

Information on the National Flood Research & Education Act (NFREA)

Advancing Flood Research is Necessary to Protect our Families and Communities

- According to the National Oceanic and Atmospheric Administration (NOAA) three-fourths of all presidential disaster declarations are associated with flooding.
- According to NOAA, in most years flooding causes more damage in the United States than any other severe weather related event, an average of \$5.3 billion a year for the 30-year period, 1975- 2004.
- Flooding, flood prevention, and flood related socio-economic, environmental, health and policy issues are highly complex with implications for loss of life and billions in damage to all sectors of our economy.
- There is not currently a national-level comprehensive effort to research flooding, flood prevention, and flood related issues
- Flooding, flood prevention, and flood related issues require a national-level comprehensive and collaborative research effort to help advance understanding of the variety of issues on causes of flooding, and implementation of prediction methods as well as policies that would help prevent future damage and natural disasters.

NFREA Will Advance Research on Flooding to Improve Preparedness, Response and Recovery

- This national-level effort will include partnerships between the federal government and institutions of higher education all with expertise in the areas of physical and environmental science, including hydrology, hydraulics, hydrometeorology, climate, as well as in engineering, sociology and economics.
- NFREA includes research on climate, weather and all other areas related to flooding, flood prevention, and other flood related issues, including:
 - analysis of the economic effects of flooding;
 - evaluation and development of strategies, techniques, and technologies to reduce, manage, monitor, and prevent flooding;
 - analysis of Federal, State, regional and local flood-related policy;
 - and development of risk-assessment tools, methods, and models.
- NFREA will develop recommendations and identify best practices for predicting, preventing, and minimizing flooding and its effects, including:
 - risk-assessment tools, methods, and models;
 - strategies and techniques for monitoring and predicting flooding;
 - strategies and techniques for flood management and prevention;
 - the adoption and use of relevant technologies;
 - Federal, State, regional, and local flood policies; and
 - coordination and cooperation among local, State, and Federal flood-related efforts.

- Research, recommendations, and best practices will be developed by taking into account regional differences in hydrology, weather, geography, economy, and population density while ensuring non-oceanic flooding situations, among others, are represented.
- Demonstration projects will be used to test the efficacy of new strategies, techniques and technologies for assessing flood risk, monitoring, and predicting, and will provide local governments the opportunity to participate in areas where new strategies are needed.
- There are multiple areas of federal, state, and local government responsibility for flooding and water-related issues. That is why this national-level research effort will involve the development of collaborative efforts on regional flooding, flood prevention and flood related issues, including the following entities:
 - relevant federal departments and agencies, including water-research efforts within NOAA and other federal entities;
 - State, county, and local governments;
 - local Councils of Governments or regional and Metropolitan Planning Organizations;
 - State agriculture, natural resource, environment, economic development, homeland security, and water agencies;
 - county disaster recovery coordinators, emergency management personnel, and first responders;
 - public or private colleges and universities;
 - floodplain managers;
 - watershed organizations and boards;
 - agriculture and commodity Organizations;
 - resource, conservation, preservation and environmental organizations;
 - homeowners associations and organizations; and
 - business and development organizations.