

## Memorandum

TO: Regional Advisory Working Group

DATE: April 27, 2018

FR: David Vautin

RE: Horizon and Plan Bay Area 2050: Project Performance Assessment Overview

### Summary

Similar to past long-range planning cycles, staff is proposing to conduct a project performance assessment of major transportation investments as part of both *Horizon* and *Plan Bay Area 2050*. This effort would seek to identify high- and low-performing projects both to understand the efficacy of specific projects under varying external conditions (i.e., futures) and to inform the development of the Preferred Scenario's transportation investment element. In the coming weeks, staff proposes to begin updating information on projects included in *Plan Bay Area 2040* first and to initiate the submission process for transformative investments in early June. Opportunities for input on the specific project performance methodologies will occur at RAWG meetings this summer.

### Background and Proposed Approach

*Plan Bay Area 2040* was the region's second long-range plan with a comprehensive evaluation of uncommitted transportation investments, scoring them with a quantitative benefit-cost ratio – evaluated using Travel Model One – and a qualitative targets score based on the adopted performance targets of that plan. The project performance assessment helped to identify 11 high-performing projects that were prioritized for regional discretionary funding in the Plan and 18 low-performing projects that were subject to further scrutiny through the compelling case process. The project performance assessment helped to identify the most effective investments and provide a transparent process to redirect billions of dollars from low-performing projects to higher-performers, given the fiscally-constrained nature of the Plan. For those seeking additional information on this effort, documentation<sup>i</sup> and final results<sup>ii</sup> can be found on MTC's website.

Staff recommends conducting a third cycle of project performance assessment using a methodology that would be consistent between *Horizon* and *Plan Bay Area 2050* to ensure comparable results. Each project would be evaluated in the following ways:

- Benefit-cost assessment using Travel Model Two (*primary assessment*)
- Guiding principles assessment using qualitative criteria (*secondary assessment*)
- Supplemental assessments: project-level equity analysis; benefit-cost confidence assessment (*similar to Plan Bay Area 2040*)

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<sup>i</sup> [http://2040.planbayarea.org/sites/default/files/2017-07/Performance%20Assessment%20Report\\_PBA2040\\_7-2017\\_0.pdf](http://2040.planbayarea.org/sites/default/files/2017-07/Performance%20Assessment%20Report_PBA2040_7-2017_0.pdf)

<sup>ii</sup> <http://bayareametro.github.io/performance/dashboard/>

Key enhancements/changes from *Plan Bay Area 2040* are highlighted below:

- **Analysis of each transportation project in each future** (i.e., four benefit-cost ratios rather than just one) – this will allow stakeholders to understand how a project would be more or less effective under different external conditions (autonomous vehicle fleet penetration, population/employment, gas prices, etc.). It will also allow for identification of high-performers as projects that are most resilient to changing conditions, rather than a single set of assumptions.
- **Use of Travel Model Two to incorporate wider range of impacts** – upgrades to include autonomous vehicles, TNCs, transit crowding, and other new features will improve our ability to forecast a broader spectrum of benefits; further methodology upgrades to the benefit-cost tool (CoBRA) can be considered this summer.
- **Reforms to the qualitative assessment** – in lieu of the targets assessment, a new “guiding principles assessment” would use qualitative criteria to identify how a project would affect the Guiding Principles being developed for *Horizon*. Unlike past cycles, the assessment would be used solely to flag projects that do not support one or more of the Guiding Principles. It would play a secondary role compared to the benefit-cost analysis.

Staff is currently looking for input on the revised framework at this time and will return to RAWG this summer for input on the specific methodologies for each component of the *Horizon / Plan Bay Area 2050* Project Performance Assessment. Staff will also be seeking input on the project performance framework from the MTC Planning Committee in June or July, given their interest in both the benefit-cost and targets assessments during *Plan Bay Area 2040*.

### Projects Subject to Performance Assessment

Prior cycles of project performance focused on uncommitted<sup>iii</sup> capacity-increasing projects with costs<sup>iv</sup> greater than \$50 million (in *Plan Bay Area*) or \$100 million (in *Plan Bay Area 2040*). Staff proposes to raise the threshold for major projects subject to analysis this cycle and establish two cost tiers:

- **Tier 1** major projects – greater than **\$1 billion**
- **Tier 2** major projects – greater than **\$250 million** but less than **\$1 billion**

Staff is also looking for input on how to ensure that project costs for new transportation investments ensure that the facility will be protected from sea level rise through year 2100<sup>v</sup>, either through project sponsor confirmation of adaptation features or MTC/ABAG-BCDC analysis this summer to assign additional costs to projects in zones at risk.

Several other project types would also be subject to project performance under this proposal:

- **A package of lower-cost projects** (e.g., a network of rapid bus lines) that all fall below the \$250 million threshold could be evaluated concurrently in either round of analysis.

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<sup>iii</sup> Uncommitted projects are projects that are seeking discretionary funding (i.e., not fully funded), are not yet under construction, and are not 100% funded with local dollars.

<sup>iv</sup> Costs were defined in 2013 dollars for *Plan Bay Area* and 2017 dollars for *Plan Bay Area 2040*. Costs will be in 2021 dollars for *Horizon* and *Plan Bay Area 2050*. Costs include capital costs and gross operating & maintenance costs between years 2021 and 2050.

<sup>v</sup> Per BCDC guidance, transportation projects that would still be operating through 2100 should be prepared for sea level rise ranging from 3 feet to 10 feet above today's mean higher high water level.

- **Non-capacity increasing resilience projects** (i.e., investments needed to protect a pre-existing transportation facility from inundation by 2050<sup>vi</sup>) would be identified by MTC/ABAG in collaboration with BCDC and the asset owner/operator for evaluation using the same framework as capacity-increasing projects.
- **Operational strategies** (e.g., comprehensive road pricing) with costs below the thresholds identified above would be accepted through the Transformative Investments Request process; a small number of the most promising strategies (~5) would be evaluated using the same framework as capital and operating projects.

**Transformative Investments Request & Submission Process**

Given that the Project Performance Assessment will stretch between spring 2018 and fall 2019 and straddle both long-range planning efforts, staff proposes to break the process into phases as shown in the table below. In addition to a multi-phase process with a more limited number of projects in each phase, staff also plans to allow non-government agencies to submit visionary projects for consideration in the Project Performance Assessment this summer. Major transit operators<sup>vii</sup> also would be able to submit directly to MTC.

	<b>Which Projects?</b>	<b>Who?</b>	<b>When?</b>
<b>Major Projects Update</b>	<ul style="list-style-type: none"> <li>• Major projects previously assessed in <i>Plan Bay Area 2040</i><sup>viii</sup></li> </ul>	CMAAs & major transit operators only	<b>Direct Consultation</b> Early May through early July
<b>Round 1 Analysis</b>	<ul style="list-style-type: none"> <li>• Tier 1 major projects <u>not</u> assessed in <i>Plan Bay Area 2040</i></li> <li>• Operational strategies</li> <li>• Resilience projects</li> </ul>	CMAAs, public agencies, NGOs, general public	<b>Transformative Investments Request</b> Early June through early September
<b>Round 2 Analysis</b>	<ul style="list-style-type: none"> <li>• Tier 2 major projects <u>not</u> assessed in <i>Plan Bay Area 2040</i></li> <li>• New Tier 1 major projects <u>not</u> submitted in Round 1</li> </ul>	CMAAs & major transit operators only	<b>Revised Call for Projects</b> March to June 2019

**Next Steps**

As discussed above, the immediate next steps are to begin updating project scope and cost information for projects previously analyzed in *Plan Bay Area 2040* with CMAAs and major operators, and to open the submission window for the Transformative Investments Request. Future RAWG items on this element of the *Horizon* and *Plan Bay Area 2050* process include:

- June RAWG – Guiding Principles Assessment Methodology & Supplemental Analyses Methodologies
- July or August RAWG – Benefit-Cost Assessment Methodology

<sup>vi</sup> For *Horizon*, the worst-case sea level rise scenario for year 2050 is roughly 3 feet above mean higher high water level.  
<sup>vii</sup> Major transit operators are defined as multi-county agencies (BART, Caltrain, Capitol Corridor, SMART, ACE, Golden Gate, WETA). All other operators should work with their respective CMAAs as in past planning cycles.  
<sup>viii</sup> A project assessed but not funded for construction in *Plan Bay Area 2040* may request to be excluded from analysis if the project sponsor does not intend on submitting the project for inclusion in *Horizon* or *Plan Bay Area 2050*.