

Support Material Agenda Item No. 8

City/County Manager's Technical Advisory Committee

March 6, 2025

10:00 AM

LOCATION:

San Bernardino County Transportation Authority
First Floor Lobby Board Room
1170 W. 3rd Street, San Bernardino, CA 92410

TELECONFERENCE LOCATION:

Needles City Administration & Utility Office
817 3rd Street, Needles, CA 92363

DISCUSSION ITEMS

Council of Governments

8. Update on the Resilience Planning Efforts

Receive an update on the Resilience Planning Efforts. This past six months, Southern California has again been impacted by a series of natural disasters, including the Line and Bridge fires in San Bernardino County, the Mountain fire in Ventura County and most recently the Palisades and Eaton fires in Los Angeles County. In Southern California wildfire tends to be the most visible manifestation of natural hazards. Resilience planning is a process that communities can undertake to identify potential hazards and threats, and then establish adaptation, mitigation, and recovery plans. The goal is to reduce likely impacts and ensure that key infrastructure systems continue operating or quickly begin the recovery process. SBCTA/SBCOG has been engaged in resilience planning efforts for much of the past decade and currently has three projects that are underway or about to begin. Staff will provide an update on SBCTA/SBCOG's current resilience planning efforts.

The draft Board of Directors Metro Valley Study Session agenda item on Resilience Planning Efforts is being provided as a separate attachment.

Minute Action

AGENDA ITEM:

Date: March 13, 2025

Subject:

Update on Resilience Planning Efforts

Recommendation:

Receive report on the adaptation, climate change and resilience planning efforts currently in progress at San Bernardino County Transportation Authority / San Bernardino Council of Governments.

Background:

Natural disasters are nothing new in the State of California. Historically, planners, engineers, and first responders have focused on earthquakes for good reason. The Loma Prieta (1989) and Northridge (1994) earthquakes resulted in widespread damage resulting in casualties, property damage, and collapsed infrastructure, including portions of the transportation system. In San Bernardino County, the San Andreas Fault poses a significant risk to our communities and runs directly through one of the most significant interregional corridors of Southern California. Should the epicenter of catastrophic earthquake happen in this location, the consequences would be widespread and significant.

More recently, natural and human assisted disasters have again taken center stage in the form of hurricanes and wildfire. In 2024, three hurricanes made landfall in Florida, two as major hurricanes. Hurricane Helene was the more destructive of the two, impacting parts of Florida, Georgia, Tennessee, and North Carolina. It is estimated that Hurricane Helene caused \$78.7 billion in damage. In January 2025, the Palisades and Eaton fires tore through parts of Los Angeles County resulting in a combined 37,728 acres burned, 16,255 lost structures, and 29 dead. Initial estimates provided by JP Morgan put the damage in the approximately \$50 billion range, but more recent estimates published by the Los Angeles Times projects damages ballooning to \$250 billion plus. That would make the Palisades and Eaton wildfires the costliest natural disaster in U.S. history, surpassing Hurricane Katrina.

The financial implications of these events have prompted some, including the Federal Reserve Chair Jerome Powell, to testify in front of congress that banks are pulling out of coastal areas as well as wildfire prone regions. His testimony further suggested that within the next 10 or 15 years, there are going to be regions of the country where homeowners will not be able to obtain a mortgage. In California, those that cannot obtain homeowner's insurance are increasingly reliant on the California FAIR Plan, the insurer of last resort, which some argue is over exposed.

To counteract the infrastructure and human impacts of wildfire and other hazards, the State has enacted a number of recent laws that create additional requirements for local jurisdictions. Among a number of new state laws, the most salient for current purposes include:

- The mandate for General Plans to include a Safety Element (Senate Bill (SB) 379).
- That a local jurisdiction Safety Element identify hazard areas that do not have at least two emergency evacuation routes (SB 99).

Entity: San Bernardino Council of Governments, San Bernardino County Transportation Authority

- That a General Plan Safety Element update be triggered by an update to a Housing Element at a minimum of every eight years (SB 99).
- That all jurisdictions identify evacuation routes with information on their capacity, safety, and viability under a variety of emergency scenarios (Assembly Bill (AB) 747).

These new regulatory requirements by the State highlight the increased awareness that resilience and natural disaster planning has garnered in Sacramento. However, at a regional level, San Bernardino County Transportation Authority (SBCTA) / San Bernardino Council of Governments (SBCOG) have long been active in the resilience and adaptation planning space. SBCTA/SBCOG's focus is emergency preparedness and planning for system, as well as infrastructure adaptation and resiliency in our built environment. It is this reason, as an example, that staff is preparing the State Route 247/62 (SR 247/62) Emergency Bypass Study as highlighted below. But resilience planning and emergency preparedness efforts require close collaboration and consultation with our partners in the response and disaster management and recovery fields. As such SBCTA/SBCOG's efforts include direct communication with these stakeholders for feedback and review.

This item is being presented to give information about recent past projects and updates on currently active projects that highlight how SBCTA continues to be at the forefront of these efforts.

Resilient IE

In 2017 Western Riverside Council of Governments (WRCOG) received funding from the California Department of Transportation (Caltrans) Climate Adaptation Planning Grant Program to support a multi-county planning effort in collaboration with SBCTA. Resilient IE examined ways to prepare for and mitigate the risks associated with climate change. The types of hazards analyzed as part of Resilient IE included heat, wildfire, flooding, drought, air quality, severe wind, and mudslides/landslides. Deliverables for Resilient IE included vulnerability assessments, adaptation strategies, hazard, and evacuation maps for San Bernardino County and Western Riverside County, as well as a tool kit. The documents related to Resilient IE, including the Resilient IE Toolkit can be found here: <https://wrcog.us/285/Resilient-IE>.

SR 247/62 Emergency Bypass Study

In 2022, SBCTA received a \$1,000,000 earmark from the Priority Legislative Budget Projects Program (PLBP) to conduct the SR 247/62 Emergency Bypass Study. This is a two-part project with an overall emphasis on improving the usefulness of SR 247 and SR 62 as a more viable alternative to Interstate 15 (I-15) through the Cajon Pass in the event of an emergency such as an earthquake, wildfire, major incident, or other disaster.

The contract for the project was awarded at the May 2024 Board of Directors meeting to WSP USA Inc. (WSP). As previously mentioned, the project is anticipated to be conducted in two parts. Parts 1 and 2 are outlined below:

- Part 1- The consultant will prepare an area-wide Emergency Bypass Strategy that can build on the existing efforts of California Highway Patrol (CHP), Caltrans, and other emergency service agencies as the basis for managing traffic for periods when the I-15 through the Cajon Pass is closed. This will look at the history of traffic flows, both in the

Valley and High Desert during closures and major incidents to determine how to improve network resiliency regionally.

- Part 2- The consultant will prepare a feasibility study for potential geometric and operational improvements on portions of SR 247 from Barstow to Yucca Valley, on SR 62 from Yucca Valley to Interstate 10 (I-10) in Palm Springs, and in the Cajon Pass. The information generated in Part 1 of the study will feed into the project development process that will allow for strategic improvement to areas on SR 247, SR 62, and other routes that will better prepare agencies in dealing with local and regional traffic that has been redistributed throughout Riverside and San Bernardino Counties during an emergency scenario.

Currently the consultant, SR 247/62 Project Technical Advisory Committee (TAC), and staff are working through Part 1 of the project. WSP held the project kickoff meeting on October 28, 2024. The meeting was attended by representatives from Caltrans, CHP, the County of San Bernardino Department of Public Works, and San Bernardino County Fire. The critical path for Part 1 of the project is the identification of incidents and events from the past 10 years in the Cajon Pass, which could be considered representative of types of incidents likely to happen again in the future. The consultant will then use these events to capture the shift in historical regional traffic patterns and use them to simulate the impacts of events in the Cajon Pass on SR 247 and SR 62. The analysis to be performed by WSP will also include a simulation of a catastrophic event, such as a major earthquake that causes sufficient damage to close I-15 in the Cajon Pass for a prolonged period of time.

The current schedule for completion of Part 1 of this project is in the summer of 2025. The draft I-15 Emergency Bypass Strategy will be presented to SBCTA committees in mid-2025. Any comments or guidance provided at that time would then be included in the Final I-15 Emergency Bypass Strategy. Part 2 of the project is estimated to be completed by June 2026.

Emergency Evacuation Network Resilience (EENR)

The EENR builds on the recently completed Resilient IE study that was mentioned above. Similarly, EENR is another bi-county effort being conducted in collaboration with WRCOG. The EENR will take the previously created hazard and evacuation maps from Resilient IE, and provide analysis of local-level evacuation systems and produce estimates of time needed to evacuate selected cities or subareas.

EENR is being funded by a \$1.5 million Sustainable Transportation Planning Grant, with WRCOG and SBCTA contributing a combined \$194,341 in matching funds (in-kind or cash) for a total of \$1,694,341.

SBCTA is the lead agency on this project and Jacobs Engineering Group, Inc. was awarded the contract at the November 2024 Board of Directors meeting. The project kicked off in December 2024, and since that time the consultant has been working on data collection and integrating the Riverside and San Bernardino County Transportation Models.

The key deliverables for this project include:

- Information provided to local jurisdictions that will help support their SB 99 & AB 747 compliance assessment requirements.

San Bernardino County Transportation Authority

- Network assessment for each of SBCTA and WRCOG's agencies to look at the distance each neighborhood would have to travel during an evacuation.
- Emergency response time assessment.
- Identification and prioritization of key improvements that address redundancy/resiliency constraints in Western Riverside and San Bernardino Counties.
- Roadmap for additional infrastructure resilience improvement recommendations that include the electrical network, transportation network (including transit vehicle charging systems), transit shelters, and vehicle redundancy.

The largest undertaking of the EENR effort will be to generate the information and analysis that can be used by local jurisdiction to comply with State emergency and evacuation assessments. Due to the large number of compliance assessments to be created by this study, the consultant is working to develop a prototype to share with the TAC for the project. Once the prototype is finalized, the consultant will begin producing the content on a rolling basis throughout the period of April 2025 to July 2025. Concurrent to this effort, the consultant will be identifying parts of the bi-county project area that could benefit from added redundancy and resiliency to the transportation network.

Evacuation and Resilience Center Design Study (ERCD)

SBCTA is preparing to undertake a companion effort to the EENR project. The ERCD effort is focused only on communities within San Bernardino County and will provide additional planning support focusing on:

- Identification of up to five communities within San Bernardino County in high-hazard areas lacking multiple ingress/egress routes for emergencies.
- Evacuation planning and scenario analysis for these five communities, with special emphasis on areas that have only single-access roads between two and seven miles in length, as well as are identified by the statewide SB 99 CalFire Hazard Severity Zones as very high or high hazard.
- Conducting a feasibility study of alternative evacuation strategies, including Class 1 bike lanes constructed with sufficient width and support to accommodate vehicles for emergency evacuations.
- Planning and designing conceptual drawings of new resilience centers equipped with microgrids in vulnerable evacuation corridors.

The ERCD project is funded by a \$725,000 allocation of Caltrans Sustainable Transportation Planning Grant funds and a \$101,250 local match, for a total of \$826,250. The project is currently in the contracting phase with Caltrans providing the Restricted Grant Agreement between SBCTA and Caltrans on February 24, 2025.

Following execution of the Restricted Grant Funding Agreement, SBCTA will be permitted to release the Request for Proposals for development of the Study. Once proposals are received, SBCTA will engage a panel to review and evaluate the proposals to select the most qualified consulting firm for the planning effort. Based on current timelines, staff anticipates presenting the recommended firm for approval at the July 2025 Board of Directors meeting.

Energy Resilience Sustainability Infrastructure Projects

Resilience planning is a proactive approach that aims to prepare and adapt communities to withstand and recover from various shocks, including but not limited to natural disasters and evacuation planning. Some environmental stressors such as extreme heat can overload the power grid and corresponding electrical systems.

Energy resilience is an important element of SBCTA's proactive approach to regional planning. The idea of microgrids is a component of the ERCDC project mentioned above, namely in the context of microgrids at resilience centers. During the Palisades and Eaton fires, some 278,000 Southern California Edison customers were affected by power outages due to weather, fire-related damage, or because of pre-emptive safety shutoffs. Communities within San Bernardino County experienced multiple day service disruptions.

SBCTA issued a contract task order to Placeworks on December 11, 2024 to assist in the identification of public energy and sustainability infrastructure projects and to support future grant funding opportunities. The project began in February 2025, and the core elements will focus on the following:

- Identification of member agency led energy infrastructure projects.
- Prioritization of projects based on member agency goals, timing, and community needs.
- Compilation of grant funding opportunities for energy and energy resilience projects.
- Support for staff applying for grants to implement projects.

As part of this effort, SBCTA is looking to create a countywide consolidated list of projects that include:

- Renewable energy generation (solar, wind, geothermal, other).
- Municipal energy efficiency upgrades.
- Municipal facility and infrastructure electrification.
- Public and municipal zero emission vehicle fueling/charging infrastructure.
- Resilience centers/cooling centers.
- Municipal infrastructure/facility resiliency retrofits or hardening, and microgrids.

Similar to other program areas, staff anticipates using this information to help prioritize projects close to implementation and begin prioritizing the projects for near term grant applications. Planning for energy resilience will help the region minimize service delivery interruptions during extreme weather events, while also building into the system redundancies for vulnerable populations. This effort is projected to extend into the fall of 2025.

Financial Impact:

This item has no financial impact on the adopted Budget for Fiscal Year 2024/2025.

Reviewed By:

This item was reviewed by the Planning and Development Technical Forum on February 26, 2025, the City/County Managers' Technical Advisory Committee on March 6, 2025, and is scheduled for review by the Mountain/Desert Policy Committee on March 21, 2025.

Responsible Staff:

Ryan Graham, Planning Manager

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Approved
Board of Directors Metro Valley Study Session
Date: March 13, 2025

Witnessed By: