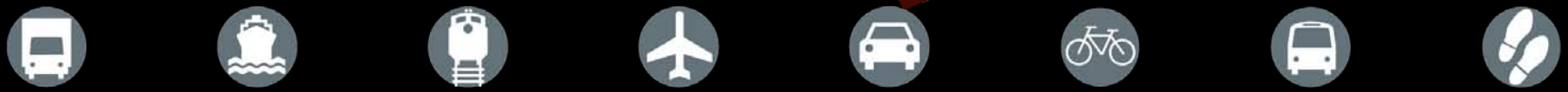
Performance Management at the Minnesota Department of Transportation

9th National Conference on Transportation Asset Management

April 17, 2012

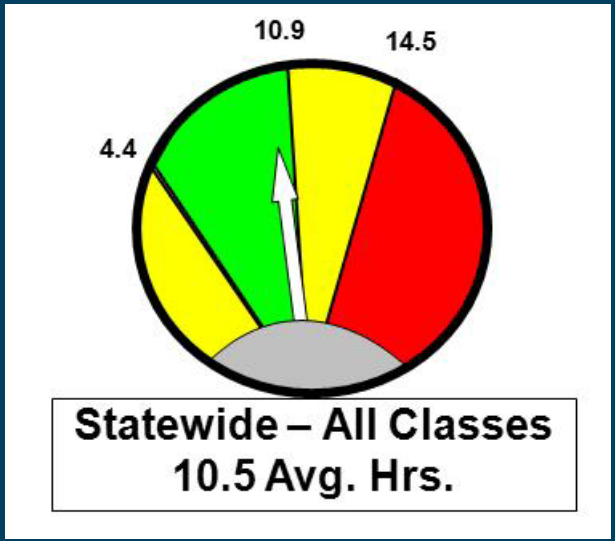
Your Destination...Our Priority



Overview

- MnDOT's early history with performance management
- Recent practice – performance based planning
- New direction – incorporating risk

Performance Management History

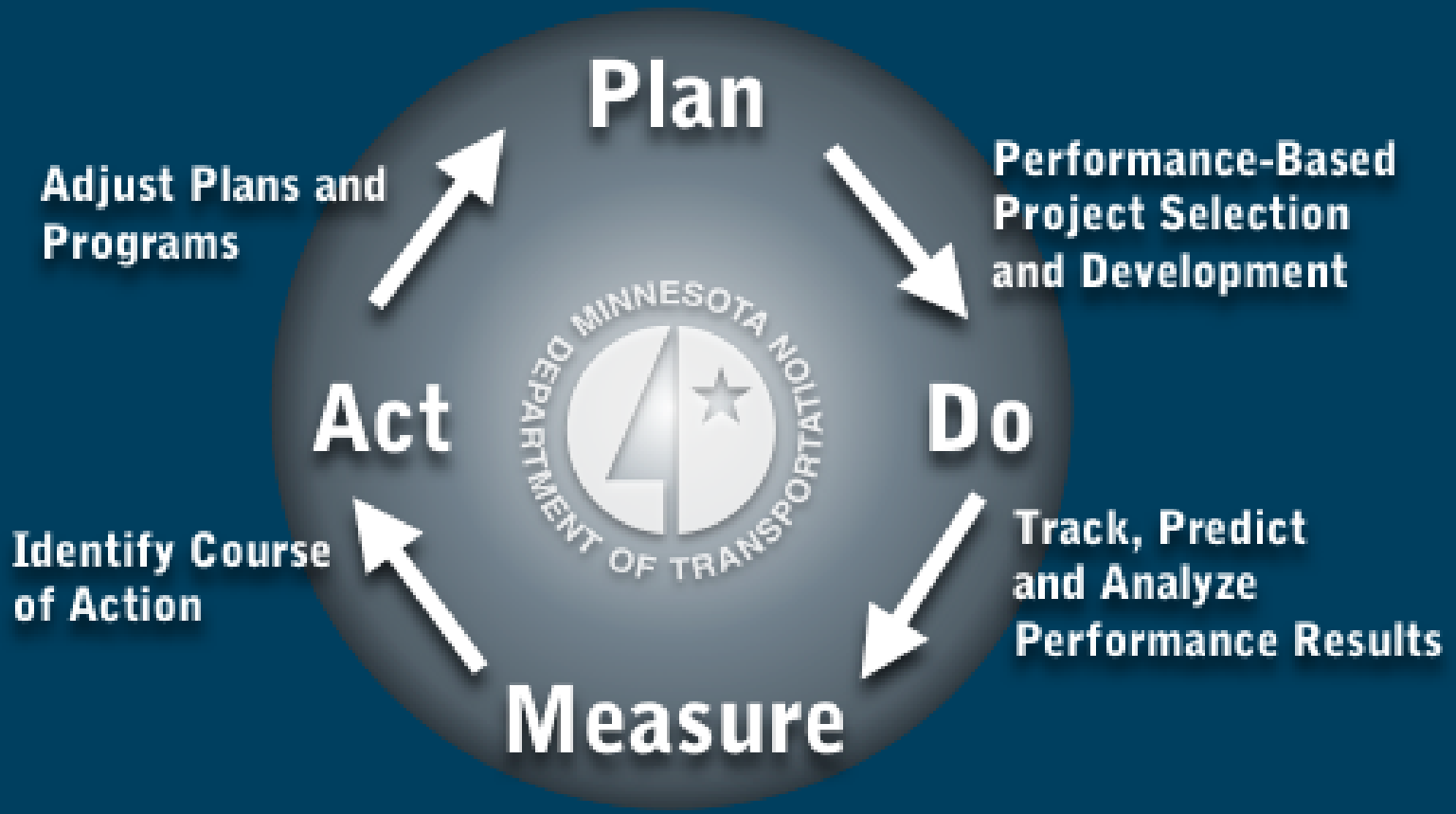


- 1990s – Began developing performance management tools
  - Maintenance Measures
- 2000s – Dashboards and regular reports to Commissioner's Staff
- 2003 – First performance-based statewide plan

Target Setting

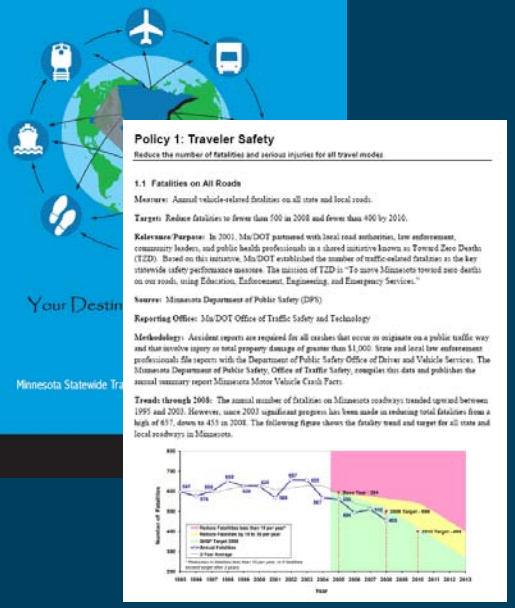
- Generally policy-based
- Factors in setting MnDOT targets
  - Legal-regulatory
  - Safety, risk, engineering
  - Customer research
  - Cost efficiency over life cycle
  - Historical baseline
  - Vision
- Not constrained by funding levels, but realistic

Performance Management Cycle



Performance-based Planning and Programming

Policy Plan



Policy 1: Traveler Safety

Reduce the number of fatalities and serious injuries for all travel modes

1.1 Fatalities on All Roads

Measure: Annual vehicle-related fatalities on all state and local roads.

Target: Reduce fatalities to fewer than 500 in 2008 and fewer than 400 by 2010.

Relevance/Purpose: In 2001, MnDOT partnered with local road authorities, law enforcement, community leaders, and public health professionals in a shared initiative known as Toward Zero Deaths (TZD). Based on this initiative, MnDOT established the number of traffic-related fatalities as the key statewide safety performance measure. The mission of TZD is "To move Minnesota toward zero deaths on our roads, using Education, Enforcement, Engineering, and Emergency Services."

Source: Minnesota Department of Public Safety (DPS)

Reporting Office: MnDOT Office of Traffic Safety and Technology

Methodology: Accident reports are required for all crashes that occur or originate on a public traffic way and that involve injury or total property damage of greater than $1,000. State and local law enforcement professionals file reports with the Department of Public Safety Office of Driver and Vehicle Services. The Minnesota Department of Public Safety, Office of Traffic Safety, compiles this data and publishes the annual summary report Minnesota Motor Vehicle Crash Facts.

Trends through 2008: The annual number of fatalities on Minnesota roadways trended up and down between 1995 and 2003. However, since 2003 significant progress has been made in reducing total fatalities from a high of 657, down to 433 in 2008. The following figure shows the fatality trend and target for all state and local roadways in Minnesota.

Investment Plans

STRATEGIC INVESTMENT PRIORITY	PLANNING PERIOD 2009 to 2018 Need ($)	% of Need	2019 to 2028 Need ($)	% of Need	2009 to 2028 TOTAL ($)	% of Total
Traveler Safety	1,780	6%	1,360	4%	3,140	5%
Roadway Enhancements	790		800		1,590	
Capacity Improvements	990		560		1,550	
Infrastructure Preservation	7,080	23%	9,240	29%	16,320	26%
Chapter 152 Bridge Program	2,420		100		2,520	
Other Bridge	720		2,000		2,720	
Pavement	3,600		6,480		10,080	
Other Infrastructure	340		660		1,000	
Mobility	21,760	71%	20,840	66%	42,600	69%
Interregional Corridors	1,740		1,840		3,580	
Greater MN Trade Centers	130		120		250	
Twin Cities Metro Area	19,890		18,880		38,770	
Total Investment	$30,620 M		$31,440 M		$62,060 M	

Performance Monitoring

Overarching goals, policies, and performance measures that guide investment

Detailed analysis of investments, including expected performance impacts, legislative guidance, and stakeholder input

Regular review of performance in each policy area

2013 - 2032 Update

MINNESOTA DEPARTMENT OF TRANSPORTATION

Key Components

- Impact of recent expenditures on performance trends
- Costs to meet performance-based needs
- Investment direction for projected revenue
- Planned investments and associated outcomes
- Implementation strategies that use available resources wisely
- Risk Assessment

Major Consideration: Minnesota GO Planning Process

Minnesota GO 50-year Vision

Desired Outcomes

Guiding Principles

Statewide Multimodal Transportation Plan

Multimodal Objectives

Strategies

State Highway Investment Plan

Mode-Specific Strategies & Guidance

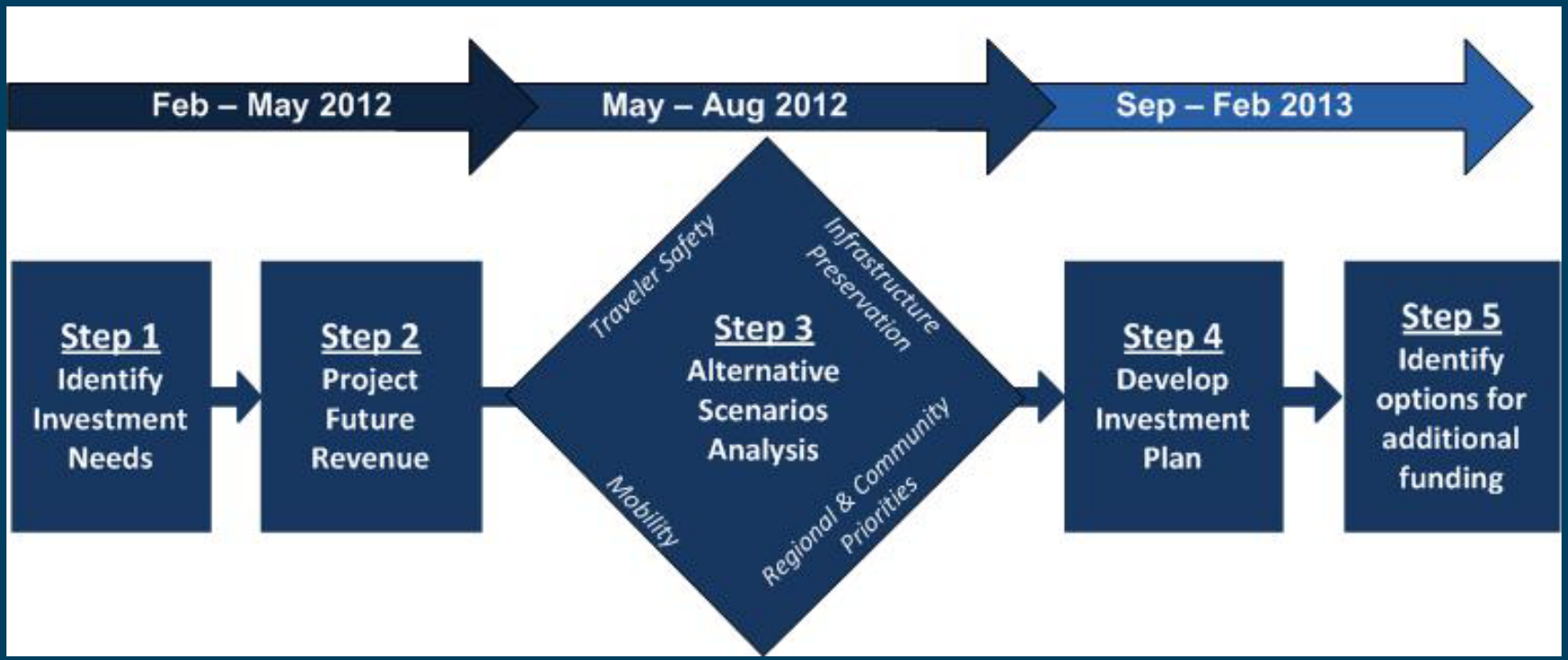
Performance Measures & Performance-Based Needs

Investment Tradeoffs

System Priorities & Definition

Plan Development: 5-Step Process

Objective: Refine traditional 5-Step Process to address evolving plan considerations (vision, reauthorization, risk.)



Key Process Changes

- **Integrate Performance Planning & Risk Assessment**
  - Utilize risk assessment to produce several "Performance Level" options within each individual performance category. Define outcomes associated with each level.
- **Broaden evaluation of alternative scenarios**
  - Internal: Develop & evaluate "Performance Level" options across categories. Generate several alternative scenarios & associated outcomes for public discussion
  - External: Solicit stakeholder feedback

How will Risk be Incorporated into the Highway Investment Planning Process?

MinnesotaGO
A Collaborative Vision for Transportation

20-Year State Highway Investment Plan

STEP 1
Determine needs and strategies to address risks in each asset categories

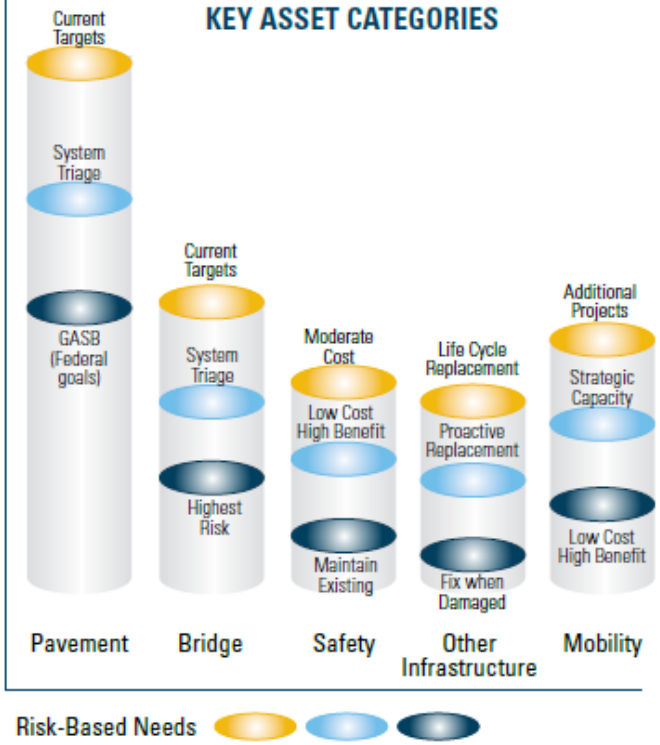
STEP 2
Assess risk to revenue projections

STEP 3
Group individual risk-based performance levels into alternative scenarios

STEP 4
Select alternative to direct development of State Highway Investment Plan

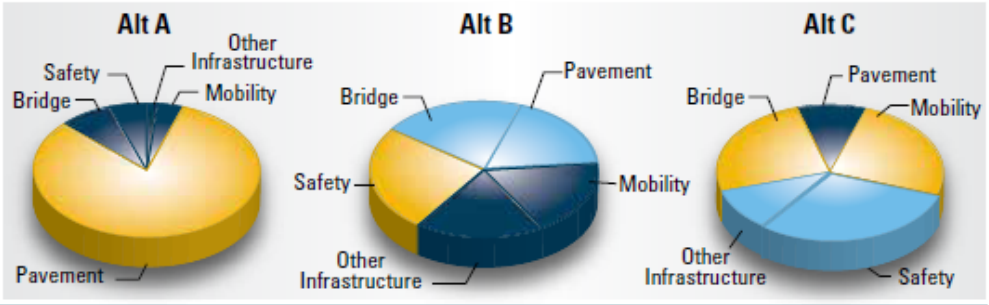
STEP 5
Identify risk-based priorities if additional funding is allocated

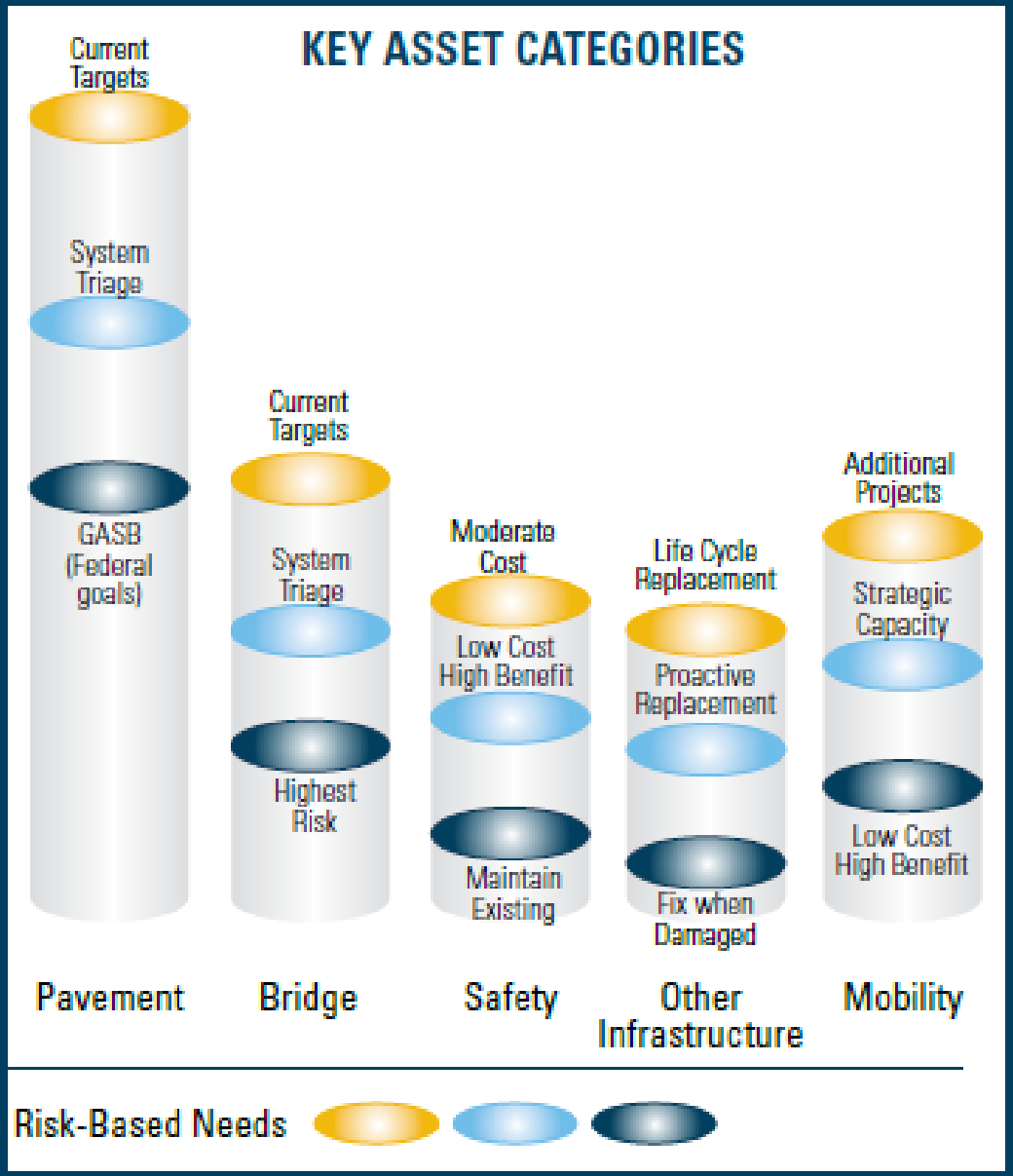
KEY ASSET CATEGORIES



ALTERNATIVE INVESTMENT SCENARIOS

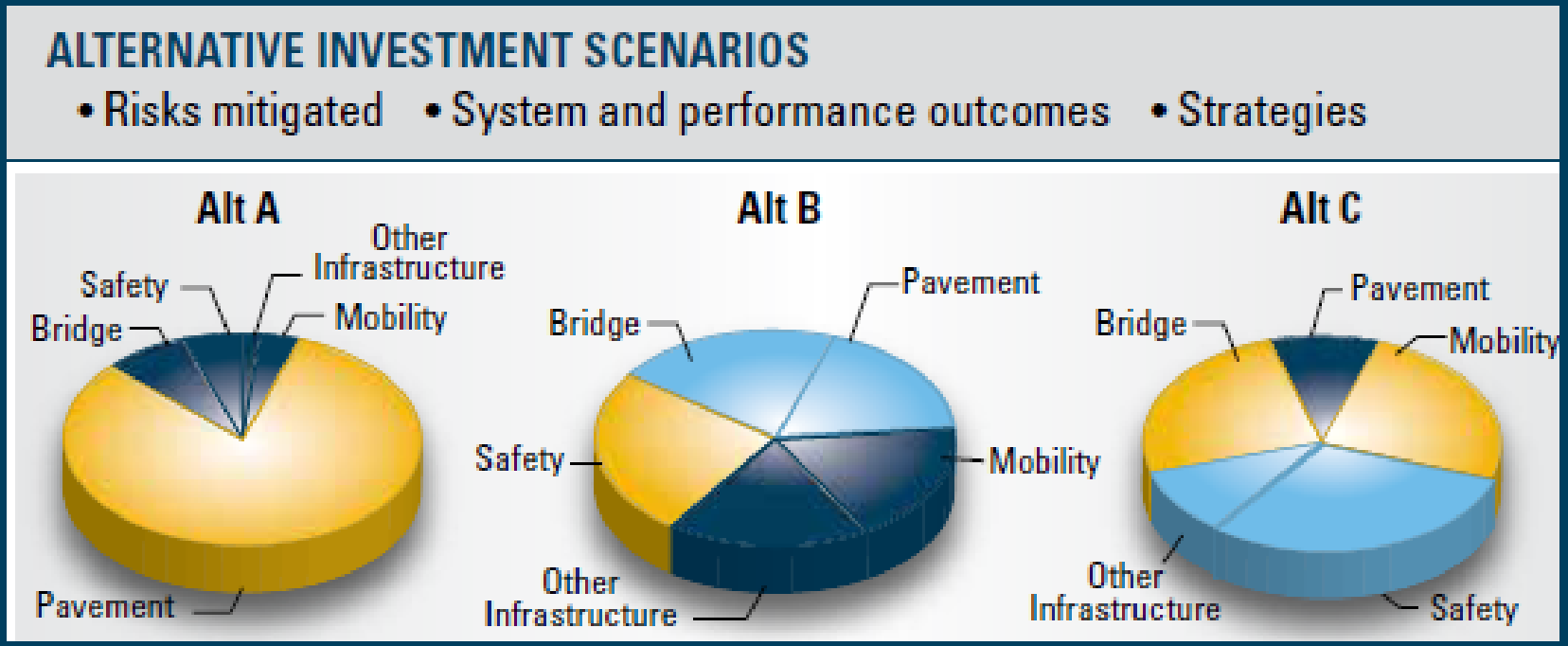
• Risks mitigated • System and performance outcomes • Strategies





- **Step 1** Determine needs and strategies to address risks in each asset category
- **Step 2** Assess risk to revenue projections

- **Step 3** Group individual risk-based performance levels into alternative scenarios
- **Step 4** Select alternative to direct development of State Highway Investment Plan



- **Step 5** Identify risk-based priorities if additional funding is allocated

Additional Issues & Future Considerations

- Performance Targets
- Funding Distribution
- Capital/Maintenance tradeoffs
- Asset Management Plans

Comments/Questions

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