



STAFF REPORT

MEETING DATE:	April 27, 2021
SUBJECT:	Receive Presentation on the ResilientShasta Extreme Climate Event Vulnerability Assessment and Provide Comment
AGENDA ITEM:	16
STAFF CONTACT:	Michael Kuker, Associate Transportation Planner

SUMMARY:

The ResilientShasta Extreme Climate Event Mobility and Adaptation Plan is being developed in consultation with regional partners and the public to identify how to mitigate impacts of extreme weather events and create a more resilient transportation system. A vulnerability assessment identifying current and projected conditions and vulnerabilities has been completed and is available for review.

STAFF RECOMMENDATION:

It is recommended that the board of directors:

1. Receive a presentation on the vulnerability assessment component of ResilientShasta; and
2. Provide comments to staff for incorporation into the final plan.

DISCUSSION:

Background – Following the extreme weather events of recent years, SRTA applied for and received a 2019 Caltrans Adaptation Planning Grant to fund ResilientShasta. The plan's primary goals are to increase safety and develop strategies to mitigate the impacts of extreme weather events on the regional transportation system.

The ResilientShasta scope of work includes:

- Soliciting input from a task force of local and regional agency partners regarding transportation system vulnerabilities, data gaps, challenges, and mitigation strategies;
- Assessing the region's transportation infrastructure for vulnerabilities and developing potential near-, mid-, and long-term mitigation and mobility strategies, as well as identifying possible funding opportunities; and
- Performing targeted outreach to ensure the plan meets the needs of vulnerable populations, such as the elderly, individuals with disabilities, low income communities, and those who rely primarily on others for transportation.

Vulnerability Assessment – A draft vulnerability assessment has been completed, which identifies current transportation system vulnerabilities based on historical events and evaluates future vulnerabilities based on projected conditions due to increased greenhouse gas (GHG) emissions. For the projected conditions, two possible scenarios were evaluated based on standard models used by the International Panel on Climate Change: 1) RCP 4.5, a reduced emissions scenario where GHG emissions peak around 2040 and then decline, and 2) RCP 8.5, an unconstrained emissions scenario where GHG emissions continue to rise throughout the 21st century.

The vulnerability assessment suggests that the Shasta Region will experience more frequent and more severe extreme weather events in the coming years and decades. Five weather hazards have been identified and evaluated: temperature and heat waves, wildfire, precipitation, flooding, and landslides. These hazards may also have a number of indirect impacts. For example, we experienced increased traffic volumes and congestion on Highway 299 in eastern Shasta County during the closure of Interstate 5 due to the 2018 Delta Fire.

Due to the Shasta Region's complex and varied geography, geology, land use development patterns, and transportation network, not all hazards will impact all areas of the region in the same manner. For example, the communities of Big Bend, Montgomery Creek, and Shingletown are expected to see a dramatic increase in the probability of wildfires and potentially burned acres, while the communities of Redding and Anderson will see little increase from current probabilities.

The vulnerability assessment is the foundation of the next major stage of the ResilientShasta effort: developing the adaptation plan. The first step will be public outreach, particularly to the vulnerable communities and populations identified in the assessment, to share the vulnerability assessment's findings. In consultation with the public as well as local and regional partners, strategies to address the vulnerabilities will be identified, evaluated, and prioritized and presented to the board for consideration at a future meeting.

ALTERNATIVES:

The board of directors may request staff to provide additional information at a future meeting.

OTHER AGENCY INVOLVEMENT:

SRTA's Technical Advisory Committee (TAC) was consulted to help identify potential areas of study as part of the grant application process. A task force of agencies and local jurisdictions has been established to help provide input on the development of the plan. Two surveys have been distributed to the task force to help inform the vulnerability assessment. The TAC concurs with the staff recommendation.

FISCAL IMPACT:

The vulnerability assessment component of the ResilientShasta Extreme Climate Event Mobility and Adaptation Plan has no direct fiscal impact to the agency. Development of the plan is paid primarily through a Caltrans Adaptation Planning Grant. The adaptation plan component (available in June) will identify existing and potential new funding sources that could help implement approved strategies.



Daniel S. Little, AICP, Executive Director

Attachment: The ResilientShasta Extreme Climate Event Mobility Vulnerability Assessment is online at <https://www.sрта.ca.gov/DocumentCenter/View/5465>.