



## U.S. EPA HURRICANE RESPONSE 2017

# Scientific Technical Assistance and Support

[www.epa.gov/hurricane-response](http://www.epa.gov/hurricane-response)

### *Research Actions*

- EPA's Office of Research and Development (ORD) is coordinating actions related to scientific and engineering technical support through the Emergency Operations Center (EOC) in Washington, D.C.
- ORD is the scientific research arm of EPA, whose leading-edge research helps provide the solid underpinning of science and technology for the Agency. Science at EPA provides the foundation for credible decision-making to safeguard human health and ecosystems from environmental pollutants.
- ORD will continue to provide technical assistance and support to the federal, state and tribal response.

### *Technical Support for Emergency Response*

- EPA's world-class research organization includes an interdisciplinary team of scientists and engineers who provide technical expertise during emergency response. Research capabilities include developing methods, models and tools that help states, tribes and communities assess environmental risks, clean up hazardous waste sites and safeguard water quality, public water systems and public health.
- Researchers across EPA's 10 national laboratories and centers may provide support to the affected state through ORD's technical support structure, Reachback for Emergency Response (RACER), which could be activated to respond to hurricanes. RACER can help responders address complex environmental problems requiring coordination among researchers across ORD laboratories, centers and offices.
- EPA researchers have access to commercially available rapid analytical technologies that can be used to measure specific chemicals in the environment, contaminants and indicators of contamination including pH, turbidity, temperature and total hardness.
- EPA researchers have developed methods of analysis that could be applied depending on the contaminant and sample source. Specifically, EPA researchers can test to determine whether drinking water has fecal contamination using a variety of fecal analytical methods. They can also use both culture and molecular based methodologies to detect microbial contaminants such as bacteria (*Legionella* and *Mycobacterium*), Protozoa (*Cryptosporidium*, *Giardia* and *Naegleria*) and viral (norovirus, enterovirus and adenovirus) contaminants. These methods can be used for same day monitoring of water.
- EPA researchers can also monitor floodwater and fungal contamination using Mold-Specific Quantitative PCR (MSQPCR) to assess damaged homes and residences following a hurricane.