



Flood Protection Level of Service Program AND Sea Level Rise and Flood Resiliency Plan FREQUENTLY ASKED QUESTIONS

Q: Why is flood protection important to our region?

A: The regional water management system, known as the Central and Southern Florida (C&SF) water management system, was designed 70 years ago to protect residents and businesses from floods and droughts. Since then, South Florida has experienced immense population growth, land development, and changing climate conditions that exceed design conditions of our flood control infrastructure. Climate change (increasing rainfall, sea level rise, changing ground water levels) will exert pressure on the system. The District is committed to addressing the impacts of climate change on water resources, including rising sea-levels, and changing rainfall and flood patterns. A key part of the District Resiliency strategy includes the continued evaluation of critical flood control infrastructure and the advancement of adaptation strategies necessary to continue providing primary flood protection for South Florida under current and future climate conditions and sea level rise scenarios.

Q: What are flood control infrastructure and assets?

A: Flood control infrastructure and assets are the land and real property that are specifically designed and used for reducing flood impacts in local areas. Some examples of flood control assets include water control structures, culverts, canals, levees, and pump stations. These assets exist within a [tiered and interconnected drainage system](#). The primary system consists of District assets and natural waterways, and the secondary and tertiary systems consist of local assets and neighborhood features.

Q: What is the Flood Protection Level of Service Program?

A: A key piece of the District's resiliency efforts is the Flood Protection Level of Service Program. Under this program, the District studies the canals, structures, and pump stations it operates to ensure these facilities can provide the level of flood protection they were designed for while considering future conditions like sea level rise and other climate impacts. The program advances integrated modeling efforts in [priority basins](#) to assess potential for flooding and identify flood adaptation solutions to ensure that each basin can maintain its designated flood protection level of service.

Q: When is the Flood Protection Level of Service Program being implemented?

A: Since its establishment in 2015, the Flood Protection Level of Service Program continues to identify and prioritize long-term infrastructure improvement needs. Under the program, District staff work to develop an implementation strategy to ensure that each basin can maintain its designated flood protection level of service in a technical and cost-effective manner.

Q: How is the Flood Protection Level of Service Program funded?

A: The Flood Protection Level of Service Program is funded by the District as part of its [annual budgeting process](#). The studies will be conducted over the entire District every 8 to 10 years and are estimated to cost about \$2 million per year. Mitigation project development is anticipated to cost an additional \$2 million per year. Program funding does not include design costs as part of the initial study phases. Design costs will be included with funding upon confirmation for each individual recommended flood adaptation project.

Q: Who is responsible for advancing the District's Flood Protection Level of Service Program?

A: The Flood Protection Level of Service Program is a District-wide effort managed by the Hydrology and Hydraulics Bureau at the South Florida Water Management District. The District's Resiliency Team and the Engineering and Construction Bureau provide close facilitation, support, and funding to ensure the program is successful and meets the District's engineering and design standards, and resiliency goals.

Q: Where is the Flood Protection Level of Service Program being implemented?

A: The Flood Protection Level of Service Program covers the entire 16-county region that falls within the boundaries of the South Florida Water Management District. The District has prioritized basins and watersheds based on flood risk, including risks related to sea level rise, and has initiated basin assessments in the highest priority basins in Miami-Dade, Broward, and Collier counties. The initial adaptation and mitigation planning study is underway for the C-8 and C-9 basins in northern Miami- Dade County and southern Broward County.

Q: How is the Flood Protection Level of Service Program being executed?

A: The Flood Protection Level of Service Program is being executed in three stages:

- 1. PHASE I: THE ASSESSMENT PHASE** – This stage of the program involves a basin-wide exploratory investigation of the stormwater management system, including related work and studies necessary to identify areas for improvement in the flood control infrastructure. These studies continue in perpetuity and each basin is reassessed once every 8 to 10 years unless significant changes in the flood control system necessitate a more frequent review.
- 2. PHASE II: THE ADAPTATION AND MITIGATION PLANNING PHASE** – When areas for improvement are identified in the system (either current or projected based on factors such as sea level rise and future rainfall), an Adaptation and Mitigation Planning study is triggered. The Adaptation and Mitigation Planning study identifies and evaluates solutions within the three levels of the tiered drainage system. These public planning projects represent collaborative efforts with water managers and operators of the secondary and tertiary systems and identifies cost effective courses of action that will ensure long-term flood protection.
- 3. PHASE III: THE IMPLEMENTATION PHASE** – The third and final phase includes final project design, permitting, real estate acquisition, and construction activities necessary to implement the selected District adaptation strategy and course of action. This phase is integrated into the District's Sea Level Rise and Flood Resiliency Plan. The District will implement its adaptation and mitigation strategies at the regional level in coordination with other state and federal agencies while local projects will be the responsibility of local agencies.

Q: Are there completed or ongoing Flood Protection Level of Service Program efforts?

A: Below is a list of completed and on-going Flood Protection Level of Service Program efforts, which are included in the District's [Strategic Plan](#).

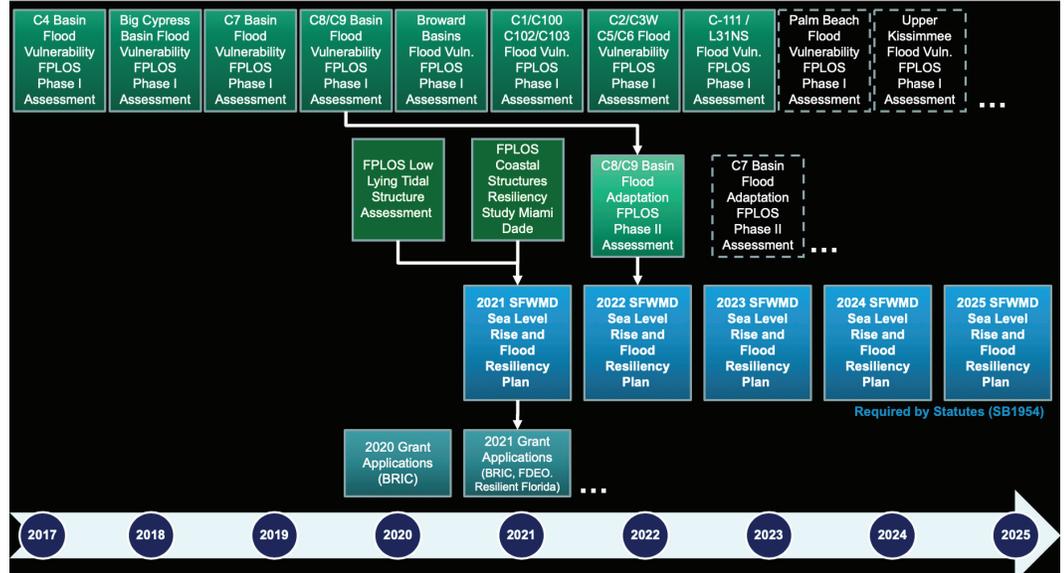
PHASE I STUDIES:

- o C-4 Basin in Miami-Dade County – completed 2016
- o C-7 Basin in Miami-Dade County – completed 2017
- o Big Cypress Basin – completed 2018
- o C-8 and C-9 Basins in Miami-Dade and Broward counties – completed 2020
- o Broward Basins – completed 2021
- o C-1, C-100, C-102, C-103 Basins in southern Miami-
- o Dade County – expected completion 2022
- o C-2, C-3W, C5, C-6 – expected completion 2022
- o C-111, Model Land, L-31NS – expected completion 2022

Q: Are there completed or ongoing Flood Protection Level of Service Program efforts? *(continued)*

PHASE II STUDIES:

- o [C-8 and C-9 Basins in Miami-Dade and Broward counties](#) – expected completion 2022



Q: What is the Sea Level Rise and Flood Resiliency Plan?

A: The South Florida Water Management District’s Sea Level Rise and Flood Resiliency Plan is the first District initiative to compile a comprehensive list of priority resiliency projects with the goal of increasing community resilience to flooding and sea level rise impacts throughout South Florida. This goal will be achieved by updating and hardening water management infrastructure and implementing effective, resilient, basin-wide solutions. The plan identifies investment priorities based on the results of advanced flood risk assessments ongoing for the past decade. These investments ensure the system provides adequate flood protection and continues to align with Florida’s growing population, changing weather patterns, and increased rainfall. The plan also includes projects identified through separate District, local government, and partner agency initiatives before Flood Protection Level of Service studies are completed. The Sea Level Rise and Flood Resiliency Plan is the District’s guiding document for prioritizing flood resiliency infrastructure investments.



Q: Why was the District’s Sea Level Rise and Flood Resiliency Plan developed?

A: The District developed a draft [Sea Level Rise and Flood Resiliency Plan](#) in September 2021 in response to [Senate Bill 1954](#) 2021 - Statewide Flooding and Sea Level Rise Resilience, which established the Resilient Florida Grant Program within the Florida Department of Environmental Protection (FDEP). The bill requires the FDEP to complete a comprehensive statewide flood vulnerability and sea level rise data set and assessment, as well as an annual Statewide Flooding and Sea Level Rise Resilience Plan, which must be submitted to the Governor and Legislature for approval. To assist FDEP with this effort, the District developed and submitted a draft South Florida Water Management District Sea Level Rise and Flood Resiliency Plan along with its applications to the Resilient Florida Grant Program in Fiscal Year 2021. The plan will undergo public review each summer in future years and will be submitted to the FDEP by September 1 annually.

Q: Who is responsible for developing the District’s Sea Level Rise and Flood Resiliency Plan?

A: The District’s Sea Level Rise and Flood Resiliency Plan was developed by the District’s Resiliency Team, in collaboration with the District’s Engineering and Construction Bureau, Hydrology and Hydraulics Bureau, GeoSpatial Services, and the Water Supply Bureau and the Big Cypress Basin teams. The District’s Resiliency Team will be updating the plan document every year and submitting to the FDEP by September 1.

Q: How is the District's Sea Level Rise and Flood Resiliency Plan executed?

A: The District's first Sea Level Rise and Flood Resiliency Plan focuses primarily on the investments needed to increase the resiliency of the District's coastal structures, including structure hardening needs and additional Sea Level Rise adaptation needs. The projects included in this document represent priority actions to immediately improve the existing flood protection infrastructure. Additional basin-wide flood adaptation strategies will be included in the next update of the document. The District seeks to implement projects that benefit the largest possible population by working closely with state, tribal, private, and local communities, and taking into consideration the needs of socially vulnerable communities. The plan document includes a multicriteria ranking approach that was developed to support the assessment of coastal basins in South Florida. This multicriteria includes metrics that help to identify the most critical infrastructure while also considering basin-wide resiliency needs. The plan provides cost estimates for each proposed project, recommendations to incorporate sustainable and clean sources of energy whenever possible and seeks to utilize the most efficient designs available using both traditional gray infrastructure improvements and nature-based solutions.

Q: How is the District's Sea Level Rise and Flood Resiliency Plan funded?

A: In coordination with the Florida Department of Environmental Protection, other state and federal agencies, and local governments, the District is making infrastructure adaptation investments that are needed to continue to successfully implement its mission. Plan implementation is contingent on budget approval and additional funding alternatives that are being pursued by the District Resiliency Team. The plan identifies an estimated cost of \$2 billion in infrastructure investments in the first year. Beyond the Statewide Resilient Florida Program and other state appropriations, the District is also looking at federal funding alternatives, such as the Federal Emergency Management Agency Building Resilient Infrastructure and Communities Program, and initiating collaboration with the U.S. Army Corps of Engineers on the C&SF Flood Resiliency Study. In addition, municipalities across South Florida are conducting similar evaluations through stormwater management master plans and local flood mitigation strategies that are leveraged and funded through a collaborative process with the District.

Q: How do the Flood Protection Level of Service Program and the Sea Level Rise and Flood Resiliency Plan promote inter-agency collaboration?

A: The Sea Level Rise and Flood Resiliency Plan and Flood Protection Level of Service Program ensure a flood control system that is resilient to stresses such as hurricanes, floods, and droughts. These programs are critical to maintaining flood protection for the region by addressing the primary system of state and federally owned infrastructure. These resiliency initiatives provide helpful planning tools for prioritizing and designing projects in the secondary and tertiary systems, while also informing policy makers and taxpayers about the impacts of flooding and the importance and timing of funding effective solutions. The District is also committed to partnering with entities that operate community drainage districts and smaller neighborhood water control systems to make the modifications that increase the resiliency of the entire flood control system through a coordinated effort.

Q: Where can I learn more about the Flood Protection Level of Service Program?

A: For more information about the District's Flood Protection Level of Service Program, visit the [Flood Protection Level of Service](#) webpage.

Q: Where can I learn more about District Resiliency and Flood Protection?

A: For more information about District resiliency and flood protection, visit the [Resiliency and Flood Protection](#) webpage.

Q: Who can I contact if I have additional questions about the Sea Level Rise and Flood Resiliency Plan and the Flood Protection Level of Service Program?

A: For more information about the District's Sea Level Rise and Flood Resiliency Plan or the Flood Protection Level of Service Program, email resiliency@sfwmd.gov.