

**DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS**

COMPLETE STATEMENT OF

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**BEFORE
COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS**

ON

**SHORELINE AND RIVERBANK
RESTORATION AND IMPROVEMENTS**

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Chairman Carper, Ranking Member Capito, and distinguished members of the committee. I am honored to testify before you today and I thank you for the opportunity to discuss the Army Civil Works program within the South Atlantic Division (SAD). I look forward to discussing the ways in which we are working to use innovation and efficiencies to identify and assist economically disadvantaged communities, and to enhance the resilience of our coastal communities to climate change, as well as any questions the committee may have. Most importantly, I look forward to continuing to work with this committee, Congress, and the Administration to help address the Nation's water resources challenges.

The South Atlantic Division has a diverse Civil Works Program that includes projects within all three Army Civil Works main missions, which are: commercial navigation, flood and storm damage reduction, and aquatic ecosystem restoration. Our region includes coastal ports and their navigation channels, and inland waterways; the Enterprise Deep Draft Navigation Planning Center of Expertise; the South Florida Ecosystem Restoration effort, which includes the Everglades and is the largest ecosystem restoration program in the world, and numerous projects to reduce flood risk to our coastal communities.

I would like to focus today on the South Atlantic Coastal Study (SACS), which is the largest coastal risk assessment ever conducted by the U.S. Army Corps of Engineers (Corps). The SACS is a great example of our goals to use Research and Development (R&D) to help communities reduce their flood risks. In addition to discussing the SACS, I will also share with you three examples within our region of how we are working with disadvantaged communities to help reduce their flood risks.

The SACS is a mammoth undertaking, covering more than 60,000 miles of shoreline, including six states and two territories (Mississippi, Alabama, Florida, Georgia, South Carolina, North Carolina, U.S. Virgin Islands, and Puerto Rico). The risk assessments conducted by the SACS can help to identify and inform potential opportunities to improve the management of flood risks from coastal storms across the region.

Partnering has been a primary goal on this study, and there have been extensive outreach efforts engaging with over 1,300 stakeholders who are involved and have the capability to lead an effort to implement change in their coastal communities. We are communicating collaboratively with other Federal resource agencies as well, to identify and discuss ways we can all work together to overcome institutional barriers and adapt to climate change, including sea level rise. Through the SACS, the Corps has developed the Coastal Hazard System (CHS), a national coastal storm hazard data

resource that stores modeling results including storm surge, astronomical tide, waves, currents, and wind. The CHS will aid in the identification of solutions for today's and tomorrow's challenges like those posed by extreme rainfall events and the impacts resultant of severe floods and coastal storms.

The Corps recognizes the value in Engineering with Nature and the SACS illustrates how Regional Sediment Management (RSM) can involve nature-based solutions. With the RSM Regional Center of Expertise in SAD and through RSM advancements in the SACS, the Corps is working to identify sustainable ways to provide water resources solutions.

As highlighted by the SACS, the Corps continues to focus on areas at high risk from climate change and its impacts to our citizens. The Corps, along with other Federal and state agencies and local governments, is working to address water resource challenges posed by climate change, including water scarcity, sea level rise, and observed increases in severe weather events, and their effects on communities and aquatic ecosystems.

I would like next to discuss two other studies where SAD has been developing, and evaluating, options to help disadvantaged communities reduce their flood risks and adapt.

The Charleston Peninsula Coastal Storm Risk Management Study is investigating coastal storm impacts on the Charleston Peninsula and, in partnership with the city of Charleston and its stakeholders, is exploring effective, economically viable and environmentally sound solutions to mitigate coastal storm risks. The combined features of the proposed plan now under consideration include a storm surge wall, nonstructural measures, and living shorelines that would reduce coastal storm risks in this peninsula, where there is a cross-section of different socio-economic communities, including disadvantaged communities. In association with the storm surge wall, natural and nature-based features consisting of oyster reef-based living shoreline sills could possibly reduce coastal storm impacts to natural shorelines and nearshore benthic resources seaward of the wall. The living shoreline sills would be intended to reduce erosion of existing wetland marsh, while reducing scour at the proposed storm surge wall, and provide other environmental benefits. As part of the study, the Corps has identified minority communities vulnerable to flood damages. The study evaluated risk reduction measures including structural, non-structural and natural features to address conditions associated with sea level rise and climate change.

After several hurricanes and the devastation of Hurricane Maria in Puerto Rico, the Corps has been undertaking several coastal storm risk management studies in Puerto Rico to help reduce the risk of damage from coastal flooding and enhance resilience to climate change, particularly to help disadvantaged communities reduce their risks and adapt to a changing climate. The San Juan Metro Area Coastal Storm Risk Management feasibility study assesses coastal flood risk from extreme high-water events that result from storm surge, waves, tides and combinations of these forces, as well as the effects of sea level change, which is expected to exacerbate coastal flooding. The recommended plan consists of a system of structural and natural and nature-based features in strategic locations, which would work together to reduce the risk of damages from coastal flooding and extreme high-water events. Specifically, the plan includes levees, breakwaters, seawalls/floodwalls, and natural and nature-based features including an elevated living shoreline and breakwater that would help to reduce the flood risk along the shoreline as well as create habitat. The proposed project is expected to benefit a disadvantaged community with a minority population of approximately 99% of the total population and where approximately 71% of the residents in the project area are considered below the poverty level.

Finally, the Princeville, North Carolina, Flood Risk Management Project is located on the Tar River in Edgecombe County, North Carolina. The town is the first municipality in the United States incorporated by former slaves and is subject to severe flooding from the adjacent Tar River during storm events. The planned project is based on a comprehensive assessment that balances flood risk management, life safety, cost effectiveness, and preservation of the cultural environment while fully responding to Executive Order 13146, titled the "President's Council on the Future of Princeville, North Carolina." The project was fully funded for construction using funds provided under the Additional Supplemental Appropriations for Disaster Relief Act of 2019, and we are evaluating the design features on a path to construction.

I am committed to ensuring that the South Atlantic Division will continue to seek innovative ways to identify the most equitable and efficient solutions to our Nation's water resource issues, in a manner that is of high engineering, economic and environmental quality.

Mr. Chairman, this concludes my statement. I appreciate the opportunity to testify today and look forward to answering any questions you may have. Thank you.