Regional Indicators-Measuring Progress Towards the Region's Transportation System Goals

The Regional Transportation Plan is updated every five years. The next update, which will be a major comprehensive one, is scheduled to be initiated in 2014 with adoption in 2016. In the interim, the performance of the regional transportation system will be monitored to measure the amount of change, if any, that implementation of the policies and recommendations of the RTP and other plans and studies such as the Transit Development Plan have on its performance. In addition, the MPO has adopted a separate set of congestion-related performance measures that will be monitored as part of the Congestion Management Process (CMP) to evaluate trends in system performance and the effectiveness of congestion mitigation projects and strategies. See page 67 for more information on the CMP.

Increasing emphasis is being placed on performance-based transportation planning in which system performance is considered in the transportation planning and decision-making process. The goals are to improve decision making and to increase the link between planning goals and investment decisions. Performance indicators are meant to be diagnostic and to alert planners and decision makers about major changes or trends in the performance of the transportation system or supply of transportation services and facilities. The picture provided by the transportation system performance indicators will serve as an important foundation for future plan updates.

The proposed indicators for the Madison Area include both "outcome" metrics that measure the effects of system investments and decisions (e.g, travel time, mode of transportation, roadway and bridge conditions, # of crashes) as well "output" metrics that measure the level of activity of a program or supply of a service or facility (e.g., transit revenue hours of service, miles of multi-use paths). Outcome measures are preferable because they provide an indication of the effectiveness of a given level of activity or supply of facilities. However, good outcome measures are not available in some cases, particularly system-wide measures, due to the lack of readily available data or other reasons. The selected indicators are a starting point, and it is expected that the measures will change and grow in the future as the necessary data or resources become available for more innovative tools such as those measuring accessibility or travel time reliability.

The table below lists the overall goal for the transportation system followed by the policy objectives and corresponding performance indicators to be used to gauge how well the objectives are being met. The performance measures or indicators address the basic concerns of users of the transportation system (e.g., accessibility, mobility, safety) and the existing and emerging priorities of the MPO, WisDOT and the USDOT (e.g., efficiency, environmental preservation, freight movement, and equity) among others. The performance indicators were chosen based on their universality and the reasonableness of the efforts needed to obtain and collect the required data. Cost effectiveness and timeliness were also key considerations. Combined, these performance measures will help provide the MPO and its member agencies with a way to assess whether or not the policies and actions of the RTP and CMP are helping to meet the MPO goals and policy objectives on a system-wide basis.

Policy Objectives	Performance Indicators
Mobility and Accessibility – Improve regional mobility and accessibility for all persons while maintaining a balance between the two sometimes competing concerns. *Balanced System* – Achieve a balanced transportation system through investment in improvements across all modes of travel.	• Travel Time to Work (by mode) • Mode of Transportation to Work • Miles of Congested Roadways (based on Level of Service) • Transit Revenue Hours of Service • % of Urbanized Area and Population Served by Transit (weekday, weekend) • Miles of Bike Lanes and Multi-Use Paths
Mobility of Freight – Enhance mobility and safety for goods movement to support the local economy while maintaining community livability.	• Miles of Congestion on Truck Routes • Miles of Rail Track with Speed Restrictions • Freight Tonnage by Mode
System Preservation – Maintain the region's transportation infrastructure and preserve transportation corridors, particularly rail corridors, for possible future travel uses by other modes.	• Roadway and Path Pavement Condition • Bridge Structure Condition (sufficiency rating and weight restriction) • Avg. Age of Metro Transit Bus Fleet • Miles of Metro Vehicle Service between Unplanned Road Calls
Safety – Improve transportation safety through design, operations and maintenance, system improvements, support facilities, public information, and law enforcement efforts.	• Total Vehicle Crashes by Severity vs. VMT • Metro Transit Bus Crashes per 100,000 VMT • Total Bicycle and Pedestrian Crashes and Fatalities
Management/Operations – Apply ITS and utilize TDM and TSM strategies to respond to traffic congestion, make efficient use of existing roadway capacity, and make the transportation system more reliable, convenient, and safe. *Congestion Management* – Consider all mobility options and operational strategies (ITS, TDM, TSM) in congested corridors before adding capacity for general purpose travel lanes or building new facilities.	• Vehicle Miles of Travel (VMT) • Freeway Congestion Duration • Total Annual Transit Passenger Trips • Transit Passengers per Revenue Hour • Transit System On-Time Performance • # of New Commuters Registered with the MPO's Rideshare Etc. Program • # of State Vanpools • # of Employers Participating in Commute Card Program [See also CMP Performance Monitoring Plan]
Interconnected System – Encourage and facilitate connections between various modes of travel.	• # of Park-and-Ride Lots and Usage • Inter-City Bus Trips per Day, Cities Served • Airport Passenger Volume
Environmentally Responsible – Preserves and restores environmental and ecological systems and minimizes energy consumption to the extent feasible.	• Ozone and PM 2.5 Levels • Transportation Related GHG Emissions

Efforts are underway as part of the Capital Region Sustainable Communities Initiative to develop a comprehensive set of sustainability performance measures for the region. The MPO is participating in this effort and will incorporate any new transportation related measures that come from this effort.

The MPO is committed to working with its partner agencies on ways to better incorporate these and other performance measures into the regional transportation decision-making process, from long-range planning to short-range programming from project design to construction and operations. As a first step, the MPO will promote its performance indicators through an annual report. The report will probably be prepared in conjunction with the separate Congestion Management Process (CMP) report.

Appendix A

List of Acronyms

AA	Alternatives Analysis (Study)
ACS	American Community Survey
ADA	Americans with Disabilities Act (1990)
ARRA	American Recovery and Reinvestment Act
AVL	Automatic Vehicle Location
BR	Bridge Replacement Rehabilitation Program
BRT	Bus Rapid Transit
CARPC	Capital Area Regional Planning Commission
CBD	Central Business District
CMP	Congestion Management Process
CP	Canadian Pacific Railroad
CTH	County Trunk Highway
DCHS	Dane County Department of Human Services
DCRA	Dane County Regional Airport
DCRTA	Dane County Regional Transit Authority
EIS	Environmental Impact Statement
EJ	Environmental Justice
EMP	Emergency Management Plan
EN	Transportation Enhancements Program
EPA	Environmental Protection Agency
ETP	East Transfer Point
FHWA	Federal Highway Administration
FTA	Federal Transit Administration
FUDA	Future Urban Development Area
FY	Fiscal Year
GTA	General Transportation Aids
HSIP	Highway Safety Improvement Program
HUD	U.S. Department of Housing and Urban Development
I/M	Interstate Maintenance Program
ISTEA	Intermodal Surface Transportation Efficiency Act of 1991
ITS	Intelligent Transportation Systems
LED	Light Emitting Diode
LEHD	Longitudinal Employer-Household Dynamics (Survey)
LOS	Level of Service
MATC	Madison Area Technical College/Madison College
MDSS	Maintenance Decision Support System
MMB	Madison Municipal Building
MPO	Metropolitan Planning Organization
NHS	National Highway System Program
NHTS	National Household Transportation Survey
NIMS	National Incident Management System
NTD	National Transit Database
NTP	North Transfer Point
O/D	Origin - Destination
PASER	Pavement Surface Evaluation and Rating
PDI	Pavement Distress Index
PM 2.5	Fine particulate matter suspended in air

PNR	Park-and-Ride
ROW	Right of Way
RSVP	Retired Senior Volunteer Driver Escort Program
RTA	Regional Transit or Transportation Authority
RTP	Regional Transportation Plan
SAFETEA-LU	Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users
SCWRTC	South Central Wisconsin Rail Transit Commission
SOV	Single Occupant Vehicle
SRTS	Safe Routes to School
STH	State Trunk Highway
STOC	State Traffic Operations Center
STP	Surface Transportation Program
TAZ	Traffic Analysis Zone
TDM	Travel Demand Management
TEA-21	Transportation Equity Act for the 21st Century
TIGER	Transportation Investment Generating Economic Recovery (Grant Program)
TIP	Transportation Improvement Program
TMA	Transportation Management Association
TND	Traditional Neighborhood Development
TOD	Transit-Oriented Development
TOIP	Transportation Operations Infrastructure Plan
TOPS	(UW-Madison) Traffic Operations and Safety (Laboratory)
TPB	(Madison Area) Transportation Planning Board
TSM	Transportation Systems Management
UP	Union Pacific Railroad
UPWP	Unified Planning Work Program
USA	Urban Service Area
USDOT	United States Department of Transportation
USH	U.S. Highway
UW	University of Wisconsin
V/C	Volume-to-Capacity Ratio
VMT	Vehicle Miles Traveled
WisDNR	Wisconsin Department of Natural Resources
WisDOA	Wisconsin Department of Administration
WisDOT	Wisconsin Department of Transportation
WISLR	Wisconsin Information System for Local Roads
WRRTC	Wisconsin River Rail Transit Commission
WSOR	Wisconsin & Southern Railroad Company
WTP	West Transfer Point