



Presentation to Governor's Panel on Transportation Finance and Implementation

Region 5

Key Projects State of the System Financial Outlook



September 10, 2007



Southwestern and Southcentral Colorado

- Maintaining and reconstructing roads
- Keeping roads open
- Finding ways to keep aging infrastructure safe and useable
- Responding to increasing impacts from tourism, energy and population growth



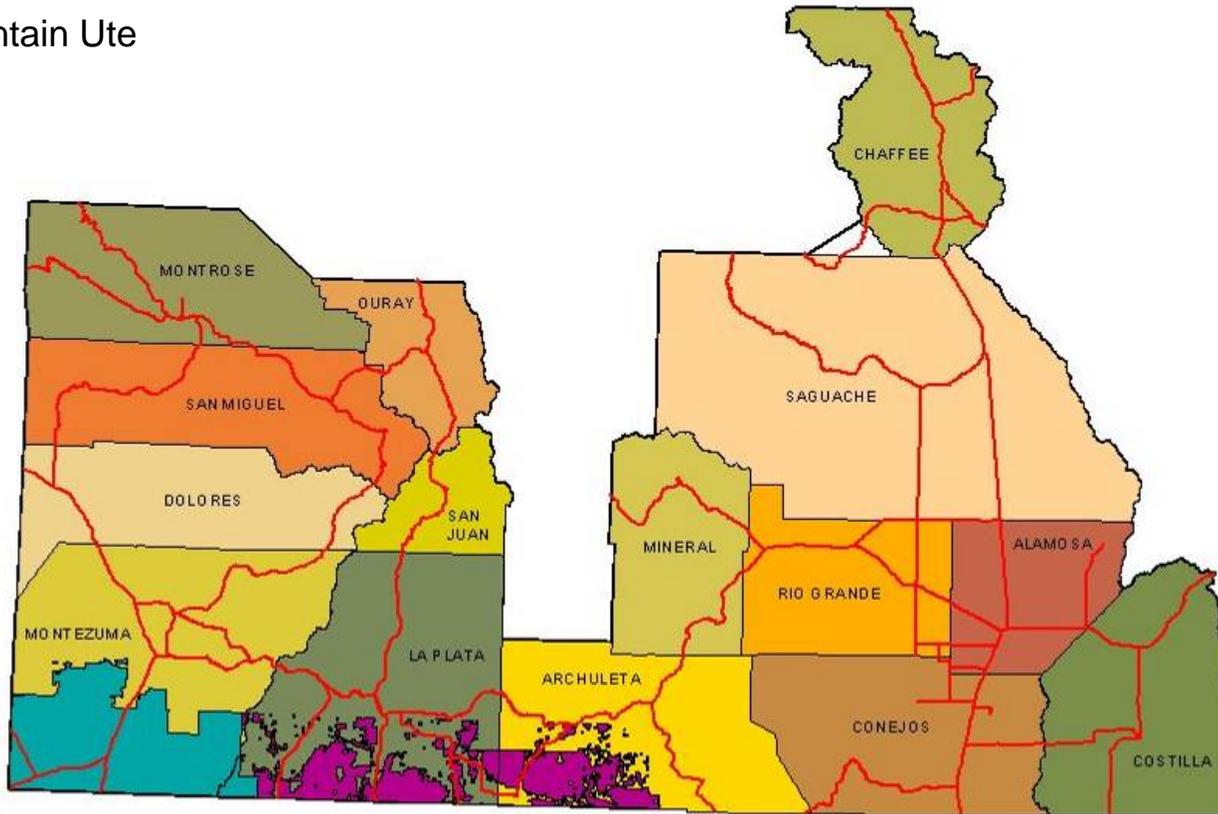
Region 5

Indian Tribes:

- Southern Ute
- Ute Mountain Ute

Counties:

- Montrose
- Ouray
- San Miguel
- Dolores
- Montezuma
- San Juan
- La Plata
- Archuleta
- Mineral
- Chaffee
- Saguache
- Rio Grande
- Conejos
- Alamosa
- Costilla



TPRs in Region 5

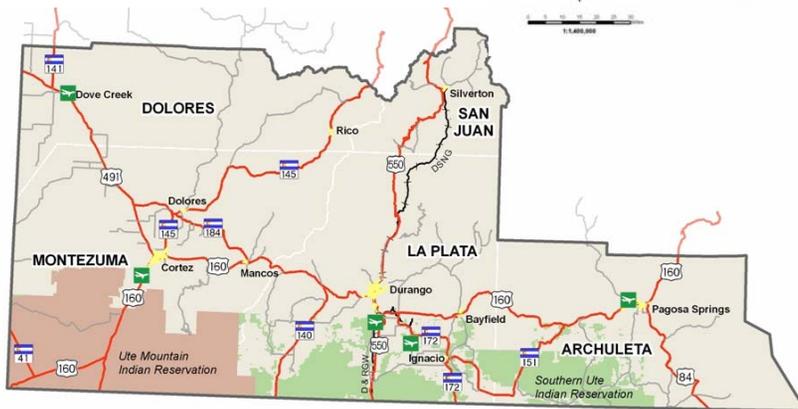
Gunnison Valley TPR



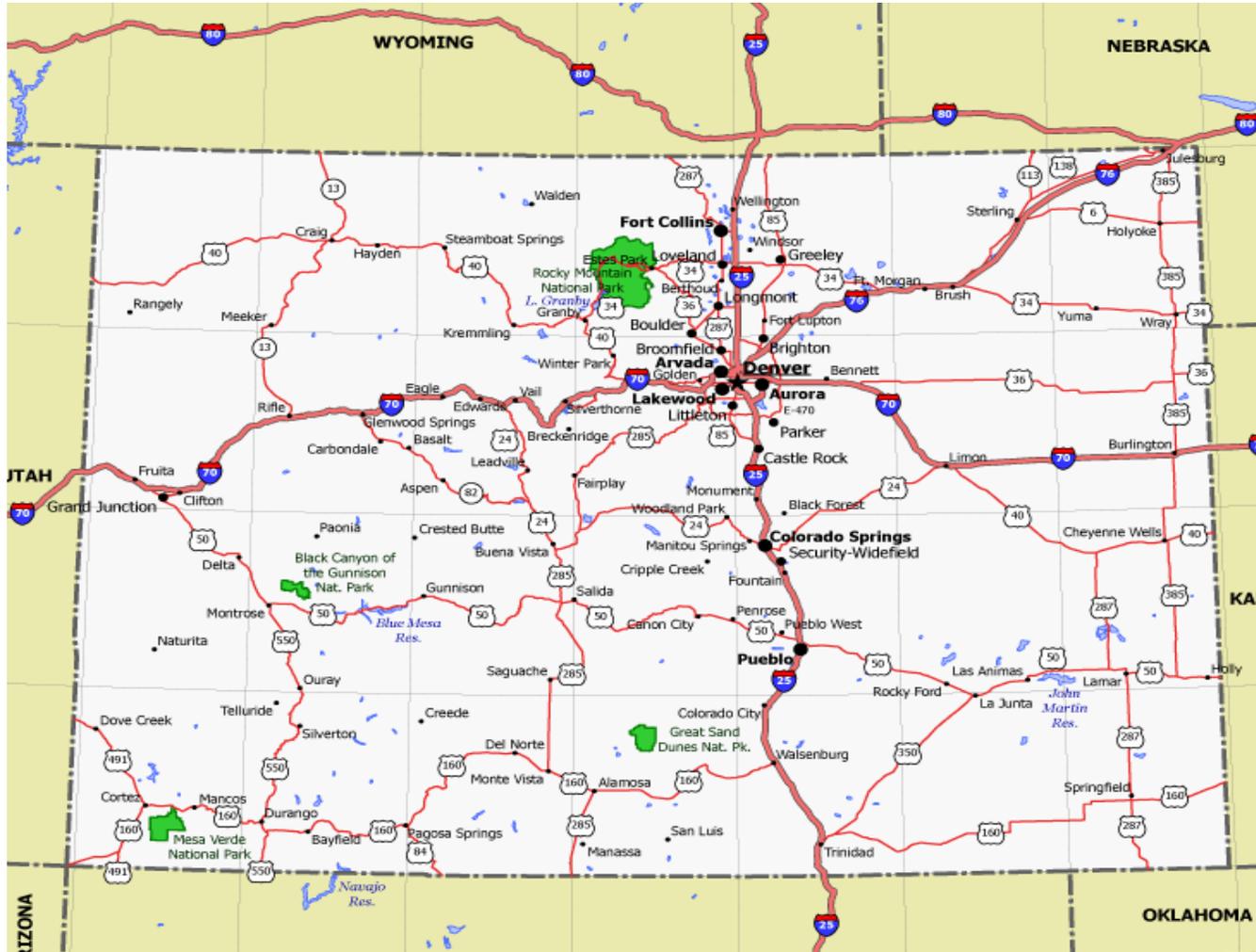
San Luis Valley TPR



Southwest TPR



State Highway Map



The State Highway System – Region 5

3,107 lane miles of State Highway

- 53% is classified as “Poor” Condition
- Over 80% have substandard shoulders

195 state-owned bridges

- 23 bridges in need of repair or replacement

14 high mountain passes

- 121 rockfall sites and 18 active landslides
- 465 inches of snow a year on Wolf Creek Pass
- 165 avalanche pathways on US160, US550 and SH145 in Region 5

Highways are Lifelines in Region 5



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Commerce in Region 5 Depends on Highways



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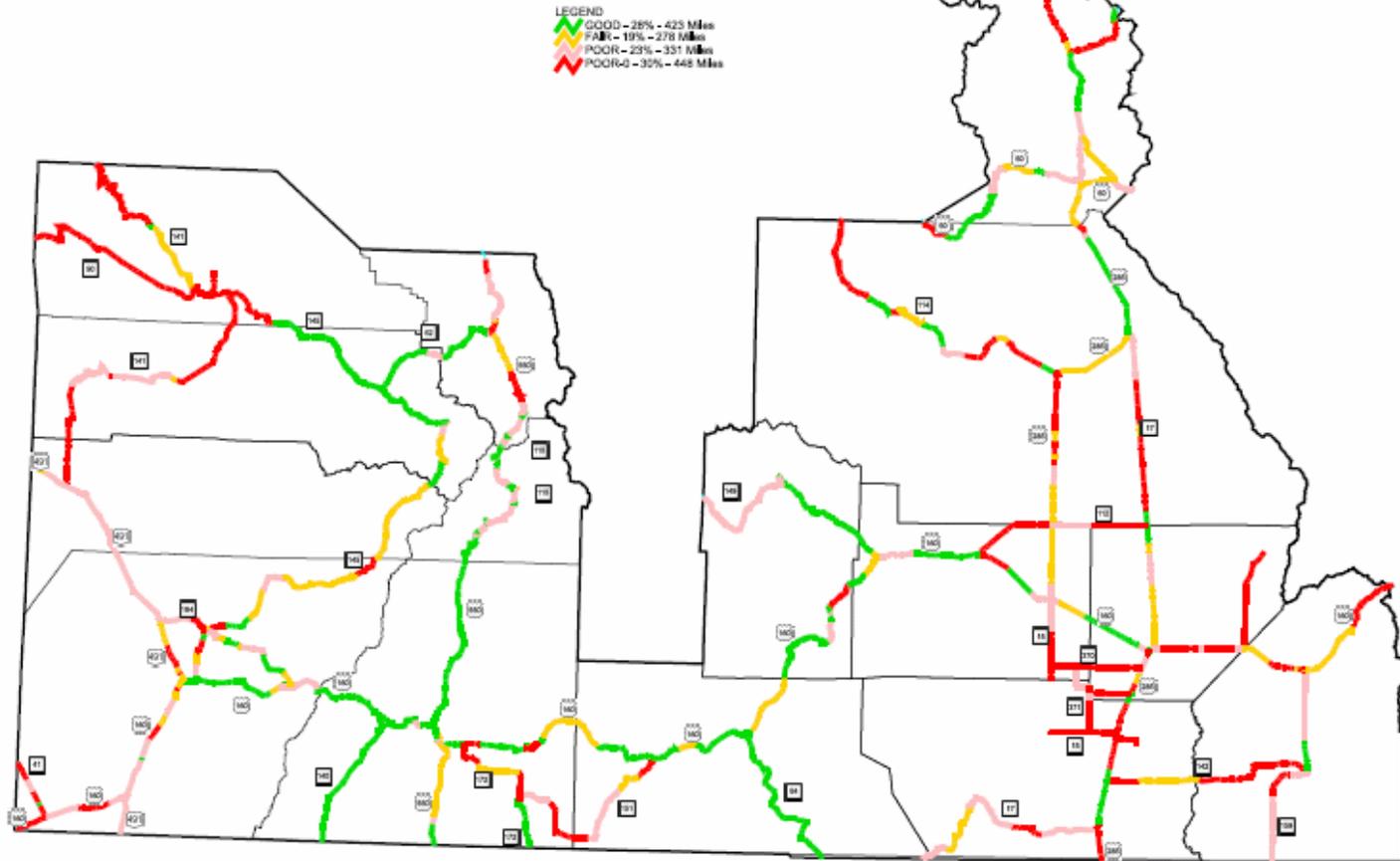
Economy in Southwest/Southcentral Colorado Depends on Safe and Useable Roads



Current Highway Conditions

Region 5 GFP Map
Year 2007

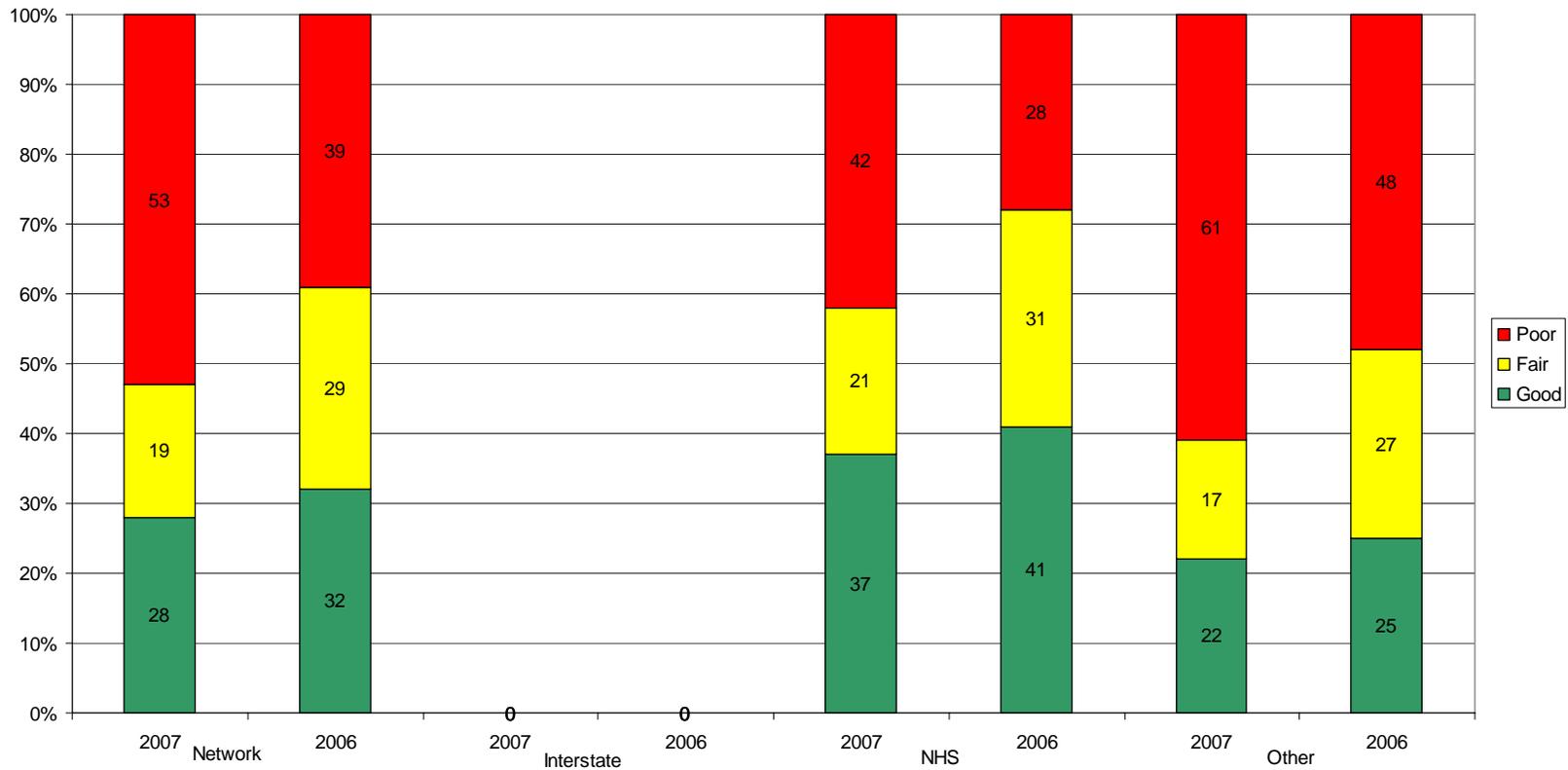
Revision Date 7/26/2007
DRAFT



Current Highway Conditions

Region 5 2007 GFP vs. 2006 GFP

DRAFT 7/26/07



Maintaining Our Roads...Doing More with Less

- Recycling and using leftover materials from one project on another
- Cost Savings: \$18/ton vs. \$56/ton plus haul costs



Maintaining Our Roads...What is Needed

- Currently 30% of highways in Region 5 have a Remaining Service Life of zero
- \$844 million additional dollars needed to address these roads



Maintaining Our Roads – What is Needed

- To meet 60% roads in good/fair condition in Region 5 by 2026, CDOT would need to invest \$500 million
- The remaining 40% would have a zero remaining service life and to meet good/fair condition, CDOT would need to invest an additional \$984 million in Region 5 alone.



Keeping Roads Open and Safe



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Keeping Roads Open..Avalanches and Snow

- Region 5 has 165 avalanche runs, the most in the state
- Red Mountain Pass has over 100 avalanche pathways, the most in the United States
- Wolf Creek Pass has the most snow in Colorado
- In Region 5, \$6.2 million was spent clearing roads in the winter in 2006.



Keeping Roads Open and Safe – Rockfalls and Mudslides



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Rockfalls and Mudslides – What is Needed

- 121 Rockfall sites in Region 5 need attention
- \$97 million estimated cost to mitigate all sites in Region 5
- At current funding levels, would take 240 years
- Maintenance in Region 5 spends over \$600,000 a year to clear roads after mudslides and debris flows



Keeping Roads Open - Landslides



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Landslides – Temporary Solutions

- 13 active slides in Region 5
- Monitor and address as needed
- Jackson Mountain Slide: Spend \$70,000 per year for temporary repairs
- Temporary repairs add weight on roadway – rate of subsidence increases



Landslides – What is Needed

- Permanent fixes improve safety and reduce annual maintenance costs
- Cost estimate to fix the 13 active slides in Region 5: \$32 million



Culverts and Cribwalls – Current Conditions

- Failing cribwalls and culverts can cause road collapse and safety issues
- Region 5 has 28 culverts that are in critical condition and need repair
- Region 5 has had 4 cribwall failures that required emergency repair in the last 3 years.

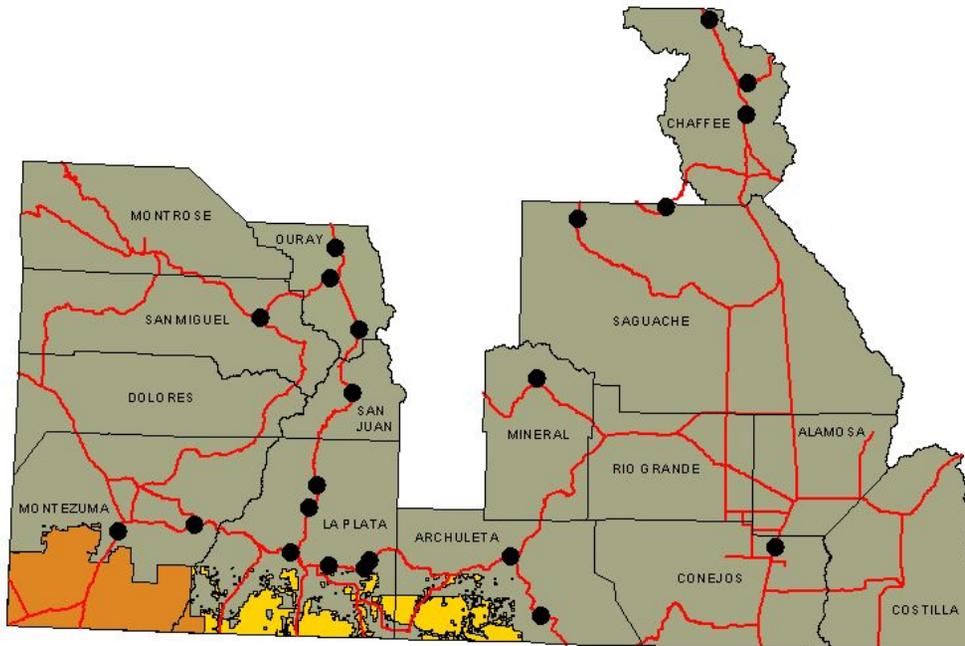


Cribwalls and Culverts – What is Needed

- Current budget is approximately \$1 million/year
- Total replacement cost for the 28 culverts is \$22 million
- At current funding levels, it will take 14 years to address the culverts that are now in critical condition



Bridges – Current Conditions



Region 5:
23 bridges of 195
need repair or
replacement

Bridges – Responding to the Need

- Concrete box culvert built in 1939 near Fairplay
- Narrow road with no shoulders
- Temporary fix: approach railing added for safety
- No funding to replace bridge



Bridges – What is Needed

- It will cost approximately \$30 million to replace the 5 worst bridges in Region 5
- Annually, Region 5 receives \$1.5 million for bridges
- At current funding levels, it will take 20 years to replace these 5 bridges



Shoulders – Current Conditions

- Needed for safety
- Needed for commuting and recreation (bicyclists)
- Over 80% of Region 5 highways have substandard shoulders
- 20% of Region 5 highways have no shoulders



Shoulders – Needed for Safety



Shoulders – Doing More with Less

US285 between CR5 and CR7

- Only had funding for paving
- Maintenance constructed shoulders prior to paving job
- Constructed over 4 miles of new shoulders



Shoulders – What is Needed

- To bring shoulders up to standards on all Region 5 roads = \$1.46 billion
- To put shoulders on the 294 centerline miles of roads with no shoulders = \$457 million



Safety – Sharp Curves and Sight Distance



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Living with Wildlife – Current Conditions

- Collisions with Wildlife is the leading cause of accidents in Region 5
- 46% of accidents between Durango and Pagosa Springs were collisions with animals
- 45% of accidents between Ridgway and Montrose were collisions with animals
- East of Durango near Florida River, over 60% of accidents are from collisions with animals



Cost Effective Solutions – Reducing Wildlife/Vehicle Collisions

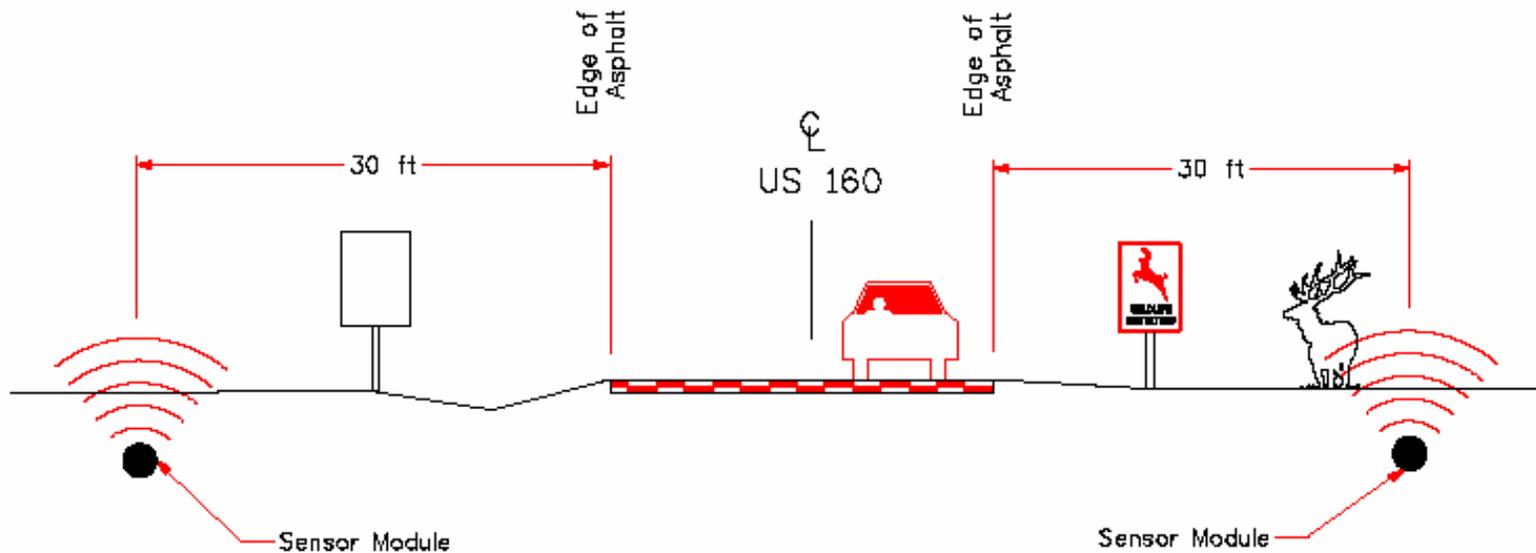
Near Ridgway State Park, US550

- 8 miles of wildlife fencing
- Wildlife were getting trapped
- 3 escape ramps constructed by maintenance using recycled material



Cost Effective Solutions – Reducing Wildlife/Vehicle Collisions

Wildlife Detection/Warning Schematic



Reducing Wildlife/Vehicle Collisions – What is Needed

- 121 miles in Region 5 would benefit from wildlife-vehicle mitigation
- Cost to mitigate: \$121 million or \$1 million per mile
- With mitigation, wildlife-vehicle collisions could be reduced by 90%
- Property damage could be reduced annually from \$1.74 million to \$174,000



Safety Issues - Intersections



Intersections – Doing More with Less



Intersections – What is Needed

- Safety improvements for a typical intersection can cost \$6 million or more
- Region 5 dedicates approximately \$600,000 per year to fund intersection improvements
- This would fund only 2 to 3 intersections over 25 years

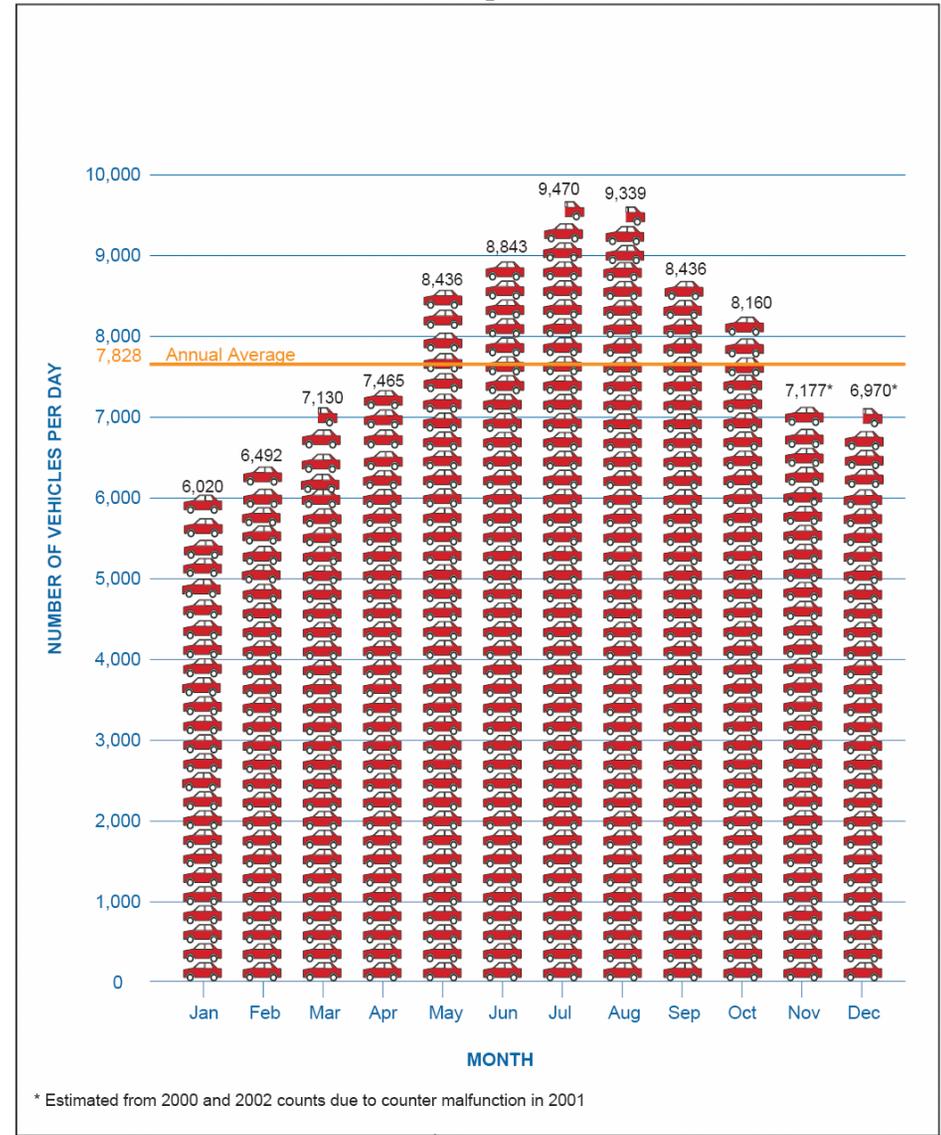


Tourism – Impacts to the System



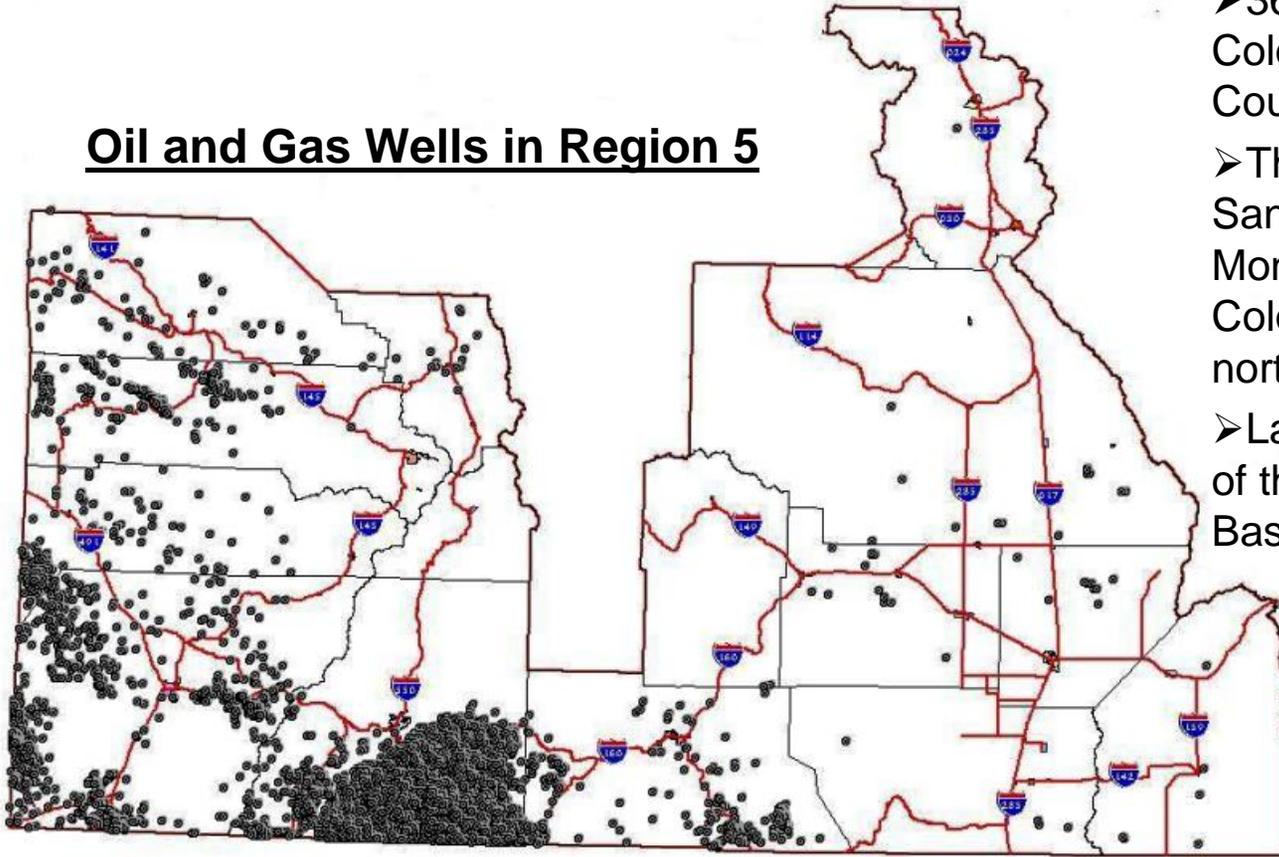
Tourism – Impacts to the System

- 65% of Region 5 is public land
- There are 3 National Parks and Monuments and 4 National Forests
- In Durango, there is a 57% increase in vehicles per day from January to July because of summer tourism



Energy – Oil and Gas Impacts

Oil and Gas Wells in Region 5



- 36% of gas produced in Colorado comes from La Plata County, highest in the state
- There are 29,000 wells in the San Juan Basin (La Plata, Montezuma and Archuleta in Colorado, also includes northwestern New Mexico)
- La Plata County produces 43% of the natural gas in the San Juan Basin

Energy – Oil and Gas Impacts

- It takes an average of 900 truck loads of material, supplies, and infrastructure to drill one gas well.
- 844 additional wells are expected to be drilled in the next decade in southwest Colorado
- The truck traffic for setup, drilling, removal and reclamation for 844 wells equates to over 4.8 billion additional passenger car equivalent trips



Energy – Mining Impacts

- Department of Energy expanding leasing for uranium mining: 38 leases total
- Up to 3,600 loaded ore trucks per month on SH141, SH90 and portions of SH145
- Percent increase in truck traffic on SH141 and SH90: 429% and 510%
- Percent increase in traffic volumes on SH141 and SH90: 53% and 93%
- Uranium Mill proposed near Naturita with capacity of 1,000 tons/day



SAN MIGUEL BASIN FORUM

Serving Nucla, Naturita, Norwood & Surrounding Areas

Uranium Spot Price, July 23
\$120.00
Down \$10
25 Cents

Uranium Mill To Be Operational 2010

Energy Fuels Releases Permitting Steps, Estimated Construction Dates On Mill



Energy Fuels To Build In Paradox Area

Energy Fuels plans to have the Pinon Ridge Uranium Mill up and running by 2010, according to President and CEO, George Glasier.

The Company has acquired approximately 1,000 acres of property located West of Naturita in the Paradox Valley of Western Montrose County.

With state of the art automation and control, the Pinon Ridge Mill will be designed to be the most cost effective facility available for conventional uranium/vanadium ore processing. The mill will be located approximately 14 miles west of Naturita in a recently producing uranium district with numerous mines visible from the site that have been operational within the last two years. It is less than two miles from an open uranium surface mine with a known historical resource that has been on standby since 1984 because of low uranium prices.

George Glasier, Energy Fuels President and CEO, reports that, This land acquisition is a major step in Energy Fuels' return as a major US uranium producer. It will enable us to provide vital domestic fuel supply for the nation's nuclear power plants, and at the same time, offer an opportunity for many small miners in this uranium rich area to bring new supply to market. We

Population Growth – Impacts to the System



Region Mobility Concerns



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Responding to the Demand... Transit Center in Durango



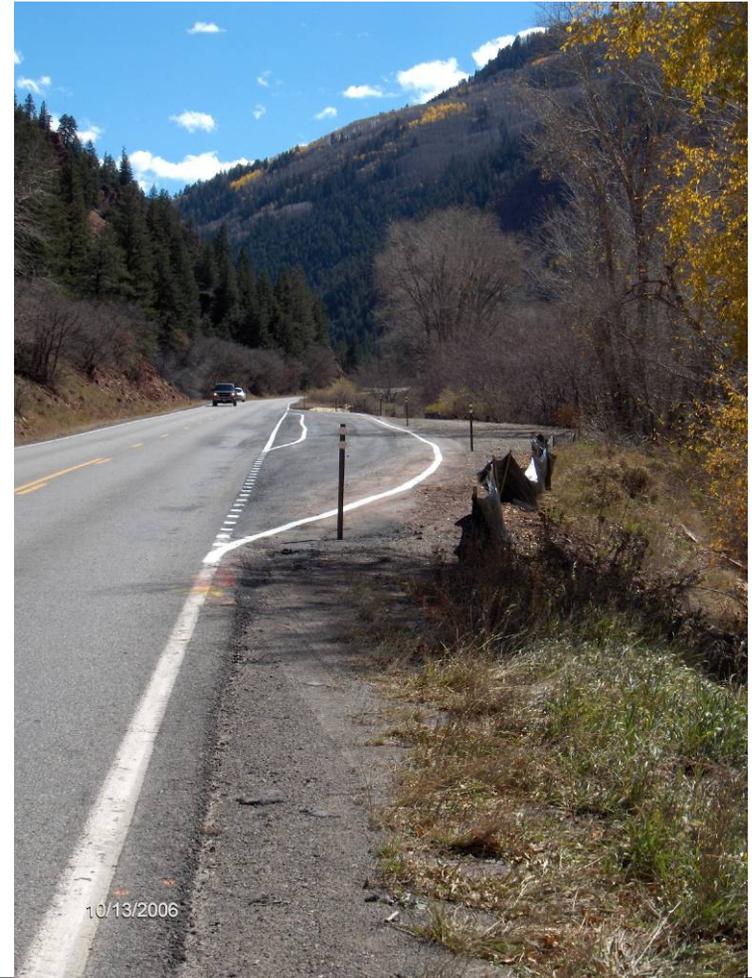
Responding to the Demand.....One Way Pairs in Alamosa



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Responding to the Demand....Passing Lanes and Turnouts



Regional Corridors and Future Funding Needs



- Unfunded Needs for US160 Durango to Bayfield = \$350 million
- Unfunded Needs for US550 New Mexico Stateline North = \$80 million
- Unfunded Needs for US160 Wolf Creek Pass = \$100 million

Major Maintenance Concerns

- Maintaining roads on high mountains passes
- Keeping roads open
- Doing more with less money
 - Asphalt prices have increased 85% between 2003 and 2007
 - Gravel prices have increased 161% between 2003 and 2007
 - Chips have increased 36% between 2003 and 2007
 - Magnesium Chloride has increased 36% between 2003 and 2007



Maintenance – Doing More with Less



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Maintenance – Doing More with Less



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CDOT Priorities

- Maintaining and reconstructing roads
- Keeping roads open
- Finding ways to keep aging infrastructure safe and useable
- Responding to increasing impacts from tourism, energy and population growth
- Have projects designed and ready to go





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