



U.S. Department of Transportation
Federal Transit Administration



Los Angeles County Metropolitan Transportation Authority (LACMTA) Pilot Project

LACMTA Climate Change Adaptation Pilot Project Report

Agency Overview

The Los Angeles County Metropolitan Transportation Authority (Metro) serves as transportation planner and coordinator, designer, builder, and operator for one of the country's largest, most populous counties. Metro serves more than 9.6 million people and has a service area of over 1,433 square miles. Metro's Climate Change Adaptation Pilot Project draws upon the agency's previous climate change efforts and existing environmental and sustainability-related programs. Metro previously completed an agency-wide vulnerability and criticality assessment, the results of which are outlined in a Climate Action and Adaptation Plan (CAAP), and conducted several surveys targeted at operations and maintenance staff to assist in identifying key vulnerabilities from weather and the associated impacts at the division level.

Goals and Objectives

In light of the extensive work already conducted, the project went beyond the issue of identifying risks and proposed viable implementation strategies to incorporate and measure climate adaptation into established programs and initiatives within the agency. Another objective was to develop valuable messaging strategies for communicating to various audiences (internal staff, external agencies, private investors, elected officials, county residents, and riders) regarding how Metro is preparing for climate change and severe-weather impacts and how each of these stakeholders may help Metro to prepare for and mitigate these impacts.

Key Pilot Project Findings

The results of this project are useful for both outside agencies and Metro staff in deciding how to proceed with asset evaluation and prioritization considering adaptation principles and severe weather risks.

The project capitalized on the agency's existing CAAP, Environmental Management System (EMS), and asset management systems—the Environmental Information Management System (EIMS) and the Maintenance and Materials Management (M3)—to integrate climate adaptation principles into ongoing conversations and implement best management practices in the areas of maintenance, preparation, scheduling, environmental compliance, and employee health and safety.

Metro identified the agency's EMS program as a viable route for implementing climate adaptation principles at the agency's maintenance facilities and sought to include the asset management databases and metrics developed to support the EMS integration. The project also funded investigation into the adaptability of Metro's own asset management systems and the various possibilities for integrating climate assessment into the current technological framework.

Additionally, the project engaged in evaluating how climate adaptation principles align with overall agency goals and projects by developing a comprehensive set of metrics that would enable Metro to gauge past progress while also identifying new targets and guide the direction of growth of climate adaptation work. More than 100 metrics were developed in the categories of Planning, Operations, Ridership, and Adaptation, and seven were considered for adoption. These ranked highly in the metrics selection process and will provide valuable information and direction in tracking Metro's performance in the implementation of its climate adaptation strategies, developing action plans for continual improvement, and serve as a guide for further work .

Research and reporting that resulted from previous and current activities were synthesized, and various messages and key points appropriate for targeted audiences were developed. The project culminated in the hosting of a climate adaptation roundtable and a webinar aimed at both sharing the results of Metro's pilot work and initiating a dialogue with other area transportation agencies and interested parties who may be concerned with the same climate stressors as Metro. Metro also produced a 100-second video to highlight some of the agency's key environmental initiatives.

Next Steps

Examining Metro's experiences and lessons learned in climate adaptation integration into its operations serve as an example for others seeking a calculated segue from identifying vulnerabilities and associated risks to implementing viable adaptation strategies. Metro found that integrating climate adaptation into the agency's EMS was an effective implementation strategy for maintenance divisions and will continue to monitor and report on this effort as it moves forward.

About FTA's Climate Change Adaptation Pilot Program

FTA provided just over \$1 million in research funding for seven pilot projects (nine agencies) to conduct climate change adaptation assessments from 2011–2013. The main objective of the pilot projects is to advance the state of practice for adapting transit systems to the impacts of climate change. The selected projects assessed the vulnerability of transit agency assets and services to climate change hazards and developed initial adaptation strategies. The findings from the pilot projects can be applied to various size transit agencies nationwide in order to make systems more resilient and adaptable to future climatic hazards.

Project Information

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This research project was conducted by LACMTA. For more information, contact Kimberly Gayle, Director, FTA Office of Policy Review and Development, at (202) 366-1429, kimberly.gayle@dot.gov. All research reports can be found at www.fta.dot.gov/research. All research reports can be found at www.fta.dot.gov/research.