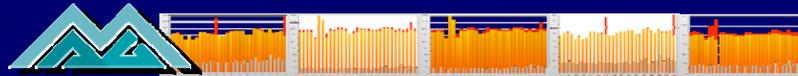


MAG Transportation Policy Committee

Item #6

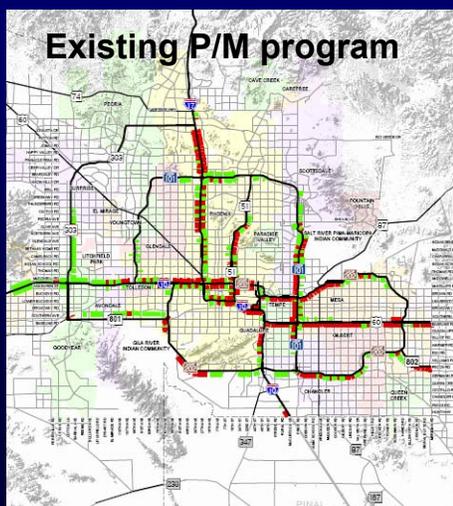
UPDATE ON THE MAG PERFORMANCE MEASUREMENT AND CONGESTION MANAGEMENT STUDY

January 23, 2009



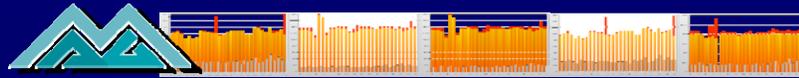
PERFORMANCE MEASUREMENT FRAMEWORK AND CONGESTION MANAGEMENT UPDATE

1/23/2009



MODELING SCENARIO PERFORMANCE MEASURES
(Maricopa County Portion of MAG Modeling Area)

	Scenario		
	2006 Base Year	2028 RTP	2028 No Build
Population	3,715,520	5,940,130	5,940,130
SUPPLY MEASURES			
Fwy. Lane Miles	1,802	2,862	1,913
Fwy. Capacity Miles	50,456,000	80,136,000	53,564,000
Arterial Intersections	12,210	14,752	14,752
DEMAND MEASURES			
Fwy. Vehicle Miles of Travel	31,473,238	57,160,809	41,896,855
Arterial Vehicle Miles of Travel	42,947,174	76,222,790	87,490,596
LEVEL OF SERVICE MEASURES			
Congested Fwy. Lane Miles	598	1,398	1,217
% Congested Fwy. Lane Miles	33.2	48.8	63.6
Congested Fwy. VMT	15,251,379	35,656,244	32,941,187
% Congested Fwy. VMT	48.5	62.4	78.6
Congested Arterial Intersections	100	244	429
% Congest. Art. Int.	0.8	1.7	2.9
Vehicle Hours of Delay	581,046	1,410,398	2,023,538
Veh. Hrs. Delay per 1000 VMT	7.8	10.6	15.6



PERFORMANCE MEASUREMENT AND CONGESTION MANAGEMENT UPDATE



The most important characteristic of the Study is that the measures in the framework will be based on our specific Regional goals and objectives



WHY IS IT IMPORTANT?

- Delivers results and establishes accountability
- Provides communicable feedback relative to goals
- Measurable results allow you to track your progress
- Improve transportation service to the public



Draft Performance Measures Framework					
Mode Focus Area	Limited Access Highways	Arterials	Transit	Freight	Bicycle/Pedestrian
Travel Time	●				
			●	●	●
Incident Management		●			
Mobility	●	●		●	
					●
Safety & Security	●				
			●	●	

Data Collection

■ yearly

Data Assessment

● Currently collected

Draft Performance Measures Framework					
Mode Focus Area	Limited Access Highways (GP)	Arterials	Transit	Freight	Bicycle/Pedestrian (Non-Motorized)
Travel Time, Delay, & Reliability	Mean and 80 th -95 th Percentile & Point-to-Point Travel Times	Mean and 80 th -95 th Percentile & Point-to-Point Travel Times	Point-to-Point Travel Times	Point-to-Point Travel Times	
	Congestion Delay – Spatial & Temporal	Congestion Delay – Spatial & Temporal	Congestion Delay – Spatial & Temporal		
	Travel Time Reliability Index [Buffer Index]	Travel Time Reliability Index [Buffer Index]	On-time Performance		
Incident Management	Incident Clearance Time	Incident Clearance Time			
Mobility – Throughput (People/Freight)	Volume (Person and/or Vehicle)	Volume (Person and/or Vehicle)	Ridership – by mode (Peak Period and Total)	Freight Volume	Bicycle/Pedestrian LOS
	On-Ramp Queue Size	Intersection LOS – based on V/C	Peak Hour Load Factor (Average Load Factor on Express bus/freeway BRT)	Commodity flows from, to, within, and through the region, by mode	Per capita miles traveled
	Lost Capacity	Signal Cycle Failures / Intersection Queue Size	Per capita VMT		
	Per Capita VMT	Per Capita VMT	Boardings per revenue mile		
Safety & Security	Crash/Injury/Fatality Rate	Crash/Injury/Fatality Rate for intersections	Crash Rate	Crash/Injury/Fatality rates for large truck involved crashes on the freeway system	Crash/Injury/Fatality Rate per 100,000 population
		Crash/ Injury/Fatality rates for segments	Transit Crime Rate (Safety Incidents per 100k vehicle miles)	Crash/Injury/Fatality rates for large truck involved crashes on the arterial system	Percent of Schools participating in Safe Routes to Schools program

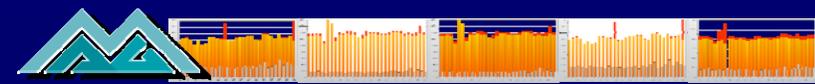
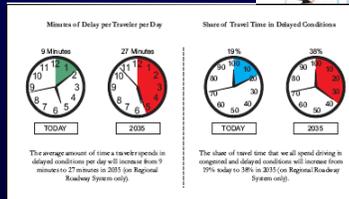
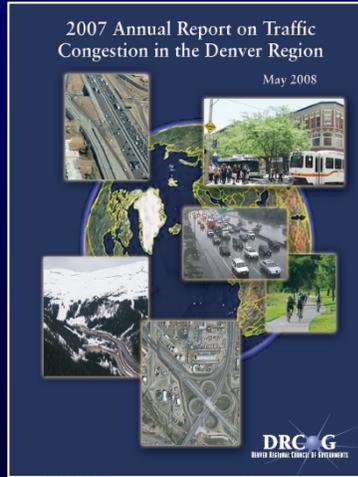
PERFORMANCE MEASUREMENT FRAMEWORK AND CONGESTION MANAGEMENT UPDATE 1/14/2009

Questions?

Staff Contacts:
 PM – Monique de los Rios-Urban – mdelos@mag.maricopa.gov
 CM – Eileen O. Yazzie – eyazzie@mag.maricopa.gov

Denver - DRCOG

PERFORMANCE MEASUREMENT FRAMEWORK AND CONGESTION MANAGEMENT UPDATE



PERFORMANCE MEASUREMENT FRAMEWORK AND CONGESTION MANAGEMENT UPDATE

1/23/2009

Peer Regions Lessons Learned

Washington

PERFORMANCE MEASUREMENT FRAMEWORK AND CONGESTION MANAGEMENT UPDATE

Washington State Department of Transportation

Measures, Markers and Mileposts

The Gray Notebook for the quarter ending March 31, 2007

WSDOT's quarterly report to the Governor and the Washington State Transportation Commission on transportation programs and department management

Douglas B. MacDonald
Secretary of Transportation

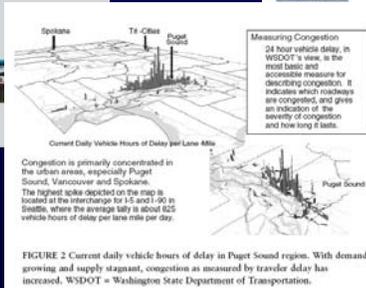


FIGURE 2 Current daily vehicle hours of delay in Puget Sound region. With demand growing and supply stagnant, congestion as measured by traveler delay has increased. WSDOT = Washington State Department of Transportation.

Washington State Department of Transportation Traffic & Roads

Seattle Area Traffic

Traffic Conditions as of: Nov 07, 2007 1:02 AM PDT

- Seattle Area Home
- Local Travel Alerts and Slowdowns
- Incidents
- Real-time Travel Times
- 95% Reliable Travel Times
- Variable Message Signs
- Puget Sound Camera List - City/County Links
- North Detail Map
- Bridges Detail Map
- Bus, Trains, Campus, Vancouver, etc.

Traffic & Cameras

- State View
- Seattle Area
- Ferry Cameras

LEGEND

- Stop and Go
- Heavy
- Moderate
- Wide Open
- No Data
- No Fragment
- Video Clip
- Snapshot

Virginia

PERFORMANCE MEASUREMENT FRAMEWORK AND CONGESTION MANAGEMENT UPDATE

VDOT Virginia Department of Transportation

Adding Commencement Trail

DASHBOARD
VDOT's performance-reporting system for projects and programs.

- ENGINEERING** (76%): Advertisement On-time
- CONSTRUCTION** (90%): Completed On-time
- MAINTENANCE** (6%): Variance from Spending Plan
- SAFETY** (8%): YTD Fatality Rate Compared to 5-Year Average
- FINANCE** (\$1.9): Planned (Bottom) vs Actual (\$1.6) Fiscal Year Expenditures through December 31
- ENVIRONMENT** (93%): Environmental Compliance

Operations: Virginia Operational Information System

Incidents, Road Work, Driving Conditions, Traffic Cameras, Virtual Drive

VDOT Virginia Department of Transportation

Engineering

Malcolm T. Korfey, P.E., Chief Engineer

District: 04 Service

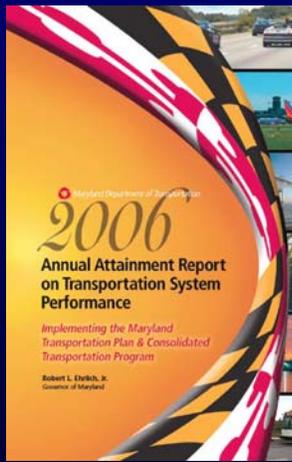
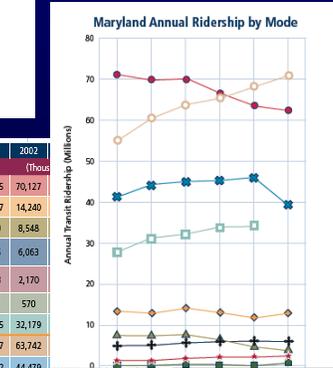
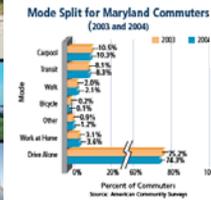
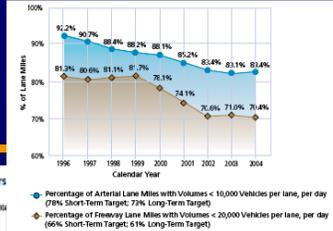
Coaches, Residences, Cities, Road System: All Road Systems, Date Range: All Dates

Studies (80% Green Status)	Design & Advertisement (70% Green Status)	Project Cost Estimation (10% Green Status)
154	411	75
13	70	35
653	1296	318
		Estimates N/A 1349



Maryland

PERFORMANCE MEASUREMENT FRAMEWORK AND CONGESTION MANAGEMENT UPDATE



Fiscal Year	2000	2001	2002
Bus	71,509	70,145	70,127
Metro	13,609	13,597	14,240
Light Rail	8,664	8,519	8,548
MARC (Commuter Rail)	5,317	5,735	6,063
Commuter Bus (Contracted)	1,571	1,828	2,170
Paratransit	523	573	570
LOTS	28,943	31,745	32,179
Rail	25,203	60,827	63,742
Bus WMATA	41,563	43,662	44,479

Note: WMATA ridership estimated based on Maryland's share of WMATA's operating subsidy.
 * Reflects partial closures for double tracking projects.

END