

DELAWARE'S

Climate Action Plan

A Plan to Maximize Resilience to Sea Level Rise

Major Causes of Sea Level Rise



Melting Ice

Warmer temperatures are causing ice sheets on land to melt and drain into the ocean.



Subsidence

The land in Delaware has been sinking since the end of the last ice age about 11,000 years ago.



Thermal Expansion

As water warms it expands taking up more space, meaning the ocean has a greater overall volume.

Sea Level Rise in Delaware



Sea levels at the Lewes tide gauge have risen more than **one foot since 1900** and are expected to rise an **additional 9-23 inches by 2050**.

(Delaware Sea Level Rise Technical Committee, 2017)



The **mid-Atlantic coastal region** lies within a sea level rise "hotspot" where **sea levels are rising faster and higher than elsewhere** due to a combination of rising seas, sinking land and ocean currents. *(Delaware Sea Level Rise Technical Committee, 2017)*



In 2019 Lewes experienced nine separate days of flooding and it is projected that by 2050 the town could experience anywhere **between 50 and 135 high tide flooding events per year**. *(National Oceanographic and Atmospheric Administration, 2020)*





What's at Risk?



Agriculture

- Groundwater for irrigation
- Land suitable for agriculture



Human Health

- Emotional health
- Physical health



Infrastructure

- Roads, bridges, and rail lines
- Water control structures



Natural Resources

- Beaches and dunes
- Coastal wetlands



Water Resources

- Freshwater riverine habitats
- Drinking water intakes

Building Resilience

The state of Delaware is exploring actions that they can take to help the state adapt to climate change. The items below represent the seven main areas where actions can be taken to help the state build resilience to sea level rise.



Regulation and/or Policy changes that address protection and conservation of vulnerable and impacted resources.



Facility and Infrastructure Design and Management that accounts for future climate conditions and sea level rise.



Administrative Processes related to operational guidelines and documents on how Agencies do business.



Management Plans for natural resources, emergency response, state facilities, and Agency equipment .



Research and Monitoring that studies the impacts of climate change and methods of adapting.



Support for Communities and Stakeholders in the form of trainings, resources, and technical assistance.



Outreach to stakeholders and the public on climate change impacts and adaptation.

