain Roads Not on Schedule A**
- **Federal Capital Funding is Now More Competitive**

Forest Service Roads Funding

FY 2012 Actual Costs:

Road Maintenance Costs \$2.6 million

Winter Road Costs +/- \$700,000

Total Cost: \$3.3 million*

SRS Revenue: \$1.5 million

HURF Subsidy: \$1.8 million

*** Includes In-Directs and Equipment Replacement**

Four Forest Restoration Initiative (4FRI)

- Major impacts to county-maintained Forest Service roads and County-owned roads
- No funding mechanism for road maintenance has been identified
- 84 miles of U.S. Forest Service paved roads are prioritized for maintenance (out of 261 miles prioritized for maintenance or 32%) according to the Kimley-Horn Study



Analysis of County Maintained U.S. Forest Service Roads



Analysis of County Maintained U.S. Forest Service Roads

- The analysis of U.S. Forest Service Roads resulted in the development of a matrix to capture important road-related parameters (criteria)
 - The matrix should be considered preliminary
- Key findings result from the analysis
- Suggested next steps

Development of the Matrix

- **Many criteria were considered**
- **Creates a clearer picture of our responsibility for maintaining Forest Service roads**
- **Key criteria surfaced as important for future consideration**

Key Criteria

- **Underlying legal instrument**
 - **Easement**
 - **Special Use Permit (SUP)**
 - **Schedule “A”**
 - **No legal instrument**
- **Traffic volume (ADT)**
 - **Number of residential properties using the road**
- **Cost of Service**
- **Level of current snow plowing service**

Key Findings

- **Underlying legal instrument**
 - **Easement, Special Use Permit, Schedule “A”, No legal instrument**
- **Traffic volume (ADT) – Varies greatly but some USFS roads have largest volume of traffic in system**
- **Number of residential properties using the road**
- **Cost of Service – some roads stand out with high costs but have low ADT**
- **Level of current snow plowing service – USFS does not plow snow**

Matrix: Decision-Making Tool

Based on the criteria, particularly the key criteria, the County and the Forest Service are in a position to make decisions relative to the prioritization of roads for service and the level of service

Next Steps

- Working with the Forest Service, reprioritize **ALL** Forest Service roads (County and USFS maintained) & the associated levels of service
- \$5.3 Million is currently being spent to maintain Forest Service roads on the Coconino & Kaibab National Forests by the County (\$3.3M) and Forest Service (\$2M)
- Apply funding resources from both organizations to determine which roads and at what level of service can be maintained

Next Steps

- **Number of roads maintained and the level of service will reflect the level of funding by both organizations; Consider both paved & dirt roads**
- **Given road reprioritization & likely changes in levels of service, development of transition policies & processes will be necessary**
- **Transitions likely to Roads Districts, Road Associations, Individuals**
- **Some key questions – timeline for transition & incentives provided, if any**



***United States Forest Service
Maintenance of Roads***

Mike Williams

Kaibab National Forest Supervisor

Scott Russell

Coconino National Forest Acting Supervisor

John O'Brien

**Forest Engineer, Coconino and Kaibab National
Forests**

U.S. Forest Service

Maintenance of Forest Service Roads

Topics

- **Legal Framework - Forest System Roads**
- **Easements, Permits, and Schedule A**
- **Historic Road Funding**
- **Organizational Response**
- **Road Maintenance Priorities**
- **Travel Management Rule (TMR)**

Legal Framework for Forest Roads

- **2 Types of Laws, Enabling and Appropriations**
 - **FRTA (Forest Roads and Trails Act) 1964 (law)**
- **Regulations**
 - **36 CFR 212 (Code of Federal Regulations)**
- **Policy**
 - **Forest Service Manual and Handbook**

Forest System Roads

(Definitions)

- **Forest System Roads are roads under the jurisdiction of the Forest Service and necessary for protection, administration and use of the National Forests.**
- **National Forest System Road. A forest road other than a road which has been authorized by a legally documented right-of-way held by a State, county, or other local public road authority.**

Easements/Permits

- **FRTA- Public Road Agencies**
 - **HURF Funded**
- **FLPMA - private parties or associations**
- **Road Use Permit 7700-0048 for Maintenance**

Schedule A

- An agreement between a Forest (s) and a County
- Historically, one mile for one mile
- Now, commensurate use or need
- Permission to maintain roads
- Possibility of sharing resources
- Important in the absence of a permit or easement

Appropriations Law

- **Federal Budget passed every year, for one year**
- **Forest Service budget is part of “Interior and Related Agencies” appropriation.**
- **Forest Service receives no HURF funding**

Historic Road Funding

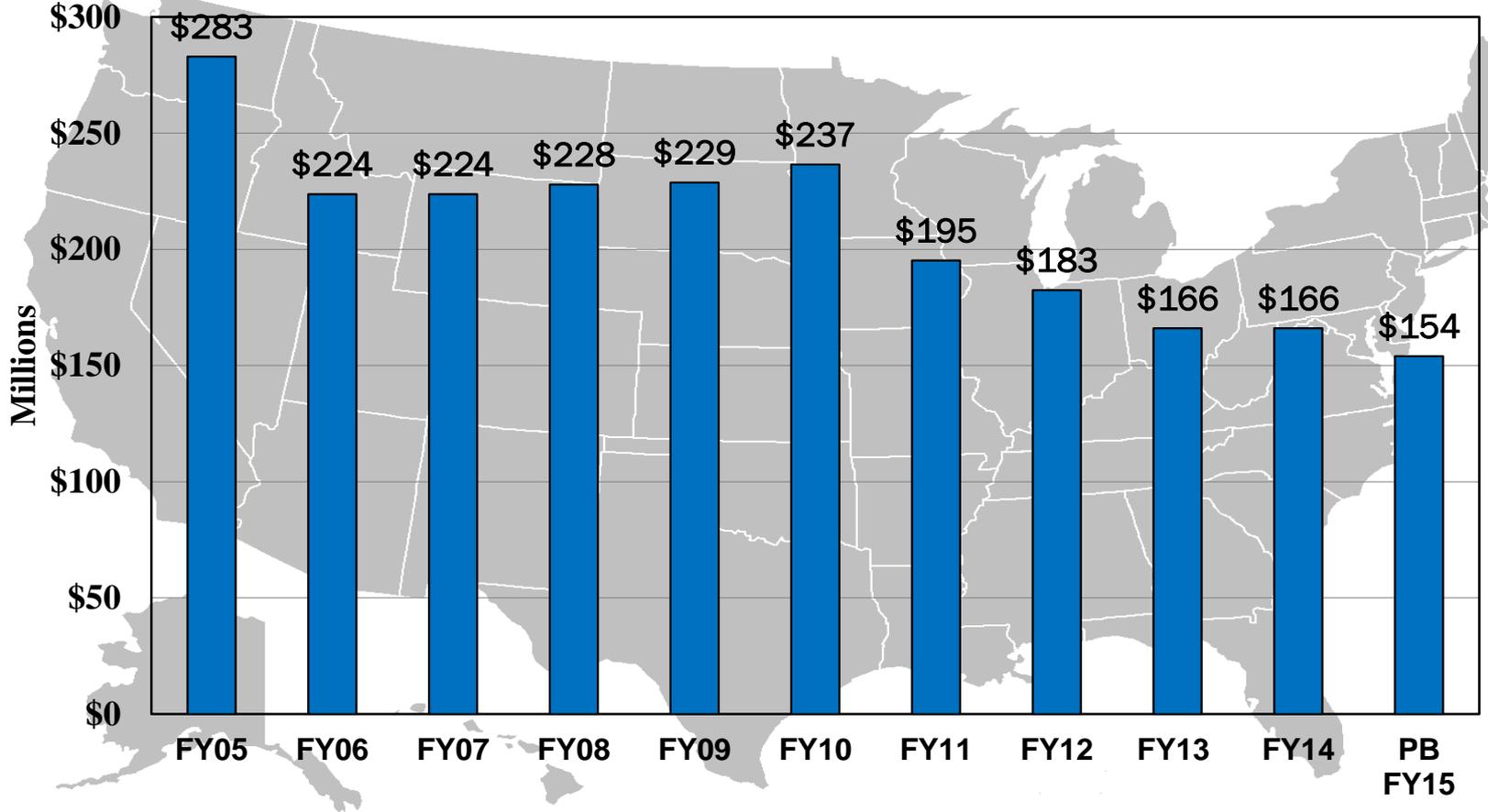
Appropriated Funds:

- **1988- \$295 Million for Forest Service roads**
- **2014- \$166 Million for Forest Service roads (about ½)**
- **Construction Cost Index (CCI) (ENR)**
- **1988 approx. CCI was 4,500**
- **2014 approx. CCI was 9,000**
- **2014 funding buys ¼ of 1988 funding**



2012/09/28

National CMRD (Roads)

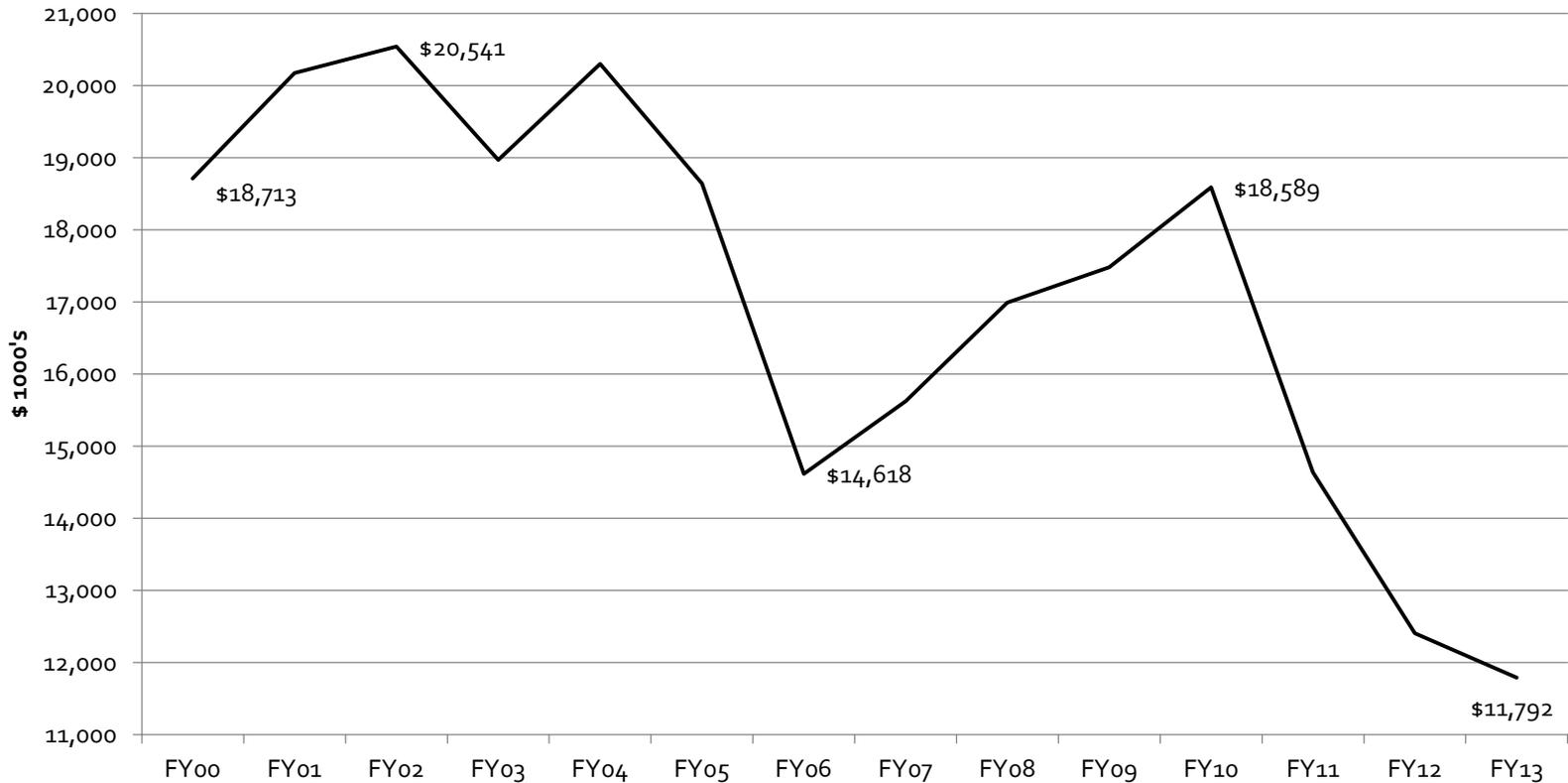


Washington Office, latest update March 7, 2014



Region 3 Roads Funding

Total CMRD (FY 00 - FY 13)



Organizational Changes

2001 - 2014

- **In 2000, Road Crew from both Forests were Merged**
- **2001, AFE, Road Manager, Road Crew Foreman,**
- **Data Steward, 8 Fulltime Equipment Operators (12 FTE)**
- **2014, AFE, Data Steward, 3 Fulltime Operators, 2 Halftime Operators, 1 Halftime Swamper (6.5 FTE)**

Current Conditions

- **Road Maintenance Priorities**
 - **Public safety (emergencies, warning signs), 4FRI, resource restoration**

Maintenance Activities and Frequency

- **Surface aggregate on main haul roads (10 miles a year?)**
- **Blading once a year on main roads**
- **Last year, around 400 miles of road maintained on each forest.**

Travel Management Rule (TMR)

- **Coconino**
 - **Analyzed over 8000 miles of closed and open road and designated 3100 miles as open to motorized use. (September 2011)**
 - **For the most part, the designated open roads represent the most frequently used, and best roads.**
 - **Current designated road system, 80% of the non-wilderness is within ½ mile of open road.**
 - **Another 15% is between ½ and 1 mile.**



Questions?



Bonding as a Financing Option

Bonding Options

Bond financing is not a revenue or funding mechanism, but a financing mechanism

- Allows public entity to borrow funds to invest in capital projects
- City of Flagstaff has bonded for projects historically and utilized as a financing tool to deliver on projects
- Requires approval of the voters to allow public entities to issue debt

Considerations

- **For our purposes, have to consider cost of pavement degradation over time versus the cost of borrowing the funds**
- **Requires public entity to expend issued debt funds within three years of debt issuance**
- **Cost of issuance is based on the amount issued
– costs as percentage of principal is lower for larger issuances**

Bonding Options for County

- **Link to Evaluation of Pavement Condition**
 - **Prioritized Road Segments with OCI above 30 and below 90 = investing about \$40 million in 2014 and \$80 million in 2019 (if no maintenance performed in those five years)**
- **Determine amount available for bond payment based on revenue scenarios (1/4 cent, etc.)**

Bonding Options for County

- **Estimated issuance costs for borrowing \$40 million are \$250,000 to \$400,000**
- **Current Interest Rate used in analysis is 2.5%**



Legislative Update

Federal Transportation

- **MAP 21 – Federal Transportation Funding Mechanism**
 - Expires this fiscal year – September 30, 2014
 - One-time funding through nationally competitive grant programs
 - Does not include SAFETEA_LU, which is currently used to subsidize road maintenance performed for the BIA on the Navajo Nation
 - Federal funding could support capital improvements if secured, but is unpredictable and not sufficient to address capital needs (one-time funding)

Federal Transportation

- The U.S. Department of Transportation submitted a proposal to Congress to fund transportation for four years
- The \$302 billion “Grow America Act” is funded with current revenue plus \$150 billion in one-time transition revenue from business tax reform measures
 - Includes a 22 percent increase above the FY 2014 level and includes \$63 billion to fill the funding gap in the Highway Trust Fund
 - Includes \$250 million in Federal Lands Access Program (FLAP) Funds
 - Includes \$507 million in Tribal Transportation Program funding

State Transportation - HURF

HURF Partial Restoration

- **FY 15 Budget Passed by the Legislature continues the diversion of HURF to fund the Arizona Department of Public Safety (DPS)**
- **Budget included an outside of the formula distribution (bypassing the State Highway Fund), which restores \$30 million**
- **Estimated distribution to Counties is \$225,394,300 for FY 15**
- **Coconino County will likely receive \$378,635 in additional HURF revenue due to the language in the FY 15 State budget**



Questions & Discussion