

Climate Change Pilot Strategy for Critically Vulnerable Assets in Northwest California Project Summary

Scientists and long range planners have determined that climate change will profoundly affect water resources, land management, agriculture, vegetation and habitat in the coming decades. In California, temperatures are expected to increase by several degrees and rainfall is expected to become flashier, exhibiting less frequency but greater intensity. This will result in increased flooding and longer periods of drought – triggering changes in vegetation, fire frequency, hillside instability, and habitat composition. Sea levels will also rise, increasing the likelihood of coastal flooding and erosion of bluffs and beaches. The threat to the built environment varies, and the need to maintain public services will be more acute as hazards manifest. Public agencies must be prepared to respond to these new threats to public infrastructure, especially roadways.

Caltrans and the Humboldt County Association of Governments, with the participation of the Del Norte Local Transportation Commission, Lake County/City Area Planning Council, and Mendocino Council of Governments have convened a study to assess likely impacts of climate change hazards to state transportation infrastructure in our region. The study will:

- Inventory Caltrans assets, including highways, bridges, office buildings, rest stops, etc.;
- Identify critical assets, such as roads that are a community's only means of access, have high daily traffic counts, or other criteria;
- Utilize the best climate change science to model risks to Caltrans infrastructure;
- Identify and confirm four prototype sites for in-depth climate change planning study
- Develop adaptation strategies for differing levels of severity to prototype locations. Adaptation strategies will include structural engineering solutions such as road alterations; ecosystem-based adaptations such as wetland buffers; and non-structural solutions such as traffic management techniques.
- Emphasize potential adaptation strategies at four locations where preliminary results show notable climate change vulnerability: Last Chance Grade (south of Crescent City); along US 101 along Humboldt Bay north of Eureka; at the mouth of the Garcia River (south of Point Arena); and along portions of State Route 20 (northwest of Clear Lake).

The project team is working closely with a Technical Advisory Group composed of agency experts with specific knowledge of climate change planning, transportation planning and infrastructure management. This group is providing oversight, technical expertise and guidance to the project team.

A stakeholder group composed of agency staff with an interest in vulnerability assessments and transportation or environmental management meets periodically with the project team to review and coordinate activities. The project team is also coordinating with the Adaptation Planning Working Group on Humboldt Bay.

Public meetings and a website, northcoastclimatechange.com, bring the findings and recommendations of the project team, Technical Advisory Group, and Stakeholder Group to the residents of Northwest California, and provide opportunities for community input.