

# PAVEMENT PRESERVATION PROGRAM

**PRESERVE INFRASTRUCTURE**



**OPTIMIZE MOBILITY**



**ZERO FATALITIES**



**STRENGTHEN THE ECONOMY**

## PROGRAM SUMMARY

Pavement Preservation projects are part of a planned ‘Good Roads Cost Less’ strategy that includes cost-effective treatments to an existing roadway to preserve and prolong the service life of the system.

The goal of the Pavement Preservation Program is to prevent damage to extend overall pavement life.

### PROGRAMMED

**2012:** \$ 43.9 million

**2013:** \$ 39.7 million

### CONTACT

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*A chip-seal is an example of resurfacing process that prolongs the service life of asphalt roads.*

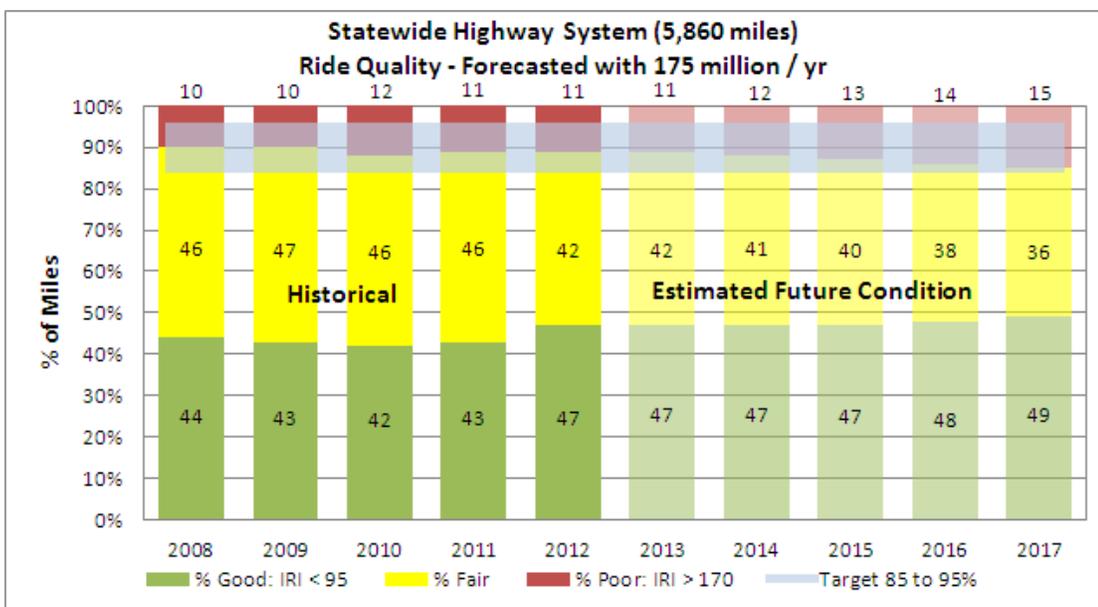
### Project planning and eligibility

Projects are limited to pavement surface treatments only, and do not include drainage, realignment, curb, gutter and sidewalk or signal work, with the exception of replacing signal detection removed as a result of resurfacing.

The Regions are responsible for identifying eligible projects each year which can include treatments such as thin asphalt overlays, surface seals, lane leveling, concrete joint and spall repair, concrete sealants and bridge membranes.

Project prioritization considers the need for the preservation effort based on pavement life cycle.

## ACCOMPLISHMENTS



Ride quality is evaluated using the International Roughness Index (IRI).

State roads categories: Level 1, carrying more than 1,000 vehicles or 200 trucks per day or Level 2, carrying less than 1,000 vehicles per day.

UDOT maintains 90 to 95 percent of Level 1 roads as Good or Fair and 80 to 90 percent of Level 2 roads as Good or Fair.

# PAVEMENT REHABILITATION PROGRAM

**PRESERVE INFRASTRUCTURE** ◇ OPTIMIZE MOBILITY ◇ ZERO FATALITIES ◇ STRENGTHEN THE ECONOMY

## PROGRAM SUMMARY

Pavement Rehabilitation Projects are part of a prescriptive and cost-effective resurfacing, restoration and rehabilitation strategy that prolongs the service life and enhances the safety of existing roadways.

The goal of the Pavement Rehabilitation Program is to repair damage in order to extend overall pavement life. The program receives state and federal funds.

### Project planning and eligibility

Projects are limited to pavement surface treatments only, and do not include drainage, roadway realignment, curb, gutter and sidewalk or signal work, with the exception of replacing signal detection removed as a result of resurfacing.

The UDOT Regions use recent asset management data collection and roadway inspections to identify projects each year.

Eligible projects may include roto-mill and asphalt overlay, in-place recycling, concreted slab replacement and dowel bar retrofits.

Extensive deterioration can exclude a road section from consideration.

### PROGRAMMED

**2012:** \$ 111.5 million

**2013:** \$ 109.4 million

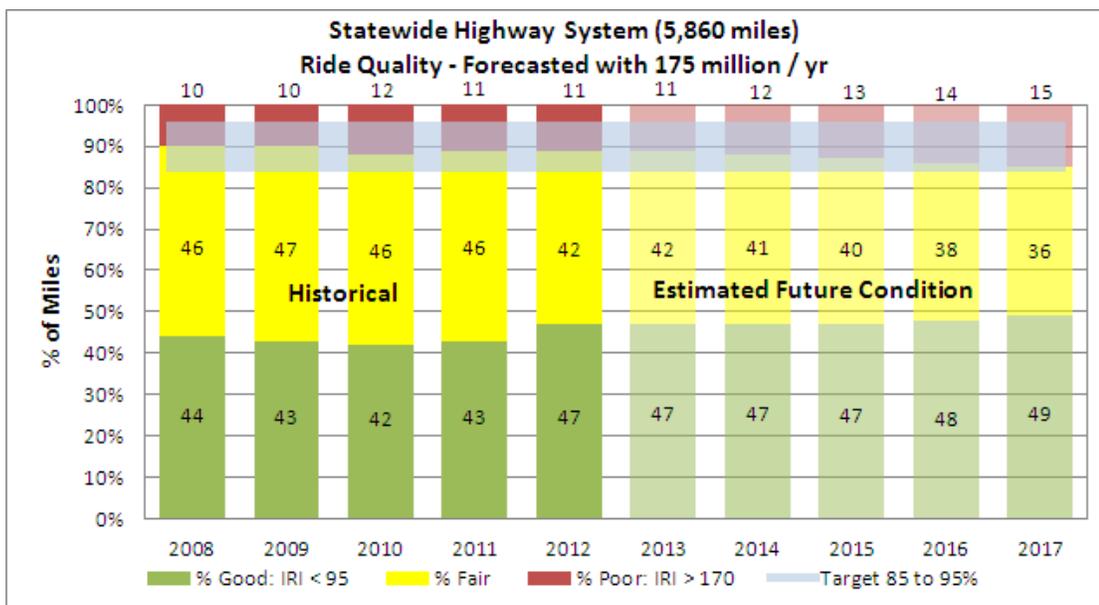
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*Used appropriately, Cold In-place Recycling is an economical way to resurface roads using existing asphalt.*

## ACCOMPLISHMENTS



Ride quality is evaluated using the International Roughness Index (IRI).

State roads categories: Level 1, carrying more than 1,000 vehicles or 200 trucks per day or Level 2, carrying less than 1,000 vehicles per day.

UDOT maintains 90 to 95 percent of Level 1 roads as Good or Fair and 80 to 90 percent of Level 2 roads as Good or Fair.

# BRIDGE PROGRAM

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## PROGRAM SUMMARY

The Bridge Program uses state and federal funding to replace, rehabilitate and inspect bridges.

The program typically funds the replacement or rehabilitation of existing bridges that are structurally deficient, however, funds may also be used for construction of new structures that better address current safety and mobility requirements.

The Load Rating and Bridge Inspection Programs, which are also funded, ensure that bridges are in adequate condition to accommodate anticipated traffic needs.

## Project Selection

Projects are selected based on deficiencies observed during biannual bridge inspections. Region recommendations are also considered, and replacement and rehabilitation projects are often coordinated with region safety projects.

Projects are categorized by level of risk and funding is applied to maximize infrastructure preservation.

## ACCOMPLISHMENTS

In Federal Year 2012, three structurally deficient bridges were replaced, including two sister structures at the Wanship Interchange, and a bridge in Big Cottonwood Canyon.

In FY 2013, two structurally deficient bridges are scheduled to be replaced, and the superstructure on two structurally deficient bridges will be replaced, along with continued funding of the Load Rating and Inspection Programs.

### PROGRAMMED

**2012:** \$ 15.2 M

**2013:** \$ 15.2 M

### CONTACT

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*A project to build a new interchange on I-80 near Wanship in UDOT Region Two replaced aging sister structures.*

# CAPACITY & CHOKE POINT PROGRAM

PRESERVE INFRASTRUCTURE ◊ OPTIMIZE MOBILITY ◊ ZERO FATALITIES ◊ STRENGTHEN THE ECONOMY

## PROGRAM SUMMARY

The federal Capacity and Chokepoint Program funds projects that relieve localized reoccurring traffic congestion.

Traffic chokepoints impinge on economic productivity by delaying delivery of goods and services and slowing commute times. Traffic congestion can also contribute to a less-safe driving environment as drivers break or change lanes suddenly to jockey for position. Sometimes, chokepoints contribute to poor air quality through stop-and-go driving patterns which result in higher emissions.

### Project Selection and Prioritization

Projects are scored, ranked and presented to the Utah Transportation Commission for approval of funding within a given STIP year. Scores are based on, average annual daily traffic, constructability, region priority, level of service and safety.

## ACCOMPLISHMENTS

Examples of three chokepoint projects that will be under construction in 2013:

- ◆ I-15 Mona, (South Santaquin Hill) northbound
- ◆ SR-154, 134 South Intersection
- ◆ US-40, MP 103 Pleasant Valley Intersection

### PHOTOS

*Chokepoints occur in rural and urban areas across the state.*

*Top: North of St. George, I-15 is characterized by steep climbs between the Black Ridge Mountains and the Iron County line. The important commerce corridor carries UDOT Region Four's highest traffic volume with 25,000 vehicles a day, including 5 thousand trucks. A project to build new truck climbing lanes was completed in 2011.*

*Middle: Continuous Flow Intersections have been built to relieve chokepoints along urban business corridors in Region Two. CFI's provide more green-light time by allow left-turning traffic to proceed through the intersection along with through-traffic. The innovative approach can increase the number of cars moving through an intersection by up to 70 percent. This CFI is one of several along busy Bangerter Highway.*

*Bottom: This image from an instructional video shows how traffic is routed.*

### PROGRAMMED

2012: \$ 35 million

2013: \$ 35 million

### CONTACT

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# HIGHWAY SAFETY IMPROVEMENT PROGRAM

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## PROGRAM SUMMARY

The federally-funded Highway Safety Improvement Program supports infrastructure and non-infrastructure efforts that are expected to reduce traffic fatalities and serious injuries.



### Project planning and eligibility

Projects must be on a public roadway at a location with a correctable fatal or serious injury crash history, show a positive estimated benefit to cost ratio, and conform to the State Strategic Highway Safety Plan. UDOT collaborates with FHWA to select and oversee projects.

*Rumble strips prevent run-off-the-road crashes*

### PROGRAMMED

2012: \$10 million

2013: \$19.9 million

### CONTACT

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Infrastructure projects typically include:

- ◆ Installing median cable barrier, rumble strips, warning signs and pavement markings
- ◆ Clearing roadside obstructions
- ◆ Widening intersections to add turn lanes.

Preventing run-off-road crashes is a funding priority.

Non-infrastructure projects include education efforts that address a highway safety problem, program management, and crash data-base development.

Part of UDOT's HSIP funding is used to fund the ZERO Fatalities public education effort that addresses behaviors that lead to traffic fatalities.

## ACCOMPLISHMENTS

HSIP projects help UDOT achieve the ZERO Fatalities Strategic Goal.



# SIGNS AND CULVERTS

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## PROGRAM SUMMARY

Federal National Highway Performance Program and Highway Safety Improvement Program funding will help UDOT improve signs and culverts.

Signs and culverts are important roadway assets that support safety and mobility.

### SIGNS:

Freeway signs provide direction and clarity for road users. Federal funding will help UDOT replace overhead signs in on critical travel and corridors in Salt Lake County.

### PROGRAMMED

**2012:** No funding

**2013:** \$ 3 million

### CONTACT

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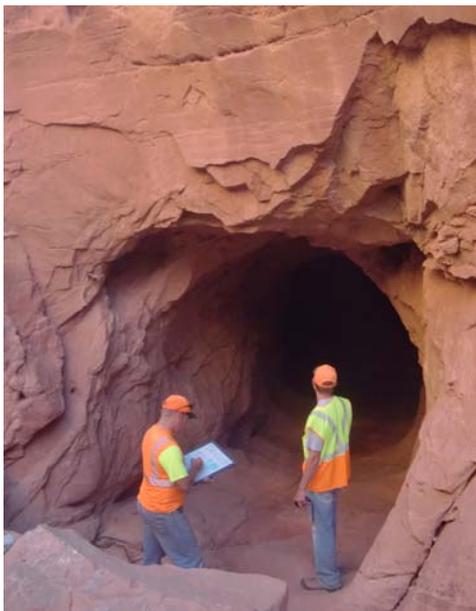
*Many signs in UDOT Region Two are due for replacement.*

### CULVERTS:

Effective drainage systems keep water off of roads to improve motorist safety and to keep pavement healthy. Malfunctioning culverts can cause hazardous conditions to develop suddenly, and can cause pavement or the road base to erode over time. Funding will allow UDOT to focus on improving culverts that are badly distorted or corroded.

### PROJECT SELECTION:

UDOT has been collecting roadway asset information in order to identify the signs and culverts that need to be replaced. Projects will be integrated with other road work. UDOT Regions will help prioritize project selection.



*UDOT workers inspect a culvert in southern Utah.*

*In 2012, UDOT completed a four-year project to collect baseline culvert data on over 25 thousand cross-cut culverts.*

*The statewide culvert condition data is accessible online via a central database at UDOT's Map Center:*

[uplan.maps.arcgis.com](http://uplan.maps.arcgis.com)

# TRANSPORTATION ALTERNATIVES PROGRAM

PRESERVE INFRASTRUCTURE  $\diamond$  OPTIMIZE MOBILITY  $\diamond$  ZERO FATALITIES  $\diamond$  STRENGTHEN THE ECONOMY

## PROGRAM SUMMARY

The Transportation Alternatives Program supports projects that enhance safety and mobility, improve facilities, and expand options for non-drivers.

TAP covers a broad range of projects that include:

- ◆ On and off road pedestrian and bicycle facilities and Recreational Trail Program projects
- ◆ Planning, design or construction of boulevards or roadways largely in the right-of-way of former interstates or divided highways
- ◆ Improving public transportation access and enhanced mobility
- ◆ Improving community facilities and providing environmental mitigation
- ◆ Safe Routes to School projects

### PROGRAMMED

2012: \$6 million

2013: \$4.8 million

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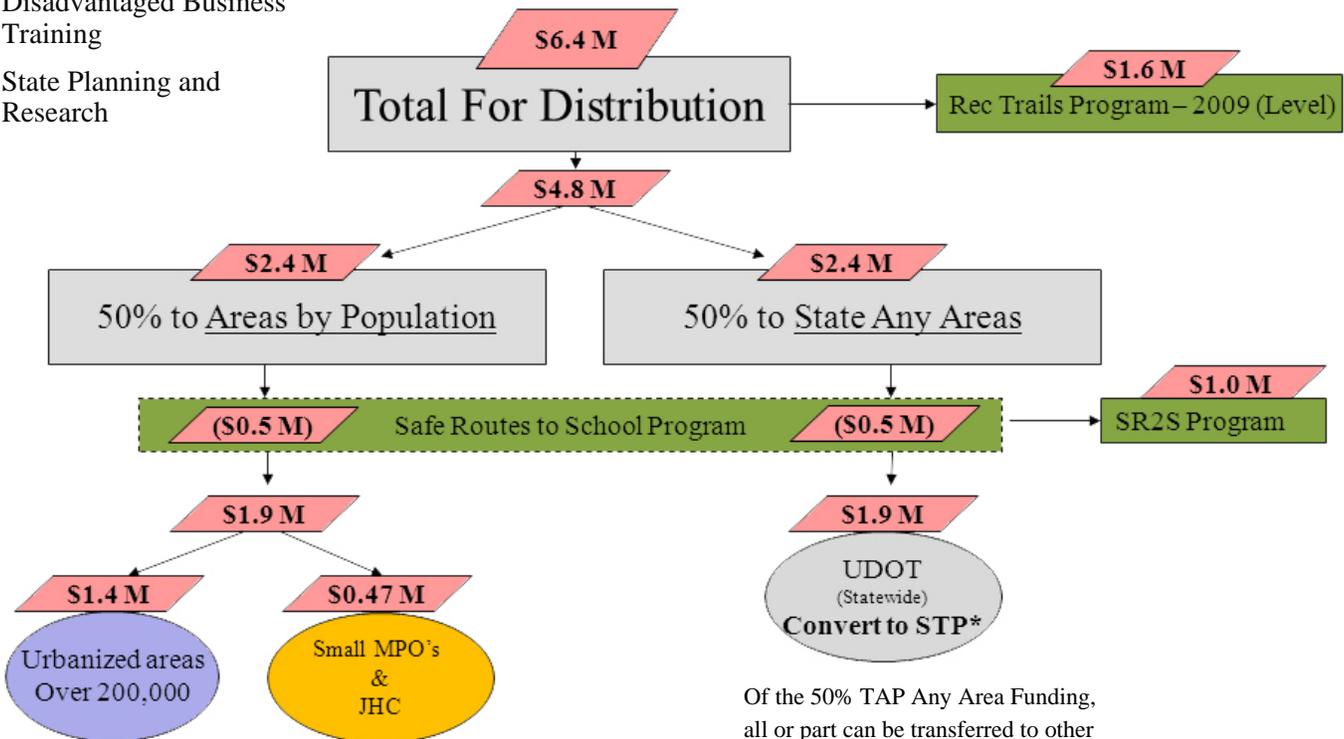
**MAP 21 Legislation:** Recent transportation legislation has changed the way funds are distributed and programmed.

## TAP Apportionment for Federal Year 2014

DRAFT Transportation Alternatives — (TA)

### Funds taken off the top for:

- Metropolitan Planning
- Disadvantaged Business Training
- State Planning and Research



Of the 50% TAP Any Area Funding, all or part can be transferred to other programs, including the State Transportation Program.

Revised: 10-25-2012