

Public Scoping Meeting

Section 203 Feasibility Study Overview

Central & Southern Florida System Flood Resiliency Study (Section 203) for Broward Basins

> Matthew J. Morrison Chief Policy Advisor South Florida Water Management District



Section 203 Water Resources Water Development Act (WRDA) of 1986

- Authorizes non-Federal interests to undertake feasibility studies of proposed water resource development projects for submission directly to the Secretary of the Army for Federal participation and cost share
- Requires non-Federal interest conduct feasibility study on their own, except limited technical and federal assistance may be provided by the Corps, with the concurrence of ASA(CW), if the non-Federal interests pays for those services
- Assistant Secretary of the Army for Civil Works [ASA(CW)] evaluates and reports whether the project is feasible, providing any recommendations concerning project planning, design or conditions for construction to congressional committees for inclusion and authorization in a Water Resources Development Act (WRDA)
- Section 203 Flood Resiliency Study for Broward Basins is being conducted by the SFWMD as the non-federal sponsor of the Central and Southern Florida (C&SF) project

99тн Congress 2d Session	HOUSE OF REPRESENTATIVES REPORT 99-1013
WATEF	R RESOURCES DEVELOPMENT ACT OF 1986
	OCTOBER 17, 1986.—Ordered to be printed
Mr.	HOWARD, from the committee of conference, submitted the following
	CONFERENCE REPORT
	[To accompany H.R. 6]
Houses on the vide for the cc sources and t water resourco ference, have spective House That the Ho of the Senate lows: In lieu of amendment in	i amendment of the Senate to the bill (H.R. 6) to pro- mservation and development of water and related re- he improvement and rehabilitation of the Nation's is infrastructure, having met, after full and free con- agreed to recommend and do recommend to their re- es as follows: ouse recede from its disagreement to the amendment and agree to the same with an amendment as fol- the matter proposed to be inserted by the Senate isert the following:
SECTION I. SHO (a) SNORT T Development I (b) TABLE OI Thile I-Cost Sha Thile II-Inland Thile II-Inland Thile IV-Shorelin Thile VI-Water Thile VI-Water Thile XI-Genera Thile XI-Genera Thile XI-Genera Thile XI-Genera Thile XI-Genera Thile XI-Genera Thile XII-Dan S Thile XIII-Nam Thile XIII-Nam	RT TITLE AND TABLE OF CONTENTS. TTLE.—This Act may be cited as the "Water Resources Act of 186°. CONTENTS.— Discionment Waterway Transportation System Santol a Protection Resources Conservation and Development Resources Conservations to Modifications to Modifications Desuthorizations Desuthorizations Desuthorizations use Provisions





USACE Jacksonville Technical Assistance and Federal Activities Flood Resiliency Study Broward Basin

Current Status

- The Corps, Jacksonville District, was delegated the authority to undertake Technical and Federal Assistance on the Flood Resiliency Study for Broward Basins by letter from the Assistant Secretary of the Army (Civil Works) dated August 22, 2024
- An expedited policy compliance review of the Memorandum of Agreements (MOAs) for Technical Assistance and Federal Activities completed by USACE South Atlantic Division
- MOAs for Technical Assistance and Federal Activities executed by Colonel Bowman, U.S.
 District Commander (Jacksonville) on November 6, 2024
- Funds transferred from SFWMD to the USACE on November 8, 2024 for Technical Assistance and Federal Activities
- Jacksonville District is providing Technical Assistance and undertaking Federal Activities on the Flood Resiliency Study (Section 203) for Broward Basins





Central & Southern Florida

Broward Basins Flood Resiliency Study

Public Comment







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NATIONAL ENVIRONMENTAL POLICY ACT (NEPA) PROCESS

Presenter:

Robert Kirby Biologist U.S. Army Corps of Engineers

NATIONAL ENVIRONMENTAL POLICY ACT OF 1969 (NEPA)

- NEPA is the federal law requiring federal agencies to consider the environmental effects of their proposed actions
- Solicit and consider public views on proposals
- Consult with Tribal, state, and local governments concerning plans
- Provide agencies with a mechanism to coordinate overlapping, jurisdictional responsibilities







NEPA - WHAT IS IT?











- Prepare detailed statements addressing the potential environmental impacts related to a major Federal action:
 - Categorical Exclusion (CAT-EX)
 - Environmental Assessment (EA)
 - Environmental Impact Statement (EIS)



ENVIRONMENTAL CONSIDERATIONS



Aesthetics

- ✓ Air Quality
- ✓ Cultural Resources
- ✓ Contaminants
- Environmental Justice
- ✓ Fish & Wildlife Resources
- Noise
- Recreation
- ✓ Socioeconomics
- Threatened and Endangered Species
- ✓ Water Quality
- ✓ Wetlands
- ✓ Green House Gas emissions



















NEPA AND PUBLIC INVOLVEMENT



- Applies to all major Federal actions
- Disclose proposed actions and alternatives
- Consider, evaluate, and document effects of proposed actions as part of overall decision-making
- Cooperate with Federal, Tribal, state and local governments, private organizations, and concerned citizens





PUBLIC INVOLVEMENT AND DISCLOSURE



- Central and Southern Florida (C&SF) Flood Resilience Study (SECTION 203) Broward Basins
- Scoping
 - > Early and open process to solicit input from the tribes, public, and stakeholders
 - Required for the NEPA document's preparation to determine the scope of the issues to be addressed by the study

Comments during scoping

- Perspectives on problems, objectives, and constraints
- Resources of particular importance or concern
- Ideas for project alternatives
- Scoping comments can be sent to: <u>CESAJ-BrowardResilience203Study@usace.army.mil</u>
- Recommended subject line: "Broward Resilience 203 Study NEPA Scoping Comments"

ADDITIONAL COMMENT OPPORTUNITIES



- Scoping Comments Due: January 6, 2025
- Email: <u>CESAJ-BrowardResilience203Study@usace.army.mil</u>
- USACE will compile and review all comments received at the end of the scoping period
- Please send email to <u>CESAJ-BrowardResilience203Study@usace.army.mil</u> if you would like to be included on Distribution list for future project

information

 Mail: Robert Kirby U.S. Army Corps of Engineers 9900 SW 107th Ave, Suite 203 Miami, FL 33176



Public Scoping Meeting

Project Overview

Central & Southern Florida System Flood Resiliency Study (Section 203) for Broward Basins

Matthew J. Morrison Chief Policy Advisor South Florida Water Management District

C&SF Flood Resiliency Study for Broward Basins

Project Purpose: Identify the most effective and feasible plan to reduce flood risk in areas of Broward County that are most vulnerable to flood risk

- Study will utilize WRDA 1986 Section 203 process to complete an integrated Flood Resiliency Study and Environmental Impact Statement for Broward Basins
- Study focus on the primary canals and coastal water control structures in Broward County that are part of the C&SF project
- SFWMD Non-Federal Sponsor
 - Funding support/partnership with FDEP and Broward County
- Leverage C&SF Flood Resiliency Study (216 Study) Milestones Reach A
- Project management, modeling and evaluations will be completed by SFWMD
- Consulting Services will provide technical, policy, modeling and engineering support services
- Technical and Federal Assistant from the Jacksonville District
- Targeting authorization WRDA 2026





Section 203 C&SF Flood Resiliency Study for Broward Basins

Project Study Area

- Reach A in the C&SF Flood
 Resiliency Study (Section 216) is the Section 203 Project Study Area
- Approximately 420 square miles
- Relatively flat landscape, slightly above sea level



C&SF Flood Resiliency Study for Broward Basins

Project Study Area – Managed Basins

- Several managed watershed basins
- Primary canals/rivers
- Primary coastal water control structures
- Other non-managed watersheds downstream of coastal water control structures

MANAGED BASIN	PRIMARY CANAL	PRIMARY WATER CONTROL STRUCTURE
Hillsboro Canal Basin	Hillsboro (G-08) Canal	G56 Gated Spillway
Pompano Canal Basin	Pompano (G-16) Canal	G57 Gated Spillway
C-14 West Basin	C-14 Canal	*S37B Gated Spillway
C-14 East Basin	C-14 Canal	S37A Gated Spillway
C-13 West Basin	C-13 Canal	S36 Gated Spillway
C-12 West Basin	C-12 Canal	S33 Gated Spillway
North New River Canal West Basin	North New River (G-15) Canal	G54 Gated Spillway
C-11 West Basin	C-11 Canal	*S13AW Gated Culvert
C-11 East Basin	C-11 Canal	S13 Pump Station & Gated Spillway



* Non-Coastal Structure

C&SF Flood Resiliency Study for Broward Basins

Draft Problems (leveraging 216 work):

- Changing climatic conditions have demonstrated the immediate need for a holistic and integrated approach to addressing flood and coastal storm risk management
- The more than 70-year-old gravity driven C&SF water management infrastructure system was not designed to manage the current conditions of combined runoff, storm surge, and high tides, resulting in a reduction of the system efficiency
- System inefficiencies are further exacerbated by sea level rise and extreme rainfall events that further stress the system and reduce its ability to provide flood protection in the future
- The highly dense urban areas in Broward County Florida, served by the C&SF system, are experiencing significant flooding now, which is expected to worsen in the future
- Flooding events result in property damage (residences, businesses and critical infrastructure), health and life safety risks, saltwater intrusion and threatens economic activities that are of significance

C&SF Flood Resiliency Study for Broward Basins

Draft Opportunities (leveraging 216 work):

- Provide continued flood risk management to reduce the most immediate flooding risks of vulnerable areas within the C&SF Project
- Expeditiously modifying C&SF coastal infrastructure in highly vulnerable areas to reduce the risk of harmful and damaging flooding and impacts to communities and economies
- Manage life, health and safety caused by inland inundation

Draft Goals and Objectives (leveraging 216 work):

- Develop, evaluate and recommend flood risk management measures and adaptation strategies to build flood resiliency in Broward County communities served by the C&SF system, now and in the future, and contribute to national economic development
- Enhance existing C&SF infrastructure functionality and capacity to improve flood risk management and resiliency, which has been degraded by changed conditions within Broward County
- Complete a feasibility study with economic analysis that justifies expenses for modifications and improvements

Draft Constraints (Section 203):

- Study limited to modifications to the primary canals and coastal water structures in Broward County
- No diminishment or reduction of existing flood risk management



Project Schedule

NARDR

Targeting March 2026 - Deliver Final Feasibility Report and Environmental Impact Statement to ASA Civil Works







Central & Southern Florida

Broward Basins Flood Resiliency Study

Public Comment





Initial Plan Formulation Ideas

INITIAL PLAN FORMULATION EFFORTS

This study is informed from several sources included:

- C&SF 216 Study (including initial management measure matrix)
- SFWMD Flood Protection Level of Service (FPLOS) evaluations
- Broward County Resiliency Planning
- Comments and feedback from Project Kickoff Meeting
- Scoping Meeting feedback (today's forum)

Ideas for ways to improve the water management system are being combined into a DRAFT "initial array" of alternatives to explore the performance of these options (e.g. exploratory evaluation).

These initial evaluation will support subsequent efforts to combine highperforming options into new alternatives & identify refinements needed (e.g. to avoid downstream impacts)

DRAFT INITIAL ARRAY OF ALTERNATIVES

For consideration and discussion:

- > Alt 1 Gravity Conveyance Improvements (Structures and Canals)
- > Alt 2 Pumps at Structures & Hardening
- > Alt 3 Removal of Coastal Structures
- > Alt 4 Relocation of Coastal Structures to the East
- Alt 5 Alternatives to Discharging East on Peak (e.g. Route to Regional / Basin Storage or Inter-basin Transfer, if Possible
- Alt6 Natural & Nature Based Features
- Alt7 "Non-Structural" Features (e.g. Foundation Raising, Flood Warning Systems, etc...)



Section 203 C&SF Flood Resiliency Study for Broward Basins

<u> Project Study Area – Managed Basins</u>

MANAGED BASIN	PRIMARY CANAL	COASTAL WATER CONTROL STRUCTURE
Hillsboro Canal Basin	Hillsboro (G-08) Canal	G56 Gated Spillway
Pompano Canal Basin	Pompano (G-16) Canal	G57 Gated Spillway
C-14 West Basin	C-14 Canal	S37B Gated Spillway
C-14 East Basin	C-14 Canal	S37A Gated Spillway
C-13 West Basin	C-13 Canal	S36 Gated Spillway
C-12 West Basin	C-12 Canal	S33 Gated Spillway
North New River Canal West Basin	North New River (G-15) Canal	G54 Gated Spillway
C-11 West & East Basins	C-11 Canal	S13 Pump Sta. & Gated Spillway



2) /



EXAMPLE ALT1 GRAVITY CONVEYANCE IMPROVEMENTS



User Name: Iwu

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EXAMPLE ALT2 PUMPS AT STRUCTURES & HARDENING



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EXAMPLE ALT3 REMOVAL OF COASTAL STRUCTURES



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EXAMPLE ALT4 RELOCATION OF COASTAL STRUCTURES

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EXAMPLE ALT5 ALTERNATIVES TO DISCHARGING EAST

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EXAMPLE ALT6 NATURAL & NATURE-BASED FEATURES

Natural Features are created through the actions of natural processes over time.

Nature-based Features which mimic the characteristics of natural features, are created by human design, engineering, and construction to provide risk reduction by acting in concert with natural processes.

Some NNBFs under Consideration:

Offline storage

- Created wetlands/restoration
- Stormwater parks/flexible spaces
- Floodplain enlargement/restoration
- Enhanced infiltration/recharge
- Flood storage equalization canals

Non-Structural Features are generally NOT trying to change where the water goes, but rather seek to change the impact associated with that water.

Some DRAFT Nonstructural Measures under Consideration:

- Acquisition of floodplain land for alternative use (e.g. recreational or ecological)
- Flood Warning Systems

EXAMPLE

ALT7

"NON-STRUCTURAL"

FEATURES

- Floodproofing of floodplain structures (including through elevation)
- Changes to floodplain/landuse/development regulation/restrictions
- Flood preparedness planning

QUESTIONS & DISCUSSION

PUBLIC COMMENT PERIOD

Please provide written or verbal comments at this time

- Verbal or in writing via Public Comment Cards, email, or letters
- Email: <u>CESAJ-BrowardResilience203Study@usace.army.mil</u>
- Physical Address:
 Robert Kirby
 U.S. Army Corps of Engineers
 9900 SW 107th Ave, Suite 203
 Miami, FL 33176
- Scoping Comment Period Ends January 6, 2025
- Additional Information Available at: <u>www.sfwmd.gov/our-work/central-and-southern-florida-flood-resiliency-study-broward-basins-section-203</u>