

# Performance Based Planning and Programming Newsletter

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## Performance-Based Planning Linkages

To provide linkages across performance-based planning activities, integration throughout the decisionmaking process is essential. The development of a performance-based long range transportation plan and transportation improvement program builds upon existing planning process elements that are data driven and performance-based. A range of plans use performance-based approaches, including the following:

**State [Highway] Asset Management Plan:** "A State asset management plan shall include strategies leading to a program of projects that would make progress toward achievement of the State targets for asset condition and performance of the National Highway System." Section 1106, amending 23 CFR Section 119(e).

**State Strategic Highway Safety Plan:** "[A] State shall have in effect a State highway safety improvement program under which the state (A) develops, implements, and updates a State strategic highway safety plan that identifies and analyzes highway safety programs and opportunities..., (B) produces a program or projects or strategies to reduce identified safety problems; and (C) evaluates the strategic highway safety plan on a regularly recurring basis in accordance with subsection (d)(1) to ensure the accuracy of the data and priority of proposed strategies." 23 USC Section 148 (c).

**MPO Congestion Management Process:** "The transportation planning process in a TMA shall address congestion management through a process that provides for safe and effective integrated management and operation of the multimodal transportation system, based on a cooperatively developed and implemented metropolitan-wide strategy, of new and existing transportation facilities... through the use of travel demand reduction and operational management strategies. The development of a congestion management process should result in multimodal system performance measures and strategies that can be reflected in the metropolitan transportation plan and TIP." 23 CFR Section 450.320(a),(b).

**Transit Asset Management Plan:** "...each recipient of Federal financial assistance under this chapter shall establish performance targets in relation to the performance measures established by [USDOT]...Each designated recipient of Federal financial assistance under this chapter shall submit to the Secretary an annual report that describes— "(A) the progress of the recipient during the fiscal year to which the report relates toward meeting the performance targets...for that fiscal year; and (B) the performance targets established by the recipient for the sub-

sequent fiscal year." 49 USC Section 5326(c).

**Transit Agency Safety Plan:** "...each recipient or State... shall certify that the recipient or State has established a comprehensive agency safety plan that includes... methods for identifying and evaluating safety risks throughout all elements of the public transportation system of the recipient... strategies to minimize the exposure of the public, personnel, and property to hazards and unsafe conditions...performance targets based on the safety performance criteria and state of good repair standards..." 49 USC Section 5329(d).

**State Freight Plan:** USDOT encourages each State to "develop a comprehensive plan for its immediate and long-range freight-related planning and investment," including at a minimum significant freight system trends, needs and issues; policies, strategies and performance measures; innovative technologies and operation strategies; improvements to impede heavy vehicle impacts; and inventory of mobility issues such as truck bottlenecks . MAP-21 Section 1118.

For more information, contact Egan Smith at 202-366-6072 or [egan.smith@dot.gov](mailto:egan.smith@dot.gov)

### SPECIAL POINTS OF INTEREST:

- *San Diego Association of Governments*
- *Florida Department of Transportation*

[www.fhwa.dot.gov/  
planning/pbp/](http://www.fhwa.dot.gov/planning/pbp/)

## The San Diego Region's Approach to Performance-Based Planning

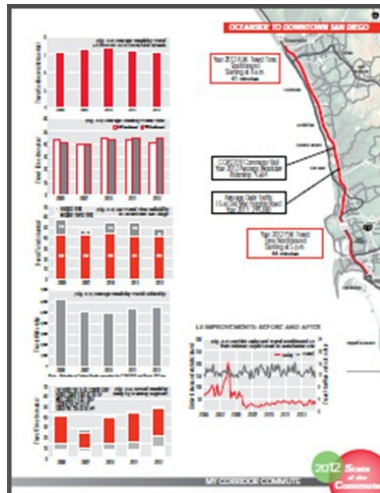
The San Diego Association of Governments (SANDAG) has continued to evolve its performance-based planning to better integrate land use and transportation planning. As the Metropolitan Planning Organization for the San Diego region, SANDAG prepares a Regional Transportation Plan (RTP) every four years. In 2004, SANDAG also adopted a Regional Comprehensive Plan (RCP) that contains an incentive-based approach to encourage and channel growth into urban areas and smart growth communities.

To measure progress in the implementation of the RCP, SANDAG has prepared three monitoring reports that compare current performance data against a baseline. The indicators relate to urban form and transportation; housing; and healthy environments such as natural habitats, water quality, shoreline preservation, and air quality. Economic prosperity and public facilities indicators including water supply, energy, and waste management also are tracked, in addition to transportation indicators that reflect a unique characteristic of the San Diego region as one of the two California regions sharing an international border with Mexico.

SANDAG also produces an annual State of the Commute report that analyzes freeway, transit and local roadways data to understand and share information on how the region's transportation system is operating. This report also includes the My Corridor Commute section that provides a snapshot of the performance of major commute routes from the traveler's perspective, including travel time and delay.

Periodically, SANDAG also prepares the Indicators of Sustainable Competitiveness report, which compares San Diego to 19 other metropolitan regions and the U.S. as a whole in the three E's: Economy, Environment, and Equity. It measures performance in 16 indicator components, then ranks the regions and the U.S. on a scale from 1st to 21st, with a lower score being better. The

goal of this study is to answer how the San Diego region is performing, how it compares relative to its peer regions, and whether the San Diego region has improved against its own performance



in the earlier studies. The indicators that are tracked include income distribution, venture capital/business climate, air quality, goods movement investment, habitat preservation, and early childhood education, among others.

In 2012, the SANDAG Board of Directors approved merging the updates of the RCP and the 2050 RTP and Sustainable Communities Strategy into San Diego Forward: The Regional Plan, which is slated for adoption in 2015. Future monitoring for the Regional Plan will provide an opportunity to streamline tracking of performance monitoring indicators.

### At the State of California Level

The California Strategic Growth Council provided grant funding to SANDAG to lead a collaborative effort with California MPOs and state agencies to develop a common standardized set of up to ten transportation performance monitoring indicators that would support sustainable communities planning legislation (Senate Bill 375, Steinberg, 2008). While performance measures rely mostly on modeled or forecasted data, performance monitoring indicators rely directly on observed data. MPOs

*California MPOs and state agencies are developing a common standardized set of transportation performance monitoring indicators*

use travel demand models or Geographic Information System (GIS) analyses to forecast performance measures. Ideally, monitoring indicators would be considered together and be consistent with modeled performance measures. However, currently, not all MPOs prepare monitoring reports using observed data on a regular basis.

More than 200 performance measures and indicators used by MPOs and state agencies were reviewed and nine performance monitoring indicators that could be monitored using statewide and regional data sources were proposed. These indicators account for the diversity of California in terms of smaller and larger regions, and more rural and more urban regions; utilize available statewide data sources; and are consistent with SB 375 and the performance goals established in Moving Ahead for Progress in the 21st Century Act (MAP-21). The list incorporates transportation indicators that relate to public health, including vehicle miles traveled, mode share, fatalities/injuries, transit access, change in agricultural land, and CO2 emissions.

### For more information

For more information about performance-based planning in the San Diego region, contact Elisa Arias at 619-699-1936 or [elisa.arias@sandag.org](mailto:elisa.arias@sandag.org).

## Handbook for Estimating Transportation Greenhouse Gases for Integration into the Planning Process

This publication is a handbook designed to provide information on how to analyze on-road greenhouse gas emissions at the state and regional level, and how to incorporate those analyses into transportation planning efforts. The handbook is intended to help State DOTs and MPOs understand the possible approaches, data sources, and step-by-step procedures for analyzing GHG emissions. It provides an overview of estimating GHG emissions in the planning process, and identifies and describes several key methodologies used to estimate emissions. It also provides a discussion of the strengths and weaknesses of each methodology, and includes a section designed to help users identify which methodology is best for their situation.

For more information go to [http://www.fhwa.dot.gov/environment/climate\\_change/mitigation/resources\\_and\\_publications/ghg\\_handbook/index.cfm](http://www.fhwa.dot.gov/environment/climate_change/mitigation/resources_and_publications/ghg_handbook/index.cfm)



## Performance Based Planning and Programming Workshops

The Congestion Management Process: Guidebook/Case Studies/Visualization Tools/Workshops

A congestion management process (CMP) is a systematic and regionally-accepted approach for managing congestion that provides accurate, up-to-date information on transportation system performance, and assesses alternative strategies for congestion management that meet state and local needs. A CMP is required in metropolitan areas with population exceeding 200,000, known as Transportation Management Areas (TMAs). The CMP is intended to move congestion management strategies into the funding and implementation stages.

The CMP uses a number of analytic tools to define and identify congestion within a region, corridor, and activity center or project area, and to develop and select appropriate strategies to reduce congestion or mitigate the impacts of congestion. The FHWA conducts several workshops and technical out-

reach events that address the CMP. In addition, FHWA has funded projects that developed guidebooks on the subject of the CMP. The CMP website presents guidance efforts undertaken by FHWA to foster the integration of the CMP into the overall metropolitan planning process.

Key documents presented on the website include:

- CMP Guidebook ,
- CMP Case Studies, and
- Guide Showcasing Visualization Tools in the CMP.

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[http://www.fhwa.dot.gov/planning/  
congestion\\_management\\_process/](http://www.fhwa.dot.gov/planning/congestion_management_process/)

## Performance-Based Planning and Programming in the Florida Department of Transportation

State Departments of Transportation and Metropolitan Planning Organizations are in the business of making smart investments in capital improvements. Transportation infrastructure typically has a life span of many decades and associated benefits that also flow over many years. As such, a long-range transportation plan has extraordinary value if it includes objectives and outcomes that are managed and measured. The Florida Department of Transportation (FDOT) is moving in that direction—performance based planning with measures supporting the plan’s strategic direction.

FDOT’s performance-based planning and programming process connects performance measures to our key decision-making activities as shown below. Clearly, performance measurement must be central and integrated to a range of activities rather than being a peripheral activity or stovepiped in one part of the DOT. This article highlights our experience to date.

### What are performance measures?

Performance measures are indicators that quantify progress toward attaining a goal or objective. Performance measures can and should be varied ranging from outcome measures of system performance to basic project or process related measures that simply track and indicate if advancement is being made with various plan objectives or strategies.

### Why do we use them?

FDOT uses performance measures to:

- Assess how well the transportation system is operating,
- Provide the Department with better information to support decisions,
- Assess how effectively and efficiently transportation projects and services are being delivered,
- Determine how satisfied our customers are; and,
- Demonstrate transparency and accountability for results to Florida’s citizens.

### How does FDOT use performance measures?

The improvement needs of Florida’s transportation system are much greater than available funding. Resources must be used in the most strategic, effective and efficient ways possible. Performance measures play an important role in this effort. They are integrated into the Department’s business practices on three distinct levels:

At the strategic level – Performance measures are used to help establish goals and objectives, and to monitor progress towards achieving the State’s long-range transportation goals. These long-term goals are part of the 2060 Florida Transportation Plan.

At the decision-making level – Perfor-

mance measures are used to inform the financial policies that determine how funds are allocated across numerous programs such as highway preservation, system expansion, and public transportation in an effort to measure their effectiveness. These programs are defined in the Program and Resource Plan.

At the project delivery level – Once projects have been selected, performance measures are used to monitor the efficiency and effectiveness of projects and services in the Five Year Work Program. The measures are also used in supporting organizational and operational improvements.

### What does FDOT measure?

FDOT’s mission is to provide a safe transportation system that ensures the mobility of people and goods, enhances economic prosperity, and preserves the quality of our environment and communities. Performance reports are published to align with this mission and the Florida Transportation Plan. Each is listed below with a few examples of measures and objectives:

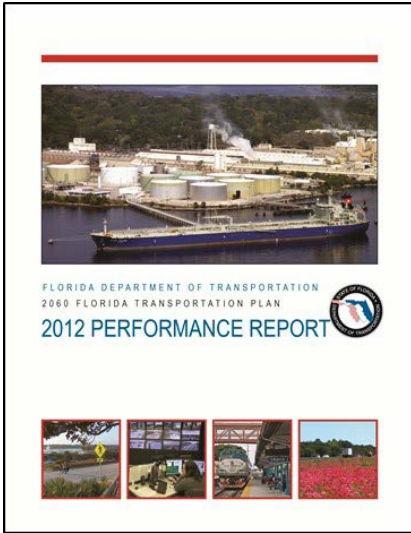
Safety and Security – Fatality and serious injuries related to aggressive driving, intersection crashes, vulnerable road users, lane departure crashes, impaired driving, at-risk driving, and distracted driving

Maintenance and Operations – Percent of pavement and bridges meeting condition standards, percent of maintenance activities (such as roadway striping, guardrail repair and mowing) that meet department standards

Economic Competitiveness and Mobility – Strategic Intermodal System implementation, freight and port access, transit ridership, hours of delay, facilitation of economic development opportunities, benefit-cost ratio of FDOT programs.

Quality of Life & Environmental Stewardship – Community values and visions; travel experience; impacts to the physical, natural and cultural environment.





**How are we performing?**

A few highlights from our 2012 Annual Performance Report include:

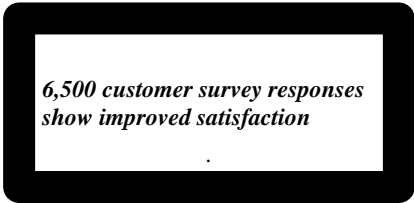
Highway fatalities and serious injuries are decreasing.

The condition of our pavement and bridge assets is better than our established targets.

The availability of freight and passenger options and increasing public transit ridership are areas requiring continued focus.

Maintenance activities are being performed well above target levels.

Growth in travel delay in urban areas is expected to continue to outpace transportation system expansion efforts.



FDOT’s work program is supporting the economy, with an excellent benefit-cost ratio of 4.92, which means nearly \$5 in benefits are generated for every \$1 spent.

6,500 customer survey responses show improved satisfaction.

**MAP-21 Performance**

**Reporting**

The Moving Ahead for Progress in the 21st Century Act (MAP-21) defines national goals for the Federal-aid highway program. Performance measures are to be established through the federal rulemaking process and subsequent target setting and performance reporting by the states. FDOT issued a MAP-21 Performance Report three years ahead of the statutory schedule and we plan to update the report annually. Summaries of our performance for safety, system performance, roadways, bridges, freight, transit and air quality are included. The Department is committed to achieving further improvement in all areas.

The close collaboration of federal and state government will be essential for achieving the potential envisioned (and needed) for performance management and measurement. FDOT is committed to being leaders and innovators in this vitally important area of transportation management.

**What are some Lessons Learned and Potential Future Directions?**

Performance measures vary greatly across an enterprise as large and complex as FDOT. We recently held performance measurement workshops that brought District and Central Office staff together. This provided a good starting point for greater awareness of our respective efforts, the importance of performance measurement for the long range plan, and opportunities for future collaboration and synergy of effort.

Performance reports must serve multiple audiences including short At-A-Glance reports for senior policy makers and the general public to more detailed reports for

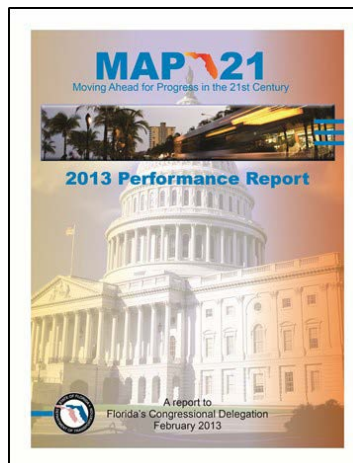
program managers.

Performance measurement, particularly for a large and complex transportation system, is multi-disciplinary and multi-jurisdictional. While performance management and measurement are often viewed from a narrow perspective of measuring only what you can control, it has become increasingly clear to us that a major future opportunity will be more dialogue with our partner and stakeholder organizations regarding performance measures. This can include but certainly not be limited to: MPOs, operators of freight and passenger modes, law enforcement agencies, resource agencies, and others.

For FDOT and all DOTs, performance management requires an organization committed to a performance culture and building capacity in various ways among staff to operate effectively within that culture. More workshops and training to that end will be a likely trend for us and nationally.

**For more information**

For more details on FDOT’s extensive performance reporting, including our first MAP-21 Performance Report, visit [www.dot.state.fl.us/planning/performance](http://www.dot.state.fl.us/planning/performance) or contact David Lee at [david.lee@dot.state.fl.us](mailto:david.lee@dot.state.fl.us)



Collaboration with Transportation Stakeholders

Information is being developed in close collaboration with the American Association of State Highway and Transportation Officials (AASHTO), the Association of Metropolitan Planning Organization (AMPO), the National Association of Regional

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*Kenneth Petty, Acting Director, FHWA Office of Planning shares some considerations with practitioners, "While the development of an LRTP should always involve active public and stakeholder involvement, our research revealed a number of innovative examples of public engagement activities. A focus on identifying and agreeing on performance measures and desired performance outcomes can engage the public in different ways than traditional plans that are just focused on specific strategies. It is important to tell a story and combine data with an explanation of performance results, rather than just releasing data. Using performance measures appears to bring more stakeholders to the table, possibly due to perceptions of transparency and accountability. "*

