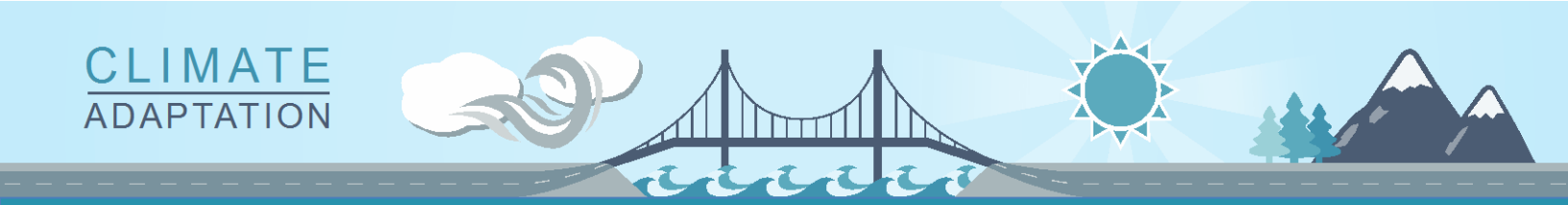


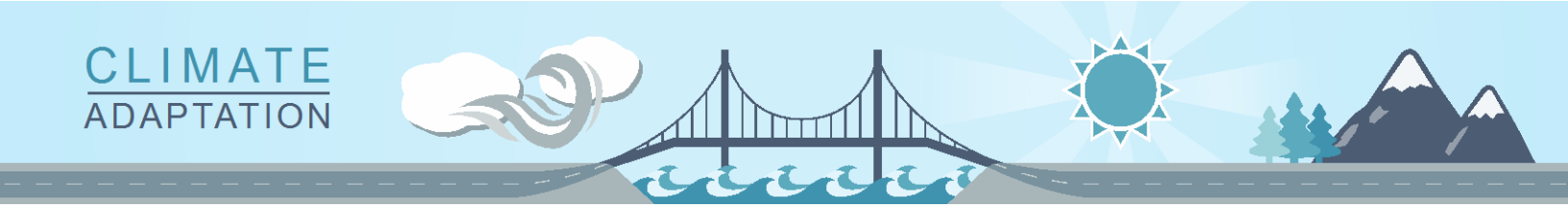
City of Lewes, Delaware Hazard Mitigation and Climate Adaptation Action Plan

In 2011, the City of Lewes, Delaware undertook a pilot project to develop a unified Hazard Mitigation and Climate Adaptation Action Plan, which considers the City's vulnerability to climate change, particularly sea-level rise, and includes an evaluation of the vulnerability of roads and critical evacuation routes.

The plan identifies and details the natural hazards currently affecting Lewes, followed by an overview of projected regional climate change impacts. The next section of the plan addresses Lewes' current and future vulnerability to natural hazards based upon self-assessments, including an inventory of critical facilities and roads at risk from flooding. The vulnerability self-assessments identified two key vulnerabilities: threats to Lewes' water system and threats to transportation infrastructure from increased flooding. Lewes has multiple roads within the 100-year floodplain that serve as primary evacuation routes; flooding of these roads could severely limit evacuation and access to critical facilities. The City's vulnerability self-assessment identified several at-risk "critical roadways" (i.e., evacuation routes or to access the local medical center), as well as several vulnerable bridges that are within or adjacent to the 100-year floodplain.

Six recommended actions were identified to address the vulnerabilities to the city as a whole, including a transportation related action to determine the elevation of roads and vulnerability of evacuation routes. The plan includes guidance for city staff and Boards to implement each of the actions. The recommended strategy for conducting an evacuation route assessment would first utilize existing data on known evacuation routes to determine which routes are of greatest priority for elevation assessments. The plan next recommends that the Mitigation Planning Team work with the Delaware Department of Transportation (DelDOT) to determine whether any of Lewes' routes are appropriate locations for DelDOT road wetness sensors to be installed. The plan also recommends working with the Delaware Department of Natural Resources and Environmental Control (DNREC) to use LiDAR data to determine roadway elevations and overlay flood elevations upon the 10-year and 100-year flood event and three sea-level rise scenarios (0.5 meters, 1.0 meters, and 1.5 meters). The plan recommends that these data layers be used by DNREC to determine the conditions under which evacuation routes would be impeded by floodwaters. Such information would allow the Lewes Mitigation Planning Team to develop alternate evacuation plans where necessary.

The Delaware Hazard Mitigation and Climate Adaptation Action Plan was completed in conjunction with Delaware Sea Grant and ICLEI - Local Governments for Sustainability and was funded by the National Oceanic and Atmospheric Administration (NOAA) Office of Sea Grant, U. S. Department of Commerce, and the University of Delaware Sustainable Coastal Communities Program. Local officials and residents of Lewes were engaged through a series of workshops to determine the City's greatest existing and future vulnerabilities and to chart a course of action to reduce these vulnerabilities. The project then developed this Hazard Mitigation and Climate Adaptation Plan,



aimed toward improving community sustainability and resilience.

Publication Date:
June 2011

For More Information:
http://www.deseagrant.org/city-lewes-hazard-mitigation-and-climate-adaptation-pilot-project

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