

Grant Application Submitted on August 30, 2024

INTERSTATE 80 AND AQUATIC PARK LAGOON SUBSURFACE CULVERT RESILIENCY PROJECT Local Transportation Climate Adaptation Program (LTCAP)

INTERSTATE 80 AND AQUATIC PARK LAGOON SUBSURFACE CULVERT RESILIENCY PROJECT



PROJECT DESCRIPTION

The proposed project will renovate the existing subsurface culverts underneath Interstate 80 (I-80) in the City of Berkeley to prevent a potential sinkhole across the Bay Area's most congested Interstate. The aging culvert system is projected to fail by 2030, and the growing pressures of sea level rise and the increased frequency and severity of storms will accelerate this process. Locally referred to as the "tide tubes," these culverts serve the dual purpose of exchanging tidal waters between the San Francisco Bay and the inland lagoon at Aquatic Park—a beloved community amenity in West Berkeley—as well as providing stormwater drainage from City streets into the Bay. The tide tubes run underneath I-80, two other key adjacent local roadways (West Frontage Road and West Bolivar Drive), and a section of the Bay Trail.



Failure of the tide tubes will not only severely impact the City's local transportation network, emergency response, and utility infrastructure, but also the economic activity and major traffic patterns throughout the Bay Area and Northern California. Over 572,300 trips occur on I-80 in West Berkeley every day, including up to 15,000 trucks moving freight along this key corridor throughout Northern California.

Failure of the tide tubes would significantly impact residents' mobility—many of whom live in underserved communities along this corridor and depend on I-80 to access key destinations such as places of employment, schools, or basic services—and it would greatly hinder the movement of goods throughout the Bay Area, hurting the local and regional economies.

CLIMATE THREAT

The Bay Area is facing an anticipated 16-inches of sea level rise by the year 2050. The increased velocity of water flow through the tide tube systems due to sea level rise paired with the increased frequency and severity of storm activity will intensify the flow of tidal bay water and stormwater through the central tide tubes, accelerating the cracking and the erosion of the roadbed and leading to the collapse of the surface of I-80, West Frontage Road, West Bolivar Drive, and the Bay Trail, Berkeley and the wider Bay Area are also at risk for seismic activity. The Bay Area currently has a 63% probability of a 6.7 or greater earthquake occurring by 2036. While the weight of the highway roadbed is the primary factor for the eventual upcoming collapse of the tide tubes, an earthquake would greatly accelerate the failure process.

PROJECT SCOPE

- Project Approval and Environmental Document (PA&E) Phase:**
 - Perform Technical Feasibility Study to develop a preferred conceptual plan, which will become the basis for the Design Development phase.
 - Obtain required environmental document(s) for CEQA and NEPA.
- Plans, Specifications, and Estimates (PS&E) Phase:**
 - Perform final design plans & specifications and cost estimates.
 - Obtain all necessary permits from regulatory agencies.
- Construction (CON) Phase:**
 - Bidding and construction, including appropriate climate resiliency element(s) per approved documents established by PS&E to fulfill the project goals.



PROJECT SCHEDULE

Begin Environmental Phase	03/03/2025
Draft Project Report	05/16/2025
End Environmental Phase	09/02/2025
Begin Design Phase	02/02/2026
End Design Phase	02/11/2028
Begin Right-of-Way Phase	03/13/2028
End Right-of-Way Phase	09/15/2028
Begin Construction Phase	01/15/2029
End Construction Phase	01/11/2030
Begin Closeout Phase	01/14/2030
End Closeout Phase	06/14/2030

PROJECT BENEFITS

- Resilient Transportation Infrastructure:** Protect I-80, local roads, and the Bay Trail, ensuring their safety, accessibility, and efficiency for all roadway users;
- Flood Prevention:** Prevent flooding of Aquatic Park and local businesses in West Berkeley;
- VMT and GHG Reduction:** Mitigate the risk of increased vehicle miles traveled and greenhouse gas emissions that the collapse of I-80 would cause;
- Protecting Community Amenities:** Aquatic Park will remain open and continue to provide a wide range of free recreational activities; and
- Safeguarding the Environment:** The habitat value of Aquatic Park Lagoon will be preserved.

COST ESTIMATE

- Total Project Cost: \$4.58 million
- LTCAP Request Amount: \$3.78 million
- Committed Local Funds: \$800,000

Agency: California Transportation Commission

Grant Request: \$3.78 Million

Local Match: \$800,000

Total Project: \$4.58 Million

Project Selection Notification: Early, 2025

Project Phases Applied**:

- Technical feasibility study for climate resiliency
- Design Development including appropriate climate resiliency element(s)
- Obtain regulatory permits
- Conduct environmental review: CEQA and NEPA
- Construction

****Community engagement throughout the process**

Aquatic Park Stakeholder Meeting

October 1, 2024



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Goals of the Project:

- Restore Bay and Lagoon Water Exchange
- Prevent adjacent streets in West Berkeley from flooding
- Increase the resiliency of I-80 by preventing the failure of the tide tube system
- Safeguard the lagoon for future generations
- Incorporate community feedback

