BRADLEY ROAD BRIDGE OVER SALT CREEK PROJECT

Project Overview

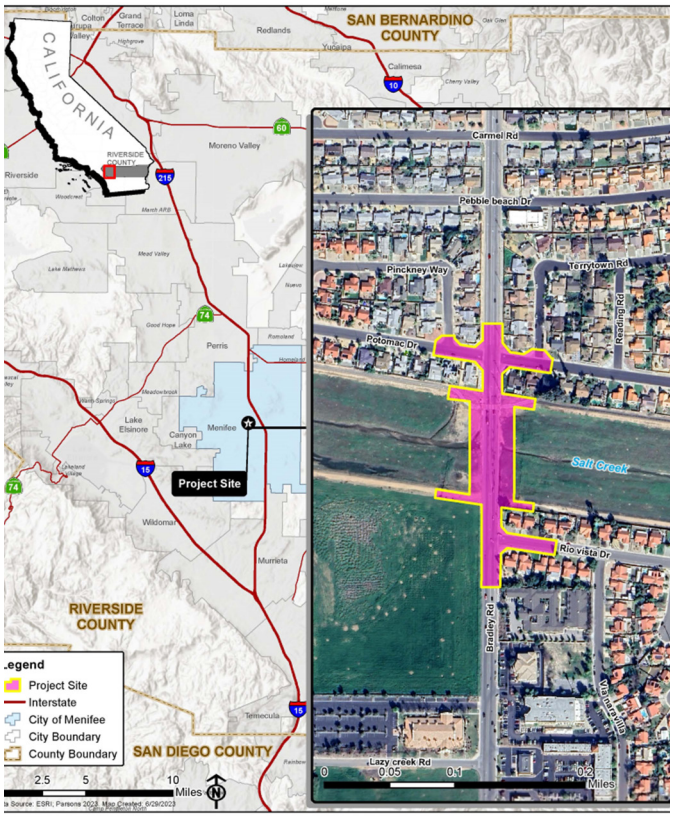
Bradley Road is a north-south running street through the central portion of the city of Menifee. The road runs roughly parallel to Interstate 215 (I-215) from Rouse Road to Garbani Road. It is one of the primary traffic routes between residential neighborhoods to the north of Salt Creek and the main business districts and community service facilities to the south. Within the project area, Bradley Road is a two-lane roadway (one lane in each direction) with a painted median and dedicated left- and right-turn lanes at Potomac Road and Rio Vista Drive. From Potomac Drive on the north to Rio Vista on the south, Bradley Road crosses the Salt Creek Channel atgrade. Water in Salt Creek flows under the road through two 30-inch reinforced concrete pipe culverts in the middle of the channel.

Due to the current elevation of the Bradley Road crossing at the Salt Creek Channel, the roadway is prone to flooding during heavy rain events. The atgrade roadway is overtopped during the historical 2-year storm event, often requiring debris cleanup and roadway closure. This flooding is expected to increase over time, due to climate change.

Project Purpose and Need

The project would construct a new bridge on Bradley Road over the channel to raise the road above the floodplain and alleviate issues associated with historic frequent flooding and closures of the road. The proposed bridge is deemed necessary to manage the effects of the changing climate by increasing the climate resiliency of this local transportation infrastructure, while maintaining a vital transportation link for the disadvantaged populations north of Salt Creek.

ABOVE: Recurring roadway closure during seasonal flooding



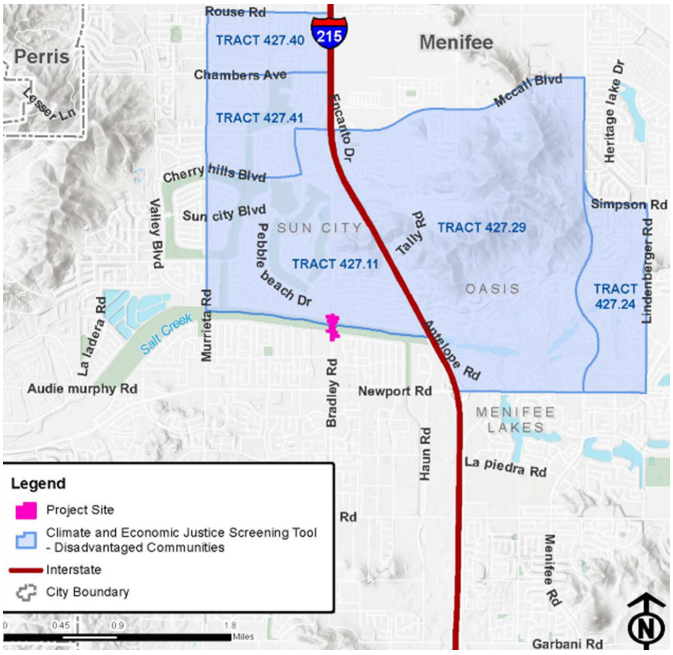
ABOVE: Vicinity and location map

Project Benefits

- Provide accessibility and connectivity between the underserved neighborhoods at the northern portion of the city to the major commercial and retail areas and community facilities located to the south along Newport Road
- Eliminate economic impacts from road closure and the recurring maintenance costs from road damage caused by flooding
- Ensure access to emergency vehicles without having to go through lengthy detours to reach the northern communities during flooding events
- Maintain and enhance vehicle, transit, bicycle, and pedestrian accessibility and connectivity within the project study area

ABOVE: Conceptual rendering of the proposed bridge

As associated with global climate change, the projected increases in the severity and incidence of major rain events in the Menifee area is expected to increase flooding on Bradley Road at Salt Creek, resulting in more frequent road closures and needed repairs. The proposed bridge would eliminate these hazards and provide climate resiliency to this local roadway. In terms of transportation equity, this project will preserve access and mobility for the disadvantaged communities to the north to the commercial and community services south of Salt Creek. In addition, emergency response and evacuation to these communities would be maintained.



ABOVE: Disadvantaged and underserved communities within the project vicinity that would be served by the project

Implementing Agency

City of Menifee

MENIFEE
New. Better. Best.

Project Scope

The proposed project would construct a new roadway bridge over Salt Creek as a replacement for the segment of Bradley Road across the creek. The bridge would be raised approximately 12 feet above Salt Creek at the bridge's highest point. The bridge would be approximately 330 feet long, 64 feet wide, and 5.5 feet deep and would include a 12-foot wide painted median, two 12-foot travel lanes (one in each direction), 8-foot shoulders on both sides (which will serve as Neighborhood Electric Vehicle (NEV)/Class II bicycle lanes), and 5-foot pedestrian sidewalks on both sides. The bridge structure would consist of a three-span cast-in-place, post-tensioned concrete box girder, supported by two intermediate piers consisting of three columns each (six columns total), and two open-ended abutments. Rock slope protection would be provided at the abutments to mitigate potential scour. As proposed, the bridge would avoid flooding due to a 500-year event.

Cost Estimate

Preliminary Engineering	$50,000
Environmental Document	$550,000
Final Design (PS&E)	$1.1M
Construction	$14.3M
Project Cost	$16M

Funding Sources

1	Riverside County Flood Control	$2M
2	2022 Appropriations Bill	$5M
3	Local Funds	$4.8M
4	LTCAP Grant Funds Request	$4.2M
TOTAL		$16M

Schedule by Phases

Preliminary Engineering	2014—2016
Environmental Document	2014—2023
Final Design (PS&E)	2016—2023
Construction	Approximately 18 months, tentatively starting in May 2024

Ms. Tanisha Taylor
2023 Local Transportation Climate Adaptation Program
July 19, 2023

Attachment B: Fact Sheet

Yuba County – *Olivehurst Roadway Climate Resiliency Project*

Project Scope: The proposed "*Olivehurst Roadway Climate Resiliency Project*" will construct drainage infrastructure along 13 road segments in the community of Olivehurst, creating a comprehensive drainage grid serving the over a third of the community. The project targets heavily used roads that lack storm drains, sidewalks, and bike lanes. Project scope includes PAED, PS&E, and construction funding for approximately 26,000 linear feet of storm drain, 52,000 linear feet of sidewalks, 52,000 feet of Class III bike routes, crosswalks, striping, ADA compliant ramps, plus curbs and gutters. These roadways serve disadvantaged, residential neighborhoods and provide access to local schools, employment/commercial centers, and transit facilities.

The County has previously constructed storm drains, sidewalks, and bike lanes/routes along Olivehurst Avenue, Powerline Road, Seventh Avenue, McGowan Parkway, and a portion of Eleventh Avenue in the community of Olivehurst. This project will extend facilities throughout many of the remaining roads within the community of Olivehurst, creating a comprehensive drainage system while simultaneously establishing a true multi-modal transportation network.

The County will size and design storm drains in accordance with the County's current Master Drainage Plan, except that the County will base anticipated flows on the latest hydrologic information from the County's *Climate Change Vulnerability Analysis* (final report dated March 2023).

Project Cost: The total project cost for the proposed project is $48,477,000. Yuba County is requesting $38,539,000 in funding from the Local Transportation Climate Adaptation Program, which is less than 80% of the overall project cost.

Project Schedule: The project schedule for this final phase is as follows:

Grant Award Date:	December 7, 2023
Execute Grant Agreement:	January 31, 2024
Advertise for Consultant RFP:	February 8, 2024
Award Design Consultant Contract:	April 30, 2024
Begin Environmental (PA&ED) Phase	April 30, 2024
End Environmental Phase (PA&ED Milestone)	December 31, 2024
Begin Design (PS&E Milestone)	January 2, 2025
End Design Phase (Ready to List for Advertisement Milestone)	October 31, 2025
Begin Right-of-Way Phase	November 1, 2024
End Right of Way Phase (Right-of-Way Certification Milestone)	April 1, 2025
Begin Construction Phase (Contract Award Milestone)	January 1, 2026
End Construction Phase (Construction Acceptance Milestone)	June 1, 2028
End Closeout Phase (Closeout Report)	June 30, 2028

Project Benefits: The primary benefit is increasing climate resiliency for an at-threat transportation infrastructure, with an added benefit of providing new multi-modal active transportation facilities. The project

entails the design and construction of a comprehensive drainage system in the unincorporated community of Olivehurst, which is both economically challenged and historically underserved.

Climate Threat Impact to Transportation Infrastructure: Changes in the frequency, duration, and intensity of our precipitation events are increasing peak flow rates within our drainage systems. Our local roads are already experiencing localized flooding within the project area, which disrupts transportation. State climate-data tools predict continued changes in precipitation events, which further threatens the resilience of our existing transportation system. During precipitation events, the roadside ditches fill with water, forcing pedestrians and bicyclists into the travel lane with motorized traffic. Heavy precipitation events frequently overwhelm these roadside ditches, flooding the travel lanes, disrupting transportation, and presenting a safety hazard.

Resiliency: Our proposed project eliminates existing roadside ditches, installs a comprehensive storm drain system sized to accommodate anticipated peak flows, utilizes existing open areas for detention and water quality purposes, and uses the area formerly occupied by the ditches to install new sidewalks and bike routes. This approach increases facility resilience to climate change by construction storm drains capable of accommodating anticipated peak flows, which keeps the roads passable during inclement weather. The project also protects at-threat transportation infrastructure, increases mobility and accessibility, facilitates goods movement, improves economic vitality, improves safety, promotes active transportation, reduces GHG emissions, and reduces VMT.

Transportation Equity: The project area is entirely within the unincorporated community of Olivehurst and within Census Tracts 6115040500 and 6115040600. According to the Climate and Economic Justice Screening Tool, these census tracts are overburdened by pollution and historic underinvestment. There are currently no multi-modal opportunities within the project area, as the roadside ditches force pedestrians and bicyclists into the travel way with motorized traffic. This creates an inequitable burden on the community, which has a median household income of less than $50,000, and which frequently experiences localized flooding. The project will avoid the removal of any homes or structures, thereby mitigating against any negative community impacts.

FACT SHEET

The City of Gilroy is requesting a grant in the amount of twenty-one million, two hundred ninety-three thousand, six hundred dollars ($21,293,600.00) for the construction of a critical bridge project with a total cost of twenty-seven million, six hundred seventeen thousand dollars ($27,617,000). The project is in the core of the city and helps to enhance transportation reliability and safety. The new 10th Street Bridge will create a flood-proof route over a large creek that is impassable for approximately 30 days per year during storm season, as well as provide a connecting route from a major north-south state freeway (US 101) to a regional east-west highway (CA 152).

There is a clear climate impact threat to the transportation infrastructure along Uvas Creek in the City, where Silva's Crossing, the point where Miller Avenue crosses Uvas Creek, floods each year during the rainy season, completely blocking traffic and emergency response access at that point. The 10th Street Bridge project will create a new route that will provide year-round transportation access despite flooding events, which are likely to increase because of climate change. The southernmost edge of a highly disadvantaged census tract includes the north side of 10th Street. The tract is classified as a climate-vulnerable, under-resourced, and underserved community. Elements of the bridge's engineering design will improve safety, walkability, and traffic congestion for this disadvantaged community, while crucially protecting Gilroy's transportation and emergency response network during flooding events and improving fire/ambulance response times to the hills west of the City, while also adding a new flood-proof evacuation route.

This project increases the climate resiliency of our traffic infrastructure, mitigating the negative impact of flooding at Uvas Creek on nearby streets during major storm events. As storm water drains to the area near the creek, it is often not absorbed quickly enough and causes flooding, standing water, and overflow of local waterways. The proposed new bridge will alleviate the flooding-related blockage of transport across Uvas Creek at the Miller Street crossing.

This project advances environmental justice by enhancing safety and accessibility for pedestrians and cyclists traveling between the east and west sides of the city, including youth, students, and families residing in the adjacent disadvantaged census tract. The bridge project includes pedestrian and traffic safety improvements for nearby Gilroy High School (GHS), student drop-off zone safety improvements on 10th Street, and restriping a portion of Princevalle Street, which is directly adjacent to the proposed bridge location and Gilroy High School.

The bridge project is identified in the City's Traffic Circulation Master Plan and is being designed with a width of 76 feet to accommodate four travel lanes in the future. Construction of this bridge will provide improved transportation circulation within the city, connect the state's highway system with the regional transportation network, and improve emergency response times. This project is also consistent with two of the five Gilroy City Council Goals: to maintain

and improve the city infrastructure and ensure neighborhood equity for city services including public safety, streets, parks, and recreation. The 10th Street Bridge will provide safety benefits to private residents; improve public safety response times to incidents and disasters; ease congestion to attract economic development projects; improve the efficient movement of people and goods; and enhance safety and vehicle, pedestrian, and bicyclist traffic congestion around major access points serving Gilroy High School in a manner that is reliable during times of flooding.

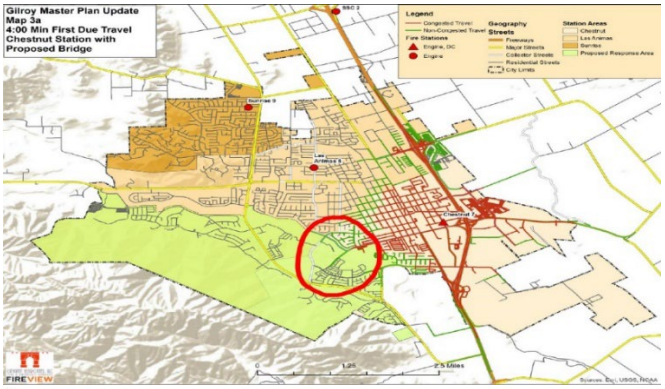


Figure 1: The 10th Street Bridge Project consists of constructing a bridge to extend 10th Street over Uvas Creek

B. FACT SHEET

CALEXICO EAST PORT OF ENTRY INTERMODAL TRANSPORTATION CENTER

IMPERIAL COUNTY TRANSPORTATION COMMISSION

Project Scope

The Imperial County Transportation Commission (ICTC) is requesting funding to design and purchase property for a new intermodal transportation center near the Calexico East Port of Entry (POE) border crossing. The Calexico East POE Intermodal Transportation Center will expand transportation options for pedestrians and bicyclists by allowing public and private transit buses to stop at the new station. The Project site is currently an open field used by pedestrians and bicyclists to be picked-up and dropped-off by car or taxi. Facility amenities will include shade, benches, public restroom, bicycle racks, bilingual signage, travel information and bus bays.

Project Benefits

- 1 New multi-modal station.
- 5,610 metric tons of greenhouse gas emissions reduced over 20 years.
- 18,158,516 passenger vehicle miles reduced over 20 years.

Background

There is no seating or weather protection at the existing pedestrian pick-up and drop-off area. Pedestrians wait in an open dirt field for transportation. In 2015, 223,374 northbound pedestrians crossed the border at the Calexico East POE. By 2040, it is estimated that the number of northbound pedestrians will increase to 400,688. The threat to pedestrians from extreme heat exposure will increase because the number of extreme heat days in the Project area is predicted to grow. The Project will create a needed intermodal facility within a designated Disadvantaged and Environmental Justice community to protect pedestrians and bicyclists who cross the border from extreme heat conditions. The new facility would also improve mobility by attracting public and private bus transit that currently does not exist. Improving transportation options and safety is likely to attract more pedestrian border crossings which would result in reduced vehicle miles travelled, greenhouse gas emissions, and fuel consumption. In addition, walking and bicycling has been shown to increase life expectancy and reduce health costs.

Project Schedule

Property Acquisition Start: July 2024
Property Acquisition End: July 2005
Design Start: August 2025
Design End: December 2026

Cost Estimate

Local Transportation Climate Adaptation Program funds: $1,500,000
State-Only Funds: $700,000
Total Cost: $2,200,000

Pacifica LTCAP Fact Sheet

In 1984, the City of Pacifica constructed an 18-22 foot seawall along Beach Boulevard north of the Pacifica Pier. The southern section of the seawall was constructed in 1987 using a different design. Since its construction, the north seawall has experienced failures and continues to be an increasing public health and safety risk, increasing the urgency for a new seawall. Various climate changes affect the area, including erosion and flooding. The purpose of this project is to protect essential public infrastructure along the Beach Boulevard using the the Beach Boulevard Infrastructure Resiliency Project to replace the current seawall and outdated infrastructure.
The improvements made will include implementing a range of measures, such as constructing seawalls and levees, raising the elevation of roads and sidewalks, and improving drainage systems to manage stormwater effectively. The infrastructure is largely on the seawall and aims to improve its condition by using wall and levee infrastructure while also considering natural infrastructure. The project also aims to use elevation for roads.

Project Scope

This project will improve and replace the current sea wall and outdated infrastructure used on it. The scope of this project includes the entire sea wall parallel to the Beach Boulevard and west of the Palmetto shopping district. The main areas of replacement are four structures on the wall and its infrastructure. They are the North Wall, Pier Sheet Pile Wall, South Wall, and the South Gap.

Cost

- The City of Pacifica is seeking the LTCAP grant in the amount of $3,750,000 with a 20% match at $750,000 for a total of $4,500,000 towards the goal of funding the Environmental (PA&ED) Phase ($3M), and the Design (PS&E) Phase ($1.5M)
- The project's total cost for fiscal year 2019 to 2020 was $799,836, funded through State Assembly Grant 74.
- The project's projected cost for fiscal year 2022 to 2023 is $1,554,433, funded through State Assembly Grant 74 and the Disaster Accounting Fund (Fund 38).

Schedule

- To protect essential public infrastructure along the Beach Boulevard promenade, the City is conducting the Beach Boulevard Infrastructure Resiliency Project to replace the current seawall. **Begin Environmental (PA&ED) Phase:** 3/1/2024
- **End Environmental (PA&ED) Phase:** 3/1/2026 (assuming 18 months for CEQA document and additional 6 months for permit processing)
    - Environmental (PA&ED) Phase Budget: $3M

- **Begin Design (PS&E) Phase:** 9/1/2025 – 9/1/2026 (assume 12 months, with some overlap with PA&ED phase)
    - Design (PS&E) Phase Budget: $1.5M

Information and resources about the project are made easily accessible to all through workshops, information sessions, the project website, and email communication.

- **Begin Right of Way Phase**: 3/1/2026
- **End Right of Way Phase (Right of Way Certification Milestone):** 9/1/2026 (Assume 6 months, no major property acquisition or easement efforts required since work largely within existing BBIRP R/W)
    - Right of Way Budget: $0.5M (mostly administrative costs for coordination effort among neighboring properties)

- **Begin Construction Phase (Contract Award Milestone):** 1/1/2027 (assume contract award 3 months after end of design & R/W phase)
- **End Construction Phase (Construction Contract Acceptance Milestone)**: 9/1/2028 (Assume construction duration of 20 months)
    - Construction Phase Budget: $77.3M (based on construction cost estimate from 2022 BRIC application)

- **Begin Closeout Phase:** 9/1/2028
- **End Closeout Phase (Closeout Report)** 12/1/2028
    - Closeout Phase Budget: $0.8M (based on estimated management costs from 2022 BRIC application which apply to duration of project, not just closeout phase. Closeout phase budget is probably 10-15% of over overall management costs)

<u>Benefits</u>

- Improved Public Health and Safety: By replacing the deteriorating seawall, the project reduces the risk to public health and safety along Beach Boulevard, benefiting both residents and visitors.
- Economic Growth: The project supports local businesses by ensuring safe and profitable operations in the project area and opening opportunities for future economic growth.
- Protection of Public Infrastructure: The City of Pacifica aims to safeguard public infrastructure, recreational activities, homes, businesses, and the community at large from further impacts caused by coastal erosion.
- Conservation of Coastal Resources: The project prioritizes the health of habitat and species within the project area, ensuring the protection, conservation, and enhancement of coastal resources.
- Recreational Activities: The project maintains current recreational activities and safeguards their long-term viability.
- Regulatory Compliance: The project involves collaboration with regional, state, and federal regulatory agencies to validate technical information and obtain necessary permits.

Information and resources about the project are made easily accessible to all through workshops, information sessions, the project website, and email communication.

- Environmental Justice: The project supports environmental justice efforts by addressing climate change effects and avoiding exacerbation of existing environmental injustices on vulnerable communities.
- Continued Access to the Pacific Ocean: The broader Bay Area community will continue to enjoy access to the Pacific Ocean through the successful completion of this project.

Stakeholders and Expected Benefits

- West Sharp Park residents: Direct public health and safety improvements upon completion of the project.
- Local businesses: Safe and profitable operations, potential future economic growth.
- City of Pacifica Administration and City Council: Protection of public infrastructure, recreational activities, homes, businesses, and the community.
- Fishing and recreation interests: Maintenance of current recreational activities and long-term viability.
- Conservation interests: Prioritization of habitat and species health, protection, conservation, and enhancement of coastal resources.
- Regional, state, and federal regulatory agencies: Validation of technical information, permits, and coordination with overlapping jurisdictions.
- Broader Pacifica community: Understanding of project impact, funding, and support for environmental justice efforts, ensuring climate change does not worsen environmental injustices.
- Bay Area community: Continued access to the Pacific Ocean.

Climate Resiliency and Transportation Infrastructure

The project aims to protect the surrounding area and community through climate-resilient transportation infrastructure. Roads will be elevated to enhance the overall infrastructure and combat the effects of climate change, erosion, and flooding. Transportation equity is a priority, considering environmental justice and supporting vulnerable communities. The project seeks to equitably serve the Pacifica community and vulnerable communities by rebuilding the seawall and utilizing various forms of safe and natural infrastructure. It also aims to benefit climate-vulnerable and underserved communities while mitigating negative impacts. The project will also benefit residents from areas south of San Francisco, with median household incomes around $45-55k, who frequently visit Pacifica.

Information and resources about the project are made easily accessible to all through workshops, information sessions, the project website, and email communication.

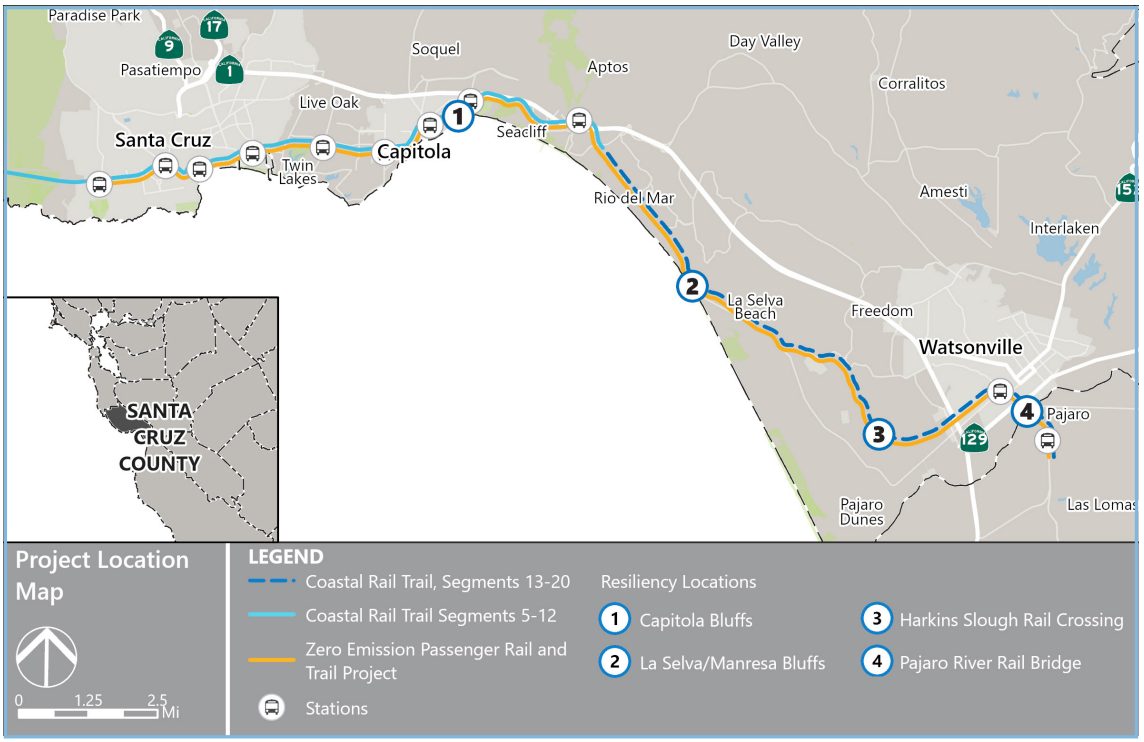
FACT SHEET

July 2023 LTCAP

Climate Resiliency for the Zero Emission Passenger Rail and Trail Project

Project Description

The Climate Resiliency for the Zero Emission Passenger Rail and Trail Project (LTCAP Project) proposes to develop preferred concepts for climate resiliency at four locations along the Santa Cruz Branch Rail Line (SCBRL) Corridor as part of the Project Approval and Environmental Documentation (PA&ED) phase of the Zero Emission Passenger Rail and Trail Project.



The Zero Emission Passenger Rail and Trail Project will implement a new, high-capacity, zero emission passenger rail service with approximately 11 stations along 22 miles of the SCBRL and accommodate existing and future freight service. Also included in the Zero Emission Passenger Rail and Trail project is a parallel paved bicycle and pedestrian path which consists of 12 miles of the 32-mile Coastal Rail Trail. The combined passenger rail and trail project and coastal rail trail, with their respective connections to the statewide rail network and the regional bicycle network, will transform mobility and accessibility for all Santa Cruz County residents.

Project Scope

The scope of the LTCAP application includes robust coastal hazards and engineering technical studies for evaluating various strategies for climate resiliency including protect, accommodate, and retreat as part of the PA&ED phase of the Zero Emission Passenger Rail and Trail Project. The four locations in the passenger rail and trail project area within the SCBRL right-of-way that are most vulnerable to climate hazards include:

- Capitola bluffs along Park Avenue in Capitola between Grove Lane and New Brighton State Beach Parking Area (approximately 1/4 mile). Coastal erosion in this area has been shown to have one of the highest rates along the Santa Cruz County coastline.
- La Selva/Manresa Beach bluffs (approximately 1/3 mile). The rail corridor is already compromised by severe erosion of the coastal bluffs.
- Harkins Slough Rail Crossing (approximately 1/2 mile). The rail crossing has already experienced flooding from the severe storm events this past winter at this location.
- Pajaro River Rail Bridge. Levee failure and flooding at Pajaro this past winter heightens the need to improve the resiliency of this critical bridge infrastructure.

Project Cost

The total cost of the LTCAP Project is $132,272,000. The cost of the PA&ED phase of the Zero Emission Passenger Rail and Trail project is $2,500,000. The amount requested from the LTCAP Program is $2,000,000 with a local match of $500,000.

Project Benefits

OUTPUTS

- Impacts of climate hazards for the short term (2050) and long term (2100) horizons including, but not limited to sea level rise, storm surge, and more frequent and extreme precipitation events that will cause coastal cliff erosion and rail line washouts, flooding, and increased bridge scouring.
- Project concepts with consideration for the three main climate adaptation strategies - protect, accommodate, and retreat.
- Engineering studies to inform project concept designs for climate resiliency.
- Preliminary engineering design for resiliency improvements at the four locations to include in the Zero Emission Passenger Rail and Trail project description and environmental review.

OUTCOMES

Climate Resiliency: The LTCAP Project will address the urgent, time-sensitive need to design and build a resilient rail and trail corridor that will serve Santa Cruz County. Climate change impacts and climate resilient solutions will be carried through the PA&ED phase of the Zero Emission Passenger Rail and Trail Project to ensure project longevity and minimize service disruptions that may impact disadvantaged communities.

Benefits to Disadvantaged Cxommunities: The LTCAP Project will provide reliable and safe transit and active transportation options for disadvantaged communities, particularly in the Watsonville area. Reliable transit options will increase transit ridership and provide low-cost transit alternatives for underserved communities.

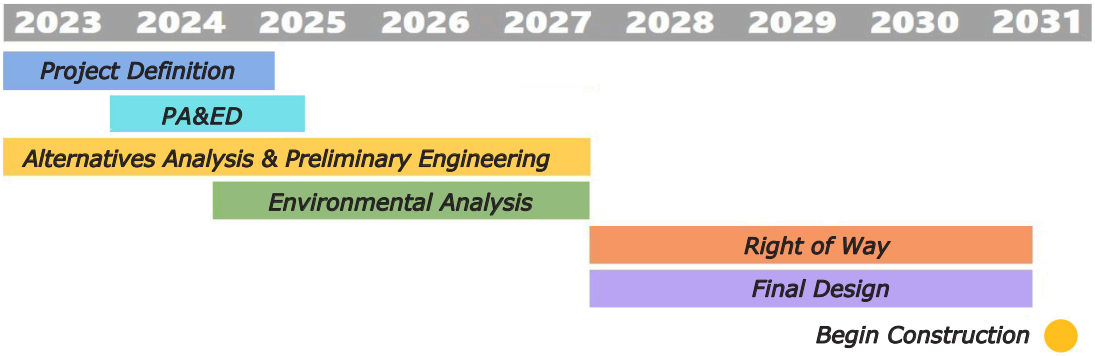
Improved Transit: A climate resilient rail corridor can provide a dedicated zero emission transit facility that will provide a reliable alternative to the congested travel on Highway 1.

Increased Active Transportation Opportunity: The trail will encourage bicycling and walking as safe, convenient, and low-cost options as well as reduce the annual number of fatal or serious-injury collisions involving pedestrians and bicyclists.

GHG Reduction: An increase in transit and active transportation will decrease vehicle miles traveled (VMT) and reduce congestion and greenhouse gas (GHG) emissions.

Public Health: Investing in active transportation facilities is an equal investment in public health by increasing opportunities to exercise and improving air quality.

Project Schedule



Climate Threat Impact

The LTCAP Project will not only aid in the repair of existing damage on the SCBRL, but will also mitigate climate threats that are currently plaguing the Project area. If the Zero Emission Passenger Rail and Trail Project is not constructed with an eye for climate resilience, the entire community – particularly the underserved communities of Santa Cruz County – will experience significant negative impacts. One of the main goals in constructing the Zero Emission Passenger Rail and Trail Project is to improve equity and environmental justice by addressing vital transportation needs for transportation-disadvantaged communities in Santa Cruz County. The passenger rail and trail facility will greatly benefit regional, state, and federally defined disadvantaged communities in Watsonville, Pajaro, Santa Cruz, Live Oak, Capitola, and Aptos. Efficient and reliable rail service alongside a safe and convenient multimodal trail will provide low-cost transportation alternatives for the County."

US 50 *Trip to Green* Congestion Management and Resiliency Strategy

2023 Climate Adaptation Program Fact Sheet

ADA Compatible Fact Sheet Included as **Attachment A.*

Project Background and Scope

For over 40 years, significant congestion has been documented for US Highway 50 in El Dorado County, and specifically, through the City of Placerville. **US Highway 50 serves as the main transportation infrastructure, evacuation route, and lifeline for the west slope of El Dorado County, and its pinch point in the City of Placerville where climate threats impact this climate-vulnerable, under-resourced, and disadvantaged community.** The known contributing source of these impacts are the three at-grade signalized intersections located at the heart of this small, historic, and rural community. Placerville contains a population of 10,746 (2020 Census) and has been identified as a Disadvantaged Community.

US 50 through Placerville frequently operates under abrupt stop and go conditions when highway traveling speeds transition from 65 mph to as low as 8 mph through the three signalized intersections in the heart of Placerville. Not only does this scenario induce regular traffic collisions that opposes federal, state, and local policy for Vision Zero fatalities on this heavily traveled route, it also affects life safety responses to the collisions themselves and the region as a whole.

Until now, solutions to address the signalized intersections have been deemed far too expensive and challenging to develop from concept to construction. However, thanks to a very successful Proof of Concept (Pilot) Pilot project that took place in the fall of 2022, **an innovative solution, titled "*Trip to Green" delivers a* feasible, practical, and affordable approach to climate threat resiliency and congestion reduction that is supported by the local community and region.**

This proposed "*Trip to Green*" project facilitates control of signal operations that provide a safer approach to address peak congestions periods from regional travel and during natural disasters, including wildfire. By regularly holding a solid green phase during dedicated time periods for east and westbound traffic, safe travel and improved climate conditions are afforded to local and regional travelers as well as the various emergency response teams that serve the community.

Utilizing Intelligent Transportation Systems technology, a series of automated barriers, barricades, and channelization of movements will allow US Highway 50 to flow safely and freely by detouring local traffic and prohibiting cross traffic while preserving emergency vehicle access and drastically improving east and westbound throughput. **The detours for local traffic improve transportation equity by allowing residents and businesses to access goods and services within this disadvantaged community on the local road network.** Rather than contending with US 50 travelers who regularly use Google Waze and other location-based

applications to bypass the highway that results in tremendous local road congestion, implementation of *Trip to Green* reduces regional and local roadway congestion and improves climate resiliency for the community**.** The Pilot project conducted over the fall of 2022 simulated this in detail and found that local and regional emergency response improved considerably, which is of great value for this wildfire risk community. The *Trip to Green* Pilot proved that implementation of these measures will increase climate resiliency of the transportation infrastructure as well as the regional communities threatened by wildfire and other hazardous and climate related events within El Dorado County.

Drone image showing westbound congestion on US 50 and impacts to local streets in the City of Placerville during normal signal operations on October 16, 2022

Drone image showing free flowing traffic on US 50 during *Trip to Green* Operations on October 1, 2022

Cost and Schedule

The project's innovative traffic control system design will be the focus for the Preliminary Engineering Phase of the project. This work includes milestones such as the Project Initiation Document and the publicly reviewed environmental document through to project approval (PA&ED phase), estimated at $1,000,000. Once environmental clearance is obtained, design and right of way clearance tasks will be completed at an estimated amount of $2,750,000, arriving at the total amount requested of $3,750,000. This application is not currently seeking construction funding, but construction funds will be sought after once the initial project phases have been completed.

Upon funding authorized in Fiscal Year 2023/24, the PID and environmental clearance work will be initiated and is estimated to take two years. Development of the design and right-of-way phases will also take two years to deliver a **bid ready project for construction by October 2027**.

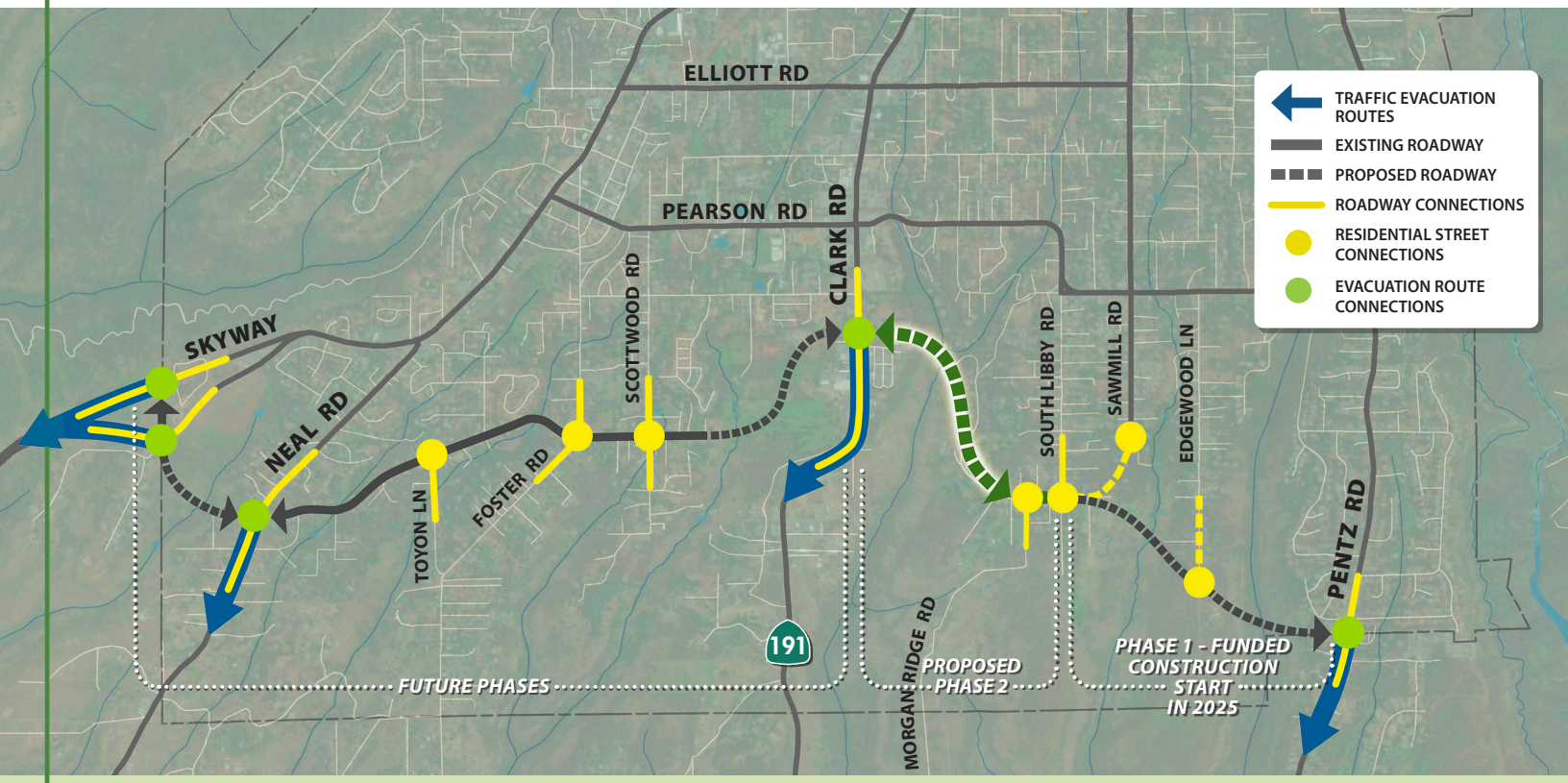
Benefits, Outputs and Outcomes

The successful 2022 *Trip to Green* Proof of Concept Pilot project was executed in partnership with Caltrans District 3 for three weekends to demonstrate project feasibility and it garnered community support as an innovative and cost-effective solution to significant congestion on US 50 through the City of Placerville. **Furthermore, the implementation of the *Trip to Green* Pilot was originally intended to take place in 2021, but was utilized first in August 2021, as a real-life emergency evacuation response to the Caldor Fire, proving its worth in providing vital climate threat resiliency.**

PROJECT FACT SHEET

ROE ROAD EXTENSION PROJECT - PHASE 2

Implementing Agency: Town of Paradise



PROJECT BENEFITS

- Provides new access to State Route 191/ Clark Road traffic evacuation route.
- Avoids 4 miles out of way travel during traffic evacuation.
- Provides second route option for 5 residential dead-end streets.
- Transportation grid network supports First Responders daily operations and emergency evacuation events.

PROJECT SCOPE

- Project continues the cross-town connection between Skyway and Pentz Road. The future 5-mile roadway will address circulation system deficiencies, build transportation options, add Class I path, and improve disaster evacuation route access.
- Constructs two- to three-lane roadway with wide shoulders and and a Class I path.
- Project will close gap to 5 roadways which serve disconnected residential areas.
- Directly benefits evacuation corridors which experienced a high concentration of traffic-related fatalities during the Camp Fire.
- Project prioritizes new roadway link serving long dead-end streets including South Libby, Circle, Warnke, and Bennett and eliminate a barrier created by Clear Creek and a ridge.

PROJECT COST

PA&ED	$2,770,000
PS&E	$4,155,000
Right of Way	$5,985,000
Construction	$53,090,000
TOTAL	**$66,000,000**

PROJECT SCHEDULE

PA&ED	2/2024 to 8/2025
PS&E	9/2025 to 3/2027
Right of Way	9/2025 to 8/2027
Construction	8/2027 to 8/2029

ROE ROAD EXTENSION PROJECT - PHASE 2

PROJECT OUTCOMES

- 2.4 Miles of Vehicle Lanes
- 1.2 Miles of Class I Path
- 1 Traffic Signal
- Drainage Facilities
- Gap Closure
- Enhances Safety
- Increases Mobility Options
- Provides Disaster Resilience
- Supports Economic Recovery
- Benefits Disadvantaged Communities

CLIMATE RESILIENCY

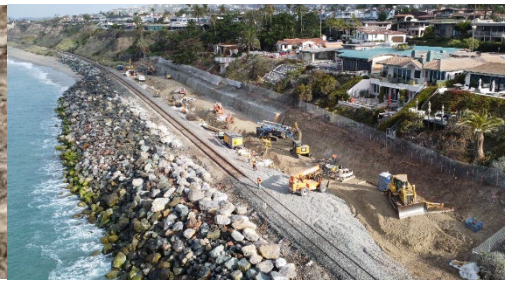
The Project increases climate resiliency for the Town and addresses deficiencies exacerbated by the 2018 Camp Fire. Improved evacuation routes are constructed to connected residential neighborhoods to vital north-south primary evacuation routes, including SR 191/Clark Road. The Class I path serves as an emergency vehicle ingress/egress route, keeping vehicle lanes open for the evacuating public. The Project includes vegetation management areas to keep trees and other plant material away from the roadway and provide an improved fire break.

EQUITY CONSIDERATIONS

The Project was developed through extensive community engagement efforts since the 2018 Camp Fire. The Town's 2019 Long-Term Recovery Plan and 2022 Transportation Master Plan identified the need for improved evacuation routes, eliminating long dead-end roads, adding missing roadway segments, and interconnected path system. The Project provides these community directed elements. The Project is located within a disadvantaged community and will provide direct benefits to residents in the census tract.

Project alignment looking east towards Clear Creek and the ravine

Coastal Rail Infrastructure Resiliency Project



Project Scope

The Orange County Transportation Authority (OCTA) is proposing to complete the Project Approval & Environmental Documentation (PA&ED) for a seven-mile portion of the railroad right-of-way along the Los Angeles-San Diego-San Luis Obispo (LOSSAN) Rail Corridor. Completion of the PA&ED will allow OCTA to implement short and medium-term solutions to improve climate resiliency in the project area as recommended by a current study. The project area is located in south Orange County between the Pacific Ocean and high coastal bluffs, finger canyons, and other man-made developments. Storms and sea level rise attributable to climate change have caused track shifts and a landslide resulting in debris interfering with safe passenger rail movement on the track forcing the suspension of passenger rail service and restricted freight service through the area.

About the Corridor

OCTA owns 40+ miles of rail between the cities of San Clemente and Fullerton. This vital link in the 351-mile LOSSAN Rail Corridor is the nation's second busiest passenger rail corridor. The LOSSAN Corridor serves 41 stations and more than 150 daily passenger trains, with an annual ridership of nearly 3 million people on Amtrak Pacific Surfliner intercity trains and 5 million people on Metrolink and COASTER regional rail trains prior to the pandemic.

The corridor annually carries more than $1 billion in freight throughout Southern California. Between Los Angeles and San Diego, the line is designated as a Strategic Rail Corridor Network (STRACNET) by the Department of Defense due to its connectivity with military bases and major ports.

The rail line in south Orange County is vulnerable to catastrophic failure due to changing environmental conditions, coastal erosion, and flood risk. Service suspension has occurred multiple times in the past two years, resulting in reduced equity and increased transportation burden for under-resourced and underserved communities, making it less convenient and more costly to reach key employment, education, and health care appointment destinations.

OCTA has invested more than $2.1 billion in the rail corridor and in Metrolink service to date. In addition, OCTA is finalizing track stabilization work two miles south of the track protection project and is undertaking two feasibility studies to help ensure uninterrupted coastal rail operations for both the short- and long-term.

Total Estimated Project Budget

Total Estimated Project Cost:	**$15 million**
Total Local Transportation Climate Adaptation Program (LTCAP) Request:	$12 million
Other Funding: OCTA funding	$3 million

Project Benefits

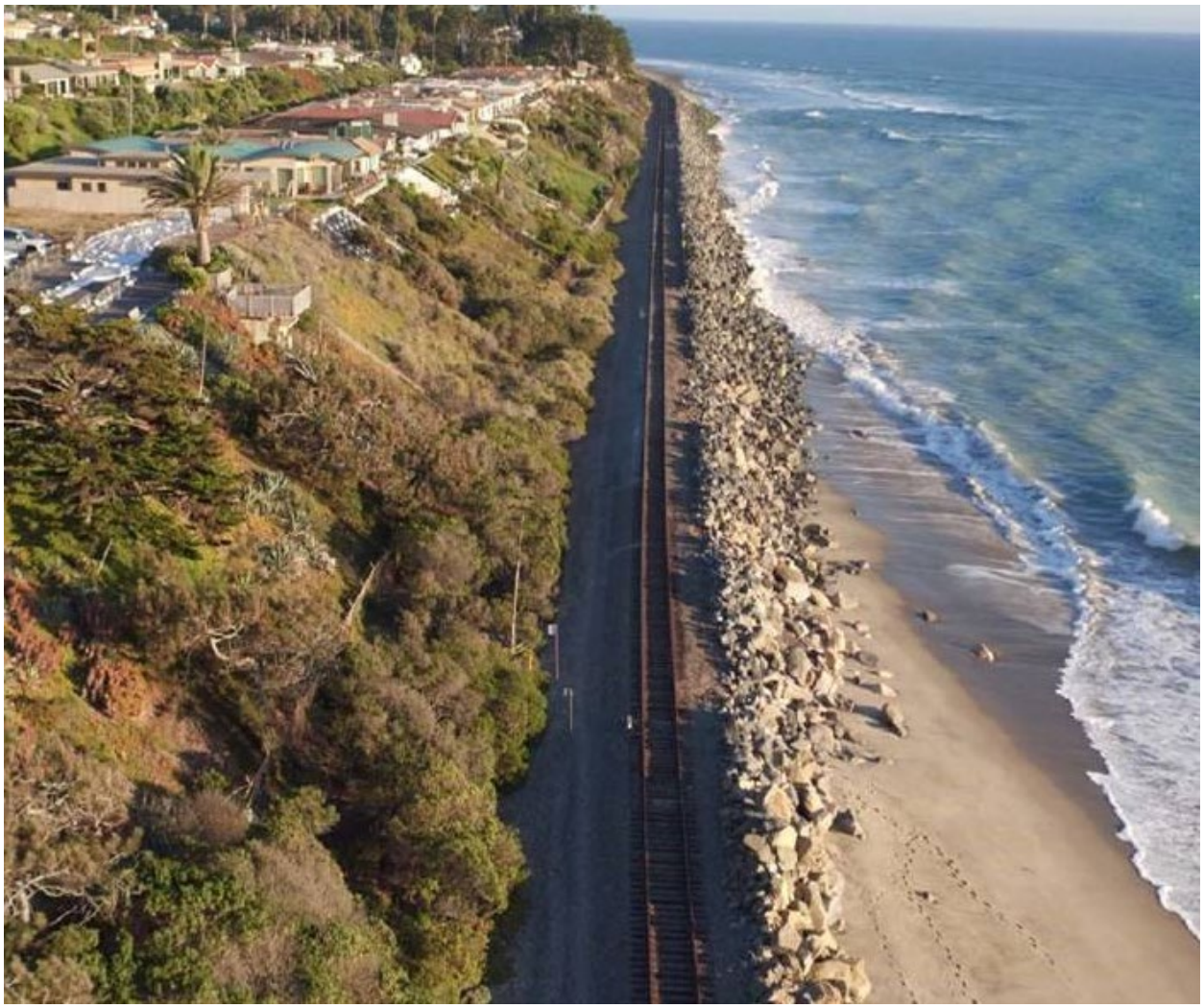
- Improves safety by protecting the railroad from falling debris as well as preventing track movement toward the ocean.
- Enables service to safely resume on the second busiest railroad corridor in the nation and helps ensure the ability to continue providing reliable regional and intercity passenger rail service.
- Restores rail connectivity with military bases and major ports.
- Improves air quality by reducing the following greenhouse gas emissions related to loss of ridership on an annual basis:
  - 13 billion tons of CO_2 equivalents ($MTCO_2e$)
  - 492 pounds of ROG emissions
  - 2,425 pounds of NOx emissions
  - 1,580 pounds of $PM_{2.5}$ emissions
  - 3 pounds of diesel PM emissions
- Reduces congestion on adjacent freeways and roadways.
- Protects the State's investment of more than $300 million and OCTA's investment of $2.1 billion in this vital, strategic and extremely busy rail corridor.

Estimated Timeline

Dec 2025	Award Contract for PA&ED
Dec 2027	Completion of PA&ED

OCTA

Photo of a Portion of the Seven-Mile Project Area



CTC Local Transportation Climate Adaptation Program – Supporting Documents B-H

Mariposa County

Fournier Bridge Project

A. Cover Letter – attached separately
B. Fact Sheet

Mariposa County is seeking Local Transportation Climate Adaptation Program funds in order to complete the Fournier Bridge Project (Project). Fournier Road is located in the town of Mariposa, adjacent and connecting to Highway 49 which runs through the town. The town of Mariposa is considered the gateway to Yosemite National Park and experiences high rates of visitorship in the summer months. Fournier Road is at extreme risk due to climate change, and the road was completely flooded and impassable three times just this past winter (December 2022-March 2023). When it floods, this reduces access into town for residents living on Fournier Road, particularly the residents living at Creekside Terrace in Mariposa, a 42-unit low-income apartment complex that also serves individuals who were experiencing homelessness. In fact, during the recent storms, both of the roads serving this apartment complex completely flooded, leaving residents without any access to town, and making it impossible for emergency personnel to reach them. In a community where mudslides, flooding, and wildfires are not uncommon, this threat to egress must be immediately addressed, and the Fournier Bridge Project will immediately increase the resiliency of the transportation infrastructure supporting Mariposa residents.

This Project also directly supports Phase IV of the Mariposa Creek Parkway Project. The Mariposa Creek Project includes partnerships with the Southern Sierra Miwuk Nation to restore natural resources and protect the environment through restoration of the riparian corridor and its uplands; a completed network of expanded recreational trails throughout Mariposa Creek's watershed to further protect the environment and improve safety for all users of the transportation system (i.e. those walking or biking); and, leveraging the completed trail to promote appropriate economic development in the creek corridor. Through significant community outreach, the Parkway plan articulates a vision that is more than a trail but is also a public space for exploration and the expression of local culture, values, and identity; it is also an opportunity to grow the local economy by protecting and supporting this natural resource and its immediate watershed. In light of this, the community and the County envision a new economic hub, (dubbed "The Hatchery") that will exist on the 187 acres beyond Fournier Road that the County has already obtained. Not only is The Hatchery expected to include space for economic incubation and community place-making, but it is also expected to include additional low-income and mixed-use housing, which is desperately needed in all of Mariposa County. The Fournier Bridge Project is the missing link in turning this vision into a reality.

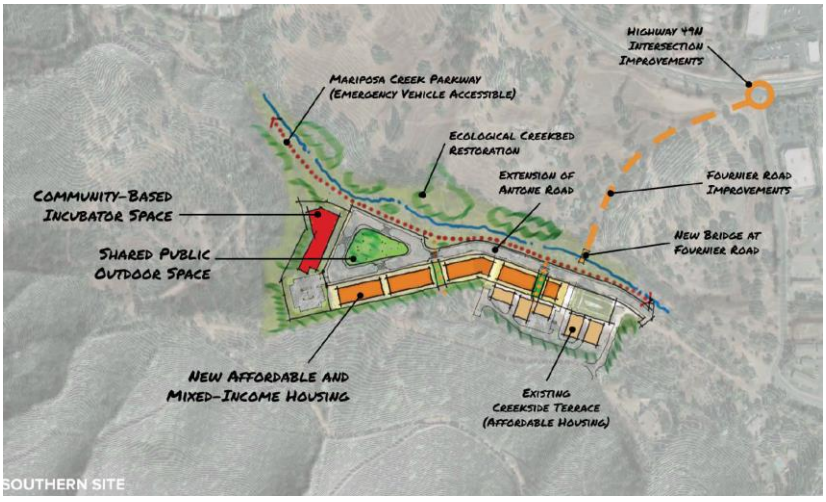
The Fournier Bridge Project has taken into consideration transportation equity in two ways. First, it seeks to advance equity in the community by ensuring that the low-income residents at Creekside Terrace have equal access to the town and county of Mariposa's transportation infrastructure, and that access is not cut off by a climate event. Additionally, by working hand in hand with the Mariposa Creek Parkway Project, the Fournier Bridge Project will help complete the recreational trail project that promotes active transportation and equitable access to this infrastructure.

This Project will directly benefit a climate vulnerable, under-resourced, underserved, rural community. The census tract containing the town of Mariposa and this specific project site is identified as Disadvantaged in the Climate and Economic Justice Screening Tool. The census tract is also identified as disadvantaged according to the California Healthy Places Index 3.0 (27.9 percentile). The Median Household Income for Mariposa County is $53,304 (far below the statewide Median Household Income of $87,355), and approximately 14.1% of residents live in poverty. Encouragingly, no negative impacts are expected from the Fournier Bridge Project. There has been substantial community engagement on the formation of the Mariposa Creek Project Master Plan, of which the Fournier Bridge Project is a critical outstanding piece. Residents are asking for this project to unlock future housing and economic potential. Additionally, the County has and will continue to work with local environmental groups as well as the Southern Sierra Miwuk Nation to ensure that the greater Master Plan, including the Fournier Bridge Project, enhances and protects the environment and does not pose a threat to natural resources.

Work on the Fournier Bridge Project would begin immediately after an award was issued, with consultant procurement occurring in Fiscal Year 2023-2024. After that, Infrastructure Design and Environmental Review, Permitting, and Entitlement will take place in FY 2024-2025, with Construction beginning in FY 2025-2026 and being completed in FY 2026-2027. The expected budget for this project is $10 million, with $8 million being requested in LCTAP funds.

Strictly put, the “output” of the project will be the installation of one new bridge, with two vehicle lanes and a sidewalk, allowing for vehicle, bicycle, and pedestrian traffic, to replace sections of a low-lying road (this will include supporting work to the road as needed). However, such a straightforward output is misleading in the importance to the community of this project. By awarding funds to complete this Project, the State of California through the County of Mariposa will be directly benefitting an underserved, under-resourced, climate vulnerable community that faces a severe lack of economic mobility and a critical housing shortage. The Fournier Bridge Project will physically connect residents to and from Fournier Road, but more importantly will also connect them to development opportunities and economic growth that have otherwise remained out of reach for the Mariposa community.

Project area photo:



PROJECT FACT SHEET

CLIMATE RESILIENCY FOR LA PAZ ROAD

(Aliso Creek Road to Crown Valley Parkway)

Implementing Agency: City of Laguna Niguel

PROJECT DESCRIPTION

Since May 17, 2023, La Paz Road has been closed to south-bound traffic between Rancho Niguel Road and the South Orange County Wastewater Authority Driveway just north of Kings Road. This closure is due to pavement deflection and cracking from underground geotechnical issues adjacent to Laguna Niguel Regional Park, a highly visited recreational facility. An unusually heavy season of rain exacerbated hazards in the area, including slope erosion. The severity of the erosion and resulting damage to the roadway has greatly increased the danger to the traveling public. The Climate Resiliency for La Paz Road (Project) will address the slope failure as well as improve multimodal travel conditions. The Project will install a road diet, reducing the travel lanes from four to two lanes and installing Class IV bikeways. The Project will address roadway travel safety, reduce vehicle speeds, and improve walking and biking for nearby underserved communities.

How the Project Will Increase Climate Resiliency

This Project will increase climate resiliency by providing a permanent solution to erosion that has been observed on the slope since 1997. Mitigating erosion of the slope in turn protects the integrity of the roadway, preserving the City's transportation infrastructure. This Project is urgently needed so that residents and visitors utilizing all modes of transportation can safely travel on this arterial roadway to and from jobs, homes, and recreational destinations. Underserved, under-resourced, and climate-vulnerable communities will benefit from the multimodal opportunities afforded by this Project, as well as the restoration of a safe route through residential communities that serve a wide variety of populations.

SCOPE

The Project will consist of a road diet, which will be achieved by shifting the roadway to the east to allow for lane reconfiguration, reducing the number of lanes in each direction from two to one; slope erosion mitigation; and the transformation of the existing Class II bicycle lanes to Class IV protected bikeways. The City has been assessing its roadway network to look for opportunities to add separated bikeways where appropriate, and this Project is well-suited for such improvements, making it the first Project to implement a protected bikeway in the City's history.

CLIMATE RESILIENCY FOR LA PAZ ROAD

PROJECT FACT SHEET

PROJECT COST

	TOTAL
PA&ED	$854,000
PS&E	$ 1,938,000
Right of Way	$ 1,642,000
Construction	$ 14,995,000
TOTAL	**$19,429,000**

PROJECT SCHEDULE

	DURATION
PA&ED	2/2024 to 1/2025
PS&E	4/2025 to 9/2026
Right of Way	4/2025 to 8/2026
Construction	12/2026 to 10/2027

PROJECT OUTCOMES

Climate Resiliency

This Project will address the urgent, time-sensitive need to build a resilient roadway that will serve the City and its residents, as well as nearby disadvantaged communities. Climate resilient solutions must be implemented immediately to ensure the longevity of the roadway and to protect the environment by encouraging active transportation.

Safety

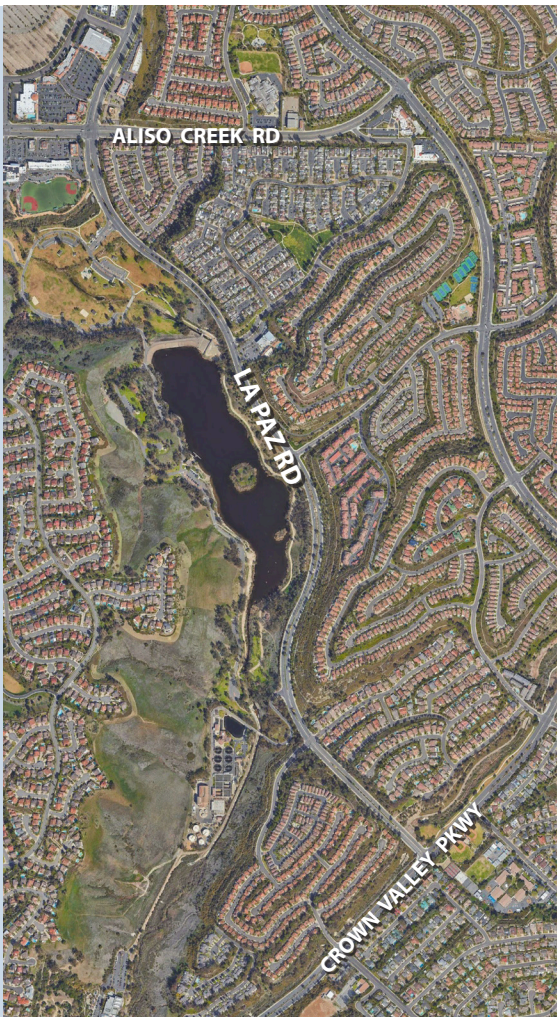
The current slope failure presents a serious risk to vehicles, bicyclists, and pedestrians, and this Project is necessary to make the roadway safe for travel. Additionally, the Class IV bikeway will reduce the annual number of fatal or serious-injury collisions involving pedestrians and bicyclists.

Active Transportation Options

The Class IV bikeway and lane reduction will encourage bicycling and walking as a safe, convenient, and low-cost option for users of all abilities, regardless of vehicle ownership.

Greenhouse Gas Emissions Reduction

A decrease in vehicle lanes with an increase in active transportation will reduce congestion and greenhouse gas (GHG) emissions.



PROJECT OUTPUTS

- 3.2 Miles of Class IV Bike Lanes
- 3.2 miles of Lane Reduction
- 3.2 Miles of Pavement Rehabilitation
- 1 Slope Mitigation

For More Information:

Contact the Public Works Department at (949) 362-4337 or e-mail at **works@cityoflagunaniguel.org**

Public Works
LOS ANGELES COUNTY

Factsheet

Resilient Castaic-Santa Clarita Valley

Project Cost:

The total project cost is $4 million, and the state share request is $3.2 million, at 80% of the project cost.

Project Schedule:

The planning phase for proposed improvements is anticipated to begin by June 30, 2024, and will be shovel ready to proceed for construction allocations in fiscal year 2025.

Project Benefits:

- Reduces travel time delay during closure events by 36 percent on average
- Reduces CO_2 emissions by an average of 488 metric tons annually
- Reduces severe congestion by an average of 88,000 person-hours annually valued at $1.6 million
- Reduces annual fuel consumption by 37,000 gallons, on average
- Avoids approximately 36 vehicle accidents resulting in fatalities or injuries
- Generates a total benefit-cost ratio of 7.36

The Resilient Castaic-Santa Clarita Valley: An ICM Approach to Strengthening Evacuation Routes Project (Project) consists of planning, design, and capital infrastructure investments within urban and rural unincorporated communities to implement ICM strategies on arterials along Interstate (I)-5 in the Castaic-Santa Clarita Valley in order to strengthen critical evacuation routes and improve resilience on roughly 20 miles of surface roadways. As the impacts of climate change worsen, severe weather events that result in the closure of I-5 are projected to increase in frequency, necessitating the proposed infrastructure investments to ensure communities can evacuate safely and quickly, while directing traffic to alternative routes during I-5 closures to avoid regional traffic congestion.

Climate Vulnerability:

Due to the geography of the Castaic-Santa Clarita Valley, I-5 is subject to closures from severe weather conditions such as wildfires, torrential downpours, and snowfall. Climate change is projected to increase the frequency of severe weather events, which will necessitate increasingly greater use of evacuation routes. These severe weather events frequently contribute to I-5 closures, preventing underserved communities located within the project area from evacuating rapidly.

During closures, rerouted traffic must then shift to surface streets in search of SR 14 (to the east) or SR 126 (to the west). Several effective reroutes exist, but drivers unfamiliar with the area often rely on mapping apps for the fastest route. Mapping apps exacerbate the congestion problem by shifting traffic from primary and minor arterials onto residential side streets, clogging up traffic in residential areas.

Climate Threats:

- Wildfires
  - » On average, over 110 days above 90 degrees Fahrenheit are projected by 2040 in the project area. Increasingly hot weather, coupled with the region's arid climate and low levels of precipitation will contribute to an increasing frequency in the number of wildfires and evacuations.
  - » In 2022, the Route Fire spread to both sides of I-5, forcing a closure in both directions. The massive volume of traffic that is forced onto surface streets during such closures creates safety risks to residents when they are unable to evacuate from their homes due to congestion.
- Snowfall and Ice
  - » During the winter season, severe snowfall, and blizzards force Caltrans to close I-5 and activate "Operation Snowflake" because the existing supply of Caltrans snowplows is unable to keep up with snow clearing. Northbound traffic must reroute many miles.
- Mudslides
  - » Relentless, heavy precipitation from storms stretching across the Pacific, known as "atmospheric rivers," can lead to the unprecedented and destructive debris flows. In September 2022 for example, 30 vehicles were entrapped in mud during Tropical Storm K. During these torrential downpours, first responders need to be able to quickly respond to help rescue trapped individuals.

Climate Resiliency:

The Project will increase the climate resiliency of transportation infrastructure and communities to wildfires, mudslides, torrential downpours and other extreme weather condition by ensuring communities are able to rapidly evacuate to help save lives and ensure traffic safety. For example, the proposed Changeable Message Signs (CMS), as part of the ICM infrastructure response, will give motorists real-time traffic safety and guidance information about severe weather events that cause significant travel delays to help efficiently guide evacuation traffic when climate threats occur. Additional components will include sensors, CCTV cameras, and fiber optics. As the Project is located within primarily underserved communities, it will ensure transportation equity by investing into transportation infrastructure that will improve surface flows of vehicles to improve the mobility of public transit and first responder vehicles to respond increasingly quickly to incidents.

Moreno MDP Line K and Reche Canyon Detention-Debris Basin Project

2023 Local Transportation Climate Adaptation Program (LTCAP)

Project Fact Sheet

Project Scope:

The project is to improve drainage and provide flood and debris flow protection from major storm events for the local roads, emergency transportation access for climate vulnerable/disadvantaged communities, and State Route 60 (which is a major freight route) by constructing approximately 8,000 feet storm drain (Line K) and a detention-debris basin (Reche Canyon Basin). The communities have been experiencing street floodings, traffic disruptions, and extensive roadway cleanups and repairs after storms due to the lack of drainage system that can effectively convey storm waters and discharge to downstream drainage system. The project is consistent with regional drainage master plan.

Project Cost and Funding:

Project Cost: $16,000,000

Funding:

- 2023 LTCAP Request: $12,500,000
- Local Match (MDP Fees): $3,500,000

Schedule:

- Environmental (PA&ED): 7/2023 to 6/2024
- Design (PS&E): 7/2024 to 12/2025
- Right of Way: 1/2025 to 12/2025
- Construction: 4/2026 to 5/2027
- Close-out: 6/2027 to 12/2027

Outputs and Benefits:

Outputs:

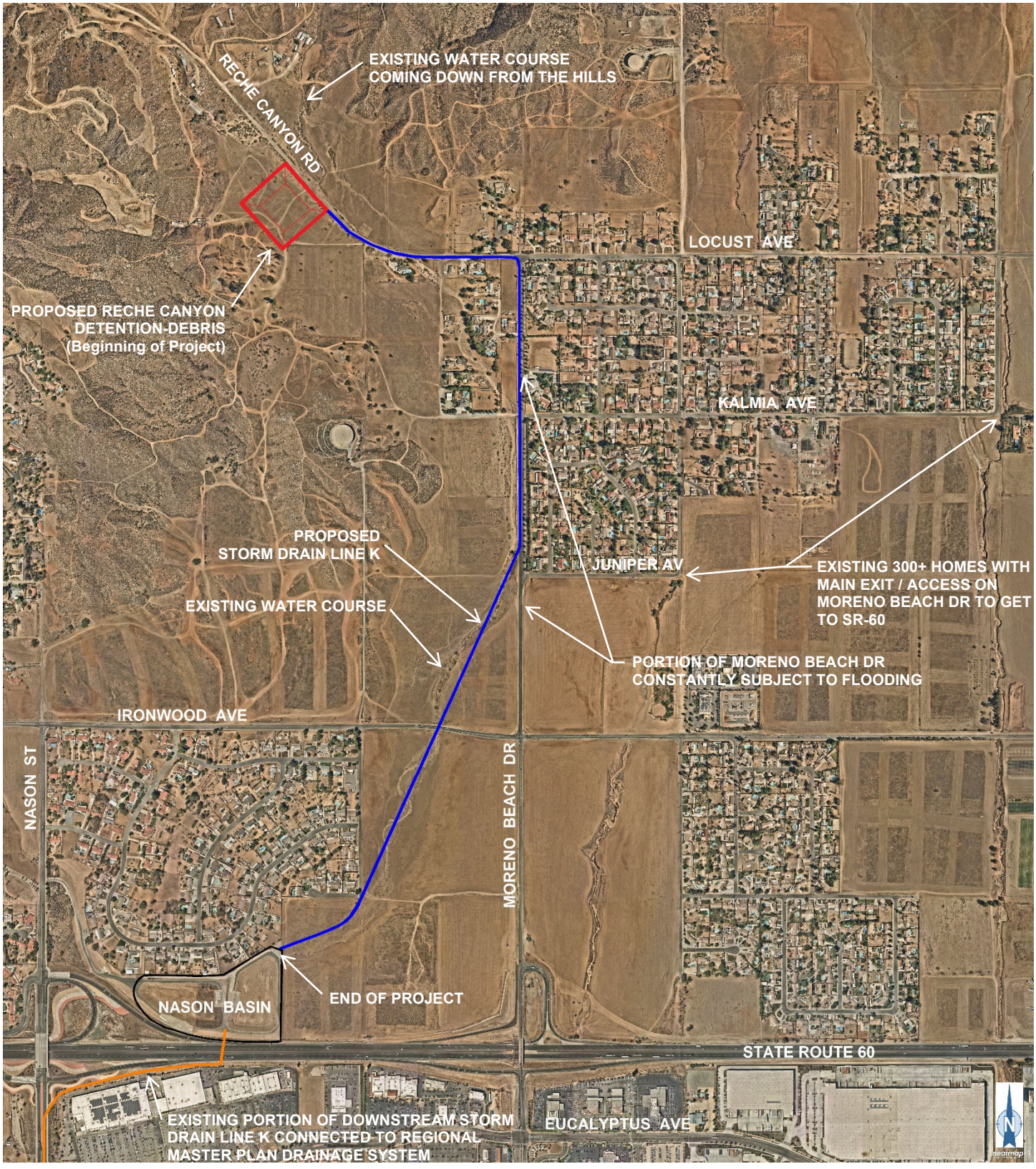
- New underground storm drain system Line K of 8,000 feet of reinforced concrete main pipes and laterals, from discharge point at Nason Street Basin to the proposed Reche Canyon Detention-Debris Basin at Locust Avenue and Reche Canyon Road.
- New 240,000 square feet Reche Canyon detention-debris basin with a capacity designed to hold peak run-offs during 100-year storm events and slowly discharge afterwards.
- 12 catch basin and connecting drainage pipes.
- 0.7 lane mile of new pavement.
- Related street improvements and associated storm drain appurtenant to accommodate the new storm drain system.

Outcomes:

This project will:

- mitigate flooding impacts and damages for local essential transportation and emergency arterials such as Moreno Beach Drive, Ironwood Avenue, and Locust Avenue.
- reduce costs of roadway repairs.
- minimize intensive debris cleanups after storm events.
- reduce disruptions to local transportation and emergency services.
- reduce inundation of surrounding unimproved lands, providing opportunities for future developments and enhancing land values.
- protect from flood hazards and enrich existing wildlife in the area.
- minimize pollution and enhance water quality with the debris capture basin.

Moreno MDP Line K and Reche Canyon Detention-Debris Basin Project



PROJECT LOCATION MAP

Legend:

- Proposed Reche Canyon Detention-Debris Basin
- Proposed Moreno MDP Storm Drain Line K
- Existing Portion of Moreno MDP Storm Drain Line K

MORENO VALLEY
WHERE DREAMS SOAR

Pacific Avenue Cycle Track Fact Sheet

Project Scope

Construction of sidewalk-level separated north- and south-bound bikeways on Pacific Avenue from Ocean Boulevard to Pacific Coast Highway (1.6 miles) in Long Beach, California. Transit shelters, trees, bioswales, and other foliage will also be added along the project corridor.

Cost: Total project cost: $14,816,000 (LTCAP Request: $5,740,000; Match $1,435,000)

Schedule: The project is currently in the PA&ED phase with construction estimated to begin in FY25/26.

Benefits

This high-quality Class IV bikeway will add a safe, attractive, comfortable, and direct bicycle and pedestrian route between Central and Downtown Long Beach. This project will improve the cohesiveness of Long Beach's expanding bikeway network and add a much-needed north-south bike route. The project will also add shade

trees, bioswales, and other foliage that reduce urban heat island impacts and stormwater pollution to improve the overall climate resiliency among the disadvantaged communities along the corridor.

Impact of Climate Threat

The Pacific Avenue Cycle Track will address two primary climate threats in the project area, as shown by Cal-Adapt data: extreme precipitation events and extreme heat days.

The project will provide an important north-south active transportation connection as increasingly frequent extreme precipitation events will impact the Los Angeles River Trail to the west, cutting off a major regional active transportation connection. In a projected scenario that reaches as many as 11 to 15 extreme precipitation events each year, residents can expect nearly a month of path closures annually, or around once every five days during the rainy season. The LA River Trail also lacks shade, which means temperatures can become extreme on hot days. A 2021 study on the urban heat island effect in Long Beach identified the Washington neighborhood that surrounds the project area as facing among the highest risk on the State's Heat Health Action Index, with a score above 80.

For the residents within the communities surrounding the project area, these climate impacts are compounded by historic underinvestment and traffic safety concerns. Over 23% of households within the project area do not have access to a car, as compared to the City average of 7%. As such, residents along the corridor are more likely to bike, walk, or take transit than the average City resident. Furthermore, the corridor is ranked among the top 20 most dangerous for pedestrian and bicyclists on the City's High-Injury Network and many residents have advocated for traffic calming improvements after recent high-profile crashes.

The project aims to both provide transportation resiliency to residents who rely on biking, walking, and transit to traverse the city and region, while also creating a robust corridor that can withstand both current and future severe climate impacts.

ACCESS
Addressing Climate Change, Emergencies, and Sandstorms

ACCESS Indian Canyon Drive

Indian Canyon Drive, a regional arterial in the City of Palm Springs, experiences frequent and significant flooding and blowsand events that result in lengthy closures. This roadway provides vital access to the most underserved neighborhoods of Palm Springs, Cathedral City, and Desert Hot Springs and ensures those residents can access employment centers and their homes.

The ACCESS Indian Canyon Drive project is designed to facilitate the flow of water and sand in areas of concentrated flow, decreasing the number of road closures. It will also improve mobility by increasing access to active transportation and rail service. The project promotes sustainability, which is critical as extended droughts and major flood events are becoming even more frequent with climate change. The project creates wildlife corridors that provide interconnectivity for threatened and endangered species. Solar energy generated from the shade structures will benefit the local community.

This multi-benefit project will ensure the most vulnerable groups have access to safe and resilient infrastructure to access essential goods and services critical to their well-being. In fact, 97% of respondents to a CVAG survey stated that they would support building bridges to reduce road closures. Of these, 66% said they use Indian Canyon Drive at least a few times per week.

Phase I is already underway and wholly funded with local funding. The project will reduce road closures and the risks of traveling through this arterial during flood and blowsand events. Disadvantaged communities will gain reliable access to jobs, essential goods and services, and reduce vehicle miles traveled and emissions, improving their quality of life.

The Problem at a Glance

Indian Canyon Drive was closed for **38 days** during the first six months of 2023.

A Facebook Group, *Indian Canyon Dr. & Surrounding Roads Status Group*, has **15.3K members**.

Extreme precipitation events are projected to occur up to **19 times per year** by the end of the century, up dramatically from the current average of 3 times per year.

ACCESS
Indian Canyon Drive

Project Cost

Total Project Cost:	$74.9M
LTCAP Request (Construction Phase):	$50M

Project Milestones

Environmental Documents	Jun 2024
Construction Ready	Aug 2025

ACCESS
Addressing Climate Change, Emergencies, and Sandstorms

Every Closure …

Disproportionately affects climate-vulnerable, disadvantaged communities, impeding their access to employment, education, medical care, and other services essential to their well-being.

Increases congestion and emissions

Constricts economic activity

Severs the direct lifeline between Interstate 10 and Desert Regional Medical Center, the region's only Level-1 Trauma Center.

Project Scope

Two all-weather bridge systems improve at-grade crossings.

Undercrossings to create a wildlife corridor and benefit the ecosystem for protected and endangered species such as the Coachella Valley fringe-toed lizard.

Two miles of sand fencing connecting to Amtrak's Palm Springs Station which frequently closes due to sand deposits on the roadway and railroad tracks.

Two-mile active transportation pathway with an overcrossing connecting to CV Link, a 40-mile regional multi-modal pathway.

Solar-shaded pathway generating 3 megawatts to advance California's climate goals.

San Francisco Bay Area Rapid Transit District

Expansion and Contraction of Steel Rail in Contra Costa County

BART's Expansion and Contraction of Steel Rail in Contra Costa County will:

- Destress 20 miles of steel rail tracks due to extreme heat in the region.
- Avoid BART disruptions, property damage, train derailments, and even injury or death

Project Scope and Cost

The San Francisco Bay Area Rapid Transit District (BART) Expansion and Contraction of Steel Rail in Contra Costa County (project) for extreme heat mitigation measures along the BART railway in Contra Costa County. As the climate changes, it will be critical to not only maintain reliable and consistent service, but to also increase passenger comfort and safety.

The proposed project is designed to mitigate risks by destressing the rail at a neutral temperature capable of withstanding the extreme high and low temperatures anticipated in the region due to climate change.

BART serves as a lifeline to the Bay Area region, communities, and economy. It is crucial that BART is resilient, as BART's service continuity has the potential to affect several million people

This 2023 Local Transportation Climate Adaption Program – application requests $6 million in funding, matched by $1.2 million in BART Measure RR funds, for a total Project cost of $7.2 million. This funding will allow BART to destress twenty miles of steel rail tracks impacted by extreme heat in Contra Costa County.

More than half of BART riders live in households earning less than $50,000 and 50% of riders do not have a vehicle. As the backbone of the regional transit system, BART helps to make the Bay Area more affordable for lower-income households. All riders will benefit from increased service, fewer system delays and less crowded trains.

Schedule

Start of Construction:	***January 2024***
Complete Construction:	***December 2027***

Project Scope: The City of Sausalito proposes to implement adaptive improvements to the Turney Street Dock, a vital resource for our community, particularly those who rely on it for subsistence fishing. The project scope includes the replacement of a portion of the submerged ramp system, installation of a new kayak ramp adjacent to the existing ramp, replacement of damaged bulkhead system at the end of Humboldt Street and the replacement of public dock system just south of the Turney Street Boat Ramp.

Cost: Project Costs are estimated to be $842,963 which includes soft cost, construction costs and 20% local match.

Schedule: If this project is selected for funding the city anticipates proceeding with the initial design in the late spring of 2024 followed by construction in late 2025. Permitting will be needed from multiple agencies in order to proceed with the project. Construction is anticipated to last 8 months.

Benefits: According to Kristina Hill (UC Berkeley), "The shallow groundwater layer is defined as the unconfined aquifer that sits above the confined deep groundwater table. The concept that the shallow groundwater table will rise in response to sea level rise was first published 2007 and explored further in a 2012 USGS study of New Haven, Connecticut. In the simplest estimate, in nearshore coastal areas (within about ½ mile of the Bay shoreline, depending on soil conditions and other factors), three feet of sea level rise can cause a three-foot rise in the shallow groundwater table. This can result in emergent groundwater surface flooding in low-lying areas.

Rising groundwater can:

- Infiltrate underground sanitary and storm sewer pipes, cause foundations to heave, and require extensive underground waterproofing;
- Increase the risk of soil liquefaction in a seismic event;
- Remobilize old soil contaminants, creating problems for public health and Bay ecosystem health;
- Emerge at the surface as ponded water, or discharge to creeks and cause additional creek flooding.

Because of its proximity to the Bridgeway, Sausalito's main arterial road, the Turney Street dock's flooding is congruent with the Bridgeway's flooding. At times of high flooding–which is no longer strictly contingent on rising precipitation, both the dock and the street are inaccessible, unless by small boat. As the City's only public dock, the community looks to Turney Street as an active access point. It is also located next to Emergency Services.

According to DOT's Equitable Transportation Community Explorer, Sausalito's Census Tract 06041130204, where the Turney Street Dock is located, has a disadvantaged (66%) score on

Annualized Disaster Losses. There is a connection between this and groundwater. According to the California Department of Water Resources, low groundwater levels can "cause the ground to gradually sink, a phenomenon known as land subsidence. Subsidence, which is particularly extensive in parts of the Central Valley, puts state and federal aqueducts, flood control structures and other critical infrastructure at risk of damage."

We have the opportunity now to increase the safety and access of the dock before it is lost.

This is especially vital because in the wake of the COVID-19 Pandemic, Richardson Bay has experienced an increase in the Anchor Out community. Currently, five of these boats are based in Sausalito waters, however 60 boats are located in Richardson Bay outside of Sausalito's jurisdiction and many of them rely on the Turney Street. The Turney Street dock is their emergency access point. While the Anchor Out community is not factored into the disadvantaged community score, our anecdotal community understanding is that this community is living off of subsistence fishing and lacks many key safety resources. Repairs to the dock would ensure that this community has access to emergency services, food, and possible employment opportunities.

Required Elements:
Project nominations will receive an initial screening by the Commission for completeness and eligibility before proceeding to the evaluation process. Incomplete or ineligible applications will not be evaluated. Before evaluation, project nominations will be screened for the following:

A. Identification of at least one projected climate threat that will pose a risk to transportation infrastructure using Cal-Adapt or Our Coast, Our Future web tools (Appendix C). Applicants must provide a screenshot or screen printout from CalAdapt or Our Coast, Our Future that clearly shows the data view screen with displayed climate threat information that supports the project nomination.

METROPOLITAN TRANSPORTATION COMMISSION

RESILIENT STATE ROUTE (SR) 37 CORRIDOR – SEARS POINT TO MARE ISLAND IMPROVEMENT PROJECT

Flooding on SR 37 near Tubbs Island in 2017

Project Location: The Project is in Sonoma, Napa, and Solano Counties on California State Route (SR) 37 from a mile west of SR 121 at Sears Point to the Napa River Bridge in Vallejo.

Project Scope: The Project includes means-based tolling, an HOV lane and bus service to reduce congestion and improve travel for residents of disadvantaged and Equity Priority Communities located in Solano County to jobs in Marin and Sonoma counties. The Project also includes time sensitive, priority ecological improvements and climate adaptation features as the first step toward improving corridor resilience against near-term flooding and roadway subsidence.

Project Features Include:

- **SR 37 Strip Marsh East (SME) near-term enhancements** to halt the degradation of the marsh plain by improving drainage and establishing regular tidal flushing.
- **Tolay Creek Bridge Replacement/Lengthening** to accommodate planned restoration of the Sonoma Creek Baylands.
- **Addressing flood-prone areas and roadway subsidence** by raising the roadway in low elevation segments and adding slope protection and reinforcement, such as sheet piles, rock slope protection, and engineered slopes.
- **Environmental restoration,** including the enhancement, establishment, or expansion of wetlands and/or other habitats to mitigate project impacts and minimize vulnerability to Sea Level Rise and flooding.
- **Relocating Communications and Power Equipment** that may be vulnerable to inundation.
- **Adding High Occupancy Vehicle (HOV) Lanes** and **Means-based Tolling** to increase throughput in fewer vehicles.
- **Implementing bus transit service** between Vallejo and Novato and continuing to San Rafael on US 101.
- **Implementing corridor-wide Intelligent Transportation System (ITS) elements** including variable message signs, fiber optic/broadband, CCTVs with video analytics, vehicular detection, transit signal priority, traffic operations system, and ramp metering.
- **Public Access** Improvements.
- New **signs and lighting**.

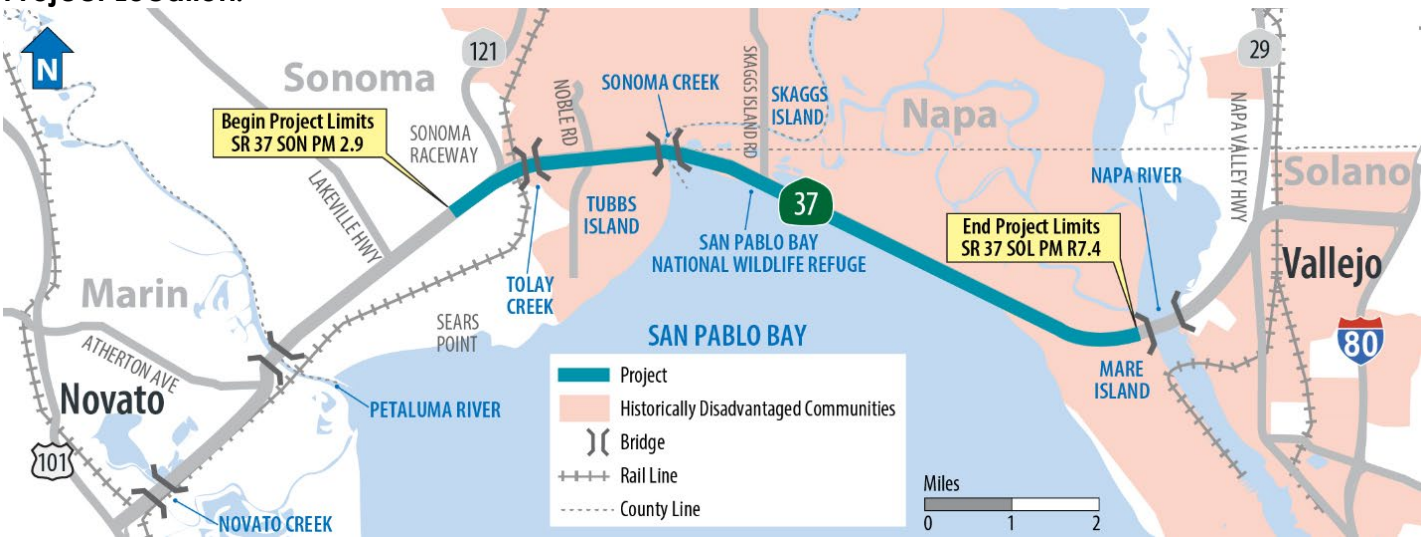
Project Cost Estimate:

Project Cost	LTCAP Request
$430 M	$50 M

Project Schedule:

PA&ED	PS&E	RTL	R/W	CON
Feb 2023	Feb 2025	April 2025	March 2025	2025-2027

Project Location:



Project Benefits:

The SR 37 Project will improve the resilience of SR 37 to better withstand rising seas and storm surges while improving environmental sustainability, mobility, and safety along the route. Reduced vehicle miles traveled will result in reduced greenhouse gas emissions from transit implementation and through tolling. The replacement of Tolay Creek Bridge and the restoration of the Strip Marsh East will improve the sustainability of the bay lands.

The Project addresses the high levels of daily corridor congestion, which restricts mobility, slows goods movement, impacts the quality of life, and hinders economic vitality for those that live and work in the area. The Project will address existing equity challenges by providing an equitable transportation solution for all travelers to jobs, services, and recreation. To accomplish this, transit and rideshare will be implemented and strengthened, travel reliability between housing and jobs will be improved, and means-based discounts for tolls and transit will be implemented. This Project will encourage affordable and accessible transportation choices, reduce auto dependence, reduce travel time (and associated costs), and improve travel reliability and opportunity for disadvantaged communities.

Key Project Benefits

- Environmental Preservation
- Equity
- Multimodal Transportation
- Public Access
- Congestion Relief

SR 49 Grass Valley Wildfire Evacuation Route Project - Factsheet

Project Description

The State Route 49 Grass Valley Wildfire Evacuation Route Project, in Nevada County, will construct structurally engineered full depth shoulders and a two-way left turn lane between approximately Ponderosa Pines Way and Wolf/Combie Road (PM 2.1 to 9.8). The purpose of this project is to address existing evacuation barriers identified at bottleneck locations on the State Route (SR) 49 corridor improving mobility and safety for climate vulnerable and disadvantaged communities and resiliency of the evacuation route.

The proposed improvements will facilitate a three-lane southbound contraflow during evacuation events mitigating climate and wildfire risks to residents of the communities Cities of Grass Valley, Nevada City, and unincorporated communities adjacent to the SR 49 corridor while enhancing emergency ingress. 58% of residents adjacent to and served by the project corridor are considered disadvantage and 37% are considered severley disadvantaged, including 7% zero vehicle households.

The extent and intensity of wildfires increase as temperatures rise, and warming is one of the primary projected impacts of climate change. Nevada County is predominantly in the CalFire Very High Fire Hazard Severity Zone (VHFHSZ), including the most densely populated locations of Grass Valley, Nevada City, and Truckee. Currently, modeled data included in Cal-Adapt predicts that the change in wildfire probability will increase most in the mid-elevation foothills between 2,000 and 5,000 feet.

The resulting improvements will reduce evacuation time from 6 hours and 20 minutes to 2 hours and 12 minutes.

Project Schedule

-Environmental Review: July 2024
-Final Design (RTL): May 2026
-Construction Fund Allocation: June 2026
-Award Construction Contract: October 2026

Funding

-Total Project Cost: $ 101.5 M
-**2023 LTCAP Requested Funds: $35 M**

Project Benefits

3.27 Project cost-benefit ratio

$292 M Total project related benefits over 40 years

7.7 Miles of safe egress out of the Grass Valley Area during wildfire events

4 Hour 18 minute reduction in emergency evacuation travel time out of Grass Valley

15.2 Miles of class III bike facilities constructed to encourage active transportation options

7,385 Linear feet of corrugated steel pipe culverts to be replaced with reinforced concrete pipe culverts

$642k Travel Time Benefits

$2.5 M Additional safety benefits of two-way left-turn lane and rumble strips

1,320 Number of jobs created through the construction of the project

Mendocino County Department of Transportation

BROOKTRAILS SECOND ACCESS PROJECT

Project Scope and Benefits

This project provides for the development of an approximately 2 mile, two-lane arterial local road with paved shoulders and a new local bridge structure over Upp Creek, connecting Sherwood Road at the intersection of Primrose Drive to North Main Street in Willits, California. Total Costs, including costs of each phase of the project including, Project Approval and Environmental Documentation (PA&ED), Plans, Specifications, and Estimates (PS&E), Right of Way Acquisition, and Construction of a new, is estimated to be $50 million.

Map of Project

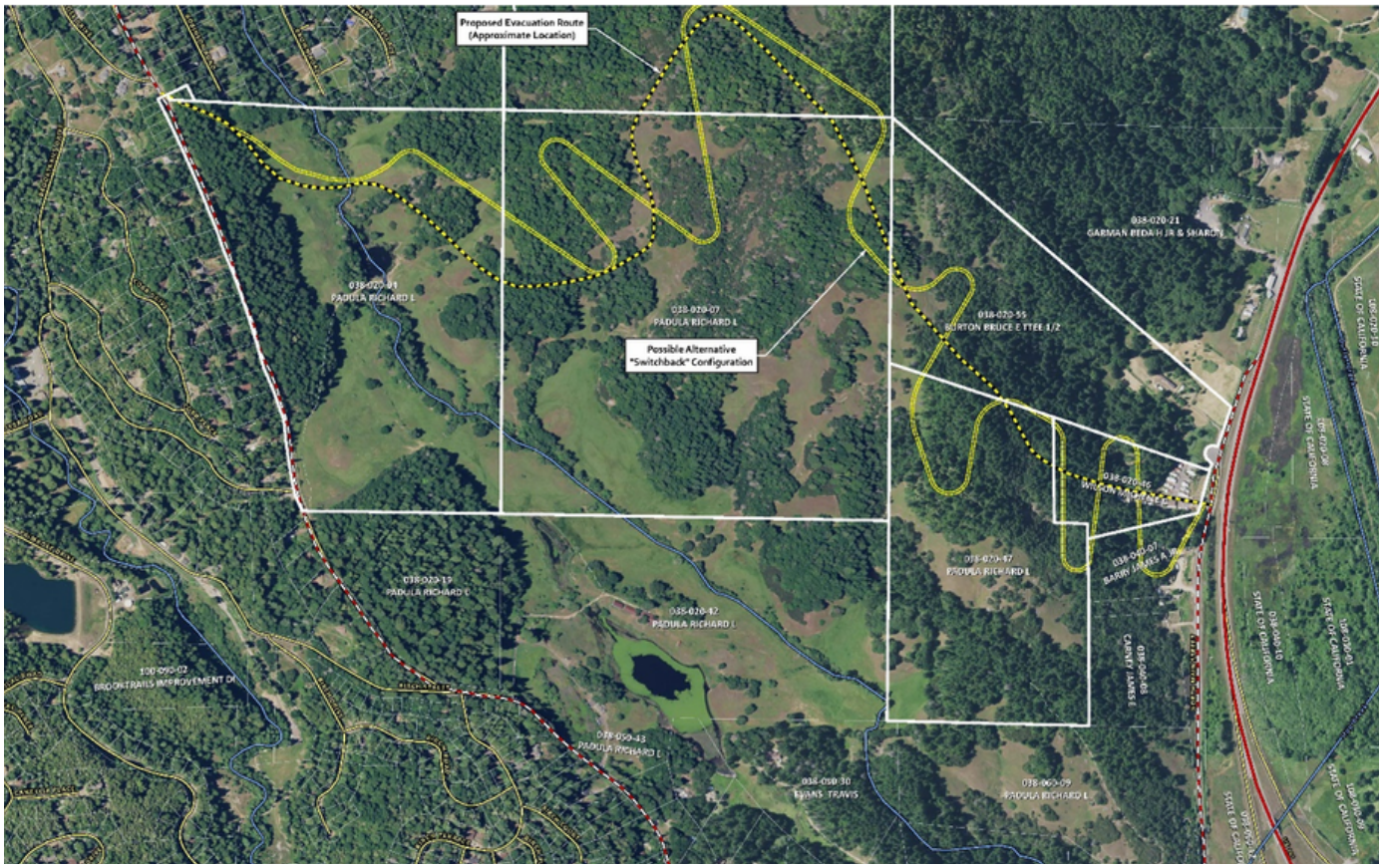


Image Description

A rendering of a map of the proposed project, showing alternative access route into the township of Brooktrails.

Proposed Schedule

Phase	Anticipated Completion Date
Project Approval and Environmental Documentation	Dec 2026
Plans, Specifications, and Estimates	June 2029
Right of Way	June 2029
Construction	Dec 2031

Project Background and Need

The Brooktrails Second Access Project aims at providing the communities of the Brooktrails Township, the Sherwood Valley Rancheria of Pomo Indians of California, and surrounding areas with a second access into and out of the Brooktrails Township and surrounding communities. This project would improve public safety by decreasing emergency service times and provide these communities with an alternative evacuation route in the event of wildfire.

The threat to the transportation system in the Brooktrails area is immediate, as the response time for emergency services in these areas is severely restricted by the limited access. If failure of infrastructure or any blockage of the transportation system occurred during a wildfire event, the consequences may be catastrophic, both to the environment of the area and the people and communities that live within. Because Sherwood Road is currently the only access point to these communities, any failure of the transportation system along Sherwood Road may severely hinder regional mobility as well as economic opportunities and goods movement in the area.

The Brooktrails Second Access project would be a vital step towards increasing the climate resiliency of the Brooktrails area. Creating a second access would address the imitate need of additional and alternative evacuation routes in the case of wildfire and other disasters. It would allow for the continued protection of vital community assets and infrastructure, and for the protection of the communities that rely on them. By increasing the resiliency of transportation assets, creating alternative access routes, and enhancing the safety and preparedness of climate-vulnerable communities in the face of evolving climate challenges, it would allow for the communities of the Brooktrails area to progress with climate adaptation and equity measures. Additionally, this project would advance the transportation and housing goals in the area, as development and furthering of these communities has been severely hampered by lack of access and overburdened transportation system.

Mendocino County Department of Transportation

REDEMEYER ROAD EXTENSION PROJECT

Project Overview

The Redemeyer Road Extension is a crucial transportation project aimed at enhancing access and safety for communities within the Ukiah Valley including Pepperwood Place, Deerwood, El Dorado, Vichy Springs, and the Guidiville Rancheria. Currently, Redemeyer Road serves as the only access route, but its north terminus is separated from these communities by the Russian River, with the nearest crossing located approximately three miles south at Vichy Springs Road resulting in limited emergency response capabilities during natural disasters or emergencies. This project will bridge this gap by providing a much-needed all-weather crossing over the Russian River, significantly improving emergency response times and public safety service. Moreover, it aligns with regional transportation plans, addressing long-standing needs and priorities.

Project Scope

- ·The project includes the construction of a two-lane arterial local road with paved shoulders and a local bridge structure across the Russian River.
- ·It will require right-of-way acquisition from various property owners to implement the new alignment.
- ·The estimated project cost is $50M, including the completion of environmental documents, plans, specifications, and estimate (PS&E), right-of-way acquisition, and construction.

Proposed Schedule

Phase	Anticipated Completion Date
Project Approval and Environmental Documentation	Dec 2026
Plans, Specifications, and Estimates	June 2029
Right of Way	June 2029
Construction	Dec 2031

Benefits to Climate-Vulnerable Communities:

The Redemeyer Road Extension project offers numerous benefits to climate-vulnerable, under-resourced, and underserved communities. By improving emergency response and access during natural disasters, it enhances public safety and community well-being. The project's implementation prioritizes the needs of vulnerable communities, ensuring they are better equipped to cope with climate challenges. Additionally, the increased transportation connectivity will stimulate economic opportunities and support community resilience.

Climate Resiliency and Transportation Equity:

The Redemeyer Road Extension enhances climate resiliency for transportation infrastructure and communities by providing a reliable second evacuation route during disasters. This crucial all-weather crossing improves access for emergency responders, ensuring timely assistance to residents and reducing vulnerability during climate-related events. The project prioritizes transportation equity by closing the gap in access for underserved communities, including the Guidiville Rancheria, thus supporting social and economic inclusion.

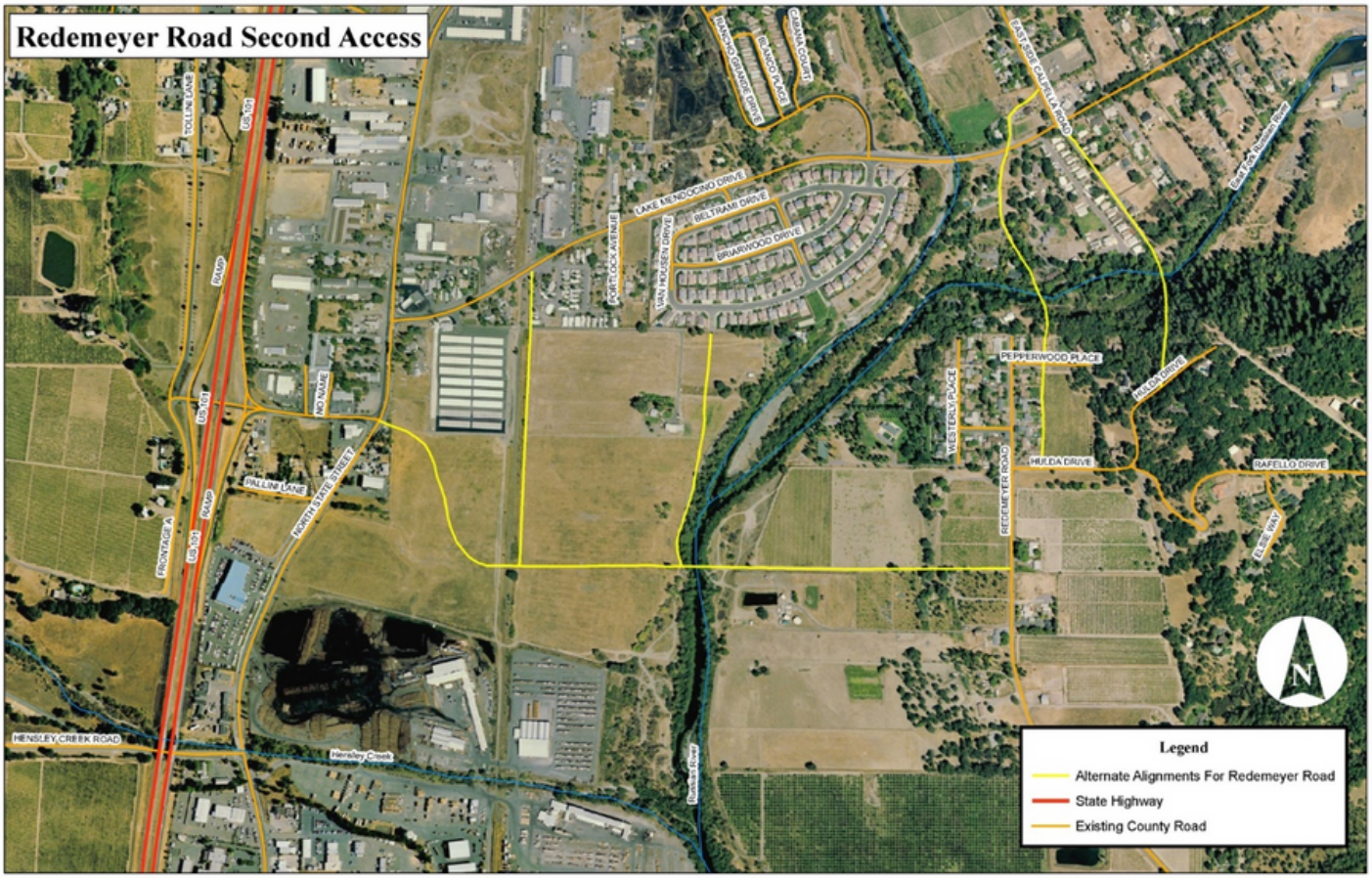


Image Description

A rendering of a map of the proposed project, showing alternative access routes connecting to Redemeyer Road

FLOODGATE MODERNIZATION AND RESILIENCE PROJECT

FACT SHEET

City of SACRAMENTO
Department of Public Works

SCOPE

Provide necessary repairs and modernization to ten critical floodgates located where road, rail, and active transportation facilities intersect the City's secondary levee berm to directly protect critical transportation infrastructure and climate-vulnerable communities and provide necessary transportation equity during a flood emergency in the City of Sacramento.

COSTS

Total Project	$9,664,000
LTCAP Funding Needs	$7,731,200
Cost Share*	$1,932,800

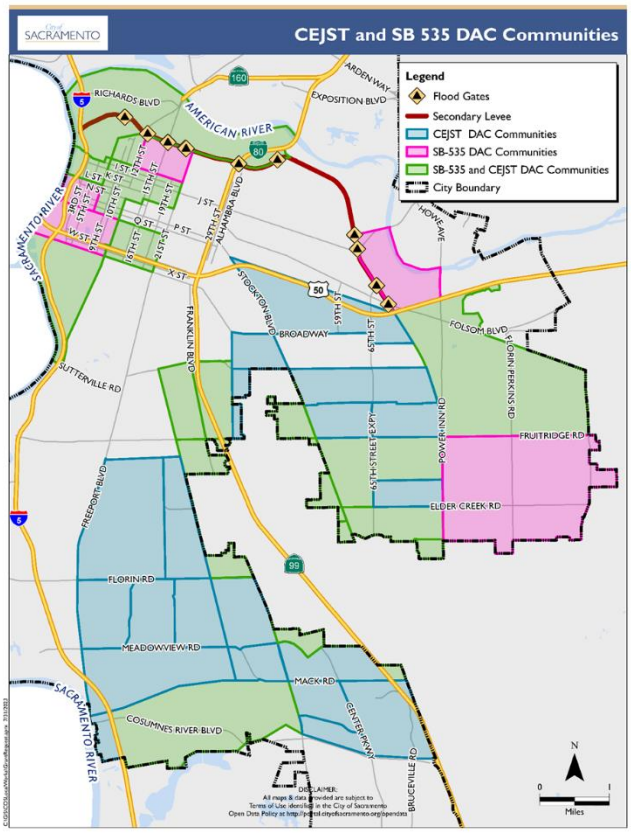
**City's Local Streets and Road Funding from the RMRA.*

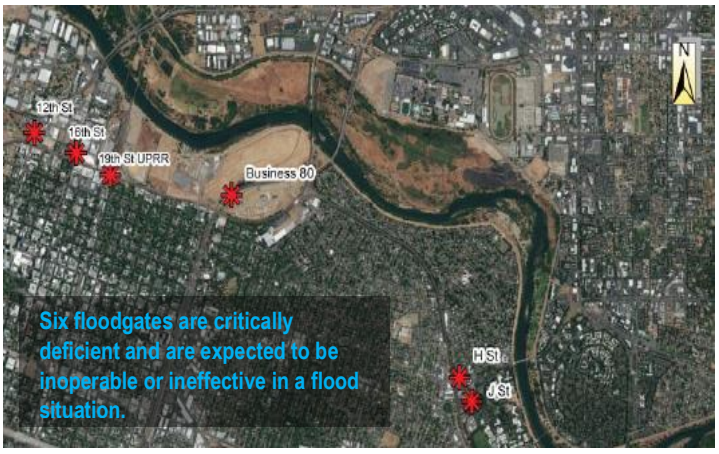
SCHEDULE

Design	FY 2025
Construction	FY 2025 and FY2026

BENEFITS

Protects downtown Sacramento's public transportation system in the event of a flood emergency. This provides evacuation and transportation equity to DACs and climate-vulnerable communities in Sacramento.





- Directly protects 300,000+ people and 240 critical facilities
- Protects critical downtown Sacramento public transit facilities used by climate-vulnerable and DACs for transportation and evacuation in an emergency
- Project protection provides transportation equity
- Provides resiliency to the City from river flooding
- Protects the State Capitol and economic health
- Modernizes and repairs critically deficient flood risk reduction infrastructure that is at the end of its useful life
- Modernization protects the safety of City workers

FLOODGATE MODERNIZATION AND RESILIENCE PROJECT

FACT SHEET

City of SACRAMENTO
Department of Public Works

PROJECT NOMINATION

The purpose of this project is to modernize and upgrade ten floodgates and associated road, rail, and active transportation crossings within the secondary levee (including the six critically deficient floodgates) to provide a higher level of flood protection, ensure resilience to the increased risk of flooding posed by climate change, and protect the residents of the Sacramento, including many federally and state recognized disadvantaged communities. Impacts from a failed secondary levee system would have substantial impacts on critical infrastructure (including public transit), climate-vulnerable and DAC communities, and transportation equity in Sacramento. Within the potential flood inundation zone that could result from failure to update these facilities, lies not only a significant portion of the City's population, but also major government and critical facilities. In the event of a levee failure and without protection from the secondary levee through closing of floodgates, potential flood inundation would affect downtown Sacramento, including the State Capitol building, most state and federal government offices, potential emergency shelters including the Convention Center and Golden One Center, Sacramento City Hall, Sacramento County administrative center, and Sacramento Regional Transit offices. Further south lies many communities that are identified as disadvantaged in numerous state and federal categories. Residents of these areas are more vulnerable in the event of flooding events due to high percentages of the population being at risk groups including adults 65+, individuals with disabilities, low-income households, cost-burdened households, linguistically isolated households, communities of color, and households without cars. Flooding would not only affect these areas, but also limit opportunities for evacuation and emergency shelters. The proposed project provides flood protection to these climate vulnerable communities while avoiding negative community impacts, including reduction of greenhouse gases, vehicle miles traveled, anti-displacement, and substantial cost-effectiveness.

CLIMATE THREATS

Climate change projections indicate that coastal inundation from sea-level rise, extreme precipitation events, and an increase in maximum amount of precipitation, will negatively affect Sacramento over the course of the century. The impacts of these climate threats will result in greater likelihood of flooding, as Sacramento levee system faces greater loads and varying water levels. The City's secondary levee floodgates and associated road, rail, and active transportation crossings need to be modernized to provide a higher level of flood protection, ensure resilience to the effects of climate change, and protect the residents of the Sacramento, including many federally and state recognized disadvantaged communities.