

October 2022

Climate Change in New Jersey

A decade after Sandy, the Garden State continues to grow warmer, wetter, and more prone to flooding.



Temperatures are climbing

The Mid-Atlantic region is one of the most rapidly warming locations in the continental U.S.

3rd

2021 was the 3rd warmest year on record in NJ¹

~4°F

Increase in avg annual temps in NJ since 1900, roughly twice the global average¹

3-9°F

Projected increase in avg annual temps by 2100 (relative to 1901-1960) with moderate emissions¹

30

Days with max temp over 95°F by 2100 in Camden and surrounding area (with moderate emissions), up from current average of 5 days²



Sea-level rise is accelerating

And the trend is expected to continue well beyond the 21st century.

~1.5 ft

Amount of sea level rise at Atlantic City since 1911¹

2x

How much faster sea level is rising in NJ compared to global average¹

240

Projected days per year of tidal flooding in Atlantic City by 2100 (with moderate emissions), up from 5 days in 2000 and 13 days in 2021¹



Extreme precipitation is more frequent and intense

Greater warmth and humidity increase heavy rainfall and, with sea-level rise, drive severe flooding.

74%

Increase in 48-hour extreme precipitation events in northeast U.S. 1901-2016¹

5-15%

Projected increase in extreme 24-hour rainfall in NJ relative to 1950-1999¹

>9 in

Rain in 6 hours in parts of central Jersey during Tropical Storm Ida, 2x normal September amount¹

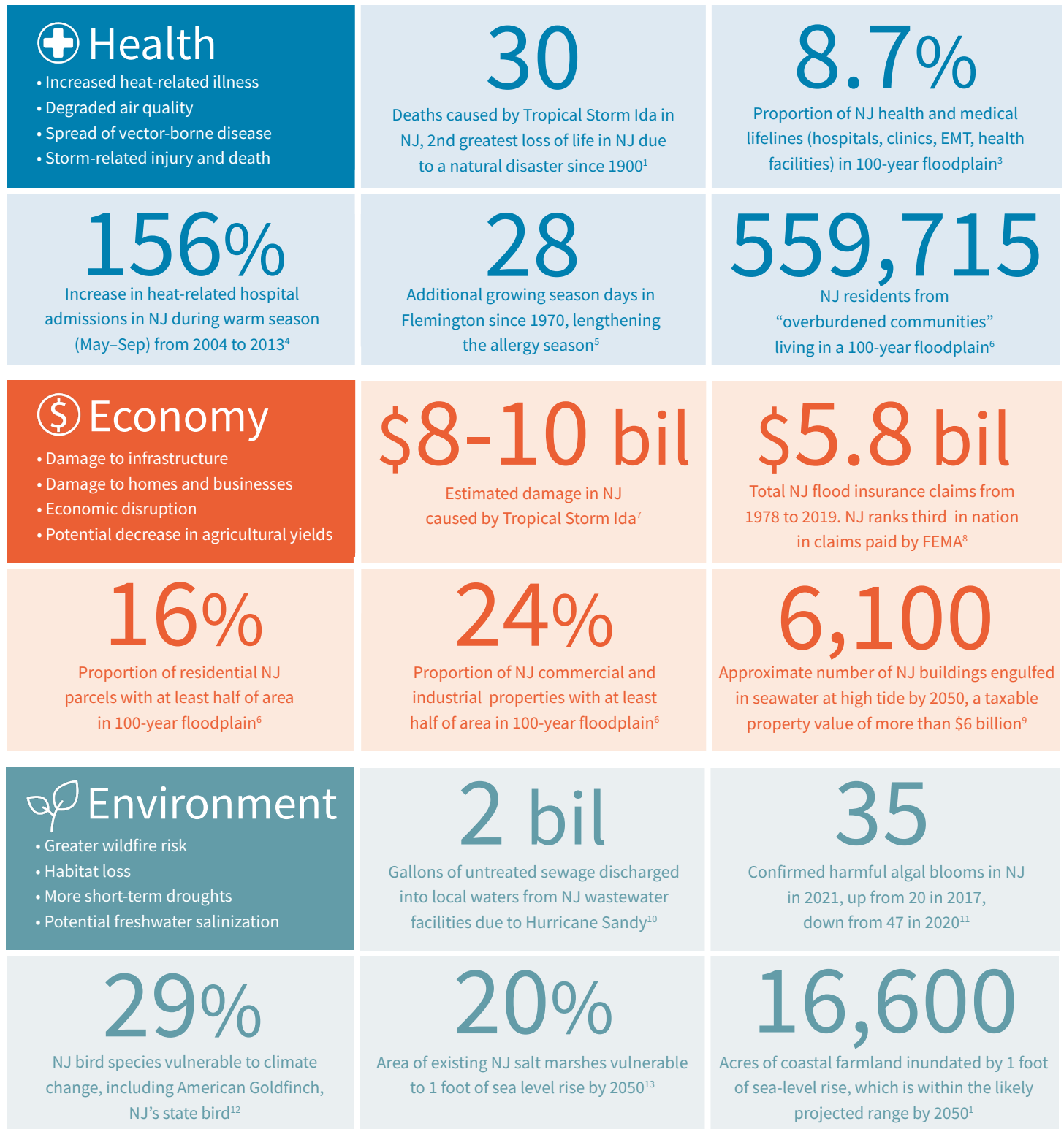
njclimateresourcecenter.rutgers.edu

The New Jersey Climate Change Resource Center was established by statute in 2020 to address climate change issues in the Garden State by providing actionable science, planning tools, and technical guidance to policymakers, practitioners, and communities.

What's at Stake for New Jersey?



Recent events offer a glimpse of what we can expect — and where our vulnerabilities are most acute — as temperature and sea level continue to rise and extreme precipitation becomes more frequent and intense.



1. Shope, J. et al. (2022). *State of the Climate: New Jersey 2021*. Rutgers University. bit.ly/3SECWWR | 2. njforestadapt.rutgers.edu | 3. Glova, Tracy. (2021). *NJ Health and Medical Lifelines Flood Analysis*. Rutgers University. bit.ly/3C2Tgcm | 4. NJDEP. (2022). *Climate Change Impacts on Human Health & Communities*. bit.ly/3Ca5yQK | 5. Sol Warren, Michael, & Horn-Muller, Ayurella. (2022). *Climate change makes allergy season longer*. Climate Central. bit.ly/3SFrfiA | 6. NJAES Office of Research Analytics, Rutgers University | 7. Beven, John L. II et al. (2022). *National Hurricane Center Tropical Cyclone Report: Hurricane Ida*. National Hurricane Center. bit.ly/3V6LzL8 | 8. NJDEP. (2022). *Commissioner LaTourette delivers remarks on climate change adaptation to joint meeting of Senate, Assembly Environment Committees*. bit.ly/3CA2xua | 9. Bain, Don. (2022). *Sinking Tax Base: Land & Property at Risk from Rising Seas*. Climate Central. bit.ly/3RGdIpD | 10. Kenward, Alyson et al. (2013). *Sewage Overflows from Hurricane Sandy*. Climate Central. bit.ly/3EjTHC5 | 11. Poretti, Victor et al. (2021). *Cyanobacterial Harmful Algal Bloom Freshwater Recreational Response*. NJDEP. bit.ly/3RCaOIB | 12. NJDEP. (2020). *NJ Scientific Report on Climate Change*. bit.ly/3C8JO7L | 13. Lathrop, R.G. and Hasse, J.E. (2020). *Changing landscapes in the Garden State: land use change in New Jersey 1986 through 2015*. Rutgers University. bit.ly/3ykyZyZ