

Asset Management and MAP-21



January 11, 2013

Statewide Transportation Advisory Committee

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Division of Transportation Development

Today's Presentation

- MAP-21 Goals/Measures and Asset Management
- Policy Directive (PD) 14 and Asset Management

MAP-21 and Asset Management



National Goals/Measures

| MAP-21 National Goal Areas | Safety | Infrastructure Condition | Congestion Reduction | Freight Movement and Economic Vitality | System Reliability | Environment Sustainability | Reduced Project Delivery Delays |
|---------------------------------|--|---|--|---|--|---|---------------------------------|
| MAP-21 Perform. Measures | <ul style="list-style-type: none"> • Serious injuries per VMT • Fatalities per VMT • Number of serious injuries • Number of fatalities | <ul style="list-style-type: none"> • Pavement condition of the Interstate system • Pavement condition of the NHS (excluding Interstates) • Bridge condition on the NHS • Transit State of Good Repair | <ul style="list-style-type: none"> • Traffic congestion | <ul style="list-style-type: none"> • Freight movement on the Interstate system | <ul style="list-style-type: none"> • Performance of Interstate system • Performance of the NHS (excluding Interstate system) | <ul style="list-style-type: none"> • On-road mobile source emissions | None |

Asset Management in MAP-21

Risk-based Asset Management Plan:

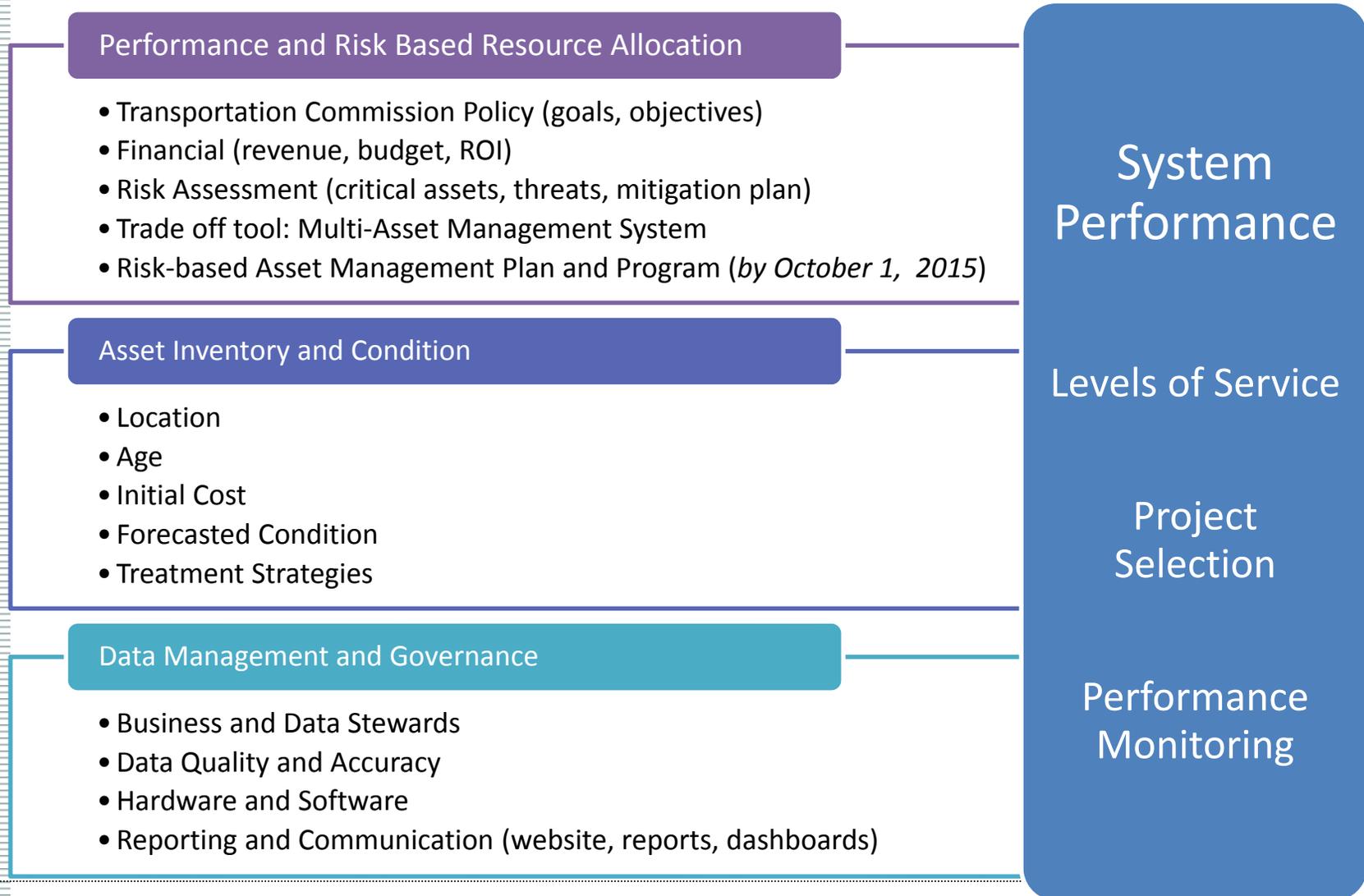
- As part of the National Highway Performance Program, states are required to develop “risk-based asset management plans” for the National Highway System. The purpose of the plan is to improve or preserve the condition of the assets and the performance of the highway system. The plan must, at a minimum, include:
 - a summary **listing of the pavement and bridge assets** on the National Highway System within the state, including a description of the **condition of those assets**;
 - asset management **objectives and measures**;
 - performance **gap identification**;
 - **lifecycle cost and risk management analysis**;
 - a **financial plan**; and
 - **investment strategies**.

If a state fails to develop and implement a state asset management plan, that state’s federal transportation **funding will be reduced by 35 percent**.

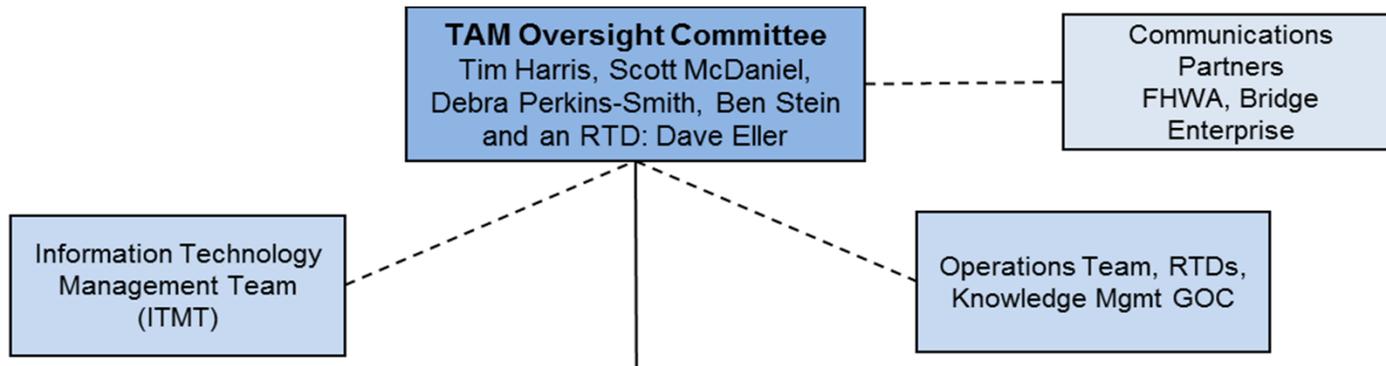


Asset Management at CDOT

Components of Transportation Asset Management (TAM):



Transportation Asset Management (TAM) Structure



TAM Working Committee

- Scott Richrath, Committee Chair
- JoAnn Mattson, Committee Vice Chair
- Sandi Kohrs, DTD Planning Branch
- PE II new hire
- William Johnson, GIS
- Lou Henefeld, GIS
- Bridge Engineer, Staff Bridge
- Mark Nord, Staff Bridge
- Cole Richards, Staff Bridge
- Stephen Henry, Pavement
- Bill Schiebel, Pavement
- Dave Wieder, Maintenance & Operations
- Roy Smith/Karen Neuschwanger, Fleet
- David Fox, Real Property Building Assets
- Ken DePinto/Bruce Coltharp, ITS
- TAM Consultant, TBD
- Charles Meyer, Traffic
- Laurie Freedle, OFMB
- Region 1 Rep, TBD
- Doug Lollar, R2 Program Engineer
- Jason Ahrens, R2 Business Manager
- Zane Znamenacek, R3 Traffic Engineer
- Mike Goolsby, R3 Deputy Superintendent
- Myron Hora, R4 Png and Env. Manager
- Mike McVaugh, R5 Traffic and Safety Engr
- Steve Pineiro, R6 Bridge Maintenance

| Multi Asset Management Task Force | |
|-----------------------------------|-------------|
| DTD | Maintenance |
| Staff Bridge | Fleet |
| Pavement | ITS |

| Asset Management Pilot Selection Task Force | |
|---|----------|
| DTD IMB | Region 4 |
| DTD TPB | Region 5 |
| Region 2 | |

| Risk Task Force | |
|-----------------|----------|
| Staff Branches | Region 4 |
| DTD TPB | Region 5 |
| OFMB | |

| Colorado Const. Cost Forecast Task Force | |
|--|------------|
| Staff Branches | Consultant |
| DTD TPB | |
| OFMB | |

| Task Force on Bridge Deterioration & Treatment Analysis Task Force | |
|--|----------------|
| Staff Bridge | Region 6 |
| DTD TPB | TAM Consultant |
| AECOM | |

| Real Estate Task Force | |
|------------------------|----------------|
| HQ ROW | Region 1 ROW |
| HQ Properties | GIS Unit |
| DTD TPB | TAM Consultant |

| Tunnels Task Force | |
|--------------------|----------|
| Staff Branches | Region 5 |
| DTD TPB | |
| Region 3 | |

| Traffic Services Task Force | |
|-----------------------------|----------------|
| MLOS | Region rep |
| HQ Traffic Ops | GIS Unit |
| DTD TPB | TAM Consultant |

Multi-Asset Management System



Pavement Analysis



Bridge Condition



Maintenance LOS



Fleet



ITS



Multi Asset Management System – the systematic process of operating, maintaining, upgrading, and disposing of multiple assets cost-effectively



Strategic Analysis Including Funding Needs & Trade-offs

Note: There are about 3,000 assets in each asset category

Policy Directive 14



Purpose of PD 14

- Provide framework for transportation planning
 - Reflect optimization of system by balancing:
 - Preservation
 - Efficient operations and management practices
 - Capacity improvements
- Guide allocation of resources to achieve goals and objectives:
 - Statewide Plan
 - STIP
 - Annual budget
- Provide structure for performance reporting



Asset Management Goals in PD 14

GOALS

Pavement

- Achieve 60% good/fair pavement condition system-wide

Bridge

- Achieve 95% good/fair bridge deck area condition system-side

Maintenance

- Achieve a B maintenance level of service grade

ACTUAL

Pavement

- Achieved 48% good/fair pavement condition on 9,146 lane miles

Bridge

- Achieved 96.4% good/fair deck area in FY 2012 on 3,447 bridges

Maintenance

- Achieved a B- level of service grade for nine program areas



January Joint SWP-Asset Management Committee Meeting

- Obtain initial input on PD 14:
 - Purpose
 - Goal areas
 - Performance measures for infrastructure condition:
 - Pavement
 - Bridge
 - Maintenance



February STAC

- Report-out from Joint Committee meeting in January
- A discussion on condition projections for:
 - Bridge
 - Highway
 - Maintenance

