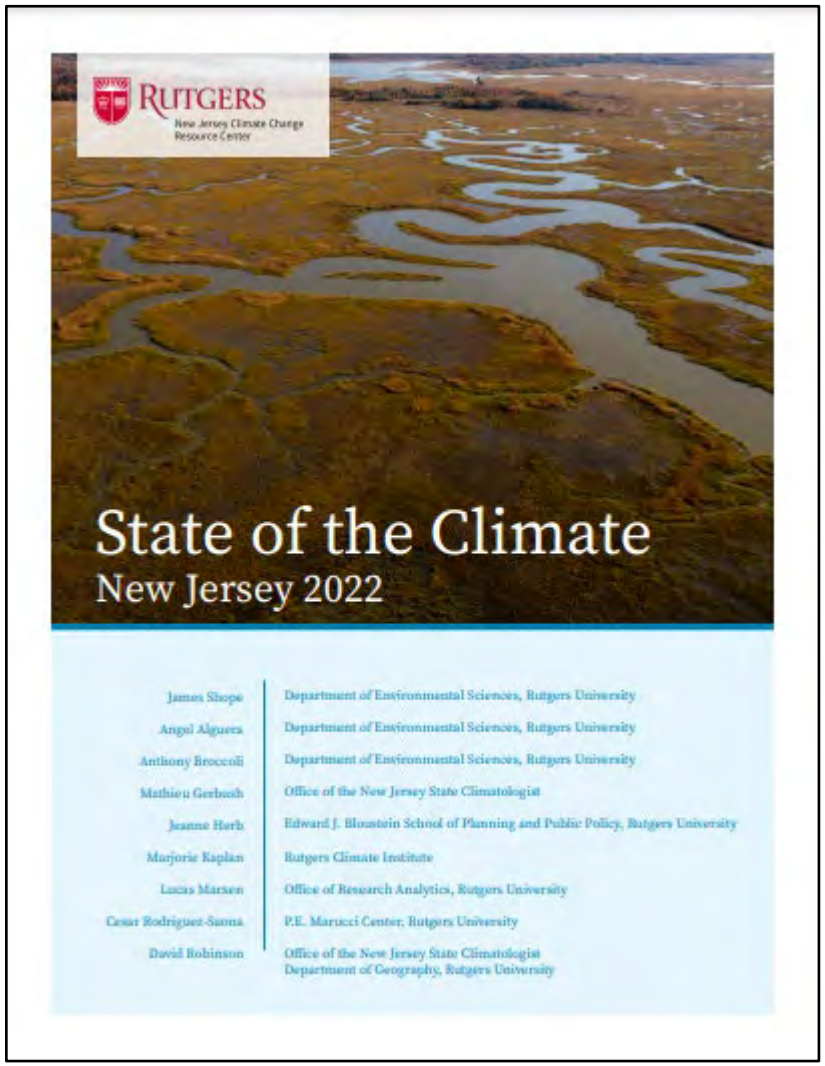
RUTGERS
THE STATE UNIVERSITY
OF NEW JERSEY

Pinelands Science Forum on Climate Change

May 19, 2023

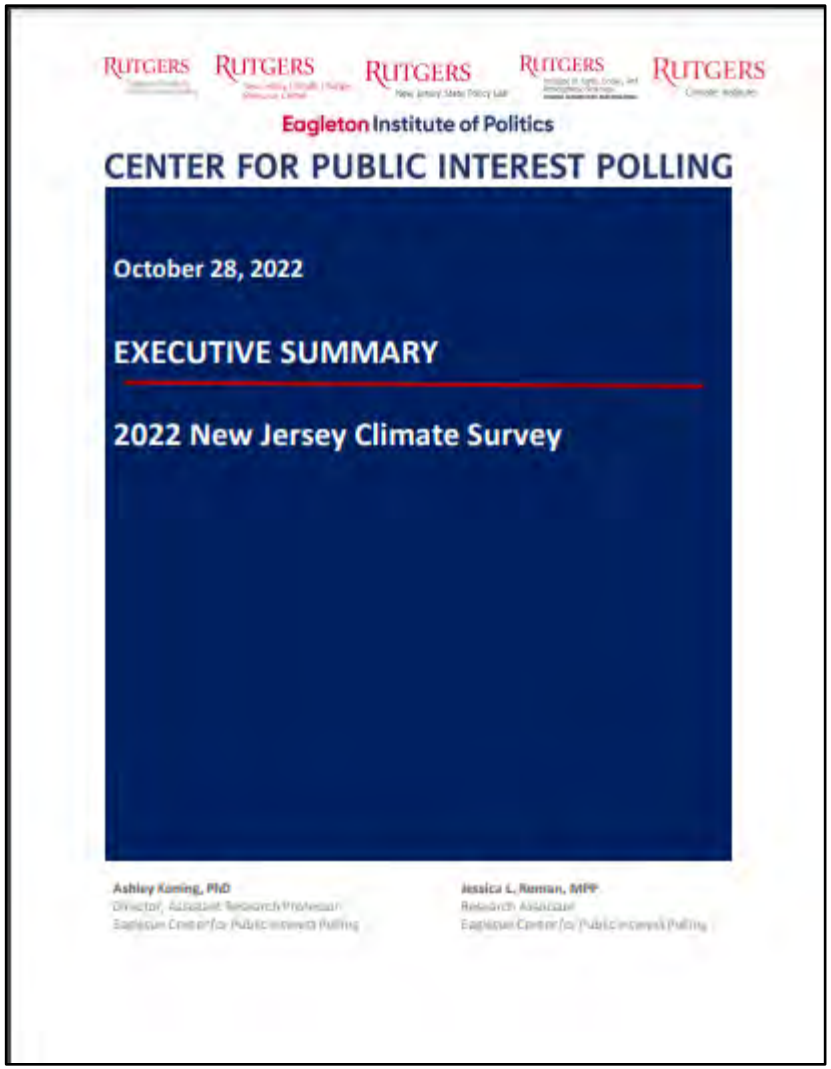
Jeanne Herb

Rutgers, The State University of New Jersey



https://njclimateresourcecenter.rutgers.edu/resources/state-of-the-climate-new-jersey-2022/

NJ Annual average temperature	• Increase @ 4°F since 1900 • Summer 2022: hottest 31-day period in NJ • By 2100: projected increase 4-5°F/9-10°F
Total NJ annual rainfall	• Increased @ 7% since early 1900s • 2100 projections: Increase @ 4-12% & increase of 5-15% during extreme 24-h events
Sea level rise	• Increased @ 18 inches since early 1900s • By 2100: likely range projected to be 4-6 feet above year 2000


RUTGERS RUTGERS RUTGERS RUTGERS RUTGERS

Eagleton Institute of Politics

CENTER FOR PUBLIC INTEREST POLLING

October 28, 2022

EXECUTIVE SUMMARY

2022 New Jersey Climate Survey

Ashley Koning, PhD

Jessica L. Roman, MPP

https://eagletonpoll.rutgers.edu/wp-content/uploads/2022/10/RU-ECPIP-NJCCA-Climate-Change-Survey-Executive-Summary-10.28.22-FINAL-PDF.pdf

1. Do you think New Jersey is more prepared to handle disasters and extreme weather events now, less prepared now, or about as prepared now as it was when Superstorm Sandy hit ten years ago?

- More prepared 46%
- Less prepared 10%
- About as prepared 36%
- Don’t know 8%

2. Do you think the earth's climate is changing, not changing, or are you not sure?

- Changing 78%
- Not changing 12%
- Don’t know/not sure 10%

3. In your view, how serious of a threat are changing climate conditions to New Jersey?

- Very serious threat 45%
- Somewhat serious threat 27%
- Not very serious threat 15%
- Not a threat at all 13%
- Don’t know 1%

4. When the state government makes large investments in infrastructure, such as bridges and tunnels, do you think they should or should not be required to include each of the following:

Specific plans for the infrastructure to withstand changing climate conditions and extreme weather events

- Yes, should be required 67%
- No, should not be required 19%
- Depends/Sometimes or for some projects 11%
- Don't know 3%

Specific plans for emissions reductions

- Yes, should be required 80%
- No, should not be required 11%
- Depends/Sometimes or for some projects 8%
- Don't know 2%

If you had to choose between [illegible] st or a little more [illegible] rnment buildings [illegible] vents, which would you choose?

- *Current cost 54%*
- *Pay a little more 39%*
- *Don't know 7%*

5. Please tell me if you support or oppose each of the following policies New Jersey could enact related to changing climate conditions

	Support	Oppose	Don't Know
Strengthen building codes to require resilience	78%	18%	4%
Reinforce infrastructure	89%	10%	1%
Require building elevation	60%	29%	11%
Require towns to develop plans	86%	12%	2%
Use public money to buy-out flood prone properties	47%	43%	10%
Invest in natural systems	88%	8%	3%
Create regulatory standards for development	84%	11%	5%
Use public money to replenish & widen beaches	63%	31%	6%
Require homeowners and businesses to buy insurance	68%	26%	6%

6. Should the Government give low and middle income residents resources to help them rebuild in the same area or relocate or should those residents pay the costs of on their own?

- Government should give resources 62%
- Homeowners should pay 18%
- Combination of both 16%
- Don't know 4%

Government should give resources 62%
Homeowners should pay 18%
Combination of both 16%
Don't know 4%

7. New Jersey will need to increase funding for disaster relief to pay for disasters and extreme weather events

- Likely 75%
- Unlikely 21%
- Don’t know 3%

Which residents should pay whatever the added costs are to make New Jersey more resilient to the impact of changing climate conditions. Who should pay major share, a minor share, or no share at all.

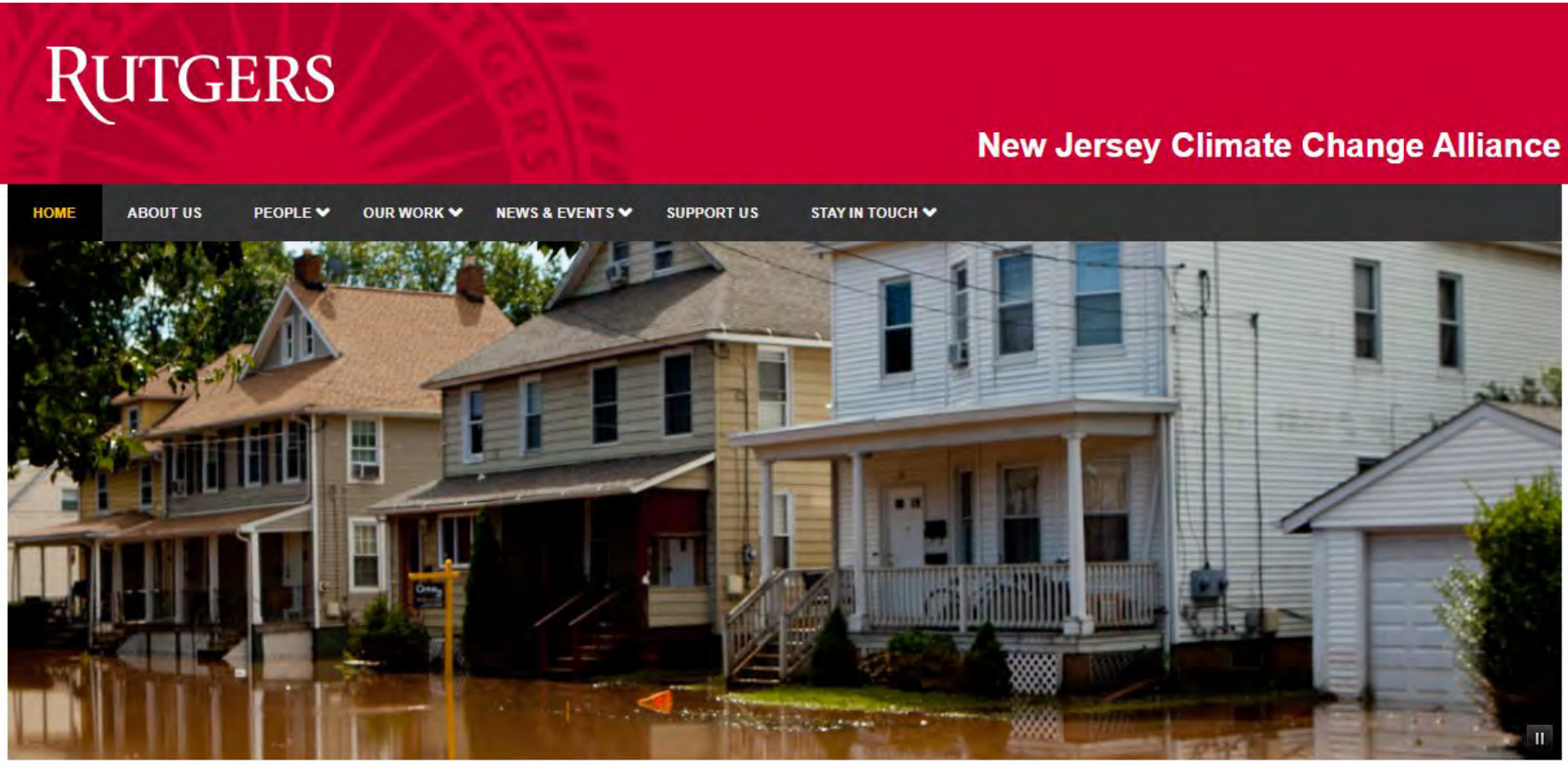
	Major Share	Minor Share	No share	Don't know
Residents that drive gas-powered cars	11%	43%	42%	4%
Upper-income residents that live in risky areas	45%	32%	20%	3%
Lower & middle-income residents that live in risky areas	9%	46%	42%	4%
All residents	8%	56%	31%	5%

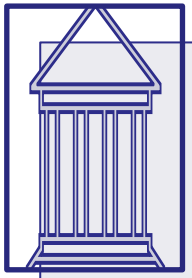
9. As a result of recent extreme weather events, like hurricanes, droughts, floods, unusual heat, or wildfires, have you taken any of the following steps?

	Yes	No	Don't know
Prepared a kit with emergency supplies in case of evacuation	47%	52%	1%
Prepared a disaster plan for you and your family	42%	56%	2%
Purchased a backup power generator	39%	60%	1%
Purchased additional homeowners' or renters' insurance policies	27%	68%	5%

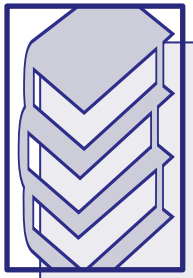
New Jersey Climate Change Alliance

https://njadapt.rutgers.edu/

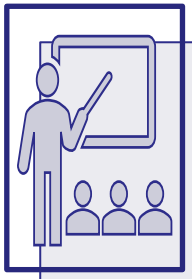




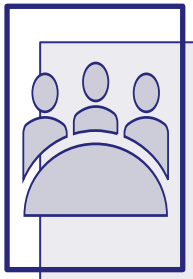
Assess public policy options



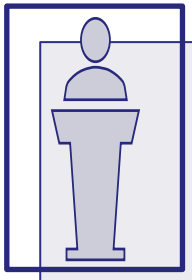
Document climate impacts



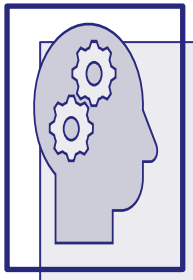
Conduct general outreach, education



Convene diverse voices to develop solutions



Engage decision-makers



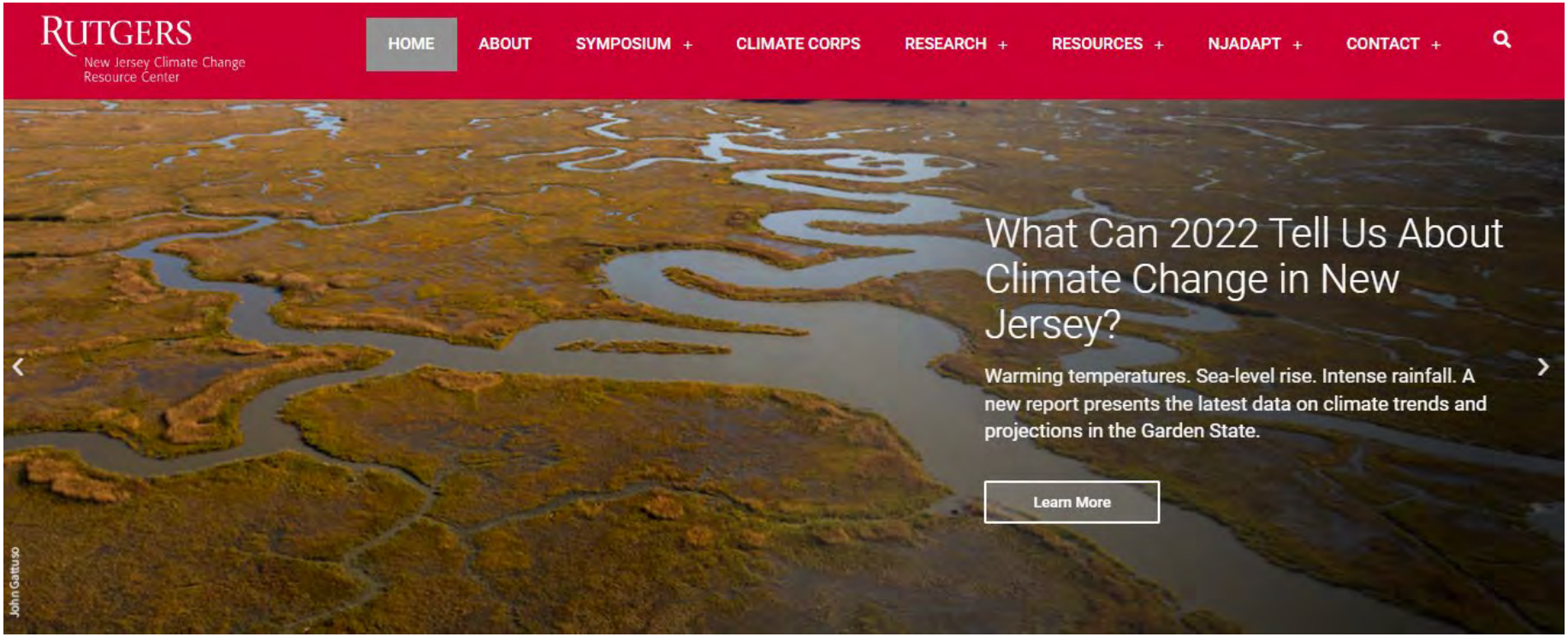
Develop practical guidance

Health and Health Equity	Sustainable Organic Waste	Social cost of carbon
Inventory sources of climate pollution	Populations vulnerable to climate change	Water supply
Transportation	Environmental Justice	Agriculture
State & local governance & investments	Natural and working lands	Industrial Hazards

New Jersey Climate Change Resource Center

January 2020 - N.J. Stat. § 18A:65-103

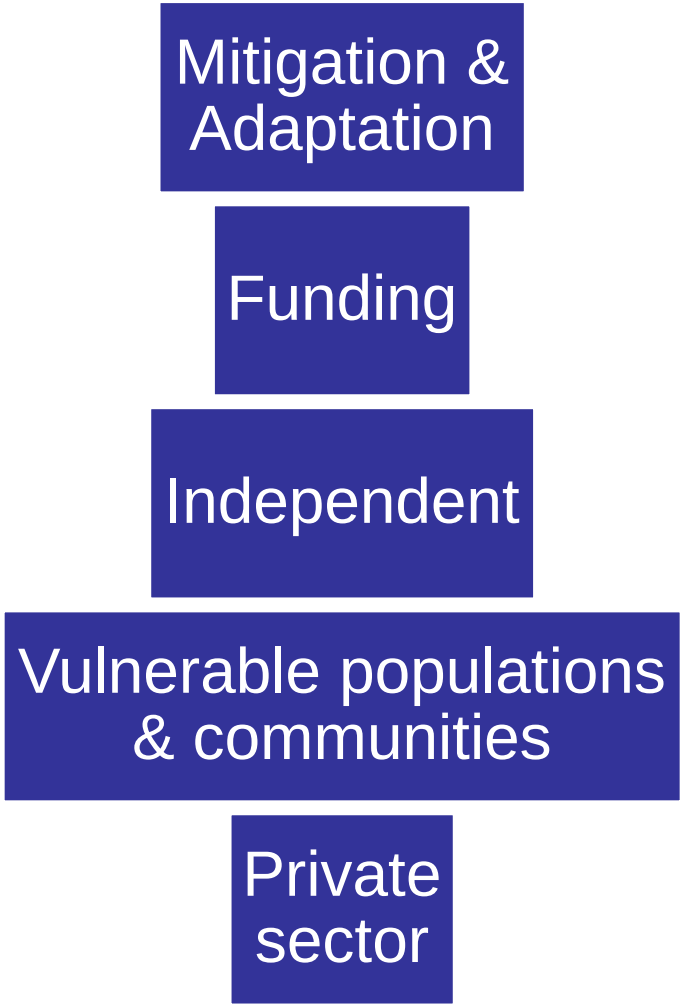
https://njclimateresourcecenter.rutgers.edu/



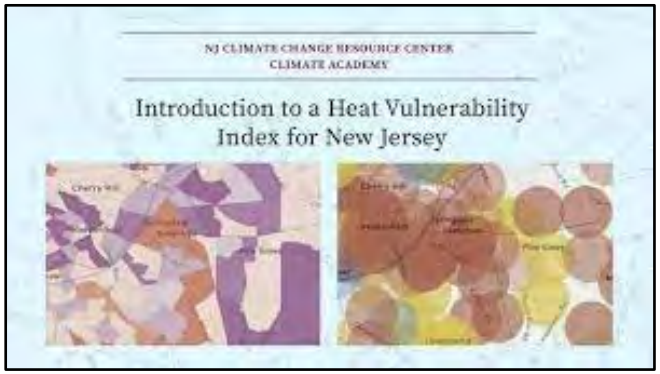
Mandate: *create and support the use of impartial and actionable science to advance government, public, private, and nongovernmental sector efforts to adapt to, and mitigate, a changing climate.*

- Conduct research with real-world applications to New Jersey's most pressing climate-related challenges
- Create planning tools, technical guidance, undertake pilot projects, & provide practical support for addressing climate change in NJ
- Connect actionable research to policymakers, planners, practitioners, media, communities, & others through outreach, training, & education

Innovative Design:

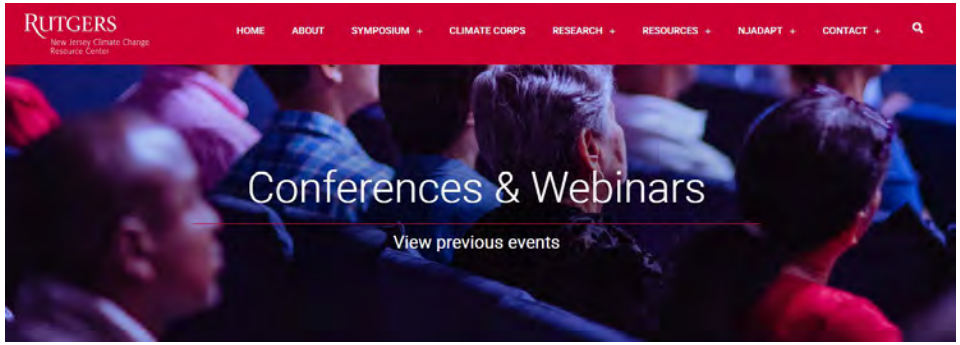


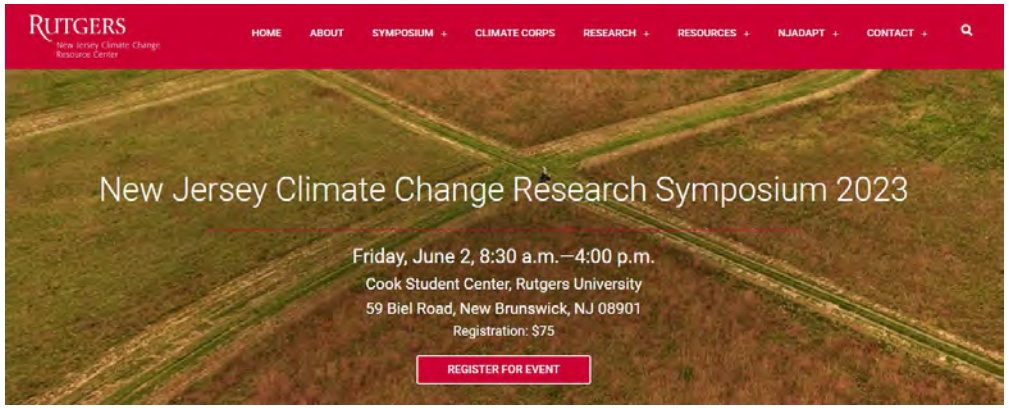
Applied science & research



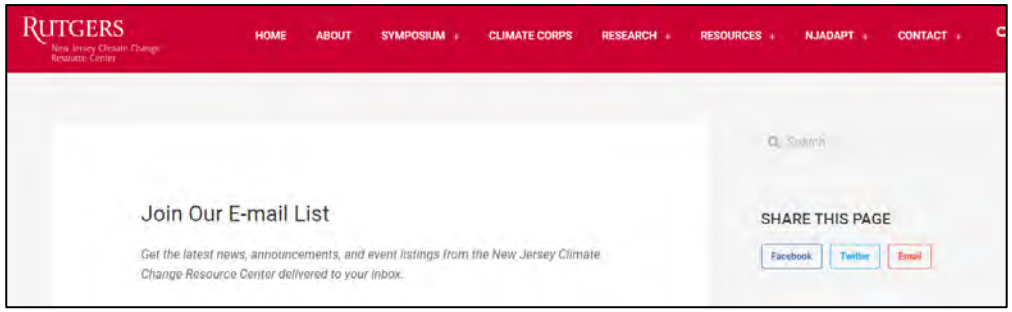
New Jersey Climate News

Education





Events

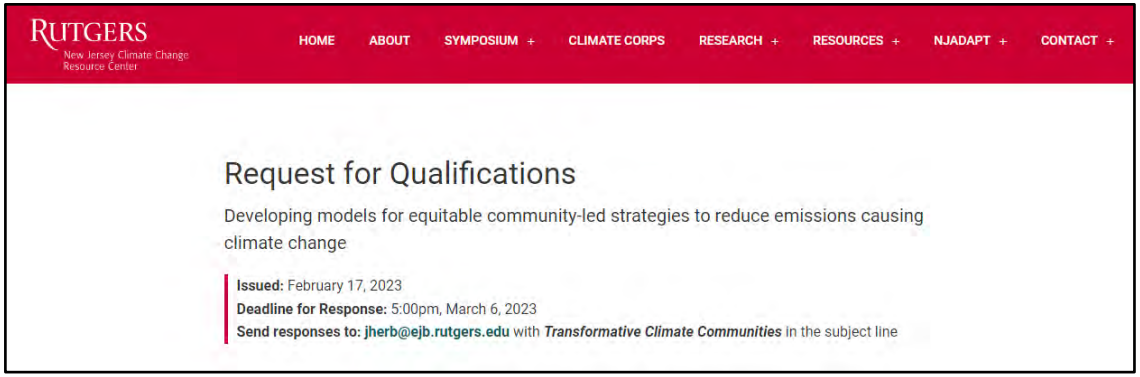


Alerts & Social Media

Climate Stories

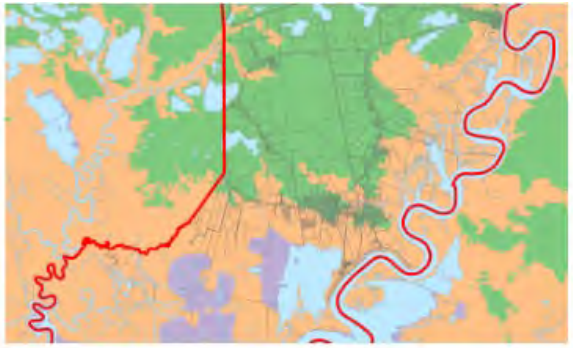
Training

Pilot & Demonstration Projects



Stakeholder engagement

Technical assistance



Commercial Township

Coastal Vulnerability Assessment

Maurice River Township

Coastal Vulnerability Assessment

Pennsville

Coastal Vulnerability Assessment

Trenton-Resilient New Jersey

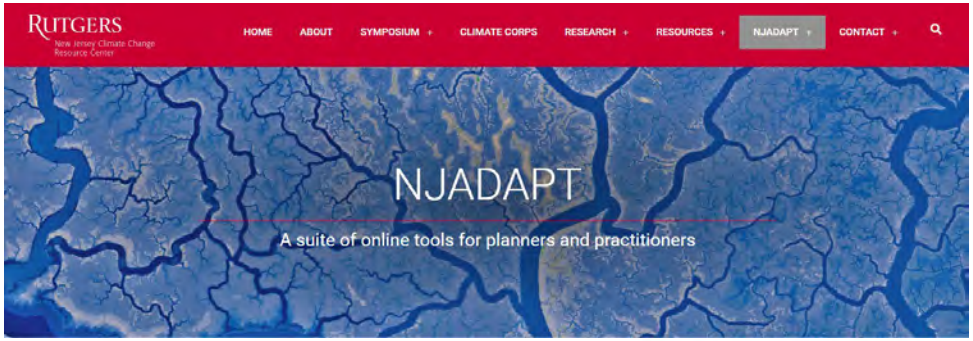
Salem's Response to Climate Change

Wildwoods

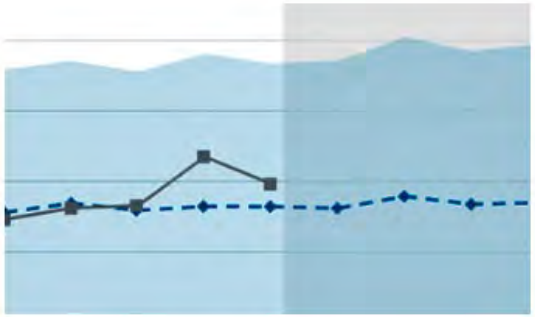
Coastal Vulnerability Assessment

NJ Climate Corps

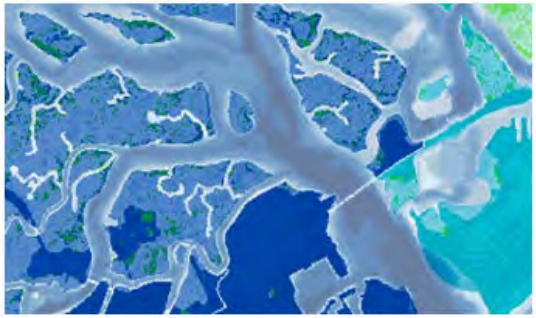
Data Analysis



Data and science-informed guidance



Climate Dashboard



NJ FloodMapper

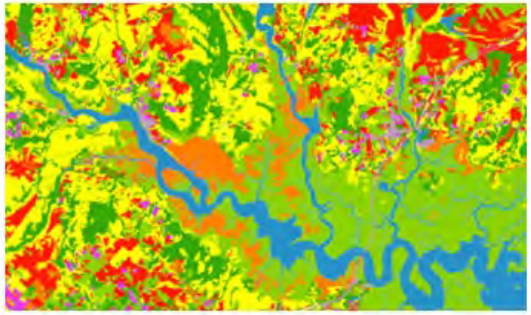
Climate Snapshots

NJ HazAdapt

Data for hazard planners

Climate Planning Tool

A guide to using coastal flooding data



NJ Forest Adapt

Forest management tool

Climate Snapshots

Health and Social Equity Impact Reports

Forestry Reports (Municipal Only)

Forest Data Report

The Forest Data Snapshot provides a quick look at how forests play an important role in providing wildlife habitat, wood products, recreation, carbon sequestration, clean air and water.

Forest Climate Risk Report

The Forest Climate Risk Snapshot provides a summary of how changes in temperature may impact the forest resources and tree species in New Jersey.

access points.

Burlington County

Southampton Township

- ✓ NJPublicHealthAdapt
- ✓ Enhanced HazAdapt
- ✓ Quick Start Guide
- ✓ Uniform Tools
- ✓ New research:
  - o Updated SLR projections
  - o Compound flood modeling
  - o Experiences of property buy-outs
  - o Local economic impacts of flooding

RUTGERS

What do we know: A list of 6

1. Climate change is having clear & tangible impacts on New Jersey's people, communities, ecosystems, critical infrastructure now.

2. The science may be constantly emerging but it is clear. There is no debate.

3. Adapting to a changing climate and eliminating the pollution that causes it is not an "either/or."

4. Changing climate conditions exacerbate underlying historic social inequities (health, housing, economic opportunities). Addressing climate change delivers co-benefits to those populations disproportionately affected.

5. The most impactful, permanent and cost-effective solutions are the ones that both enhance adaptation and emissions mitigation (nature-based solutions, energy efficiency, etc.)

6. The sooner we act, the lower the risk and cost. And there is much we can do.

Leaving here today

Ask: where does my stuff come from and where does it go?

Talk about it

Think systematically

Jeanne Herb

jherb@ejb.rutgers.edu
848-932-2725