



Climate Resilience Planning in NJ

Nick Angarone

Chief Resilience Officer

Office of Climate Resilience | Bureau of Climate Resilience Planning | Blue Acres





EXECUTIVE ORDER 89

Establishes resilience positions, offices, and councils

- Chief Resilience Officer
- Interagency Council on Climate Resilience

Requires those entities to lead the development of foundational reports

- Scientific Report on Climate Change
- Climate Change Resilience Strategy

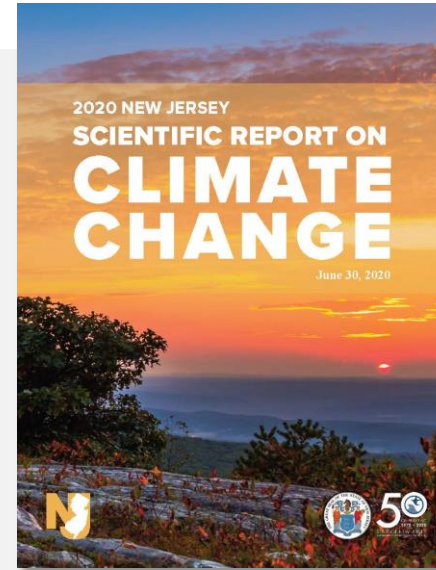
SCIENTIFIC REPORT

on Climate Change

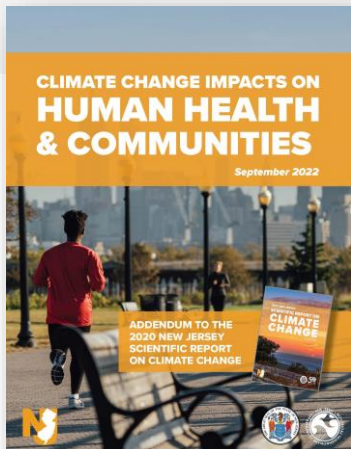
nj.gov/dep/climatechange/data.html

Overview

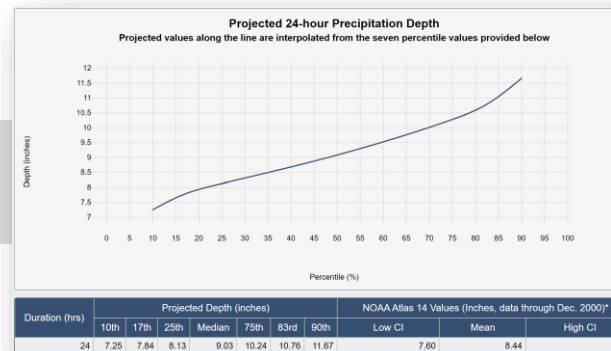
- Comprehensive effort to synthesize the latest and most reliable scientific information on the current and predicted future impacts of climate change.
- The report is one component of the State's comprehensive strategy to both reduce emissions of climate pollutants that fuel global warming, and proactively plan and prepare for the climate impacts that New Jersey cannot avoid.



Released June 30, 2020



Climate Change Impacts on Human Health & Communities Addendum released in September 2022.

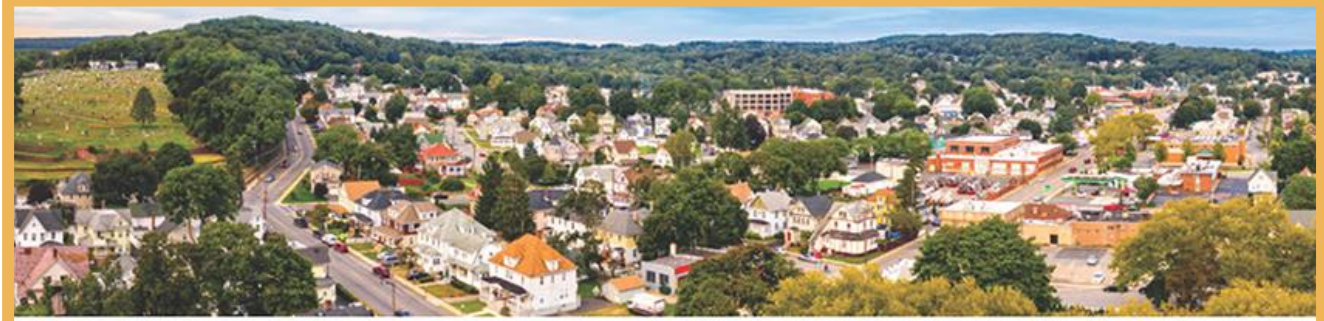


Updated Atlas 14 data, Extreme Event Precipitation Projections & Projection Tool

CLIMATE RESILIENCE

defined

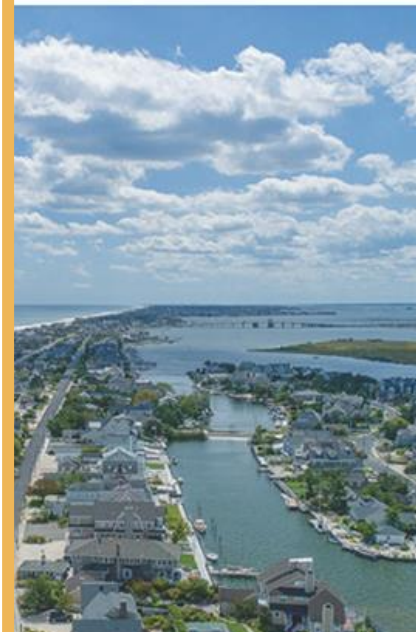
The ability of social and ecological systems to absorb and adapt to shocks and stresses resulting from a changing climate, while becoming better positioned to respond in the future.



STATE OF
NEW JERSEY

CLIMATE CHANGE

RESILIENCE STRATEGY





**PRIORITY 1. BUILD RESILIENT AND
HEALTHY COMMUNITIES**



**PRIORITY 2. STRENGTHEN THE RESILIENCE OF
NEW JERSEY'S ECOSYSTEMS**



**PRIORITY 3. PROMOTE COORDINATED
GOVERNANCE**



**PRIORITY 4. INVEST IN INFORMATION AND
INCREASE PUBLIC UNDERSTANDING**



**PRIORITY 5. PROMOTE CLIMATE-INFORMED
INVESTMENTS AND INNOVATIVE FINANCING**



PRIORITY 6: COASTAL RESILIENCE PLAN





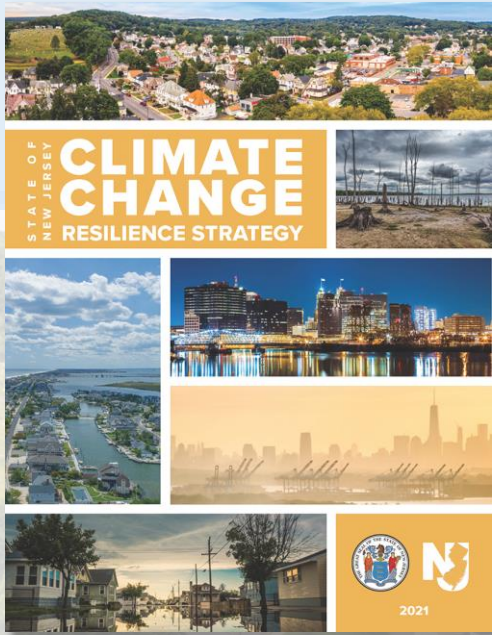
EXTREME HEAT RAP

Public Webinars

February 9, 2023, 4 p.m.

March 2, 2023, 6 p.m.

<https://nj.gov/dep/climatechange/resilience-action-plans.html>



**PRIORITY 1.
BUILD RESILIENT
AND HEALTHY
COMMUNITIES**

1

**PRIORITY 2.
STRENGTHEN THE
RESILIENCE OF
NEW JERSEY'S
ECOSYSTEMS**

2

**PRIORITY 3.
PROMOTE
COORDINATED
GOVERNANCE**

3

**PRIORITY 4.
INVEST IN
INFORMATION &
INCREASE PUBLIC
UNDERSTANDING**

4

**PRIORITY 5.
PROMOTE CLIMATE-
INFORMED
INVESTMENTS &
INNOVATIVE
FINANCING**

5

**PRIORITY 6.
COASTAL
RESILIENCE
PLAN**

6

- Integrate resilience into local and regional planning
- Increase technical assistance programs to address community resilience

- Protect valued natural lands and resources
- Incorporate natural and nature-based solutions for resilience

- Engage local governments and other partners to develop resilience solutions
- Incorporate equity and inclusion in resilience decision-making

- Incentivize and support community resilience planning
- Support movement to safer areas

Launched in 2020 by DEP

Goal: Produce community-led climate resilience & adaptation action plans

Current program offerings include:

- 3 NGO grants
- 4 regional planning projects
- 5 municipal planning projects
- \$6M to be awarded to additional regions/communities
- Online toolkit for municipalities



Providing Science and Data



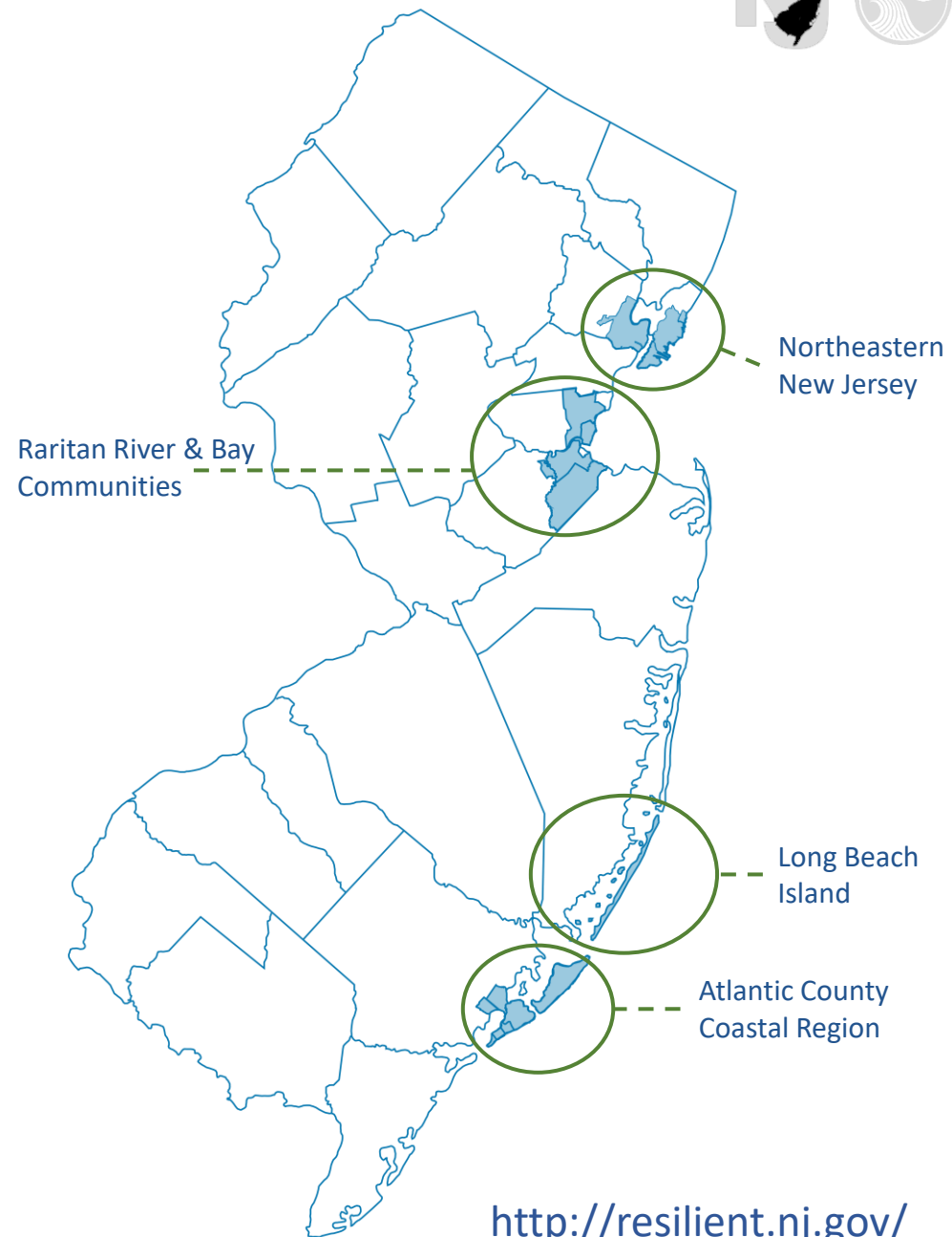
Supporting Engagement



Assessing Vulnerability



Identifying Solutions



RESILIENT NJ



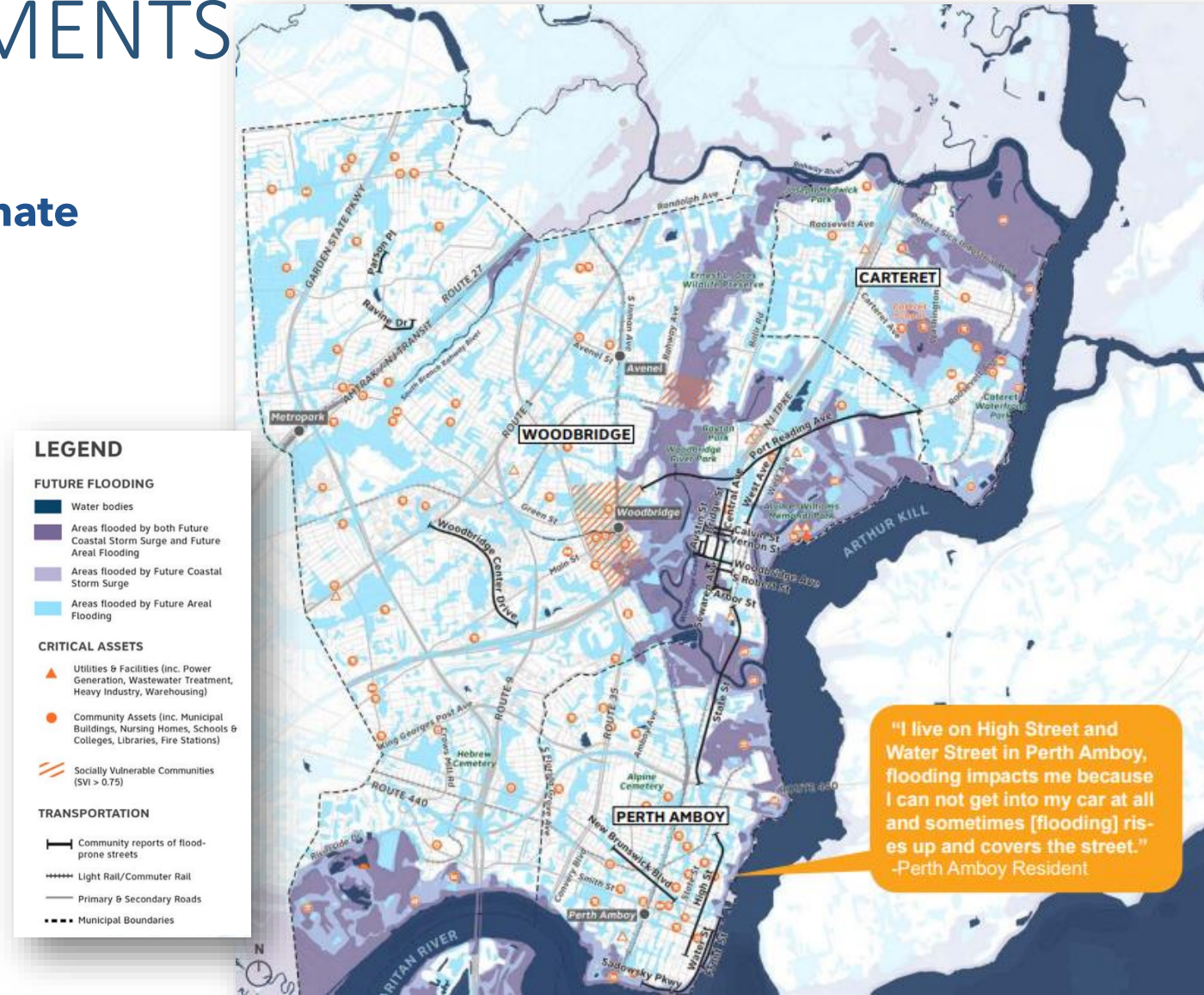
REGIONAL RISK ASSESSMENTS

Each region assessed the impacts to critical facilities and assets **based on expected climate conditions in 2070.**

A Sandy-like storm surge event in 2070 could cause **\$45.1 billion in property damages** across the four RNJ regions.

- By comparison, Hurricane Sandy caused \$30 billion in damages statewide.

Future Flooding Example: Carteret, Perth Amboy, Woodbridge



RESILIENT NJ

REGIONAL ACTION PLANS

Action Plans recommend policy, projects, and programs that:

- **Reduce the risk of flooding**
- **Achieve a regional resilience for the future**

Action types:

- **Physical**
 - Stormwater management projects
 - Capital improvement projects
 - Brownfield remediation
- **Policy**
 - Permitting requirements
 - Resilience standards for redevelopment
 - Zoning & land use changes
- **Social**
 - Risk communications campaign
 - Resilience “hub” for accessible information & resources



OVERLAP WITH USACE STUDIES

NY/NJ Harbor & Tributaries Study

Objective: manage the risk of coastal storm damage in the study area.

→ **RNJ regions impacted: RRBC & NENJ**

NJ Back Bays Coastal Storm Risk Management Study

Objective: reduce damages from coastal flooding affecting population, critical infrastructure, critical facilities, property, and ecosystems.

→ **RNJ regions impacted: ACCR**

The Arthur Kill Storm Surge Barrier would span from Perth Amboy to Staten Island.



LOOKING AHEAD

Regional Program

- Extension of the Sandy regional projects to implement planning actions identified in their Action Plans through 2025
- Ida CDBG-DR funding for additional regional planning

Municipal Assistance Program

- Current program providing assistance to five coastal municipalities using \$400,000 through CZM
- Applications closed for the second round of the program: \$1 million through State CBT funds
- Third round coming soon





BLUE ACRES

Goal: Dramatically reduce the risk of damage from future catastrophic floods and to help people move out of harm's way.

Strategies:

- Ensure buyouts are part of comprehensive planning solutions to promote greater community resilience in the face of natural disasters.
- Ensure equitable opportunities to those that are most vulnerable to climate change.



Strategy 6.9.1. Expand New Jersey's Blue Acres program, supporting buyouts of repeatedly flooding properties, especially for vulnerable populations.



Manville, NJ



NJ PROTECTING AGAINST CLIMATE THREATS (NJ PACT)

RESILIENT ENVIRONMENTS AND LANDSCAPES (REAL)

**NJDEP REGULATORY REFORMS TO PROTECT COASTAL ASSETS
AND COMMUNITIES FROM CLIMATE IMPACTS**

PURSUANT TO EXECUTIVE ORDER 100 (MURPHY, JAN. 27, 2020)

<https://dep.nj.gov/njpact/>

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