

Outcomes-Based, Performance-Driven Planning at Metro Portland

The Portland, Oregon region completed its new metropolitan transportation plan, *2035 Regional Transportation Plan*, in June of 2010 under the direction of Metro, the metropolitan planning organization for the region. With this plan comes a new approach for metropolitan planning in this region that is focused on desired outcomes and measurable performance. In response to growing economic and climate change concerns, the region's elected leaders chose an outcomes-based framework with policy-level performance targets to guide investments and demonstrate measurable results. Metro has developed a broad set of measures to evaluate the planned investment strategy in addressing the plan goals. In addition, Metro established a performance monitoring program designed to assess system performance periodically as a means of informing implementation decisions. During the development of its regional transportation plan (RTP), Metro also worked with operations and travel demand management stakeholders to create a *Regional Transportation System Management and Operations (TSMO) Plan* that lays out how management and operations can be used to support the desired performance outcomes.

Background

The Portland, Oregon metropolitan region is home to just under 1.4 million residents and encompasses 25 cities and 3 counties in 463 square miles of land. It is a metropolitan area whose leaders strive to meet the needs of a growing population by following an agreed upon regional growth management strategy that was defined more than a decade ago with adoption of the 2040 Growth Concept. As the region's blueprint for the future, the 2040 Growth Concept sets a course for the region to grow as a constellation of compact, vibrant communities that use land efficiently, maintain connections to the natural environment, and promote strong local and regional economies. The area serves as an important gateway for freight moving between North America and other Pacific Rim countries.

The Portland region has a strong history of regional collaboration among transportation operators dating back to the early 1990s. Around 2004, Metro became fully involved in planning for operations, adopting the regional operations collaborative group, TransPort, as an official subcommittee. Metro developed an operations program and co-led a regional concept for transportation operations on traffic incident management with the City of Portland.





“Central to this plan is an overall emphasis on desired outcomes and measurable performance.” – Metro, Portland, *2035 Regional Transportation Plan*, June 2010, Executive Summary.

Motivation for Shifting to an Outcomes-Based, Performance-Driven Approach

At the outset of the RTP update in 2006, Metro recognized that it needed to shift its planning approach in response to current economic, political, and environmental circumstances. Transportation funding was becoming ever scarcer, and with the economic downturn, the public was particularly sensitive to government spending. Metro and its partnering agencies knew that it needed to be accountable for every dollar spent and have data to justify funding decisions to both the public and elected leaders. Metro had a strong desire to understand the value that the region was getting for its transportation dollars, and the extent to which those investments supported vibrant, safe and prosperous communities throughout the region. At the same time, the region was looking to advance implementation of the 2040 Growth Concept vision. There was a push to move away from large capital investments in road infrastructure to preserve the community characteristics valued by the people living in the Portland region.

A Metro Council Member, former Chair of the Joint Policy Advisory Committee on Transportation, and Bi-State Coordination Committee Member was a vocal champion for using an outcomes-based, performance-driven approach to guiding transportation policy and investment decisions in the region. This person became an advocate for incorporating principles of good governance such as equity and accountability in the RTP.

In 2008, the Metro Council, with guidance from the Metro Policy Advisory Committee (MPAC), passed a resolution stating that the intent of Metro and its regional partners was to “use a performance-based approach to guide policy and investment decisions in the region.”¹ Additionally, the resolution directed the organization to work with regional partners to develop performance indicators, targets, actions, and a decisionmaking process for the RTP to bring about the desired outcomes for the region. According to Metro, by embracing measurable outcomes, leaders shifted from talking about abstract concepts like “compact urban form” to focusing on things that really matter in everyday lives.

The Joint Policy Advisory Committee on Transportation approved and the Metro Council adopted the 2035 RTP on June 10, 2010. The RTP, using an outcomes-based, performance-driven framework, proposes investing more than \$20 billion in local, regional, State, and Federal funds over the next 25 years.

¹ Metro Resolution No. 08-3940. Available at: <http://www.oregonmetro.gov/index.cfm/go/by.web/id/29847>.



Establishing an Outcomes-Based Framework and Policy-Level Performance Targets

The *2035 Regional Transportation Plan* lays out an outcomes-based framework that is founded on six desired outcomes expressed by the citizens of the region regarding the qualities they would like to experience in their region. The outcomes are:

- Vibrant Communities
- Economic Prosperity
- Safe and Reliable Transportation
- Leadership on Climate Change
- Clean Air and Water
- Equity

In an effort to reach these outcomes, the region developed a framework for informing planning and investment decisions (Figure 1). This framework calls for balanced consideration of environmental, equity, and economic factors.



Figure 1. Outcomes-Based Framework.
Source: Metro, *2035 Regional Transportation Plan*.

In response to the identified outcomes, the RTP defines an overarching vision, broad goals, objectives, and performance targets. The performance targets are directly tied to the framework of economy, environment, and equity and provide quantifiable indicators for tracking the region's progress toward the desired outcomes. A sample of the performance targets are shown in Figure 2.

ECONOMY	<ul style="list-style-type: none"> • Congestion – By 2035, reduce vehicle hours of delay (VHD) per person by 10 percent compared to 2005. • Freight reliability – By 2035, reduce vehicle hours of delay per truck trip by 10 percent compared to 2005.
ENVIRONMENT	<ul style="list-style-type: none"> • Active transportation – By 2035, triple walking, biking and transit mode share compared to 2005. • Clean air – By 2035, ensure zero percent population exposure to at-risk levels of air pollution.
EQUITY	<ul style="list-style-type: none"> • Access to daily needs – By 2035, increase by 50 percent the number of essential destinations accessible within 30 minutes by bicycling and public transit for low-income, minority, senior and disabled populations compared to 2005.

Figure 2. Policy-Level Performance Targets.
Source: Metro, *2035 Regional Transportation Plan*.

The performance targets are specific and time-bound. They were developed collaboratively by the MPO board members through a policy-oriented discussion rather than one that was technical in nature. The targets represent a starting point for the region in using a performance-based approach and are expected to be refined and improved over time, particularly as the region and State of Oregon advance policy on climate change. The targets provide an investment strategy and guide for selecting a mix of investments in the transportation improvement program (TIP). The ability of the region to meet its performance targets depends not just on the RTP but also on land use and other regional policy decisions. The intent is to measure the region's progress toward the performance targets during the next plan update.



Performance Evaluation of the Planned System

Metro and its planning partners expanded the evaluation component of its planning process to better understand the anticipated impacts of the plan’s investments on the desired outcomes. The desired outcomes of the 2035 RTP span aspects of the environment, economy, and equity. In previous versions of Metro’s RTP, the evaluation of the proposed investments was more narrowly focused on level of service standards, which would not adequately address the question of meeting the 2035 RTP outcomes.

Metro planners, with participation from partner agencies, developed a set of investment packages and used the regional travel demand forecast model and MetroScope,

the regional land use model, to estimate how well each investment package would improve the region’s performance on measures that the community cares about.

The set of system evaluation measures that were selected by a regional working group to evaluate the plan’s performance are listed in Table 1. The working group aimed to select performance measures that would provide the best information across mobility, accessibility, equity, and the environment for making investment decisions. The group chose to not specify desired targets for these measures, but to instead just indicate the desired direction the region wanted to pursue such as decreased delay on the regional freight network.

System Evaluation Measures	
1.	Decrease vehicle miles traveled (total and per capita)
2.	Decrease total delay and cost of delay on the regional freight network in mid-day and PM peak
3.	Decrease motor vehicle and transit travel time between key origin-destinations for mid-day and 2-HR PM peak
4.	Decrease congestion – Location of throughways, arterials, and regional freight network facilities that exceed RTP motor vehicle-based level of service thresholds in mid-day and 2-HR PM
5.	Increase mode share and non-drive alone trips system-wide, by mobility corridor and for central city and individual regional centers (<i>Number of daily walking, bicycling, shared ride, and transit trips and % by mode</i>)
6.	Increase transit productivity (<i>transit boarding rides per revenue hour</i>) for High Capacity Transit (HCT) and bus
7.	Increase number and percent of homes within ½-mile of regional trail system
8.	Increase number and percent of homes and environmental justice communities (census data) within ½-mile of HCT or ¼-mile frequent bus service
9.	Decrease tons of transportation-related air pollutants (e.g., CO, ozone, and PM-10)
10.	Decrease tons of transportation-related greenhouse gas emissions (e.g., CO ₂)
11.	Decrease percent of projects that intersect high value habitat areas

Table 1. Metro 2035 Regional Transportation Plan System Evaluation Performance Measures.
Source: Metro, 2035 Regional Transportation Plan.



Monitoring of Performance Between Plan Updates

With the development of the 2035 RTP, Metro also initiated a monitoring program to periodically assess the state of the performance of the transportation system and use that information to inform incremental land use and transportation project implementation decisions. This serves as a key element of the region's congestion management process. Through the program, Metro will report on the performance of the area's 24 mobility corridors every 2 years prior to the allocation of regional funds and RTP updates. During the 2035 RTP development, the region identified 14 measures that it would like to track over time. As the program advances, the 14 measures will likely be adjusted for improved utility and to take advantage of increased data availability. As a baseline, Metro has developed a "Mobility Corridor Atlas" that includes performance data for several regional measures such as travel time, safety, and bike and pedestrian network completion. The Atlas also provides information about the land uses located within each of the corridors. In support of this effort, Metro has developed a strong partnership with Portland State University, which is working on new methods for collecting, analyzing, and archiving transportation system performance data.

Applying Management and Operations to Support the Approach

In conjunction with the development of the 2035 RTP, Metro led management and operations professionals and stakeholders in the creation of a *Regional Transportation System Management and Operations (or TSMO) Plan* to provide a road map and investment strategy for transportation solutions aimed at improving the performance of existing infrastructure. The development of this plan was motivated at least in part by the need to plan how best to use funding that the MPO board had identified for TSMO. The plan is funded through the Congestion Mitigation & Air Quality (CMAQ) program and the Surface Transportation Program (STP) at the level of \$1.5 million per year. The TSMO stakeholders are also pursuing other funding avenues and were able to take advantage of stimulus funding for improving traffic signals.

The purpose of the plan is three-fold: identify available opportunities for improving regional operations, determine which transportation issues can best be addressed by TSMO, and define regional priorities for TSMO investment. The TSMO Plan is considered to be part of the 2035 RTP along with a regional freight plan.

What is TSMO? The Portland Regional TSMO Plan defines transportation system management and operations (TSMO) as "a set of integrated transportation solutions intended to improve the performance of existing transportation infrastructure. Through a combination of transportation system management (TSM) and transportation demand management (TDM) systems, services and projects, TSMO addresses transportation goals such as mobility, reliability, safety and accessibility, which have traditionally been achieved via larger scale, expensive infrastructure investments."

- Metro, *Regional TSMO Plan*, June 2010, Page 1.



The TSMO Plan focuses on a 10-year investment strategy guided by a TSMO policy framework comprising a regional vision, planning goals and objectives, and guiding principles to support implementation. The TSMO policy framework was developed to support the performance targets established in the RTP. The TSMO stakeholders identified four core functional areas that they thought were the most critical to advance over the next 10 years. The areas are:

- Multimodal traffic management
- Traveler information
- Incident management
- Transportation demand management

For each category, the TSMO Plan developers identified regional investments as well as corridor-specific investments. The investments form an action plan or road map for carrying out TSMO activities in the region. The action plan identifies specific projects and the associated objective, priority-level, timeframe, costs, and potential lead agency for each project. The TSMO Plan focuses on using collaboration to move toward a more efficient and equitable transportation system for the traveling public.

The MPO worked with three advisory committees over 15 months to develop the TSMO Plan. Two of the committees that developed the TSMO Plan were TransPort, the regional operations subcommittee of operations professionals from agencies in the region, and the Regional Travel Options

Subcommittee comprising public agency representatives and private stakeholders interested in travel demand management. The third committee, the TSMO Policy Work Group, was formed to provide policy guidance to the plan with members of the Transportation Policy Alternatives Committee (TPAC), key private sector stakeholders, and other transportation professionals.

Metro held workshops with the three groups and project decisions were made through consensus rather than a technical scoring process. A Metro planner reported that identifying and prioritizing projects for this plan was not a difficult process. There is a clear sense that the collaborative participants are invested in advancing TSMO in the region and have taken ownership of the TSMO Plan.

The TSMO Plan is a vehicle for enhancing and expanding data collection for monitoring system performance. The plan identifies high-priority, near-term projects to support data collection and analysis. For instance, one project advances arterial performance measurement with the use of media access card (MAC) address-reading technology and provides this data in real-time or near real-time to the traveling public. Another project improves data collection from automated vehicle locators used by a Portland area transit agency, TriMet. Additionally, on-going funding is designated for improving and sustaining the Portland Oregon Regional Transportation Data Archive Listing (PORTAL) managed by Portland State University.



Lessons Learned

Metro faced a few challenges associated with the decision to make the transition to an outcomes-based, performance-driven planning concept. Metro found that obtaining buy-in from the local jurisdictional planning partners required overcoming misperceptions. Some partners feared that the performance measures could be used against them. To alleviate these concerns, Metro emphasized the message that there are no penalties if the targets are not met, and that the intent of the performance measures is to identify gaps in transportation system performance so that funding will be used where it is needed most and can be most effective. In addition, Metro worked with local agencies to develop the performance targets, so the agencies were able to have input on what the targets were and how they would be measured.

The MPO found that it needed to manage expectations of the elected leaders championing the approach regarding the region's performance measurement capabilities. The outcomes-based, performance-driven approach requires data collection and system performance measurement and the staff had to stress performance measurement limitations in the region and how they were addressing those limitations. For example, through the TSMO Plan the region is investing in expanding data collection and analysis capabilities.

Benefits of the Approach

Although the 2035 RTP has only recently been adopted, Metro and its region have already realized some of the benefits associated with using an outcomes-based, performance-driven approach. Metro was in a better position to make an informed selection of investments that best supported the community's desired outcomes because of the use of broad evaluation measures. Metro has also been able to better communicate the needs and priorities used to develop the plan to the community and increased visibility into its transportation analysis and decisionmaking processes. In the near future, Metro is interested in improving upon its data and analysis tools to refine its performance targets and incorporate more quality of life measures in partnership with Portland State University and others.

Resources

Telephone interview with Deena Platman, Principal Transportation Planner - Regional Mobility Program, Metro Regional Government, August 30, 2010.

Metro Regional Government, 2035 Regional Transportation Plan, June 2010. Available at: http://library.oregonmetro.gov/files//2035_rtp_final_document_as_submitted_to_dlcd_usdot_web.pdf.

Metro Regional Government, Regional Transportation System Management and Operations Plan, June 2010. Available at: http://library.oregonmetro.gov/files//regional_tsmo_refinement_plan_june2010_final.pdf.

Platman, Deena, "Portland Metropolitan Region's Efforts to Develop a Performance-Based Regional Transportation Plan." Presentation at the National Transportation Operations Coalition's Talking Operations Webinar, February 23, 2010. Available at: http://www.ntoctralks.com/web_casts_archive.php.