



Transportation Committee Meeting

Date: 10/4/2018

Agenda Item No.: 2018-October-10

Subject: 2020 Metropolitan Transportation Plan/Sustainable Communities Strategy: Transportation Project-Level Performance Evaluation (Est. time: 10 minutes)

Information

Prepared by: Matt Carpenter

Approved by: Matt Carpenter

Attachments: Yes

1. Issue:

What approach should SACOG take to evaluate project-level performance for the 2020 Metropolitan Transportation Plan/Sustainable Communities Strategy update (MTP/SCS) and future funding rounds?

2. Recommendation:

None, this is for information only.

3. Background/Analysis:

The purpose of the staff report is to seek board input and direction on next steps for an agency work area focused on tools and methods to analyze MTP/SCS transportation investments that can offer the highest economic benefits. The process builds from SACOG's existing strengths in performance evaluation at the regional, or system-wide, level and responds to board interest in project-level analysis for both planning and programming activities. Offering clear and transparent connections between technical analysis and policy work is the overall goal of the effort.

Since the adoption of the 2008 Metropolitan Transportation Plan (MTP), the SACOG board has steadily increased its focus on prioritizing cost-effective transportation projects with high performance benefits. The 2016 Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS) emphasized the importance of prioritizing cost-effective transportation investments as a guiding principle.

Coinciding with the planning work for the 2016 MTP/SCS was the passage of a new federal transportation bill, *Fixing America's Surface Transportation Act (FAST-ACT)*. The legislation reaffirms the new federal and state emphasis on outcome-based performance measurement that was first made in the preceding federal transportation act. The federal transportation acts have led to a series of rule-making activities and updated funding

programs that elevate the importance of performance-based transportation planning. SACOG has been actively engaged in the federal act rule-making related to transportation performance management. The latest of these collaborations is the establishment of performance targets for pavement and bridge management at Caltrans. It is the subject of a separate staff report in this October committee agenda.

SACOG has also been actively engaged in technical efforts advancing methods to evaluate the performance of individual transportation projects. In 2017 SACOG convened a nine month-long Project Performance Assessment (PPA) working group consisting of local agency staff, industry experts, and other stakeholders that reviewed methods for further implementing transportation project performance assessment at SACOG. The effort provided valuable input on two performance assessment methods, measurable indicators, and technical applications within the agency. The group found that while no single measure or approach should be used in isolation, the two methods evaluated in the working group were a useful quantitative approach for project-level assessment, and should be included as additional information in the MTP/SCS performance assessment and future funding round frameworks.

4. Discussion/Analysis:

There is an opportunity for performance assessment in the 2020 MTP/SCS update to inform board policy decisions on how to make the most of our limited future transportation funding and to realize greater economic prosperity in the region. The proposed tools and methods is also a promising means to reconsider the timing, or sequence, of strategic system expansion opportunities at the same the region increases its commitment to maintain the system in a state of good repair.

Analysis of the implementation themes in the MTP/SCS policy framework can benefit from a set of related performance-based efforts:

- Project Phasing analysis
- Benefit-Cost analysis
- Economic outcomes assessment
- Jobs Centers & Corridors Accessibility analysis

These related efforts will provide an opportunity to increase the agency's focus on project-level performance outcomes. Prior plans analyzed the overall transportation system, but had limited performance analysis at the project scale. There are multiple benefits from broadening SACOG's performance evaluation efforts to also consider project-scale outcomes.

Key benefits include:

- optimizing the timing or sequence of investments in the MTP/SCS to address financial constraint and air quality attainment challenges
- increasing the transparency of project selection priorities for both the long-term MTP/SCS and short-range MTIP
- realizing greater consistency in the reporting of MTP/SCS implementation activity over time
- supporting the growth of vibrant job centers and corridors and economic revitalization through strategic transportation investments

Project Phasing & Benefit/Cost Analysis

The phasing analysis prepared for the 2016 MTP/SCS was an early project-level performance evaluation achievement. The purpose of this effort was to develop new information to help the board decide whether the timing of some expansion projects in the 2016 MTP/SCS plan should be altered, i.e., moved sooner or moved later. Significant efforts were taken to get data on all transportation projects listed in the MTP/SCS into a form usable for the phasing analysis. The focus was on significant projects in the later years of the MTP/SCS with the most flexibility in their timing because these projects typically have limited, if any, financial commitments already made.

Building on the phasing analysis work for the 2016 MTP/SCS, efforts have advanced to integrate this work with a benefit/cost analysis of a limited number of large and significant projects. Staff developed an integrated benefit-cost analysis methodology through the Project Performance Assessment Working Group.

The basic concept is to develop a benefit/cost ratio from comparing annual benefits in a horizon year with annualized life-cycle costs for the project. The benefit/cost calculation monetizes project impacts for select performance outcomes. For example, the monetary value of reducing particulate matter emissions will reflect the costs associated with the known health impacts from bad air quality.

Economic Outcomes Assessment

Project-level evaluation options for the 2020 MTP/SCS are also proposed through preparing an economic outcomes assessment. The goal of this effort is to provide clear policy objectives as to what the board hopes to achieve and help guide staff in evaluating policies and investments to help get us there. The Air Resource Board (ARB) has expressed interest in seeing project-level analyses for the 2020 MTP/SCS update that is comprehensive.

While technical resource constraints limit the number of projects that can be evaluated by the project phasing and benefit/cost analyses, the economic outcomes assessment can provide a means to evaluate a greater number of projects in the MTP/SCS. Each project, or bundle of similar projects, would be scored against a common set of economic outcomes as to whether the investment helps, or hurts, the achievement of the outcome.

Because the economic outcomes assessment would be done for many more projects, it is important to focus on a limited number of outcomes if the analysis is to be used to meaningfully inform the 2020 MTP/SCS. SACOG's regional funding programs provide a precedent of focusing on a limited number of outcomes for project selection and prioritization efforts. Staff could also develop a set of economic outcomes informed by the economic principles being developed as part of the Regional Economic Prosperity Plan. This work stems from the Brookings Institution's market assessment of the six-county Sacramento region, and has been vetted via SACOG's Regional Futures Forum, a survey to the Sacramento Metropolitan Chamber of Commerce's membership, the MTP/SCS Equity Group, and the ongoing advisory committee to the Economic Prosperity Partnership. The principles also align with the project performance assessment tool developed following the PPA working group.

Job/Housing Balance and Job Centers Accessibility

A healthy jobs to housing balance is important for achieving performance objectives in the MTP/SCS, such as greenhouse gas reduction targets and air quality conformity targets, but is also a critical component of creating healthy economies for communities across the region. For example, as sub-regional job/housing balances increase, average commute times to regional employment centers decrease through time.

Measures of regional and sub-regional accessibility to jobs, or the number of jobs within a reasonable travel time from a place of residence, can also be a good indicator of a land use pattern and transportation system that supports economic prosperity. Increased regional accessibility to jobs means shorter driving trips and a corresponding decrease in vehicle miles traveled and air emissions, but also a greater labor shed for employers and more access to opportunity for residents. Recent efforts such as the region's proposal to the Amazon HQ2 competition evidence the importance of job accessibility for a high performing regional economy. SACOG has a longstanding practice tracking both job/housing and job center accessibility measures, and will increase the focus of such measures given the MTP/SCS update's emphasis on economic prosperity.

Project Performance Assessment: Level of Effort Options & Timeline

Transportation Committee input in October is sought on the type and depth of performance evaluation it wants to see in the 2020 MTP/SCS. The attachment, Figure 1, summarizes the proposed schedule and expected level of effort for each task.

5. Fiscal Impact/Grant Information:

There is no budget impact beyond what is currently budgeted in the FY 18/19 Overall Work Plan.

6. This staff report aligns with the following SACOG Work Plan Goals:

7. Deliver Key High-Profile Transportation Projects

ATTACHMENTS:

Description

Attachment - Figure 1: 2020 MTP/SCS Performance Assessment Options

Figure 1: 2020 MTP/SCS Performance Assessment Options

Evaluation Type	Level & Scope of Effort	History/Precedent	Timing/Delivery
Project Phasing & Benefit-Cost Analysis	<i>Highest Effort</i> Small number of large and significant projects or corridors	Project Phasing analysis completed for 2016 MTP/SCS. BCA methodology developed through PPA working group	Project segment phasing analysis is currently underway. Complementary BCA work can also be completed on a limited number of large projects by March 2019
Performance Targets Assessment	<i>Medium Effort</i> Individual analysis of all projects or bundles of similar projects	Only a few MPO peers have completed a comprehensive targets assessment	This would be a brand new effort. If scaled to fit with the time and staffing available, it can be done by March 2019
Accessibility to Job Centers and Corridors	<i>Medium Effort</i> The impacts on job centers from bundles of project investments are evaluated	Prior plans identified key regional job centers and reported performance measures for them.	Can be completed by March 2019 if there are few changes to the job centers analyzed in the 2016 plan
System-Level Performance Measures	<i>Modest Effort</i> Overall system-wide analysis of plan performance	Many performance measures reported in prior plans and being tracked currently.	System-level measures are already being reported. Additional reporting expected by March 2019.