THE COMPREHENSIVE EVERGLADES RESTORATION PLAN AND WATER MANAGEMENT IN FLORIDA

(116–65)

REMOTE HEARING

BEFORE THE

SUBCOMMITTEE ON
WATER RESOURCES AND ENVIRONMENT

OF THE

COMMITTEE ON
TRANSPORTATION AND
INFRASTRUCTURE
HOUSE OF REPRESENTATIVES

ONE HUNDRED SIXTEENTH CONGRESS

SECOND SESSION

SEPTEMBER 24, 2020

Printed for the use of the
Committee on Transportation and Infrastructure

Available online at: https://www.govinfo.gov/committee/house-transportation?path=/browsecommittee/chamber/house/committee/transportation

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43–460 PDF WASHINGTON : 2021

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CONTENTS

APPENDIX

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SEPTEMBER 21, 2020

SUMMARY OF SUBJECT MATTER

TO: Members, Subcommittee on Water Resources and Environment
FROM: Staff, Subcommittee on Water Resources and Environment
RE: Subcommittee Hearing on "The Comprehensive Everglades Restoration Plan and Water Management in Florida"

PURPOSE

The Subcommittee on Water Resources and Environment will meet in open session on Thursday, September 24, 2020, at 11:00 a.m. in the Rayburn House Office Building, Room 2167, and by video conferencing via Cisco Webex, to receive testimony on "The Comprehensive Everglades Restoration Plan and Water Management in Florida." The purpose of this hearing is to examine various perspectives on water management and operations as part of the Comprehensive Everglades Restoration Plan (CERP), as well as current challenges to the system including water quality, cyanobacteria blooms, and impacts to the Everglades National Park and the Florida Bay estuary.

BACKGROUND

COMPREHENSIVE EVERGLADES RESTORATION PLAN (CERP)

The Comprehensive Everglades Restoration Plan (CERP) was enacted into law as part of the Water Resources Development Act (WRDA) of 2000 (P.L. 106–541). CERP is the largest ecosystem restoration project in the Nation, covering 16 counties over an 18,000 square mile area in Central and South Florida.[1] CERP serves as the framework for the State and Federal partnership in restoring the Everglades while enhancing water supplies and maintaining flood mitigation. This is done through a series of operational changes and projects that improve the timing, distribution, quantity, and quality of the water delivery to the Florida Everglades, including flows from Lake Okeechobee (*see Figure 1*).

[1] https://www.saj.usace.army.mil/Missions/Environmental/Ecosystem-Restoration/Integrated-Delivery-Schedule/.

FIGURE 1: HISTORIC AND RESTORED WATER FLOW RELATED TO FLORIDA EVERGLADES

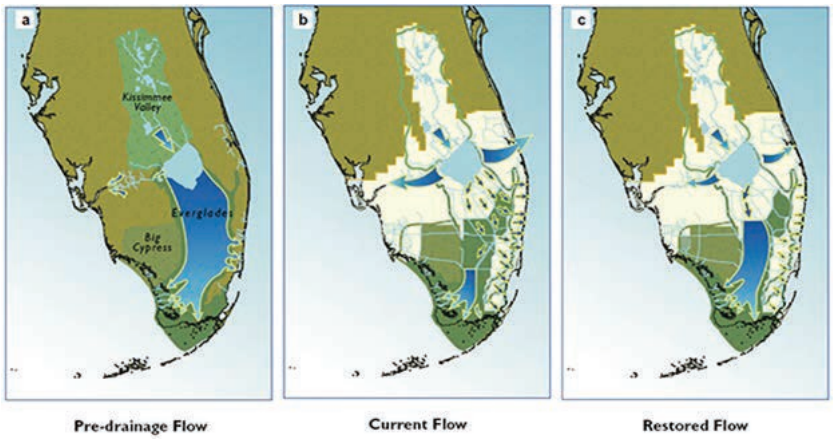

Figure 1: Water flow in the Everglades under (a) historical conditions, (b) current conditions, and (c) conditions envisioned upon completion of the Comprehensive Everglades Restoration Plan (CERP). SOURCE: Graphics provided by USACE, Jacksonville District (reproduced from National Research Council, ''Progress Toward Restoring The Everglades: The Fifth Biennial Review (2014)'' [2]

Originally, CERP was intended to include 60 projects to be completed over 30 years.[3] Each of those projects must be studied by the U.S. Army Corps of Engineers (USACE or "the Corps") before being submitted to Congress for authorization. The Integrated Delivery Schedule [4] outlines the sequencing strategy for planning, design, and construction of CERP projects. The Corps is the Federal agency for CERP projects, and the South Florida Water Management District (SFWMD) is the non-Federal sponsor for the State.[5] CERP projects are cost shared at 50–50 with the Federal government and the SFWMD.

Since the passage of CERP in 2000, nine non-pilot CERP projects have been Congressionally authorized and are awaiting construction, are in construction, or are completed. While some project benefits like ecosystem restoration have been realized, significant progress on long-term restoration goals for the Florida Everglades is far from complete. Table 1 below provides the status of CERP projects.

Table 1. Status of Recent CERP Projects [6]

Project Name	Construction Authorization	Status
Site 1 Impoundment	WRDA 2007	Phase 1 completed Phase II on hold
Picayune Strand	WRDA 2007	Under construction
Indian River Lagoon-South	WRDA 2007	Under construction
C–43 West Storage Basin	WRRDA 2014	Under construction
C–111 Spreader Canal	WRRDA 2014	Complete
Broward County Water Preserve Areas	WRRDA 2014	Under construction
Biscayne Bay Coastal Wetlands	WRRDA 2014	Under construction
Central Everglades Planning Project	WRDA 2016	Under construction
Everglades Agricultural Area A–2 Reservoir Storage	WRDA 2018	Awaiting construction
Loxahatchee River Watershed Project	Awaiting authorization	Study completed

[2] https://www.nap.edu/catalog/18809/progress-toward-restoring-the-everglades-the-fifth-biennial-review-2014.

[3] https://www.crs.gov/reports/pdf/IF11336.

[4] https://usace.contentdm.oclc.org/utils/getfile/collection/p16021coll11/id/4143.

[5] The Department of the Interior (DOI) also has several important responsibilities in the management, restoration, and preservation of the Everglades, including as the lead federal agency for the Modified Water Deliveries (MWD) project. The National Park Service (NPS), Office of Everglades Restoration Initiatives, Fish and Wildlife Service (FWS), and U.S. Geological Survey (USGS) all participate. The Secretary of the Interior is also Chair of the South Florida Ecosystem Restoration Task Force.

[6] https://www.crs.gov/reports/pdf/IF11336.

Project Name	Construction Authorization	Status
Western Everglades Restoration Project	Awaiting authorization	Study in progress
Lake Okeechobee Watershed Project	Awaiting authorization	Study in progress

CENTRAL EVERGLADES PLANNING PROJECT (CEPP)

A significant milestone for CERP is the authorization of the Central Everglades Planning Project (CEPP) as part of WRDA 2016 (P.L. 115–270). CEPP combines key CERP components into a comprehensive project that includes water storage, conveyance, and decompartmentalization in the heart of the Everglades. As a result, CEPP focuses on restoring the historic flows from Lake Okeechobee south to the Central Everglades Ecosystem—achieving a principal goal of the CERP while also helping limit releases to northern estuaries around Lake Okeechobee.

CERP, CEPP, AND THE WATER RESOURCES DEVELOPMENT ACT (WRDA) OF 2020

On July 13, 2020, Chair Peter A. DeFazio (D–OR), Ranking Member Sam Graves (R–MO), Subcommittee on Water Resources and Environment Chair Grace F. Napolitano (D–CA), and Subcommittee on Water Resources and Environment Ranking Member Bruce Westerman (R–AR), introduced H.R. 7575, the Water Resources Development Act of 2020, to authorize projects and studies for the Corps. H.R. 7575 passed the Committee by voice vote on July 24, 2020, and passed the U.S. House of Representatives on suspension on July 29, 2020. H.R. 7575 includes several provisions that authorize new projects, amend existing projects, and clarify congressional intent for projects related to the restoration of the Florida Everglades.

- Section 202(b)(4) expedites completion of a post-authorization change report for the Comprehensive Everglades Restoration Plan, Caloosahatchee River C–43, West Basin Storage 22 Reservoir, Florida.
- Section 321 clarifies that the Corps is directed to carry out the Everglades Agricultural Area modification (authorized in WRDA 2018) as part of the ongoing Central Everglades Planning Project.
- Section 401(5) authorizes the Chief's Report for the Comprehensive Everglades Restoration Plan, Loxahatchee River Watershed Restoration Project, Martin and Palm Beach Counties, Florida.

FLORIDA WATER MANAGEMENT

The State of Florida experiences periods of extremely wet and extremely dry conditions. The Corps is required to operate Lake Okeechobee under these conditions, and to balance the authorized purposes of flood control, water supply, and ecosystem restoration.

Dry Season and Impacts to Industry and Ecosystem

Florida's dry season typically occurs from November to April. This year, March was the driest month with an average of just 0.24 inches of rain—the driest in the 89 years of record.[7] Rainfall in May and June, however, eliminated drought conditions across the State. Thus far this year, there have been no significant Lake Okeechobee operational impacts on water management objectives around the region. Droughts, however, do occur and can significantly impact water management across various industries and communities across the State, the Everglades National Park, and further south to Florida Bay.

In the 2014–2015 water year, Florida experienced prolonged dry conditions. This impacted water supplies for cities and municipalities, and the water supply for a multi-billion dollar agricultural industry.[8] Farther south, the Florida Bay ecosystem, which makes up one third of the Everglades National Park, depends on freshwater inputs coming equally from rainfall and historic overland flows and runoff.[9] In 2015, the State experienced a large-scale, rapid 40,000-acre seagrass die-off in the Florida Bay ecosystem.[10] The die-off was abetted by the dry hydrologic conditions—the region only received half of the annual expected rainfall—coupled with the physical challenges of insufficient water being able to flow south through the Everglades system.

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[7] https://www.sfwmd.gov/weather-radar/rainfall-historical/monthly.
[8] https://floridastorms.org/2015/07/10/extreme-drought-declared-in-south-florida/.
[9] https://www.sfwmd.gov/sites/default/files/documents/graphic__florida__bay__drought__2014-2015.pdf.
[10] https://www.nps.gov/ever/learn/nature/upload/seagrass-Dieoff__final__web__hi__res.pdf.

High Water Operations and Blue-Green Algae in Florida

Florida's wet season typically occurs from May to October each year, and averages 54 inches of precipitation annually.[11] Along with seasonal precipitation, Florida also experiences high volume water events like hurricanes and tropical storms. In high water events, the Corps works to lower water levels in Lake Okeechobee for flood control purposes through discharges, often west to the Caloosahatchee Canal, or east to the St. Lucie Canal. The Corps discharges water from the lake to also protect the structural integrity of the Herbert Hoover Dike—a 143-mile earthen dam that surrounds Lake Okeechobee to provide flood protection.[12]

These discharges, however, can impact water quality on the lake, and create conflict between the often-overlapping Federal and State authorities and responsibilities for water management within Florida. For example, water quality and nutrient discharges are regulated by the State of Florida, while operation of the lake is a Federal Corps function. An example of when these two distinct authorities come to a head is when cyanobacteria is then spread into rivers, canals, and estuaries south and east of the lake.

Cyanobacteria are microscopic organisms that live in water, feed off sunlight, and multiply quickly. Also known as blue-green algae, or harmful algal blooms, they look like foam, scum, or thick coverings on water. They can be extremely harmful to humans, animals, and the environment. Blue-green algae blooms form as a result of an excess of nutrients such as nitrogen and phosphorus being present in water. These algal blooms usually form after stormwater from heavy rains wash contaminants in wastewater, urban runoff, and agricultural fertilizers into waterways. These blooms have occurred across the country, including recently in California, Ohio, New Jersey, and in Lake Okeechobee, Florida.[13]

The Corps currently operates the authorized purposes of Lake Okeechobee under its Lake Okeechobee Regulation Schedule (LORS)—established in 2007 to manage water volumes within, and flows out of, the lake.[14] In WRDA 2018 (P.L. 115–270), Congress directed the Corps to complete a replacement to LORS, called the Lake Okeechobee System Operating Manual (LOSOM), in conjunction with the completion of the Herbert Hoover Dike rehabilitation project. LOSOM is currently under review by the Corps.

In 2018, blue-green algae blooms in Florida led to severe human health issues. This was coupled with a devastating red tide outbreak along the State's beaches that led to marine life die-off.[15] As a result, the Corps proposed a deviation to LORS that would provide greater flexibility in the management of water to reduce the health risk associated with blue-green algae blooms.[16] Blue-green algae have been detected in Lake Okeechobee this year, although no major algae releases occurred, partly as a result of reduced water discharges from the lake due to low Lake Okeechobee water levels.[17]

WITNESSES

- Noah Valenstein, Secretary, Florida Department of Environmental Protection
- The Honorable Chauncey P. Goss II, Chairman, South Florida Water Management District Governing Board
- Elizabeth Jolin, Captain, The Bay and Reef Company of the Florida Keys
- Gary Ritter, Assistant Director of Government and Community Affairs, Florida Farm Bureau Federation
- Shannon Estenoz, Vice President of Policy and Public Affairs, The Everglades Foundation

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[11] https://statesummaries.ncics.org/chapter/fl/.

[12] Since 2001, the Corps has invested over $900 million to rehabilitate the Herbert Hoover Dike to reduce flooding impacts, as a result of high lake levels, for a large area of South Florida.

[13] https://www.usgs.gov/search-map?search=cyanobacteria.

[14] https://www.saj.usace.army.mil/Portals/44/docs/h2omgmt/LORSdocs/2008__LORS__WCP__mar2008.pdf.

[15] "Red tide" is caused by *karenia brevis*, a type of algae that produces neurotoxins and the bloom of algae often turns the water red.

[16] https://usace.contentdm.oclc.org/utils/getfile/collection/p16021coll7/id/14715.

[17] http://w3.saj.usace.army.mil/h2o/currentLL.shtml.

THE COMPREHENSIVE EVERGLADES RESTORATION PLAN AND WATER MANAGEMENT IN FLORIDA

THURSDAY, SEPTEMBER 24, 2020

HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE ON WATER RESOURCES
AND ENVIRONMENT,
COMMITTEE ON TRANSPORTATION AND INFRASTRUCTURE,
Washington, DC.

The subcommittee met, pursuant to call, at 10:59 a.m., in room 2167 Rayburn House Office Building and via Cisco Webex, Hon. Grace F. Napolitano (Chairwoman of the subcommittee) presiding.

Mrs. NAPOLITANO. Good morning. I call this hearing to order. Today's hearing focuses on the Comprehensive Everglades Restoration Plan, or better known as CERP, and will explore some of the long-term challenges in achieving the goals of the CERP.

Let me begin by asking unanimous consent that the chair be authorized to declare recesses during the hearing.

Without objection, so ordered.

I also ask unanimous consent that the committee members not on the subcommittee be permitted to sit with the subcommittee at today's hearing, and ask questions.

And, without objection, so ordered.

As this is a hybrid hearing, I want to remind Members of the key regulations from the House Committee on Rules to ensure that this hearing goes smoothly.

Members must be visible on screen for purposes of identification when joining the hearing. Members must also continue to use the video function of today's software platform, Cisco Webex, for the remainder of the time they are attending this hearing, unless experiencing connectivity issues or other technical problems.

If a Member is experiencing connectivity issues or other technical problems, please inform committee staff as soon as possible, so you can receive assistance. A chat function is available for Members on the Cisco Webex platform for this purpose. Members can also call the committee's main phone line at (202) 225–4472 for technical assistance by phone. That is (202) 225–4472.

Members may not also participate remotely in any other proceeding that may be occurring simultaneously.

It is the responsibility of each Member seeking recognition to unmute their microphone prior to speaking. To avoid any inadvertent background noise, I request that every Member keep their microphone muted when not seeking recognition to speak. Should

I hear any inadvertent background noise, I will request that that Member please mute their microphone.

Finally, despite this being a hybrid hearing, I want to emphasize that all the standard rules of decorum apply. As the chair of today's hearing, I will make a good faith effort to provide every Member experiencing connectivity issues an opportunity to participate fully in the proceedings.

Members will have the standard 5 minutes to ask questions.

To insert a document into the record, please have your staff email it to the committee clerk, Mike Twinchek.

This hearing is also being livestreamed for the public to view.

Starting with an opening statement, as many Floridians already know, the word "Okeechobee" in the Seminole language means "big water." Today we will be discussing the progress that has been made with the Federal, the State, the local, and nongovernment partners in the restoration of one of our Nation's ecological treasures, the Florida Everglades, since the enactment of the Comprehensive Everglades Restoration Program in 2000.

We will hear from Members and stakeholders on what has been accomplished, and what is left to do. Key to the discussion, and at the heart of this ecosystem and project, is waterflows in and out of Lake Okeechobee.

As a Californian, I am well aware of the challenges of managing the water systems for important but sometimes conflicting demands. Like Florida, California has wet seasons and dry seasons, mostly dry, and the management of water, including its timing, quality, and quantity, is important to the health of the ecosystem and to the economy.

In meeting their often competing responsibilities for water management in the State of Florida, the Army Corps of Engineers, or Corps, must balance the flood control, the environmental restoration, the water supply, and other authorized purposes during both wet and dry seasons.

When faced with too much water, the Corps seeks to manage the system to avoid flood events, and that would impact Florida communities by releasing water east and west from Lake Okeechobee, because the mechanisms to hold or send more water south are incomplete.

This can lead to challenges like harmful algae blooms in the St. Lucie Canal, or to avoid dumping too much water to meet the community's water supply obligations within the State.

Dry events can lead to not enough water heading south, including to the Everglades National Park and the Florida Bay. Five years ago, an extremely dry season and less water south contributed to the massive 40,000-acre seagrass die-off in the Florida Bay. The system is only now rebounding after 5 years.

Vice Chair Mucarsel-Powell has already proven a tireless leader for the restoration of the Everglades and for the health of the Florida Bay.

Thank you, Debbie, for hosting us last year in Islamorada, a great trip, where we were able to tour and see firsthand the work that has been done in the Everglades system.

Twenty years ago, this committee gave the Corps a massive responsibility to try and restore the historic "River of Grass" that

stretched from Lake Okeechobee to the southern tip of the State, and to do so within the context of a modern, economically vibrant, and diverse State of Florida.

There have been many successes and a few setbacks along the way, but the goal of a comprehensive restoration of the Florida Everglades remains as important to the State as it ever has been. Today's conversation looks at this history, where things have gone well, and the work that remains to be done. We must continue to look for solutions to protect this natural ecological treasure.

Thank you to our witnesses for being here today, albeit virtually, on this very important issue. And I look forward to your testimony.

[Mrs. Napolitano's prepared statement follows:]

Prepared Statement of Hon. Grace F. Napolitano, a Representative in Congress from the State of California, and Chairwoman, Subcommittee on Water Resources and Environment

As many Floridians already know, the word "Okeechobee" in the Seminole language means "Big Water." Today we will be discussing the progress that has been made with federal, state, local, and non-governmental partners in the restoration of one of our national ecological treasures, the Florida Everglades, since enactment of the Comprehensive Everglades Restoration Program in 2000.

We will hear from Members and stakeholders on what has been accomplished and what is left to do. Key to this discussion, and at the heart of this ecosystem and project, is water flows into and out of Lake Okeechobee.

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There have been many successes, and a few setbacks along the way, but the goal of a comprehensive restoration of the Florida Everglades remains as important to the State as it ever has been. Today's conversation looks at this history, where things have gone well, and the work that remains. We must continue to look for solutions to protect this national ecological treasure.

Thank you to our witnesses for being here today, albeit virtually, on this very important issue. I look forward to your testimony.

Mrs. NAPOLITANO. And at this time I am pleased to yield to my colleague, my friend, the ranking member of the subcommittee, Mr. Westerman, for his thoughts.

Mr. WESTERMAN. Good morning, Chairwoman Napolitano. It is good to see you. It is not the same as having you here on the dais. I can tell you there are not as many candies and goodies floating around on the dais without you here. But nonetheless, it is good to see you on screen. And thank you for holding this important hearing.

And thank you to our witnesses for Zooming—I think that is an acceptable word in today's world—to discuss the water management and environmental restoration activities of the Army Corps of Engineers in Florida.

Florida, like many other States across the country, faces unique challenges with regards to water management, water quality, including harmful algal blooms, and environmental restoration efforts. To address these challenges, this committee authorized the Comprehensive Everglades Restoration Plan, or CERP, 20 years ago as part of the Water Resources Development Act of 2000. It served as the largest ecosystem restoration project in the Nation, covering 16 counties over an 18,000-square-mile area in central and south Florida.

The CERP framework seeks to restore the Everglades while balancing water supply and flood mitigation for communities and stakeholders throughout the State. Individual CERP projects, working as part of a system, govern the timing, distribution, quantity, and quality of the water around central and south Florida, including from Lake Okeechobee. This is an immense and complex undertaking. Twenty years later, nine projects have been congressionally authorized, with more on the way.

After 20 years, it seems appropriate that we look back and examine the progress made thus far, hear from key stakeholders, and evaluate future challenges and solutions.

Additionally, H.R. 7575, or WRDA 2020, was passed out of committee in July, and passed the House of Representatives on suspension later that month. There are several provisions included in this bill that authorize new projects, amend existing projects, and clarify congressional intent for projects related to water management and restoration of the Florida Everglades. It is my hope we finalize this bill and send it to the President's desk this year.

Finally, I want to acknowledge the hard work of Representative Brian Mast, whose district has been severely impacted by harmful algal blooms. I also want to acknowledge Representatives Webster and Spano for their work on behalf of their constituents in addressing water management issues in Florida.

I look forward to hearing constructive ideas from our witnesses today on addressing Florida's water resources and infrastructure needs, and I yield back.

[Mr. Westerman's prepared statement follows:]

Prepared Statement of Hon. Bruce Westerman, a Representative in Congress from the State of Arkansas, and Ranking Member, Subcommittee on Water Resources and Environment

Thank you, Chairwoman Napolitano, for holding this important hearing, and thank you to our witnesses for being here today to discuss the water management and environmental restoration activities of the Army Corps of Engineers in Florida.

Florida, like many other states across the country, faces unique challenges with regards to water management, environmental restoration efforts, and water quality—including harmful algal blooms. To address these challenges, this Committee authorized the Comprehensive Everglades Restoration Plan (or CERP) 20 years ago as part of the Water Resources Development Act (WRDA) of 2000.

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I look forward to hearing constructive ideas from our witnesses today on addressing Florida's water resources infrastructure needs.

Mrs. NAPOLITANO. Is Mr. DeFazio present?

Mr. DEFAZIO. I am present. Can't you see me?

Mrs. NAPOLITANO. Mr. DeFazio, you have 5 minutes, sir. Thank you.

Mr. DEFAZIO. Thank you. I am here physically, I guess not virtually. Thank you, Chair Napolitano, for convening this important hearing.

And I would also like to recognize the tremendous contributions of our subcommittee vice chair, Ms. Mucarsel-Powell, her tireless work and leadership on the ecological restoration of the Everglades and the Florida Bay.

I visited several times. They were all—twice when I was on the Natural Resources Committee—focused on the Everglades themselves. And once when I was the ranking Democrat on the Highways and Transit Subcommittee about 10 years ago, when we were examining issues regarding infrastructure that needed to be modified and relocated. So I am quite familiar with the problems there.

We have been trying for quite some time to move this forward in a major way to restore the greatest, most diverse, ecological wetland system in the world, in my opinion.

Many, many years ago on the Natural Resources Committee, we passed legislation that we thought by now would be significantly implemented, and the Everglades would be on their way back to

pristine health. Unfortunately, that is not the case. There is still much to be done.

The Corps of Engineers, Department of the Interior, and the State of Florida have a lot more to do to restore it. And the Comprehensive Everglades Restoration Plan is, at this point, just a promise, and not yet fulfilled.

H.R. 7575, this year's Water Resources Development Act of 2020, will continue the work on Florida water, and in restoring the Everglades, particularly at the urging of Representative Mucarsel-Powell, with several CERP projects included in the legislation. I am proud of the bipartisan work that was done on WRDA 2020. It was unanimously approved by the House in July. I am not aware of another major significant bill of substance that has passed this House in this acrimonious atmosphere unanimously. I think Members from every district recognized the need for these investments.

I particularly want to thank Representative Sam Graves for his help with that, and we are attempting to work our way through the Senate at this point in time. The Senate doesn't do much except confirm judges these days, but we have some hope that we can get the WRDA bill done, hopefully even before Congress adjourns for the election. If not then, certainly in the lameduck session.

With that, I look forward to hearing from the witnesses and I yield back the balance of my time.

[Mr. DeFazio's prepared statement follows:]

Prepared Statement of Hon. Peter A. DeFazio, a Representative in Congress from the State of Oregon, and Chair, Committee on Transportation and Infrastructure

Thank you, Chairwoman Napolitano, for convening today's hearing on Florida water. I would also like to recognize Subcommittee Vice Chair Mucarsel-Powell's tireless work and leadership on ecological restoration of the Everglades and the Florida Bay.

Congress established the Everglades National Park in 1934, which largely encompasses the South Florida ecosystem. It was clear then as it is now that few other places in the country and in the world could rival the Everglades in its ecological diversity and natural splendor. Tribal communities, like the Miccosukee Tribe and the Seminole Tribe have called this region home for hundreds, if not thousands of years.

It remains one of the largest wetlands in the world, even at half of its historical size. But decades of land use changes and developments have imperiled the fragile landscape, and Congress acted to restore the Everglades.

Everglades restoration is an important issue to this Committee, and something I spent countless hours discussing as a Member of the Natural Resources Committee. Those discussions cleared the way for the critical Modified Water Deliveries Project—a partnership between the U.S. Army Corps of Engineers (Corps) and the U.S. Department of the Interior which allowed for more water to move from Lake Okeechobee south to the Everglades National Park. The "Mod Waters" project also required raising the Tamiami trail and other efforts to restore the historic "River of Grass."

But these projects only matter if water, and clean water, flows from Lake Okeechobee through projects authorized as part of the Corps and the State of Florida's Comprehensive Everglades Restoration Plan (CERP). Here we are, 20 years in and much more needs to be done.

H.R. 7575, the Water Resources Development Act of 2020, continues the work on Florida water and in restoring the Everglades, with several CERP projects included in the legislation. I am proud of the bipartisan work on WRDA 2020, which was unanimously approved by the House at the end of July.

Ranking Member Graves and I are actively working with our colleagues in the Senate on a path forward on enactment of this important legislation. I remain com-

mitted to the enactment of WRDA on a two-year cycle and look forward to resolving our differences with the Senate as soon as possible.

Mrs. NAPOLITANO. If Mr. Graves is available, Sam Graves—he is not?

OK, we will proceed to hearing from our witnesses, who will testify.

And thank you for being here. To all of you, welcome. On the panel we have Noah Valenstein, secretary, Florida Department of Environmental Protection; the Honorable Chauncey P. Goss II, chairman, South Florida Water Management District's Governing Board; Elizabeth Jolin, captain, the Bay and Reef Company of the Florida Keys; Gary Ritter, assistant director of government and community affairs, Florida Farm Bureau Federation; and Shannon Estenoz, vice president of policy and public affairs, The Everglades Foundation.

Without objection, your prepared statements will be entered into the record, and all witnesses are asked to limit their remarks to 5 minutes. Thank you.

Now I will proceed to recognize Secretary Valenstein.

You may proceed.

TESTIMONY OF NOAH VALENSTEIN, SECRETARY, FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION; HON. CHAUNCEY P. GOSS II, CHAIRMAN, GOVERNING BOARD, SOUTH FLORIDA WATER MANAGEMENT DISTRICT; ELIZABETH JOLIN, OWNER, BAY AND REEF COMPANY OF THE FLORIDA KEYS; GARY RITTER, ASSISTANT DIRECTOR OF GOVERNMENT AND COMMUNITY AFFAIRS, FLORIDA FARM BUREAU FEDERATION; AND SHANNON ESTENOZ, CHIEF OPERATING OFFICER AND VICE PRESIDENT OF POLICY AND PUBLIC AFFAIRS, THE EVERGLADES FOUNDATION

Mr. VALENSTEIN. Thank you, Chairwoman. Good morning. My name is Noah Valenstein, I have the pleasure of serving as secretary of the Florida Department of Environmental Protection.

Thank you, Chairman DeFazio, Chairwoman Napolitano, Ranking Member Westerman, and the subcommittee members for the invitation to speak here today.

I would also like to thank committee members from Florida, Representatives Webster, Wilson, Mast, Mucarsel-Powell, and Spano for their efforts to support Florida's environment and improve Federal cooperation on a range of issues we deal with here in Florida, since the environment is so critical to everything we do here in the State.

And Chairwoman, thank you for your introductory comments, because I think that really hit on it from our meeting in Islamorada more than a year ago. So thank you.

Over the past 2 years, Governor DeSantis has been laser-focused on promoting water management that not only sustains flood protection and water supply, but also improves water quality and supports desirable vegetation growth and ecosystem responses across Florida. Demonstrating his strong commitment to solving Florida's water challenges, he appointed the first State-level chief science officer and chief resiliency officer team anywhere in the United States.

Florida's chief science officer also chairs a team of leading scientists from across the State on the Blue-Green Algae Task Force, which the Governor created to generate effective strategies and solutions to prevent, mitigate, and respond to harmful algal blooms in Lake Okeechobee and surrounding watersheds.

The task force's first set of recommended policy changes was unanimously passed by the State legislature and signed into law this June as the Clean Waterways Act here in Florida. The legislation augmented DEP's authority to ensure protective standards, and enhanced enforcement related to stormwater, wastewater infrastructure, and septic tanks, and agricultural producer compliance with our basin management action plans.

More than ever, Floridians have united around the protection of our water resources, and DEP is committed to successfully implementing the most comprehensive water quality legislation that Florida has seen for over a decade.

Unfortunately, all these efforts cannot guarantee an end to devastating releases from Lake Okeechobee. Army Corps water management policies and significant increases in large-scale water infrastructure and storage are critical elements to minimizing the future risk of detrimental discharges.

Under the Governor's direction, the State has been leading the effort to expedite critical Everglades restoration infrastructure, including work on the Central Everglades Planning Project and Everglades Agricultural Area Reservoir, the C–43 and C–44 Reservoirs, and raising Tamiami Trail.

Recent increases in Federal funding for south Florida Everglades restoration, including $235 million in fiscal year 2020, and $250 million in President Trump's fiscal year 2021 budget request, combined with $625 million in annual funding, as requested from Governor DeSantis to make up more than $2.5 billion over a 4-year period for investments in water quality across Florida, including Everglades, is a clear sign of the impact of improved State and Federal cooperation. And we thank this committee, knowing that they were a part of that.

This committee's indispensable efforts to authorize comprehensive Everglades restoration projects as part of your biennial development and consideration of the Water Resources Development Act cannot be overlooked, and is a critical part of making sure Florida's environment endures for future generations. Thank you so much for your track record of legislative success, both in 2014, 2016, and 2018.

And we are optimistic about the passage of WRDA 2020 this year, which we hope will include enhanced authorities for the South Florida Ecosystem Restoration Task Force to address invasive species; at least one new project authorization to restore the Loxahatchee River watershed; two Post-Authorization Change Report authorizations to modify the C–43 Reservoir and the C–111 South Dade projects, and, most importantly, bipartisan language from the Senate Environmental and Public Works Committee to amend section 1308 of WRDA 2018 to direct the Army Corps of Engineers to carry out construction of the EAA Reservoir as part of the Central Everglades Planning Project at funding levels and expedited timeline developed and approved in the South Florida

Water Management District section's 203 Post-Authorization Change Report.

These projects are going to be vital to ensuring Everglades is protected for future generations. I know we have a lot of work ahead of us, as alluded to, but the partnership has not been stronger before between the Federal and State government. And with historic funding, the work effort on the State and Federal part, we have got a bright future in front of us, and we are really seeing a resurgence of environmentalism here in Florida.

Thank you for the time.

[Mr. Valenstein's prepared statement follows:]

Prepared Statement of Noah Valenstein, Secretary, Florida Department of Environmental Protection

Good morning. I'm Noah Valenstein, and I have the pleasure of serving as the Secretary for the Florida Department of Environmental Protection. Thank you, Chairwoman Napolitano, Ranking Member Westerman, and subcommittee members, for hosting this hearing on "The Comprehensive Everglades Restoration Plan and Water Management in Florida", and for the invitation to speak here today. It's great also to see our Committee members from Florida, Representatives Webster, Wilson, Mast, Mucarsel-Powell, and Spano.

Over the past two years, the State of Florida and many partners committed to environmental protection have been able to make great strides in our efforts to advance water quality improvements across our state, especially expediting water projects for restoration of the greater Everglades ecosystem. Many of these steps forward are the direct result of momentum provided by Governor DeSantis and strengthened partnerships between state and federal government and other stakeholders.

After the governor took office in January of 2019, he issued a historic executive order that provided the framework for significant action with regard to water quality and Everglades restoration. The governor also announced his intention to secure a record $2.5 billion dollars in funding for these purposes across his first term, which was successfully approved by the Florida legislature at a recurring $625 million dollars over the past two years.

Governor DeSantis has been laser-focused on promoting water management that not only sustains flood protection and water supply, but also improves water quality and supports desirable vegetation growth and ecosystem responses. Demonstrating his strong commitment to solving Florida's water challenges, he appointed the first state-level Chief Science Officer anywhere in the United States. Florida's Chief Science Officer also chairs a team of leading scientists from across the state on the Blue-Green Algae Task Force, which the Governor created to generate effective strategies and solutions to prevent, mitigate, and respond to harmful algal blooms in Lake Okeechobee and surrounding watersheds.

The task force sent its first set of recommended policy changes to the governor last year, which ultimately resulted in the unanimous passage of Senate Bill 712, known as the Clean Waterways Act, signed into law this June.

The legislation includes increased regulations and oversight for stormwater and wastewater infrastructure, additional methods for assessing agricultural producers, the transfer septic system oversight from the Florida Department of Health to the Department of Environmental Protection, and the regulation of septic systems as sources of nutrients for the first time in Florida's history. Additionally, the governor signed an Environmental Accountability Bill increasing penalties across the board by 50% for all environmental crimes and allowing DEP to levy fines on crimes as they're happening.

More than ever, Floridians have united around the protection of their water resources, and DEP is committed to successfully implementing the most comprehensive water quality legislation that Florida has seen in over a decade.

Unfortunately, all of these efforts cannot guarantee an end to devastating releases from Lake Okeechobee. Army Corps water management policies and largescale water infrastructure and storage are critical elements to minimizing the risk of future detrimental discharges.

Under the governor's direction, the state has also been leading the effort to expedite critical Everglades restoration projects. With the South Florida Water Management District working hand-in-hand with the U.S. Army Corps of Engineers, we've been able to accelerate multiple projects focusing on water storage, dispersal, and watershed management, all aimed at sending more water south to the Everglades and restoring the natural flow of water in South Florida. This includes work on the Central Everglades Planning Project and Everglades Agricultural Area Reservoir, the C–44 Reservoir and Stormwater Treatment Area, the Caloosahatchee C–43 West Basin Storage Reservoir, and the Tamiami Trail Next Steps and Old Tamiami Trail Removal.

Some of these projects will be completed within the next three to four years, and the rest are already moving ahead of schedule. The Corps has also nearly finished rehabilitation of the Herbert Hoover Dike, an incredibly vital project for South Florida.

Florida has also been incredibly fortunate to receive historic federal funding specifically for South Florida Everglades Restoration—at $235 million in the Fiscal Year 2020 and an historic $250 million in President Trump's FY 2021 budget request that we are confident our Congressional delegation will fulfill through the congressional appropriations process.

With this increased funding, not only have we been able to move forward on additional Everglades restoration projects, but we've also been able to establish certainty that these projects will be funded and completed in the near future. Combined with $625 million in state funding, the total funding for Everglades restoration and water quality investments across the state in this fiscal year is almost one billion dollars—an unprecedented amount—and a sign of the impact of improved state and federal cooperation and a mutual dedication to Florida's environment.

The Everglades is one of America's national treasures, and they're unlike anywhere else in North America. In addition to the system's uniqueness and intrinsic value, the Everglades serves as habitat for a suite of endangered species of plants and animals, helps sustain drinking water to more than 8 million Floridians, and provides water quality benefits that form the basis of our local economies and ways of life.

The Transportation and Infrastructure Committee, and this subcommittee in particular, are integral to the success of Everglades restoration, and by extension water management in and around Lake Okeechobee. Your indispensable efforts to authorize South Florida Ecosystem Restoration projects as part of your biennial development and consideration of Water Resources Development Act legislation sets the stage for all the design, construction, and operational work that follows. We are optimistic about the passage of WRDA 2020 this year which we hope will include:

- at least one new project authorization to restore the Loxahatchee River Watershed;
- two post authorization change report authorizations to account for important modifications to the Caloosahatchee C–43 West Basin Storage Reservoir and C–111 South Dade; and most importantly
- bipartisan language from the Senate Environment and Public Works Committee to clarify Section 1308 of WRDA 2018 to direct the Corps to carry out construction of the Everglades Agricultural Area Reservoir as part of the Central Everglades Planning Project at the funding levels and expedited timeline developed and approved in the South Florida Water Management District's Sec. 203 Post Authorization Change Report.

These WRDA provisions are of fundamental importance to maintaining momentum as we seek to advance the most ambitious ecosystem restoration project in the history of mankind. They will also greatly enhance our operational flexibility to manage water across South Florida.

While we still have significant and difficult work in front of us, we must not discount the important progress we've made, especially over the last two years. Where we stand today, the restoration of America's Everglades is a shining example of what federal, state, tribal, and local governmental partners cooperating effectively can do in service to a shared cause, no matter how complex.

So again, thank you to this subcommittee for your ongoing attention to Everglades restoration and water management in Florida, and to the Trump Administration and this Congress for record federal funding for South Florida Ecosystems Restoration. Governor DeSantis and the state of Florida look forward to continuing to take advantage of all opportunities to expedite this important work with all of our federal partners.

Mrs. NAPOLITANO. Thank you, sir.

Now we may proceed with Chairman Goss.

Mr. GOSS. Good morning, Chairwoman Napolitano, Chairman DeFazio, Ranking Member Westerman, and subcommittee members, and thanks for hosting today's hearing. My name is Chauncey Goss, and I have the privilege of serving as the chairman of the South Florida Water Management District's Governing Board as an appointee of Governor Ron DeSantis. It is an honor to be here, testifying before you today.

America's Everglades, affectionately known as the River of Grass, is a crown jewel of natural resources in the United States, as the chairman alluded to earlier. The Everglades' story began several hundred years ago, when she was inhospitable to people, but a watery mecca for birds and wildlife. A vast wetland, America's Everglades span from what is now Orlando, all the way south to the very end of the Florida Peninsula, south of present-day Miami.

What seemed like uninhabitable swampland to some quickly became an opportunity to others. The rich soils proved to be incredibly productive for agriculture, and, of course, the climate is ideal for those tired of the snow. But with 60-plus inches of average annual rainfall during our wet season and intense hurricanes, it becomes clear that, without proper canals to drain water off the land, flooding was going to be the norm.

Floridians cried out for help, and your predecessors in Congress authorized what is known as the Central and South Florida Flood Control Project back in 1948.

To demonstrate its support, the State of Florida created the South Florida Water Management District, a special governmental agency, to support that collaborative effort. Today the district has nearly 1,500 employees, and 3 days ago we passed our budget for this fiscal year just north of $1.25 billion.

Together, the State and the Federal Government built a massive public works project to provide flood protection. This project has been a tremendous success. With this new infrastructure in place, and the State's favorable economic opportunities, growth in south Florida exploded. Decades later, record growth continues, and the sky really remains the limit for opportunity in Florida.

But the replumbing of south Florida has also caused negative, unintended environmental consequences for our natural systems. Recent fish kills and seagrass die-offs tell us our waterways are imperiled. Wading bird populations are below their historic average. And you might recall the toxic blue-green algae and massive red tide blooms we experienced when they garnered international headlines in 2016 and 2018. And I can tell you from personal experience, my community of Sanibel suffered intense environmental and economic devastation.

Two years ago I would have stood before you and expressed my concerns without optimism. However, today I am pleased to report that the environmental and economic disasters did not go unnoticed. And, thanks to your help, CERP is making significant progress to ensure we avoid harmful discharges to the estuaries, while moving water south to Florida Bay, while providing flood control, and while ensuring our residents have enough freshwater. CERP is on the radar of the President, Governor DeSantis, this

Congress, and the Florida Legislature. We have momentum right now, and I am confident that momentum can carry us through, actually finishing our authorized and soon-to-be authorized projects.

Within the next decade, with continued support and funding, key authorized CERP projects are expected to come online. The C–44 Reservoir and Stormwater Treatment Area will help protect the St. Lucie Estuary from excess freshwater. The Caloosahatchee Reservoir will help meter out water to the Caloosahatchee Estuary, when the estuary needs a boost of freshwater during the dry season. And our top priority, the Everglades Agricultural Area, or the EAA Reservoir Project, will be a game-changer for south Florida by conveying more water south, where it is needed.

This is our chance to get the water right and to save America's Everglades. Funding and completing the CERP projects are how we do that. Together, we could reduce harmful algal blooms, ensure we have enough reliable, safe drinking water for Floridians and visitors, and continue to protect south Florida from dangerous floods.

And the good news is you have a ready, willing, and able partner in Governor DeSantis. He has made it crystal clear to me and my fellow board members that the word of the day is "expedite" when it comes to Everglades restoration. The faster projects come online, the more flexibility we have in managing our water to avoid harmful and wasteful discharges to the east and west, and to move more water south. We recognize the status quo is unsustainable, and CERP, combined with intelligent operational flexibility, moves us from that status quo.

Thanks so much for having me today. And please know that you all have an open invite to visit south Florida any time to see for yourself what we are saving. Thank you, ma'am.

[Mr. Goss' prepared statement follows:]

Prepared Statement of Hon. Chauncey P. Goss II, Chairman, Governing Board, South Florida Water Management District

Good morning Chairwoman Napolitano, Ranking Member Westerman, and subcommittee members, thank you for hosting today's hearing and discussing "The Comprehensive Everglades Restoration Plan and Water Management in Florida." Thank you for the opportunity to be here today to speak with you about saving America's Everglades and water management in South Florida. My name is Chauncey Goss, and, as an appointee of Florida Governor Ron DeSantis, I have the privilege of serving as the Chairman of the South Florida Water Management District's Governing Board.

America's Everglades, affectionately known as the *River of Grass*, is a crown jewel of natural resources in the United States of America. Her history and subsequent road to restoration demonstrate the sheer power of American innovation and determination. Allow me to tell you the history of the Everglades, how we are actively undertaking the largest environmental restoration project in the world, and what the future of South Florida looks like once we complete the Comprehensive Everglades Restoration Plan that Congress wisely authorized two decades ago.

A vast wetland, America's Everglades once spanned from what is now bustling Orlando in the central part of the state all the way south to the very end of the Florida peninsula, south of present-day Miami. The Everglades story begins several hundred years ago when she was inhospitable to people but a watery mecca for birds and wildlife. Wading birds, whose population numbers are used as indicators for ecological health, were once so plentiful in the Everglades that they reportedly darkened the skies overhead like storm clouds. The few settlers and explorers who did travel into the Everglades report having to cover themselves head-to-toe to protect from the swarms of buzzing mosquitos.

But what seemed like uninhabitable swampland to some quickly became an opportunity to others. The rich soils proved to be incredibly productive for agriculture. And entrepreneurs built expansive railroads to market Florida's iconic coasts as a prime winter destination. With opportunity on the horizon, people flocked to the much milder South Florida climate. Towns blossomed along our coasts and inland near agricultural operations.

The 60-plus inches of average annual rainfall during our wet season and the intense hurricanes proved that picturesque South Florida was not always a year-round sunny paradise. Without proper canals to drain water off the land, flooding became the norm during South Florida's frequent storms. Even worse, thousands perished after major hurricanes hit South Florida in the early Twentieth Century and walls of water swept entire communities away. Floridians cried out for help and Congress authorized what is known as the Central and South Florida Flood Control Project or sometimes called the C and S F Project in 1948. To demonstrate its cooperation and support with the Federal Government, the State of Florida created the South Florida Water Management District, a special government agency to support the collaborative effort. Together, the State and Federal Government built a massive public works project to provide flood protection.

The project was a major success for flood protection and to this day, we have never suffered human loss at the scale seen before the Central and South Florida Flood Control Project was completed. With this incredible infrastructure in place and the state's favorable economic opportunities, growth in South Florida exploded. Decades later, record growth continues and the sky remains the limit for opportunity in the Sunshine State.

The Central and South Florida Flood Control Project led to South Florida being home to bustling international metropolises like Miami to charming fishing villages like Port Salerno and even quaint beach getaways in places like Sanibel Island. This natural beauty that makes Florida special and the endless opportunities are why my family moved to Sanibel Island on Florida's Southwest coast where I grew up.

The canals, levees, and water management infrastructure provided critical flood protection and allowed millions of people to live in the Sunshine State. But the replumbing of South Florida also caused negative unintended environmental consequences that are increasingly getting worse for our natural systems.

From the northern most reaches of the Everglades all the way to the southern bounds, Florida's plumbing has been greatly altered. Just south of Orlando, a once slow-moving, meandering river known as the Kissimmee River was channelized and became a water superhighway, shunting massive amounts of water into Lake Okeechobee and drying nearby floodplains. Lake Okeechobee, known as the heart of America's Everglades, also became human-managed with newly engineered outlets to control water levels in the lake and provide flood protection for communities surrounding it.

Like all estuaries, the Caloosahatchee River and Estuary on Florida's West Coast needs the right flow of freshwater and saltwater. At times, it is cut off from the freshwater it needs. The Caloosahatchee's sister estuaries on the east coast, the St. Lucie Estuary and Lake Worth Lagoon, are often inundated with too much freshwater—again a result of the flood protection system. Heading south, other estuaries like Florida Bay between the Florida mainland and the Florida Keys and Biscayne Bay off the coast of Miami, are both nearly cut off from their much-needed freshwater supply during the driest parts of the year. These types of negative impacts are felt all across America's Everglades—all done in the name of flood protection.

These drastic changes to our natural environments coupled with changing conditions have hurt both Florida's environment and our economy. Fish kills and seagrass die offs tell us our waterways are imperiled. Wading bird populations are significantly below their historical averages. And you might recall the toxic blue-green algae and massive red tide blooms we recently experienced when they garnered international headlines in 2016 and 2018. Guacamole-thick algae in our canals and dead dolphins on our shores seemed to be symptoms of an ecosystem in need of restoration.

I saw these negative impacts of Harmful Algal Blooms in Sanibel firsthand. I saw the sick and dying fish and birds. I heard people say they had a hard time breathing. And I watched as businesses that I have known for a lifetime suffer because visitors cancelled reservations to avoid the algae issues they heard about in the news.

These ecological problems don't just impact our waterways and wildlife. They also can cripple our economy. Floridians and visitors alike depend on clean water. And with more than 100 million people visiting Florida annually for things like its scenic beaches, excellent fishing and world-class destinations, we must continue to protect and restore the environment that makes Florida *Florida*.

We cannot go back to the Everglades of the past—none of us would be able to enjoy South Florida if that were the case—but by saving the Everglades we can avoid some of the worst unintended consequences from ditching and draining our River of Grass.

I'm pleased to report that the Congressionally authorized Comprehensive Everglades Restoration Plan, or CERP as its known here in South Florida, is making significant progress thanks to the support from the President and Congress coupled with the support from Florida Governor Ron DeSantis and our state legislature. CERP and smart operations of South Florida's water management infrastructure are the roadmap to a renewed and restored America's Everglades. We are well on our way.

The federal government and Florida have showed tremendous cooperation by jointly authorizing, funding and building the projects that make up CERP and other key restoration projects. Together, we have built several large infrastructure projects to help correct the environmental damage done by draining the Everglades. The restoration of the Kissimmee River, which I spoke about earlier, is nearly complete and showing incredible promise. And within the next decade, with continued support and funding, key CERP infrastructure projects are expected to come online and further enhance the Greater Everglades Ecosystem. The C–44 Reservoir and Stormwater Treatment Area will protect the St. Lucie Estuary from excess freshwater. The Caloosahatchee Reservoir will help meter out water to the Caloosahatchee Estuary when the estuary needs a boost of freshwater. And our top priority, the Everglades Agricultural Area (EAA) Reservoir Project, will be a gamechanger for South Florida by conveying more water south where it's needed.

We're in a historic time for South Florida and the environment and in some respects for humankind.

This is our chance to reverse much of the damage and unintended consequences caused by decisions we made in the past.

This is our chance to "get the water right" and improve the environment.

And this is our chance to save America's Everglades for the people and environment that all depend on this tremendous natural resource.

Funding and completing the projects of CERP is how we do that and how we prove that the United States can do what no one once thought possible. Insurmountable environmental damage can and will be reversed.

CERP and better water management in South Florida will be great for our waterways, for our birds, for our fish, for our alligators. And yes, it will also be great for our residents and our visitors. Together, we can reduce Harmful Algal Blooms, ensure we have enough reliable safe drinking water for Floridians and visitors, and continue to protect South Florida from dangerous floods.

I want to thank you for having me here today to talk about the largest environmental restoration project in human history. I'm grateful for the ongoing support of Congress and President Trump. With your support, we can finish CERP, save the Everglades, and better manage South Florida's water resources. And in Florida, you have a ready, willing and able partner in Governor DeSantis and the entire state.

I invite you the Subcommittee to visit South Florida anytime and see for yourself what we are saving.

Thank you.

Mrs. NAPOLITANO. Thank you, sir, Mr. Goss. This is very interesting. I would love to go back, and I will one of these days. But now we can go on to our next witness, Captain Jolin.

You may proceed.

Ms. JOLIN. Chair Napolitano, Ranking Member Westerman, Vice Chair Mucarsel-Powell, and members of the subcommittee, my name is Captain Elizabeth Jolin. I have owned and operated a fishing and environmental tour business in Islamorada in the Florida Keys for the past 20 years. Thank you so much for your time today.

When you next visit the Florida Keys and book a charter with me, we will have a magical day. We will fish. We will spot dolphins, herons, egrets, and pelicans. We will explore the mangroves, and we will dive into clear waters to be charmed by a myriad of tropicals swimming amidst the corals.

While we are on board, it is unlikely that we will discuss the wildly fluctuating salinity levels of the Florida Bay. We will not

visit the 40,000 acres of dead seagrass in the bay caused by that very salty Florida Bay condition. And we will certainly not spend 1 minute in the nearshore ocean zone that has been suffocated by algae-laden Florida Bay water coming in on the tide. Finally, we will not discuss the future of the Florida Bay, because it is in crisis. The Florida Bay receives a fraction of its historical waterflow, causing it to be perpetually starved for freshwater.

We are often chided in the Florida Keys for being laid back, and yet we can certainly recognize an emergency when we see one, and the Florida Bay is facing a very grave emergency.

This Florida Bay emergency is certainly affecting my business. But more importantly, this emergency is affecting every business in Monroe County. There isn't a single job in the Florida Keys that doesn't rely on a vibrant and thriving resource. Teachers, policemen, restaurateurs, housekeepers, real estate agents, and yes, fishermen and women, rely on a healthy Florida Bay. It is, quite literally, the foundation of our community.

Despite this, I have confidence in our citizens, our scientists, and our legislators. Today's gathering strikes me as an indication that we can all clearly understand, and quite possibly agree on these points: one, Everglades restoration is not about preserving the Everglades, as much as preserving the economy of south Florida; two, we have to manage the puzzle of Everglades restoration holistically, that is, we can't solve the problems of one estuary to the exclusion of others; three, politics must be put aside if we are going to find success in restoration efforts; and finally, we are running out of time. CERP was designed 20 years ago and, as of today, only a fraction of those projects have been completed.

I sincerely hope we can find common ground to attach urgency and priority to restoration efforts. And I thank you for your time today.

[Ms. Jolin's prepared statement follows:]

Prepared Statement of Elizabeth Jolin, Owner, Bay and Reef Company of the Florida Keys

Chair Napolitano, Ranking Member Westerman, Vice Chair Mucarsel-Powell, and Members of the Subcommittee, My name is Captain Elizabeth Jolin. I have owned and operated a fishing and environmental tour business in Islamorada in the Florida Keys for the past 20 years.

Thank you for your time today.

When you next visit the Florida Keys and book a charter with me, we will have a magical day. We will catch fish, see herons, egrets, dolphins, explore the mangroves, and dive into the clear waters to be charmed by a myriad of tropicals swimming in the coral.

While we are on board it is unlikely we will talk about the wildly fluctuating salinity levels of the Florida Bay. We will not visit the 40,000 acres of dead sea grass in the Bay caused by those salty conditions. We will certainly not spend any time in the near sure ocean zone that has been suffocated by algae laden Bay water circulated on the tidal exchange. And finally, we will not discuss the future of the Florida Bay—because it is in crisis.

The Florida Bay receives a fraction of its historical water flow causing it to be perpetually starved for freshwater. And while we are often accused of being laid back in the Florida Keys, we can recognize an emergency when we see one.

The Florida Bay is facing a very real emergency. The Florida Bay receives a fraction of its historical water flow causing it to be perpetually starved for freshwater.

This emergency is affecting my business but more importantly this emergency is affecting every business in my community in Monroe County. There isn't a single

job in the Florida Keys that doesn't rely on a thriving and vibrant natural resource. Our teachers, policeman, restaurateurs, housekeepers and of course fisherman rely on a healthy Florida Bay. It is quite literally the foundation of our community.

Despite this, I have confidence in our citizens, scientists, and legislators. Today's gathering strikes me as an indication that we clearly understand and quite possibly can agree on these points:

1. Everglades restoration is not about preserving the Everglades as much as preserving the economy of South Florida.
2. We have to manage the puzzle of Everglades restoration holistically. That is, we can't solve the problems of one estuary to the exclusion of others.
3. Politics must be put aside if we're going to find success in our Restoration efforts.
4. And finally, we are running out of time. CERP was designed to 20 years ago in a fraction of its projects have been completed. I sincerely hope we can come together to attach urgency and priority to Restoration efforts.

Thank you.

Mrs. NAPOLITANO. Thank you for your testimony, and I agree with you. But, as you can see, politics has been kept aside in passing WRDA, because it was a bipartisan bill. Thank you very much, and I may take you up on that tour. We have next Mr. Ritter.

But I understand you may be having some technical difficulties. Are you on, Mr. Ritter?

Mr. RITTER. Yes, ma'am. Can you hear me?

Mrs. NAPOLITANO. We can hear you.

Mr. RITTER. Great.

Thank you very much, Madam Chairman and committee members, for the opportunity to testify today. I am very proud to represent the Florida Farm Bureau Federation, and our State's largest agricultural organization, with more than 142,000 members, as well as thousands of farmers and ranchers that live and work in south Florida. We represent farmowners who produce over 300 agricultural commodities, regardless of their scope of operations or location.

In normal times, agriculture is the second largest component of the Florida economy. During crisis, it is even more important. Most importantly, agriculture is not dependent upon visitors and population growth for its contributions.

How has south Florida come from an uninhabitable, unfarmable landscape 100 years ago, to the home of more than 8 million people, the most dynamic and productive ag economy east of the Mississippi, and an ecosystem unmatched anywhere in the world?

It has been possible because the State of Florida and Congress made the necessary investments in the Central and Southern Florida Project, and we have sustained that support for seven decades. We are now in the middle of making retrofits to that project on a truly massive scale to achieve more ecosystem benefits than what the original design was able to provide.

Therefore, sticking to the entire Comprehensive Everglades Restoration Plan with the proper sequencing of projects without deviation is paramount to the success of Everglades restoration. The planning for this process came to a head in the year 2000, with the approval by Congress of the Comprehensive Everglades Restoration Plan. Since that time, we have spent $6 billion so far, and the Corps announced this past week their plan to spend another $7 billion over the next 10 years.

Florida agriculture has been directly involved from the earliest planning stage, and we fully support the suite of projects that are now moving forward.

One of the keys to the broad community support that this project has enjoyed was the promise embedded in the Federal law that, if approved, restoration and the needs of the economy would move ahead together. At a minimum, no legal water use, including environmental water supply, would be reduced, as the plan was implemented. If we have one misgiving about where things stand now, it is the Corps' reluctance to commit that farmers' water supply would not be reduced.

When we talk about water supply, we are talking about Lake Okeechobee. The lake is a central feature in the south Florida water management infrastructure, and it provides flood protection, water supply, environmental enhancement, recreation, and navigation to all of south Florida. In 2007, the Corps lowered the lake to accelerate repairs to the Herbert Hoover dike. That work will be complete in 2 years.

Floridians expect the water supply that they had in 2007, the year before the lake was temporarily lowered, to be restored when the work is complete. Farmers are not asking to go back to a high lake level, or to receive more water than we had before it was lowered. We will continue to work with the Corps as the new schedule is developed, but we would all feel better if the Corps would acknowledge that water that has been available to farmers for the last 50 years will be a part of any plan as we move forward.

The Florida Farm Bureau Federation and its farmer-rancher members remain staunch partners with local governments, water management districts, and State and Federal agencies in this massive restoration effort.

We very much appreciate the opportunity to be here today, and we thank you very much for listening to our comments.

[Mr. Ritter's prepared statement follows:]

Prepared Statement of Gary Ritter, Assistant Director of Government and Community Affairs, Florida Farm Bureau Federation

The Florida Farm Bureau Federation is our state's largest agricultural organization with more than 142,000 members. Sixty county Farm Bureaus constitute the grassroots structure of our organization. We represent farm owners who produce all 300 of the state's agricultural commodities, regardless of their scope of operations or location.

Within the framework of our organization's policy, we fully support a holistic approach to Everglades restoration through the proper sequencing of projects that ultimately improves the timing, distribution, and quality of water moving throughout the Kissimmee-Okeechobee-Everglades (KOE) system. We urge federal policymakers to do this by:

- Recognizing Florida agriculture's heritage of farming and stewardship;
- Recognizing KOE dependencies and constraints;
- Honoring the Comprehensive Everglades Restoration Plan (CERP) and the carefully crafted Integrated Delivery Schedule;
- Supporting all needed programs and partners, including Florida agriculture; and;
- Recognizing the rights of all legal water users including the environment.

Increased flow of water to the remnant Everglades is as important as balancing the water-related needs of the region, more specifically, enhancing water supply and water quality while maintaining flood protection. We continue to encourage water managers and the U.S. Army Corps of Engineers (COE) to comply with CERP and

the sequencing outlined in the Integrated Delivery Schedule and avoid distractions that compromise the delivery of critical project components in this effort. Farmers and ranchers will continue to partner with state and federal agencies as they play an important and appropriate role in the restoration process. It is imperative Everglades restoration stay on target to implement the carefully sequenced plan to accomplish the needed benefits for the entire system, rather than allow regional initiatives to disrupt this carefully crafted plan.

I. Florida's Agricultural Heritage of Farming and Stewardship

Agriculture is a critical part of Florida's heritage and economy, playing the essential role of providing food, fiber and foliage in Florida, throughout the country and the world while exercising good stewardship. In fact, Florida's rich agricultural history dates back nearly 500 years.

Agriculture is Florida's second largest industry and a major economic driver for the state; notable, it is independent of visitors and population growth for its contributions. It provides 2.1 million jobs and over $7 billion in receipts to Florida. Agriculture in south Florida, more specifically the 16-county area of the South Florida Water Management District (SFWMD), is diverse, producing many different commodities. Understandably, farmers and ranchers in south Florida, and statewide, oversee millions of acres of land managing nutrients and water through sound science and technology to protect the environment while maintaining production and economic viability.

The food production and environmental conservation supplied by farms is vital to this country during the late fall, winter and spring months. During these seasons, most of the country is unable to grow the fruits and vegetables needed to support the nutritional needs of and provide vital food security for our country. Contrary to what media regularly propagates, farmers in the Everglades Agriculture Area (EAA), south of Lake Okeechobee, are our largest suppliers of winter vegetables, growing sweet corn, beans, lettuces, cabbage, radishes, rice, and oriental vegetables, in addition to sugarcane.

The ever changing demographic of the populace in south Florida has also resulted in a lack of understanding of agriculture and the products and benefits that a healthy agricultural sector provides. To be fair, agriculture has struggled to communicate effectively with a population that is urban and unfamiliar with the rural parts of Florida. Consequently, the general public is likely to believe that agriculture is responsible for causing all the water related issues throughout the state because it occupies such a large part of the rural landscape and should therefore be responsible for addressing those issues. This viewpoint is especially prevalent in south Florida.

The fact is for several decades farmers in the EAA have been an integral part of the CERP process, helping to *clean* water from Lake Okeechobee as it passes through their farms. Most importantly, they continue to be part of the solution in Everglades restoration efforts.

II. Recognizing KOE Dependencies and Constraints

The Central and Southern Florida flood control system traces its beginnings to the 19th century with the support of federal and state policymakers of the time. The system was completed by the early 1970's, concluding with the channelization of the Kissimmee River, despite vocal opposition from Okeechobee basin ranchers. The flood control system completely altered the timing, distribution and quality of water throughout the entire Kissimmee-Okeechobee-Everglades ecosystem. The region wide system of water management paved the way for growth and development across south Florida. When the system was completed, there were approximately 2 million people living in the 16-county region of the South Florida Water Management District. Today, almost 9 million people make south Florida their home, a threefold increase in population.

Lake Okeechobee is the "liquid heart" of water supply for south Florida and its water quality is of great concern to all stakeholders, agriculture and coastal residents alike. Drainage and flood control projects implemented in the early and middle part of the last century provided a conduit for nutrient loading in the lake as water and sediments moved quickly off the landscape by design. Water, specifically floodwaters, were seen as a common enemy and treated accordingly. These nutrient-laden sediments, referred to colloquially as "legacy phosphorus," remain today in both Lake Okeechobee and in the watersheds of the Northern Everglades. The COE's engineering of the Kissimmee River greatly exacerbated sediment transfer to the lake. Due to the sandy soils and an underlying organic layer, legacy phosphorus from natural and anthropogenic sources continue to contribute to the nutrient en-

richment of Lake Okeechobee through the flood control system now operated and maintained by SFWMD. During the initial design and construction of the flood control project, the COE continually alluded to the fact that water quality would suffer as a consequence of the drainage system.

As south Florida's population has grown, so has the number water resource-related initiatives that are driven by population growth, but directly affect agriculture. These initiatives include studies and legislative mandates to address sustainable growth, environmental protection and water management. Rulemaking on every level of government resulted in laws and rules addressing growth management, comprehensive planning, environmental conservation, water supply planning, and ever more restrictive standards for water use, water management, and land management.

Ironically, best management practices (BMPs) for farming and ranching, which started here as a voluntary grassroots effort by farmers and ranchers to foster practices that protect the land and water upon which their livelihoods depend, has now become a regulatory program administered by the Florida Department of Agriculture and Consumer Services (FDACS). Each of these initiatives impact the way farms and ranches manage land and water resources and conduct their businesses.

III. Honoring CERP and the Carefully Crafted Integrated Delivery Schedule

The Comprehensive Everglades Restoration Plan (CERP) was authorized by Congress in 2000 as a plan to "restore, preserve, and protect the south Florida ecosystem while providing for other water-related needs of the region, including water supply and flood protection." The other water related needs of region includes agriculture. Everglades restoration should be true to its implementation authority and proper sequencing as outlined in the Integrated Delivery Schedule (IDS).

The IDS, shared in cost by the state of Florida and the federal government, provides a collaborative science based sequencing strategy for planning, designing and constructing projects based on ecosystem needs, benefits, costs and available funding. This is achieved by:

- Maximizing holistic benefits to the regional system as early as possible;
- Ensuring additional projects will be ready to continue progress on restoration; and,
- Maintaining consistency with project dependencies and constraints.

Agricultural BMPs complement these efforts and are continually evolving with sound science and technology to improve water quality and storage as new IDS projects come on line.

IV. Supporting all Needed Programs and Partners, Including Florida Agriculture

The state of Florida maintains a leadership and partnership role in conjunction with federal projects. For instance, the Florida legislature unanimously passed Senate Bill 712, recently signed by Governor Ron DeSantis also known as "The Clean Waterways Act". As a part of this legislation, agricultural farms and ranches are once again called upon to continue their partnership role to improve water quality through the implementation of best management practices (BMPs), collaborative water projects and research. According to the Florida Department of Agriculture and Consumer Services (FDACS) Office of Agricultural Water Policy 2020 report, research efforts have expanded to include quantifying and demonstrating benefits from precision agriculture technologies to improve crop nutrient efficiencies and reduce fertilizer and irrigation application rates.

Agriculture's contributions and partnerships to Basin Management Action Plans (BMAPs) and regional restoration projects largely go unnoticed by stakeholders. Agriculture has been and continues to be a cooperative partner with the Florida Department of Environmental Protection to satisfy their responsibilities as a part of a BMAP. However, it should be noted that farmers and ranchers cannot do it alone, nor should they be expected to. There must be a collaborative and holistic approach for restoration efforts to be successful.

Farmers throughout the region of the SFWMD continue to aggressively implement BMPs to slow or eliminate the movement of stormwater, and its sediment load, from farms and ranches. In spite of their efforts, more recognition needs to be given to the farmer for these activities as focus remains on the in lake nutrient load.

For the past 20 years, the Farm Bureau Federation in partnership with FDACS and the University of Florida Institute of Food and Agricultural Sciences has recog-

nized farmers and ranchers through the County Alliance for Responsible Environmental Stewardship (CARES). The CARES program recognizes with signage those farmers and ranchers who have implemented BMPs and exhibited responsible environmental stewardship. There are more than 80 CARES recipients in the Lake Okeechobee Basin and more than 900 throughout the state.

Additionally, Florida Farm Bureau along with FDACS has also worked with The Nature Conservancy in the development of a 4Rs fertilizer certification program that's been incorporated into FDACS BMP manuals. This program mandates the efficient use of fertilizer by requiring applications be at the *r*ight rate, *r*ight time, *r*ight source and *r*ight place. Along with CARES, the 4Rs program support BMAP goals and are examples of agriculture's partnership and commitment to CERP.

For example, continued EAA agricultural production fits within the framework of the Everglades Restoration Programs and CERP in terms of water quality as well. EAA farmers have exceeded the state-mandated goal of reducing phosphorus going into the Everglades by 25% for the past 26 years, achieving more than a 55% reduction on an average annual basis.

Farmers north of the Lake in partnership with the SFWMD have implemented dispersed water management projects that hold water back on thousands of acres on farms and ranches that will:

- Provide valuable groundwater recharge for water supply;
- Improve water quality and rehydration of drained systems;
- Enhance plant and wildlife habitat; and,
- Help sustain the local economy by incentivizing landowners to provide greater environmental stewardship.

V. Recognizing the Rights of all Legal Water Users

The environment, agriculture, urban development, and people depend on Lake Okeechobee for part or all of their water supply, in addition to flood protection, navigation and recreation. The lake level is maintained daily by the COE using the Lake Okeechobee Regulation Schedule 2008 (LORS2008). The LORS2008 regulation schedule was implemented by the COE in 2008 to facilitate the emergency rehabilitation of the Herbert Hoover Dike surrounding Lake Okeechobee and protect surrounding populations until the work was done. This new regulation schedule lowered Lake Okeechobee's control elevation by one and half feet, which resulted in a reduction of available legal water supply from the lake to all its user groups, including the environment.

The schedule includes flexibility for the COE to operate the lake at higher lake stages towards the end of the summer rainy season in this tropical climate. Holding more water at this time of year both decreases the amount of water being released to the Caloosahatchee and St. Lucie Estuaries ("to tide") and provides a vital water supply for the dry season for use by the environment and permitted water users.

Lake Okeechobee is an integral part of the Comprehensive Everglades Restoration Plan (CERP), providing flood protection, water supply, environmental enhancement, and recreation/navigation to all of south Florida including the remnant Everglades and Everglades National Park. As the dike rehabilitation nears completion, the Corps is developing a new Lake Okeechobee System Operating Manual (LOSOM).

Because the Lake is a part of CERP, *it is critical that the Water Savings Clause provided in the Water Resources Development Act (WRDA) of 2000 remains part of the new LOSOM*. The purpose of the Water Savings clause was to provide assurances to all water users including the environment that the same level of service as provided in WRDA 2000 and authorized in CERP would continue. Therefore, any new regulation schedule must meet all the requirements of CERP and the Central and Southern Florida water management system, which includes the water supply for farmers and ranchers.

The Florida Farm Bureau Federation and its farmer and rancher members are staunch partners with local governments, water management districts, state and federal agencies in this massive restoration project and they are committed to the use of science-based BMPs. Sticking to the entire CERP plan with the proper sequencing of projects without deviation is *paramount* to the success of Everglades Restoration. Projects already designed to improve water quality, storage and the timing and distribution of water throughout the system should take precedent over sub-regional initiatives that would result in partisanship and delay. Disproportionately favoring any one component or one region over the ecosystem as a whole and the entire suite of projects needed to accomplish this effort would compromise the integrity of this time-honored process.

VI. CONCLUSION

The Florida Farm Bureau Federation's commitment, along with all private stakeholders and government partners, to environmental stewardship and conservation is evident and indicative of the Florida farmer's proactive leadership on water issues in the state through the decades. Our collective and united approach to these tough issues has paid dividends for the Florida resident in cleaning up our natural resources, preserving a safe and abundant water supply, and protecting the state's residents from the real and fragile threat of flooding. A collaborative process must continue if we are to address these ongoing challenges in a meaningful and effective way. Florida's farmers and ranchers welcome that continued conversation.

Mrs. NAPOLITANO. Thank you for your comments, Mr. Ritter. And I would like to point out that nowhere are there any mention of Native American water rights, which also go into the equation. And I am sure that you are thinking of the water quality for drinking water for the general Floridians. OK, thank you very much.

Ms. Estenoz, you may proceed.

Ms. ESTENOZ. Thank you, Madam Chair, members of the committee. On behalf of The Everglades Foundation board of directors, I thank you for the opportunity to address the committee today.

For 27 years, The Everglades Foundation has had one mission and one priority: to see America's Everglades restored for the benefit of the ecosystem, our economy, and future generations. We are immensely grateful for the continuous support Congress and, in particular, this committee, has shown the Everglades over these many years. That tradition of support continues.

The Water Resources Development Act of 2020 confirms the priority status of the Everglades Reservoir, requires transparency in how precious Everglades water is divvied up, and acknowledges the importance of reducing harmful discharges of toxic algae into Florida's waterways, fisheries, and communities. We congratulate Chairman DeFazio, Ranking Member Graves, and the entire committee on the passage of a bipartisan WRDA this summer. We hope that the Senate takes up your good work and moves this bill to the President's desk as soon as possible.

I look forward to today's discussion about protecting and restoring the Everglades and estuaries. I am going to focus my opening remarks on the shorter term topic of revising operations to address harm being experienced in the Everglades and estuaries.

Specifically, moving water from Lake Okeechobee to the Everglades, particularly in the early dry season, should be thought of as a current water management strategy, not just a future restoration goal. Now, when I say early dry season, I am generally talking about the months of December, January, and February. And when I say wet season, I mean, generally, June through November.

As we spend the next decade building restoration projects, the Corps should use its other authorities to improve things, especially to address serious—in some cases, irreparable—harm in the Everglades and estuaries.

From this committee's perspective, it is important to prevent conditions in the Everglades and estuaries from getting worse before restoration infrastructure is complete. As the committee knows, we currently have inadequate infrastructure to move enough water south in the wet season.

Restoration projects like the Central Everglades Plan, Tamiami Trail bridges, and the Everglades Reservoir are critical updates to

that infrastructure, and they represent the long-term approach to securing south Florida's future. The Everglades Foundation hopes that the White House and Congress will invest aggressively in finishing these projects as soon as possible.

Unlike in the wet season, however, in the dry season existing infrastructure is rarely a constraint. Instead, in the dry season, the constraint to flowing water south is the rules that govern where water goes or doesn't go. So here's where the short-term opportunity lies. Because we are nearing the completion of the Herbert Hoover dike rehabilitation, the Corps is revising the rules for operating Lake Okeechobee. It has the opportunity to include in these new rules a proactive win-win approach to addressing harm and achieving regionwide benefits.

Consider the fact that the Everglades needs to be wet all the time, very wet in the wet season, a lot less wet in the dry season, but wet, nonetheless. By allowing more of the water the Everglades needs during the dry season to move south, peat soils in the Everglades could stay wet longer, reducing soil loss and carbon emissions through oxidation and fire. Aquifer resilience for Palm Beach, Broward, Miami-Dade, and Monroe Counties could improve. The lake could be brought down to healthier and safer levels more frequently.

By moving water south early in the dry season, we will face the subsequent wet season with more room in the lake to store rainfall, a proactive approach to addressing the risk of harmful discharges. Unfortunately, so far the Corps has said that including this strategy is outside the scope of its current rule revision. It is inexplicable that the Corps would not adopt into the Lake Okeechobee rulebook a management strategy that has the potential to help millions of south Floridians, the estuaries, and America's Everglades.

Next to rainfall, Lake Okeechobee is the single most hydrologically significant variable in south Florida. Obviously, we can't control the rain, but we can control the extent to which the lake can fluctuate safely. And we also write the rules for moving lake water around the system. Until new restoration infrastructure is complete, these are the most significant things we can do to balance competing needs for water supply and flood protection, and to protect people and natural systems from harm.

In closing, the lake must be operated to reflect modern values and the 21st-century Florida economy, not only as restoration confronts the unintended consequences of our past, but as we meet the demands of our present, and rise to the challenges of our future. Thank you.

[Ms. Estenoz's prepared statement follows:]

Prepared Statement of Shannon Estenoz, Chief Operating Officer and Vice President of Policy and Public Affairs, The Everglades Foundation

Madam Chair and Members of the Committee, my name is Shannon Estenoz, and I am the Chief Operating Officer and Vice President of The Everglades Foundation. On behalf of our Board of Directors, I thank you for the opportunity to address the Committee today. For 27 years, The Everglades Foundation has had one mission and one priority: to see America's Everglades restored. We have worked to see form, function, and resilience restored to a unique ecosystem that supplies drinking water for millions of Americans and is the foundation of the tourism, real estate, and

recreation industries—all pillars of Florida's 21st century economy. We are immensely grateful for the continuous support Congress and, in particular, this Committee has shown the Everglades over these many years.

That tradition of support continues in the current Water Resources Development Act (WRDA) of 2020. The bill contains critically important policy provisions clarifying the priority status of the Everglades Reservoir, requiring greater transparency in the allocation of precious Everglades water, and acknowledging the importance of reducing harmful discharges of toxic algae into Florida's waterways, fisheries, and communities. We congratulate Chairman DeFazio, Ranking Member Graves, and the Committee on the passage of a bipartisan WRDA under extremely difficult circumstances this summer. We hope that the Senate will take that good work and move this bill to the President's desk as soon as possible.

The topic of today's hearing highlights that it is not only infrastructure, but also operational rules and water management that have an enormous impact on Florida's environment and economy. Traditionally, when Everglades advocates address this Committee, they focus on infrastructure plans, projects, and investments, including the Comprehensive Everglades Restoration Plan (CERP). But today, my focus will be on water management operations—a topic central to the well-being of the Everglades, Florida's 21st century economy, and to ensuring Congress maximizes the return on its restoration investments. *Specifically, moving water from Lake Okeechobee to the Everglades, particularly in the early dry season, should be considered a current water management tool, not just a future restoration goal*. As we spend the next decade building restoration projects authorized by this Committee, the state and federal governments should also be using *other* authorities to improve conditions in South Florida. Existing authorities offer opportunities to reduce risk for the often parched Central Everglades, Everglades National Park, and Florida Bay, the millions of water users who rely on aquifer systems recharged by the Everglades, communities living in the shadow of the Herbert Hoover Dike, and the communities along the Caloosahatchee and St. Lucie estuaries who suffer from harmful discharges from Lake Okeechobee. We know that in the long-term, infrastructure modified for Everglades restoration and other programs will give us much greater flexibility to balance the water-related needs of South Florida. But I am here today to talk about what can be done *immediately* to optimize water management operations to more fairly and equitably use the infrastructure we have to distribute the benefits and the risks among the many competing water-related needs in the region.

In 2018, Congress teed up the biggest opportunity we have seen in 12 years to do exactly this—the revision of the lake regulation schedule, also known as the Lake Okeechobee Systems Operating Manual (LOSOM). We are 18 months into that process, and from the beginning, The Everglades Foundation and its conservation partners have asked the U.S. Army Corps of Engineers (Corps) to include downstream Everglades water needs in the revised operating rules. The Corps' response has been that those needs are outside the scope of these revisions. Frustratingly, the Corps seems to be stating that Everglades water needs can only be met through the Everglades restoration program and not through the Corps' other authorities. This is absurd on its face.

The Corps has broad authority under the Central and Southern Florida Project to balance flood control, water conservation, saltwater intrusion, preservation of fish and wildlife, and navigation. The Corps has adopted a constrained interpretation of those purposes in writing the rules for Lake Okeechobee operations. Now that the Corps is rewriting the lake's rulebook, there is an opportunity for the Corps to exercise authority more fairly, more sustainably, and more equitably. The new rulebook needs to have an explicit option allowing water managers to pull water from the lake for the Everglades during the dry season. This will allow water managers to draw the lake down in advance of the wet season, freeing up capacity in the lake itself and providing downstream ancillary benefits like hydrating wetlands, recharging the aquifer for urban water supply, and mitigating against fire risk in Everglades National Park. In specific technical terms, in the Regional Simulation Model (Basin) used in LOSOM, the flows sent south are not directly linked to conditions in the Everglades, but instead specified as flow to the Stormwater Treatment Areas (STAs). The Basin model should use the Everglades demands from the Regional Simulation Model (Everglades and Lower East Coast Service Area) to determine what, if any, Everglades demands can be met from lake operations using the infrastructure configuration assumed in the LOSOM process.

By refusing to consider the regional benefits of sending water to the Everglades in the LOSOM process, the Corps is inexplicably failing to add to their water management toolbox a powerful tool to better balance and reduce risks associated with high water in Lake Okeechobee and low water downstream in the Everglades. In

other words, the Everglades itself can help the Corps protect the Herbert Hoover Dike from high water and coastal communities from harmful discharges with relatively minimal investment.

Unlike most places in South Florida, the Everglades needs to be wet all the time. It needs to be very wet in the wet season and less wet in the dry season, but wet, nonetheless. This is not scientifically controversial—peat soils in the central and southern Everglades formed over thousands of years in wet conditions—drying out very rarely, if ever. Today, there are Everglades peat soils that dry out every single year. And when peat soils dry out, they can be lost through oxidation or even catch fire, resulting in a loss of habitat, impacts to the Everglades food chain, and increased carbon emission into the atmosphere. We have a saying at the Foundation—"keep the Everglades wet for 'peat's sake.'" While downstream infrastructure constraints currently limit our ability to move a lot more water during the wet season, projects like the Central Everglades Plan and Tamiami Trail bridging have been incrementally reducing those constraints and will continue to do so over the next decade.

Moving water south in the dry season, however, is not generally constrained by infrastructure but, instead, by the rules that govern operations, including Lake Okeechobee. In the early dry months (December, January, and February), rainfall is typically low in the region and water levels in the Everglades drop quickly. Falling water levels in the Everglades is not inherently bad because water levels are supposed to fall in the dry season. However, because of how we currently operate the system, dry season water levels in the Everglades often drop too quickly, particularly in Everglades National Park. Because the Everglades has been cut off from Lake Okeechobee, there is rarely enough water in the Everglades to last all dry season long. Here is where the opportunity lies.

If the Corps allowed itself to consider moving water south to the Everglades during the dry season as a water management strategy, doing so could have multiple benefits throughout the system. Peat soils in the Everglades would stay wet longer, which correspondingly helps to improve recharge for the Biscayne aquifer, which is the primary drinking water source for millions of Floridians. The corresponding *upstream* benefit of keeping the Everglades wet is that the lake levels would be lower, safer, and cleaner more often, thereby reducing dike failure risk for communities south of the lake and discharge risk for coastal communities east and west of the lake.

Lower lake levels are often characterized as posing grave water supply risks. When evaluating such characterizations, a fundamental point should be considered. Low lake water supply-related risks are often unfairly evaluated against a status quo that is already sharply skewed against the Everglades, coastal communities, and urban water supply. The most obvious example of the unfairly skewed status quo is that agricultural irrigation dominated in this area by sugarcane currently enjoys water supply privileges from the lake that other interests, including the Everglades and downstream urban water users, do not enjoy. Just this past year, in December, January, and February, water was held back in the lake and not sent to the Everglades, so that agriculture users could receive 70 billion gallons from the lake in March and April, lowering the lake by more than half a foot. While agricultural users received all the water they wanted during the driest time of the year, wildfires raged in parched areas of Everglades National Park, and one of the two major canals supplying water to Broward County, home to 2 million people, was rationed. It is obvious to everyone who watches water management in South Florida that the Corps' current rulebook hoards water in the lake in the early dry season, primarily for the benefit of one user group, to the detriment of downstream needs, and at an increased risk for many communities.

The status quo unfairly delivers most of the risk to downstream users, including the Everglades and the coastal estuaries. But a lower Lake Okeechobee re-balances those risks, albeit constrained by the current infrastructure, and represents a more fair and equitable approach to water management. To the extent that there are other low-lake risks, the state of Florida could reduce them through its own infrastructure investments, regulatory and policy decisions, and operational refinements—examples include helping the City of West Palm Beach, the City of Okeechobee, and the Seminole Tribe of Florida reduce water supply risks posed by a lower lake.

The reality in South Florida is that, next to rainfall, Lake Okeechobee is the single most hydrologically significant variable in the region. The extent to which we operate the lake to fluctuate safely and balance water demands is the most important variable we can control to accommodate competing needs for water supply and flood protection. The less the lake can fluctuate safely, the less storage the lake provides, which we know has negative implications for many water-related needs of the

region. In 2020, the lake should be managed in a way that best reflects modern values and the 21st century Florida economy. There was an attempt this summer by certain interests to convince this Committee and the Committee's counterpart in the Senate, to insert language into this WRDA bill that would have expanded decades-old water supply privileges. That language would have prevented today's debate about what constitutes "fair and equitable" or "optimal" when it comes to operating Lake Okeechobee. We are deeply grateful that both chambers rejected this approach, because Floridians have a right to debate what "balance" means for Florida's water future, not only as we confront the unintended consequence of our past through restoration, but also as we meet the demands of our present and rise to the challenges of our future.

For more than 20 years, this Committee has stood by Florida and by America's Everglades as we have worked to align our infrastructure with our values and our evolving economy. The Everglades Foundation is deeply grateful and, as a science-based organization, we are determined to identify and bring to government's attention every opportunity to make things better for America's Everglades and for the people of Florida in the long and short term. Thank you.

Mrs. NAPOLITANO. Thank you for your testimony. And now we will proceed to questions of the witnesses from the Members, and we will, again, use the timer to allow 5 minutes of questions from each Member. If there are additional questions, we might have a second round. But I have another hearing on the Salton Sea, which is very important in California, and thus I will begin the questioning. And my first question goes to Secretary Valenstein.

Does the State of Florida continue to support the goal of full implementation of CERP?

Does the State see challenges in full implementation?

And what are some of the actions we can take to do this?

Mr. VALENSTEIN. Thank you. We are absolutely committed to the full implementation of CERP, and we are greatly appreciative of our Federal partners.

Again, as I mentioned in both my written and oral comments, we have seen a real surge of support for environmental issues here in Florida, and water quality. We thank our delegation, and we thank Congress for continuing to authorize projects in WRDA, and continuing strong funding. Again, we have seen record funding from this administration, and support from this Congress, and that is absolutely making a difference here in Florida.

I think you have heard from every presenter, right now is the renaissance of Everglades restoration. We have projects moving, we have groundbreakings, we are having ribbon cuttings. And within the next 5 years, we will see a fundamental difference of how water movement in south Florida works. And that is to your——

Mrs. NAPOLITANO. You mentioned in your testimony the passage of Senate bill 712, the Clean Waterways Act, in June. What does this law do to assess the challenges, and when will it be enacted?

Mr. VALENSTEIN. Sure, so one of the things we take very seriously here in Florida, especially under Governor DeSantis, is, as I mentioned in the testimony, we can't change the dynamic in south Florida without fixing discharges from Lake Okeechobee, which is a water supply and water control issue.

Aside from that, the State takes very seriously water quality issues. And that is what this legislation was meant to address, was to ensure that we were taking all the steps necessary. And so this comprehensive legislation looks at each of the sources of nutrients in Florida.

So for septic tanks, it moves those permitting programs to the Department of Environmental Protection, and has us, for the first time in Florida history, permitting septic tanks as a source of nutrients. It enforces against sanitary sewer overflows, with a 100-percent increase in penalties for sanitary sewer overflows from utilities. It has us beginning to modernize what was already a leading stormwater regulatory structure in the United States, but it has us modernizing it even more, to look at ways in which stormwater infrastructure can capture and treat nutrients. And lastly, it has us taking strong steps forward in the management of agricultural sources of nutrients, with much greater inspection authority enforcement against agriculture.

Mrs. NAPOLITANO. And when will it be enacted?

Mr. VALENSTEIN. It has been signed into law, it was passed unanimously by both the house and the senate. As you were mentioning, the broad bipartisan support——

Mrs. NAPOLITANO. When will it be enacted, sir?

Mr. VALENSTEIN. The legislation is already enacted, so it unanimously passed. It is enacted. And then each element of it is already moving forward.

So some items, such as the 100-percent increase in penalties, were automatic. Others are beginning rulemaking now.

Mrs. NAPOLITANO. Well, it will be good to see what is in it, to be able to determine whether it is going to be effective, and the way we would like to see everything work together.

But I would like to ask you whether the National Academies of Sciences has a role in the Everglades. I understand that every 2 years they do an assessment of the progress on it.

Mr. VALENSTEIN. Absolutely, Chairwoman. So we work with the South Florida Water Management District, and have the relationship——

Mrs. NAPOLITANO. No, the National Academies of Sciences and the Everglades, I understand that they do an assessment every 2 years.

Mr. VALENSTEIN. Correct, and we are part of the funding entity for that assessment, and contract with the National Academies of Sciences. We greatly appreciate a rigorous science review of our progress [inaudible] entity to do that.

As I mentioned, our Governor strongly believes in the role of science, which is why he appointed the first chief science officer for the State of Florida.

Mrs. NAPOLITANO. Good. Thank you.

Mr. Ritter, I only have a short time. What technologies have the farmers implemented to help with the water quality in the farm runoff, and how long have they been implementing them?

Mr. RITTER. Yes, thank you for that question, and I would like to make note that, yes, the Tribal entities, as well as the agricultural entities, are very supportive of the CERP process.

The EAA farmers have been implementing best management practices for now the past 26 years. Those practices have been improved through water management, through better water management, through better nutrient management, through better irrigation management technologies, and they have—actually, their goal was 25 percent reduction of phosphorus moving south towards the

Everglades, and they have achieved that goal now for approximately 26 years, and——

Mrs. NAPOLITANO. Apparently, they need to do more, because, apparently, that is a continuing problem with the contamination. Thank you very much, sir. I appreciate it. I must now go to my next speaker, Ranking Member Westerman.

Mr. WESTERMAN. Well, thank you, Chairwoman Napolitano, and thank you to the witnesses for your testimony today. It is very informative.

And Madam Chair, I just wanted to point out that we understand that—from some folks—that during Mr. Ritter's testimony, that although we can see him on grid view now, that he was not showing up across all platforms, due to potential technological issues. And we just wanted to ensure everyone that we could see him on some devices on our end, as we move into questions. And we can see him now.

So, you know, as we consider the testimony today, and we look back and it has been 20 years since the authorization of CERP, I think everyone agrees that it is appropriate to take a fresh look at that. And the stakeholders that we have here today represent those who are most directly impacted by the outcomes of the program.

You know, as I think about Lake Okeechobee I remember, as a kid, watching Bill Dance's fishing shows on TV, and seeing the big bass he was catching out of Lake Okeechobee. I have always been fascinated by the wetlands ecosystem there, and that phenomenal resource that you've got. And it is something that is important to the whole Nation.

So I want to ask the panelists, what is the greatest challenge lying ahead for CERP? If you could, outline one challenge, and we will just go down the road.

And as a followup to that, what can Congress do about it, outside of additional funding?

Mr. VALENSTEIN. Sure, so I will start, thank you.

I think one of the most important things is removing regulatory burdens, and so any options—and you saw this with the authorization for the Everglades Agricultural Area—the EAA Reservoir, where the State took a new approach to design the project in an expedited manner, and then handed it over to the Federal Government. I think options for us to look at streamlining the partnership to allow us to get projects done, ask the basic question of what is the shortest distance between two points to get the project done, and functioning to protect the environment and protect the economy.

And we look forward to working with this committee and others to ensure that happens.

Mr. WESTERMAN. Thank you.

Who wants to go next?

Mr. GOSS. I would love to go next. And you mentioned funding, and you said that was off the table. But funding——

Mr. WESTERMAN. We all know that one.

Mr. GOSS. I know, so I won't belabor that one.

But I will say one thing that I see is that the closer you are to a project, the more urgency you feel. You have been down to the lake, you have seen it. And sometimes we have a problem—or not

a problem, but an inconsistency with our partner. And the Corps of Engineers, where the folks in the Jacksonville District feel the sense of urgency we feel in the State of Florida, that doesn't always trickle up inside the Beltway.

And any help you can give us in helping folks inside the Beltway understand a sense of urgency we have, so that we can finish CERP, because we really want to finish it, and we are so close. And I know the Jacksonville District is a tremendous partner, and we are working very closely with them, and they want to finish it, too. So I think we can do that. And sometimes we need your help just to sort of instill that sense of urgency within the Beltway.

Mr. WESTERMAN. Thank you.

Mr. RITTER. This is Gary Ritter with the Florida Farm Bureau Federation.

From our standpoint, we feel like one of the biggest challenges with CERP is maintaining the wholeness of water supply for municipalities, local governments, for Tribal lands, and for agriculture while these projects are getting built and after them getting built. So we feel very strongly that the water savings clause that was enacted by Congress in 2000 is extremely important to remain whole during the process and after the process.

So that is one of the biggest challenges, and we think we can provide that water, maintain the wholeness of everyone with their water supply, and we can restore the Everglades and protect that water supply, equally. So that is one of the things that we see as the biggest challenge, outside of funding.

Ms. ESTENOZ. Congressman, this is Shannon Estenoz, and my response to that question is twofold.

First and foremost, I will echo Chairman Goss' point about accelerating Corps of Engineers own internal processes. That, in my experience, the most constant barrier has been the sort of bureaucratic approach. I will give you an example.

In 2018, the Congress asked the Corps to do a 90-day report on the Everglades Reservoir. It is now 612 days late. And so that is a perfect, concrete example of what happens to us.

The second example I would give is more transparency when comparing costs. WRDA 2000 goes some distance to help explain to Floridians where water actually goes, who benefits, and who doesn't benefit, but that lack of transparency keeps Floridians from truly keeping account of costs, benefits, and risks.

Mrs. NAPOLITANO. Thank you very much for your testimony.

I think your time is up, Mr. Westerman, and I think I will head up to Ms. Mucarsel-Powell.

Ms. Mucarsel-Powell, you are on.

Ms. MUCARSEL-POWELL. Thank you so much.

First, I ask unanimous consent, Madam Chair, to enter my statement into the record.

[Pause.]

Ms. MUCARSEL-POWELL. Yes?

Mrs. NAPOLITANO. So ordered, yes.

[Ms. Mucarsel-Powell's prepared statement follows:]

Prepared Statement of Hon. Debbie Mucarsel-Powell, a Representative in Congress from the State of Florida, and Vice Chair, Subcommittee on Water Resources and Environment

I'd like to thank Chairman DeFazio, Subcommittee Chairwoman Napolitano, Ranking Members Graves, Subcommittee Ranking Member Westerman, and my fellow subcommittee members for holding this crucially important hearing today.

Everglades Restoration is the largest ecosystem restoration project in the world, and I cannot overstate its importance to South Florida. Not only does the Everglades ecosystem provide drinking water to 8 million Floridians—over a third of the state's population, but it is the backbone of our economy in South Florida, and it's an important weapon in our fight against climate change.

Restoring our Everglades to a condition that somewhat resembles its natural flow from 100 years ago is a monumental task that we've been working on for two decades now, and we have at least another decade to go.

The goal is to move more water south. Not east and west—where residents too often face harmful algal blooms—but south, where the water can flow naturally through vegetation and grasslands that clean the water and then enter Everglades National Park to keep our wetlands *wet*, and provide freshwater into Florida Bay.

I thank this Committee for its work to move this year's Water Resources Development Act through the House. Not only does it authorize additional CERP projects, but it includes provisions I fought for which will expedite the competition of the Everglades Agricultural Area Reservoir, increase transparency regarding water flows, and help us in the fight against harmful algal blooms.

But we have so much more work to do, and we cannot wait another decade or more to see improvements in our ecosystem. I look forward to hearing our witnesses testify about the importance of moving water south, and how we can do so in a holistic and efficient manner. I hope today's discussion will shed some light on what else we can be doing to improve South Florida's ecosystem so more Floridians can benefit from the work that has already been done, and we can maximize benefits in the years to come.

Ms. MUCARSEL-POWELL. Thanks so much.

First I want to say thank you to Chairwoman Napolitano, Ranking Member Westerman, Chairman DeFazio, and Ranking Member Graves. Let me just say that from the very beginning, when I started in the 116th Congress, I have put Everglades restoration as the top priority. And working closely with my colleague, Brian Mast, and having bipartisan support, we were successful in passing the Water Resources Development Act, which actually addressed certain language in the bill that would expedite Everglades restoration. And it is critical for our environment, for the economy, for Florida.

And I am very proud to see that we have such a great group of witnesses that really are representing all the different groups, so that we can have this conversation, this debate, so that the committee understands what we need to do, because we support, absolutely, agriculture, and we don't want to have any negative effects of protecting our environment, and then not helping our farmers. Absolutely not. That is why we are having this discussion here today.

It is so important to have a healthy Everglades. And I don't want to talk too much about it, because I have been talking about this for 2 years now. But, you know, the health of our Everglades really provides us with clean drinking water. About 8 million Floridians depend on a healthy Everglades for our drinking water.

And it is also the backbone of our economy, here in south Florida. It is definitely another weapon for us to help fight against the effects of climate change.

So I want to start with a dear friend, one of my constituents that I am very proud to represent. Thank you so much, Elizabeth, for coming here today to the hearing.

You know, I met Elizabeth a few years ago, when I was touring Florida Bay. This is before I came to Congress. And she is a sought-after charter fishing captain here in the Keys, but also such a prominent advocate for Everglades restoration.

Ms. MUCARSEL-POWELL. And if you can, take a look at the images that I wanted everyone in the committee to see today.

[Slide]

Slide Submitted for the Record by Hon. Debbie Mucarsel-Powell

Ms. MUCARSEL-POWELL. You will see images of our seagrass. It is something that, like I said, Elizabeth brought to my attention years ago, and something that she has been working on. On the left you will see the healthy seagrass. On the right you see dead seagrass floating on the surface of the water, which is obstructing light. And these pictures were taken in 2015.

So, Elizabeth, I want to start with you. Can you explain to us how you have seen the degradation and thousands and thousands of acres of seagrass dying? Can you explain to the committee the effects of that, not just for our economy, but also to marine life, and why it is so important to make sure that we protect seagrass in the Florida Bay?

Ms. JOLIN. Thank you so much for the question. And I know my time is limited. My favorite subject is seagrass, and I could go on and on and on.

But the irony of this question and this issue with seagrass is that it lies under the water. So if you were to come to visit us here in the Florida Keys, and you sit on the beach, and you look out, you would have no idea that there is a problem. It is beautiful here. And yet, underneath the surface of the water, when we have the death of seagrass, it affects everything that relies on the water: all fish, all birds, our mangroves. It becomes a crisis.

Here's a very specific example, and I will make this very brief. In the fishing industry—and again, this isn't the most important industry, but it is an example that we can talk about—10 years ago, when you would come for a fishing charter, we would go and we would promote you into fishing bonefish, red fish. Today we talk about how fun it is to catch sharks and barracuda, because that is what is prevalent in our water because of this degradation of our resource.

When we have these higher species dominating the water, it is unfortunate. And we, as a businessman, businessperson, we are trying to run our charter business, and now we talk about how great it is to catch a shark. What we really wanted to do is catch these species that need a robust environment underneath the surface of the water. It is one example to take away today.

Ms. MUCARSEL-POWELL. Thank you——

Ms. JOLIN. And might I——

Ms. MUCARSEL-POWELL [continuing]. Elizabeth.

And very quickly, because I am running out of time—I don't know how we ran out of time so quickly—Shannon, if you could, just tell us what the effects of dying seagrass has on our economy, and also why it is so important to expedite Everglades restoration for Florida.

Mr. GOSS. Well, as you just heard from the fishing community, it absolutely wipes it out when all of a sudden sharks are the best fish you can go fishing for. So that is a real problem for us, and it does impact the economy, because sportfishing is one of the large drivers of Florida's economy. So it does impact it.

And what we need to do is move that water south into Florida Bay, and CERP allows us to do that. So the faster we can get more moving with CERP, the faster we can get water to Florida Bay to try and solve that seagrass problem.

Ms. MUCARSEL-POWELL. Thank you. I am out of time, Madam Chair. Maybe I will have a second round of questioning later.

Mrs. NAPOLITANO. Our timer is frozen, so we will have to figure out how to keep time on it.

But Mr. Webster, you are on.

Mr. WEBSTER. Thank you, Madam Chair, I appreciate you hosting this committee, and for the opportunity to talk about an awesome place in our world, and that is the Everglades.

First I want to just say I was in the Florida Legislature for many years, three decades, and during that time, in the mid-1990s—I think it was 1994—we passed Everglades Forever. And that became sort of the start of the opportunity of doing and being included in the WRDA 2000 bill. During that time, I know that we had—and I am sad they are not here today, because we had the Miccosukees and the Seminoles there, along with the Corps of Engineers, and some of the cities and towns that are around there that depend on the water from the lake.

Everybody was included. And I think the conclusion of the discussions during those years was that—that I was involved in—was the fact that we wanted to have everybody treated equal. That is where this whole idea of a savings clause was introduced.

And many people think it was agriculture, or it was utilities, or somebody else that individually got that into that particular bill in

2000 in the Congress. But it wasn't. It was the State of Florida that demanded if it weren't in there, CERP would not be approved. And that was way back, 20 years ago, I think.

And so, that is where I am coming from. I want to see everybody included, everybody a part of it, and no one overtreated or undertreated.

So my first question is to Secretary Valenstein.

On April 15th, the Corps reported the RECOVER Lake Okeechobee Stage Performance Measure, and that was approved, and with scientists recommending that the minimum target level of Lake O would be 12 feet. Do you see any reason to believe that this analysis by these scientists was flawed in any way, or draws any kind of incorrect conclusion?

Mr. VALENSTEIN. Thank you, Congressman, and good to see you.

Mr. WEBSTER. Good to see you.

Mr. VALENSTEIN. And I certainly appreciate your service, also, in the Florida Legislature.

The discussion has been, as we work as a team to get large infrastructure projects online to be able to better manage the movement of water, and as we deal with the reality of algal blooms on Lake Okeechobee, in that interim period of time, how can we best serve all parties and avoid harmful discharges at the same time?

And so I wouldn't say that I disagree with anything in that analysis, but I also believe, where we stand today, we have to continually reevaluate and look at every option we have to avoid discharges from Lake Okeechobee. And that certainly includes, very importantly at the moment, management of the height of Lake Okeechobee.

And we appreciate the Army Corps of Engineers looking at options to avoid discharges through different management of Lake Okeechobee in the interim, as we wait for large-scale projects to come online. And we believe we should, every day of the year, be reevaluating, and not simply holding static on any prior analysis.

Mr. WEBSTER. Thank you.

Mr. Ritter, I have heard and read here suggestions made that a single agricultural commodity is impacted by proposals to——

[Audio malfunction.]

Mr. WEBSTER. Wow. Anyway, I got to—here is a question. Here is just—a single agricultural commodity would be impacted by water shortages.

[Audio malfunction.]

Mr. PALMER. Madam Chair, can we suspend the gentleman's time until we correct the technical difficulties?

Mrs. NAPOLITANO. We are having technical difficulties, everybody.

VOICE. Mr. Ritter, if you could mute during the question.

[Pause.]

Mr. PALMER. Madam Chairman, would you restore the gentleman's time?

Mrs. NAPOLITANO. All right, sir, you are on. You have got a minute, we have got about a minute.

Mr. RITTER. Yes, sir. I know that it is a misconception. It is a misconception that there is one single agricultural commodity down in the EAA. If my memory serves me correct, we have sweet corn,

we have rice, we have lettuce, cabbage, green beans, radishes, along with sugarcane. And if you go up to the northwest shore of Okeechobee you have cattle, citrus; northeast you have avocados and mangoes. And I am sure there is probably something that I have left out.

But, you know, those are crucial to the Nation's winter food supply, and they feed roughly about 180 million Americans every year. So no, there is not just one agricultural commodity down there.

Mr. WEBSTER. Do you know how many direct or indirect jobs there are associated with that industry?

Mr. RITTER. I didn't quite get the entire question, I didn't quite hear all of it. But I would say——

Mrs. NAPOLITANO. The time has expired.

Mr. RITTER. I would say, in terms of direct and——

Mrs. NAPOLITANO. Your time has expired, Mr. Webster.

If you will respond to the gentleman's question in writing, I would appreciate it. I am sure the staff would appreciate it. And we will go on to our next speaker.

Ms. Eddie Bernice Johnson, you are next. You are on.

Ms. JOHNSON OF TEXAS. Thank you very much, Madam Chairman, and thanks to all of our witnesses who are here.

I would like to ask unanimous consent to put my statement in the record. And at this time I have no questions. I yield back.

Mrs. NAPOLITANO. Thank you very much. We will consider those comments for the record.

[Ms. Johnson's prepared statement follows:]

Prepared Statement of Hon. Eddie Bernice Johnson, a Representative in Congress from the State of Texas

Mr. Chairman, please allow me to thank you for holding this hearing to examine various perspectives on water management and operations as part of the Comprehensive Everglades Restoration Plan (CERP), as well as current challenges to the system including water quality, algae blooms, and impacts to the Everglades National Park and the Florida Bay estuary.

From the blue-green algae overflows, hurricanes and floods, the issues surrounding the Florida Everglades are immense and ongoing. The committee is committed to tackling these issues and I look forward to working with my colleagues, the Corps and leaders in Florida.

In Texas, we have our own water management issues that range from flooding to providing clean drinking water for all of our communities and neighborhoods. While water quality is primarily a state issue that affects everyone including agricultural business and recreation, the operation and restoration of the Lake Okeechobee, the heart of the South Florida ecosystem, is the responsibility of the Corp. It is my hope that we will be able to comprehensively address the needs of this ecosystem that significantly contributes to the economy of Florida.

Mrs. NAPOLITANO. We will move on to our next speaker, Mr. Massie.

Mr. Massie, you are on.

Mr. MASSIE. Thank you, Madam Chairwoman. I yield as much of my time as he might consume to my colleague and friend, Brian Mast from Florida.

Mr. MAST. Thank you, Mr. Massie. I appreciate that greatly. And thank you for holding this hearing, Chairwoman and Ranking Member.

I like to think that this is the Erin Brockovich story of my community, because this is how we are poisoned year after year. And I don't want anybody to make a mistake. We are poisoned. The Corps and the EPA have both stated the water that we are discussing right now is "toxic," to use their words.

Now, I negotiated this hearing during the committee proceedings for the Water Resources Development Act, a bill that is all about the Corps of Engineers and water projects, because a number of important policies to benefit all of Florida were stripped out of this bill in order to benefit one industry. This was done in the late-night hours, after months of bipartisan negotiations, Representative Mucarsel-Powell and myself working on this and others.

The first thing that I want to say that was stripped, reducing ecological harm to Everglades National Park and water conservation areas. Now why, after us spending billions of dollars to fix the Everglades, would we not be able to put into that law—I got to ask it. I suspect it is because more water for the Everglades means that the growers south of the lake, those sugar-growing corporations, need to relinquish a death grip that they have on Florida's water being for them first, and everyone else second. That is why I think that happened, personally.

The second provision that was stripped, protecting public water supply was stripped out of that bill. Now, you might look at that and say, you know, why did this happen? I can tell you that in my State of Florida, sugar lobbyists for me, they frequently disguise their death grip and their assaults on me as an effort to protect public water supply, but that is what it is. It is a disguise. It is a front.

When we wrote protect public water supply in law, they fought and they had it stripped out. Another provision they had stripped out. They opposed protecting the integrity of the Herbert Hoover dike. We were not allowed to state in law, "protect the taxpayer-funded dike that protects people, that is operated by the Corps of Engineers." That is probably one of the stupidest things that I have heard since being in Washington, DC. And beyond this, God forbid that I ask the Corps not to send toxic water into my community.

Now, there is a complicated patchwork of infrastructure, an even more complicated policy about where to move water, when to move water. And while all of the policies may be complicated, the goal is simple. It is use taxpayer dollars to store water for irrigation south of Lake Okeechobee, then demand that my community be the flood control for when too much water is stored, that we be the septic tank for this private water reservoir. And that is the problem.

This is wrong. My community is not going to be an afterthought. We are not going to be flood control for U.S. sugar or anybody else. Just because they want to keep Lake Okeechobee artificially high, as Mr. Ritter has stated in his written and spoken testimony, even though it hurts the rest of Florida.

Now, when the Army Corps has discharges to my community, they often test more than 60 times too toxic for human contact. However, it has been stated that every year since 1982 those that have needed water have gotten every drop of water that they need. My community, 9 of the last 12 years, have gotten toxic discharges. So 3 out of every 4 years we are getting poisoned because too much

water is stored on that lake in the winter, when the Everglades need it, the Caloosahatchee needs it, other places need it, and there is more than enough water to go around for all of those water users.

I say that this is the political equivalent to Stockholm syndrome, continuing to manipulate water policy to benefit those that are holding our State hostage right now. Again, winners versus losers.

I would say this also. In 2019, the Army Corps of Engineers, they changed the way that they managed Lake Okeechobee in the dry season, dropping its levels down before hurricane season. That makes sense to everybody. So the Everglades got more water in the dry season. The dike was protected, which the Corps needs to do. My community wouldn't have to get used as a sewer and get toxic discharges. And it worked. They allowed the lake to recess naturally, everybody got the water they needed, we avoided discharges, even with a category 5 hurricane on our shores.

So it brings me back to WRDA, where for months we worked on this bipartisan deal to improve dry season water management in Florida, rebalance the scales in favor of all of Florida's people, but it was not allowed to happen at the last minute. There is a lot at stake here.

This hearing is important. Florida's future, Florida's economy, Florida's environment, Florida's safety and public health: that is why this hearing is so important. And it is why we have to fight to protect water supply, stop those toxic discharges, and defend our communities.

And in that I will yield back to you, ma'am. Thank you for your time.

Mr. MASSIE. And I yield back, as well.

Mrs. NAPOLITANO. Thank you, Mr. Massie.

Thank you, Mr. Mast, and then we have next Mr. Palmer.

You are on. You are recognized.

Mr. PALMER. Thank you, Madam Chairman.

Mr. Goss, there are two projects that are part of the Comprehensive Everglades Restoration Plan, the Western Everglades Restoration Project and the Lake Okeechobee Watershed Project that are being studied by the Corps of Engineers, who isn't exactly known for expeditiously completing studies. Do you have any idea when those studies will be completed?

Mr. GOSS. No, sir, I don't. You would have to ask the Corps that.

Mr. PALMER. What benefit would completion of those two projects have, in terms of Everglades restoration?

Mr. GOSS. They would be helpful, because CERP is a big puzzle, and we are putting the puzzle pieces together slowly, so every piece of it helps so that we can ultimately move more water south and stop the harmful discharges that Congressman Mast was just talking about.

Mr. PALMER. Madam Chairman, I yield the balance of my time to the gentleman from Florida, Mr. Mast.

Mr. MAST. Thank you for yielding to me. I appreciate that greatly.

Mrs. NAPOLITANO. You are recognized.

Mr. MAST. Thank you, ma'am.

Mrs. NAPOLITANO. Thank you.

Mr. MAST. I want to go to Mr. Ritter.

And again, if you could leave your microphone off until we begin, I know we have been having some issues.

I represent farmers, as well. I care about them. They are friends of mine. I believe in the legal rights of all water users. You stated that in your written testimony. You spoke about the rights of all legal water users.

You asked in your written testimony and spoken testimony about higher water for Lake Okeechobee, higher levels. You spoke about that in different ways. And I want us to have a real conversation about this, because it is important for both of us, and a number of other people in Florida.

And my question to you is this. When we talk about rights of water users, I would like to think that my community and my environment—you wrote about both of those things—have the right to not be poisoned. And every other community, as well. The Everglades has the right to water. Your farmers and everybody else, they have a right to water. That is the truth.

But what I want to ask you is, where does the right to water end? At what point does that end, where you have to hurt somebody else, somebody else has to be your flood control to keep that water higher, as you asked for?

And that is an honest question. Where does the right to having more water end?

Mr. RITTER. Congressman Mast, first of all, I appreciate your passion. I know you and I have probably spoken on a couple of occasions.

I just want to reiterate that the Florida Farm Bureau Federation represents more than 300 commodities. We have worked with municipalities, and I don't think we are really saying—and maybe we are saying the same thing—I don't think we are really advocating for higher lake levels. I think we are advocating for more of a balanced approach to lake levels.

And I think what we are asking for is the water supply rights that we have been permitted for. And there is a number of agriculture not only south of the lake, but in the Lake Okeechobee service area that has permitted water through the water management district. And that is——

Mr. MAST. Where does it——

Mr. RITTER. That is all——

Mr. MAST [continuing]. End, though, sir?

Mr. RITTER. That remains——

Mr. MAST. At what point of hurting somebody else——

Mr. RITTER. We are just asking for that to remain whole.

Mr. MAST. At what point of having to have toxic—literally toxic, I could submit for the record from the EPA and the Corps of Engineers, they said the water that gets discharged is toxic—at what point of asking for more water—because you did ask for that in your spoken testimony, going back to previous higher levels, and you wrote it in your written testimony—at what point does that say, listen, we are hurting other people, we are stepping on the Everglades, the Caloosahatchee, and other communities have to get toxic discharges to have higher waters on that lake. At what point to you does that right end?

Mr. RITTER. Again, we are not asking for higher water on the lake. And when we get that water supply, remember, that goes south. That does not go east or west. We, the farmers down in the EAA—I think maybe even Shannon referred to 70 billion gallons during the springtime. But if you look at that, based on the 450,000 acres, irrigated acres down there, in my mind, that is a pretty efficient use of water, and you are really not getting any of that.

Mr. MAST. So——

Mr. RITTER. You are——

Mr. MAST. Sir?

Mr. RITTER. You are getting—remember, the Kissimmee River——

Mr. MAST. Sir?

Mr. RITTER [continuing]. Is the——

Mr. MAST. In an effort to get an answer, let's speak about this ambiguously, then. I won't say "you." In an effort to get an answer——

Mrs. NAPOLITANO. Mr. Mast, your time is up.

Mr. MAST. No problem, ma'am. Yes, ma'am.

Mrs. NAPOLITANO. Yes. Mr. Palmer, thank you very much for yielding to Mr. Mast.

And now, Mr. Mast, you are on for 5 minutes.

Mr. MAST. Thank you, ma'am. I appreciate you recognizing me.

So let's continue on this, sir. We will speak about this ambiguously. At what point does the right of somebody to ask for more and more water end, if somebody else has to get hurt to do it?

My community has to get hurt in order for more water to stay on Lake Okeechobee because hurricanes come, the dike gets put at risk, even though we weren't allowed to say protect it in our recent bill. At what point for anybody does that right end to ask for more water? Should it end if you have to hurt somebody else to do it? Not you, anybody.

Mr. RITTER. Again, Mr. Mast, I really appreciate your question, but the agriculture all around the lake is not asking for any more water. It is simply asking to remain whole with the permitted water that they have received from the water management district.

Mr. MAST. Right, which is why I am asking. Let's talk about this ambiguously, sir. When does the right for somebody to demand or ask for more water end? Does that right end if you have to hurt somebody else to get it?

Does the right for more water for somebody end if you have to hurt somebody to get it? Does that right end?

Mr. RITTER. Again, Congressman Mast, with all due respect, we are not asking for any more water. We are just asking for our permanent allocation that we have received from the water management district that—it is based on permitting, just like any municipality would get permitted, just like any development would get permitted. We are not asking for any more water. We are just asking to remain whole.

Mr. MAST. It sounds like we are not going to get an answer to that question.

I want to take a moment and submit, Madam Chairwoman, a couple of things for the record.

One is an email from——

Mrs. NAPOLITANO. So ordered.

Mr. MAST [continuing]. The day of that hearing from the Florida Sugar Cane League stating this: "strongly opposed to all amendments that affect Lake Okeechobee and its surrounding areas." I would like to submit that for the record. That is an email that went out that morning from the Florida Sugar Cane League.

Mrs. NAPOLITANO. So ordered.

[The information follows:]

Email of July 15, 2020, from Ryan Weston, Florida and Texas Sugar Cane Growers, Submitted for the Record by Hon. Brian J. Mast

From: Ryan Weston <XXXXXXXXXXXXXXXXXXXXXXXXXXX>
Sent: Wednesday, July 15, 2020 [XXXX]
To: [XXXXXXXXXXXXXX]
Subject: WRDA—OPPOSE all except the Manager's amendment

Dear [XXXXXX],

The Florida Sugar Cane League (FSCL) is *strongly OPPOSED* to all amendments that affect Lake Okeechobee and its surrounding areas. The FSCL will NOT oppose the *manager's amendment* negotiated by Committee.

The FSCL is greatly concerned that amendments filed in the last few days impact not only our employees, communities and farms BUT also numerous Congressional districts and dozens of stakeholders that were not consulted.

Because it impacts such a large portion of South Florida, water legislation has traditionally been negotiated by all affected Members so that there is consensus and agreement.

Congressman Webster worked diligently with Chairman DeFazio, Subcommittee Chairwoman Napolitano, Ranking Member Graves, Subcommittee Chairman Westerman, Committee staff and Congressman Spano to reach agreement on the manager's amendment. We greatly appreciate those efforts and all of the Members who assisted.

Sincerely,

RYAN WESTON,
Florida and Texas Sugar Cane Growers.

Mr. MAST. I would also like to submit what was the bipartisan agreement that we had worked on prior to that, discussing ecological harm to the Everglades, protecting the Herbert Hoover dike, protecting public water supply. I would like to submit that for the record, as well. I appreciate that.

Mrs. NAPOLITANO. So ordered.

[The information follows:]

Bipartisan Agreement in Drafting the Water Resources Development Act of 2020, Submitted for the Record by Hon. Brian J. Mast

Sec. 3xxx. Lake Okeechobee Regulation Schedule.

(a) In General.—The Secretary shall manage the operation of Lake Okeechobee during the dry season to prioritize and balance:
  (1) reducing ecological harm to Everglades National Park and the Water Conservation Areas, including reducing the risk of wildfires and soil loss;
  (2) reducing the likelihood of releasing harmful algal blooms and ecologically damaging water flows during the wet season from Lake Okeechobee to coastal estuaries;
  (3) contributing to ecologically beneficial dry season flows to the Caloosahatchee Estuary;
  (4) protecting the integrity of the Herbert Hoover Dike;
  (5) protecting public water supply by supporting the recharge of the surficial aquifer system; and

(6) supporting the maintenance of water levels in coastal canal systems to address the threat of saltwater intrusion.

(b) Additional Considerations.—In carrying out its review of the Lake Okeechobee regulation schedule, pursuant to section 1106 of the Water Resources Development Act of 2018 (132 Stat. 3773), the Secretary shall evaluate the implications of prohibiting releases from Lake Okeechobee through the S–308 and S–80 lock and dam structures——

(1) on the operation of the Lake in accordance with authorized purposes; and

(2) on the integrity of the Herbert Hoover Dike.

(c) Coordination.—The Secretary shall, to the maximum extent practicable, coordinate with Federal and State agencies responsible for monitoring and notification of water quality pollutants, including cyanobacteria levels, in Lake Okeechobee.

(d) Considerations.—Nothing in this section shall be construed to:

(1) limit the State of Florida's authority to allocate water under state law or restrict the State of Florida's authority to prioritize and distribute water while in the water shortage management band or range identified in the Lake Okeechobee operating regulations, manuals or plans;

(2) alter or amend the State of Florida's obligations to meet water quality standards in the Everglades Protection Area or on tribal lands;

(3) alter or amend the State of Florida's obligations under the Water Rights Compact Among Seminole Tribe of Florida, the State of Florida and the South Florida Water Management District;

(4) alter the obligations of the Secretary under federal environmental law; or

(5) alter the obligations of the Secretary to provide flood protection under existing authorities.

Mr. MAST. I would ask this question to you, Mr. Goss, and to the others on this panel. Maybe you could answer that question to me. When does the right for somebody to ask for water end? Does it end if you have to hurt somebody else in order to get it?

[Microphone unmuted]

Mr. MAST. Madam Chairwoman, I think you are not muted.

Mr. GOSS. I am sorry, Congressman Mast, was that to me?

Mr. MAST. Yes, certainly to you, Chairman Goss, but to the other panelists, as well. Does that right to ask for water, more water, end if you have to hurt somebody else to do it?

Mr. GOSS. I don't know the specific answer to that, but I do know that our consumptive use permits do state that you don't get water when there is a drought, you are not guaranteed to water. And there is a beneficial use associated with that. So that may be sort of a backwards answer to your question.

Ms. ESTENOZ. Mr. Mast, this is Shannon Estenoz. What I would say follows up on Chairman Goss' point.

In the State of Florida you don't have a right to water. You have a permitted use that stops where your use is causing harm to the resource. It is called the No Harm Standard. And you don't have a right to use water under a permit if it is causing harm.

And what is happening here is that the current rules, they tend to do two things. They tend to hoard water in the lake during the dry season, particularly the early dry season, they hoard water in the lake so that it is available primarily for the Lake Okeechobee service area late in the dry season.

Mr. Ritter referenced the 70 billion gallons, as if it were a reasonable amount of water. But you need some context for that. Seventy billion gallons, first of all, is a half a foot off the lake. It is little more than half a foot off the lake. In the 7 months prior to that 70 billion gallons being taken, Everglades National Park and the Central Everglades were given basically zero water, to the

point that Everglades National Park, by April, caught on fire because water had dropped 2½ feet before the ground surface.

And one of the two major canals going into Broward County, my home county, population 2 million, was being rationed. And yet March and April, the Everglades Agricultural Area took that 70 billion gallons of water. And those were conditions, Congressman, that were moderate to mild drought, not even a severe drought, and we suffered those kinds of impacts.

Mrs. NAPOLITANO. Your time is up, Mr. Mast.

Mr. MAST. Thank you, Chairwoman.

Mrs. NAPOLITANO. I thank—you are very welcome. I thank you for your—all your participation.

And I would like to add just a little bit of my own concerning water. You talk about permitted allocations. In California we have an issue, too, because it is wet water and it is paper water. What was allocated is not necessarily what you are going to get, because of the change in climate, whatever the reason, it is not the same. So we have to take into consideration all those climate changes, and the right of people with the water, and how much water goes into areas that are not getting water, especially if it is not the quality of water that people deserve and should be protected.

So I thank you, everybody, for your testimony.

I ask unanimous consent that the record of today's hearing remain open until such time as our witnesses have provided answers to any questions that may have been submitted to them in writing.

Mr. WESTERMAN. Madam Chair?

Mrs. NAPOLITANO. Yes, sir?

Mr. WESTERMAN. We have Representative González-Colón on the meeting, and I don't think she ever got recognized.

Mrs. NAPOLITANO. Miss González-Colón?

Miss GONZÁLEZ-COLÓN. Yes, ma'am.

Mrs. NAPOLITANO. OK. Oh, I see. Where are you? I don't see you on—oh, there you are, Jenniffer. OK, you have 5 minutes, ma'am.

Miss GONZÁLEZ-COLÓN. Thank you, Madam Chair. I would like to yield my time to Representative Brian Mast.

Mr. MAST. Thank you, Representative.

Mrs. NAPOLITANO. Mr. Mast, you are on.

Mr. MAST. Thank you, Miss González-Colón, I appreciate that.

Since I have another moment here, is Noah Valenstein still on? I see his video cut off, but I don't know if that just cut off for a moment. Do we still have Secretary Valenstein on?

Mr. VALENSTEIN. Yes.

Mr. MAST. I hear it now.

So, Secretary, I would ask you, as well.

I have submitted for the record here the comments from the EPA noting what is toxic on Lake Okeechobee.

Madam Chairwoman, you spoke initially in your comments about possibly creating harmful algal blooms with these discharges. I need to correct a mistake, in that it can create situations for harmful algal blooms, but what I am speaking about specifically in my questioning are the algal blooms that are already present on this freshwater lake that reach a level many times—60 times—too toxic for human contact, according to the EPA and the Corps of Engineers, and those being taken out of that separate body of water,

and then dumped into my community. That is the specific piece that I am speaking of.

So, Secretary Valenstein, I would ask you, as well. Can you make any confirmation of toxicity levels during those summertime months at different times of water on Lake Okeechobee?

Mr. VALENSTEIN. Absolutely, and thank you, Congressman Mast, for your work to help us work with our Federal partners, and re-evaluate opportunities to make sure we are not having harmful discharges to our coast. Certainly, that was a conversation that came up during Governor DeSantis' Transition Committee, where you chaired the environmental portion of that, and something that the Governor is laser-focused on, too.

As you know, Lake Okeechobee and the whole ecosystem was dramatically altered by the Army Corps of Engineers in a misguided attempt decades and decades ago, believing the wetlands were not something we should have. We now recognize that was an absolute mistake, and are trying to rebuild the system. But that has had devastating consequences to how Lake Okeechobee accepts and is able to release water at the moment.

Certainly throughout the summer months, we are seeing algae-producing microcystin levels on a regular basis, up to 20 parts per billion. The highest we have seen this year, we recorded in the center of Lake Okeechobee one sample that was 800 parts per billion around June 13th. And so there are absolutely significantly high levels of microcystins that have been produced.

And certainly, while we are working on water quality surrounding Florida—and you have seen, as there haven't been releases from Lake Okeechobee, and with the investments that this Governor is making, we are making progress in water quality throughout Florida—but, with the flip of a switch, that can all be overcome by releases from the lake.

And so as we bring projects online, as the State works on water quality issues outside of larger movement of water, which is Corps projects that the State is working with, cooperative management of the lake—keep in mind the impact those discharges have is critical. And so this is the second year we are in that the Corps has looked at ways to, hopefully, minimize discharges. We strongly support that, and look to do anything we can to support that.

Mr. MAST. Thank you, Secretary Valenstein. You just said something very important. The EPA's recommended numbers where humans shouldn't come in contact with those toxins that you noted there are 8 micrograms per liter, or 8 parts per billion.

I have a bill that I worked to get in the recent Water Resources Development Act that asked not that the Corps end all discharges into my community, but said when it reaches the level of toxic. When it reaches the level of toxic. Can we at least say that? Don't discharge the water when it is poisonous into my community.

You just said that at one point this summer it was 800 parts per billion. EPA said, if you are a human, don't touch it over 8 parts per billion. That is an important distinction.

If we would have started this summer at 12½ feet, where I believe is where Mr. Ritter wants to start this summer's lake levels, instead of down at 11 feet, we would have been having discharges of those toxic waters by July 4th, all the way into August, all the

way into September, and all the way right up until today, had we not worked with those lower lake levels.

Lower lake levels work to get the Everglades water, the Caloosahatchee water when they need it, protect the Herbert Hoover dike, which means protecting those people that live in those communities around the dike, and protecting communities from toxic discharges.

So, again, I want everybody to get every single drop of water that they need. But I have to stand firm in saying we cannot go out there and make water promises when it means having to poison another community to do so.

And in that I thank you for yielding me your time, Miss González-Colón, and Madam Chairwoman.

Mrs. NAPOLITANO. You are welcome, Mr. Mast. And now I believe we have Mr. Carbajal waiting to be speak.

You are on, Mr. Carbajal.

Mr. CARBAJAL. Thank you, Madam Chair. I would like to yield my time to Representative Mucarsel-Powell.

Ms. MUCARSEL-POWELL. Thank you so much, Representative Carbajal. Yes, my time was cut very short.

And as you can all hear, the passion in my colleague, Representative Mast, and also in my voice, it is because we are trying to find solutions for everyone, all the stakeholders in Florida.

So then, my first question, very quickly, yes-or-no answer to all of the panelists that are here with us this morning: Do you think that the status quo as it stands today, the way that the lake is being managed, is acceptable?

Ms. Jolin, Elizabeth?

Ms. JOLIN. No.

Ms. MUCARSEL-POWELL. Ms. Estenoz?

Ms. ESTENOZ. No, Congresswoman.

Ms. MUCARSEL-POWELL. Secretary Valenstein?

Mr. VALENSTEIN. I don't believe in the status quo.

Ms. MUCARSEL-POWELL. Chairman Goss?

Mr. GOSS. No. As I said in my opening remarks, the status quo has to change.

Ms. MUCARSEL-POWELL. Thank you. Mr. Ritter?

Mr. RITTER. That is a tough question, but I would say the way it is being managed right now is——

Ms. MUCARSEL-POWELL. It was what? What was that?

Mr. RITTER. I would say the 12 to 15, how the lake has been managed in the past, we agree with that.

Ms. MUCARSEL-POWELL. You agree with that? And so you are the only——

[Audio malfunction.]

Ms. MUCARSEL-POWELL [continuing]. That the status quo is acceptable.

So we have all of you here this morning so that we can listen to each other and try to find ways to manage the lake so that we don't poison communities to the east and west of Lake Okeechobee, so that we can find ways to get that water flowing south.

Mr. Ritter, you mentioned in your testimony that completing CERP was incredibly important, and that is why we have all been working together to try to expedite this.

You also say in your testimony that it is important to comply with the sequencing outlined in the Integrated Delivery Schedule.

But according to the IDS, CERP won't be completed for another 10 years, at a minimum. And I can tell you that in my area down here in south Florida, we can't wait that long for relief. And I know that in other areas it is the same.

So what do you suggest, Mr. Ritter? What do you think we need to do to get more water flowing south during the dry season, before CERP is completed?

Mr. RITTER. Well, I think the water management district and the Corps of Engineers have already started doing that. I mean, they have worked on increasing the Tamiami Trail and the flow underneath the Tamiami Trail.

I think one of the things that you have to be careful about in relying on nature, especially if you bring the lake down to 11 feet, is if you don't get the wet season rainfall. Then you run the risk, when you come around to the next fall and winter coming, if you have a drought, then nobody has any water, and we are all under a water shortage situation.

I come from a small community——

Ms. MUCARSEL-POWELL. Quickly, because I have such a short time.

Mr. RITTER. I know, I apologize. I am very passionate about it, too, like Representative Mast. I apologize.

Ms. MUCARSEL-POWELL. Yes, Mr. Ritter, very quickly, is your stance that you support that we need to get more water flowing south?

Mr. RITTER. Obviously, yes. I mean, we all feel—agriculture, along with everyone else, is on board with CERP and comprehensive Everglades restoration, but we have always been there. We have been there from the very beginning. And, you know, we have actually, more than any one entity, we have provided over 100,000 acres of land for——

Ms. MUCARSEL-POWELL. Thank you.

Mr. RITTER [continuing]. CERP south of the lake.

Ms. MUCARSEL-POWELL. Thank you, thank you. I appreciate that.

Ms. Estenoz, can you talk a little bit about why the status quo can't remain, and what are some of the solutions that we need to be talking about, so that we can stop discharging these toxic algae blooms that are going into the east and west of the river, but at the same time find some sort of solution for us down here, so that we can restore the Florida Bay?

Ms. ESTENOZ. I think operational flexibility is key, and a couple of witnesses have said that. It is not enough just to build infrastructure, that is the first step. The second step is to operate it for the benefit of all.

The harm being experienced in your district, Miami-Dade, Monroe County, and the harm experienced in Mr. Mast's and Mr. Rooney's districts, those are measurable, and real, and perceptible.

Twelve years ago, when you looked at the last time the Corps rewrote the Lake Okeechobee operating rules, there is some information there that firmly pointed out that they actually—the last time they could actually document economic harm to the agricultural area we are talking about due to water management or drought

was 1982. Congresswoman, I was 14 years old. The last time the Everglades suffered from water management was, you know, an hour ago. It will be tomorrow. The last time we suffered from drought and dry season in the Everglades, and the Biscayne Aquifer resilience took a knock, was this last dry season.

So when the Farm Bureau says they—you know, we have [inaudible] that we have to benefit everyone, I 100 percent agree. We want to rebalance not 10 years from now, but let's incrementally make things better at every possible opportunity we can.

Mrs. NAPOLITANO. The time has expired.

Ms. MUCARSEL-POWELL. Thank you so much. Thank you——

Mrs. NAPOLITANO. Ms. Mucarsel-Powell, I am sorry, but your time has expired. I let you run a little longer than normal.

But I am sorry to cut you off, Shannon.

I would like to ask unanimous consent that the testimony of the Friends of the Everglades be submitted for the record.

So ordered.

[The information follows:]

Statement of Eve Samples, Executive Director, Friends of the Everglades, Submitted for the Record by Hon. Grace F. Napolitano

Dear Chair Napolitano, Ranking Member Westerman, and honorable members of the subcommittee:

On behalf of Friends of the Everglades, founded by Marjory Stoneman Douglas in 1969, and Center for Biological Diversity, which joins us in this testimony, thank you for conducting today's hearing on the world's largest environmental restoration project—the Comprehensive Everglades Restoration Plan—and the inextricably linked challenge of water management in Florida.

This is a timely and urgent matter for some 9 million residents who live in the 16-county Greater Everglades ecosystem, reaching from Orlando south to the Florida Keys. As you sit today, Lake Okeechobee's water levels are rising and the Army Corps of Engineers has warned coastal communities that polluted discharges from the lake to the Caloosahatchee and St. Lucie Estuaries may be forthcoming—again.

It's been only two years since Florida's historic toxic-algae blooms of 2018 that killed marine life, threatened human health, and hamstrung businesses on the state's southeast and southwest coasts. That crisis followed a similarly disastrous toxic-algae bloom in 2016, which was preceded by decades of periodic Lake Okeechobee discharges that damaged ecosystems and businesses along the northern estuaries. Even when toxic algae is not present in Lake Okeechobee water, massive discharges to the St. Lucie and Caloosahatchee are harmful because they deplete salinity levels and carry phosphorus, nitrogen and sediment to the delicate estuarine systems. While water sent south to the Everglades must be cleaned, the water discharged east and west is entirely untreated.

The crisis of too much water for the northern estuaries is especially confounding because the southern end of the Greater Everglades ecosystem receives too little water during the dry season. Parts of Everglades National Park burned this spring [1] during the dry season, while Florida Bay, south of the park, regularly suffers from hypersalinity due in part to lack of freshwater from the north. The solution, as identified in CERP, is to store, treat and send more water south from the lake to the Everglades. The EAA Storage Reservoir aims to address this problem—but, unfortunately, its reduced scale calls into question whether it will be effective in mitigating the Army Corps' harmful discharges from Lake Okeechobee and sending clean water to the southern Everglades.

We are grateful that the Army Corps and South Florida Water Management District have, since 2019, demonstrated new willingness to protect residents and ecosystems from toxic algae by modifying Lake Okeechobee operations and finding new

[1] https://www.usatoday.com/story/news/nation/2020/04/28/everglades-wildfires-if-coronavirus-restrictions-lift/3030271001/

places to store water south of the lake. However, the gains have been only incremental.

All of the factors that caused the 2018 toxic-algae crisis continue to exist today. In our testimony, we will outline potential near-term and long-term solutions for saving the only Everglades in the world, protecting the health of residents who live near it, and ensuring this vital ecosystem remains an economic engine for the state of Florida.

THE EVERGLADES ECOSYSTEM AND CERP

Over the past century, half of the greater Everglades has been lost to development. The remnants of the system have been drained, channelized and otherwise manipulated in the name of flood control and water supply, resulting in too little water to Everglades National Park and Florida Bay, and too much water to the northern estuaries that serve as relief valves for Lake Okeechobee: the St. Lucie and Caloosahatchee estuaries, as well as Lake Worth Lagoon.

What's left of the Everglades is severely degraded. Water remaining in the system has been polluted by phosphorus, nitrogen, mercury, and other contaminants introduced by agriculture, urban development, and industry.[2]

When Congress passed CERP 20 years ago, it was with the recognition that significant action was needed to salvage the Everglades. We are still waiting to see on-the-ground results.

The cost of the 68 authorized CERP projects increases with each passing year. From 2020–2030, an estimated $7.4 billion will be needed for total South Florida Ecosystem Restoration Construction, which includes CERP and other Everglades-related projects.[3]

A former Friends of the Everglades executive director once said, "The Everglades is a test. If we pass, we may get to keep the planet." Given the poor water quality and toxic algae blooms we've witnessed in recent years, it is difficult to claim we have a passing score. But it is not too late: With bold thinking, flexible operations and political will, we can rescue the Everglades ecosystem yet—thereby protecting the millions of people and thousands of species that rely on it.

HUMAN HEALTH AND TOXIC-ALGAE BLOOMS

Water management in Florida historically has weighed the competing interests of flood control, water supply, water quality and natural systems. A growing body of evidence suggests our management of water in Florida also has a direct impact on a fifth and critical interest: human health.

Harmful Algal Blooms (HABs) are the waterborne threat of our time, and our growing understanding of the health risks they pose create new urgency for Everglades restoration. Toxins in red tide are known to harm humans and marine life, and are exacerbated by discharges from Lake Okeechobee.[4] Mounting research indicates links between toxins found in cyanobacteria, also known as blue-green algae, and non-alcoholic liver disease and neurodegenerative diseases (including Lou Gehrig's, Parkinson's and Alzheimer's diseases).[5]

During the toxic algae crisis of 2018, satellite imagery from the National Oceanic and Atmospheric Administration showed 90% of Lake Okeechobee's open water was covered with cyanobacteria. Without regard to the human-health risk, lake water was discharged to the coastal estuaries that summer, where it presented as noxious blooms along public waterfronts and private properties. In Southwest Florida, the cyanobacteria blooms prompted by Lake Okeechobee discharges commingled with toxins from a simultaneous red-tide bloom, posing risks that researchers are only beginning to comprehend.[6] The health concerns presented by toxic algae threaten those living well away from the waterfront, too. Scientists at Florida Gulf Coast

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[2] https://www.nap.edu/read/25198/chapter/1#xi

[3] https://evergladesrestoration.gov/content/ids/meetings/091720/IDS__2020__Update__Public%20Workshop.pdf

[4] Medina et al (2020): *Seasonal dynamics of terrestrially sourced nitrogen influenced Karenia brevis blooms off Florida's southern Gulf Coast*

[5] Brain Chemistry Labs research: https://brainchemistrylabs.org/new-blog/tag/BMAA

[6] Metcalf et al (2020): https://link.springer.com/article/10.1007/s12640-020-00248-3 and https://www.news-press.com/story/tech/science/environment/2020/07/21/multiple-blooms-multiple-toxins-multiple-worries-new-study-sheds-light-2018-s-disastrous-algae-crisi/5478751002/

University found evidence that cyanobacteria can be aerosolized and travel more than a mile inland.[7]

Historically, the Army Corps has not considered Harmful Algal Blooms as an official factor in its management of Lake Okeechobee's water. In 2019, the Corps proposed a deviation to its Lake Okeechobee Regulation Schedule to allow for more flexibility when Harmful Algal Blooms are present in the lake. We applaud that flexibility, which has the added benefit of relieving pressure from the aging Herbert Hoover Dike.

We hope to see the Army Corps build on that flexibility when it implements its Lake Okeechobee System Operating Manual (LOSOM) in 2022. We also are grateful to you, members of the Transportation & Infrastructure Committee, for passing a WRDA bill that keeps the so-called "Savings Clause" out of LOSOM. Including it would have foisted 20-year-old water-supply promises onto Lake Okeechobee management in the future. We hope to see the U.S. Senate follow suit by passing the WRDA bill.

Long-term flexibility for Lake Okeechobee operations is critical; this problem is not going away. Scientific consensus is that HABs are increasing in magnitude, frequency and duration worldwide.[8] It's critical that Everglades restoration efforts and Lake Okeechobee operations proactively address the risks.

EAA Reservoir improvements needed

The planned EAA Storage Reservoir and its connected Stormwater Treatment Area would be able to address the challenges outlined above—if it was of adequate scale, and appropriately designed and constructed to alleviate toxic-algae discharges. However, we previously joined Sierra Club and Center for Biological Diversity in articulating 20 major concerns[9] about the current 16,000-acre configuration, including:

- A 23-foot deep reservoir of nutrient-rich water could promote the same or more profound conditions that fuel Harmful Algal Blooms than those currently experienced by the estuaries.
- The 6,500-acre STA proposed for the EAA Storage Reservoir has not been proven adequate for water-quality treatment. Research from wetlands ecologist Dr. William J. Mitsch, director of Florida Gulf Coast University's Everglades Wetland Research Park, indicates the treatment wetlands in the STA are not sufficient to handle the anticipated volume of increased flows south from Lake Okeechobee.[10]
- While the planned EAA Storage Reservoir and STA provides some added relief to both the St. Lucie and Caloosahatchee estuaries, the reductions are relatively minor in comparison to those provided by already authorized projects. To re-establish stable health to these estuaries, greater reductions to significant high-volume discharges are needed.

Studies indicate more land is needed in the Everglades Agricultural Area to address system-wide concerns by storing at least 1.2 million acre feet of water. In the absence of willing sellers among EAA landowners, the federal government should consider all reasonable alternatives that would eliminate discharges to the northern estuaries—including eminent domain if necessary. This is within the federal government's right[11] so long as it complies with the Fifth Amendment requirement to provide "just compensation" to the owner. Moreover, using private property to protect the natural environment is a clear public use under the Fifth Amendment.

Environmental justice for all

The decades-old push to stop polluted Lake Okeechobee discharges to the northern estuaries is sometimes painted by agricultural interests as an effort of "coastal elites" to protect their own interests. However, that assessment is misleading and overlooks critical stakeholders who fish in and live near waterways impacted by toxic algae blooms. Toxic-algae laced discharges from Lake Okeechobee harm subsistence fishermen along both estuaries. Airborne toxins are capable of reaching

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[7] https://www.news-press.com/story/tech/science/environment/2019/03/15/new-health-questions-raised-fgcu-research-toxic-algae-dust/3176195002/

[8] Congressional Research Service, *Freshwater Harmful Algal Blooms: Causes, Challenges, and Policy Considerations* (Aug. 20, 2018)

[9] https://everglades.org/wp-content/uploads/2020/05/EAA-Storage-Reservoir__Final-EIS__Joint-Comments__Sierra-Club__Center-for-Biological-Diversity__Friends-of-the-Everglades__02-24-20-3.pdf

[10] https://www.sciencedirect.com/science/article/pii/S2590290319300094

[11] Kirby Forest Indus., Inc. v. United States, 467 U.S. 1, 9 (1984)

residents far from the shore. And, of course, the harm inflicted on our marine-dependent businesses impact workers at all socioeconomic levels.

We thank you for your attention to Everglades restoration, water management and the emerging concerns that are intertwined with Harmful Algal Blooms.

Mrs. NAPOLITANO. And now I will again ask unanimous consent that the record of today's hearing remain open until such time as all our witnesses have provided answers to any questions posed to them that may be submitted to them in writing, and unanimous consent that the record remain open for 15 days for any additional comments and information submitted by Members or witnesses to be included in the record of today's hearing.

And without objection, so ordered.

I would like to thank all of you for being such great witnesses. We have learned a lot. And sure, there is contention. We hope we can somehow bring all of the parties together and make the Everglades the healthy treasure it is.

The committee stands adjourned. Thank you very much.

[Whereupon, at 12:34 p.m., the subcommittee was adjourned.]

SUBMISSIONS FOR THE RECORD

Prepared Statement of Hon. Sam Graves, a Representative in Congress from the State of Missouri, and Ranking Member, Committee on Transportation and Infrastructure

Thank you, Chairwoman Napolitano, and thank you to our witnesses for being here today.

Since the passage of the Comprehensive Everglades Restoration Plan in 2000, the Army Corps, in partnership with the State of Florida and the South Florida Water Management District, have worked diligently over the past 20 years to restore and protect one of our Nation's most unique ecological treasures.

Over the course of this time, Congress has taken a keen interest in the restoration and preservation of the Everglades, with this Committee authorizing a number of new Everglades projects in recent WRDAs.

With the development of WRDA 2020, we wanted to honor a commitment to review the Corps' work within Central and Southern Florida.

I want to thank my colleagues—Congressmen Mast, Webster, and Spano—for their work on this important issue and I look forward to hearing the perspectives from our witnesses.

Thank you, Chairwoman Napolitano. I yield back.

Advisory, "Recommended Human Health Recreational Ambient Water Quality Criteria or Swimming Advisories for Microcystins and Cylindrospermopsin," U.S. Environmental Protection Agency, Office of Water, EPA 822–F–19–001, May 2019, Submitted for the Record by Hon. Brian J. Mast

SUMMARY

EPA has released national recommendations for the *Human Health Recreational Ambient Water Quality Criteria or Swimming Advisories (AWQC/SA) for Microcystins and Cylindrospermopsin*. These recommended AWQC/SA accurately reflect the latest scientific knowledge on the potential human health effects from recreational exposure to these two cyanotoxins. Primary contact recreation is protected in water bodies at or below the recommended concentrations of microcystins and cylindrospermopsin.

These recommendations are intended as guidance to states, territories and authorized tribes to consider when developing water quality standards. Alternatively, these recommendations can be used as the basis of swimming advisories for notification purposes in recreational waters to protect the public. States, territories and authorized tribes may also wish to consider using these recommendations as both water quality criteria and swimming advisory values.

BACKGROUND

Cyanobacteria, commonly called blue-green algae, are naturally-occurring photosynthetic bacteria found in freshwater and marine ecosystems. Under certain environmental conditions, such as elevated levels of nutrients, warmer temperatures, still water, and plentiful sunlight, cyanobacteria can rapidly multiply to form harmful algal blooms (HABs). HABs have been reported in ambient waters in all states. As the cyanobacteria multiply, some of the cells can produce toxic compounds, known as cyanotoxins, which can be harmful to human and animal health. Microcystins and cylindrospermopsin are two types of toxins produced by cyanobacteria.

During a HAB, the toxin concentration can rapidly increase and may become elevated before a visible bloom is observed. Elevated cyanotoxin concentrations in surface waters can persist after the bloom fades, so human exposures can occur even after the visible signs of a bloom are gone or have moved downstream. Exposure to elevated-levels of microcystins can potentially lead to liver damage; the kidneys and liver appear to be the primary target organs for cylindrospermopsin toxicity.

WHAT ARE EPA'S RECOMMENDATIONS?

The recommended AWQC/SA for microcystins and cylindrospermopsin consist of three components—magnitude, duration and frequency—that are considered protective of human health in recreational waters. In developing these recommendations, EPA incorporated the existing peer-reviewed and published science on the adverse human health effects of these toxins, recreation-specific exposure parameters from the peer-reviewed scientific literature and EPA's Exposure Factors Handbook using established criteria methodologies. EPA derived these recommended values based on children's recreational exposures because children can be more highly exposed compared to other age groups. The recommendations are also protective of older age groups.

Water quality criteria recommendations are intended as guidance in establishing new or revised water quality standards. They are not regulations themselves. States and authorized tribes have the discretion to adopt other scientifically-defensible water quality criteria that differ from these recommendations. For use as swimming advisories, EPA envisions states and authorized tribes applying these recommendations in a similar manner as is currently done in their recreational water advisory programs.

The recommended magnitude for both toxins is shown in the following table:

Table. Recommended magnitude for cyanotoxins.

Microcystins	Cylindrospermopsin
8 μg/L	15 μg/L

DURATION AND FREQUENCY:

For both cyanotoxins, the recommended duration and frequency depend on their application as a water quality criterion or a swimming advisory.

For application as a *recreational water quality criterion*, EPA recognizes that a single exceedance of the recommended magnitude does not necessarily indicate that the designated use is not attained. The recommended frequency and duration support the identification of a trend or pattern of elevated cyanotoxins that can be used to inform the evaluation of a waterbody. EPA recommends states use 10-day assessment periods, not a rolling 10-day period, over the course of a recreation season to evaluate ambient water body condition and recreational use attainment. The 10-day period links the water body assessment period to the adverse health effects observed from ingestion of the toxins over short-term exposures. If toxin concentrations are higher than the criterion magnitude during a 10- day assessment period, then that event should be considered an excursion from the recreational criteria. EPA recommends that when more than three excursions occur within a recreational season and that pattern reoccurs in more than one year, it is an indication the water quality has been or is becoming degraded and a water body may not be supporting the recreational use. EPA expects states and authorized tribes to indicate the number of years the pattern of degradation can occur and not impair the recreational use.

As a basis for issuing a *swimming advisory*, EPA recommends the magnitude not be exceeded on any single day. This is consistent with the goal of a swimming advisory to provide prompt information to people who wish to use the water body for recreation. EPA also recommends that any exceedance of the recommended magnitude result in a swimming advisory being issued until the toxin concentration falls below the recommended magnitude.

COMMUNICATING RISK TO THE PUBLIC

In 2017, EPA released an online communications toolbox to support states, tribes, territories, and local governments in developing, as they deem appropriate, their own risk communication materials about cyanobacterial blooms. It includes editable press release templates, social media posts and other quick references.

EPA has also released infographics that states and communities can use to communicate basic information about HABs to the public. The infographics highlight how a HAB might affect both people and animals, and provide helpful information concerning how to identify and respond to a potential bloom. Two downloadable and printable versions of the infographic are available on the EPA's Cyanobacterial HABs website; one as a more detailed poster for display and another as an abbreviated handout. State, tribal and local governments may also customize the infographics by adding local information such as a logo, website address, email address and/or telephone number.

WHERE CAN I FIND MORE INFORMATION?

EPA has published the recommended AWQC/SA document, support documents and the Federal Register Notice online in the public docket (Docket ID No. EPA–HQ–OW–2016–0715), which can be accessed via the Agency's Recreational Water Quality Criteria website.

You can also contact John Ravenscroft (202) 566–1101 or Lesley D'Anglada (202) 566–1125 for more information.

Hearing Transcript Excerpt, "Water Resources Development Acts: Status of Implementation and Assessing Future Needs," July 10, 2019, Subcommittee on Water Resources and Environment of the Committee on Transportation and Infrastructure, Submitted for the Record by Hon. Brian J. Mast

WATER RESOURCES DEVELOPMENT ACTS: STATUS OF IMPLEMENTATION AND ASSESSING FUTURE NEEDS

(116–26)

HEARING

BEFORE THE

SUBCOMMITTEE ON
WATER RESOURCES AND ENVIRONMENT

OF THE

COMMITTEE ON
TRANSPORTATION AND
INFRASTRUCTURE
HOUSE OF REPRESENTATIVES

ONE HUNDRED SIXTEENTH CONGRESS

FIRST SESSION

JULY 10, 2019

Printed for the use of the
Committee on Transportation and Infrastructure

Available online at: https://www.govinfo.gov/committee/house-transportation?path=/browsecommittee/chamber/house/committee/transportation

U.S. GOVERNMENT PUBLISHING OFFICE

40-659 PDF WASHINGTON : 2020

But my question is a little different that I want to ask you. In the past two WRDA bills, Congress has included provisions to encourage the use of natural infrastructure for Army Corps projects, but these project alternatives often face challenges because some of their benefits are difficult to quantify. So the first question is can you tell me how the Army Corps currently calculates the cost effectiveness of nature-based infrastructure, and has the Corps been working to develop better evaluation methods for natural infrastructure?

Mr. JAMES. Congressman, if it is OK, I will let General Spellmon take that.

Mr. LOWENTHAL. That is fine.

Mr. JAMES. Because I am not cognizant of it.

Mr. LOWENTHAL. OK. General Spellmon, we are talking about now——

General SPELLMON. Sir, I had a great visit.

Mr. LOWENTHAL [continuing]. Looking towards natural kinds of infrastructure.

General SPELLMON. Yes, sir. I had a great visit out to your district in early January. In my previous assignment out in the Northwest, I had the opportunity to implement some natural-based infrastructure in some of our flood-control projects, and I do look forward to the opportunity in doing that in other parts of the Nation as well.

Sir, I would have to have our economists come in, and I would be happy to do that, to come see you and walk you through the math on how we calculate the cost effectiveness. With 1 minute and 8 seconds remaining, I would be challenged to do that in a nutshell here this morning. But happy to come sit down with you.

Mr. LOWENTHAL. But what I am saying, though, is that it is sometimes difficult, not because of the Army Corps, to measure some of these natural infrastructure cost-benefits, and I am just hoping that the Corps is working on better ways or more effective ways of measuring the impacts of natural infrastructure.

General SPELLMON. Yes, sir.

Mr. LOWENTHAL. And with that, I yield back.

Ms. MUCARSEL-POWELL. Thank you. I now recognize Congressman Mast from the great State of Florida for 5 minutes.

Mr. MAST. Thank you, Chairwoman.

General Spellmon, 9 of the last 11 years, in the name of flood control, water has been discharged out of Lake Okeechobee to Florida's east and west coasts. This isn't new news to anybody.

My question is simple, pointed, but important. Has the Army Corps of Engineers transferred toxic water—toxic water—from Lake Okeechobee to the east through the C–44 Reservoir into the St. Lucie Estuary and the Indian River Lagoon, and to the west through the Caloosahatchee River?

General SPELLMON. Yes, sir. We have conveyed water out of the system that has contained cyanobacteria and harmful algae blooms. Yes, sir.

Mr. MAST. And the Corps considers that toxic?

General SPELLMON. Yes, sir.

Mr. MAST. Thank you. I appreciate that acknowledgment. It is important so that we can move forward as we try to accurately

weigh the risks and assess what is going on as we try to manage both flood control for those to the south of the Herbert Hoover dike, and human health and human safety impacts to those to the east and west of Florida's Lake Okeechobee, as we are going summer after summer trying to work through these long-term infrastructure projects that you have been working on and your predecessors have been working on. So I appreciate that acknowledgment.

I do want to submit for the record the considerations by both the Centers for Disease Control, the Florida Department of Environmental Protection and the EPA, if you will take this by unanimous——

Ms. MUCARSEL-POWELL. No objection.

Mr. MAST. Thank you.

[The information is on pages 122–128.]

Mr. MAST. The CDC also notes that microcystins are a potent liver toxin produced by some species of cyanobacteria. The Florida Department of Environmental Protection says the mere presence of cyanobacteria blooms warrants the State to issue a warning. The EPA has reported cyanobacteria and their toxins are considered a serious threat to human health, and on May 22, the EPA declared that cyanotoxins above eight parts per billion posed too great of a risk for human contact, and so I appreciate you taking that for the record.

I would like to move to simply a thank you, General Spellmon. I have in front of me a letter from you to the State of Florida in which you outline, "In order to reduce future risk to the public, the Jacksonville district will lower Lake Okeechobee levels as much as possible within the operational band of the Lake Okeechobee regulations schedule prior to the start of the hurricane season 2019."

And I am giving you the most sincere—I hope you take this as the most sincere thank you that can be given from each of my constituents and from myself. You are making a real difference in our community with this operational and managerial change. For businesses, for people's health, for people's recreation, you are making a difference. It is not going unnoticed and we want to thank you for that.

And in that, I yield back.

Ms. MUCARSEL-POWELL. Thank you. I now recognize Congressman Rouda for 5 minutes.

Mr. ROUDA. Thank you, Madam Chair, and thank you, General Spellmon and Secretary James, for joining us here today. Harley Rouda from Orange County, California. My district is the 48th Congressional District of California. It represents about 80 percent of the coastline of Orange County, and there are a couple of key projects there. One of the key ones is the Santa Ana River project, and the Santa Ana River project was once characterized by the Army Corps of Engineers as, quote, "the worst flood threat west of the Mississippi."

This river is located entirely in southern California, the largest river in the area, and it meets the Pacific Ocean between Huntington Beach and Newport Beach.

With sea levels projected to continue rising and the increasing intensity of storms and natural disasters, the planned lower river channel modification for flood control along the 30 miles of the

Letter of October 7, 2020, from Todd Hiteshew, Chair, Southeast Florida Utilities Council, Submitted for the Record by Hon. Bruce Westerman

OCTOBER 7, 2020.

Chairwoman GRACE F. NAPOLITANO and Ranking Member BRUCE WESTERMAN,
Subcommittee on Water Resources and Environment,
Committee on Transportation and Infrastructure, Washington, DC.

RE: Hearing on Comprehensive Everglades Restoration Plan and Water Management in Florida

DEAR CHAIRWOMAN NAPOLITANO AND RANKING MEMBER WESTERMAN,

I am submitting this letter on behalf of the Southeast Florida Utility Council (SEFLUC) regarding your recent September 24, 2020 hearing on the Comprehensive Everglades Restoration Plan (CERP) and Water Management in Florida. SEFLUC represents potable water providers throughout South Florida serving over six million people. SEFLUC's mission is to provide a communications, networking, and support structure to allow member utilities to continue to provide superior-quality water supply and wastewater management services to their customers in a cost-effective manner.

CERP and the management of the Central and Southern Florida Project (C&SF) are of critical concern to SEFLUC members, as we rely on the operation of the regional water management system to maintain groundwater levels and control saltwater intrusion to meet the water needs of our communities. SEFLUC's members have been active participants in numerous water supply related issues in South Florida, including the ongoing development of the Lake Okeechobee System Operating Manual (LOSOM) 2022 process.

SEFLUC shares the same goal of all stakeholders; for the development of operational protocols that will integrate Lake Okeechobee operations within the overall framework and multi-purpose objectives of the C&SF, CERP, and water supply planning pertaining to the Lower East Coast (LEC).

The preservation of existing legal sources of water for water supply use is a bedrock foundation for implementation of CERP and has been acknowledged by Congress, the U.S. Army Corps of Engineers (Corps), the State of Florida, and the South Florida Water Management District (SFWMD) and has long been used as a premise for the enactment of the Water Resources Development Act of 2000 (WRDA 2000) and other Federal and State law and regulation. Maintaining existing legal uses of water is critical to the economic and environmental well-being of South Florida, and more importantly for the protection of the health, safety, and welfare of the people in our communities who rely on SEFLUC members to provide a clean and reliable supply of water. The system of surface water storage and conveyance comprising the C&SF is an essential part of assuring water supplies can be sustained. This system is a direct source of water for many in South Florida and it also creates an essential buffer to saltwater intrusion; a constant concern for SEFLUC members who rely on groundwater to meet the needs of their communities.

Maintaining existing legal sources of water for all uses requires consideration of highly complex and ever-changing factors such as changes in rainfall, sea level rise, and structural and operational alterations to the system. WRDA 2000 and CERP were adopted based on the clear understanding that as CERP projects are implemented, existing legal sources of water would be maintained at the current levels and the SFWMD would continue to implement water supply planning and regulation as reflected in the WRDA 2000 Savings Clause. WRDA 2000 Section 601(h)(5) provides in relevant part that "Until a new source of water supply of comparable quantity and quality as that available on the date of enactment of this Act is available to replace the water to be lost as a result of implementation of the Plan, the Secretary and the non-Federal sponsor shall not eliminate or transfer existing legal sources of water, including those for . . . an agricultural or urban water supply . . ." This legal guarantee has provided the foundation for water supply planning in South Florida over the last twenty years, and is paramount when considering modifications and alterations to the operation of the C&SF, particularly Lake Okeechobee, in assuring existing water supplies for communities can be maintained. Florida law likewise requires the SFWMD, as the local sponsor of CERP, to assure water available to existing legal users will not be diminished.

Protecting existing legal sources of water for uses including public supply, is consistent with the goals of increasing water available to the Everglades or improving the quality of water in the C&SF system. In fact, when guided by the existing legal framework, sound science, and thoughtful deliberation, each of these objectives can be achieved in a complimentary fashion. However, focusing on one objective, to the detriment of another, can result in unintended consequences. In the case of existing

legal sources of water available for public supply, system alterations eliminating or diminishing the ability or SEFLUC members to provide essential and critical water supplies to communities will be detrimental to those communities as well as potentially lead to other unintended environmental impacts, such as saline water intrusion. This is particularly the case when future rainfall patterns are uncertain and sea level rise is an increasing threat to coastal areas in South Florida.

Thus, given the above, I request your future deliberations take these critical factors into account, in order to assure that a reliable water supply remains for the people of the Lower East Coast, while also meeting our shared goals of environmental protection and enhancement. Thank you for your consideration of these comments and SEFLUC members look forward to continuing to work with you on this important issue.

Sincerely,

TODD HITESHEW,
Chair, Southeast Florida Utilities Council.

Letter of October 7, 2020, from Keith A. James, Mayor, City of West Palm Beach, Submitted for the Record by Hon. Bruce Westerman

OCTOBER 7, 2020.

Chairwoman GRACE F. NAPOLITANO and Ranking Member BRUCE WESTERMAN,
Subcommittee on Water Resources and Environment,
Committee on Transportation and Infrastructure, Washington, DC.

RE: City of West Palm Beach Comments on September 24, 2020 Hearing on Comprehensive Everglades Restoration Plan and Water Management in Florida

DEAR CHAIRWOMAN NAPOLITANO AND RANKING MEMBER WESTERMAN,

The City of West Palm Beach respectfully submits the following comments regarding your recent hearing on the Comprehensive Everglades Restoration Plan (CERP) and Water Management in Florida. The City is the largest municipality in Palm Beach County with more than 110,000 residents. The City also operates a public water supply system that provides clean, safe, and cost-effective potable water to approximately 150,000 residents of the City, the Town of Palm Beach, and the Town of South Palm Beach, and protecting its public water supply for the benefit of its citizens. The City is additionally committed to protecting environmentally sensitive features that are indirectly benefited by its water system. Our water system maintains water stages in Grassy Waters Preserve, a unique remnant of the Everglades that is an ecologically critical wetland habitat for various threatened and endangered species including the endangered Everglades Snail Kite. The City's water system also helps maintain the Minimum Flows and Levels for the Northwest Fork of the Loxahatchee River, a federally designated Wild and Scenic River.

To ensure a safe, reliable, and environmentally sustainable water supply source, the City directly relies upon surface water from the Central and Southern Florida Project (C&SF). Given that this water supply is so essential to the City, both from a public health and safety and environmental perspective, we must remain vigilant when it comes to any changes that may impact our use of the regional system. This includes the development of operational protocols that will integrate Lake Okeechobee operations within the overall framework and multi-purpose objectives of the C&SF, CERP, and water supply planning in South Florida.

The preservation of existing legal sources of water is a bedrock foundation for implementation of CERP, which has been acknowledged by Congress, the U.S. Army Corps of Engineers (Corps); the State of Florida, and the South Florida Water Management District (SFWMD) before, during and after the enactment of the Water Resources Development Act of 2000 (WRDA 2000) and other Federal and State laws and regulations. Maintaining our existing water supplies is critical not only to the economic and environmental well-being of South Florida, but also most importantly to protection of the health, safety, and welfare of the public which relies on our system to provide a clean and reliable supply of water. Though numerous public water suppliers rely on the surface water storage and conveyance of the C&SF, the City is particularly dependent on this surface water. Without it, we would not be able to assure water is available for the citizens that rely on us.

Maintaining existing legal sources of water requires consideration of highly complex and ever-changing factors such as changes in rainfall, sea level rise, and structural and operational alterations of the system. WRDA 2000 and CERP were adopted based on the clear understanding that as CERP projects are implemented, existing legal sources of water would be maintained and SFWMD would continue to im-

plement water supply planning and regulation as reflected in the WRDA 2000 Savings Clause. WRDA 2000 Section 601(h)(5) provides in relevant part that "Until a new source of water supply of comparable quantity and quality as that available on the date of enactment of this Act is available to replace the water to be lost as a result of implementation of the Plan, the Secretary and the non-Federal sponsor shall not eliminate or transfer existing legal sources of water, including those for . . . an agricultural or urban water supply . . ." This legal guarantee has provided the foundation for water supply planning in South Florida over the last twenty years, and it is important that future modifications and alterations of the operation of the C&SF, particularly Lake Okeechobee, assure that existing water supplies be maintained. Florida law likewise requires SFWMD, as the local sponsor of CERP, to assure that water available to existing legal users will not be diminished.

Protecting existing uses of water for public supply does not conflict with the goals of increasing water available to the Everglades or improving the quality of water in the C&SF system. In fact, when guided by the existing legal framework, sound science, and thoughtful deliberation, each of these objectives can be achieved in a complimentary fashion. However, focusing on one objective, to the detriment of another, can result in unintended consequences. In the case of existing uses of water available for public suppliers like the City, system alterations that eliminate or diminish critical water supplies have the potential to threaten the reliable water supplies that we all take for granted, and potentially lead to other unintended environmental impacts, such as saline water intrusion and the reduction in water available for our crucial environmental assets like Grassy Waters Preserve and the Loxahatchee River. This is particularly the case when future rainfall patterns are uncertain and sea level rise is an increasing threat to coastal areas in South Florida.

Given these concerns, we request that your future deliberations regarding operations of the C&SF regional system, Lake Okeechobee, and implementation of CERP projects assure that sound science guide future decisions and that our existing water supplies are protected. Thank you for your consideration of these comments, and the City looks forward to continuing to work with you and all other interested parties.

Sincerely,

KEITH A. JAMES,
Mayor, City of West Palm Beach.

Letter of Supplemental Testimony of October 2, 2020, from Gary J. Ritter, Assistant Director of Government and Community Affairs, Florida Farm Bureau Federation

OCTOBER 2, 2020.

Hon. PETER DEFAZIO,
Chairman,
Committee on Transportation and Infrastructure, U.S. House of Representatives, Washington, DC.

Hon. SAM GRAVES,
Ranking Member,
Committee on Transportation and Infrastructure, U.S. House of Representatives, Washington, DC.

Hon. GRACE NAPOLITANO,
Chair,
House T&I Subcommittee on Water Resources and Environment, Washington, DC 20515.

Hon. BRUCE WESTERMAN,
Ranking Member,
House T&I Subcommittee on Water Resources and Environment, Washington, DC.

RE: The Comprehensive Everglades Restoration Plan and Water Management in Florida

DEAR CHAIRMAN DEFAZIO, RANKING MEMBER GRAVES, SUBCOMMITTEE CHAIR NAPOLITANO AND RANKING MEMBER WESTERMAN:

On behalf of the Florida Farm Bureau Federation, I want to thank you for the opportunity to testify at the Transportation and Infrastructure Subcommittee on Water Resources and Environment on September 24, 2020. I would like to take this

opportunity to expound upon the testimony and comments provided during the hearing.

EAA Program

I spoke of the success of the EAA program in reducing phosphorus concentrations to the Everglades by an average of 57% during the last 26 years, 32% higher than the goal of a 25% reduction annually. In the hearing, it was suggested "they need to do better." The EAA BMP program is one of the most successful nutrient reduction programs in the nation, if not the world. Nutrient reductions cannot be born solely on the backs of farmers—it must to be a collective effort if it is to be a serious and effective one. This effort should necessarily include the federal government (which built the system), state government (which maintains the system) and local government (which is responsible for commercial and urban storm water).

Status Quo

As to the question whether the status quo is acceptable, we offer the following clarification: To our knowledge, no one approves of the current interim LORS 08 Regulation Schedule. The current schedule was approved as an interim measure to lower the lake by 1½ feet to allow the needed repairs to the dike. This regulation schedule:

- causes excess discharges to the coastal estuaries;
- results in more frequent violations of the Minimum Flows and Levels established for the lake by the SFWMD;
- compromises navigation;
- is harmful to protected species; and
- compromises the water supply for existing legal users.

These adverse impacts have been tolerated by all stakeholders while the interim LORS 08 schedule has been in effect to accommodate Herbert Hoover Dike (HHD) rehabilitation. Now, as the HHD repair is on the verge of completion, we support the development of a new regulation schedule that meets the congressionally authorized purposes for the lake and is more aligned with a schedule for a healthy lake; reduces harmful discharges; provides water for Everglades restoration, while improving the water supply of the region. In WRDA 2018, Congress directed the Corps to expedite the development of the new lake schedule concurrent with completion of the dike repairs. Therefore, we do not support a regulation schedule that will reduce the water supply of the region. We strongly believe that the $1 billion in HHD investments will allow a new regulation schedule to be developed to holistically meet all needs of Everglades restoration.

Lake Okeechobee Discharges

No one wants to see harmful algal blooms in our waterways, and it seems the communities south of the Lake want the same water quality as those on the coast. We agree harmful algal blooms are not good, and we support the scientific research conducted nationwide and statewide to understand algal blooms. Irrespective of this research, we cannot ignore the current water supply and ecological realities, as this does nothing to actually identify and solve the problem. One of the false assumptions is that the only way to reduce or eliminate harmful algal blooms is to lower the Lake regulation schedule (even lower than the status quo of LORS08), and, in doing so, threaten the water supply for existing legal users. This is simply untrue and not supported by the science.

The University of Florida Water Institute in their 2015 Independent Review titled "*Options to Reduce High Volume Freshwater Flows to the St. Lucie and Caloosahatchee Estuaries and Move More Water from Lake Okeechobee to the Southern Everglades*" outlined the following strategies on how to effectively reduce harmful discharges:

- Accelerate completion of existing approved projects;
- Provide water storage and treatment north of Lake Okeechobee;
- Provide additional water storage, treatment and conveyance south of Lake Okeechobee;
- Develop a strategic plan for the next increment of south-of-lake storage, treatment and conveyance to pursue beyond CEPP to take advantage of new north-of-lake storage and treatment, and more closely meet the performance targets of both the estuaries and the Everglades ecosystem;
- Deep well disposal of excess flows; and
- Implement operational changes.

This UF study concluded that a lower lake schedule results in more frequent and harmful discharges and suggests that the Army Corps of Engineers evaluate opportunities to *hold more* water in the lake.

The National Academies of Science also reached the same conclusion in their report titled "*Progress Toward Restoring the Everglades—Sixth Biennial Review—2016*" as demonstrated in the following quotations:

- "The large impacts on water storage with just modest changes in the lake regulation schedule suggest that Lake Okeechobee is a central factor in future considerations of water storage."
- "The financial costs for raising the lake levels likely are negligible, aside from the costs of conducting an environmental impact statement and any enhanced costs of operations."

In summary, no one in the agricultural community wants harmful lake discharges to continue. However, we reject the false premise that lowering the lake regulation schedule will result in less harmful discharges. In fact, LORS08 lowered the lake and has resulted in increased discharges to the estuaries. We offer that there are numerous, more effective ways to eliminate harmful discharges as outlined by the University of Florida Independent Review. Moreover, we support the use of sound science in lieu of sound bites that do not reflect scientific nor water management reality.

NORTHERN STORAGE

The watershed north of Lake Okeechobee begins in Orlando and the upper Chain of Lakes. Nutrient loading to Lake Okeechobee and legacy nutrients in Lake Okeechobee from the north are a result of the Central and Southern Florida Flood Control System, urban development that comes with population growth, and past agricultural and urban land use practices. To accuse one sector for the presence of harmful algal blooms in Lake Okeechobee is incorrect, scientifically unfounded, and counterproductive. A combination of urban and agricultural Best Management Practices (BMPs), along with regional and sub-regional projects, are needed from *all sectors* including local, state and federal governments to meet CERP restoration goals.

The Army Corps of Engineers has recently completed the Project Implementation Report for the Lake Okeechobee Watershed Restoration Plan (LOWRP) as part of CERP, which includes storage north of Lake Okeechobee. The LOWRP Recommended Plan increases water storage capacity in the watershed to improve Lake Okeechobee water levels, reduces the quantity and timing of regulatory discharges to the Caloosahatchee and St. Lucie estuaries, and enhances water supply. The vast majority of the benefits are derived from the plan's use of Aquifer Storage and Recovery Wells. The SFWMD is moving forward with the construction and operation of ASR wells utilizing the recommendations from the National Academies of Science.

Modelling performed by the SFWMD demonstrates the implementation of the LOWRP, in conjunction with the completion of existing authorized Comprehensive Everglades Restoration Plan, reduces harmful discharges to the coastal estuaries by 80% while *improving* water supply in the region.

CLOSING

The Florida Farm Bureau Federation along with all farmers and ranchers in south Florida are strong advocates for Everglades restoration and the protection of our coastal estuaries. However, we disagree with the false premise that the laudable goals of restoring our natural system and meeting the water supply needs of the region are mutually exclusive. In fact, Section 601(h) of WRDA 2000 states, "The overarching objective of the Plan is the restoration, preservation, and protection of the South Florida ecosystem while providing for other water-related needs of the region, *including water supply and flood protection*." This section directs the Plan be implemented to ensure the protection of water quality in, the reduction of the loss of fresh water from, and the improvement of the environment of the South Florida Ecosystem. Implementation of the Plan also seeks to achieve and maintain the benefits to the natural system and human environment described in the Plan. We have confidence that the men and women in the Army Corps of Engineers and its local sponsor, the South Florida Water Management District, can implement this plan and the changes to the Lake Okeechobee Regulation schedule in a manner that achieves the mutually beneficial goals of restoration along with the enhancement of water supply and flood control for all south Floridians.

Kind Regards,

GARY J. RITTER,
Assistant Director of Government and Community Affairs,
Florida Farm Bureau Federation.

CC: The Honorable Daniel Webster (FL–11)
The Honorable Ross Spano (FL–15)
The Honorable Brian Mast (FL–18)
The Honorable Frederica Wilson (FL–24)
The Honorable Debbie Mucarsel-Powell (FL–26)

Letter of September 23, 2020, from the Energy Producing States Coalition

SEPTEMBER 23, 2020.

Chairman PETER A. DEFAZIO,
Committee on Transportation and Infrastructure,
Washington, DC.

Ranking Member SAM GRAVES,
Committee on Transportation and Infrastructure,
Washington, DC.

DEAR CHAIRMAN DEFAZIO AND RANKING MEMBER GRAVES:

On behalf of the Energy Producing States Coalition (EPSC), which represents legislators from several states across the country, we write today to share our concerns with HR 8049 and an upcoming hearing before the Subcommittee on Water Resources and Environment scheduled for September 24th. It is our understanding that it will examine potential water management policy changes that we believe will be very harmful to a variety of industries, farm families, ranches and water supply for communities in the future.

While the stated purpose of the hearing will be about Everglades water management in Florida, the potential ramifications and impact would be sweeping and felt far beyond one specific state. Our membership includes many Western states where very significant amounts of our land is federally-owned and managed. Water rights and supplies are critical for our states and we are very concerned when new federal powers are contemplated that could jeopardize the lifeblood of our economies. The precedents created by the contemplated changes of adding broad public health considerations to manage algal blooms—as proposed by HR 8049—would drastically alter the Army Corps of Engineers' critical federal mission of flood control, navigation and collaborative water management. In essence, this proposed legislation could create another Pandora's Box scenario of unintended consequences similar to the convoluted and controversial Waters of the U.S. (WOTUS) Rule that would make long-standing water management and permitting decisions unnecessarily and politically charged.

As recent media reports have noted, this issue was raised and voted down in the Transportation and Infrastructure Committee's mark-up of the bipartisan reauthorization of the Water Resources Development Act (HR 7575) and was opposed by members of the Florida Congressional Delegation specifically because of the unknown and potentially harmful impacts it would have on water supplies and communities. Moreover, it is our understanding that the Corps of Engineers has explicitly stated in its planning documents which manage water flows in the Everglades that it lacks the expertise or authority to manage harmful algal blooms nor is there a federally authorized directive to address water quality when managing water releases from Lake Okeechobee.

Now is not the time to add a new level of uncertainty to the well-established water management process at the Corps—especially as our nation tries to recover from the harmful impacts of COVID–19 to our economy. We urge the Committee to oppose this legislation and not invite more trouble for our farmers, ranchers, homebuilders and neighbors that are struggling to recover. On behalf of EPSC, we appreciate the opportunity to share our perspective.

Sincerely,

SENATOR CHUCK WINDER,
Idaho, EPSC Chair.

SENATOR DREW PERKINS,
Wyoming, EPSC Executive Committee.

REPRESENTATIVE STEVE HANDY,
Utah, EPSC Executive Committee.

APPENDIX

QUESTIONS FROM HON. GARRET GRAVES TO HON. CHAUNCEY P. GOSS II, CHAIRMAN, GOVERNING BOARD, SOUTH FLORIDA WATER MANAGEMENT DISTRICT

Question 1. The CERP program requires that each project be individually studied by the Corps for authorization before it can receive a "new start." How has the passage of CEPP changed delays in turning dirt?

ANSWER. CEPP merged several CERP components into one large project. This combination of projects created efficiencies in planning and allowed for expedited design and construction of multiple CERP components. Though the authorization of CEPP in 2016 required separate validation reports for each of its three phases of CEPP, it only required one "new start" designation for the whole of CEPP. With the authorization of the CEPP Post Authorization Change Report (PACR), which included the EAA Reservoir and STA, in Sec. 1308 of WRDA 2018, the revised CEPP project could move forward quickly upon appropriation of funds.

Unfortunately, the U.S. Army Corps of Engineers and the Assistant Secretary of the Army for Civil Works determined that the authorized CEPP PACR was a separate CERP project and not a revision of CEPP, therefore requiring a "new start" designation for the newly named EAA Reservoir Project. The EAA Reservoir Project is one of the most critical restoration projects for the Everglades and is a top priority for the State of Florida. This decision removed construction funds from the local U.S. Army Corps of Engineers District budget and impedes federal construction efforts until a "new start" designation is received. While two phases of CEPP construction move forward at a rapid pace, one cannot—stalling restoration progress.

Question 2. Provisions in the "master PPA" for Everglades restoration also allow cross-crediting between other CERP projects. I know the Louisiana CPRA is extremely jealous of this arrangement. How does cross-crediting benefit the non-federal sponsor's ability to meet cost shares and move forward with restoration projects?

ANSWER. The 2009 Master Agreement establishes a "programmatic" management of the 50–50 cost share balance for all CERP projects with a Project Partnership Agreement rather than trying to balance a ledger for each individual project as is the case with our other non-CERP projects. This type of management allows for flexibility in construction efforts, ensuring either the South Florida Water Management District or U.S. Army Corps of Engineers can move forward with design and construction as funds become available through either state or federal appropriations. This agreement expedites project components, taking advantage of shifts in available funding and leveraging the talent and workload of the partner agencies to achieve benefits sooner. It would be extremely beneficial to extend this programmatic cost share approach across the entire South Florida Ecosystem Restoration Program.

Question 3. Congress has changed its internal processes since CERP was first authorized, constraining the ability to designate specific funding for projects and getting into several notable appropriations lapses. What else can Congress do to get out of the way and get these programs moving?

ANSWER. Congress has been very intentional in its passing of WRDA bills since 2014. We appreciate this effort and encourage Congress to continue passage of these highly important water resource bills every 2 years. In addition, the following actions would be of great benefit for this critical restoration program:

- Authorize a simple mechanism that allows the U.S. Army Corps of Engineers to provide funds directly to the non-Federal sponsor so it can implement or expedite projects.

- Authorize a programmatic "new start" designation for CERP to eliminate red tape and allow CERP projects to move directly from authorization to construction.
- Be aware that "conditional authorizations" often result in administrative process and reporting, such as the "90 day report" that took over 600 days for the Corps to complete. Authorize projects without conditions to prevent unnecessary delays to restoration and provide Congressional intent through other means.
- Continue to allow for flexible application of supplemental funding to expedite multipurpose projects such as Central and Southern Florida Project, CERP and other flood control components.
- Direct the Secretary to investigate a programmatic cost share approach that would include both CERP and non-CERP federal projects.
- Consider an amendment to Section 221 of the 1970 Flood Control Act to simplify and expedite the federal process for in-kind work.

QUESTIONS FROM HON. GARRET GRAVES TO SHANNON ESTENOZ, CHIEF OPERATING OFFICER AND VICE PRESIDENT OF POLICY AND PUBLIC AFFAIRS, THE EVERGLADES FOUNDATION

Question 1. I share your frustration with the Corps' rigidity, especially as that dogmatic approach results in negative impacts to ecosystems. I've had similar concerns for how assets in South Louisiana are used to manage the Mississippi to the determent of efforts for environmental restoration.

Question 1.a. Do you believe it's possible for the Corps to balance their mission sets and operate infrastructure for multiple benefits beyond the original authorized uses?

ANSWER. The Corps cannot act beyond its Congressional authority, but the issue here is not with the Corps exceeding Congressional authority. Instead, the Corps exercises its considerable discretion not to use the broad authority Congress has given it to balance its mission sets and operate infrastructure for multiple benefits. The Corps regularly supplants and, I believe, frustrates Congressional intent (if not express direction) with its discretionary decision-making authority. In the Everglades, for example, we have found that the Corps rarely exercises its discretion to the benefit of the environment, fish, wildlife or water quality, if doing so comes at the expense of other authorized uses. This remains true despite the fact that such favored uses do not include or implicate public safety, and even when the risks to such uses cannot be demonstrated or are so small that any reasonable analysis would find the choice to avoid them unjustifiable. For decades, for example, the Corps' discretionary approach to managing Lake Okeechobee in the dry season has picked economic winners and losers and has benefitted one set of economic interests over the environment, including federal natural resource assets of national and international significance. These environmental assets are supposed to enjoy the highest level of federal protection. This lopsided, discretionary formula for dry season Lake Okeechobee operations has held even when the result increases risk to public health, a source of deep frustration and confusion for the citizens of Florida's southwest and Treasure coasts. Most frustratingly, the Corps' approach threatens to hold even when Congress directed the Corps to revisit its operating rules in 2018, 30 years into an era when the value of the Everglades is known and undisputed, when public support for its protection has never been higher, and when the economy of the state relies more on its survival than ever before. The Corps does not lack the authority to protect the Everglades or to rebalance risks and benefits to authorized uses; rather, it simply regularly fails to exercise its authorized discretion to do so.

Question 1.b. If the Corps were able to operate its structures in Central Florida for multiple purposes—what would the benefits be?

ANSWER. The Corps can and should operate its structures for multiple purposes to more equitably share the benefits and risks associated with water management infrastructure, including Lake Okeechobee. In particular, if the Corps' operating rules included provisions allowing the Corps to meet the water-related needs of the downstream Everglades, more water could flow south during the early dry season, which can help reduce the risk of wildfires that threaten the Everglades—including Everglades National Park—protect habitat for endangered species, enhance recreational opportunities, and reduce drought risk for tribal lands. Greater flexibility to meet Everglades dry season demands can also improve the resilience of the Biscayne Aquifer, the primary drinking water source for millions of people along Florida's lower east coast.

More balanced risks and benefits can be gained by operating existing infrastructure more flexibly, and can be maximized by building new infrastructure. We understand that with more places to store water, and more capacity to clean and move

water, there will be more water overall to meet the needs of the natural system and human uses. New infrastructure is what Everglades restoration is all about. The existence of authority to build new infrastructure, however, does not absolve or constrain the Corps' existing authorities in ways that prevent it from balancing authorized uses consistent with existing authorities. I believe the Corps currently has the ability to operate its structures for multiple purposes; in fact, I believe its existing authorities require that it does so. The question is whether the Corps will more flexibly exercise its discretion within those authorities in an effort to even out the trade-offs that have been established by the current operating rules.

Question 2. Your testimony notes that this rigidity is limiting the potential positive outcomes from the revision of the Lake Okeechobee Systems Operating Manual. What will the negative impacts of this revision be if the Corps does not assess opportunities to send water to the Everglades?

ANSWER. The cost of inaction is tremendous. If the Corps does not take the opportunity to revise its approach to lake management, Florida's environment and economy will continue to suffer. Because of the way the system is managed today, the Everglades experiences varying degrees of harm on a regular basis. In cases of soil loss, seagrass die-off, tree island loss, loss of micro-topography, and delayed recovery of threatened and endangered species, the harm experienced is long-lasting or permanent. When the Everglades suffers permanent harm, it means that the baseline for restoration is shifting—permanent ecological loss in the Everglades eats into the benefits Congress can expect the system to receive from restoration investments. The Corps has existing operational authorities that can reduce recurring harm in the Everglades and for economic sectors that suffer when the Everglades suffers. The revision of the Lake Okeechobee Systems Operating Manual, authorized in 2018, provides an opportunity for the Corps to assess options for sending more water south to the Everglades, particularly during the early dry season. Doing so will provide dry season benefits to the central and southern Everglades and Biscayne Aquifer, and reduce wet season risk for the northern estuaries and the Herbert Hoover Dike. Assessing the need for beneficial flows to the Everglades as a water management tool, and not just as a restoration goal, would be a paradigm shift for the Corps and for a broad range of South Florida stakeholders, including Everglades National Park.

Question 3. Do you believe that the Corps should only revisit their Operating Manuals with express direction from Congress?

ANSWER. No. Under the broad authority granted by Congress, the Corps has the inherent authority to revisit its operating manuals as needed. It is incumbent on the Corps to continuously evaluate how its infrastructure and operations are impacting the multiple uses it is authorized to serve, and look for opportunities to minimize lopsided trade-off scenarios. This is particularly true in cases where the Corps' discretionary actions are benefiting a small number of users, but causing repetitive, measurable harm to a large number of people and the environment, including federally protected lands, waters, and species.

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