

CDOT Asset Management Updates



Statewide Transportation Advisory Committee

Scott Richrath, Transportation Performance Branch

February 2013

Agenda

MAP-21 and Policy Directive 14

Bridges

Pavement

Maintenance



MAP-21 and Policy Directive 14



MAP-21 and PD 14

- Today's discussion will be focused on these MAP-21 performance measures, as well as measures for Maintenance:

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 	<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



Achievement of Current Asset Management Goals and Objectives

PD 14 GOALS	PD 14 OBJECTIVES	ACTUAL
Bridges <ul style="list-style-type: none"> Achieve 95% good/fair deck area condition system-wide 	Bridges <ul style="list-style-type: none"> Maintain/improve system-wide forecast for 2016 of 83% good/fair deck area 	Bridges <ul style="list-style-type: none"> Achieved 96.4% good/fair deck area
Pavement <ul style="list-style-type: none"> Achieve 60% good/fair condition system-wide 	Pavement <ul style="list-style-type: none"> Maintain/improve system-wide forecast for 2016 of 40% good/fair condition 	Pavement <ul style="list-style-type: none"> Achieved 47% good/fair
Maintenance <ul style="list-style-type: none"> Achieve a B maintenance level of service grade 	Maintenance <ul style="list-style-type: none"> Meet/exceed adopted annual maintenance level of service grade 	Maintenance <ul style="list-style-type: none"> Achieved a B- level of service grade
Other Roadway Assets <ul style="list-style-type: none"> Not included in PD 14 	Other Roadway Assets <ul style="list-style-type: none"> Not included in PD 14 	Other Roadway Assets <ul style="list-style-type: none"> Not included in PD 14



PD 14 Metrics and Objectives

	Metrics	Objectives	Achievement
Bridges	Deck area on structurally deficient bridges	<p>< 10 % deck area on structurally deficient bridges on NHS</p> <p>? - % <i>deck area on structurally deficient bridges for state highway system bridges</i></p>	< 5% of deck area on structurally deficient bridges on state highways
Pavement	Drivability	? - % <i>drivability for state highway system</i>	? - <i>drivability a new metric</i>
Maintenance	Level of Service (LOS) grade	? - <i>LOS grade for snow and ice removal; overall maintenance</i>	B- Level of Service Grade



Slide 6

SR28

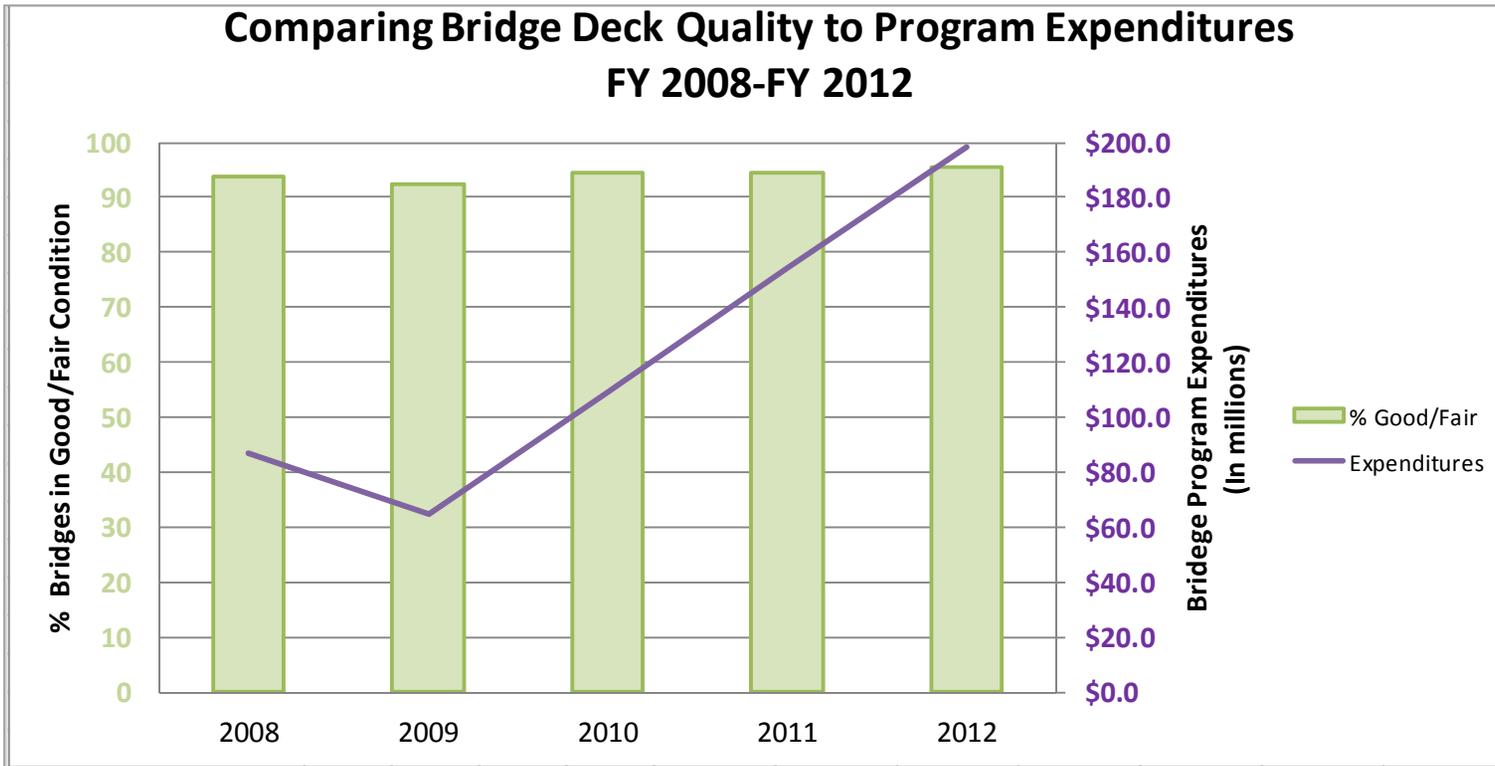
Andy, get with Gail Hoffman and see what the latest is for PD 14 for these categories.

Richrath, Scott, 2/3/2013

Bridges



Bridge History



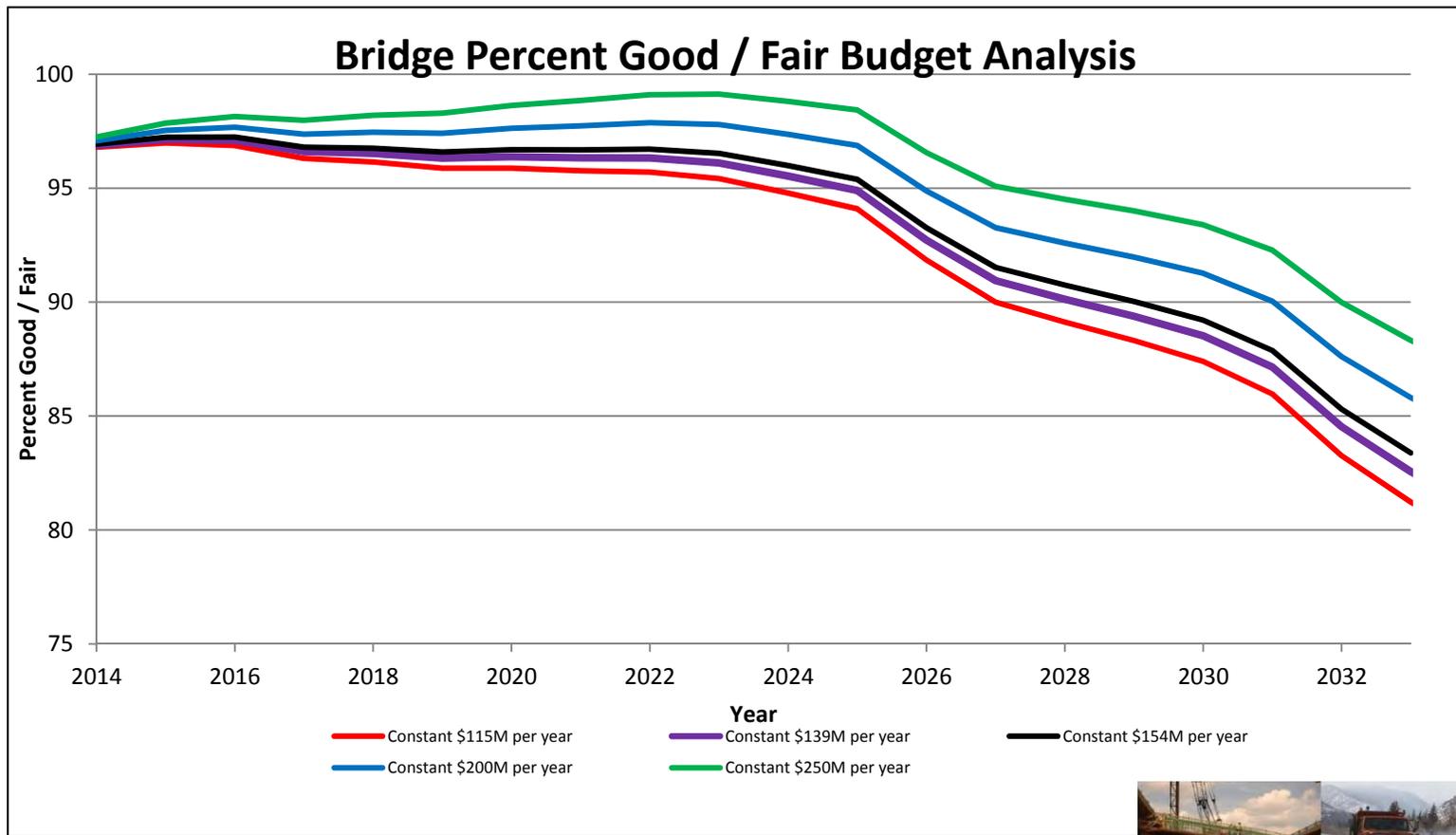
Expenditures from OFMB Summary.



Bridge Management

Analysis Assumptions

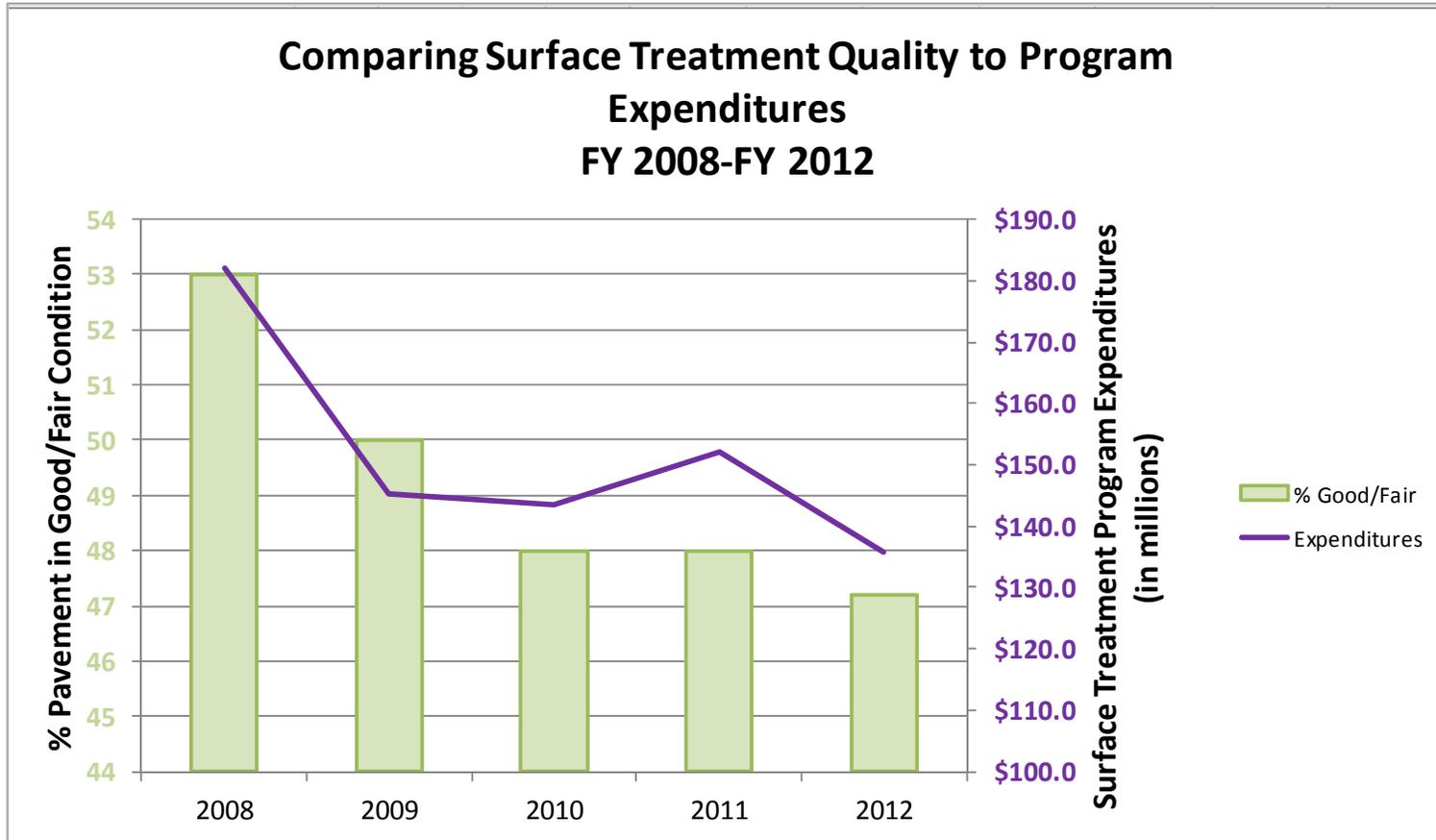
- Timeframe: 20 years
- Cost Inflation Rate: 3.0%
- Treatment: Bridge replacement at age 65
- Based on inventory of all CDOT owned major vehicular bridges including bridge enterprise bridges (does not include tunnels)



Pavement



Pavement History



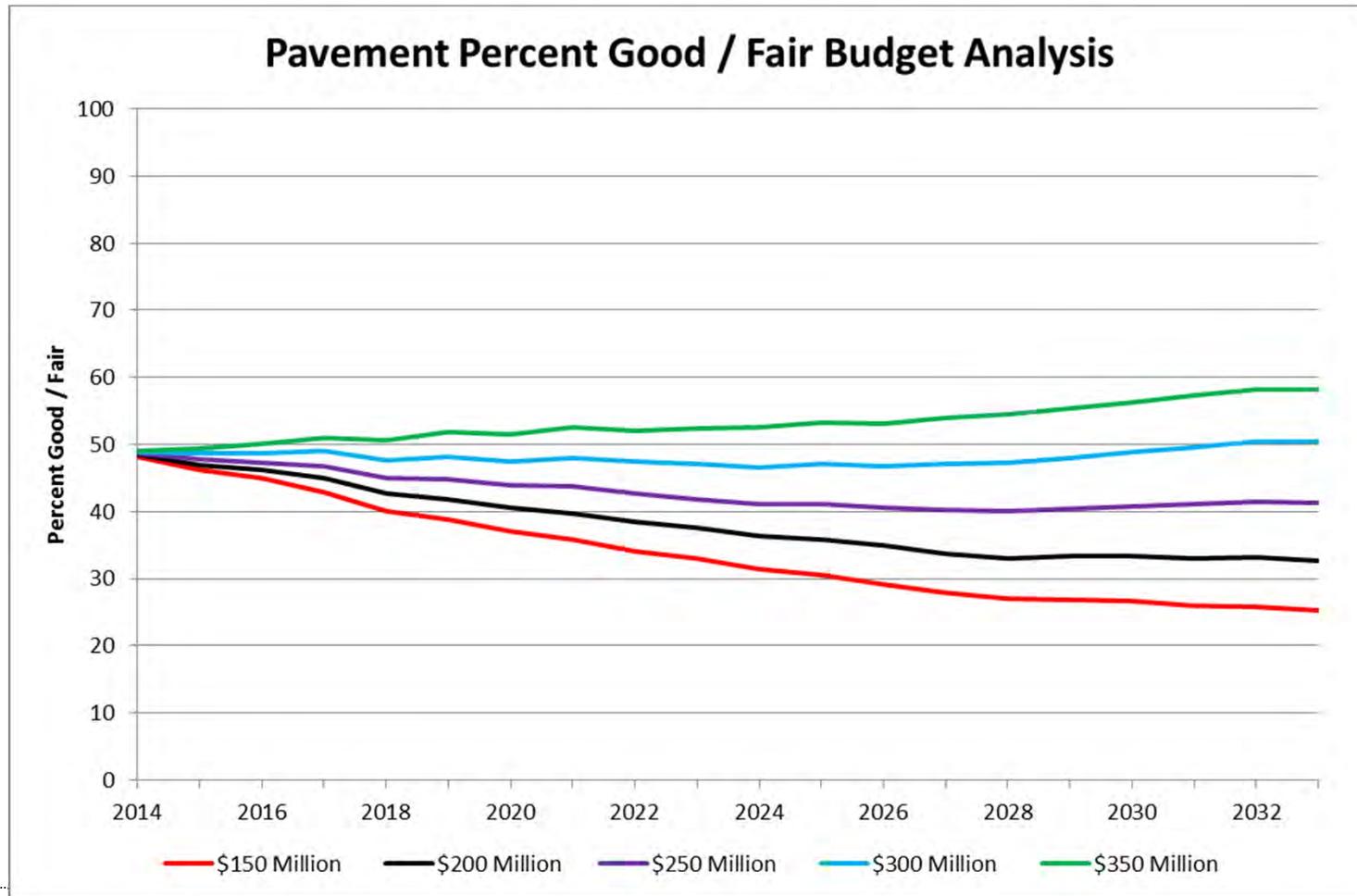
Expenditures from OFMB Summary.



Pavement Management

Analysis Assumptions

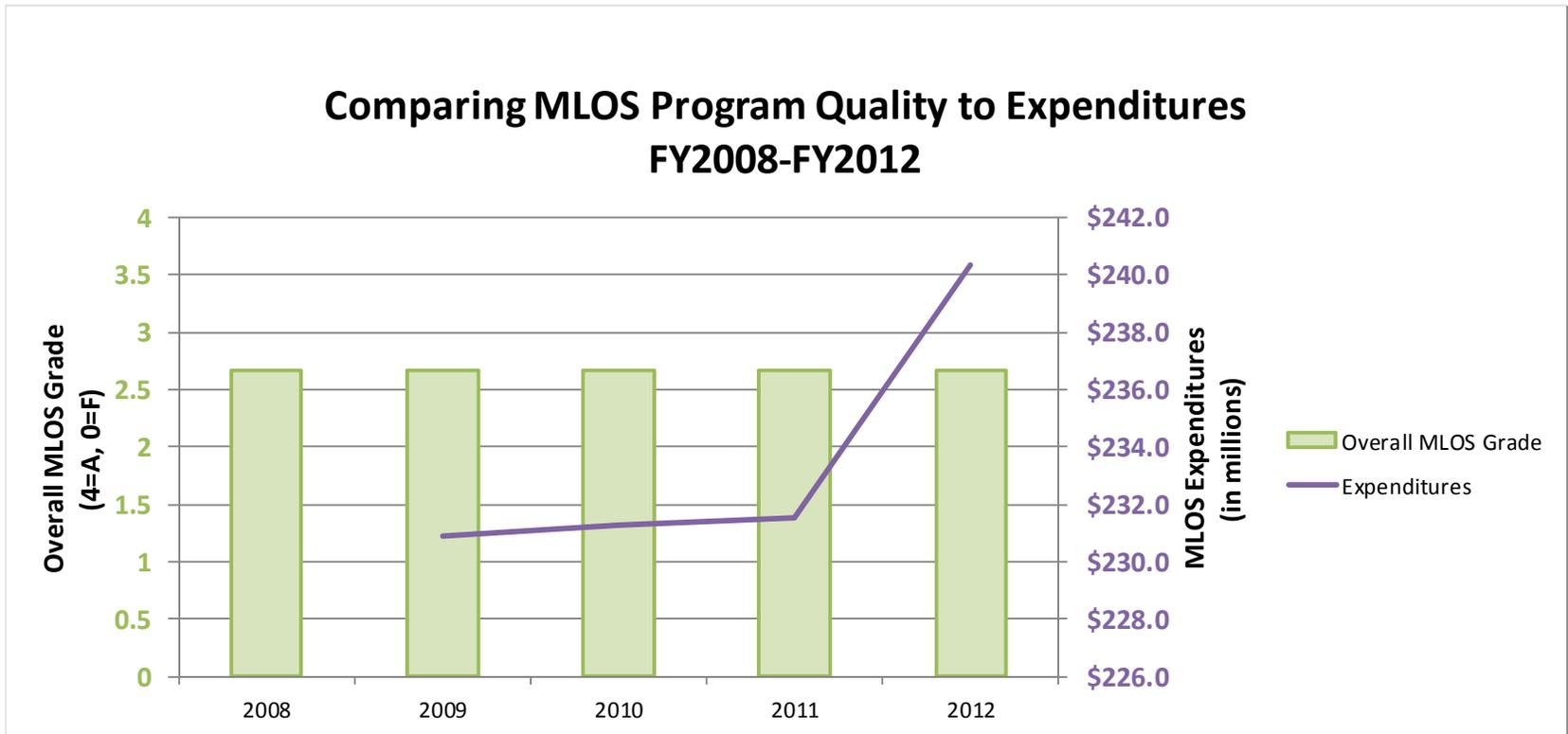
- Timeframe: 20 years
- Traffic (AADT) is factor in analysis
- Cost Inflation Rate: 3.0%
- Treatment Costs based on past 5 years of project data



Maintenance Levels of Service



MLOS History

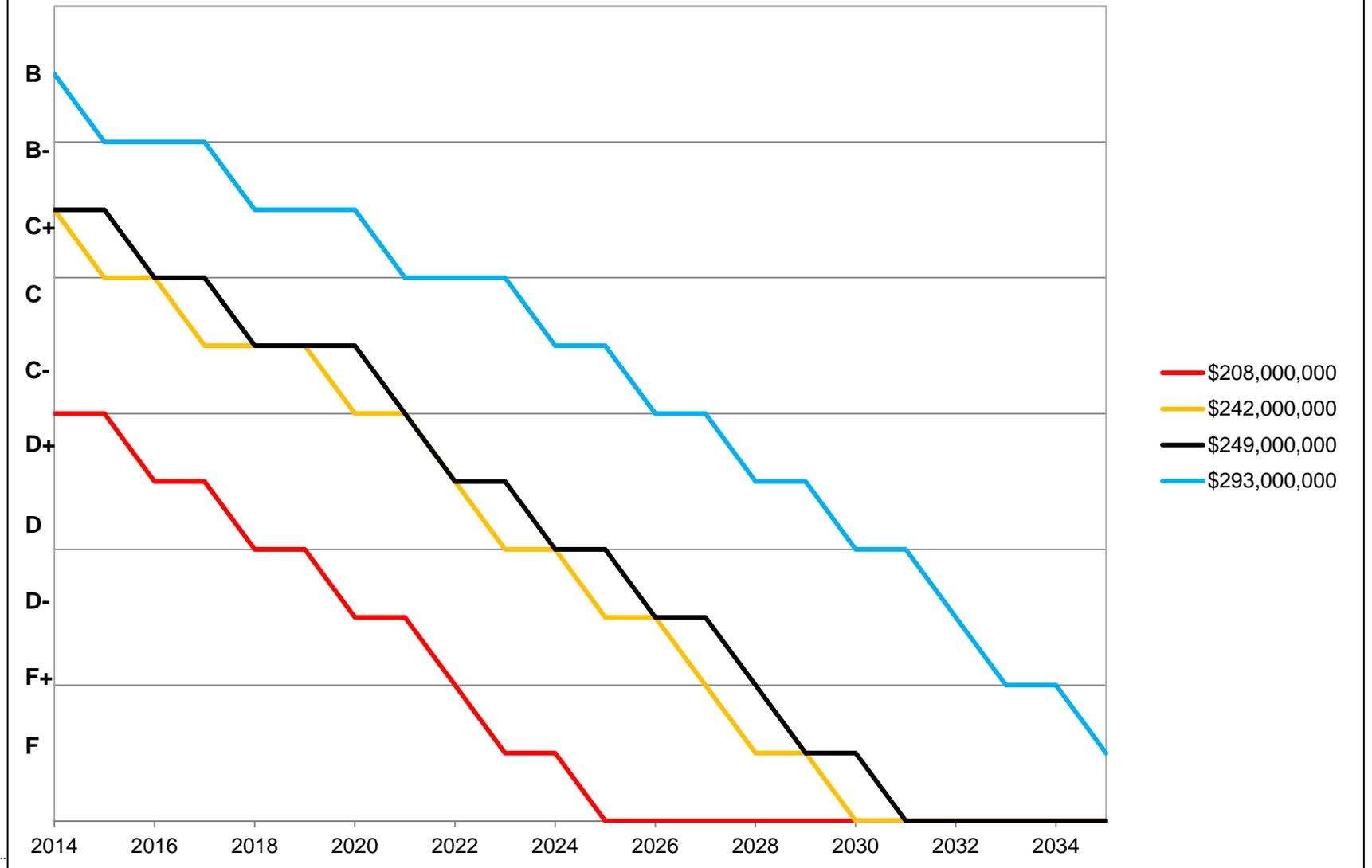


Expenditures from SAP MLOS Region Report (2008 not available).



Maintenance Management

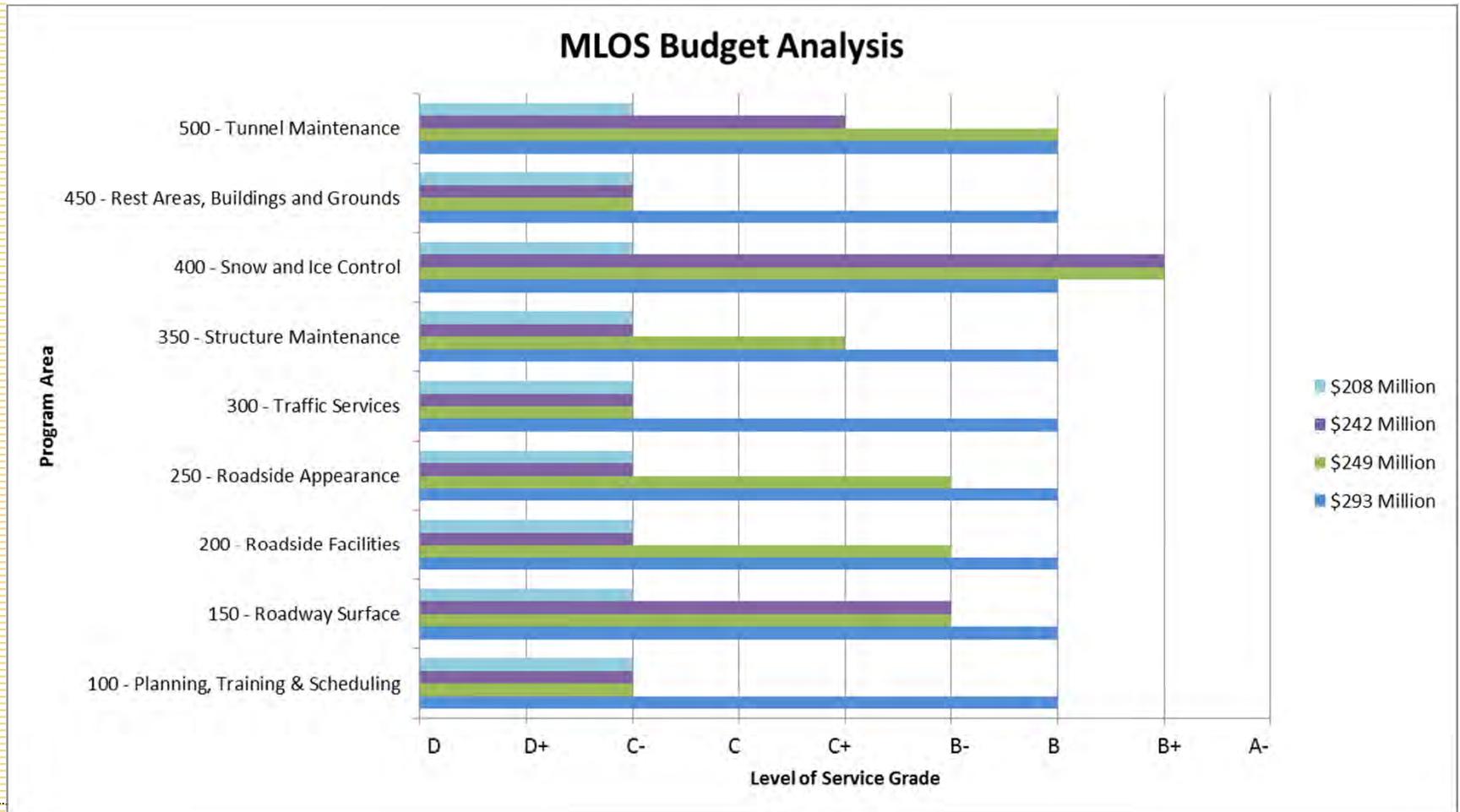
Overall Maintenance Levels of Service, 3%



Maintenance Management

Analysis Assumptions

- Timeframe: 1 year
- 20-year same if revenue matches inflation
- Based on 9 MPA areas
- MPAs are prioritized (weightings)



TAM and Program Funding

- Decision on asset condition objectives in PD 14 guides program funding levels.
- Traditionally TC has set annual budget objectives for pavement, bridge and maintenance and funded to achieve those objectives.
- MAP-21 places greater emphasis on performance goals, funding to support goals, and reporting
- Future TAM will also include fleet, ITS assets, tunnels, culverts, and buildings.



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