South Florida Water Management District (District) is requesting FEMA grant funding to advance flood risk reduction measures in the C-8 Basin, a region of about 270,000 people that covers 28 square miles, in the northeastern portion of Miami Dade County. The area drained by the C-8 Canal is fully developed with primarily residential and commercial uses. The C-8 Canal is the central flood control feature that receives and conveys basin floodwaters by gravity through the S-28 Coastal Structure to sea.

As evidenced during the recent Tropical Storm Eta, sea level rise is limiting the ability of these central flood control features to convey floodwaters. Serious flooding events have occurred around the C-8 Basin, with above 100-year rainfall volumes, and higher sea levels impeding the S-28 Structure to deliver those volumes to the sea.

The proposed projects in the C-8 Basin include local and regional flood mitigation measures to reduce flood risk exacerbated by sea-level rise.

More specifically, the District, in partnership with Miami-Dade County and the Village of Miami Shores, is proposing the implementation of innovative regional flood mitigation measures. The project includes the following features:

- **Replacement of the S-28 Structure** with a more robust structure and elevated components to withstand the impacts of sea level rise and climate change.
- **Installation of a 500 cubic foot per second forward pump station** adjacent to the S-28 structure to maintain basin discharge levels while sea levels rise.
- **Construction of a flood barrier** tying S-28 Structure to higher ground elevations to mitigate the impacts of sea level rise and storm surge.
- **Enhancement of secondary canal banks** that drains to the C-8 Primary Canal to improve flood control throughout the basin.
- **Construction of a temporary floodwater detention area** in a portion of the Miami Shores Golf Course near the S-28 Structure to provide temporary storage of floodwaters during extreme rainfall events.
- **Installation of nature-based features** such as living shoreline along the C-8 Canal and vegetated flood control berms to enhance flood protection.

The total cost of the proposed flood mitigation measures, to be completed upon grant funding approval, is estimated at $71.5 million. The calculated benefit cost ratio is 2.98. The project will reduce flood risk under sea-level rise, by restoring the basin’s flood level of service and enhancing quality of life in the region.