

NJIT's Center for Natural Resources Turns Flood Data Into Action for New Jersey Communities

NJIT's Center for Natural Resources pairs field data and flood modeling to help NJ towns target real flood-mitigation solutions through REACH.

NEWARK, NJ, UNITED STATES, August 11, 2026 /EINPresswire.com/ -- As flooding, aging stormwater systems and emergency-planning demands grow more complex across New Jersey, the [Center for Natural Resources](#) (CNR) at the New Jersey Institute of Technology (NJIT) is turning environmental data into resilience strategies built for each community's actual conditions.

The work runs through [REACH — Resilience, Excellence, and Capacity Hub](#) — launched by the New Jersey Office of Emergency Management through CNR to connect municipalities with scientific expertise, infrastructure solutions and emergency-management partners.

No two towns flood the same way. Some face river overflow; others face stormwater runoff, undersized drainage or flooding near critical facilities like hospitals. CNR researchers work directly with municipal and emergency-management officials to identify flood-prone sites, quantify the engineering problem, and build mitigation plans around it — not around a template.

CNR has completed flood-resilience work in 17 municipalities, including Englewood, Paterson, Rahway, Ridgewood, Leonia, Irvington and Asbury Park, producing data-driven flood models and analytical tools for each. In Paterson, that meant assessing flood risk near St. Joseph's University Medical Center; in Rahway, mapping flood-prone stretches of the Rahway River and roadway drainage.

"We aim to provide actionable results — measurements and simulations — to communities,"



NJIT Center for Natural Resources
Students in Field

said [Dr. Michel C. Boufadel](#), CNR director.

Over the past two years, CNR has expanded active monitoring to 60+ flood-prone sites, tracking events including the August 2024 Overpeck Creek overflow in Englewood and the July 2026 storms that brought up to a 10-year rainfall recurrence to parts of the state. The network gives municipalities both long-term planning data and real-time conditions for faster emergency response.

"By bringing together continuous monitoring data, high-resolution radar rainfall data and advanced flood modeling, we can shift stormwater management from reactive to proactive," said Dr. Viravid Na Nagara, CNR postdoctoral research associate.

"This has been a great collaboration between government, academia and university," said Robert Hoffmann, City Manager, Englewood.

"We are very pleased with NJIT's work, and we will continue to work with universities in New Jersey to support communities," said Christopher Testa, Hazard Mitigation Unit Manager, NJ State Police / NJ Office of Emergency Management.

“

This has been a great collaboration between Government, Academia and University.”

Robert Hoffmann, City Manager of the City of Englewood.

CNR will host a public event in Fall 2026 convening researchers, government officials and municipal and community leaders; details to follow. New Jersey municipalities facing flooding or stormwater challenges are encouraged to contact CNR about a REACH partnership.

Learn more: reach-nj.org | cnr.njit.edu

About REACH: Launched by the NJ Office of Emergency Management at CNR, REACH connects New Jersey communities with scientific expertise, infrastructure planning and emergency assistance to prepare for natural hazards, particularly flooding.

About CNR: The Center for Natural Resources at NJIT develops practical, science-based approaches to environmental and energy-resource challenges — spanning hydrology, flood



modeling, stormwater management, climate resilience and PFAS/oil spill remediation — to protect New Jersey communities.

Dr. Meghana Parameswarappa Jayalakshmanan
NJIT Center for Natural Resources
+1 973-596-6079
mp848@njit.edu



Dr. Boufadel with Leadership Team at NJIT Center for Natural Resources

This press release can be viewed online at: <https://www.einpresswire.com/article/932658014>

EIN Presswire's priority is source transparency. We do not allow opaque clients, and our editors try to be careful about weeding out false and misleading content. As a user, if you see something we have missed, please do bring it to our attention. Your help is welcome. EIN Presswire, Everyone's Internet News Presswire™, tries to define some of the boundaries that are reasonable in today's world. Please see our Editorial Guidelines for more information.

© 1995-2026 Newsmatics Inc. All Right Reserved.