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*Defending Florida's Ecosystems
and Communities*

Optimizing Florida's Water Supply Planning Law to Advance Everglades Restoration:

A White Paper

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Executive Summary

Florida's Water Resources Act is one of the most forward-looking, comprehensive, and highly regarded water laws in the nation. The law has long held that water is a public resource and the Act provides a roadmap to protect the natural system and enhance drinking water supplies. But decades of delays in establishing minimum flows and levels ("MFLs") and water reservations for our state's water bodies, coupled with failures in acquiring enough land for adequate water storage, have hobbled water supply planning and jeopardized our water resources.

While highlighting the critical importance of the law's treatment of water as a public resource and discussing the many sound and protective statutory provisions already in place, this paper makes five key recommendations that would optimize existing water supply planning law to restore balance to Florida's natural water storage system and restore America's Everglades. Water supply plans should:

- **Quantify the Amount of Water Needed for the Natural System.**

In the same way regional water supply plans must quantify projected user needs and available sources over a 20-year planning horizon, the needs of the natural system and available sources of water should be quantified.

- **Include a priority list and a timeline for which both MFLs and reservations must be developed to ensure these protections are in place before additional water is allocated from the identified waters.**

- **Consider All Ways to Achieve or Reduce Violations of MFLs.** *Current recovery strategies often rely on large, unfunded restoration projects without a clear implementation timeline. The water supply planning process should provide a forum to assess whether there are faster or interim ways to implement an MFL – including on-the-ground adaptive management, operational, or regulatory fixes – which could be incorporated into the recovery strategy.*

- **Identify Ways to Deliver Water to Support Healthy Populations of Fish and Wildlife.** *This would include "making up" water that was already permitted to other users at the time of a water reservation's development and operational changes that would deliver additional needed water to fish and wildlife.*

- **Identify How Land Acquisition Would Help Meet Water Supply Needs.** *The state's distinctive seasonal rainfall patterns demand significant natural water storage capacity that has been eliminated by development over the last half-century, resulting in cyclical flood, drought and fire threats. Regional water supply and Everglades restoration needs cannot be met without additional land for water storage.*

Introduction

More than forty years ago, south Florida was facing a water crisis.¹ There were water shortages, salt-water intrusion into well fields, and fires in the Everglades.² Governor Askew convened a special water conference as leaders searched for solutions.³ The Florida Legislature passed the Water Resources Act of 1972. It is one of the most forward-looking, comprehensive, and highly regarded water laws in the nation.⁴ Codified in Chapter 373 of the Florida Statutes, the law is based on the Model Water Code, which declared that the state's waters are held in public trust for the benefit of its citizens.⁵

The law contains several action-forcing provisions aimed at effectively managing water for the public's use and the natural environment. The statute established regional water management districts responsible for creating **water supply plans** that contain **minimum flows and levels** (MFLs) to protect our state's waters from significant harm, set forth recovery **and prevention strategies** aimed at achieving these MFLs, and detail **water reservations** to protect fish and wildlife.

These provisions were well thought out but decades of delays in establishing MFLs and water reservations, coupled with failures in acquiring enough land for adequate water storage, have hobbled water supply planning and jeopardized our water resources.

Consequently, our state is experiencing a second crisis. Consumptive uses are depleting our aquifers, the absence of timely flows is causing toxic algae blooms in our estuaries and springs, and the lack of water to store and move south is impeding the restoration of one of America's greatest natural treasures: the Everglades.

We are at a critical time in our state's history as we reach the fifteen-year mark since the state and federal government's entered into the historic agreement to restore America's Everglades. Restoration depends on four things: water quality, quantity, timing, and distribution. Our law provides many tools to accomplish these goals; experience shows where tools are lacking.

¹ Christine Klein, Mary Jane Angelo, and Richard Hamann, *Modernizing Florida Water Law: The Example of Florida*, 61 Fla. L. Rev. 403, 419 (2009).

² *Id.* at 419.

³ *Id.*

⁴ *Id.* at 421. See also Erik Swenson, *Comment, Public Trust Doctrine and Groundwater Rights*, 53 U. Miami L. Rev. 363, 378 (1999).

⁵ Klein et. al. at 419.

This paper provides both success stories and stories that highlight where improvement is needed. We make recommendations for a limited set of changes to our water supply planning law to help address the need to recover and restore waters across our state, especially the Everglades. Importantly, all of the proposed changes build on, and do not undermine, the core of our water law: that water is a public resource and that water use and protection must be driven by the public interest.

The South Florida Ecosystem: A System in Peril and a Plan for Restoration

America's Everglades stretches from Orange County to Monroe County, and comprises a mosaic of freshwater ponds and sloughs, prairies and forested uplands.⁶

Beginning in the late 1800s, efforts were made to drain the Everglades for urban development and agricultural production. In 1948, Congress authorized the Central and Southern Florida Project for Flood Control and Other Purposes ("C&SF Project").⁷ This network of canals, levees, and water control structures has fundamentally altered the nature of the ecosystem, and today the Everglades is half the size it was a hundred years ago.⁸ Forty percent of the water historically destined for Everglades National Park never gets there because it is diverted via canals to the ocean or for other uses.⁹ Contaminants from agriculture, industry and urban areas have polluted historically pristine waters with phosphorus, nitrogen, and mercury.¹⁰ Exotic plant and animal species, many of which would never have been able to flourish in historic conditions, have further compromised the health of the system.¹¹

To undo much of the environmental damage caused by the C&SF Project, Congress approved the Comprehensive Everglades Restoration Plan ("CERP").¹² Under the Plan, the U.S. Army Corps of Engineers ("Corps") and South Florida Water Management District ("SFWMD"), in consultation with other Federal, state, and local agencies, are charged with restoring the South Florida ecosystem by protecting water quality and reducing the loss of fresh water.¹³

In addition to CERP, the cornerstone of "getting the water right" in the Everglades, are other restoration projects, including the restoration of the Kissimmee River. Since the late 1990s, the Corps has been working to restore the

⁶ Florida Department of Environmental Protection, *Brief History of the Everglades*, at <http://www.dep.state.fl.us/evergladesforever/about/default.htm> (last reviewed Feb. 11, 2009).

⁷ *Id.*

⁸ *Id.*

⁹ National Research Council, National Academy of Sciences, *Preface to Progress Towards Restoring the Everglades: The Fourth Biennial Review* (2012), available at <http://www.nap.edu/catalog/13422/progress-toward-restoring-the-everglades-the-fourth-biennial-review-2012>.

¹⁰ *Id.*

¹¹ *Id.*

¹² Water Resources Development Act of 2000, Pub. L. No. 106-541, § 601 (2000).

¹³ 33 C.F.R. § 385.8.

river to improve wildlife habitat in the headwaters of the Everglades ecosystem.¹⁴ The project is about 90% complete. With more than a third of Florida's drinking water coming from the Everglades,¹⁵ the future of Florida depends on a restored Everglades. A restored Everglades is good for the economy. For every one-dollar spent on restoration, four dollars goes into the South Florida economy.¹⁶ In short, Everglades restoration is critical to Florida's water supply needs and its economic growth.

Florida Water Law Provides A Flexible Planning Framework Resting on the Principle That Water is a Public Resource.

The Water Resources Act remains after forty years a largely effective tool to protect our state's water resources. It rests on a solid foundation of treating **water as a public resource**, directs water managers to **protect the natural system** through a variety of different permitting and regulatory mechanisms, and provides an **integrated framework that incorporates MFLs, recovery and prevention strategies, and water reservations into a comprehensive planning process**.

The Act declares that water is a public resource,¹⁷ that conservation has not been fully realized and should be promoted,¹⁸ that the cumulative impacts of our water management decisions must be taken into account to ensure the sustainability of our water resources,¹⁹ and that the quality of our waters must be protected, maintained, and improved to protect the natural system and public health.²⁰ To those ends, it has long been recognized that water is "not a property right."²¹

¹⁴ *Comprehensive Everglades Restoration Plan, CERP: The Plan in Depth-Part 2*, at http://www.evergladesplan.org/about/rest_plan_pt_02.aspx.

¹⁵ *Restoring America's Everglades, Progress and Next Steps for Restoring a Treasured Landscape and Sustaining a Way of Life*, at http://www.whitehouse.gov/sites/default/files/page/files/everglades_report__13_july_2012.pdf.

¹⁶ *Id.* (citing Mather Economics, *Measuring the Economic Benefits of America's Everglades Restoration: An Economic Evaluation of Ecosystem Services Affiliated with the World's Largest Ecosystem Restoration Project* (2012), available at everglades.3cdn.net/90fb17eeadba310af8_6tm-6barv5.pdf).

¹⁷ §§ 373.016 (1), (4)(a), Fla. Stat.

¹⁸ §§ 373.016(1), (3)(b), (4)(a), Fla. Stat.

¹⁹ § 373.016 (2), Fla. Stat.

²⁰ § 373.016 (3) (h), Fla. Stat.

²¹ *Village of Tequesta v. Jupiter Inlet Corp.*, 371 So. 2d 663, 667-68 (Fla. 1979) (holding that limiting groundwater is not a taking unless it results in damage to the land); *Harloff v. Sarasota*, 575 So.2d 1324 (Fla. 2d DCA 1991)(finding that a consumptive use applicant is not entitled to all the water requested).

Miami-Dade County's 2007 Consumptive Water Use Permit: A Success Story

In the early 2000s, SFWMD and Miami-Dade County began discussing the renewal of the County's consumptive use permit. To protect the public interest and prevent further harm to the Everglades,²² SFWMD asked the County to come up with a plan to reduce its reliance on water sources that drained the Everglades. What Miami-Dade County came up with in 2006 was a "Water Use Efficiency Plan" that improves management of traditional water supplies while encouraging the development of alternative water supplies and advancing water conservation. SFWMD approved the plan in 2007 as a condition of a 20-year water use permit for the County.

The permit-required plan has resulted in an "unprecedented drop in consumption," with demand dropping by some 44 million gallons of water a day.²³ Additionally, the permit sets forth a timeline for the development of alternative water supplies and water reuse projects designed to reduce reliance on Everglades water sources and to recover Everglades waters. Projects implemented as a result of this innovative permit include, among others, "demand management" projects that create incentives for homeowners to install water conserving toilets and dishwashers.²⁴ Thanks to these demand management projects, per capita water use declined from 162 MGD in 2003-04 to 135 MGD in 2013-14, according to Miami-Dade County's 2013 Annual Report.²⁵

In the past few years, funding for many programs, including the SFWMD's Water Savings Incentive Program, have been cut. The SFWMD's program to retrofit senior and low income housing with high efficiency toilets, showers, and faucets ended in 2012; rebates for high efficiency clothes washers in single family homes were discontinued in 2010. Other programs continue, including rebates for low-flush toilets, faucet aerators, and more efficient showerheads, as well as rebates to encourage water conserving landscape and irrigation management.²⁶

Two key facets of Florida water law enabled SFWMD to design the Miami-Dade permit and reduce consumptive use demand in the area: (1) the law's recognition of water as a public resource, and (2) the law's reflection of a strong intent to protect the natural system. Rooted in these two principles, Florida's flexible permitting scheme allows water managers to wean users off water resources that are being harmed to better alternative sources.

²² Miami-Dade County's Water Conservation Program, *Water Conservation Plans and Initiatives*, at <http://www.miamidade.gov/waterconservation/plans-initiatives.asp#2> (last edited Oct. 21, 2014).

²³ *Id.*

²⁴ South Florida Water Management District, *Water Use Permit No. Re-Issue 13-00017-W*, July 16, 2012, available at, <http://www.miamidade.gov/water/library/reports/water-use-permit-2012.pdf>.

²⁵ Miami Dade Water and Sewer Department, *Miami-Dade Consolidated PWS Water Use Permit No. 13-00017-W, Water Conservation Plan 2013 Annual Report*, 2013, available at, <http://www.miamidade.gov/water/library/reports/water-use-permit-conservation-2013.pdf>.

²⁶ South Florida Water Management District, *supra* note 24.

This flexible permitting approach stands in clear contrast to the western doctrine of “prior appropriation” where the first person to put water to a beneficial use acquires a superior legal right and those who come later must relinquish water in times of shortage.²⁷ The system further penalizes conservation because any water not used for a particular period of time is considered legally forfeited.²⁸ The consequences are often severe. A compact allocating water from the Colorado River to supply water to Nevada and Arizona has proven to be unsustainable, as future allocations cannot be achieved because of droughts, dwindling flows, and increased demand.²⁹ In Texas, where water is treated as a property right, “takings” lawsuits are hampering the ability of groundwater conservation districts’ capacities to manage groundwater supplies sustainably and ratchet down withdrawals that are threatening aquifers.³⁰

Any changes to our water law that would undermine water’s status as a public resource would limit this critical flexibility of water managers, and hamstringing our ability to address water challenges as they arise.

There Has Been a Decades-Long Failure to Establish and Implement Minimum Flows and Levels and Water Reservations.

Although our 1972 water law set forth a reasoned, balanced framework for managing water resources in the public’s long-term interest, water managers failed to implement two key provisions of the law aimed at protecting natural resources: MFLs and reservations. A minimum flow is “the limit at which further withdrawals would be significantly harmful to the water resources or ecology of the area.”³¹ A minimum water level is “the level of groundwater in an aquifer and the level of surface water at which further withdrawals would be significantly harmful to the water resources of the area.”³² Reservations are water “set-asides” – managers may determine that amount of water “required to protect fish and wildlife or the public health and safety” and “reserve” that water so that it is not available to consumptive use permit applicants.³³

Managers began to set these standards only after decades of delay, and then found we were already far below them in many cases. We have been struggling since to undo the harm already done.

²⁷ Craig Anthony (Tony) Arnold, *Adaptive Water Law*, 62 *Kansas L. Rev.* 1043, 1057 (2014).

²⁸ *Id.* at 1058.

²⁹ *Id.* at 1043-44.

³⁰ *Id.* at 1045-46.

³¹ § 373.042(1)(a), *Fla. Stat.*

³² § 373.042(1)(b), *Fla. Stat.*

³³ § 373.223(4), *Fla. Stat.*

Minimum Flows and Levels

In 1972 the Florida Legislature directed the water management districts and the Florida Department of Environmental Protection (“DEP”) to establish MFLs for all watercourses within their boundaries. This mandate was largely ignored during the following two decades until a citizen suit forced action in 1993.³⁴ In 1997, the Florida legislature amended the 1972 water law to require all water management districts to adopt a schedule and priorities for setting MFLs.³⁵ It has been almost another twenty years since these legislative amendments, and the majority of MFLs have still not been established.³⁶

Even where MFLs have been established, many are being violated, including those for the Caloosahatchee Estuary, Loxahatchee River, and the Everglades.³⁷ Further, “recovery and prevention” strategies are not being implemented to achieve the standards expeditiously, despite the statutory directive.³⁸

³⁴ Klein et al. at 445.

³⁵ *Id.*

³⁶ See John R. Thomas, “Rules Based on Bad Science,” *Gainesville Sun*, June 30, 2014, at <http://www.gainesville.com/article/20140630/OPINION03/140629700>; Kenneth H. “Buddy” Mackay Jr., “Give Priority to Florida’s Springs, Reduce Pumping,” *Ocala Star Banner*, April 6, 2014, at <http://www.ocala.com/article/20140406/OPINION/140409832>; Letter from Tom Beck, Director Office of Water Policy, Florida Department of Environmental Protection, to Jonathan P. Steverson, Executive Director, Northwest Florida Water Management District (Feb. 19, 2014), available at [http://www.nwfwater.com/system/assets/661/original/DEP_Approval_Letter_\(2014-2-19\).pdf](http://www.nwfwater.com/system/assets/661/original/DEP_Approval_Letter_(2014-2-19).pdf); Southwest Florida Water Management District, Governing Board Approved Fiscal Year 2014 (October 2013-September 2014) Minimum Flows and Levels Priority List and Schedule and Reservations List and Schedule, at http://www.swfwmd.state.fl.us/projects/mfl/reports/Approved_FY2014-MFL_Priority_List_and_Schedule.pdf; Letter from Blake C. Guillory, Executive Director, South Florida Water Management District, to Herschel Vinyard, Secretary, Florida Department of Environmental Protection (Oct. 22, 2013), available at http://www.swfmd.gov/portal/page/portal/xrepository/sfwmd_repository_pdf/2014_priority_water_body_list_schedule.pdf; <http://fl-suwanneeriver.civicplus.com/DocumentCenter/Home/View/87>; St. Johns River Water Management District, Priority List and Schedule and Draft Reports, at <http://floridaswater.com/minimumflowsandlevels/prioritylist.html>.

³⁷ South Florida Water Management District, *Ecological Conditions Update*, slide 2 (May 12, 2011).

³⁸ See § 373.0421(2), *Fla. Stat.* (requiring recovery strategies to be “expeditiously implement[ed]”).

The Caloosahatchee: Why we need more protective MFLs and comprehensive recovery and prevention strategies.

The Caloosahatchee Estuary connects Lake Okeechobee to the Gulf of Mexico. Beginning in the late 19th Century, this once shallow and crooked river was deepened and widened for navigation, water supply, and flood control purposes.³⁹ The SFWMD and U.S. Army Corps of Engineers manage the release of freshwater from Lake Okeechobee into the Caloosahatchee River during the wet and dry seasons.⁴⁰ This has resulted in excessive “high flows” in the wet season to keep the Lake at a specific depth and “low flows” in the dry season to facilitate water supply for agriculture, south of Lake Okeechobee. Caloosahatchee flows have at times exceeded 22,000 cubic feet per second (cfs), which is more than four times the flow that is considered the upper limits for seagrass survival due to reduced salinity levels.⁴¹ These high flows also contain higher nutrient concentrations, leading to algae blooms and fish kills, due to agricultural and urban runoff.⁴² During “low flow” events, the system becomes stagnant and hypersaline, resulting in low oxygen levels. This in turn, leads to algal blooms and the loss of seagrass.⁴³ The river experienced a permanent loss of 1,000 acres of tapegrass in the early 2000s, even before the Lake Okeechobee Regulation Schedule went into effect.

It was only in 2001 that water managers set an MFL for the Caloosahatchee. They pegged the level of “significant harm” at the very low, standard mean monthly flow of 300 cfs⁴⁴ – far below what scientists have suggested the system needs to support healthy fish and wildlife populations (which is 450-650 cfs during the dry season).⁴⁵ Because water managers were late in establishing the MFL, even that low “significant harm” level has been violated several years in a row.⁴⁶ In 2007, 2008, and 2011 the Caloosahatchee was cut off entirely during the dry season.

The strategy that water managers chose in 2001 to “achieve recovery” to the MFL “as soon as practicable” was the C-43 West Basin Reservoir, a part of the federal Comprehensive Everglades Restoration Plan. When this reservoir will be constructed and operational remains – 13 years later – uncertain. In the meantime, the Caloosahatchee continues to suffer from a chronic lack of timely and appropriate flows during the dry season, made all the worse by chronic droughts. Recently, the SFWMD determined that freshwater in the aquifer is not adequate to meet the growing needs

³⁹ South Florida Water Management District, *Caloosahatchee River and Estuary*, at <http://www.sfwmd.gov/portal/page/portal/xweb%20protecting%20and%20restoring/calooahatchee%20strategies#background>.

⁴⁰ U.S. Department of the Interior, Fish and Wildlife Service, Southeast Region, *Pine Island, Matlacha Pass, Island Bay, and Caloosahatchee National Wildlife Refuges, Comprehensive Conservation Plan*, 64 (October, 2010).

⁴¹ *Id.* at 65.

⁴² *Id.*

⁴³ Sanibel-Captiva Conservation Foundation, *Understanding the Caloosahatchee and the Lake*, at <http://www.sccf.org/content/204/Understanding-the-Caloosahatchee-and-the-Lake.aspx> (May, 2011); Sanibel-Captiva Conservation Foundation, *Caloosahatchee Background Information*, at <http://www.sccf.org/files/content/docs/CalCOEBackground111.pdf>.

⁴⁴ Rule 40E-8.221(2), Fla. Admin. Code.

⁴⁵ Sanibel-Captiva Conservation Foundation, *supra* note 43.

⁴⁶ See Jane Graham and Julie Hill Gabriel, “Jump-Starting Everglades Restoration via Tools for Interim Progress,” *Natural Resources and Environment*, Vol. 27, Number 4, Spring 2013.

of the planning area during 1-in-10 year drought conditions and concluded that the Lower West Coast planning area was a “water resource caution area.”⁴⁷

The state legislature has long recognized that the Caloosahatchee’s problems – attributable to changes in land uses, the construction of the C&SF project, and the loss of surface water storage– should be addressed by multiple solutions. As it has concluded, “it is imperative for the state, local governments, and agricultural and environmental communities to commit to restoring and protecting” these watersheds by immediately implementing a watershed based approach.⁴⁸ Doing so is “essential to the protection of the greater Everglades ecosystem.”⁴⁹

Water Reservations

Water reservations are a critical part of Florida’s 1972 water law. Reservations are the means by which water managers can target waters that are important to fish and wildlife or public safety, and make sure those waters receive the flows they need.

Unfortunately, water managers failed to use this tool at all for decades, and then used it only very sparingly. In 2000, when Congress approved CERP as the blueprint for Everglades restoration, federal and state negotiators relied on this then little-used tool as the means by which the State could assure the federal government that water made available for Everglades restoration was not diverted to other uses.

⁴⁷ Rule 62-40.210(42), F.A.C. See also, *In the Matter of Approval of 2014 Amendment to the 2012 Lower West Coast Water Supply Plan, South Florida Water Management District, Final Order*, April 15, 2014.

⁴⁸ § 373.4595(1)(d), Fla. Stat.

⁴⁹ § 373.4595(1)(c), Fla. Stat.

Biscayne Bay: Why we need timely reservations accompanied by comprehensive implementation plans.

The ecological and economic importance of Biscayne National Park and Biscayne Bay cannot be overstated. According to a recent study, the Park brings over \$34 million in visitor spending to local communities.⁵⁰ Small business owners, such as dive boat operators, restaurant owners, hoteliers, and fishermen, depend on Biscayne National Park and Biscayne Bay for their livelihoods.

Reduced freshwater flows into Biscayne Bay, however, have led to a nearly mile-long “white zone” of salt deposits within the Bay’s coastal wetlands.⁵¹ Multiple canals that crisscross the Bay’s drainage basin over-drain shallow marshes and groundwater seepage abruptly declines after rains.⁵² Scientists have predicted that these problems will expand and worsen without expeditious actions to restore the natural system.⁵³

Phase 1 of the Biscayne Bay Coastal Wetland project (“BBCW Phase 1”) was always understood as only a partial first step to improving the timing and distribution of flows into the Bay. BBCW Phase 1 project planners agreed that a constant flow of 1,416 acre-feet per day is needed to restore the Bay, and some scientists have concluded that almost double that flow is needed to meet salinity goals and restore ecological conditions.⁵⁴ Yet all acknowledge that even the lesser target would only be achieved 10% of the time once the BBCW Phase 1 project is complete.

Water managers did create a reservation to protect the water made available at this point by the BBCW Project to help support healthy fish and wildlife populations. Questions remain, however, about the effectiveness of the protections in place for even the limited amount of existing flows to be redistributed by the project. The reservation reserves from permitting most existing flows (all the flows that are found to be environmentally beneficial). Generally, if new surface water withdrawals are proposed from canals within the project area, they must be evaluated to ensure they don’t affect the reserved water. The same evaluation is not required, however, for proposed new groundwater withdrawals, despite their potential effects on canal flows, nor does the reservation require water managers to assess the effects of water management operations on reserved water. Planning for a Phase II of the Biscayne Bay Coastal Wetland project has yet to begin.

⁵⁰ “Biscayne National Park Creates \$34.3 Million in Local Economic Benefit,” *Biscayne National Park News Release*, February 28, 2013.

⁵¹ U.S. Army Corps of Engineers, Jacksonville District & South Florida Water Management District, *Central and Southern Florida Project, Biscayne Bay Coastal Wetlands Phase 1 Final Integrated Project Implementation Report and Environmental Impact Statement*, iv, (Mar. 2012) available at http://www.evergladesplan.org/pm/projects/project_docs/pdp_28_biscayne/010612_fpir/010612_bbcw_vol_1_main_report_rev_mar_2012.pdf.

⁵² *Id.* at iv-v.

⁵³ *Id.*

⁵⁴ U.S. Department of Interior, *Estimates of Flows to Meet Salinity Targets for Western Biscayne National Park, Resource Evaluation Report*, 1 (June, 2008) (“approximately 960,000 acre-feet/year of freshwater flows would be required to meet the salinity targets [for desired ecological conditions in the Park],” with 37,000 acre-feet/month needed in the dry season, and 149,000 acre-feet per month needed in the wet season”).

Water reservations and MFLs are powerful tools to ensure that water gets to the places it needs to be when it needs to be there. Their implementation, however, has been hamstrung as a result of delays. MFLs have been limited in their effectiveness as a result of outdated standards and incomplete recovery strategies. Likewise, reservations have been limited in their effectiveness because they have been used in very few cases, mainly in south Florida, and with the limited goal of protecting water made available by CERP projects, instead of more broadly to protect water resources. To similar effect, managers have not used water supply planning to “operationalize” reservations – to make sure not only that water needed to sustain fish and wildlife is not permitted to another user, but also that the operating plans of structures and other water management choices are developed with the goal of making sure that reserved water gets to the resources it is supposed to protect.

There is an Important Intersection Between Water Supply Planning, and MFLs and Reservations.

In 1997, faced with a legal decision that held that water management districts must establish MFLs, Florida’s legislature added water supply planning provisions to Florida’s water law. The law requires water management districts to develop water supply plans that document water supply needs. It also requires plans to identify potential sources and existing water resource protections like MFLs and reservations (that might limit the amount of groundwater or surface water available to meet those needs) wherever water supplies are found to fall short of water demands within a 20-year planning horizon.⁵⁵ Although the plans must include lists of existing MFLs and reservations, there is little, if any, direction to water managers about how and when they must set priorities for developing water reservations for the protection of fish and wildlife.⁵⁶ Most critically, there is no required timeline for the development of either MFLs or water reservations.⁵⁷ To similar effect, water supply plans are required to include “a quantification of the water supply needs for all existing and future reasonable-beneficial uses within the planning horizon,” but not for the natural system.⁵⁸

⁵⁵ § 373.709, Fla. Stat.

⁵⁶ § 373.709(2)(i), Fla. Stat.

⁵⁷ § 373.042, Fla. Stat.

⁵⁸ § 373.709 (2)(a)1., Fla. Stat.

Kissimmee River Restoration: The \$1 billion investment and why we cannot continue down a path of delay and inaction.

The Kissimmee River once comprised a series of oxbows meandering 103 miles through Central Florida. During the wet season, heavy rains inundated its three-mile wide floodplain. In the late 1960s, however, the Corps deepened, straightened, and widened the river in an attempt to reduce flood damage to surrounding properties. The channelization of the river destroyed much of the ecosystem. Ninety percent of the waterfowl disappeared and the oxygen-depleted system fundamentally changed the local fish communities.⁵⁹

To undo this damage, the Corps and South Florida Water Management District entered into a fifty-fifty partnership to restore the river. The project seeks to return flow to 40 miles of the river's historic channel and restore about 40 square miles of the river and its floodplain ecosystem. The project is approximately 90% complete and will likely be finished by 2019.⁶⁰

The restoration project has been a tremendous success since it began in 1992. According to the Corps, "the river and its floodplain have improved in remarkable ways, surpassing at times the anticipated environmental response."⁶¹

At the same time, efforts are underway as part of a Central Florida Water Initiative (CFWI) to plan for the next twenty years of water supply for Orange, Osceola, Polk, Seminole, and southern Lake counties. In April 2014, SFWMD, the St. Johns River Water Management District, and the Southwest Florida Water Management District released their final draft water supply plan. The CFWI plan finds that fresh groundwater resources alone cannot meet future water demands in the area "without unacceptable impacts to water resources and related natural systems."⁶² The CFWI plan identifies surface water withdrawals (including from the Kissimmee River) as a potential source to make up the projected deficit.

Presently, 46 water bodies in the CFWI planning area have MFLs and an additional 52 water bodies potentially affected by groundwater withdrawals in the planning area await development or reevaluation of their MFLs.⁶³ Of the 46 established MFLs, 10 are currently being violated and another 15 are projected to be violated if projected future demands come from traditional groundwater sources.⁶⁴ Adverse wetland impacts from withdrawals are currently

⁵⁹ South Florida Water Management District, *Kissimmee River*, at <http://my.sfwmd.gov/portal/page/portal/xweb%20protecting%20and%20restoring/kissimmee%20river>.

⁶⁰ *Id.*

⁶¹ U.S. Army Corps of Engineers, *Kissimmee River Restoration Project*, at <http://www.saj.usace.army.mil/Media/FactSheets/FactSheetArticleView/tabid/6106/Article/479988/kissimmee-river-restoration-project.aspx>.

⁶² Central Florida Water Initiative, *Regional Water Supply Plan, Final Draft*, vi. (April 2014).

⁶³ *Id.* at 35.

⁶⁴ *Id.* at vii.

occurring in several areas, and the number and extent of stressed wetlands are projected to increase in the future.⁶⁵ The SFWMD and the Southwest Florida Water Management District have also identified the need for future water reservations for a number of waterbodies, including the 5,100 square mile Southern Water Use Caution Area and the Kissimmee River Basin.⁶⁶ Notably, the Kissimmee River Basin reservation, currently in development, is critical to protecting the \$900 million public investment in the river's – until now – very successful restoration.⁶⁷ It would also serve to protect flows to the newly established Everglades Headwaters National Wildlife Refuge, which seeks to conserve the headwaters of the Everglades through a working ranchlands approach and several federal-state partnerships.⁶⁸

Effective water supply plans depend on adequate and accurate knowledge about the needs of our natural resources, as well as our water supply needs. In Florida, the needs of our water resources are most often determined by way of MFLs and reservations (especially reservations, as they serve to protect fish and wildlife, and not simply to prevent significant harm). We need to ensure that these protections are developed expeditiously, as part of the water supply planning process.

There Have Been Undue Delays in Acquiring Land Critical for Water Supply and Restoring the Natural System.

Compounding the problems created by delays in establishing and implementing MFLs, comprehensive recovery and prevention strategies and water reservations, is the state's failure to acquire lands critical for regional water supply and Everglades restoration.

⁶⁵ *Id.*

⁶⁶ *Id.* at 38.

⁶⁷ Tom Palmer, "Public Gets Preview of Steps to Come on Water Reservation Rules for Kissimmee River," *Lakeland Ledger*, July 31, 2014, available at <http://www.saj.usace.army.mil/Media/FactSheets/FactSheetArticleView/tabid/6106/Article/479988/kissimmee-river-restoration-project.aspx>.

⁶⁸ Kevin Spear, "Kissimmee River battle looms: Water for Fish or cities?" *Orlando Sentinel*, Jul. 27, 2014, at <http://www.orlandosentinel.com/news/politics/os-kissimmee-river-water-protected-20140727-story.html>.

The Central Everglades: The missing link in moving water south.

Over the last decade, the SFWMD, the State and the federal government have invested significant resources to restore the Everglades. Water supply for the Everglades and growing urban populations throughout South Florida depend on a restored Everglades that includes significant additional water storage. Substantial amounts of water are being lost to tide each year, causing significant harm to the estuaries and coastal economies.

Our State has also recognized the importance of land acquisition for Everglades restoration, as well as conservation more generally. This was evidenced in the tremendously successful Florida Forever and Preservation 2000 land preservation programs⁶⁹ and most recently in November with the passage of Amendment 1.⁷⁰

In 2008, the State announced a deal with U.S. Sugar to acquire 187,000 acres of land south of Lake Okeechobee for the purpose of storing, treating, and delivering water south through the Everglades.⁷¹ The Florida Supreme Court ruled in 2010 that the U.S. Sugar purchase “serves the public purpose of conserving and protecting water and water-related resources.”⁷²

Efforts to acquire these lands have stalled. Because of delays in acquiring lands critical to meeting the water supply and restoration needs of the Everglades, water managers are forced to make planning decisions that fall short of protecting the natural system.

The State has several programs that enable the purchase of lands for public purposes. However, the acquisition of state lands is not *explicitly* part of the water supply planning process, despite land acquisition program purposes that include promoting water resource development to meet the needs of natural systems. It should be.

⁶⁹ In enacting the Florida Forever Act, the Legislature declared: “Many of Florida’s unique ecosystems, such as the Florida Everglades, are facing ecological collapse due to Florida’s burgeoning population growth and other economic activities. To preserve these valuable ecosystems for future generations, essential parcels of land must be acquired to facilitate ecosystem restoration.” § 259.105(2)(a)(7), Fla. Stat.

⁷⁰ Seventy-five percent of voters approved the Water and Land Legacy Amendment, which dedicates 33 percent of net revenues from the documentary stamp tax to water and land conservation, management and restoration.

⁷¹ Greg Allen, “Land deal would help restore Everglades,” NPR, June 24, 2008 at <http://www.npr.org/templates/story/story.php?story-Id=91853812>.

⁷² *Miccosukee Tribe of Indians of Florida, et. al. v. South Florida Water Management District, et. al.*, 48 So. 3d 811, 830 (Fla. 2010).

Five Recommendations to Help Address the Concerns Identified Above.

The basic framework of Florida's water law – which rests on the principles that water is a public resource and that protection of our natural water is a key part of the “public interest” – remains strong and has allowed our state to avoid many of the challenges faced in those states that label water private property, and not a public resource.

Five changes to our law's water supply planning requirements could better address problems created by the gap between passage of the 1972 requirements designed to protect our natural system and their implementation decades later. These proposed changes are designed to empower water managers to better plan for undoing harm caused by those delays, to minimize additional delays, and to make permitting and planning decisions that are based on complete and accurate information. This will help ensure that multi-year and multi-billion dollar investments in environmental restoration are preserved for future generations.

- 1 In the same way water supply plans must quantify projected user needs and available sources over a 20-year planning horizon, natural resources' needs and available sources of water should be quantified.
- 2 Water supply plans should include a priority list of waters for which both MFLs and reservations must be developed, and a timeline for the development of both reservations and MFLs to ensure these protections are in place before additional water is allocated from the identified waters.
- 3 Water supply plans should consider all ways to achieve or reduce violations of MFLs. Current recovery strategies often rely on large, unfunded restoration projects without a clear implementation timeline. The water supply planning process should provide a forum to assess whether there are faster, or interim, ways to implement an MFL – including on-the-ground adaptive management, operational, or regulatory fixes – which could be incorporated into the recovery strategy.
- 4 Water supply plans should include ways to actively implement steps to deliver water determined, as part of the reservation development process, necessary to support healthy populations of fish and wildlife. This would include “making up” water that was already permitted to other users at the time of a reservation's development, and operational changes that would deliver additional needed water to fish and wildlife.
- 5 Water supply plans should consider whether and how the purchase of lands (under Chapter 259, Florida Statutes) would assist in meeting water supply and water resource needs, consistent with the purposes of state land acquisition programs, which generally include maintaining our state's unique natural resources; protecting air, land, and water quality; and promoting water resource development to meet the needs of natural systems.