

Climate Science in New Jersey

Rutgers: New Jersey Climate Change Resource Center

- Released in August
- Recent webinar available online (James Shope, Anthony Broccoli, David Robinson)

Davies, K., Shope, J., Broccoli, A., Gerbush, M., Kaplan, M., Robinson, D., Nikolopoulos, E., Araujo, D., Kopp, R., Herb, J. & Spector, A. 2025. State of the Climate: New Jersey 2024. Rutgers, The State University of New Jersey, New Brunswick, NJ. DOI: 10.7282/00000539.



State of the Climate: New Jersey 2024

Temperature

New Jersey's

temperatures

Summary of Historic and **Projected Trends** in New Jersey Climate

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Historic Trends have risen by approximately 4 °F since 1900.

annual

⊦°F

Sea level has increased along the New Jersey coastline at 0.17 inches/yr (~18.9 inches since the early 1900s).

Sea-Level Rise

Total annual rainfall within New Jersey has increased by ~7% since the early 1900s.

Precipitation

New Jersey has experienced multiple extreme rainfall and flooding events from tropical systems that mirror Post Tropical Cyclone Helene in southern Appalachia.

Extreme Events

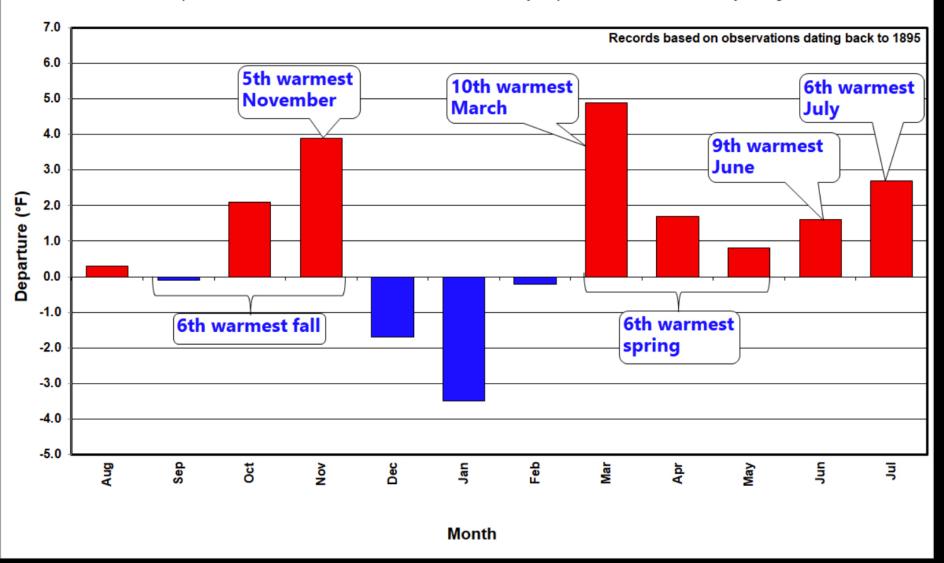
Future Projections With moderate greenhouse gas emissions New Jersey's annual temperatures are projected to increase 3.7–6.2 °F by 2100 relative to the 1991–2020 average.

By 2100, sea level in New Jersey will likely rise 1.7–3.9 ft with 2°C of global warming and 2.0–5.1 ft with 3.5°C of global warming. With moderate greenhouse gas emissions, annual rainfall is expected to increase by 3–13% by 2100 and extreme 24-hour rainfall is projected to increase by 5–15%.

With a warming climate, it is more likely that New Jersey will experience more intense rainfall from tropical systems and greater impacts farther inland.

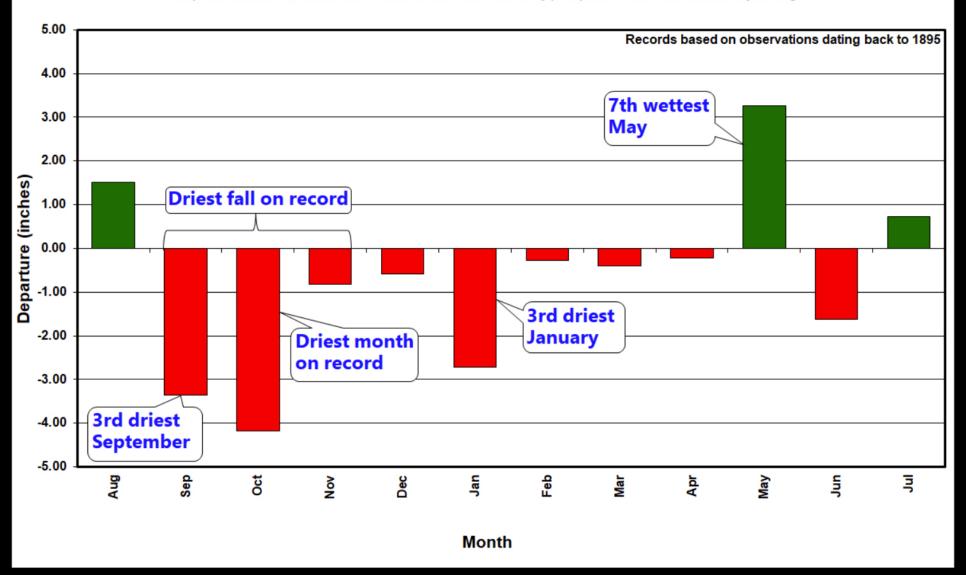
NJ Monthly Temperature Departures (August 2024 – July 2025)

Departures calculated from differences between observed monthly temperatures and 1991-2020 monthly averages



NJ Monthly Precipitation Departures (August 2024 – July 2025)

Departures calculated from differences between observed monthly precipitation and 1991-2020 monthly averages



Future Drought Projections

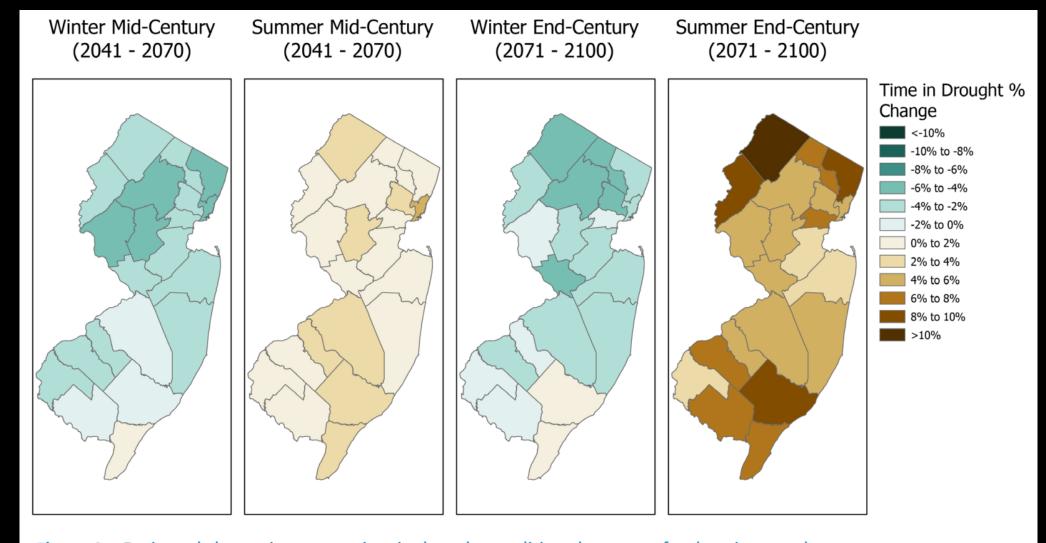
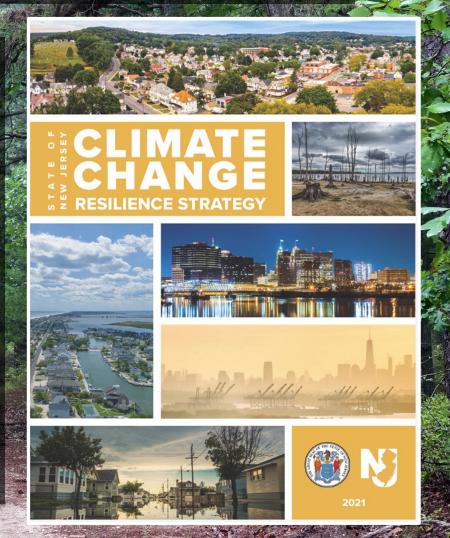


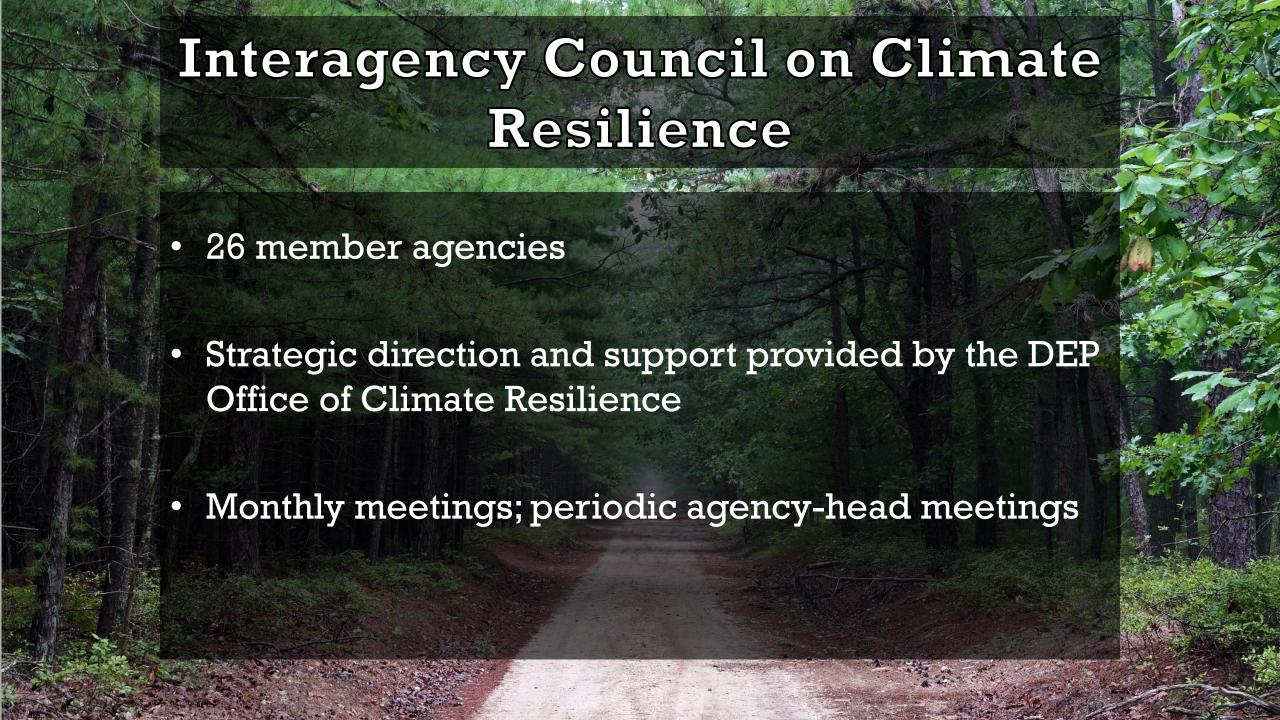
Figure S1. Projected change in percent time in drought conditions by county for the winter and summer seasons by the mid- and end-21st century.

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Interagency Council on Climate Resilience

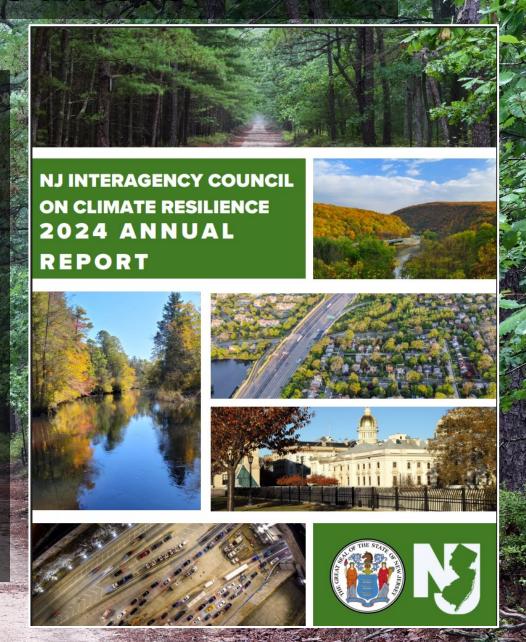
- Established in 2019 by EO No. 89 to develop short- and long-term actions plans that will promote the mitigation, adaptation, and resilience of New Jersey's economy, communities, infrastructure, and natural resources.
- The IAC helps support the development and implementation of the NJ Statewide Climate Change Resilience Strategy (2021).





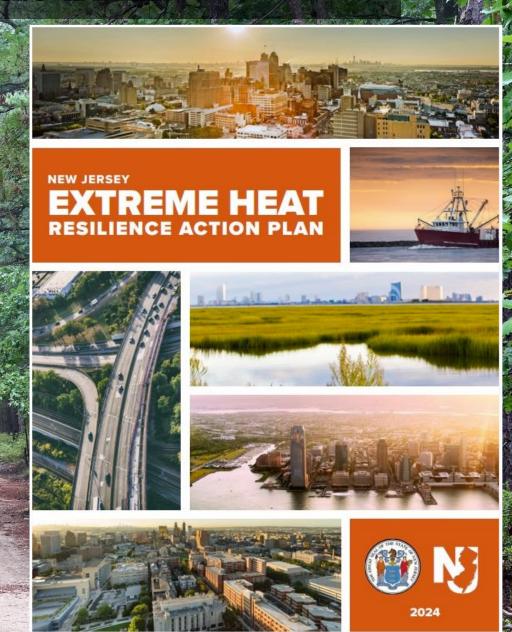
IAC Work Products

- 2024 Annual Report Released in March
 - Pinelands Management Area Climate
 Vulnerability Assessment; PCF Acquisition
 Priorities; Implementation of K-C Rules at municipal level
- New Jersey Statewide Flood Resilience Initiatives – Released this week
- Statewide Extreme Heat Resilience
 Action Plan Update planned for later
 this year



Extreme Heat RAP

- Extreme Heat RAP was released in 2024
 - Heat tolerant native species
- Extreme heat awareness week
 2025 (June 2nd June 6th)
 - 4 Webinars, including one on how
 Extreme Heat Threatens NJ's Natural
 World
- 2025 Update due out later this year



Flood Resilience Initiatives

- Flood Safety Week August 25th –
 August 29th (This week)
- Statewide Flood Initiatives Report
- Discusses implementation of Pinelands CMP environmental standards including, stormwater management and water supply management.

