Continuing Education Units | CEU's

To verify your attendance at this session **Scan in** at the BEGINNING and **Scan out** at the END

For your PRINTED CERTIFICATE OF ATTENDANCE, follow the directions found in the "CEU Procedures" section of the printed Conference Program Book

Other questions, please consult the *League Staff at the Information Booth on Level 2*

Climate Ready Communities

November 17, 2022

New Jersey League of Municipalities Conference

Panel Speakers

Mayor Jason Cilento

Meghan Leavey

Tanya Rohrbach

Anne Heasly

Planning for Climate Change Dunellen Borough

Mayor Jason Cilento

The Borough of Dunellen and Climate

Borough of Dunellen, Middlesex County* Population 7,637

FEMA Recovery Costs

$215K	$388K	$261K
Debris removal and transport	Culvert cleaning	Railroad Ave / Knights of Columbus

Resilience Costs

$3.9M

Railroad culvert replacement

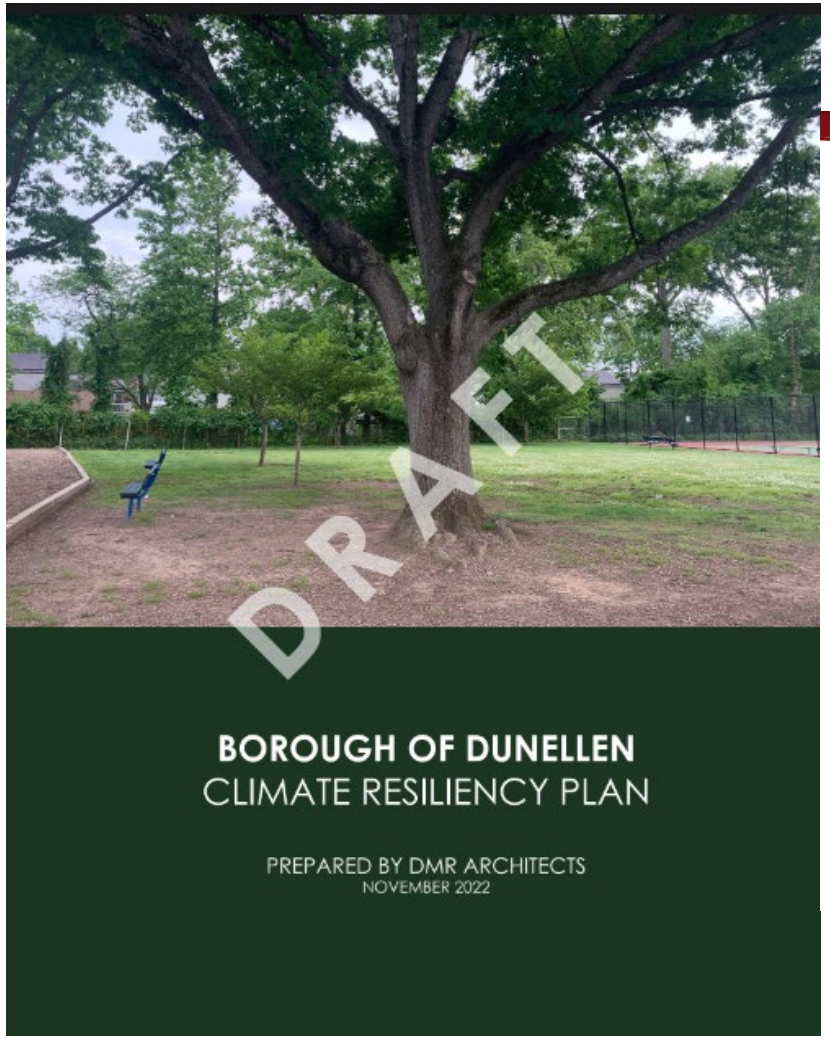
Slide *Courtesy* of:

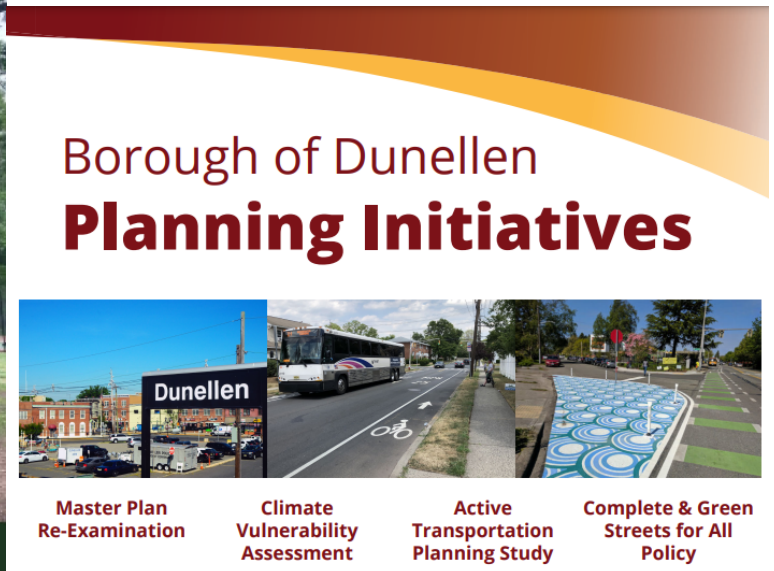
LEADERS FOR CLIMATE ACCOUNTABILITY

* Source: William Robins, Administrator/Borough Clerk

Dunellen Planning Initiates: Inclusive of Climate Resiliency

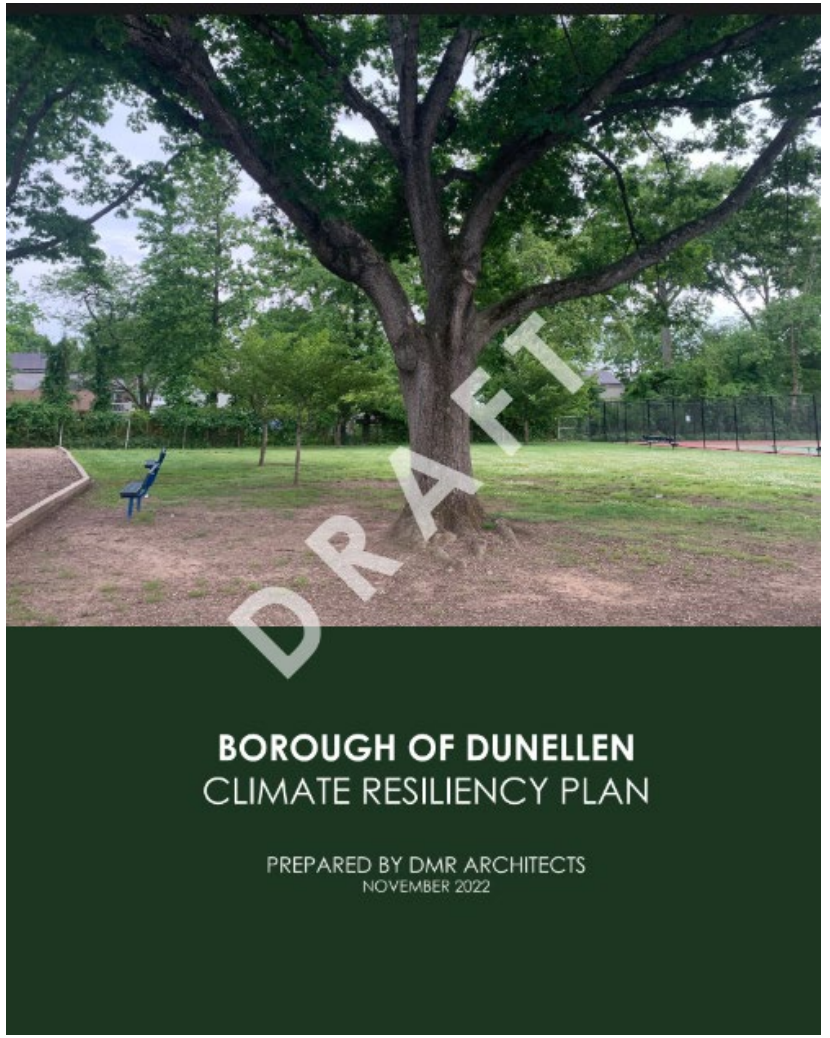
- Master Plan Re-Examination
- Climate Vulnerability Assessment/Resiliency Plan
- Active Transportation Planning Study
- Complete & Green Streets for All Policy





Climate Resiliency Requirements

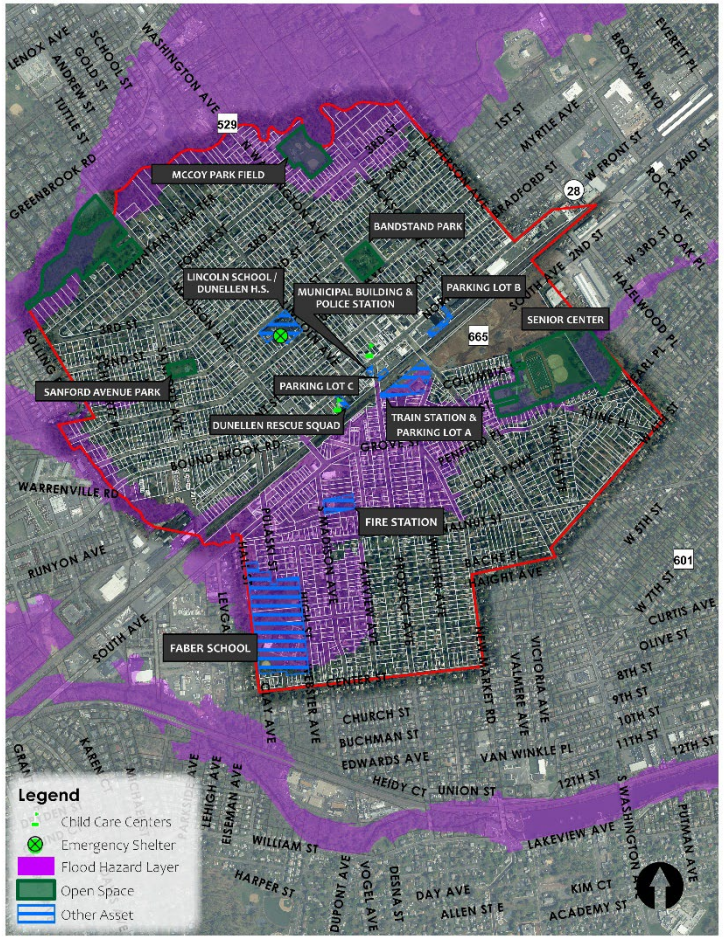
1. Analyzes current and future threats to, and vulnerabilities of, the municipality associated with climate-change related natural hazards.
2. Includes a build-out analysis of future residential, commercial, industrial and other developments in the municipality, and an assessment of the threats and vulnerabilities identified above related to that development;
3. Identifies critical facilities, utilities, roadway, and other infrastructure that is necessary for evacuation purposes and sustaining quality of life during a natural disaster, to be maintained at all time in an operational state;
4. Analyze the potential impact of natural hazards on relevant components and elements of the master plan;
5. Provides strategies and design standards that may be implemented to reduce or avoid risks associated with natural hazards;
6. Includes a specific policy statement on the consistency, coordination, and integration of the climate-change related hazard vulnerability assessment with certain other plans adopted by the municipality; and
7. Relies on the most recent natural hazard projections and best available science provided by the NJ DEP



What to Expect in the Process!

Vulnerability Assessment

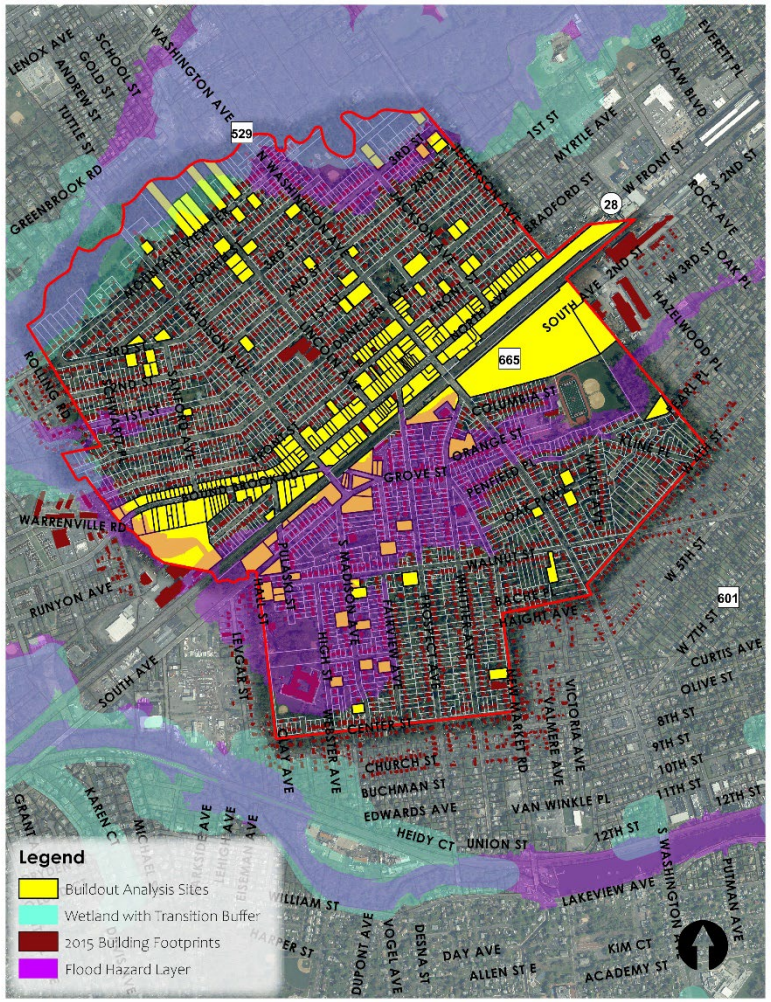
		CLIMATE IMPACT							
ASSET NAME	ASSET CATEGORY	INCREASED TEMP	SEA LEVEL RISE	PRECIPITATION	OCEAN ACIDIFICATION	DROUGHT/WATER SUPPLY	DESCRIPTION OF IMPACTS	ADAPTIVE CAPACITY (HIGH, MEDIUM, LOW)	VULNERABILITY (HIGH, MEDIUM, LOW)
Green Brook	Natural Feature	5	0	5	0	3	Increased chance of flooding, precipitation, impacting natural features	medium	13
Bonygutt Brook	Natural Feature	5	0	5	0	3	Increased chance of flooding, precipitation, impacting natural features	medium	13
Municipal Hall	Cultural Asset	3	0	3	0	3	Increased chance of flooding, precipitation, impacting government operations	medium	9
Schools	Cultural Asset	3	0	3	0	3	Increased chance of flooding, precipitation, impacting education facilities	medium	9
Senior Center	Cultural Asset	3	0	3	0	3	Increased chance of flooding, precipitation, impacting older population	medium	9
North Avenue	Critical Infrastructure	3	0	3	0	3	Increased chance of flooding, precipitation, impacting transportation network	medium	9
Dunellen Population	Cultural Asset	3	0	3	0	3	Increased chance of flooding, precipitation, impacting all population	medium	9
Police Station	Cultural Asset	3	0	3	0	3	Increased chance of flooding, precipitation, impacting safety and response resources	medium	9
Fire Station	Cultural Asset	3	0	3	0	3	Increased chance of flooding, precipitation, impacting safety and response resources	medium	9
OEM Management Center	Cultural Asset	3	0	3	0	3	Increased chance of flooding, precipitation, impacting safety and response resources	medium	9
Washington Park	Natural Feature	3	0	3		3	Increased chance of flooding, precipitation, impacting natural features	medium	9
Gavornik Park	Natural Feature	3	0	3		3	Increased chance of flooding, precipitation, impacting natural features	medium	9
Columbia Park	Natural Feature	3	0	3		3	Increased chance of flooding, precipitation, impacting natural features	medium	9
McCoy Park	Natural Feature	3	0	3	0	3	Increased chance of flooding, precipitation, impacting natural features	medium	9
Morecraft Park	Natural Feature	3	0	3	0	3	Increased chance of flooding, precipitation, impacting natural features	medium	9
Raritan Valley Train Line	Critical Infrastructure	3	0	3	0	0	Increased chance of flooding, precipitation, impacting transportation network	medium	6
NJ Transit Bus Line	Critical Infrastructure	3	0	3	0	0	Increased chance of flooding, precipitation, impacting transportation network	medium	6
Train Station	Critical Infrastructure	3	0	3	0	0	Increased chance of flooding, precipitation, impacting transportation network	medium	6
Leadership of Dunellen	Cultural Asset	0	0	0	0	0	Leadership to provide insight and protective measures to decrease the impact of natural climate change		0



Courtesy of DMR Architects

What to Expect in the Process!

Build-Out Analysis



Courtesy of DMR Architects

What to Expect in the Process!

Additional Key Components

- Analysis to Borough's Master Plan
- Utilities and Infrastructure
- Identify Realistic Projects, Goals and Policies to implement
- Public Presentation and Input

Courtesy of DMR Architects

Municipal Climate Resilience Planning

Meghan Leavey, PP, AICP, GISP

Lead Planner, Bureau of Climate Resilience Planning

Resilient NJ Program Coordinator

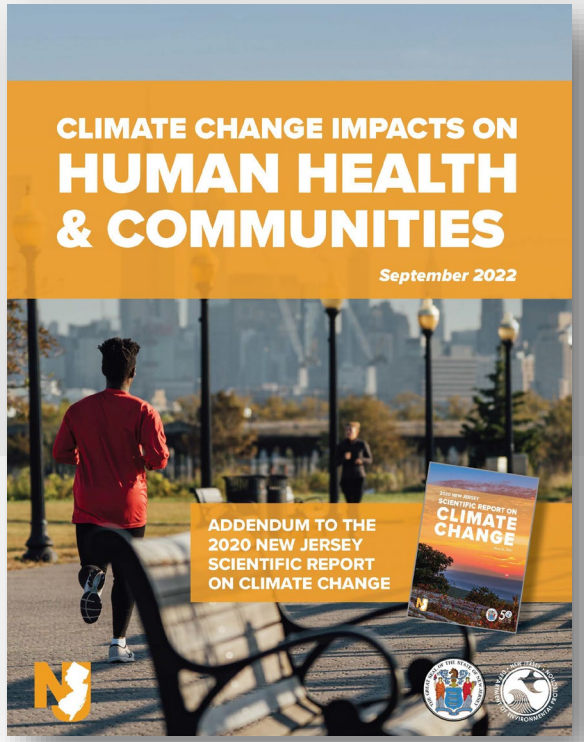
SCIENTIFIC REPORT

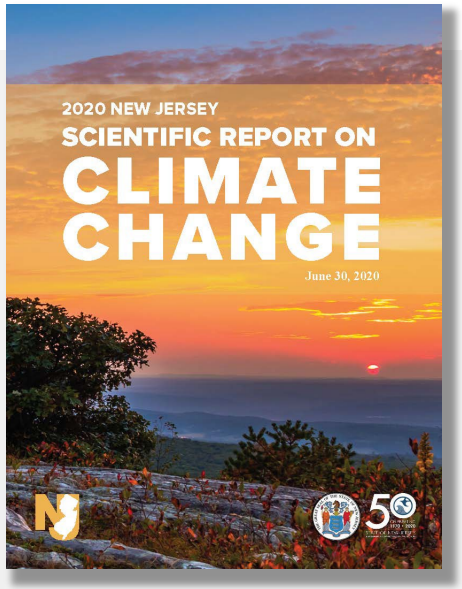
on Climate Change

nj.gov/dep/climatechange/data.html

Overview

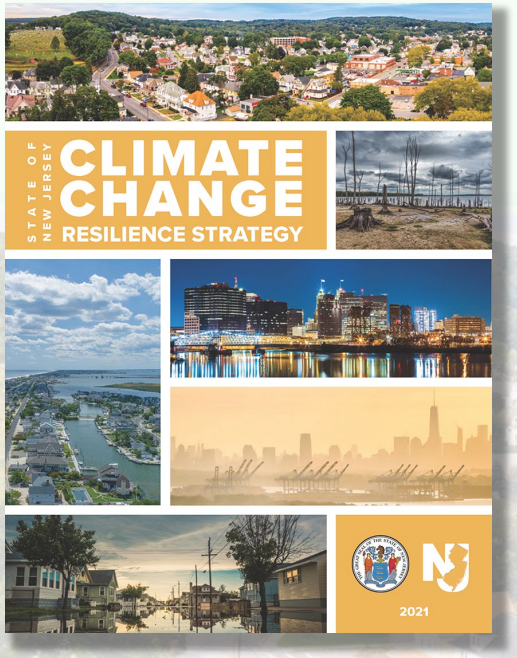
- Comprehensive effort to synthesize the latest and most reliable scientific information on the current and predicted future impacts of climate change.

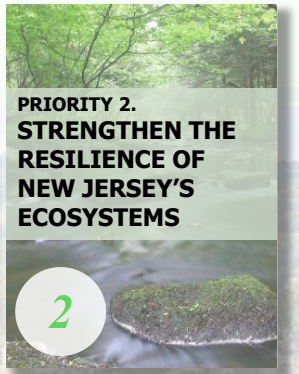


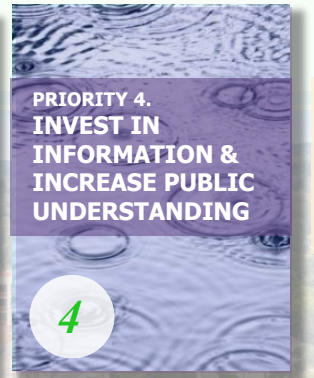


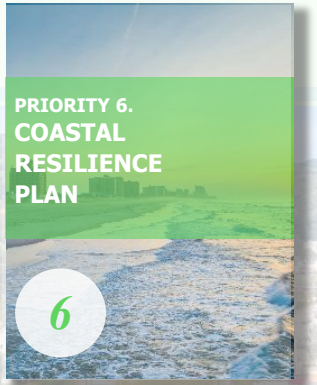
Released June 30, 2020

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









- 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

RESILIENT NJ

MUNICIPAL LAND USE LAW

CCRHVA Amendments

Public Law 2021, Chapter 6
Signed in February 2021

Requires incorporation of a climate change-related hazard vulnerability assessment (CCRHVA) into any Master Plan Land Use Element adopted after the signing.

- CCRHVAs must rely on most recent projections and best available science.
- CCRHVAs must consider environmental effects associated with climate change and contain measures to mitigate reasonably anticipated natural hazards.
- DEP must provide technical assistance as practicable

Trenton, NJ

RESILIENT NJ

OVERVIEW | 1. INITIATE & ENGAGE | 2. UNDERSTAND YOUR VULNERABILITY | 3. DEVELOP A STRATEGY | 4. TRACK YOUR PROGRESS

RESILIENT NJ: LOCAL PLANNING FOR CLIMATE CHANGE TOOLKIT

Hightstown, NJ

https://resilient.nj.go

OVERVIEW

Using This Guide
- Introduction
- How to Use this Guide

Climate Change in NJ
- Overviews of Climate Threats in NJ

NJ Planning Requirements
- Municipal Land Use Planning
- Plan Endorsement
- Hazard Mitigation Planning

Equitable Community Resilience Adaptation Toolkit

Resilience Library
- Links to every resource found throughout the Toolkit pages

Site Map
- Overviews of Climate Threats in NJ

Acknowledgments

Edwin B. Forsythe National Wildlife Refuge, Galloway, NJ

I. INITIATE & ENGAGE

Building a Team

- Planning team, advisory committees, stakeholders, and the public
- Identifying stakeholders
- Representation and inclusion

Building An Engagement Strategy

- Focus on equity and inclusion
- Templates and examples

Resilient NJ Workshop, Long Beach Island, NJ

II. UNDERSTAND YOUR VULNERABILITY

Asset Identification

Meeting MLUL Requirements

Self-Assessment

- Matrix-styled assessment

Advanced Assessments

- Flood
- Health
- Temperature

Wildwood, NJ

CLIMATE CHANGE RELATED HAZARD VULNERABILITY ASSESSMENT

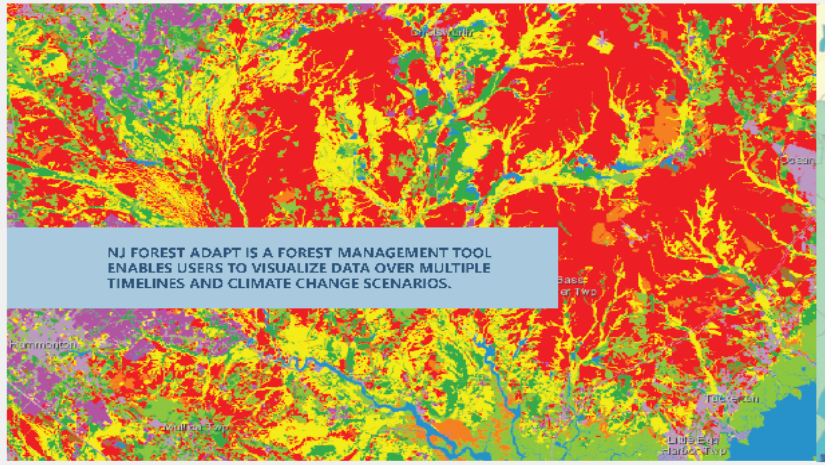
Required Elements

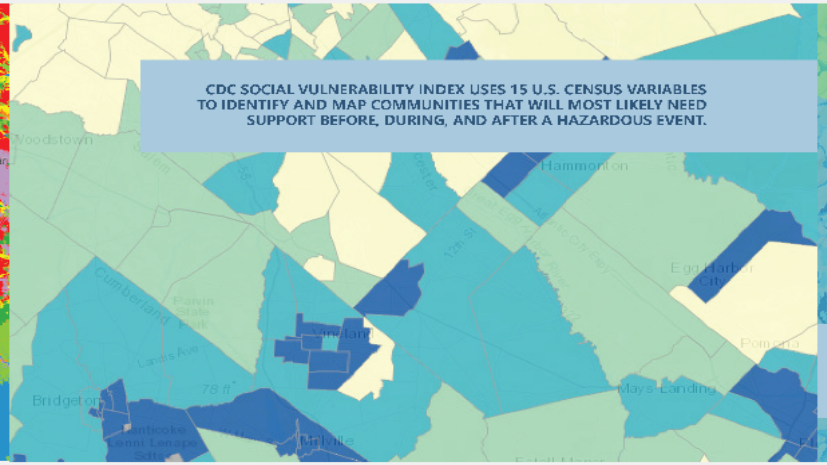
- ❑ Analysis of current and future threats to, and vulnerabilities of, the municipality associated with climate change-related natural hazards
- ❑ Build-out analysis of future residential, commercial, industrial, and other development in the municipality, and an assessment of the threats and vulnerabilities identified above related to that development
- ❑ Identification of critical facilities, utilities, roadways, and other infrastructure that is necessary for evacuation purposes and sustaining quality of life during a natural disaster, to be maintained, at all times, in an operational state
- ❑ Analysis of the potential impact of natural hazards on relevant components and elements of the master plan
- ❑ Identification of strategies and design standards that may be implemented to reduce or avoid risks associated with natural hazards
- ❑ A specific policy statement on the consistency, coordination, and integration of the climate-change related hazard vulnerability assessment with certain other plans adopted by the municipality
- ❑ Reliance on the most recent natural hazard projections and best available science provided by the New Jersey DEP

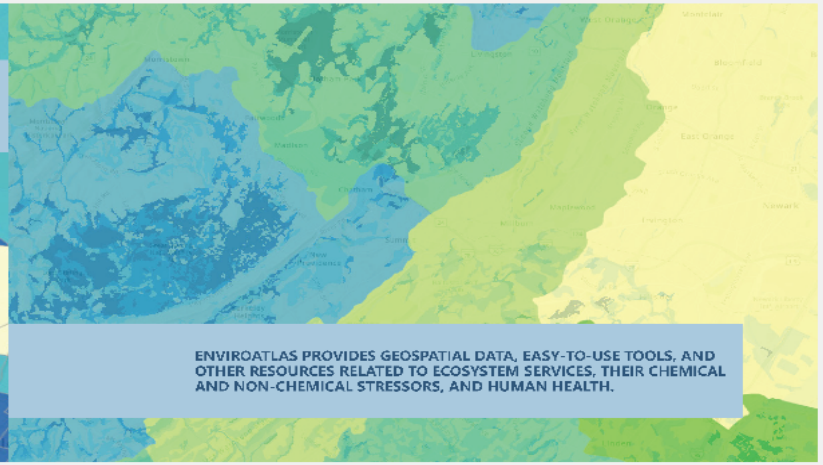
II. UNDERSTAND YOUR VULNERABILITY

HELPFUL TOOLS & DATA

Depending on the time and resources, a Planning Team may have to rely on tools and data gathered from other sources.
There are existing maps, data, and tools available to assist communities with understanding their current capabilities and exposure to climate risks.







IDENTIFYING CLIMATE RELATED HAZARDS

- NJ Adapt: a suite of online tools designed to provide data to planners and others addressing climate change in New Jersey.
- Stockton University New Jersey Beach Profile Network Profile Viewer: shoreline change mapping tool (shorter, more recent timescale)
- NOAA Digital Coast: Federal climate data mapping clearinghouse

ASSESSING SOCIAL AND ECONOMIC VULNERABILITY

- CDC Social Vulnerability Index
- NJ Adapt Municipal Snapshots: These snapshots provide access to information about people, places, and assets that are at risk from climate impacts in each of New Jersey's municipalities.
- U.S. Climate Resilience Toolkit – People & Communities
- New Jersey Environmental Justice Mapping Tool

ASSESSING ECOYSTEM VULNERABILITY

EPA EnviroAtlas: Data on ecosystem services including Climate Stabilization and Natural Hazard Mitigation

Climate Ready Estuaries: The Climate Ready Estuaries program works with the National Estuary Programs and the coastal management community to assess climate change vulnerabilities, develop and implement adaptation strategies, and engage and educate stakeholders. CRE shares NEP examples to help other coastal managers and provides technical guidance and assistance about climate change adaptation.

EXTREME PRECIPITATION PROJECTION TOOL

njprojectedprecipitationchanges.com

Cornell University | Northeast Regional Climate Center | NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION

Select by

- County
- Municipal
- Grid
- Custom area

Click on a county on the map or select one from the dropdown list to view the precipitation data.

ATLANTIC

Projected Percent Increase (Upper Likelihood)

- < 25
- 25 - 30
- 30 - 35
- 35 - 40
- > 40

Upper likelihood represents a 17% likelihood that precipitation depth will increase more than the value shown relative to the NOAA Atlas 14 published mean values.

Return Period

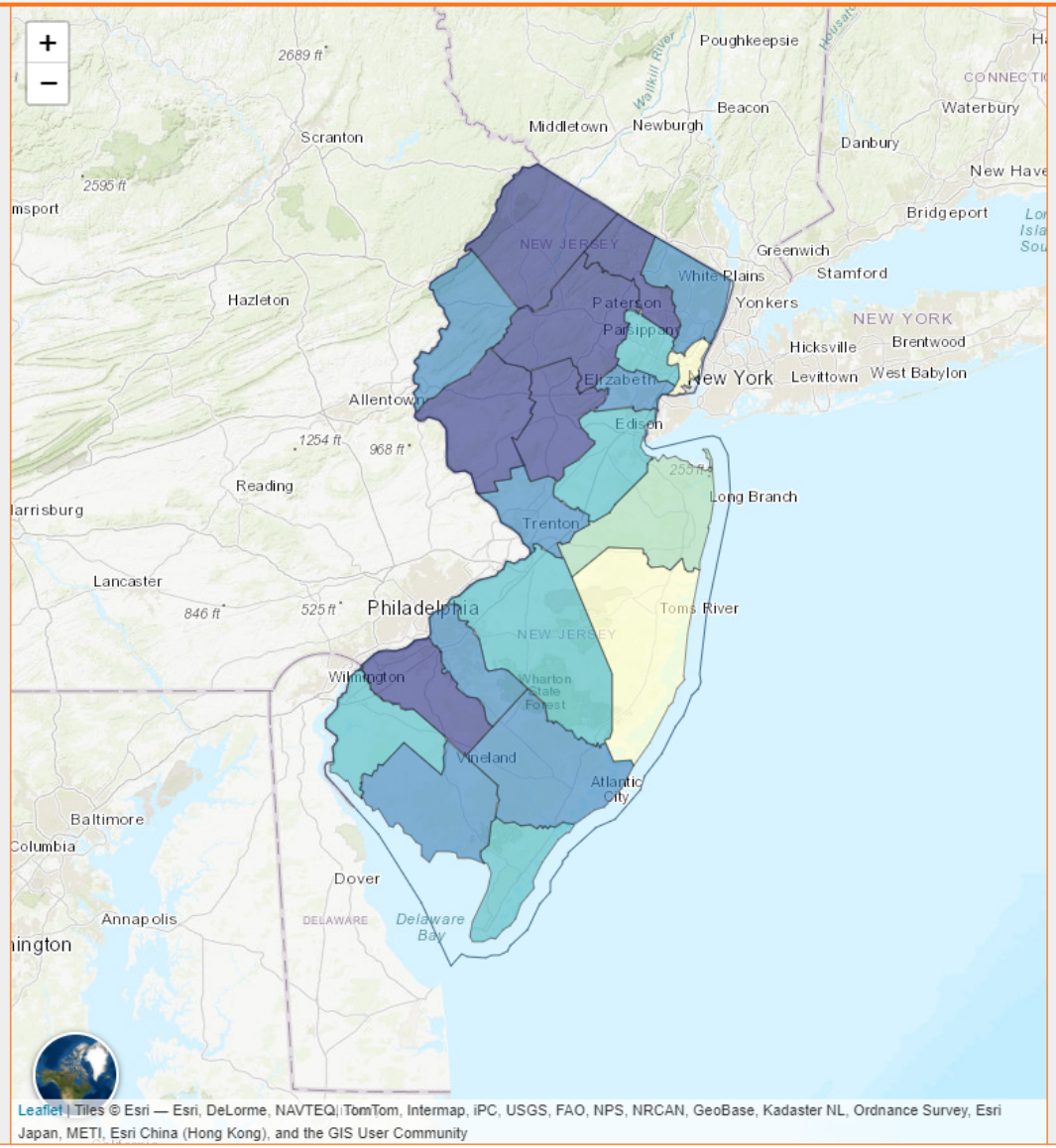
- 2-year
- 5-year
- 10-year
- 25-year
- 50-year
- 100-year

Emission Scenario

- Moderate RCP 4.5
- High RCP 8.5

Time Period

- 2020 - 2069
- 2050 - 2099



User Guide | Precipitation Projection | About the Data

Background:

This site provides an interactive tool for users to identify regional and local estimates of projected changes in extreme rainfall amounts (measured in inches) within a 24-hour duration for various return periods between current estimates* and a future time period under either of two future emission scenarios.

Users can select their choice of rainfall return period, i.e., the 2-year, 10-year, 100-year storm, etc., the future greenhouse gas emission scenario determined by Representative Concentration Pathway (RCP) 4.5 or RCP 8.5, and future time period. Projections can be summarized by county, municipality, 0.1 degree grid cell, or for a custom area by drawing a polygon on the map area or uploading a GIS shapefile saved as a zip file. Projections for municipalities and custom areas are calculated based on the weighted average of projected change factors within the area that intersect 0.1 degree grid cells applied to the rainfall data from the current NOAA Atlas 14* dataset.

Return Period Options:

A storm return period is determined statistically, through a process called frequency analysis, and is used to estimate the probability that a given amount of rainfall from a precipitation event will occur. The return period is based on the probability that the given amount of rainfall will be equaled or exceeded in any given year. For example, based on historical data, it could be determined that there is a 1 in 100 (1%) chance that 8.5 inches of rain will fall in a certain area in a 24-hour period in any given year. Thus, a rainfall total of 8.5 inches in any 24-hour period is said to have a 100-year return period and may also be referred to as the 1% storm.

- 2-year Storm -- Precipitation depth (inches) associated with a 24-hour storm that has a 50% chance of occurring in any given year.
- 5-year Storm -- Precipitation depth (inches) associated with a 24-hour storm with a 20% chance of occurring in any given year.
- 10-year Storm -- Precipitation depth (inches) associated with a 24-hour storm with a 10% chance of occurring in any given year.
- 25-year Storm -- Precipitation depth (inches) associated with a 24-hour storm with a 4% chance of occurring in any given year.
- 50-year Storm -- Precipitation depth (inches) associated with a 24-hour storm with a 2% chance of occurring in any given year.
- 100-year Storm -- Precipitation depth (inches) associated with a 24-hour storm with a 1% chance of occurring in any given year.

Emission Scenario Options:

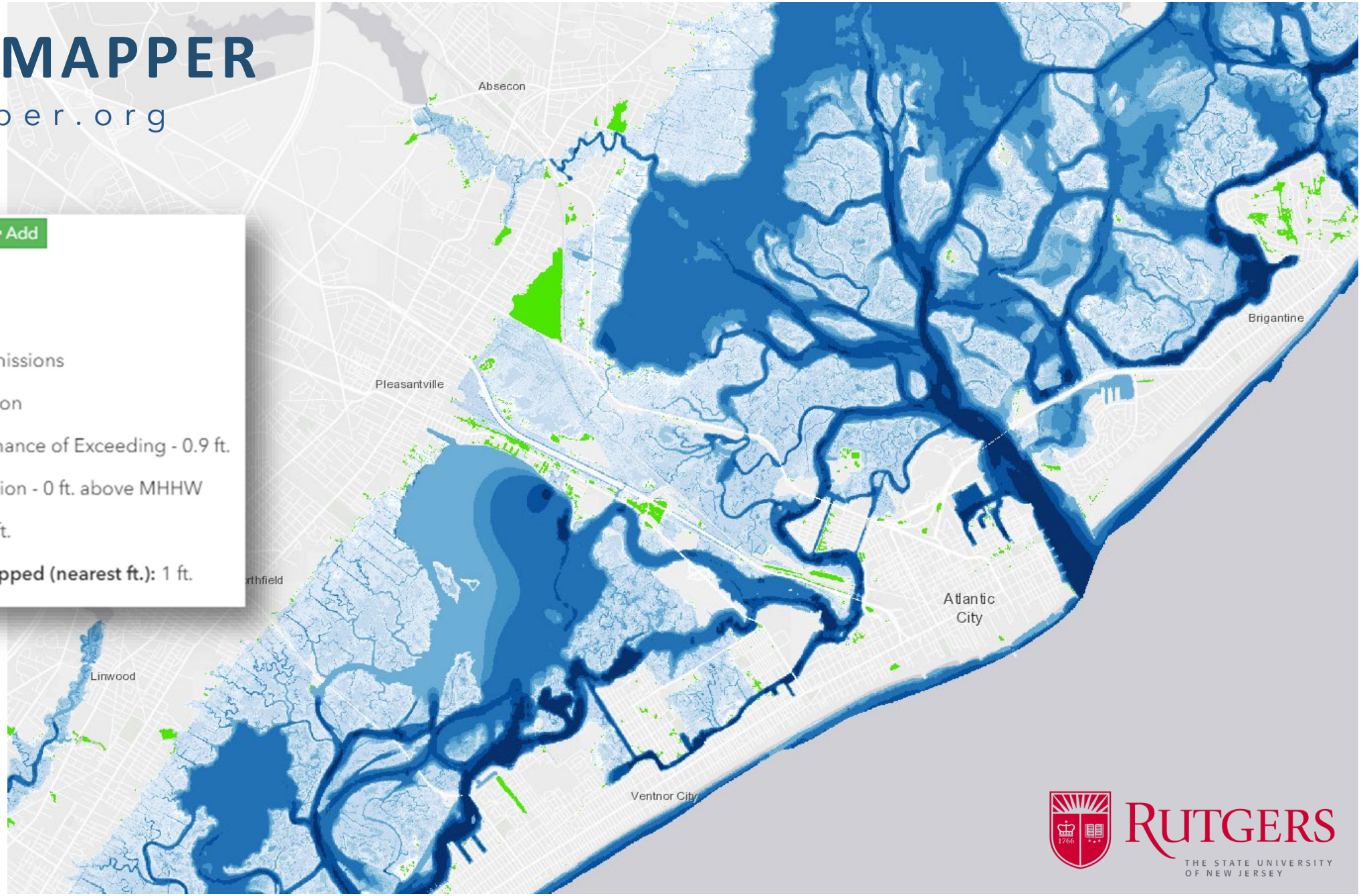
Representative Concentration Pathways (RCP) project changes to the atmospheric energy (heat) balance associated with

For questions about the data, please contact NJDEP | For website related issues, please contact AECOM


SEA-LEVEL RISE
GUIDANCE FOR NEW JERSEY
https://www.nj.gov/dep/slr/
JUNE 2021

NJFLOODMAPPER

njfloodmapper.org



RUTGERS
THE STATE UNIVERSITY OF NEW JERSEY

III. DEVELOP A STRATEGY

Local Resilience Actions

- Tying back to the vulnerability assessment(s)
- Strengthening your team and community, collecting data, and addressing hazards
- Ecosystem adaptation, risk reduction, data/information, awareness/education, planning, policy, and capacity building

Creating the Strategy

- Templates and tools
- Evaluation of options

Hightstown, NJ

IV. TRACK YOUR PROGRESS

Funding & Finance Programs

- Federal, state, and non-government sources
- Inclusion of guidance on local financing (ex. Bonds, stormwater fees)

Monitoring and Track Progress

- Tying progress back to the vulnerability assessment
- Tracking equity in implementation
- Incorporate transparency and communicate progress

Northwest Resiliency Park, Hoboken, NJ

Resilient NJ:
Resilience Guidance & Assistance Program


Hoboken, NJ

Resilience GAP – *"Fill the Resilience GAP"*

- Facilitated by NJDEP and FEMA
- Design, develop, and deliver a comprehensive package of guidance, tools, and trainings for municipal governments to incorporate climate resilience into their regulatory program
- Technical assistance program for support
- Coordinate, organize, and direct NGOs

Develop uniform guidance and criteria for municipal resilience planning

Guidance should be:

- Consistent with the most accurate, up-to-date climate science
- Consistent with NJ rules and regulations
- Easily accessible and developed with the intention of building capacity

RESILIENT NJ

REGIONAL PLANNING PROGRAM

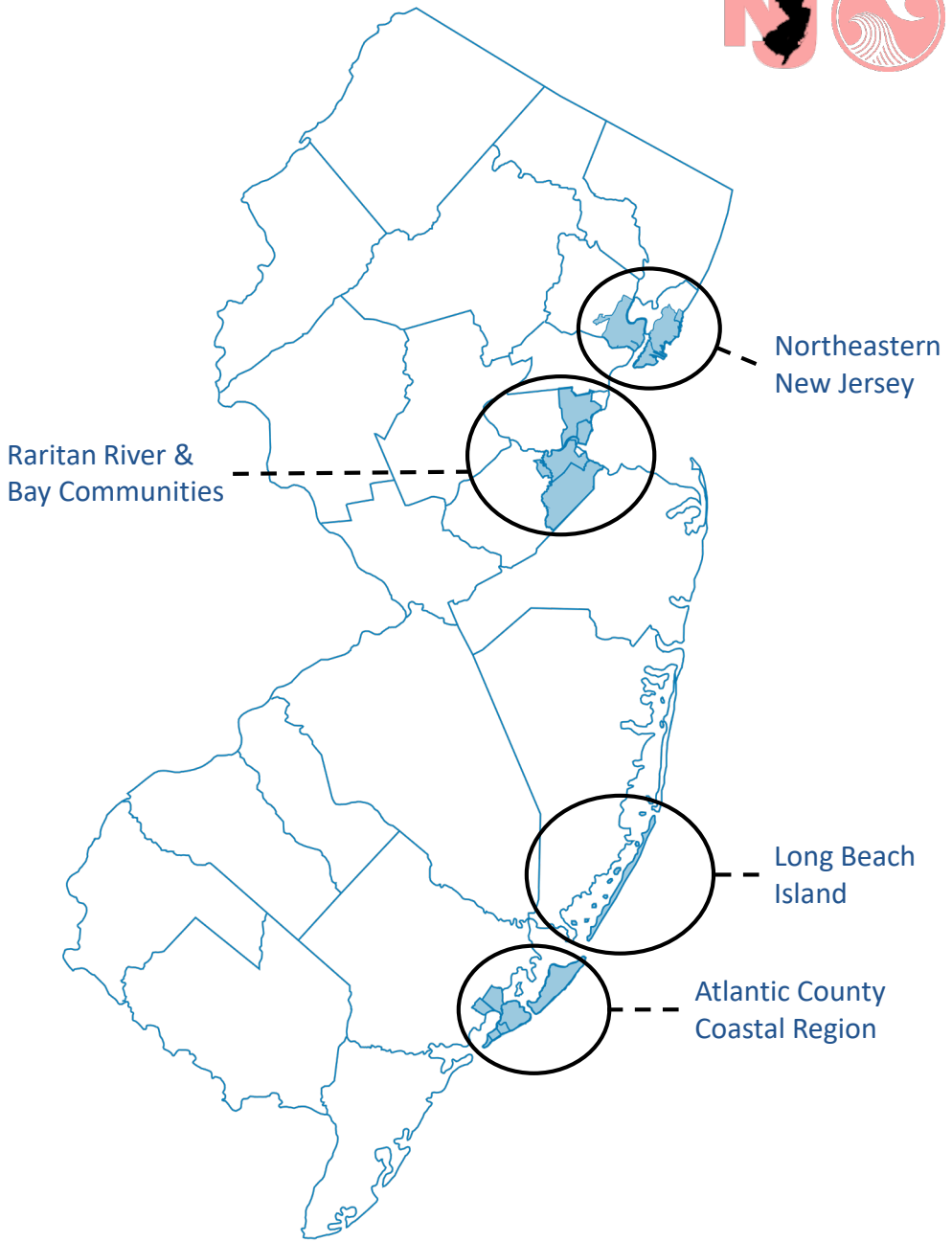
Launched in 2020 by DEP

Four regional planning projects

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

Since expanded to include:

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



RESILIENT NJ

MUNICIPAL ASSISTANCE PROGRAM

- Direct resilience planning assistance to individual municipalities in the coastal zone for development of a local climate resilience strategy and/or climate change-related hazard vulnerability assessment
- Inaugural funding award: $400,000 across five municipalities:
  - Ocean Township (Ocean County)
  - Salem
  - Stafford Township
  - Trenton
  - Upper Township

New Jersey

RESILIENCE ACCELERATOR

- Direct technical assistance and expertise to local communities on specific resilience goals and projects
- Workshops and partnering sessions create space for high-level education *and* tailored, one-on-one assistance
- Seven riverine communities in first cohort
  - Next cohort to focus on residential coastal communities

Partnership of federal & state agencies

FEMA

@newjerseydep @nj.dep

Contact

Meghan Leavey, PP, AICP, GISP

Lead Planner, Bureau of Climate Resilience Planning

meghan.leavey@dep.nj.gov

Climate Ready Communities

Tanya Rohrbach, Community Planning Manager

New Jersey League of Municipalities Conference

November 17, 2022




NEW JERSEY FUTURE

Agenda

- Regulatory Requirement
- Climate Hazards and Vulnerabilities
- Sustainability and Equity in Climate Planning
- Climate Planning Process to Conduct a CCRHVA and Be Climate Ready

Regulatory Requirement

Law P.L. 2021, c6 specifically requires municipalities to:

1. **Analyze current and future threats to, and vulnerabilities of, the municipality** associated with climate change-related natural hazards;

2. Include a **build-out analysis** of future residential, commercial, industrial, and other development in the municipality, and an assessment of the threats and vulnerabilities identified above related to that development;

3. **Identify critical facilities, utilities, roadways, and other infrastructure** that is necessary for evacuation purposes and sustaining quality of life during a natural disaster, to be maintained at all times in an operational state;

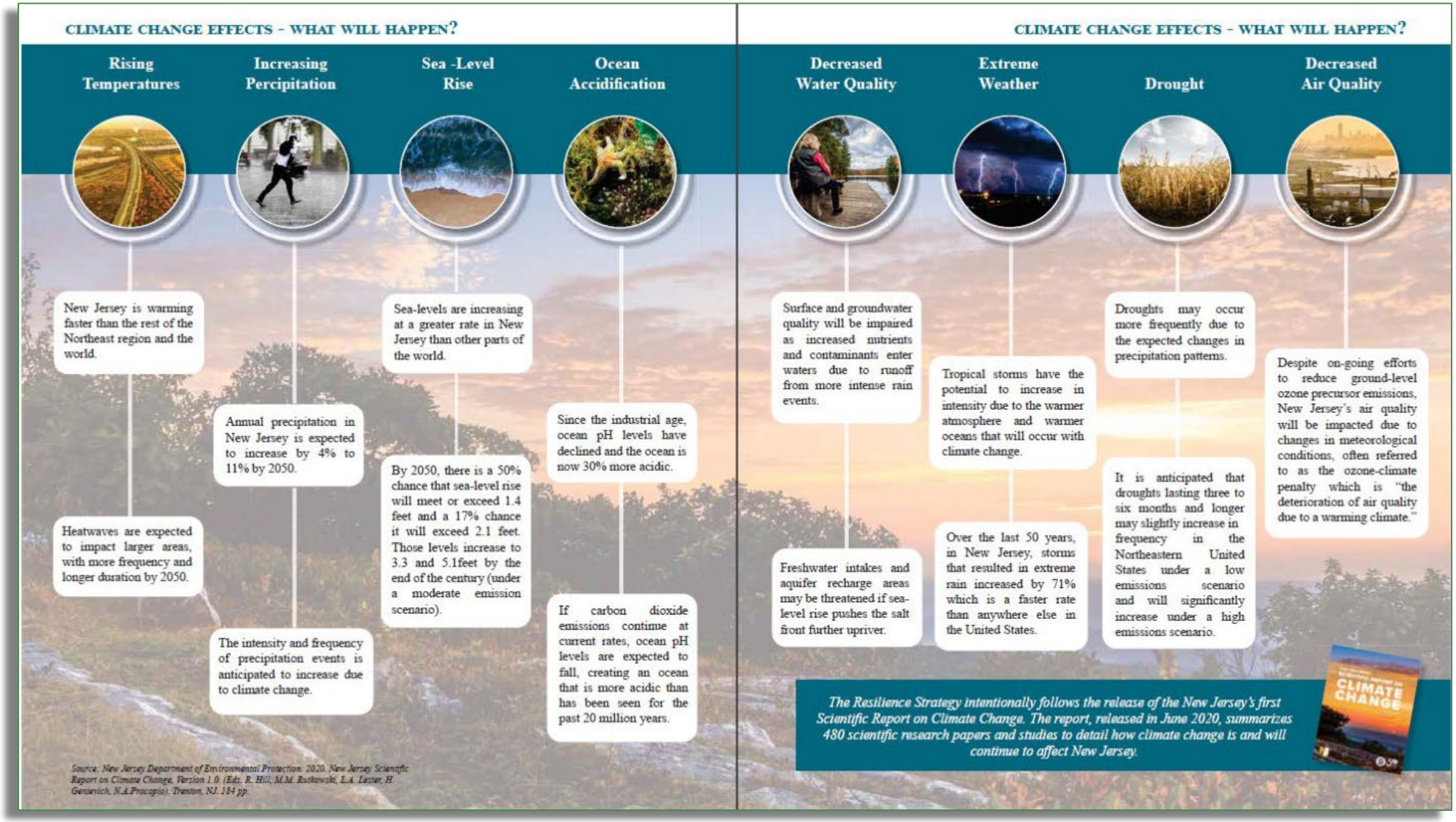
4. Analyze the potential **impact of natural hazards on relevant components and elements of the master plan**;

5. Provide **strategies and design standards** that may be implemented to reduce or avoid risks associated with natural hazards;

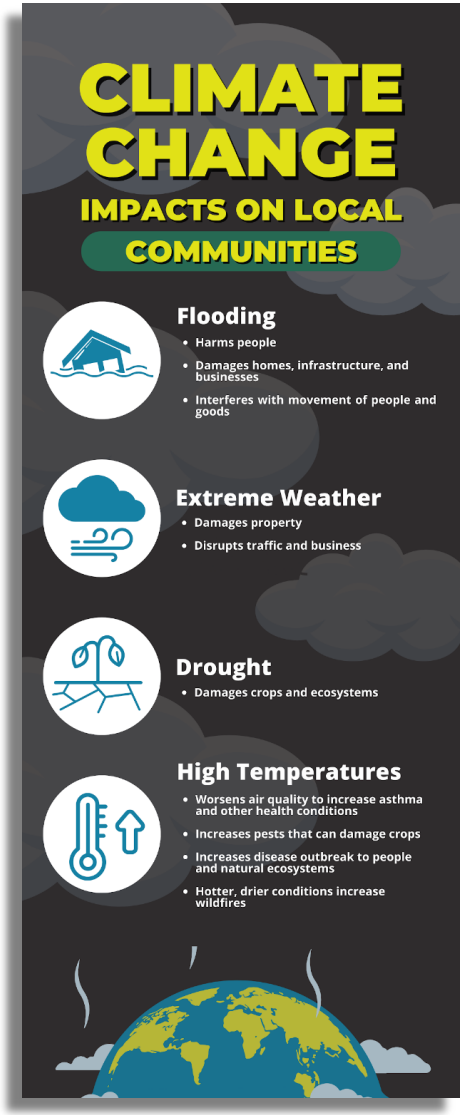
6. Include a specific **policy statement on the consistency, coordination, and integration of the climate-change related hazard vulnerability assessment with certain other plans adopted by the municipality**; and

7. Rely on the most recent **natural hazard projections and best available science** provided by the New Jersey DEP.

Climate Change-Related Hazards and Impacts



Climate Change-Related Hazards and Impacts



Impacts have effects across all systems:

Climate Change-Related Hazard Vulnerability

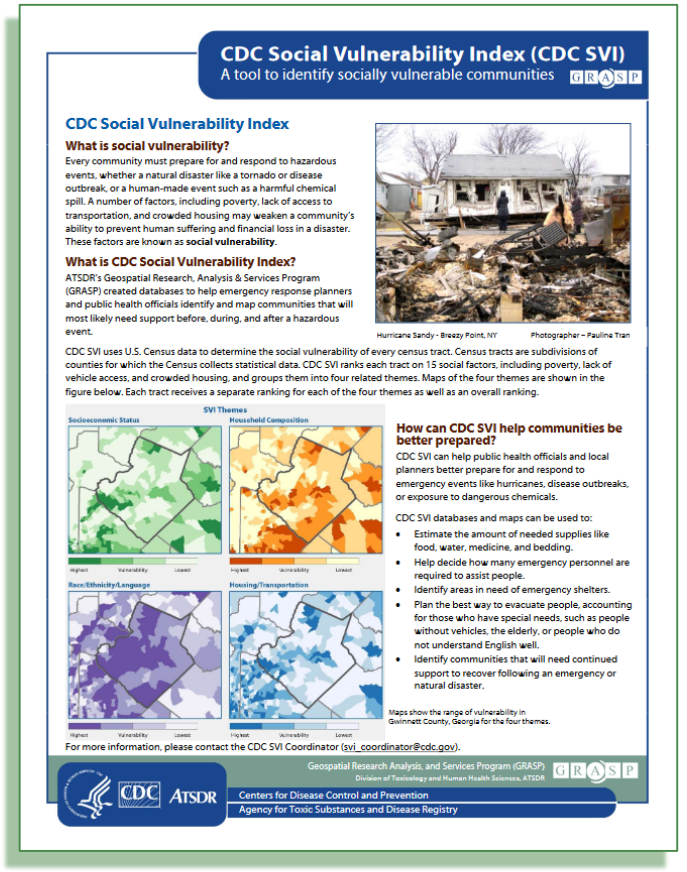
Exposure - The extent people, places, or systems are touched by or in contact with or disturbed by a hazard.

Sensitivity - The extent that they can experience harm from that exposure

Adaptive Capacity - The extent people or systems can respond to and learn from disturbances to mitigate the causes and the impacts of climate-related hazards

Climate Change-Related Vulnerability - Socially Vulnerable Populations

- Underserved communities with a low socioeconomic status
- Populations of color
- Tribal and First Nation communities
- Gender and gender identity
- Individuals experiencing homelessness or displacement
- Rural communities
- Older and younger populations
- Limited English proficiency
- Service workers and migrant laborers
- Limited cognitive or physical abilities
- Institutionalized populations, such as those in prisons and nursing homes
- Renters
- Transportation dependent or car-less populations



CDC Social Vulnerability Index (CDC SVI)
A tool to identify socially vulnerable communities GRASP

CDC Social Vulnerability Index

What is social vulnerability?

Every community must prepare for and respond to hazardous events, whether a natural disaster like a tornado or disease outbreak, or a human-made event such as a harmful chemical spill. A number of factors, including poverty, lack of access to transportation, and crowded housing may weaken a community's ability to prevent human suffering and financial loss in a disaster. These factors are known as **social vulnerability**.

What is CDC Social Vulnerability Index?

ATSDR's Geospatial Research, Analysis & Services Program (GRASP) created databases to help emergency response planners and public health officials identify and map communities that will most likely need support before, during, and after a hazardous event.

Hurricane Sandy - Breezy Point, NY Photographer – Paulina Tran

CDC SVI uses U.S. Census data to determine the social vulnerability of every census tract. Census tracts are subdivisions of counties for which the Census collects statistical data. CDC SVI ranks each tract on 15 social factors, including poverty, lack of vehicle access, and crowded housing, and groups them into four related themes. Maps of the four themes are shown in the figure below. Each tract receives a separate ranking for each of the four themes as well as an overall ranking.

SVI Themes
Socioeconomic Status
Household Composition
Race/Ethnicity/Language
Housing/Transportation
Highest Vulnerability Lowest

How can CDC SVI help communities be better prepared?

CDC SVI can help public health officials and local planners better prepare for and respond to emergency events like hurricanes, disease outbreaks, or exposure to dangerous chemicals.

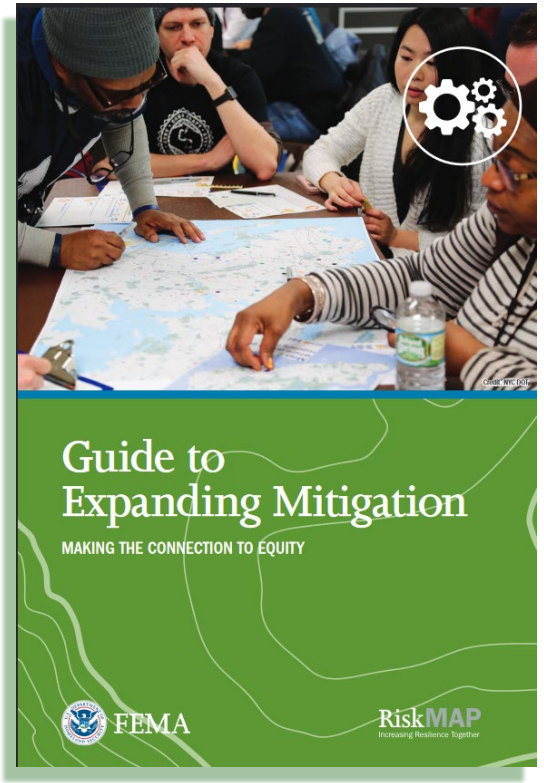
CDC SVI databases and maps can be used to:

- Estimate the amount of needed supplies like food, water, medicine, and bedding.
- Help decide how many emergency personnel are required to assist people.
- Identify areas in need of emergency shelters.
- Plan the best way to evacuate people, accounting for those who have special needs, such as people without vehicles, the elderly, or people who do not understand English well.
- Identify communities that will need continued support to recover following an emergency or natural disaster.

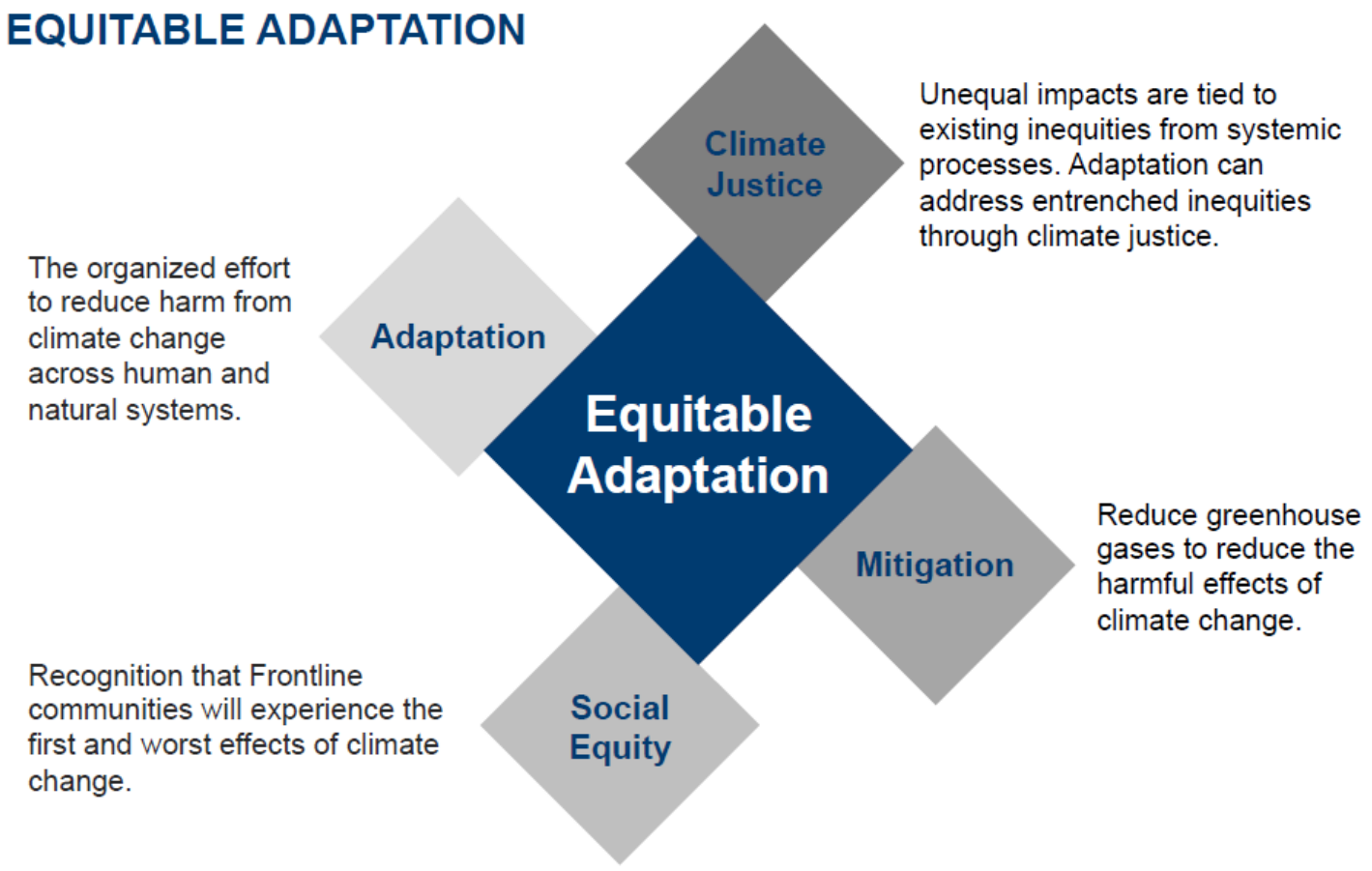
Maps show the range of vulnerability in Gwinnett County, Georgia for the four themes.

For more information, please contact the CDC SVI Coordinator (svi_coordinator@cdc.gov).

Geospatial Research Analysis, and Services Program (GRASP) GRASP
Division of Toxicology and Human Health Sciences, ATSDR
CDC ATSDR
Centers for Disease Control and Prevention
Agency for Toxic Substances and Disease Registry

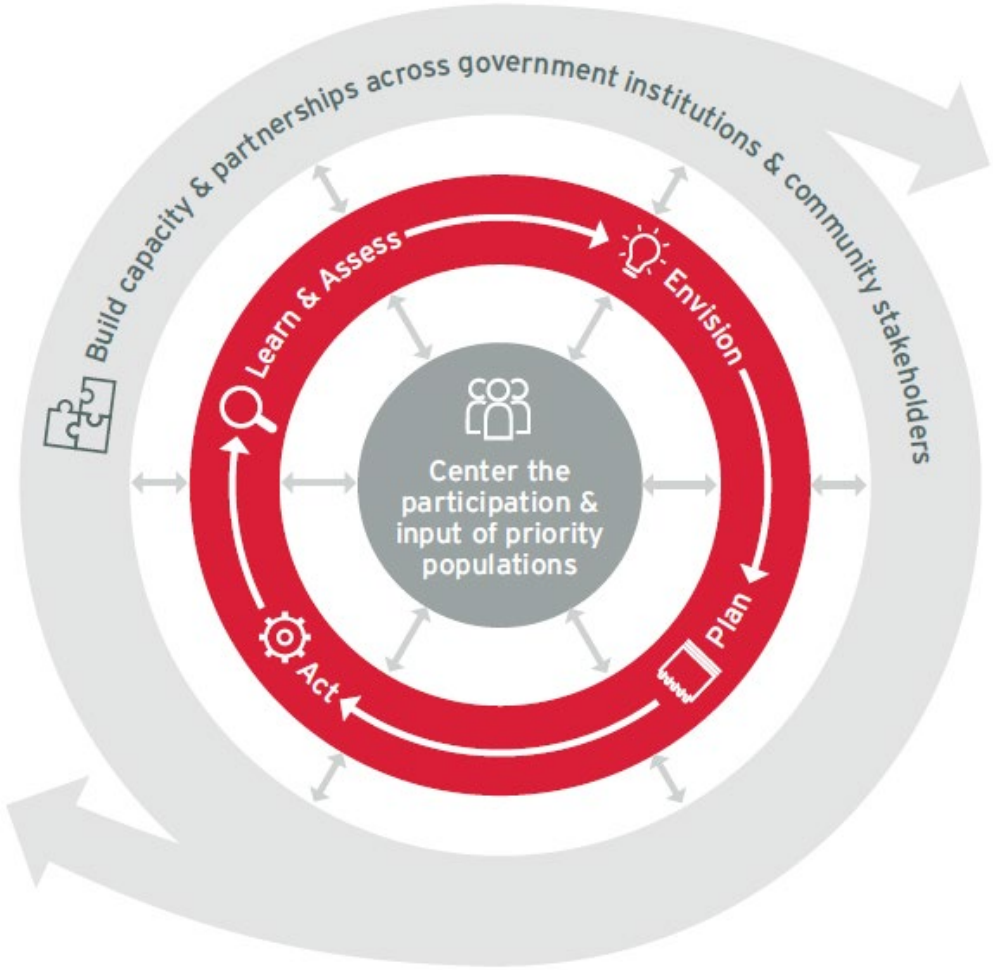


Sustainability = Equitable And Just Solutions



From: San Diego Regional Climate Collaborative at the University of San Diego, (February 2022). *An Equity-First Approach to Climate Adaptation*.

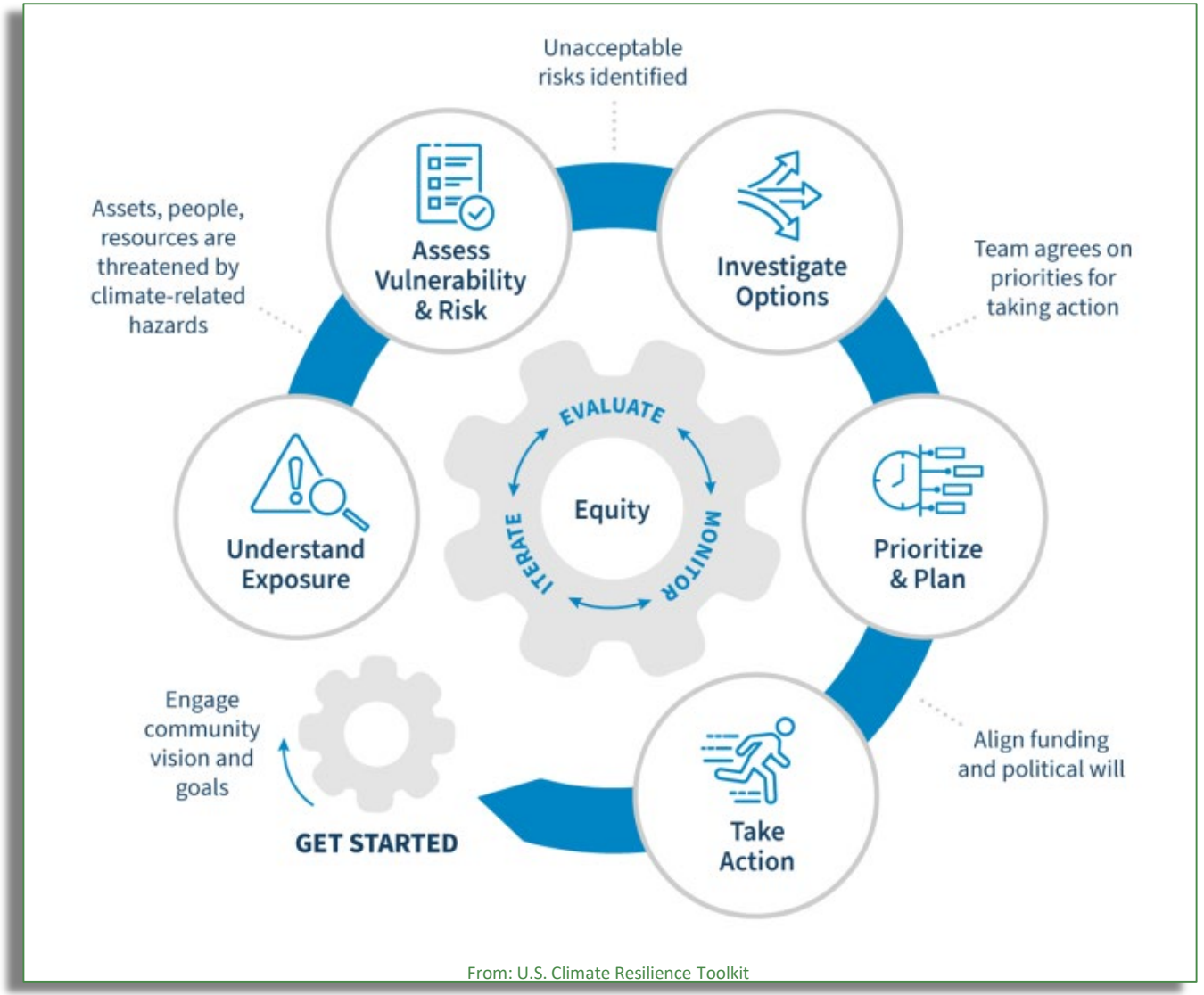
Equity Throughout and Community-Driven



- From the very beginning, and through all phases of the planning process, center participation of community members.
- Individuals and populations are already implementing strategies that we can learn from.
- Opportunity to address existing disparities.

From: Yuen, Tina & J. Nguyen. (2020). *The Planner's Playbook: A Community-Centered Approach to Improving Health & Equity*. Change Lab Solutions.

Climate Change-Related Planning Process



From: U.S. Climate Resilience Toolkit

NJ DEP Local Planning for Climate Change Toolkit

https://www.nj.gov/dep/bcrp/resilientnj/

Phases of a Climate Change Planning Process

01	Initiate and Contextualize	Steps to designate a lead and initiate the process
02	Explore Data and Resources	Steps to gather data about the community, climate hazards, stakeholders, and partners
03	Activate Community Engagement	Steps to set up a team and a community engagement plan
04	Assess Vulnerability	Steps to characterize existing and potential community features and evaluate the vulnerability of systems supporting the community
05	Develop a Strategy	Steps to prioritize strategies and create a plan
06	Maintain Climate Readiness	Steps for implementing, evaluating, and updating the plan and other local plans, through ongoing practices and policies

THANK YOU!

Tanya Rohrbach
Community Planning Manager
New Jersey Future
trohrbach@njfuture.org

Climate Ready Communities

Anne Heasly | Sustainable Jersey

Statistics

2009
Program
Started

82%
Participating

91%
Population

151
Certified

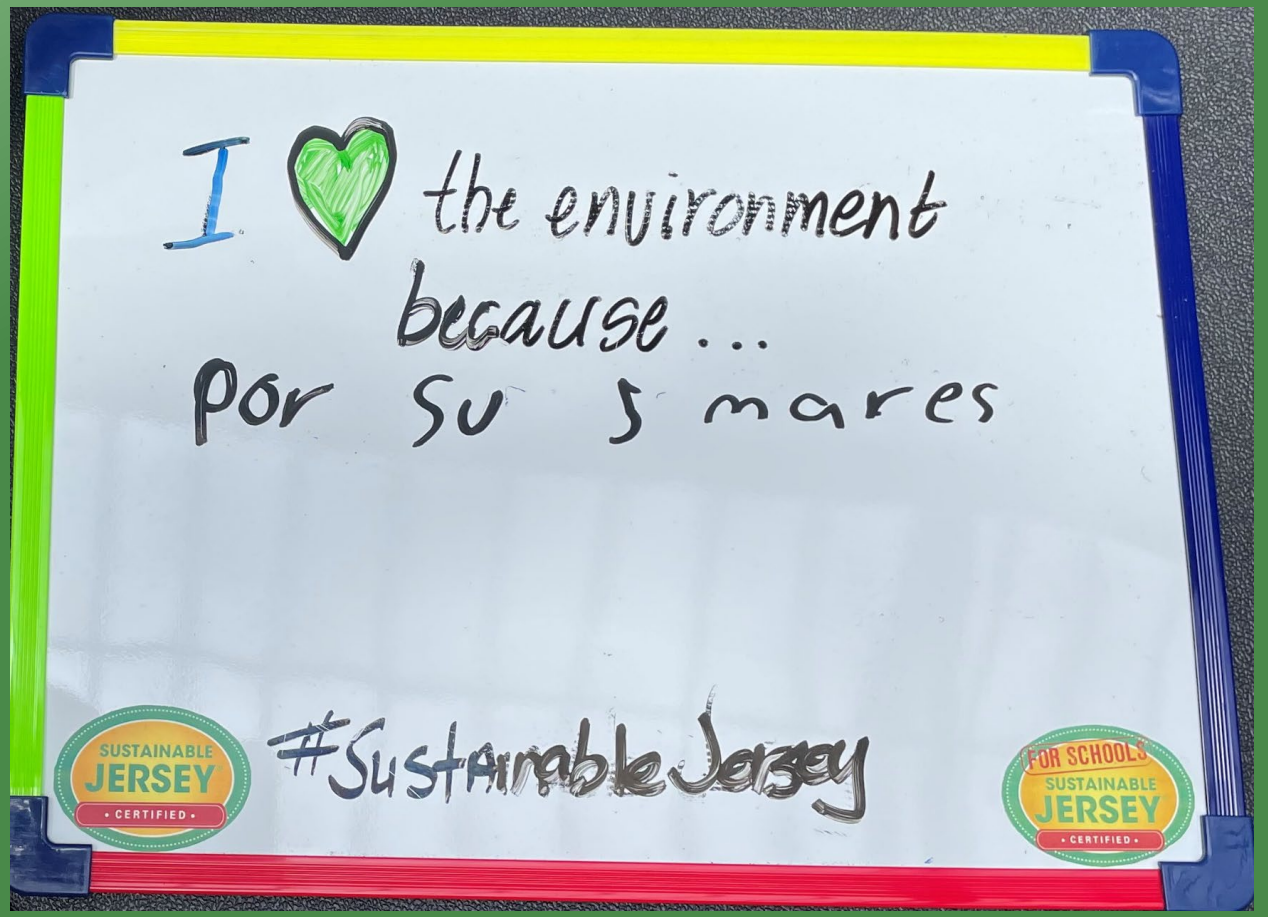
69
Certified

5 Stars

15,606
Actions
Implemented

Statistics current as of 10/27/22

How can municipalities by climate ready?



7 year-old respondent

NJDEP Earth Day 50th Celebration – April 2022

Master Plan

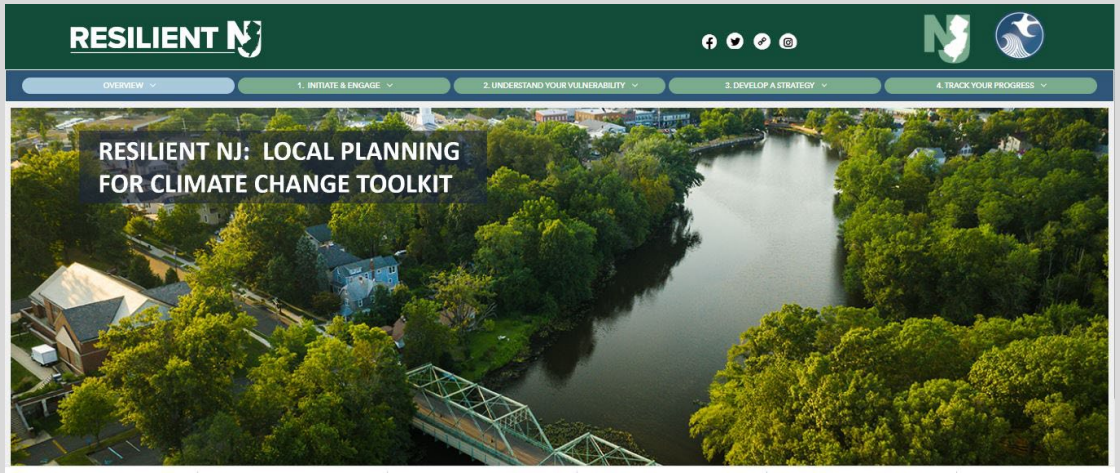
- Official Map
- Land Use Regulations
- Development Policies – e.g. Open Space Plan
- Capital Improvement Plan

Other Plans

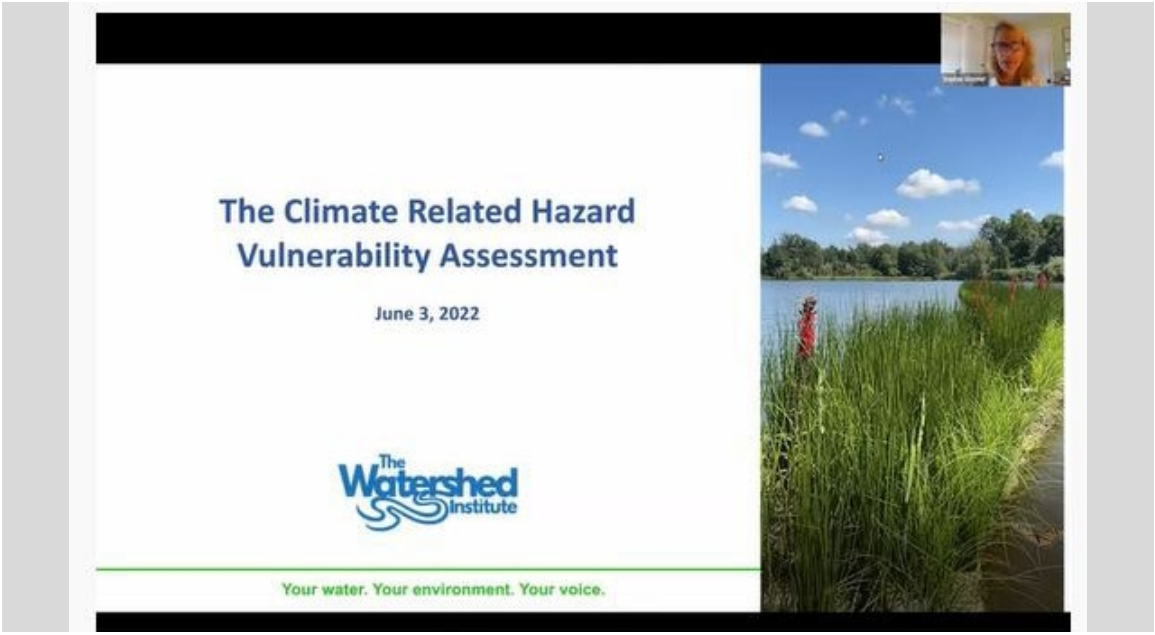
- Floodplain Management Plans
- Redevelopment Plans
- GHG Reduction – Community Energy Plans

3 year-old respondent
NJDEP Earth Day 50th Celebration – April 2022

Tools and Strategies

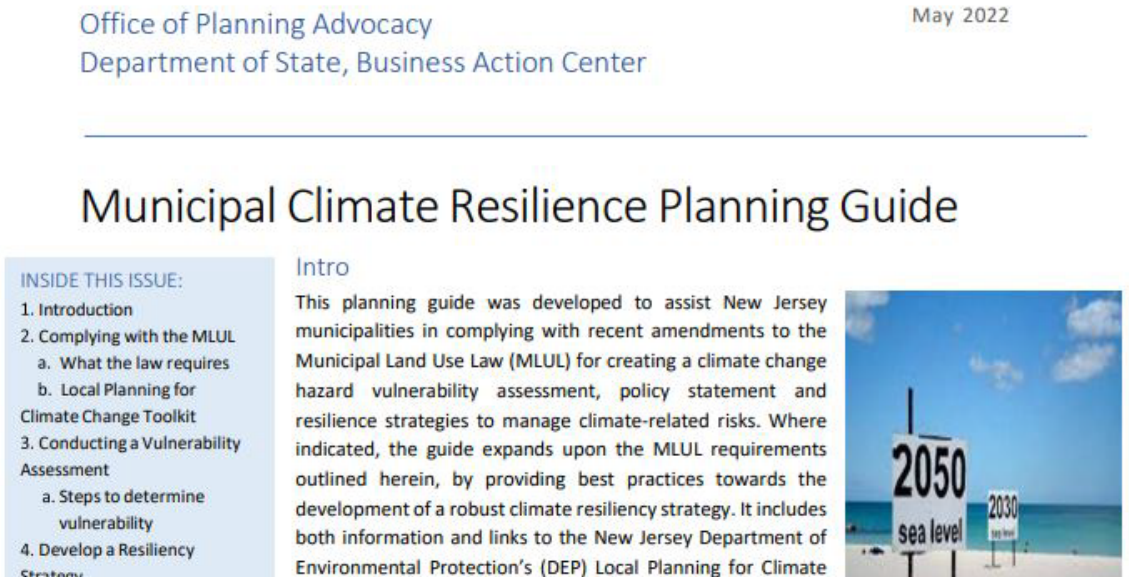


- Resilient NJ: Local Planning for Climate Change Toolkit (NJDEP)



- Technical Friday June 3, 2022 webinar – YouTube (Watershed Institute)

Tools and Strategies


Office of Planning Advocacy
Department of State, Business Action Center

May 2022

Municipal Climate Resilience Planning Guide

INSIDE THIS ISSUE:
1. Introduction
2. Complying with the MLUL
   a. What the law requires
   b. Local Planning for Climate Change Toolkit
3. Conducting a Vulnerability Assessment
   a. Steps to determine vulnerability
4. Develop a Resiliency

Intro

This planning guide was developed to assist New Jersey municipalities in complying with recent amendments to the Municipal Land Use Law (MLUL) for creating a climate change hazard vulnerability assessment, policy statement and resilience strategies to manage climate-related risks. Where indicated, the guide expands upon the MLUL requirements outlined herein, by providing best practices towards the development of a robust climate resiliency strategy. It includes both information and links to the New Jersey Department of Environmental Protection's (DEP) Local Planning for Climate

- Municipal Climate Resilience Planning Guide (Office of Planning Advocacy)

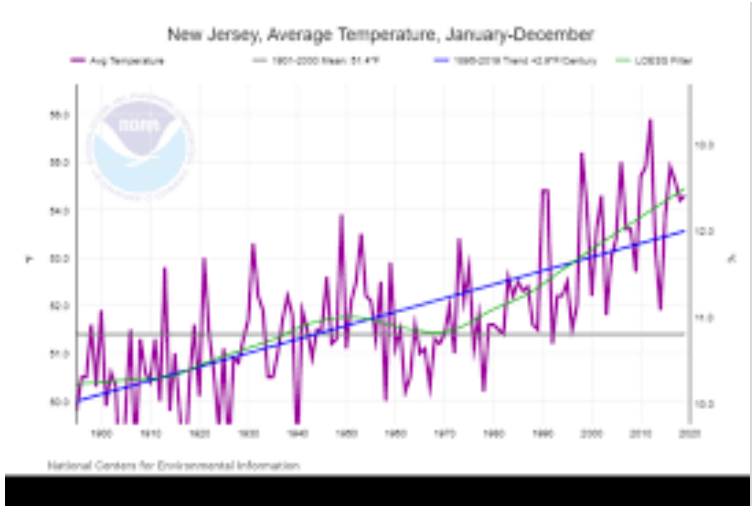

Local Options/Local Actions

Resilience Strategies Case Studies

PREPARED FOR THE NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION

- Local Options/Local Actions (New Jersey Future)

Understanding Vulnerability

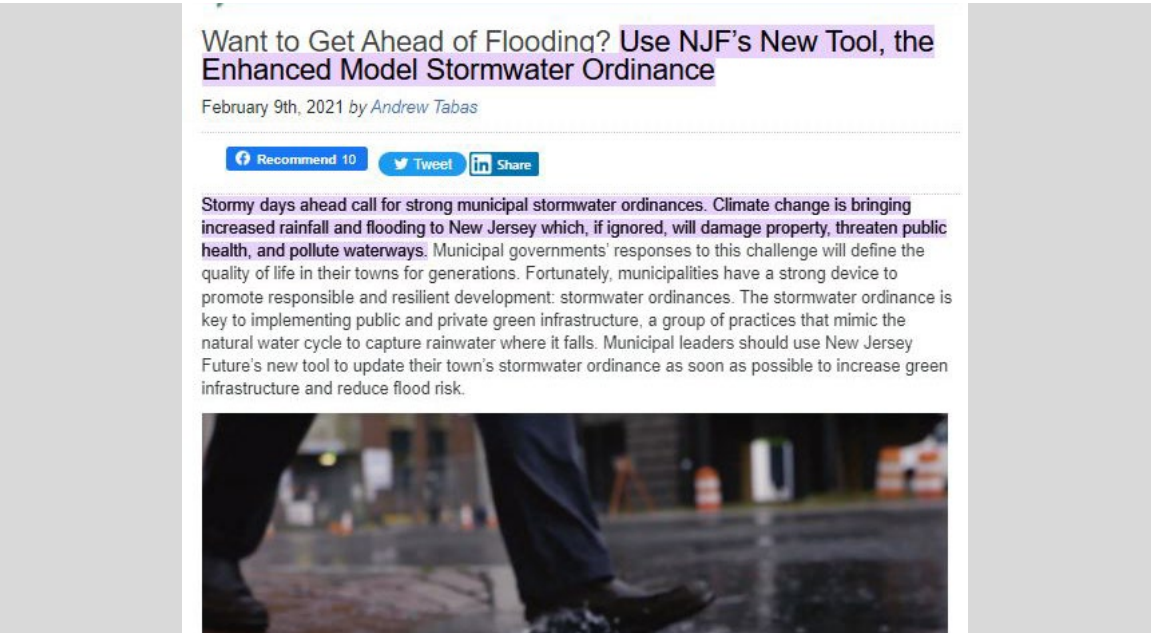


- Heat Island Assessment Action (Sustainable Jersey)
- Build Out Analysis Action (Sustainable Jersey)
- Community Equity and Diversity Profile Action (Sustainable Jersey)

Adaptation: Reduce Impervious Cover

- Green Infrastructure Planning Action (Sustainable Jersey)
- Green Infrastructure Implementation Action (Sustainable Jersey)

Adaptation: Reduce Impervious Cover

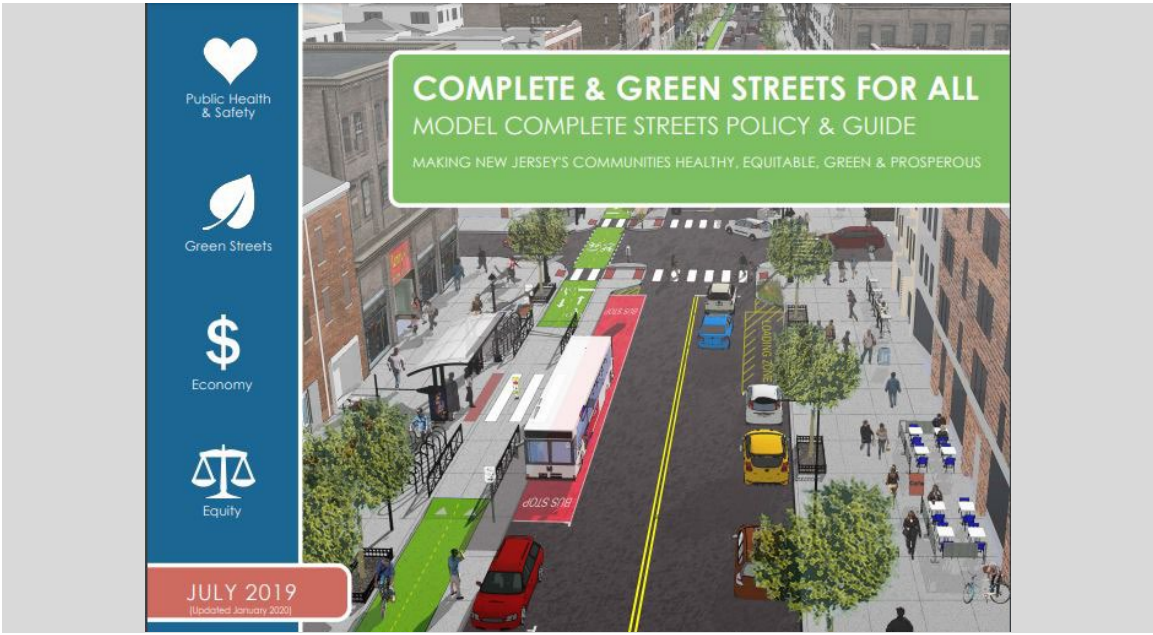


Want to Get Ahead of Flooding? Use NJF's New Tool, the Enhanced Model Stormwater Ordinance

February 9th, 2021 *by Andrew Tabas*

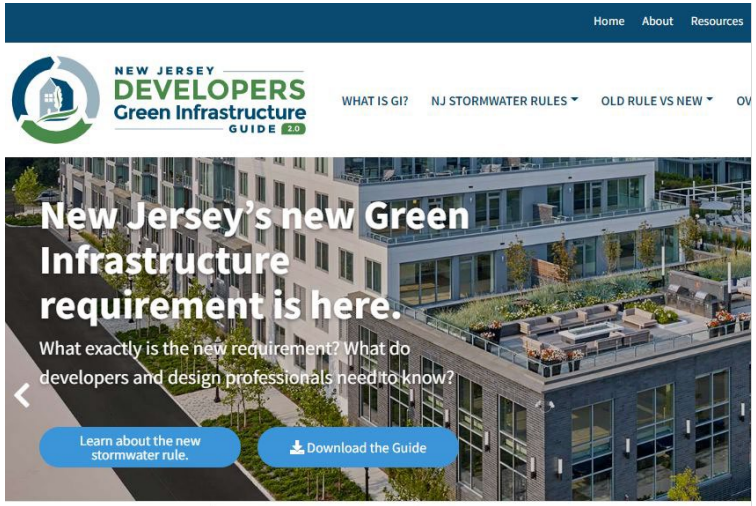
Recommend 10 Tweet Share

Stormy days ahead call for strong municipal stormwater ordinances. Climate change is bringing increased rainfall and flooding to New Jersey which, if ignored, will damage property, threaten public health, and pollute waterways. Municipal governments' responses to this challenge will define the quality of life in their towns for generations. Fortunately, municipalities have a strong device to promote responsible and resilient development: stormwater ordinances. The stormwater ordinance is key to implementing public and private green infrastructure, a group of practices that mimic the natural water cycle to capture rainwater where it falls. Municipal leaders should use New Jersey Future's new tool to update their town's stormwater ordinance as soon as possible to increase green infrastructure and reduce flood risk.



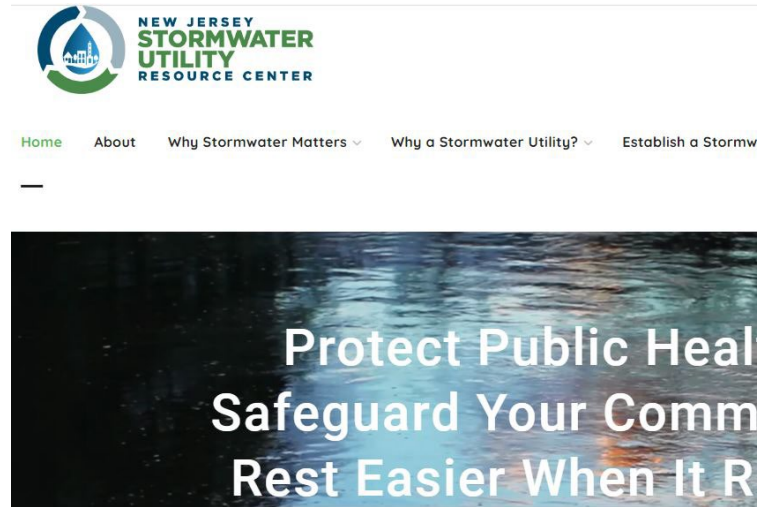
- Enhanced Stormwater Management Control Ordinance Action (Sustainable Jersey)
- Complete and Green Streets for All Policy Action (Sustainable Jersey)

Additional Stormwater Resources



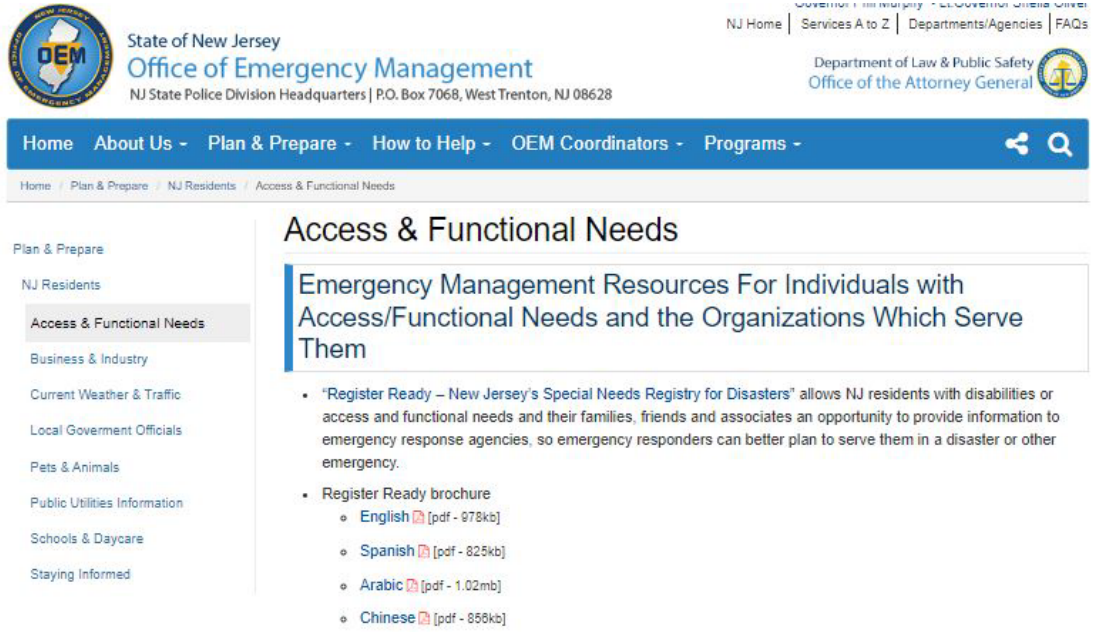
- [New Jersey Developers Green Infrastructure Guide](#) (New Jersey Future)

- [New Jersey Green Infrastructure Municipal Toolkit](#) (New Jersey Future)



- [New Jersey Stormwater Utility Resource Center](#) (New Jersey Future)

Preparedness

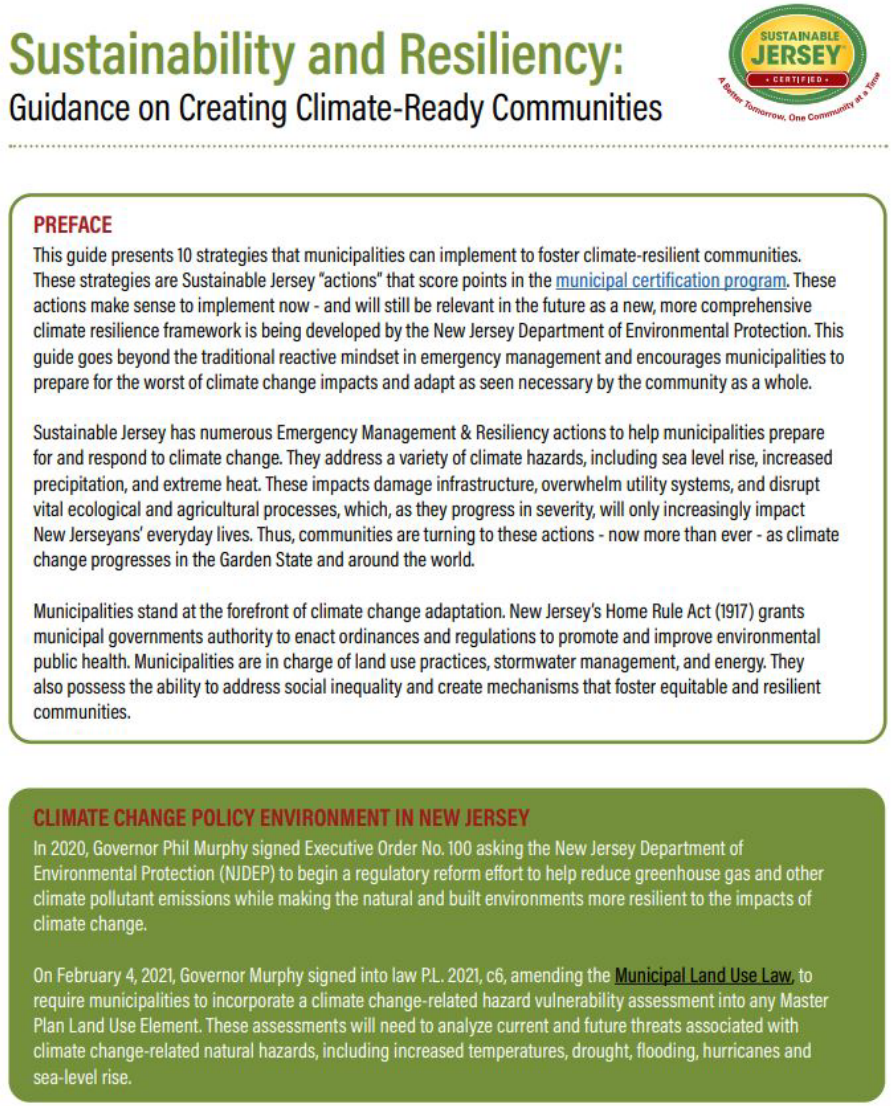


- Extreme Temperature Event Plan Action (Sustainable Jersey)
- Vulnerable Population Identification for Emergencies Action (Sustainable Jersey)

Updated Guidance

Sustainable Jersey Actions

- Actions updated:
  - Resource sections have new information
  - New Brief Guidance Document
- Gold Star



Sustainability and Resiliency:
Guidance on Creating Climate-Ready Communities

SUSTAINABLE JERSEY · CERTIFIED · A Better Tomorrow, One Community at a Time

PREFACE

This guide presents 10 strategies that municipalities can implement to foster climate-resilient communities. These strategies are Sustainable Jersey "actions" that score points in the municipal certification program. These actions make sense to implement now - and will still be relevant in the future as a new, more comprehensive climate resilience framework is being developed by the New Jersey Department of Environmental Protection. This guide goes beyond the traditional reactive mindset in emergency management and encourages municipalities to prepare for the worst of climate change impacts and adapt as seen necessary by the community as a whole.

Sustainable Jersey has numerous Emergency Management & Resiliency actions to help municipalities prepare for and respond to climate change. They address a variety of climate hazards, including sea level rise, increased precipitation, and extreme heat. These impacts damage infrastructure, overwhelm utility systems, and disrupt vital ecological and agricultural processes, which, as they progress in severity, will only increasingly impact New Jerseyans' everyday lives. Thus, communities are turning to these actions - now more than ever - as climate change progresses in the Garden State and around the world.

Municipalities stand at the forefront of climate change adaptation. New Jersey's Home Rule Act (1917) grants municipal governments authority to enact ordinances and regulations to promote and improve environmental public health. Municipalities are in charge of land use practices, stormwater management, and energy. They also possess the ability to address social inequality and create mechanisms that foster equitable and resilient communities.

CLIMATE CHANGE POLICY ENVIRONMENT IN NEW JERSEY

In 2020, Governor Phil Murphy signed Executive Order No. 100 asking the New Jersey Department of Environmental Protection (NJDEP) to begin a regulatory reform effort to help reduce greenhouse gas and other climate pollutant emissions while making the natural and built environments more resilient to the impacts of climate change.

On February 4, 2021, Governor Murphy signed into law P.L. 2021, c6, amending the Municipal Land Use Law, to require municipalities to incorporate a climate change-related hazard vulnerability assessment into any Master Plan Land Use Element. These assessments will need to analyze current and future threats associated with climate change-related natural hazards, including increased temperatures, drought, flooding, hurricanes and sea-level rise.

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Program Underwriters

Grant Program Underwriters

Corporate Sponsors

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Thank You

https://www.sustainablejersey.com/resources/presentations/njlm-conference/


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