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Comprehensive Everglades Restoration Plan and Water Management in Florida

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 <u>current</u> water management tool, not just a <u>future</u> 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.