

# Technical Assistance Programs



Partnering with local communities to address diverse water resources issues



Small federal investment



**Leveraging resources in a constrained environment**



Non-federal partners contribute funds to expand scope

Corps provides deliverables to partners, empowering them to make risk-informed decisions for their communities

## Floodplain Management Services (FPMS)

"All things flood"

### Services:

- Technical and planning expertise to reduce riverine and coastal flood risk
- Guides, pamphlets and supporting studies
- National Flood Insurance Program Support
- Silver Jackets state-led interagency flood risk management teams

### Types of deliverables:

- Flood modeling
- Flood hazard vulnerability analysis
- Hurricane preparedness and evacuation studies
- Evaluation of structural and nonstructural alternatives
- Inundation and floodplain mapping
- Flood proofing studies
- Risk communication and public education
- Nonstructural flood risk management workshops



Typically 12-24 months



Up to 100% federally funded



## Planning Assistance to States (PAS)

"All things water"

### Services:

- Comprehensive plans for the development, use and conservation of water and related resources of drainage basins, watersheds or ecosystems
- Technical assistance for hydrologic, economic or environmental data and analysis in support of state-led plans.

### Types of deliverables:

- Watershed planning
- Surface and groundwater quality
- Water supply and demand
- Wetland delineations
- Stream assessments
- Stormwater assessments and mapping
- Wastewater studies
- TMDL-related analysis
- GIS mapping



Typically 12-24 months



50% or more partner cost share



## References

### National Shoreline Management Study (NSMS)

- Investigations on the regional physical, economic, environmental and social impacts of shoreline change
- Recommendations on shoreline management policies, like a systems approach to managing sediment

### Systems Approach to Geomorphic Engineering (SAGE)

- Studies on hybrid engineering solutions that integrate "green" and "gray" infrastructure approaches to achieve coastal resiliency



Local decision making, innovative financing, shared vision and commitment

Providing manpower, state-of-the-science tools and engineering expertise

Partnering to expand, fill gaps in local resources, capabilities

Federal \$ through Technical Assistance Programs

# USACE Technical Assistance Programs

## Across the Nation



### Flood Risk Communication

Montana, Nebraska, South Dakota, Iowa (FPMS, Silver Jackets)

Partnered with local communities, historical societies, state floodplain managers, media outlets, etc. to create and promote high water mark signs with vivid pictures and personalized risk. Project also includes website development and social media campaign.



### Inventory of Flood-Prone Structures

Souris River Basin, North Dakota (FPMS, Silver Jackets)

Conducted an inventory of 165 at-risk rural homesteads as part of a larger multi-year, basin-wide effort with federal and state agencies, counties and local watershed boards. A small federal investment was leveraged with \$11 million in state and local funds for non-structural flood risk management measures. There was a high percentage of resident participation thanks to extensive partner support.



### Wave Study

Two Rivers Harbor, Wisconsin (PAS)

Collected data on waves that create hazardous navigation conditions, and proposed various structural solutions.

"The City recognizes the importance of this study to mitigate the surge problem in our Lake Michigan harbor, and to reduce shoaling. Both issues present challenges in our efforts to make greater use of the harbor for both recreational and commercial uses," said Greg Buckley, Two Rivers city manager.

### Flood Risk Management Study

Muncy, Pennsylvania (PAS)

"Muncy, alone, may struggle to achieve these resiliency goals and execute plans due to lack of manpower, economic resources, or other constraints; however, coalitions comprised of members across a wide range of disciplines enhance the ability to provide services and enable groups to pool collective resources to achieve common goals," said Josh Schnitzlein, Lycoming County hazard mitigation planner.

Innovative partnerships formed to help this vulnerable city, including the Corps, Lycoming County, Susquehanna River Basin Commission and Muncy Bank and Trust - a true and rare public-private partnership.



### Post-Disaster Technical Support and Engineering Advice

Oroville Dam, California (FPMS)

A federal disaster was declared in 2017 when the tallest dam in the U.S. faced imminent failure with heavy rainfall, a damaged gated spillway and severe erosion of the emergency spillway. Hundreds of thousands of people were evacuated. USACE partnered immediately with the CA Dept. of Water Resources to provide technical advice, dam safety engineering support, geological investigations and a risk assessment. The team won a planning achievement award in 2017 for executing a work agreement in record time and coordinating a multidisciplinary team that acted decisively and creatively in a crisis.



### Flood Modeling and Flood Risk Management

Puppy Creek, Lowell, Arkansas (FPMS)

Simulated various flooding scenarios to help the city come up with alternatives to alleviate flooding. The city wanted to dredge the creek, which is costly and time-consuming. The study recommendation was to clean out culverts and clear approximately 50 feet upstream and downstream of the culverts, saving the city thousands of dollars.

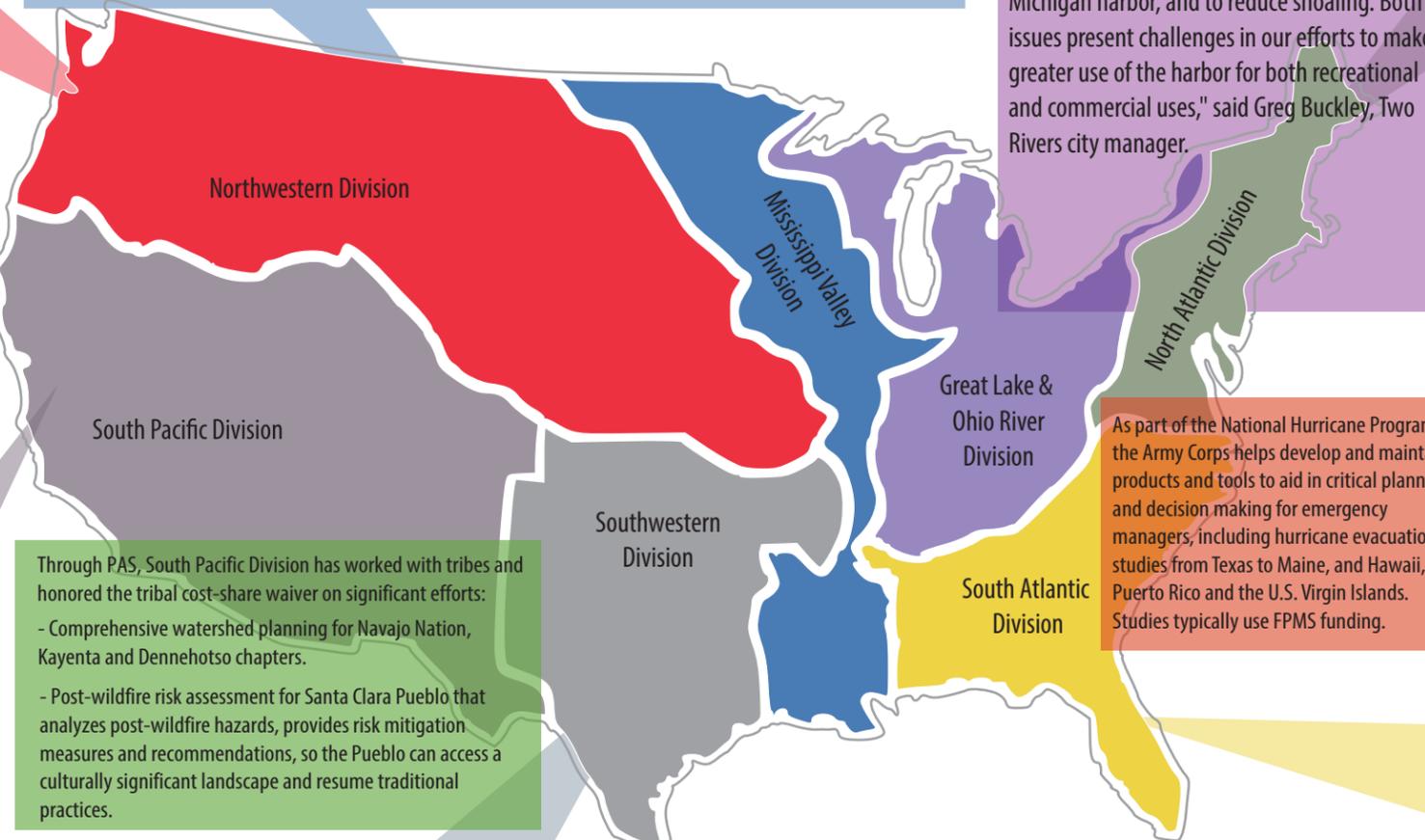


"We are a small community that has very little revenue to support a study like this. Now, we are not going to have to dredge, and we can help the community get some much needed relief from Puppy Creek flooding," said Richard Stone, Lowell special services director.

### Water Use and Demand Study

South Carolina (PAS)

Conducting a comprehensive water use and demand study for the Savannah River Water Basin, as well as groundwater modeling for the state in partnership with the U.S. Geological Survey and the SC Department of Natural Resources. This information, including stakeholder input, will feed into updating the State Water Plan. Water use and demand forecasts for the next 50 years are integral to formulating comprehensive water policy for the state.



As part of the National Hurricane Program, the Army Corps helps develop and maintain products and tools to aid in critical planning and decision making for emergency managers, including hurricane evacuation studies from Texas to Maine, and Hawaii, Puerto Rico and the U.S. Virgin Islands. Studies typically use FPMS funding.