

## CREATE AN EFFECTIVE AND VISIONARY LONG-RANGE TRANSPORTATION PLAN

As their name suggests, planning is what metropolitan planning organizations (MPOs) are all about. Their formal plans direct millions of dollars in spending that helps determine how the regional transportation system works. These plans are the result of collaboration among local, state and regional partners, including public and private stakeholders. To effectively serve the needs of a region, planning cannot merely be an exercise in stapling together local project lists, without considering how they work together as a whole. Truly effective plans require comprehensive and integrated strategies to address challenges that cross local jurisdictional boundaries and that are influenced by transportation, such as regional economic competitiveness, public health, community development and climate resiliency.

MPOs are required to adopt Long-Range Metropolitan Transportation Plans (abbreviated in federal statute as MTP)<sup>1</sup> that set the policy and investment framework for the goals and priorities that a region wants to achieve over a 20-year horizon given projected available funding. The MTP directs which projects are then eligible for inclusion in the Transportation Improvement Program (TIP), in which an MPO matches available funding to specific projects for the next several years. The regional TIPs are then included in statewide plans developed by the state department of transportation. The MTP also informs the MPO's annual Unified Planning Work Program, a statement of work identifying the planning priorities and activities scheduled for that year within a metropolitan planning area, showing time frames, cost for completing the work and the source of funds.

Federal statutes and guidance set a baseline for metropolitan planning, but innovative MPOs go beyond merely meeting requirements. They use their regional position and authority to develop effective and visionary long-range plans creating safe, cost-effective and reliable transportation options that support their community, economy and environment.

This chapter describes several key actions that an innovative MPO can take to create such plans:

- **Fully leverage federal planning factors**
- **Make scenario planning a standard practice**
- **Prioritize regional centers for investment**
- **Make use of innovative modeling tools**
- **Plan for economic competitiveness**

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*Detail on the specifics of the federally required planning process and different MPO structures can be found in the MPO 101 Appendix.*

<sup>1</sup> The MTP goes by different names depending on the region. Among the more common alternatives are the Long-Range Transportation Plan or LRTP, the Regional Transportation Plan or RTP, the Transportation Policy Plan or TPP, or the Long-Range Plan or LRP.

## FULLY LEVERAGE FEDERAL PLANNING FACTORS

Long-range plans developed by MPOs traditionally focus on a limited set of transportation elements: congestion, roadway conditions for major and minor arterials, safety and some discussion of transit and other multimodal investments. Many fail to discuss how transportation investments relate to economic competitiveness, public health, quality of life, environmental protection, energy security or accessibility to job and housing centers. However, federal statutes and regulations do make reference to these factors and provide multiple leverage points for MPOs to create long-range plans that achieve these broader regional goals.

### > The opportunity

Long-range transportation plans need to be informed by many factors, reflecting public input and an analysis of current and future population, employment, mobility and land-use trends. MPOs whose plans focus almost exclusively on reducing traffic congestion fall short of the goals laid out in the federal planning framework.

Federal planning statutes and regulations include a set of eight planning factors that MPOs must consider in developing their plans (see box at right). While few MPOs take full advantage of this broader directive, it offers the opportunity to bring MPO technical resources — such as data collection, trend analysis and forecasting — to identify links among broader issues, inform more cost-effective strategies to improve transportation performance and achieve multiple related goals.

### > Putting it into practice

Fully considering the eight federal planning factors requires a big-picture view that goes well beyond investments that attempt to manage congestion or repair roads and bridges. Here are some examples of innovative ways some MPOs have addressed the planning factors:

**Connecting public health to the transportation plan.** The [San Diego 2050 Regional Transportation Plan](#) addresses the planning factors related to safety and quality of life through a focus on active transportation. The RTP lays the groundwork for an “active transportation network” that prioritizes projects

Metropolitan transportation planning must consider these eight federally required factors:<sup>1</sup>

1. Support the economic vitality of the metropolitan area, especially by enabling global competitiveness, productivity and efficiency;
2. Increase the safety of the transportation system for motorized and non-motorized users;
3. Increase the security of the transportation system for motorized and non-motorized users;
4. Increase the accessibility and mobility of people and freight;
5. Protect and enhance the environment, promote energy conservation, improve the quality of life and promote consistency between transportation improvements and state and local planned growth and economic development patterns;
6. Enhance the integration and connectivity of the transportation system, across and between modes, for people and freight;
7. Promote efficient system management and operation; and
8. Emphasize the preservation of the existing system.

<sup>1</sup> Source: 23 Code of Federal Regulations Section 450.306

in the Regional Bicycle Plan along with those that provide safe walking and biking routes to transit and the Safe Routes to School program.<sup>1</sup>

**Portland Metro** views safety and active transportation as two sides of the same coin. The MPO created a regional Safety Plan in 2012 in response to concern over traffic-related crashes and fatalities. Metro set a goal to reduce the number of pedestrians, bicyclists and vehicle occupants killed or seriously injured on the region's roadways by 50 percent by 2035, compared to 2005.<sup>2</sup> This goal translates to an annual savings of \$479 million in economic costs to the region. The plan recommendations and performance goals are reflected within Metro's overall long-range transportation plan and other work plans.

**Connecting with air quality and climate issues.** The federal planning factor to “protect and enhance the environment, promote energy conservation and improve the quality of life...” is being used by MPOs such as the **Puget Sound Regional Council (PSRC)** to consider transportation-related greenhouse gas (GHG) emissions, water and air quality issues, community access to parks and open space and affordable housing and transit-oriented development. The PSRC incorporates these issues into regional performance measures, its process for prioritizing projects for transportation funding and through ongoing planning and outreach by its advisory committees such as the “Planning for Whole Communities Work Group.”<sup>3</sup>

Consistent with its efforts to incorporate more of the federal planning factors, as discussed above, **Portland Metro** is among a growing list of MPOs attempting to evaluate the climate impacts of various investment scenarios. The agency's *Climate Smart Communities* initiative developed a methodology to consider the costs and trade-offs associated with each potential strategy to limit GHG emissions while meeting community visions.<sup>4</sup> Planners were able to quantify the benefits from transit investments that better serve suburban neighborhoods; improve commuter information programs using real-time data and consumer apps; manage parking; and expanding regional trails, bike lanes and sidewalks.<sup>5</sup>

**Planning for freight movements and their impacts.** The **Chicago Metropolitan Agency for Planning (CMAP)** viewed the directive to “support economic vitality of the metropolitan area, especially by enabling global competitiveness, productivity and efficiency” as the impetus to take on freight planning and related land-use issues. The resulting plan called for an increase in rail and trucking-related investments “(1) to improve the economic competitiveness of industry in metropolitan Chicago and (2) to reduce the impacts of freight operations on local communities, addressing travel delay, pollution and safety.”<sup>6</sup> CMAP also considers human capital factors including workforce development, education and economic innovation. See Focus Areas 5 and 7 for discussion of how MPOs are tackling these issues.

**Taking a holistic approach to “livability.”** Many MTPs now include an emphasis on “livability,” a term used to convey a holistic approach to land-use and transportation decisions that addresses all eight planning factors. According to the US Department of Transportation (USDOT), “livability in transportation is about integrating

1 SANDAG 2050 RTP: [www.sandag.org/index.asp?projectid=349&fuseaction=projects.detail](http://www.sandag.org/index.asp?projectid=349&fuseaction=projects.detail)

2 [www.oregonmetro.gov/sites/default/files/051112\\_regional\\_trans\\_safety\\_plan.pdf](http://www.oregonmetro.gov/sites/default/files/051112_regional_trans_safety_plan.pdf)

3 Examples of the performance measures developed by PSRC and how they are being used in regional planning and decision-making can be found at [www.psrc.org/data/trends](http://www.psrc.org/data/trends) and [www.fhwa.dot.gov/planning/congestion\\_management\\_process/case\\_studies/psrc.pdf](http://www.fhwa.dot.gov/planning/congestion_management_process/case_studies/psrc.pdf).

4 <http://ops.fhwa.dot.gov/publications/fhwahop10055/index.htm>

5 Portland Metro Climate Smart Communities Project: [www.oregonmetro.gov/public-projects/climate-smart-communities-scenarios](http://www.oregonmetro.gov/public-projects/climate-smart-communities-scenarios)

6 [www.cmap.illinois.gov/about/2040](http://www.cmap.illinois.gov/about/2040)

the quality, location and type of transportation facilities and services available with other more comprehensive community plans and programs to help achieve broader community goals.”<sup>1</sup>

In Minnesota, the **Metropolitan Council’s Thrive MSP 2040** regional growth plan is built to produce livability and sustainability outcomes, based on principles of advancing regional prosperity, equity and stewardship.<sup>2</sup> Policies and investments intended to advance these goals include expanding walking and biking opportunities, expanding transit service and developing walkable neighborhoods near transit stations, often referred to as transit-oriented development.<sup>3</sup>

The **Innovation in Action** section of this focus area includes a case study of the **Nashville Area MPO**, spotlighting the region’s efforts to advance public health, economic development and environmental and social equity goals through its regional transportation plan and funding allocations. A medium-sized MPO, Nashville has elevated the importance of public health and safety outcomes resulting from transportation investments in response to growing local concerns over rising obesity rates and the region’s high rate of chronic and respiratory diseases.

## MAKE SCENARIO PLANNING A STANDARD PRACTICE

For many years, MPOs developed their plans based on straight-line projections of existing trends in travel and development patterns. More recently, local decision-makers in many regions realize their choices can bend those trends in one direction or another. Shrinking public resources are also changing the process so that instead of asking, “What kind of transportation investments do we need to support rising levels of traffic and an expanding metro footprint?” the new question is, “What investment strategy will allow us to make the most of each dollar we invest to get the outcomes our region wants?”

### The opportunity

Today, innovative MPOs are developing multiple planning scenarios and testing them for their performance across a number of metrics and involving the public in evaluating which set of projects and policies is most likely to meet the region’s aspirations for economic success and quality of life. To help in those evaluations, planners are using cutting-edge modeling programs and visualization technologies that show the trade-offs associated with different land-use and transportation scenarios.

The federal transportation law, “Moving Ahead for Progress in the 21<sup>st</sup> Century” or MAP-21, encourages the use of scenario planning. Federal guidance recommends testing the performance of different transportation strategies such as adding new capacity, improving how the system is managed and maintained and alternative land-use scenarios against a set of transportation performance and other locally developed factors. Through this approach it becomes apparent that transportation outcomes depend as much on development patterns

1 The Role of FHWA Programs in Livability: State of the Practice Summary. (Updated January 2014). [www.fhwa.dot.gov/livability/state\\_of\\_the\\_practice\\_summary/research00.cfm](http://www.fhwa.dot.gov/livability/state_of_the_practice_summary/research00.cfm)

2 Thrive MSP 2040: <http://metro council.org/Planning/Projects/Thrive-2040.aspx>

3 <http://metro council.org/News-Events/Transportation/Newsletters/Draft-Transportation-Policy-Plan-aims-to-boost-tra.aspx>

as they do on transportation system improvements.<sup>1</sup> MPOs do not typically control land-use decisions that influence development patterns, but scenario planning is a powerful tool to show the collective impacts of these local decisions.

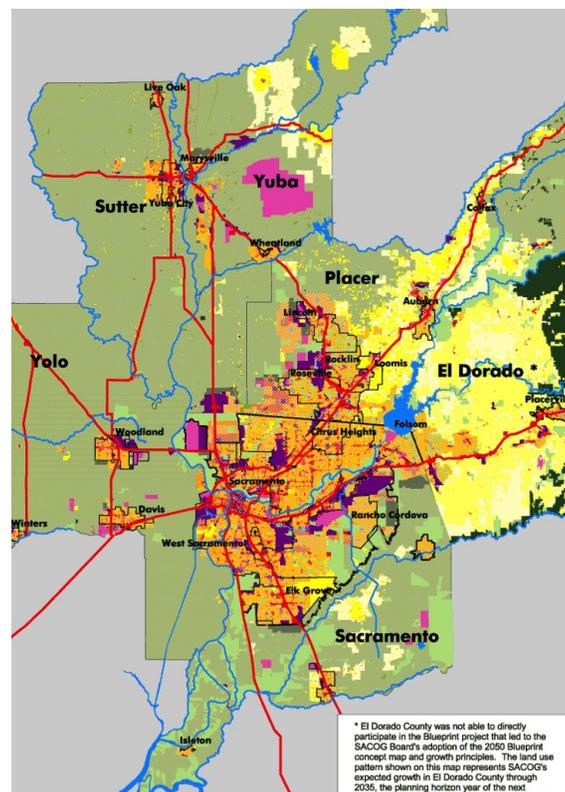
Successful scenario planning involves perspectives across the region – urban, suburban and rural – and solicits feedback from private and non-profit sectors, elected officials and community members. Doing this type of more extensive and thoughtful planning and outreach does cost money. Many regions have been fortunate to partner with universities, non-profits, community foundations and local governments. Federal planning funds are also available to support scenario planning. MAP-21 lists guidelines for conducting scenario planning and the Federal Highway Administration (FHWA) provides technical assistance to DOTs and MPOs on best practices.<sup>2</sup>

## ▶ Putting it into practice

**Creating a regional blueprint.** Scenario planning shows the trade-offs between different investment patterns – those where growth is concentrated around existing infrastructure or left to more sprawling patterns. California MPOs broke new territory a decade ago with the development of Regional Blueprint Scenarios to demonstrate alternative approaches to addressing regional transportation needs.<sup>3</sup>

The Sacramento Blueprint process in particular has earned national acclaim as a “best practice.” The three-year public involvement effort culminated in the **Sacramento Area Council of Government’s (SACOG) Metropolitan Transportation Plan**, adopted in 2008,<sup>4</sup> which guides land use and transportation choices over the next 50 years as the region’s population grows from 2 million to more than 3.8 million residents.

The 2008 MTP differed starkly from past plans as a result of scenario planning. For one, it included a goal to reverse the trend of vehicle miles traveled (VMT) outpacing population growth while tripling the use of transit, with similar growth in non-motorized travel. The preferred Blueprint scenario forecast VMT declining per household by 6 percent or more.<sup>5</sup>



The 2050 Sacramento Blueprint Concept Map Source: [www.sacregionblueprint.org/adopted/](http://www.sacregionblueprint.org/adopted/)

1 A good discussion of how multiple MPOs are using scenario planning in their transportation planning processes can be found in the forthcoming publication: “Best Practices in Metropolitan Transportation Planning” by Reid Ewing and Keith Bartholomew with Allison Spain and Alex White of the Metropolitan Research Center at the University of Utah.

2 FHWA Scenario Planning Guidebook: [www.fhwa.dot.gov/planning/scenario\\_and\\_visualization/scenario\\_planning/scenario\\_planning\\_guidebook/](http://www.fhwa.dot.gov/planning/scenario_and_visualization/scenario_planning/scenario_planning_guidebook/)

3 FHWA case study of SCAG’s scenario planning work is featured here: [www.fhwa.dot.gov/planning/scenario\\_and\\_visualization/scenario\\_planning/publications/new\\_trends/sec10.cfm](http://www.fhwa.dot.gov/planning/scenario_and_visualization/scenario_planning/publications/new_trends/sec10.cfm)

4 [www.sacregionblueprint.org/adopted/](http://www.sacregionblueprint.org/adopted/)

5 Ewing, Reid and Bartholomew, Keith with Spain, Allison and White, Alex. Smart Growth America and Metropolitan Research Center at the University of Utah. (Forthcoming). “Best Practices in Metropolitan Transportation Planning.”

**Testing the effect of investing in existing areas.** The **San Diego Association of Governments (SANDAG)** used scenario planning to inform its 2030 MTP. The approved scenario emphasized investments in existing communities, preserving environmentally sensitive lands and increasing transit, walking and bicycling. Alternate scenarios that further concentrated growth in existing communities, areas served by high-frequency transit and major employment centers were found to have even greater congestion impacts. As a result, the plan gives added priority to projects in designated “smart growth” areas for funding in the TIP. More recently, as part of the update to the Regional Comprehensive Plan the agency has modeled strategies to connect housing and jobs near existing transportation systems to estimate the GHG impacts. The agency then modeled the impacts of different transportation investments and technologies to further reduce GHG levels between 2035 and 2040.<sup>1</sup>

The **Wasatch Front Regional Council (WFRC)** serving Salt Lake City and surrounding cities and counties is a national leader in scenario planning. Beginning in 1997 under the leadership of the non-profit Envision Utah,<sup>2</sup> residents participated in 200 workshops to develop a common set of goals for the future of their region.<sup>3</sup> While that process itself was ground-breaking at the time, the WFRC and the other MPO in the region, the Mountainland Association of Governments, joined with Utah DOT and the Utah Transit Authority to take the regional planning process to the next level. Extensive citizen input was used to build four potential growth scenarios, with regional leaders eventually selecting a preferred future vision, “Wasatch Choice for 2040.” The vision intends to inform future investments and asset management of the transportation system including commuter rail, light rail, highways and streetcars.<sup>4</sup> Due to the extensive citizen engagement process and effective communications techniques – including a “vision map” showing how the region might look in the future – the plan received widespread support.

Still in the forefront, the WFRC is now deploying another new tool, known as “Envision Tomorrow +,” which enables local communities to more easily conduct a rigorous scenario planning process for smaller areas, such as their city or the neighborhoods around a transit station, using a process based on the successful regional experience.

The scenario planning was also applied at a statewide scale, as WFRC’s long-range regional transportation plan was developed in conjunction with other such plans around the state and integrated into Utah’s Unified Transportation Plan.<sup>5</sup>

The **Innovation in Action** section of this chapter includes a case study of scenario planning work undertaken by the **San Luis Obispo Council of Governments**. With an urbanized area population of more than 50,000, it provides a good example of innovation by a smaller MPO using emerging technologies and data to engage diverse stakeholders in considering the trade-offs between different transportation and land-use decisions.

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1 San Diego Forward, The Regional Plan: Alternative Land-Use and Transportation Scenarios: [www.sdforward.com/sites/sandag/files/BOD\\_09132013\\_Item3.pdf](http://www.sdforward.com/sites/sandag/files/BOD_09132013_Item3.pdf)

2 Envision Utah is a national scenario planning non-profit who has worked closely with Utah MPOs and others across the country to deploy innovative models. For more information on their work: <http://envisionutah.org/>

3 For a detailed case study on the Envision Utah process, see [http://sustainablecommunitiesleadershipacademy.org/resource\\_files/documents/envision-utah-planning-future-wasatch-front.pdf](http://sustainablecommunitiesleadershipacademy.org/resource_files/documents/envision-utah-planning-future-wasatch-front.pdf)

4 Wasatch Choice for 2040: [http://envisionutah.org/index.php?option=com\\_k2&view=item&layout=item&id=64&Itemid=291](http://envisionutah.org/index.php?option=com_k2&view=item&layout=item&id=64&Itemid=291)

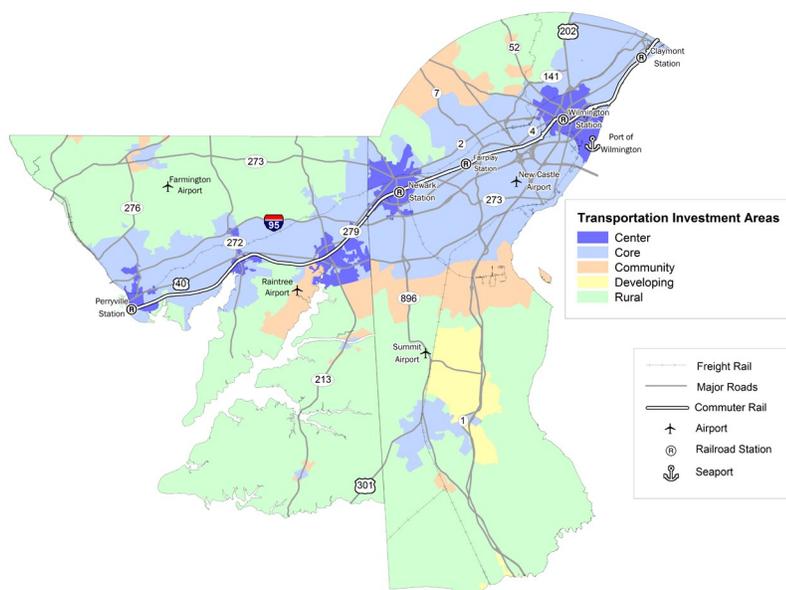
5 [http://wfr.org/new\\_wfrc/index.php/plans/utah-s-unified-transportation-plan](http://wfr.org/new_wfrc/index.php/plans/utah-s-unified-transportation-plan)

## PRIORITIZE REGIONAL CENTERS FOR INVESTMENT

Federal infrastructure funding has become less predictable over the past decade even as the needs to maintain and grow transportation networks have increased. Some MPOs are doing more with less by prioritizing certain areas of the region where jobs, social services, housing or significant educational or cultural centers are concentrated.

### > The opportunity

Over the past decade, the Great Recession decimated public funding and left a large backlog of unmet needs, while gas tax revenues have also fallen off. Many MPOs have concluded it no longer makes sense, if it ever did, to spread money around political jurisdictions like peanut butter. Instead they are looking for ways to target investments to where they will allow the greatest access to jobs and where growth can be accommodated while making the most efficient use of infrastructure. This approach prioritizes projects serving key, regional centers and attempts to coordinate housing and other development so more residents can live closer to work or find homes or jobs in walkable neighborhoods with access to public transportation.



Transportation Investment Areas in Wilmington, DE Region.  
Source: WILMAPCO

Among the regions pursuing some variation on this approach are Albany, NY; Atlanta, GA; Austin, TX; Denver, CO; Philadelphia, PA; Portland, OR; Louisville, KY; Salt Lake City, UT; and Seattle, WA.

A variety of terms have arisen to denote regional centers. The San Francisco Bay Area, for example, uses the term “Priority Development Areas,” while South Florida refers to “Mobility Hubs” and Wilmington, DE, “Transportation Investment Areas.” Regardless of the names used, regional leaders work to develop criteria for selecting priority areas with local input. In some instances, local communities are invited to identify themselves as key centers for prioritized funding.<sup>1</sup>

### > Putting it into practice

**Expanding connections to key centers.** In **Austin, TX**, the **Capital Area Metropolitan Planning Organization (CAMPO)** concluded that the region could no longer afford to invest in major regional infrastructure as it had

1 FHWA Office of Planning and Environment Land-Use Tools: [www.fhwa.dot.gov/planning/processes/land\\_use/land\\_use\\_tools/page03.cfm#toc380582789](http://www.fhwa.dot.gov/planning/processes/land_use/land_use_tools/page03.cfm#toc380582789)

historically. Its CAMPO 2035 Plan identifies a regional network of mixed-use activity centers<sup>1</sup> and dedicates 50 percent of surface transportation program funding for transportation investments in these designated centers.

The **Broward County, FL MPO** designates “Mobility Hubs” as a central component of its 2009 MTP, representing a major shift from previous plans that emphasized travel by single-occupant vehicles. Mobility Hubs are areas deemed critical to the transportation network and therefore are targeted for investments that expand the range of modes and increase connections to key destinations. The MPO gives priority to centers with frequent transit service, high development potential and that are major trip generators or transfer points within the transit system. Since the plan’s adoption, the Broward County MPO has assisted local communities with planning and prioritizing investment within these Mobility Hubs.<sup>2</sup>

**Using a centers approach in smaller metros.** In the **Boise, ID** area, the **Community Planning Association of Southwest Idaho (COMPASS)** prioritizes investments along transit corridors and in major activity centers in its long-range plan, dubbed “Communities in Motion 2040.” Extensive scenario planning produced a vision for concentrating more development in existing communities to preserve prime farmland and improve the transportation system while also supporting high-quality transit for key arterials and improving existing critical roadway corridors.<sup>3</sup>

**Using incentives to target growth and development.** Other MPOs have become even more proactive and set aside a portion of funds for local governments that will accept and encourage higher density. For instance, under **San Diego’s 2005 Smart Growth Incentive pilot program**, the MPO doled out \$22.5 million in grants for local pedestrian improvements and streetscape projects serving key areas.<sup>4</sup> Funding came from the former federal Transportation Enhancements program. The success of the pilot program led to the creation of a \$206 million Smart Growth Incentive Program funded by a half-cent local sales tax.<sup>5</sup> To be eligible for these funds and receive priority for other funding, local governments designated almost 200 existing, planned or potential “smart growth areas” to which compact, mixed-use development is being directed.

Every single jurisdiction in the San Diego region was able to identify at least one smart growth area on the map, demonstrating region-wide support for the smart growth principles included in the regional comprehensive plan. The region has established targets for density of development and transportation service for each of the place types. Infrastructure grants can cover streetscape or sidewalk enhancements, transit station improvements, traffic-calming measures or other amenities that support smart growth in that area. Planning grants can be used to amend general plans, prepare specific area plans or update zoning ordinances to support more compact and mixed-use developments that allow people to get around by walking, biking and taking transit as well as driving.

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1 CAMPO 2035 Plan: [www.campotexas.org/plans-programs/campo-plan-2035/](http://www.campotexas.org/plans-programs/campo-plan-2035/)

2 One example of Broward County’s Mobility Hub implementation is the 2012 “Midtown Plantation and Southwest Station Livability Plan: [www.browardmpo.org/userfiles/files/20120830%20Pltn%20Sunrise%20Report.pdf](http://www.browardmpo.org/userfiles/files/20120830%20Pltn%20Sunrise%20Report.pdf).

3 [www.compassidaho.org/documents/prodser/CIM2040/final/CIM2040\\_July\\_FinalwithResolution.pdf](http://www.compassidaho.org/documents/prodser/CIM2040/final/CIM2040_July_FinalwithResolution.pdf)

4 San Diego’s Smart Growth Incentive Pilot Program: [www.sandag.org/index.asp?projectid=264&fuseaction=projects.detail](http://www.sandag.org/index.asp?projectid=264&fuseaction=projects.detail)

5 San Diego’s Transnet Smart Growth Incentive Program: [www.sandag.org/index.asp?projectid=340&fuseaction=projects.detail](http://www.sandag.org/index.asp?projectid=340&fuseaction=projects.detail)

## MAKE USE OF INNOVATIVE MODELING TOOLS

Every MPO relies upon models and forecasting to evaluate the performance of the transportation network and plan for future needs and investments. Larger MPOs designated as Transportation Management Areas are required to use models to address air quality and traffic congestion. When MPOs fail to update these tools to capture the dynamic interplay among transportation, land use, changing demographics and new technologies they can make costly mistakes that may take generations to correct.

### The opportunity

Models are simplified descriptions of a complex system used to predict and evaluate the results of system changes. Computer modeling lies at the heart of transportation planning and is often dominated by engineers who bring deep technical knowledge of data inputs, travel forecasts and complex methodologies. Historically, travel models have focused primarily on single occupant vehicles and work trips. Over the past decade, however, this has been slowly changing as MPOs and DOTs are revising models to better consider land-use effects, trip purposes and transit usage.

Models that evaluate travel patterns and project economic and land-use impacts typically use current trends to forecast future needs. However, this approach tends to favor the status quo and may be wildly off the mark when demographic and market forces change, as they have in recent years. It also misses the potential of transportation investments to influence development patterns and vice versa. Poorly planned land-use decisions contribute to more or longer trips and greater traffic congestion for people and freight. On the other hand, if local land-use plans call for increased density but the MTP only addresses automobile needs, neither plan will succeed. Models that can anticipate changes in future development and travel patterns can help communities avoid such costly mismatches.

While it may be tempting to leave transportation modeling to the small circle of travel forecasting experts and engineers, decisions about what to model, what outcomes to analyze and what assumptions underlie travel and land-use analysis are issues for the entire MPO Policy Board and planning staff to discuss. Technical advisory committees drawn from local government staff, informed citizens, academia and elsewhere also can provide important input from others who may understand engineering and modeling concepts, or equally important, know what their community needs from the transportation system.

Several regions have developed their own models to better capture the travel and land-use patterns of their individual regions. Small MPOs with limited staff capacity may elect to collaborate with the state DOT to supplement or provide this kind of detailed analysis.

New mobile technologies and open-source data now provide an affordable method for capturing much richer data on travel behavior. For instance, certain mobile phone applications allow tracking of real-time travel information, which modelers can use to see where and how people actually travel.<sup>1</sup> Web-based surveys and other tools also allow for more accurate information on travel and housing preferences. MPOs can examine

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1 Mobile Telephone Location Tracking: <http://senseable.mit.edu>

whether these kinds of data inputs can be applied to updated models that create more accurate forecasts that may, in the long run, avoid unnecessary costs.

## Putting it into practice

**Federal resources.** The USDOT devotes considerable resources to building the capacity of MPO staff in relation to transportation modeling.<sup>1</sup> FHWA's Travel Model Improvement Program (TMIP) is an important source of information, research and training in best practices.<sup>2</sup> The Federal Transit Administration recently launched a new transit model, STOPS, to provide sponsors of major transit projects a simplified method for forecasting ridership and system impacts of proposed investment in a particular corridor.<sup>3</sup>

As part of its Sustainable Highways Initiative, FHWA has developed a tool for assessing the economic, social and environmental impacts throughout the life cycle of a given project, similar to the LEED ratings for buildings. The self-evaluation tool, INVEST, includes bonus points for areas that take a comprehensive approach to planning.<sup>4</sup> The **North Central Texas Council of Governments (NCTCOG)** used INVEST's System Planning module to assess its long-range transportation plan, Mobility 2035. The region was rapidly growing and faced a funding shortfall, so the MPO used INVEST to help validate its assumptions and identify priority improvements. In Portland, OR, the public transportation provider Tri-Met piloted the use of INVEST to analyze a transit project, developing a customized project development scorecard applicable to its light rail project.

**Refining models to reflect regional goals.** The **Puget Sound Regional Council (PSRC)** invested in a number of innovative tools to model the impact of local land-use decisions on regional transportation systems. The PSRC has developed or refined models to quantify the economic costs of travel delays, as well models that forecast potential increases to transportation revenues, the rate of return from public transportation investments and how best to serve an aging population.

The **Metropolitan Transportation Commission (MTC)**, the MPO for the San Francisco Bay Area, fully transitioned from a trip-based model (where people are going) to an activity-based travel model (why people are traveling) in 2010 to better capture the complex dynamics of where, how and when people travel.<sup>5</sup> The region benefits from very capable local governments who provide detailed data that can inform regional planning by the two MPO modeling staff. The region is also home to 25 different transit agencies, creating both challenges and opportunities for collecting and analyzing regional transit data. The new "Model One" was designed with an eye towards informing programs to charge varying tolls based on congestion as well as strategies to improve roadway and transit efficiency and reduce GHG emissions.

**Sharing modeling data with the public.** The MTC also manages a Regional Transit Database, designed in an open architecture for use by partner agencies, that supplies data to trip-planning applications that generate transit itineraries for transit call center operators and the general public.<sup>6</sup>

1 FHWA Planning and Analysis Tools: [www.fhwa.dot.gov/livability/state\\_of\\_the\\_practice\\_summary/research03.cfm#tools](http://www.fhwa.dot.gov/livability/state_of_the_practice_summary/research03.cfm#tools)

2 FHWA Travel Model Improvement Program and TMIP Travel Analysis Toolbox: [www.fhwa.dot.gov/planning/tmip/](http://www.fhwa.dot.gov/planning/tmip/)

3 Federal Transit Administration's STOPS model: [www.fta.dot.gov/grants/15682.html](http://www.fta.dot.gov/grants/15682.html)

4 INVEST is being piloted by MPOs in Southern California and Cleveland: <https://www.sustainablehighways.org/>

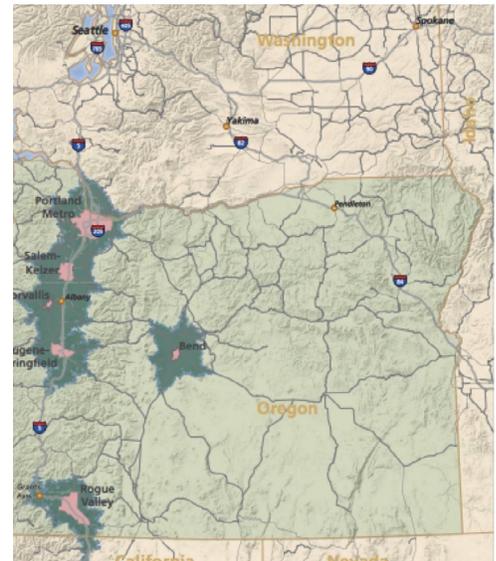
5 [http://tmiponline.org/Clearinghouse/Items/20130606\\_-\\_Travel\\_Modeling\\_at\\_MTC.aspx](http://tmiponline.org/Clearinghouse/Items/20130606_-_Travel_Modeling_at_MTC.aspx)

6 <http://dataportal.mtc.ca.gov/development.aspx>

The Phoenix area's **Maricopa Association of Governments (MAG)** is a leader in sharing data and transportation modeling information with the public. The MAG Travel Survey Web Portal provides public access to data and online analysis tools to evaluate the transportation and socio-economic characteristics of the Greater Phoenix Metropolitan Area.<sup>1</sup> MAG is also notable for its work to refine models to better capture the transit ridership impacts associated with college and university riders and with special sporting and entertainment events. (MAG deployed a brand new interactive mapping and analysis site just weeks before publication of this guidebook.<sup>2</sup>)

**Fostering learning among peer MPOs.** In 2005, **Oregon formed an MPO consortium** to provide a forum for working together on matters of statewide significance and mutual interest. With two representatives from each of the state's MPOs, the consortium addresses shared challenges arising from the complexity of transportation planning in rapidly growing metropolitan regions, the changing state role in transportation funding and modeling the land-use and transportation relationships.

The consortium led to formation of the **Greater Regions Project**, which is working to define metropolitan regions based on travel-sheds rather than political boundaries. This approach is being pursued to better understand and project the economic and travel relationships that define the regions used as the basis for modeling and decision-making. The Greater Regions project involves work in four major subareas: North Willamette Valley, Southern Willamette Valley, Rogue Valley and Central Oregon.<sup>3</sup>



Oregon MPO consortium members. Source: [www.ompc.org/PDF/regions/N\\_Willamette\\_Pamphlet\\_0409.pdf](http://www.ompc.org/PDF/regions/N_Willamette_Pamphlet_0409.pdf)

## PLAN FOR ECONOMIC COMPETITIVENESS

Many MPOs shy away from economic development discussions as issues beyond their authority. However, innovative MPOs can help the region plan for economic competitiveness in many ways, from involving business stakeholders in developing visionary plans to choosing funding criteria that prioritize investments on behalf of the regional economy.

### > The opportunity

One of the most important issues facing metropolitan areas today is how to ensure their economic competitiveness in a global economy. More employers are recognizing that recruiting and retaining employees from across a region requires safe, convenient and affordable transportation options. Metropolitan regions compete with each other for talented young workers, many of whom want to live in walkable neighborhoods with good transit access and safe streets for bicycle travel.

1 MAG traffic data forecast and modeling homepage: [www.azmag.gov/Projects/Project.asp?CMSID2=1137&MID=Transportation](http://www.azmag.gov/Projects/Project.asp?CMSID2=1137&MID=Transportation)

2 <http://ims.azmag.gov>

3 Oregon MPO Consortium and the Greater Regions Project: [www.ompc.org/about.html](http://www.ompc.org/about.html)

Regional planning agencies are often at the center of these discussions, with some having direct authority for developing comprehensive economic development strategies (CEDs).<sup>1</sup> But even for those without that explicit authority, two of the federally required planning factors speak to economic competitiveness: “supporting economic vitality of the metropolitan area...by enabling global competitiveness, productivity and efficiency;” and “increasing the accessibility and mobility of people and freight.”

MPOs don't need to take dramatic actions to have an impact. They can start by elevating consideration of economic competitiveness within scenario planning and other visioning exercises, for instance. Most MPOs use Citizen Advisory Committees or Technical Advisory Committees to help inform staff and Policy Board members on key issues. Including specific key private sector interests such as major employers; colleges and training providers; anchor institutions such as health care centers, small business owners and those representing chambers of commerce; organized labor; shippers; and ports provides this first-hand knowledge of economic priorities to be reflected in regional performance measures, funding criteria and the MTP.

## Putting it into practice

**Acting as a partner in economic development.** In the Kansas City metropolitan area, the **Mid-America Regional Council (MARC)** plays a nominal role in traditional economic and business development. It does recognize, though, that long-range transportation decisions influence how workers get to jobs and goods move across the region. MARC serves as an on-call partner for the region's formal economic development agencies and area chambers of commerce, providing data to track a number of economic measures.<sup>2</sup>

MARC has led regional visioning and planning efforts integrating the region's comprehensive economic development strategy with the MTP.<sup>3</sup> The agency created a shared regional economic vision and established a coordinating committee of local governments, private and non-profit leaders, area educational institutions and non-profit organizations to help inform its priorities. Through a 2010 HUD Sustainable Communities Regional Planning grant, MARC is an active leader in connecting infrastructure investments, workforce development and economic development planning with a priority on investments in key activity corridors.<sup>4</sup>

**Rewarding local governments for economic planning.** The **Denver Regional Council of Governments (DRCOG)** developed a number of strategies to strengthen the links among transportation, quality of life and regional economic competitiveness. DRCOG confers annual awards on local governments who make “exceptional contributions to regional economic development through innovative municipal and county efforts to create vibrant and vital places where people live, work and play.”<sup>5</sup>

1 CEDS is a federally required document for receiving funds from the Economic Development Administration. Several regions are working to closely align their MTP and CEDS plan to better leverage federal transportation and economic development funds: [http://eda.gov/pdf/CEDS\\_Flyer\\_Wht\\_Background.pdf](http://eda.gov/pdf/CEDS_Flyer_Wht_Background.pdf)

2 See MARC case study in the report by National Association of Regional Councils and MZ Strategies, LLC. (May 2013). “Planning for Regional Competitiveness.” <http://narc.org/wp-content/uploads/McKnight-Foundation-Final-Report-FINAL-052013.pdf>.

3 [www.marc2.org/cqp/](http://www.marc2.org/cqp/)

4 [www.marc.org/Regional-Planning/Creating-Sustainable-Places](http://www.marc.org/Regional-Planning/Creating-Sustainable-Places)

5 [www3.drcog.org/AnnualAwards/Page/Awards](http://www3.drcog.org/AnnualAwards/Page/Awards)

**Promoting transit-oriented development as an economic catalyst.** The Denver MPO also is a strong supporter of transit-oriented development (TOD) as a catalyst for economic development,<sup>1</sup> including TOD policies and goals in the long-range plan and dedicating funding to support local place making, station-area planning and TOD projects. The DRCOG also partners with an initiative called **Mile High Connects**, which describes itself as “a broad partnership of organizations from the private, public and non-profit sectors that are committed to increasing access to housing choices, good jobs, quality schools and essential services via public transit.”<sup>2</sup> The DRCOG even created videos featuring developers and local business voices talking about the links among job growth, regional competitiveness and TOD.<sup>3</sup> More information on DRCOG’s partnership with the private sector is provided in the Innovation in Action case study in Focus Area 7.

The resources listed below offer additional examples of MPOs integrating economic development in their planning. The **Innovation in Action** section offers a case study of the **Phoenix MPO’s** active engagement of the business community on its Transportation Policy Committee and a new Economic Development Committee that will help create economic criteria for selecting projects and evaluating their performance.

## Resources

- Federal Register (June 2, 2014). Federal Highway Administration 23 CFR Part 450 and Federal Transit Administration 49 CFR Part 613, Statewide and Nonmetropolitan Transportation Planning; Metropolitan Transportation Planning; Proposed Rule. Washington DC: USDOT. Volume 79, No. 105.
- USDOT, Research and Innovative Technology Administration, John A. Volpe National Transportation Systems Center (March 2012). Best Planning Practices: Metropolitan Transportation Plans. USDOT, Office of Planning, Environment and Realty, FHWA.
- Transportation Planning Capacity Building Program of the Federal Highway Administration and Federal Transit Administration (Updated September 2007). The Transportation Planning Process Key Issues: A Briefing Book for Transportation Decision-Makers, Officials and Staff. Washington DC: Federal Highway Administration, USDOT, FHWA-HEP-07-039.
- USDOT Research and Innovative Technology Administration, John A. Volpe National Transportation Systems Center (February 2011). FHWA Scenario Planning Guidebook. Washington DC: USDOT, Office of Planning, Environment and Realty, FHWA-HEP-11-004.
- Victoria Policy Institute, “Transport Model Improvements” primer, [www.vtpi.org/tdm/tdm125.htm](http://www.vtpi.org/tdm/tdm125.htm)
- USDOT, Research and Innovative Technology Administration, John A. Volpe National Transportation Systems Center (August 2014). “A Multimodal Approach to Economic Development in the Metropolitan Area Transportation Planning Process: A White Paper.” Washington DC: USDOT, Office of Planning, Environment and Realty, FHWA-HEP-14-047.

1 <http://tod.drcog.org/>

2 [www.milehighconnects.org/](http://www.milehighconnects.org/)

3 <http://tod.drcog.org/economic-development>

## INNOVATION IN ACTION - CASE STUDIES (FOCUS AREA 1)

## FULLY LEVERAGE FEDERAL PLANNING FACTORS

**Nashville Area Metropolitan Planning Organization – Nashville Area MPO (Nashville, TN)**

*The seven-county Nashville region has witnessed steady population and job growth over the past decade with roughly 1.5 million people calling the region home today and an estimated 3 million people projected by 2040. While this growth has helped fuel the regional economy, it also has led to long commutes, urban encroachment onto farmland and rural areas, increasing pedestrian and automobile fatalities and public health concerns including rising rates of obesity, asthma, cardiovascular disease and diabetes.*

The **Nashville Area MPO** has stepped forward to use its regional role to bring together diverse stakeholders to address those issues in its long-range transportation planning<sup>1</sup> in ways that have gained national recognition.<sup>2</sup> Its 2035 Regional Transportation Plan outlines a strategy for investing nearly \$6 billion in anticipated transportation funds. It includes a strong focus on public health in response to national data that shows Tennessee residents are often among the most physically inactive, overweight and obese.<sup>3</sup>

The 2035 Plan established three major policy initiatives as described on the MPO's website:

1. *Create a Bold, New Vision for Mass Transit* to help guide the expansion and modernization of the region's mass transit system in preparation for an increasingly competitive global economy and to proactively address growing concerns about the health of our environment, worsening congestion and sprawling land development patterns that encroach upon the area's cherished rural countryside.
2. *Support Active Transportation and the Development of Walkable Communities* to improve connectivity between people and places within the urbanizing area of the region, foster healthier activity for Middle Tennessee's citizens and serve as the backbone of investments in mass transit.
3. *Preserve and Enhance Strategic Roadway Corridors* with a focus on repairing aging roadways and bridges to ensure the safety of the traveling public and freight transport, improving operations through the integration of new technologies and completing streets to provide a balanced system that works for all users.

It also addresses environmental, land-use and urban design and freight elements that influence long-range planning. The MPO takes full advantage of the eight federally required planning factors to examine issues beyond transportation mobility or congestion. The 2040 Plan update, currently in progress, is framed by a combination of data on regional housing, commuting, transportation costs and demographic trends and aligns with the region's sustainability goals.

1 USDOT Research and Innovative Technology Administration, John A. Volpe Transportation Systems Center. (December 2012). *Metropolitan Area Transportation Planning for Healthy Communities*. Washington, DC: Federal Highway Administration, USDOT, FHWA-HEP-13-006.

2 [www.nashvillempo.org/about\\_mpo/mpo\\_awards.aspx#awards1](http://www.nashvillempo.org/about_mpo/mpo_awards.aspx#awards1)

3 [www.nashvillempo.org/plans\\_programs/rtp/](http://www.nashvillempo.org/plans_programs/rtp/)

The resulting four-year TIP provides the funding to implement these goals through the following allocations of federal Surface Transportation Program (STP) funding:<sup>1</sup>

- 15 percent of funds dedicated to projects for active transportation (bicycling and walking)
- 10 percent of funds dedicated to transit projects (in addition to other FTA funding)
- Five percent of funds dedicated to intelligent transportation systems and operations projects
- 70 percent of STP funds are dedicated to multimodal roadway safety and capacity projects and allocated using project election criteria.

During the 2035 Call for Projects, the MPO included a number of questions to guide sponsors in their submissions:<sup>2</sup>

- Does the project aid/ harm the advancement of social justice and equal opportunity to destinations throughout the region?
- How can the project be scoped to mitigate any negative impacts to predominantly low-income or minority communities or persons with a disability?
- How well does the facility connect people with opportunities to engage in economic activity?
- To what degree does the project aid in the region's economic competitiveness with other metro areas of the nation? Is the project supported by business leaders?
- Is the project consistent with local, state or other regional plans for growth? The MPO also developed about 50 indicators that were used in the project evaluation process. They are currently working to develop an online platform that will serve, in part, as a public database of projects proposed for the RTP.

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1 USDOT Research and Innovative Technology Administration, John A. Volpe Transportation Systems Center. (December 2012). *Metropolitan Area Transportation Planning for Healthy Communities*. Washington, DC: Federal Highway Administration, USDOT. FHWA-HEP-13-006.

2 [www.nashvillempo.org/plans\\_programs/rtp/2035\\_call.aspx](http://www.nashvillempo.org/plans_programs/rtp/2035_call.aspx)

## NASHVILLE AREA MPO

Type	Designated transportation planning agency
Composition	Twenty-eight members comprise its governing structure. The MPO consists of executive board, Technical Coordinating Committee (TCC) and MPO staff. The executive board consists of elected officials from the seven-county planning area and from cities in those counties with a population of more than 5,000. In addition, the Governor of Tennessee and an elected official from the Greater Nashville Regional Council serve on the executive board. The representative of the Tennessee DOT and the head of the transit agency are nonvoting members. The TCC consists of planning directors, transportation engineers and administrators from local government and transportation agencies. The MPO's staff provide ongoing professional services and administration of long-range plan and the TIP.
Voting	Each voting member gets one vote. A weighted voting provision can be enacted by members.
MPOs within MSA	One MPO within MSA
Annual budget and staffing size	\$2.5 million annual budget; 14 full-time staff
Responsibilities beyond transportation	Officially responsible for air quality; also involved in land use, economic development, climate change and environment, safety and security and health
Independent revenue authority	Does not collect revenues other than through membership dues

References: [www.nashvillempo.org/docs/upwp/FY2014UPWP\\_ADOPTED\\_082113.pdf](http://www.nashvillempo.org/docs/upwp/FY2014UPWP_ADOPTED_082113.pdf)

## MAKE SCENARIO PLANNING A STANDARD PRACTICE

### San Luis Obispo Council of Governments – SLOCOG (San Luis Obispo, CA)

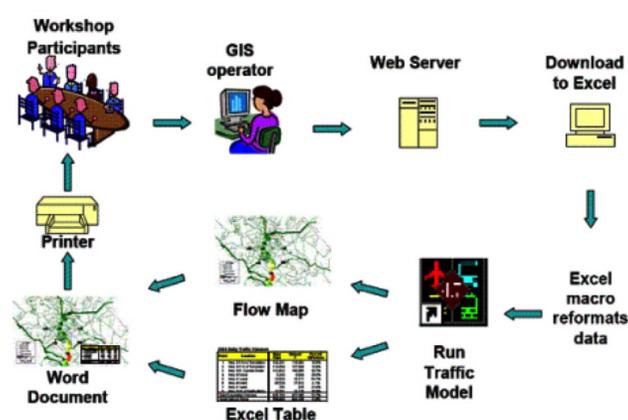
In developing its Community 2050 regional blueprint plan, funded by a Blueprint grant from the California Department of Transportation, SLOCOG used a web-based, real-time scenario planning software tool called iPLACE3S to allow stakeholders to visualize the effects of land-use decisions on housing, jobs, traffic congestion and economic growth.<sup>1</sup> Testing scenarios in real time with the input from stakeholders helped to build trust in and ownership of, the process.<sup>2</sup>

1 iPLACE3S is no longer available and SLOCOG more recently has used CommunityViz which is another useful GIS-based visualization software program. [www.planningtoolexchange.org/tool/communityviz](http://www.planningtoolexchange.org/tool/communityviz)

2 FHWA Scenario Planning Guidebook: [www.fhwa.dot.gov/planning/scenario\\_and\\_visualization/scenario\\_planning/scenario\\_planning\\_guidebook/](http://www.fhwa.dot.gov/planning/scenario_and_visualization/scenario_planning/scenario_planning_guidebook/)

In the early public sessions SLOCOG asked participants to place stickers on San Luis Obispo County maps to select areas of preferred housing and job growth for 2030–2050 projections and produced maps showing the effects on traffic congestion.<sup>1</sup> Within 15 minutes, participants saw the results of the scenario in map and spreadsheet form. Based on the results, they could alter their input to visualize alternate land-use scenarios.

This technology helped community members make a connection between low-density development and congestion. After selecting a “business as usual,” low-density scenario and experiencing the results, many participants switched to higher-density solutions. Enabling the public to use the same planning tools as SLOCOG bolstered public buy-in and helped in educating participants about the link between housing, jobs, congestion and the natural environment.



SLOCOG's technology-based participant involvement process.  
Source: FHWA Scenario Planning Guidebook

In 2010 SLOCOG developed its Regional Transportation Plan based upon the Community 2050 Regional Blueprint. Due to the extensive coordination in the Community 2050 process the plan was unanimously approved without controversy. These inputs resulted in the creation of target development areas and the prioritization of funding for downtown enhancements, better bicycle and pedestrian connections and Complete Streets. In 2014 the scenarios were translated using a community visioning platform (called CommunityViz®) so they could be used in SLOCOG's newly developed Regional Land Use Model (RLUM) to analyze and model traffic and air quality emissions. Results from the RLUM were inputs to the Regional Traffic Model (RTM); results from the RTM were inputs to the Emissions Model. This in turn allowed planners to estimate the associated differences in future GHG emissions with each scenario.

1 [www.slocog.org/programs/special-studies-services-projects/modeling](http://www.slocog.org/programs/special-studies-services-projects/modeling)

The CommunityViz user interface allows for hands-on sketching exercises. Using laptops, large video screens or other interactive methods, the software can be directly incorporated into a public meeting exercise. As one example, participants can gather around a light table displaying a live map of the region. Using marker-like infrared pens as cursors, they point, click or draw on the map to sketch alternative growth scenarios. As they sketch, charts and graphs track the likely implications of their plans in real time, calculating impacts on population, housing, economics, environment and water quality.

### San Luis Obispo Council of Governments (SLOCOG)

Type	Association of local governments, recognized as the MPO and Regional Transportation Planning Agency for the region
Composition	Voting Policy Board members: all five members of the San Luis Obispo County Board of Supervisors and one city council member appointed from each of the seven cities located in the county.
Voting	Same as above
MPOs within MSA	1 MPO within MSA
Annual budget and staffing size	\$5.2 million budget; 20.4 full-time equivalent staff; includes Regional Rideshare division with 4 staff members
Responsibilities beyond transportation	Scenario planning, sustainable communities strategy, housing allocation planning
Independent revenue authority	None
State enabling legislation	<i>The Sustainable Communities and Climate Protection Act (SB 375)</i> mandates each of California's MPOs to prepare a sustainable communities strategy (SCS), as a central part of its regional transportation plan (RTP). The SCS has land use, housing and transportation strategies that once implemented would allow the region to meet its GHG emissions reduction targets. Once the RTP/SCS is adopted by the MPO, it guides the transportation policies and investments in the region.

References: [www.slocog.org/](http://www.slocog.org/)  
[http://slocog.org/sites/default/files/14-15%20combined%20OWP\\_1.pdf](http://slocog.org/sites/default/files/14-15%20combined%20OWP_1.pdf)  
[www.ampo.org/wp-content/uploads/2014/02/2013-Salary-Survey-Results-final-draft-Jan-23-2.pdf](http://www.ampo.org/wp-content/uploads/2014/02/2013-Salary-Survey-Results-final-draft-Jan-23-2.pdf)

## PLAN FOR ECONOMIC COMPETITIVENESS

### Maricopa Association of Governments – MAG (Phoenix, AZ)

*The Greater Phoenix metropolitan area is one of the fastest growing regions in the country and the region's local governments are advancing strategies to ensure that future growth better serves the region's economic and environmental needs. The launch of light-rail service in 2008 provided a spine for future growth and economic development. Rail now connects Phoenix, Tempe and Mesa neighborhoods to downtown Phoenix, Arizona State University and the airport. The three cities are developing plans to maximize development and improve walkability around stations, with the support of the Maricopa Association of Governments (MAG).<sup>1</sup>*

<sup>1</sup> [www.smartgrowthamerica.org/2013/08/13/how-phoenix-az-is-using-transit-oriented-development-to-reinvent-downtown/](http://www.smartgrowthamerica.org/2013/08/13/how-phoenix-az-is-using-transit-oriented-development-to-reinvent-downtown/)

MAG was formed in 1967 and is the regional air quality planning agency and metropolitan transportation planning organization for the region's 27 incorporated cities and towns in Maricopa County, including the Phoenix urbanized area and the contiguous urbanized area in Pinal County. MAG was also designated by the governor to serve as the principal planning agency for the region in a number of other areas such as water quality and solid waste management.<sup>1</sup>

MAG established an Economic Development Committee (EDC) to “develop an opportunity-specific and action-oriented plan that fosters and advances infrastructure in the MAG Region, especially transportation infrastructure that would further economic development opportunities.”<sup>2</sup> The EDC consists of 26 members including MAG members, elected officials, business representatives and one representative from the Arizona Department of Transportation.

Through an memorandum of understanding with regional universities and colleges, MAG is promoting research, innovation and business start-up grants to position the region as a nationally competitive center for entrepreneurship and innovation. This has included strong outreach to small- and minority-business owners.

The recent recession underscored the importance of linking regional economic policies with transportation investments. The Phoenix metropolitan area saw some of the largest numbers of home foreclosures in the country. According to MAG, pending and foreclosed homes peaked at approximately 64,000 in 2010. As a consequence, “sales tax for the region declined, resulting in \$6 billion being cut from the MAG Regional Transportation Plan.”<sup>3</sup> In response, MAG joined forces with the Brookings Institution, the Phoenix Economic Council and academic leaders to develop a Metropolitan Business Plan. The plan focuses on its urban form and connectedness — two of five market levers in it.

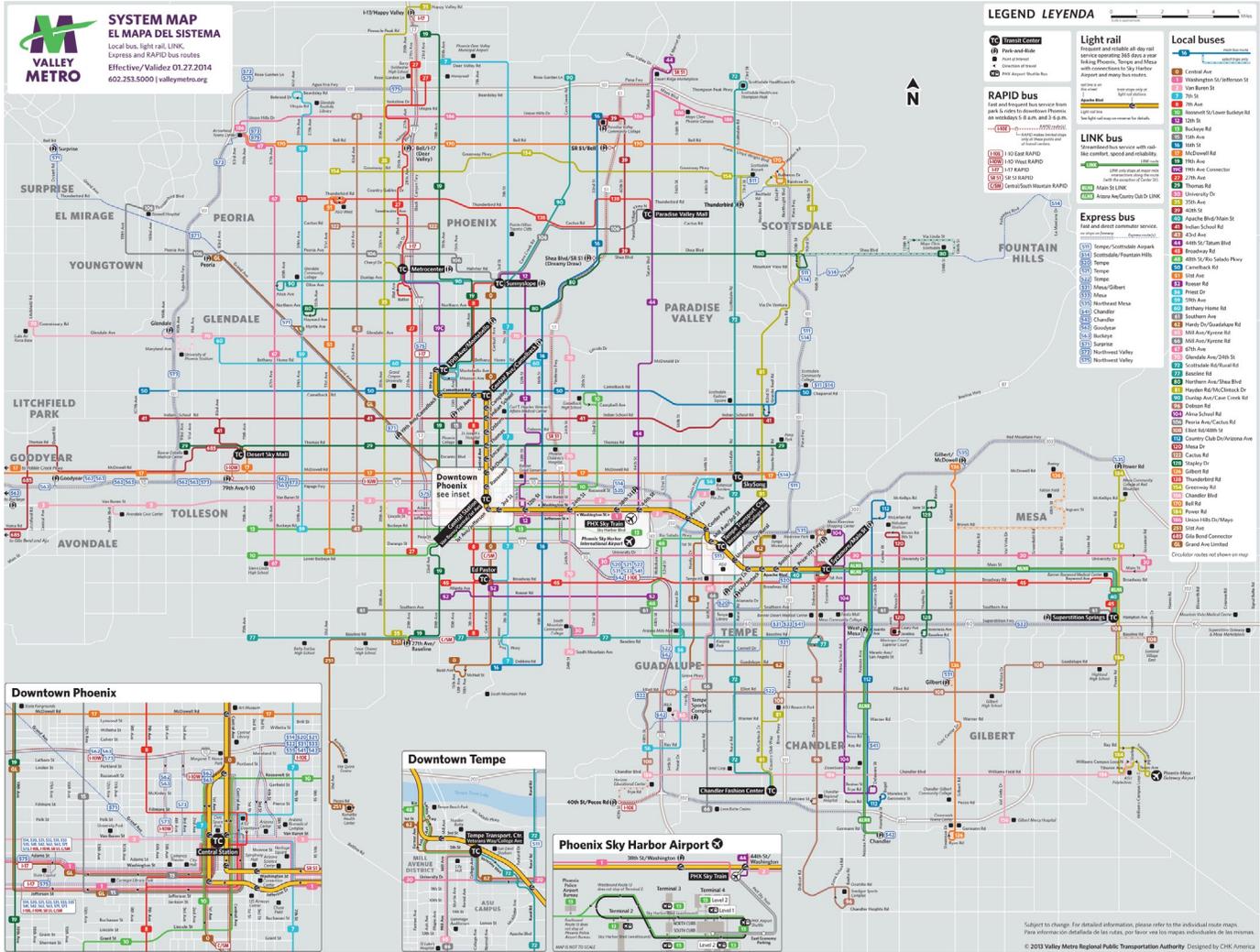
**“MAG elected officials, acting through the Regional Council, realized that one of the tenets of the federal transportation law was to foster economic development.”<sup>1</sup>**  
– Maricopa Association of Governments

<sup>1</sup> [www.azmag.gov/Projects/Project.asp?CMSID=3888](http://www.azmag.gov/Projects/Project.asp?CMSID=3888)

<sup>1</sup> [www.azmag.gov/](http://www.azmag.gov/)

<sup>2</sup> [www.azmag.gov/Committees/Committee.asp?CMSID=3577](http://www.azmag.gov/Committees/Committee.asp?CMSID=3577)

<sup>3</sup> [www.azmag.gov/Projects/Project.asp?CMSID=3888](http://www.azmag.gov/Projects/Project.asp?CMSID=3888)



Valley Metro system map. The new light rail line is the thicker orange line [www.valleymetro.org/images/uploads/sysmap\\_O11414.pdf](http://www.valleymetro.org/images/uploads/sysmap_O11414.pdf)

These themes are reinforced in MAG’s recently approved 2035 update to its Regional Transportation Plan (RTP).<sup>1</sup> The RTP is developed under the direction of the Transportation Policy Committee (TPC). State law prescribes TPC membership and provides a unique opportunity for business to have a direct say in developing regional transportation policy. Six of 23 members must represent region-wide business, with one each representing transit, freight and construction interests.<sup>2</sup> Three of the business members are appointed by the President of the Senate and the other three by the Speaker of the House. Membership also includes representatives from the Citizens Transportation Oversight Committee and the Arizona DOT. The Committee makes its recommendations to the MAG Regional Council, which adopts the final RTP.

MAG was an early national leader in using performance-based planning and has developed a robust set of metrics and updated modeling to use in evaluating projects for transportation funding.<sup>3</sup> It has developed a “systems-based” approach to planning that accounts for interactions among modes. Through its Congestion

1 [www.azmag.gov/Projects/Project.asp?CMSID2=1126&MID=Transportation](http://www.azmag.gov/Projects/Project.asp?CMSID2=1126&MID=Transportation)  
 2 [www.azmag.gov/Committees/Committee.asp?CMSID=1041](http://www.azmag.gov/Committees/Committee.asp?CMSID=1041)  
 3 <http://performance.azmag.gov/>

Management Process (CMP), MAG evaluates the impact of transportation strategies on “activity areas,”<sup>1</sup> including central business districts; cultural centers; freight, warehousing and distribution centers; and other centers of economic activity that are important to the regional economy.<sup>2</sup> In addition to the freeway and highway network, the CMP includes the arterial street network, transit facilities and services and walking and bicycling facilities. MAG uses its congestion management process to identify projects for funding in the TIP using factors related to quality of life, mobility for freight and people and system accessibility across modes.

Maricopa Association of Governments	
Type	Non-profit voluntary association of local governments
Composition	The Regional Council is the governing and policy-making body of the organization. Thirty-five members comprise its governing structure. The MPO consists of elected officials from 27 incorporated cities and towns and usually consist of city and town mayors, elected supervisors from Maricopa County and Pinal County, the Chair of the Citizens Transportation Oversight Committee as well as the two AZ DOT representatives. The three Native American communities that are MAG members are usually represented by their governor or president.
Voting	Each voting member gets one vote
MPOs within MSA	1 MPO within MSA
Annual budget and staffing size	\$32.6 million budget; 99 full-time staff
Responsibilities beyond transportation	Air quality, water quality, solid waste management, human services and domestic violence
Independent revenue authority	None
State enabling legislation	Arizona Executive Order 95-2 requires MAG to prepare official sub-regional population updates and projections developed by the Arizona Department of Economic Security.
References: <a href="http://www.azmag.gov">www.azmag.gov</a> <a href="https://www.azmag.gov/Documents/MAG_2012-02-08_MAG-Info-Book.pdf">https://www.azmag.gov/Documents/MAG_2012-02-08_MAG-Info-Book.pdf</a> <a href="http://www.azmag.gov/Documents/Fiscal_2014-06-13_FY2015_PIB-FINAL.pdf">www.azmag.gov/Documents/Fiscal_2014-06-13_FY2015_PIB-FINAL.pdf</a>	

1 Under Arizona Revised Statute 28-6354.B, MAG developed criteria to prioritize corridors, corridor segments and other transportation projects. As part of the RTP process, MAG has applied these kinds of criteria for the development and implementation of the RTP.

2 Maricopa Association of Governments. (October 2010). “Performance Measurement Framework and Congestion Management Study — Phase III, Baseline Congestion Management Process Report.” [www.azmag.gov/Documents/TRANS\\_2010-11-02\\_MAG-CMP-Final-Baseline-Report.pdf](http://www.azmag.gov/Documents/TRANS_2010-11-02_MAG-CMP-Final-Baseline-Report.pdf)