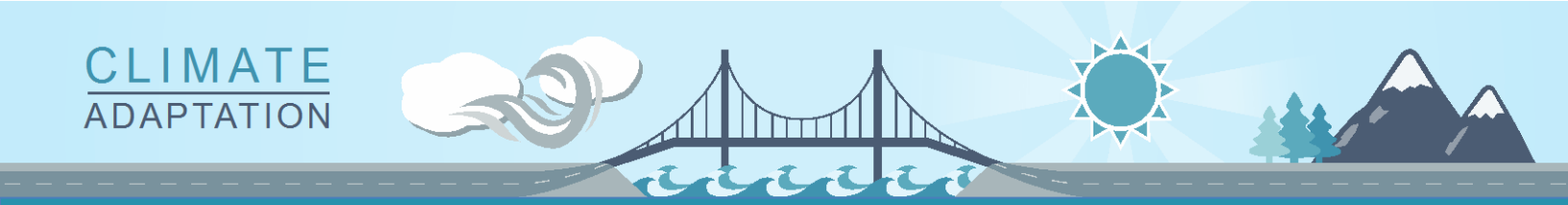
CLIMATE ADAPTATION



Addressing Climate Change Adaptation in Regional Transportation Plans: A Guide for California MPOs and RTPAs

This Caltrans guide is intended to be a resource to support metropolitan planning organizations (MPOs) and regional transportation planning agencies (RTPAs) in incorporating climate change impacts into their decision-making and planning processes. The guide provides MPOs and RTPAs with: (1) background on climate adaptation, (2) recommended data and information to assist in incorporating climate considerations into regional planning, and (3) a step-by-step process for integrating climate risks into plans. The guide also accommodates MPOs with varying capacities, including "Basic User" MPOs that are conducting climate impact or vulnerability assessments for the first time and have limited resources, as well as "Advanced User" MPOs that have experience conducting climate impact assessments, greater resources, and strong interagency partnerships.

Part I presents background information for both Basic and Advanced Users. This section provides a "101" synopsis of climate science and modeling, discusses the importance of incorporating climate change into regional transportation planning, and describes the sources of current data and climate information available in statewide guidance documents (e.g., the Cal-Adapt web portal and the California Adaptation Planning Guide). Part I also includes information on the types of transportation infrastructure (e.g., highways, roads, bridges, rail) that may be affected by climate change impacts under a range of scenarios. For each impact (e.g. coastal erosion, flooding), the guide discusses planning, design and operations/maintenance strategies for adapting to the impact.

Part II presents an approach for Basic Users to incorporate climate adaptation into regional transportation planning and is designed to accommodate users with limited time and resources. It divides California's MPOs and RTPAs into regional groupings and identifies the key climate threats to each region. It presents data from the California Adaptation Planning Guide, and suggests how MPOs or RTPAs can use that data to understand potential climate impacts specific to their regions. This section also suggests three steps that MPOs could use to conduct a basic evaluation of their risks and potential responses: (1) assess potential climate effects in the MPO's region; (2) consider the impacts of climate change on the MPO's five key transportation assets; and (3) develop a short list of adaptation strategies. The section additionally provides examples of California MPOs and RTPAs that have considered climate impacts in their plans, as well as examples of adaptation projects that have already taken place. Finally, this section includes recommended language that MPOs and RTPAs can incorporate into their plans.

Part III presents an approach for Advanced Users to fully integrate climate adaptation planning into their regional transportation plans. This section suggests a detailed methodology for incorporating climate impacts, giving step-by-step process incorporated into five planning modules:

- Setting the mission, goals, and objectives.

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- Assembling an asset inventory and screening for criticality; selecting and applying climate information.
- Evaluating the vulnerability of and risks to key assets.
- Prioritizing key assets and developing adaptation strategies.
- Assessing the plan through monitoring and re-evaluation every four to five years.

Publication Date:
February 2013

For More Information:
http://www.dot.ca.gov/hq/tpp/offices/orip/climate_change/documents/FR3_CA_Climate_Change_Adaptation_Guide_2013-02-26_.pdf

Resources:
Addressing Climate Change Adaptation in Regional Transportation Plans: A Guide for California MPOs and RTPAs:
http://www.dot.ca.gov/hq/tpp/offices/orip/climate_change/documents/FR3_CA_Climate_Change_Adaptation_Guide_2013-02-26_.pdf

Cal-Adapt web portal: http://cal-adapt.org/

Prepared by the Georgetown Climate Center under cooperative agreement with the Federal Highway Administration.