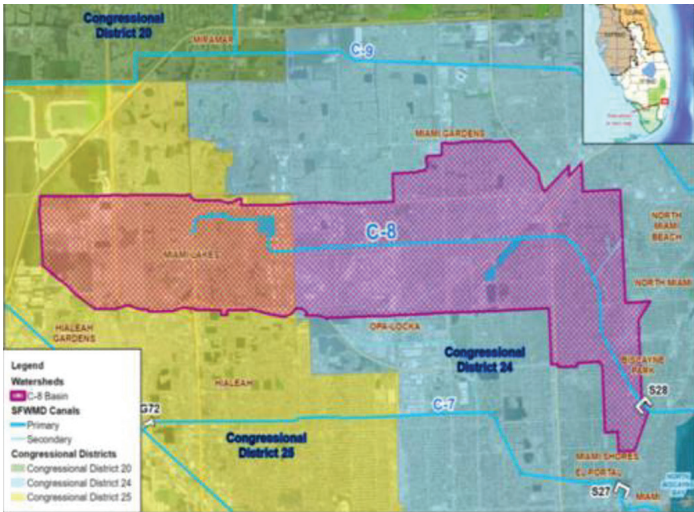




Building Flood Resiliency at Critical Basins in South Florida: C-8 Basin



The South Florida Water Management District (District) is advancing flood risk reduction measures for the C-8 Basin, a region of about 130,000 people and 28 square miles, in the northeastern portion of Miami-Dade County.

The area drained by the C-8 Canal is fully developed with mostly residential and commercial uses. The C-8 Canal is the primary flood control feature which receives and conveys basin floodwaters by gravity through the S-28 Coastal Structure to sea.

As evidenced during recent Tropical Storm Eta and other non-name storm events in 2023 and 2024, high tide events, exacerbated by sea level rise, are limiting the ability of these primary flood control features to drain stormwater. As a result, flooding events occurred at the C-8 Basin, caused by above 100-year rainfall volumes and with higher sea levels limiting the S-28 Structure to discharge these volumes.

The proposed projects at the C-8 Basin including local and regional flood mitigation measures to reduce the flood risk during times when the flow gates at the S-28 Coastal Structure are impeded or closed during higher tide events.

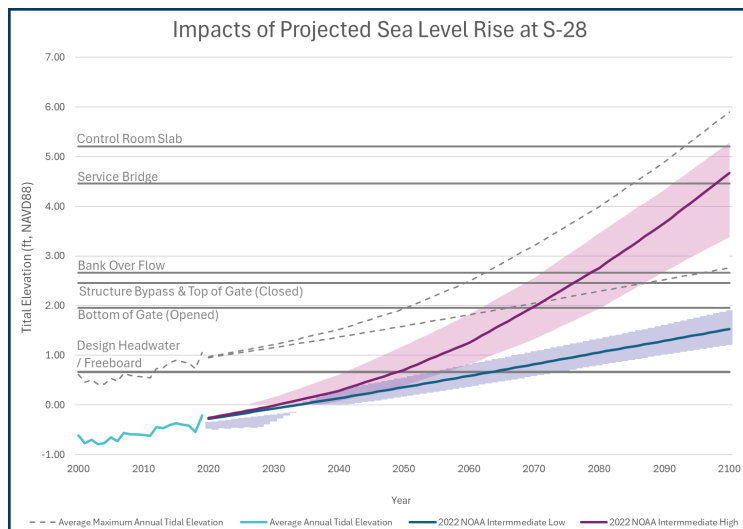
In an effort to provide flood control now and into the future, full replacement of the S-28 Coastal Structure is needed. The new structure will have a corrosion resistant spillway, with elevated gates that will be compatible with current engineering building codes and standards. It will also have a new 1,500 cfs forward pump station so flood waters can be effectively conveyed.

Raising elevation of the existing grade around the new pump station will avoid surge backups. In addition, storage enhancements at nearby areas will reduce runoff.

These upgrades will restore and maintain discharge capacity while ensuring resilient flood protection and operational control. A significant benefit is the protection of water supply sources (including the Biscayne Aquifer – a sole source aquifer) in the Basin, by retrofitting the structure to prevent sea water overtopping the gates and reduce saltwater intrusion.



S-28 Structure Gate.



As part of this project, the District has partnered with Miami-Dade County to enhance 3.25 miles of secondary canals within the C-8 Basin to the County's flood mitigation criteria by raising the canal banks to a minimum of 6ft NAVD.

The project also includes several innovative regional flood mitigation measures to provide temporary storage of floodwaters during extreme rainfall events, and the installation of nature-based features such as a living shoreline along the C-8 Canal.

The total cost of the proposed flood mitigation measures is estimated at \$200 million and construction is estimated to start in 2026. The return on investment (in avoided property damages) is greater than three and does not include economic damages associated with business disruptions or other impacts to community services.

The projects will reduce flood risks by restoring the basin's flood level of service and enhancing quality of life in the region.