

Plan Bay Area 2050+ Draft Transportation Project List and Sea Level Rise Resilience Project List Briefer Context

In order to serve as the Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS), Plan Bay Area 2050+ is required to identify a list of fiscally-constrained transportation projects. In addition to the Transportation Project List, Plan Bay Area 2050+ includes a new component as a proactive step toward regional adaptation efforts: the Sea Level Rise Resilience Project List (Resilience Project List).

What are the project lists?

Transportation Project List

The Transportation Project List identifies transportation investments primarily within the Transportation Element of Plan Bay Area 2050+. The Transportation Project List is a requirement for Plan Bay Area 2050+; as such, it is prepared in accordance with state and federal guidelines. The guidelines require a fiscally-constrained list of projects and programs that is limited by expected revenues identified in the transportation revenue forecast; these projects must conform to transportation-air quality emissions regulations and – in the aggregate – reduce per-capita greenhouse gas (GHG) emissions (among other requirements). The Transportation Project List primarily aligns with the plan’s transportation strategies, although there are a limited number of projects that nest under select environmental strategies, such as those focused on reducing climate emissions, that are funded with transportation dollars and thus reflected in the Transportation Project List. Projects identified on the Transportation Project List become eligible for additional federal and state actions and funding opportunities.

Resilience Project List

The Resilience Project List identifies projects that adapt the nine-county Bay Area shoreline to sea level rise in the decades ahead. It will be a valuable resource for future advocacy to help adapt the Bay Area to climate change, delineating the specific investments featured under Strategy EN1, Adapt to Sea Level Rise. As a proactive new element of Plan Bay Area 2050+, the Resilience Project List does not have defined regulations and is not required to be fiscally-constrained.

Table 1: Overview of the Draft Transportation Project List and Draft Resilience Project List

	Transportation Project List (Draft)	Resilience Project List (Draft)
List Type	Required by state and federal legislation	Informational
Topic	Transportation	Sea Level Rise Adaptation
Fiscal Constraint	Yes	No
Number of Projects	188	415
Total Estimated Cost (in year of expenditure)	\$512 billion	\$95 billion

What is the role of project lists in Plan Bay Area 2050+?

Associated Strategies

The Transportation Project List includes specific project and programmatic investments that are associated with the 12 transportation strategies and three environment strategies funded in whole or in part by Transportation Element monies. The Resilience Project List is narrower and defines the need for a single strategy, Strategy EN1 - Adapt to Sea Level Rise. The list contains sea level rise adaptation projects that protect low-lying communities and transportation infrastructure. Table 2 provides a summary of the count of projects associated with each strategy:

Table 2: Number of Projects per Project List by Strategy (Draft)

Plan Bay Area 2050+ Strategy	Transportation Project List (Draft)	Resilience Project List (Draft)
T1. Operate & Maintain the Existing System	7	-
T2. Improve the Rider Experience through Transit Network Integration	3	-
T3. Improve the Rider Experience through Refined Transfer Timing at Key Regional Hubs	1	-
T4. Enhance Security Measures and Improve Safety and Cleanliness on Transit	1	-
T5. Implement Pricing Strategies to Manage Demand	4	-
T6. Modernize Freeways and Interchanges	57	-
T7: Expand Freeways and Mitigate Impacts	14	-
T8: Advance Other Regional Programs and Local Priorities	50	-
T9: Build a Complete Streets Network	1	-
T10: Advance Regional Vision Zero Policy Through Street Design and Reduced Speed	1	-
T11. Enhance Transit Frequency, Capacity and Reliability	41	-
T12. Expand Transit Services Throughout the Region	5	-
EN1: Adapt to Sea Level Rise	1	415
EN8: Expand Clean Vehicle Initiatives	1	-
EN9: Expand Transportation Demand Management Initiatives	1	-

Transportation Project List

Background

Why do we create the list?

The Transportation Project List is developed to identify regional transportation priorities, to align with both state and federal requirements, and to support Plan Bay Area 2050's Guiding Principles. The California Transportation Commission (CTC) guidelines align with federal requirements which state the plan must include a fiscally-constrained list of short term to long term transportation investments. Projects on the list must also meet air quality goals from both state and federal legislation. Under the federal Clean Air Act, transportation projects that may significantly impact regional travel patterns, such as major highway expansions, new roadway construction, and significant transit projects are analyzed to ensure they do not worsen air quality or delay the attainment of national ambient air quality standards. Additionally, SB 375 requires the California Air Resources Board (CARB) to set regional targets for the reduction of per-capita greenhouse gas emissions from light-duty cars and trucks.

As mentioned previously, projects included on the Transportation Project List become eligible for specific benefits. Projects are organized into two categories: programmatic categories and regionally significant projects. Programmatic categories are exempt from emissions analysis, as projects within them do not alter transportation system capacity. Regionally significant projects typically increase capacity by adding travel lanes or new routes to transit facilities. Regionally significant projects must be consistent with the Transportation Project List to be eligible for federal and state funding programs, to receive environmental approvals, and to advance to construction phases.

The Transportation Project List supports strategic alignment with Plan Bay Area 2050+, particularly the "Connected" guiding principle: identifying the transportation projects that support the plan's goals of an expanded, well-functioning, safe and multimodal transportation system that connects the Bay Area.

How is the list created?

MTC staff solicit project and program proposals through a collaborative, phased process that allows public agencies to submit transportation project and program proposals for consideration. Due to their associated capacity increases, regionally significant projects must be analyzed via a project performance assessment. While the process to create a Transportation Project List is repeated for every plan cycle, the Plan Bay Area 2050+ Transportation Project List was developed between summer 2023 and fall 2024.

The first phase updated the regionally significant projects from Plan Bay Area 2050 with costs greater than \$250 million dollars. In this phase, occurring in late spring 2023, county transportation agencies (CTAs) and multi-county project sponsors with relevant projects were asked to update project assumptions (e.g., scope, cost, schedule).

The second phase identified new regionally significant projects. In late summer 2023, MTC released the Request for Regionally Significant Projects guidance to CTAs and multi-county project sponsors seeking their assistance in identifying new regionally significant transportation project proposals. Each of the nine Bay Area CTAs and multi-county project sponsors (e.g., Caltrans, BART, Caltrain) coordinated the identification and submittal of project proposals in their respective county or among their systems. In fall 2023, a near-term transit needs, gaps, and opportunities analysis identified potential new regionally significant transit projects for further analysis and consideration. Projects identified through these streams were then analyzed to process their impacts on the region, while high-cost projects (over \$250 million) go through the Project Performance Assessment, a rigorous uniform assessment to determine the cost effectiveness of major projects and alignment with regional goals. Presented throughout summer 2024, the findings of the analysis were a key factor used to prioritize projects.

The last step to create the Transportation Project List included both types of transportation projects. In spring 2024, MTC requested updates for programmatic categories and lower cost regionally significant projects that did not meet the \$250 million dollar threshold. In summer and fall 2024, MTC worked with transit operators, CTAs and multi-county project sponsors to develop a fiscally constrained list of both regionally significant projects and programmatic category investments. These lists included both major projects assessed through Project

Performance Assessment and minor projects and programs that did not require project-level analysis.

Organization

Projects included in the Transportation Project List must have the following attributes defined:

- **Project ID:** The project ID is the unique identifier for each project or program, which is also referenced in the TIP.
- **Title:** The name serves as a unique identifier for each project.
- **Scope:** The scope briefly describes the project scope, including the project location, type of project, and description of project components, such as the length and type of new roadways, bridges, and transit lines and any changes to traffic operations, such as implementation of congestion pricing or changes in public transit service.
- **Open Period:** The open period is the expected date that the project will be open or operational, sorted into two time periods (2021-2035 and 2036-2050).
- **Cost:** The project must identify a cost estimate in year of expenditure dollars that includes both capital costs and annual operations and maintenance costs.

Resilience Project List

Background

Why do we create the list?

The Resilience Project List was created to identify the financial needs for Strategy EN1, identifying what it would take for the region to adapt to sea level rise. The Resilience Project List is built off the Sea Level Rise Adaptation Funding and Investment Framework (Framework), a co-led effort by MTC/ABAG and the Bay Conservation and Development Commission (BCDC)¹ in 2022 and 2023. As part of the Framework, staff inventoried shoreline adaptation projects and used the inventory to develop high-level cost estimates for regional adaptation and to

¹ For more information on the Sea Level Rise Adaptation Funding and Investment Framework, please refer to the website: <https://mtc.ca.gov/planning/resilience/sea-level-rise-adaptation-funding-investment-framework>

identify adaptation project gaps in areas with near-term vulnerability but no known adaptation planning effort.

The inclusion of the Resilience Project List in Plan Bay Area 2050+ is not required by state or federal legislation; as such, it is a proactive step forward, directly motivated by the region's ongoing robust adaptation efforts. The concept of a Resilience Project List was included in the 2021 Bipartisan Infrastructure Law, which called for State Departments of Transportation or Regional Metropolitan Planning Organizations to create Resilience Project Lists as part of Resilience Improvement Plans². The Resilience Project List also aligns with Plan Bay Area 2050+ goals, as it supports the Healthy Guiding Principle: projects identified on the Resilience Project List support the region by protecting residents from environmental impacts.

In addition to being developed for Plan Bay Area 2050+, the Resilience Project List will support BCDC's Regional Shoreline Adaptation Plan³ and Shoreline Adaptation Project Map⁴, and will be available as a local and regional public resource. The Resilience Project List will also be shared with Caltrans for consideration in future updates of the State's Resilience Improvement Plan.

How is the list created?

Plan Bay Area 2050+ built off the Framework project inventory to create the Resilience Project List using the same sources of project information:

- **The Shoreline Adaptation Project Map (SAPMap)** includes regionally identified shoreline adaptation projects that are mapped in the regional database, EcoAtlas .
- **Local plans and local staff input** identified local shoreline adaptation projects and early project concepts.

² PROTECT Resilient Improvement Plan, Caltrans, 2024, <https://dot.ca.gov/programs/transportation-planning/division-of-transportation-planning/air-quality-and-climate-change/state-climate-resilience-improvement-plan-for-transportation>

³ <https://www.bayadapt.org/regional-shoreline-adaptation-plan/>

⁴ <https://www.adaptingtorisingtides.org/project/shoreline-adaptation-project-mapping-program/>

- **Placeholder projects** are concepts created by regional staff to estimate adaptation costs in significantly inundated areas with less advanced project planning and implementation. Placeholders may overlap with existing projects that have not identified sufficient projection.

MTC/ABAG staff worked with BCDC staff in spring 2024 to create the Resilience Project List. Regional staff engaged with local jurisdiction staff to review downloaded 2024 data from the SAPMap, as well as project data from local plans and local staff input identified by the Framework in 2022. Local outreach was conducted from February to April 2024 across all nine Bay Area counties, including county staff, local staff, or staff at other agencies that led projects. The outreach led to almost half of the projects being updated, and also identified 32 new projects for inclusion. Once an updated base project list was identified, staff identified placeholder projects for areas without sufficient protection.

Similar to the Framework, the Resilience Project List includes projects that adapt vulnerable shorelines from up to 4.9 feet of inundation. In addition to having adaptive benefits, projects included must have sufficient attribute information, including a defined geography, the type of adaptation, and the project status. However, the Resilience Project List differs from the Framework by also sorting and filtering projects by criteria into two bins. The Resilience Project List initially sorts projects into two time periods using the project's vulnerability to inundation heights, 2021-2035 (Bin 1) and 2036-2050 (Bin 2). Projects were also sorted to meet the criteria of at least one key attribute, including but not limited to protecting Equity Priority Communities, dense communities or jobs areas, and transportation assets. Projects that did not meet any identified criteria were not included in the final Resilience Project List.

Organization

Projects included in the Resilience Project List must have the following attributes defined:

- **Project ID:** The name serves as a unique identifier for each project; each project will receive a unique identifying number to help with sorting.
- **Site Name (optional):** A site name may be available for resilience projects, as many of them have multiple locations.

- **Intervention and Habitat Type:** The intervention type is the specific, physical approach for adapting to sea level rise, such as restoration, levees and dikes, or seawalls. The habitat type is an optional attribute that identifies the type of habitat, if applicable. Both the intervention and habitat type serve as informational data, as well as help to inform cost estimates when local costs are not available.
- **Project Status:** The project status identifies what stage of development the project is in, whether conceptual, planning, in progress, or completed. Beyond being informative, the status is important because completed projects are not costed.
- **Cost (optional):** The project cost is identified as the total cost for all interventions and sites within the project. If a cost is not yet known or available, high-level archetype cost values are utilized, based on the intervention and habitat types. Committed funding is also collected to adjust the identified cost need, if known.
- **Design Condition and Extreme Water Level:** The design condition identifies the permanent sea level rise scenario the project is designed to, in feet (i.e., 1 foot, 2 feet, 3 feet). The extreme water level identifies temporary storm events that the project is designed to accommodate (i.e. 50-year, 100-year). If the combined design condition and extreme water level add to less than 4.9 feet, a placeholder is developed for that location.

Projects that are missing data are typically included as studies. Studies are mapped but not analyzed for adaptive impacts. In some cases, studies may have identified initial cost estimates. Study cost estimates are utilized if available.

What is the relationship between the two lists?

The Transportation Project List and Resilience Project List both support Plan Bay Area 2050+ goals, but they have key distinctions. The Transportation Project List is fiscally constrained, while the Resilience Project List is fiscally unconstrained and can therefore be more visionary. The two lists have different methods of project identification and sorting as well, with the Transportation Project List having a more robust methodology to prioritize projects for inclusion in the plan. The resulting outputs are used differently, with the Transportation Project List unlocking funding opportunities, and the Resilience Project List acting as a proactive tool for future advocacy.

However, the distinction between what is a sea level rise resilience project and what is a transportation project is not always clear. As a result, some projects may have a relationship with both topics. As identified previously in the sub-section *Associated Strategies*, one project in Plan Bay Area 2050+ was identified on both the Resilience Project List and the Transportation Project List. Programmatic sea level rise projects are included under Strategy EN1 in the Transportation Project List to account for the adaptation of major transportation routes, which encompasses funding for near-term adaptation infrastructure along the SR-37 corridor. On the Transportation Project List, the project also includes a highway widening component that is listed under Strategy T7. On the Resilience Project List, however, the SR-37 project represents the long-term adaptation of the corridor. The financial costs associated with the projects are not double-counted across the two Project Lists. In total, only \$1 billion in transportation funding is directed to resilience projects in the Transportation Project List under Strategy EN1. New revenues for sea level rise resilience, not necessarily tied to transportation, are needed to advance the multi-benefit projects to complement transportation funding.

Other projects may have a relationship to both sea level rise and transportation but were not included in the Transportation Project List. In such cases, the project is only included in the Resilience Project List. There are many projects in this category, as many segments of shoreline vulnerable to sea level rise have regional transportation infrastructure.

- **82%** of sea level rise projects have some nexus with transportation:
 - **17% have a direct nexus:** the adaptation project is focused on the adaptation of a transportation asset
 - **65% have an indirect nexus:** the project focuses on other resources or assets, but benefits a transportation asset

As mentioned previously, the Resilience Project List is a proactive new element in Plan Bay Area 2050+ that anticipates additional sea level rise adaptation guidance in the future. Project lists and attributes in future versions of Plan Bay Area will be informed by the best available guidance and resources at that time.