

The background of the slide is a photograph of a coastal wetland. In the foreground, there are tall, green and yellowish-brown marsh plants. Behind them is a body of water reflecting the sky. In the far distance, a city skyline is visible across the water, featuring several tall buildings, including a prominent one with a blue and white design. The sky is a pale blue with some light clouds.

Financing Pathways for Resilience New Jersey Water Bank

Samantha Thomas

Department of Environmental Protection



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

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Department of Environmental Protection



Climate Change

Home Climate Science Curbing Our Emissions Preparing for Climate Impacts Resources All Topics Contact

Climate Change in New Jersey: Impacts & Effects

Some effects on our state are greater than the average for the country or world. [Learn more](#)



TEMPERATURE

in NJ has increased 3.9°F since 1895.

[Learn more about heat.](#)

Heat-related hospitalizations in NJ increased 156% from 2004 to 2013.

[Learn more about human health.](#)



ANNUAL PRECIPITATION

in NJ is expected to increase from 6% to 9% by 2100.

[Learn more about precipitation.](#)



SEA-LEVEL RISE

could meet or exceed 1.4 feet by 2050. There is a 50% chance.

[Learn more about sea-level rise.](#)



TROPICAL STORMS

have the potential to increase in intensity due to the warmer atmosphere and oceans that will occur with climate change.

[Learn more about storms.](#)



EXTREME RAIN

in the Northeast increased by 55% between 1958 and 2016.

[Learn more about extreme rain.](#)



BIRD SPECIES

are vulnerable to climate change. 29% of all NJ birds will be affected.

[Learn more about birds and wildlife.](#)

Learn More About Climate Change



WATER INFRASTRUCTURE NEEDS AND CHALLENGES

New Jersey's water infrastructure faces significant challenges due to climate change impacts, exposing water systems and communities to risks, such as disruption in level of service, environmental contamination, and localized flooding.



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



Hoboken, NJ



Middlesex County Utilities Authority



Camden County MUA

The New Jersey Water Bank is a critical resource for addressing these needs, funding a variety of projects related to resilience.

- CSO Infrastructure (Grey and Green)
- Stormwater Management
- Climate Resilience for Treatment Works
- Land Preservation
- Energy and Water Efficiency
- Climate Resilience for Drinking Water Infrastructure
- Asset Management Plans
- Planning and Design Loans

FUNDING PACKAGE BENEFITS

PRINCIPAL FORGIVENESS

LOW INTEREST LOANS

AFFORDABILITY CRITERIA

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INCORPORATING RESILIENCE INTO THE NEW JERSEY WATER BANK

PROJECT RANKING

Projects implementing climate resilience measures will receive additional priority points if the resilience components represent a significant amount of the overall project activities.

100 for Clean Water
150 for Drinking Water

INCORPORATING RESILIENCE INTO THE NEW JERSEY WATER BANK

PROJECT
RANKING

AFFORDABILITY
CRITERIA

**Check to see who qualifies in our WIIP
website Intended Use Plans.**

[https://dep.nj.gov/wiip/intended-use-plan-
and-project-priority-lists/](https://dep.nj.gov/wiip/intended-use-plan-and-project-priority-lists/)

INCORPORATING RESILIENCE INTO THE NEW JERSEY WATER BANK

PROJECT
RANKING

AFFORDABILITY
CRITERIA

Lead service line replacement, small
systems, rural communities, and
disadvantaged communities (DACs)!

Opportunities for principal forgiveness
planning and design loans.

TECHNICAL
ASSISTANCE

<https://dep.nj.gov/wp-content/uploads/wiip/srf-applicants-guide.pdf>

New Jersey Water Bank Applicant Guidance

For New Jersey's Clean Water and Drinking Water State Revolving Funds



PROJECT
RANKING

AFFORDABILITY
CRITERIA

TECHNICAL
ASSISTANCE

ENHANCED
EDUCATIONAL
MATERIALS



PROJECT
RANKING

AFFORDABILITY
CRITERIA

TECHNICAL
ASSISTANCE

ENHANCED
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BUILDING RESILIENT WATER INFRASTRUCTURE

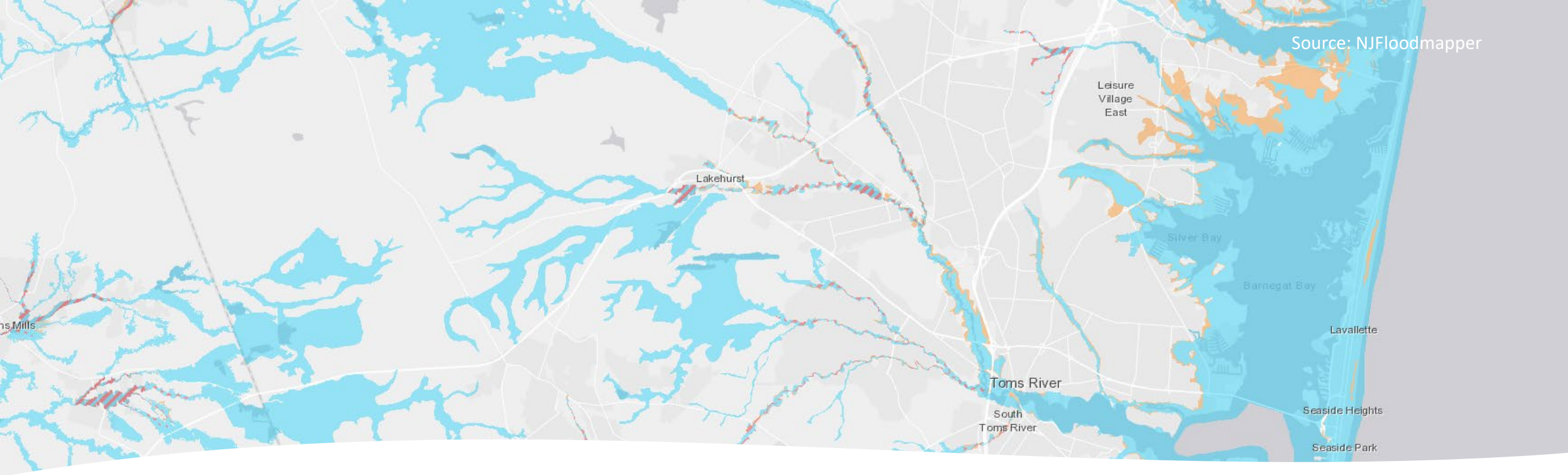
CLIMATE CHANGE RESILIENCE GUIDANCE

for New Jersey's Clean Water & Drinking Water State Revolving Funds



APRIL 2023





PURPOSE OF THE GUIDANCE

To incorporate resilience considerations into the planning and design process where projects are exposed and vulnerable to climate change impacts, to ensure that water systems can maintain level of service during weather events, constitute sound public investment, and reduce risks of environmental contamination and localized flooding



• **Coastal Flood**
0.2% Annual Chance
Flood+ SLR **or** FHA
regulatory flood
elevation



• **Fluvial Flood**
.2% Annual Chance
Flood+1 Foot **or** FHA
regulatory flood
elevation



• **Storm Surge**
SLOSH Cat. 1
Hurricanes



• **Extreme
Precipitation**
ARI increase by
county (no mapping)





VULNERABILITY



Project scope



*Type of
Infrastructure*



*Sensitivity of
Assets*



*Adaptive Capacity
of Assets*



RESILIENT PLANNING & DESIGN

- Use the analysis to explore how each alternative might avoid, minimize, or mitigate identified climate impacts.
- New construction and substantial alterations need to consider planning horizons to 2100. These projects are held to a higher level of scrutiny during review.

GUIDANCE DOCUMENTS

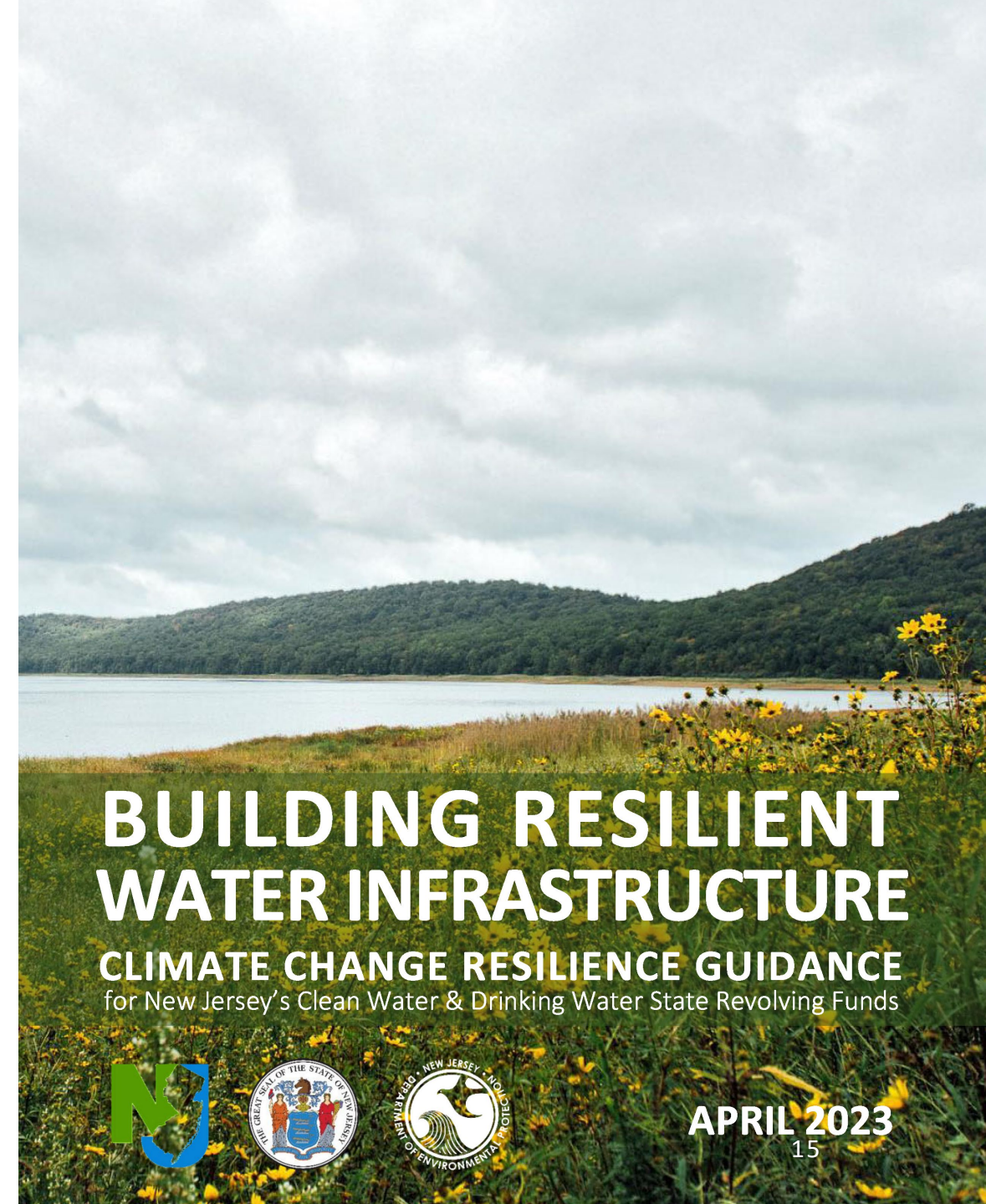
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Building Resilient Water
Infrastructure: Climate Change
Resilience Guidance

2

Resilience Requirements
Supplemental Guide and Checklist

To learn more, visit the <https://dep.nj.gov/WIIP>



BUILDING RESILIENT WATER INFRASTRUCTURE

CLIMATE CHANGE RESILIENCE GUIDANCE
for New Jersey's Clean Water & Drinking Water State Revolving Funds



APRIL 2023
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