



REDUCING FLOWS TO THE ESTUARIES

Prior to the construction of the Okeechobee Waterway and the Central and South Florida Project (C&SF Project), almost the entire outflow from Lake Okeechobee went south to the Everglades, and its level was controlled by the elevation of the southern rim of the lake. When the lake levels got higher than the elevation of the southern rim (about 19.2 feet above sea level), water would spill out over the southern rim and flow southward. After the construction of the C&SF Project, lake levels were lowered to protect the surrounding communities from flooding, so today, whenever the lake rises above its regulation schedule, nearly all of the excess water is diverted to the St. Lucie and Caloosahatchee estuaries, which is the way the C&SF Project was designed to operate. Decreasing the flows to the estuaries requires a fundamental retooling of the C&SF Project. This is why short-term actions do not result in much improvement and why multiple projects are needed to make significant improvements in the estuaries.

What is the Best Way to Reduce Discharges to the St. Lucie & Caloosahatchee Estuaries?

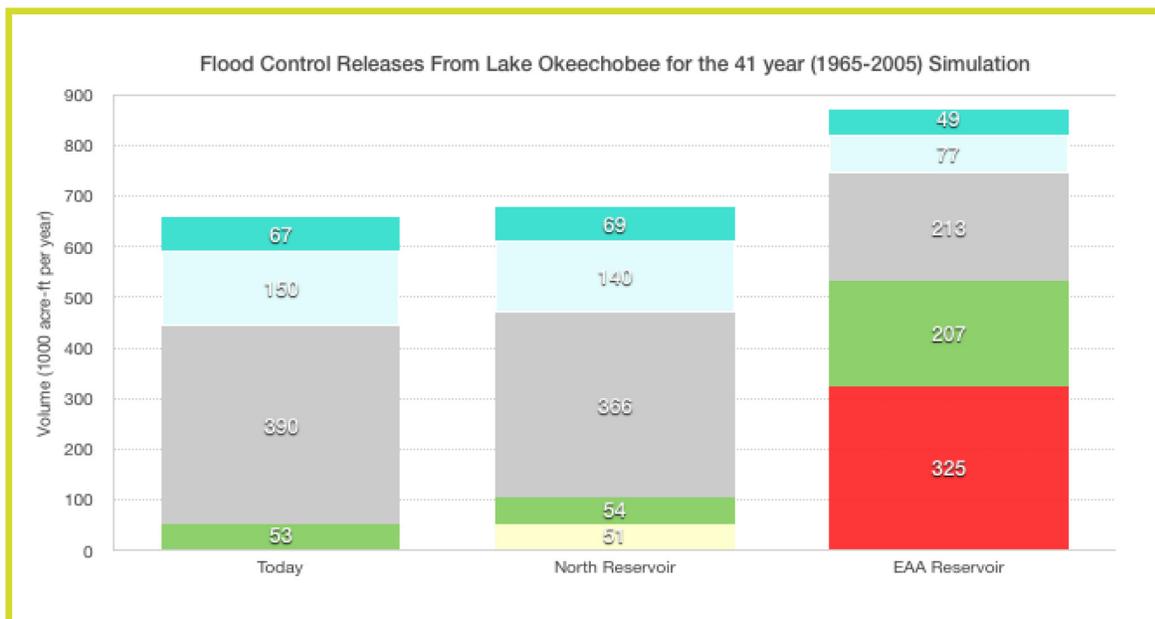
- ✓ The best way to reduce the outflows from Lake Okeechobee to the St. Lucie and Caloosahatchee estuaries is to increase the discharge to other outlets, particularly southward to the Everglades.
- ✓ The Comprehensive Everglades Restoration Plan (CERP) was developed to re-engineer the C&SF Project and fix the damaging estuary releases and restore function in the Everglades.
- ✓ We need a series of new components and operational paradigms at a regional scale, all of which are part of CERP.
- ✓ Fundamentally, we need to re-plumb the Everglades by (a) conveying more water south from Lake Okeechobee to the Everglades, (b) increasing storage to provide water supply to maintain flow in the Everglades, (c) cleaning the water from Lake Okeechobee before it enters the Everglades and (d) increasing the flow through the Everglades by removing dams.
- ✓ These components are immediately needed to re-engineer the C&SF Project to the degree where significant decreases in flows to the estuaries can be achieved:
 - Construct the Central Everglades Planning Project (CEPP)
 - Construct Component G of CERP, the Everglades Agricultural Area (EAA) Reservoir Project

Construct CEPP

- ✓ CEPP contains major steps in three critical areas: (a) conveying water from the lake southward, (b) cleaning water from Lake Okeechobee before it reaches the Everglades and (c) removing some of the dams in the Everglades.
- ✓ While CEPP may allow up to 200,000 acre-feet of additional water to flow through the Everglades, it is a conveyance project, not a long-term storage project.
- ✓ These actions are not final endpoints, as there are constraints on what can be done in a single step. But, overall, it makes significant progress on three of the four key areas.
- ✓ The project has already been approved by the state and is pending congressional authorization.

Construct Component G of CERP, the EAA Reservoir Project

- ✓ Increasing the storage capacity of the C&SF Project is the most important feature of CERP. Storage is how the plan takes water that is wasted by dumping to the St. Lucie and Caloosahatchee estuaries and converts it to beneficial water supply.
- ✓ CEPP, while making major advances in conveying and cleaning water and removing the dams in the Everglades, is not a long-term storage project.
- ✓ Component G of CERP calls for a 60,000-acre reservoir approximately 6 feet deep in the EAA. It is the second largest storage component of CERP.
- ✓ By constructing this reservoir, it will allow an additional outlet to the south to become available, resulting in two primary benefits: (a) it improves the low water conditions in the Water Conservation Areas by providing a dry season water supply and (b) it allows sustained releases from Lake Okeechobee even when the Everglades are temporarily full.
- ✓ Location and operation of storage reservoirs have a huge effect on the type of benefits it provides. For example, we analyzed two reservoir options from CERP: the 200,000 acre-feet reservoir north of Lake Okeechobee (Component A of CERP) and the 360,000 acre-feet EAA reservoir (Component G of CERP) and looked at what would happen if the only change we made was to add these storage reservoirs to the C&SF Project infrastructure.



When compared to the existing condition, a storage reservoir north of Lake Okeechobee will decrease volumes of water to the St. Lucie by 7 percent, but the EAA Reservoir Project will decrease volumes by about 50 percent. Similarly, in terms of frequency of very high, damaging releases, a reservoir north of Lake Okeechobee decreases the frequency of very high flows by 3 percent, while an EAA reservoir decreases the frequency of releases by 37 percent. Additionally, dry season flow volumes to Florida Bay are increased by 34 percent with an EAA reservoir, whereas they are unchanged with a reservoir north of Lake Okeechobee.

- ✓ This is not to say that storage north of Lake Okeechobee has no benefits. The primary benefits of storage north of the lake are to: (a) decrease low water levels and improve water supply in Lake Okeechobee and (b) improve water quality by decreasing pollutant loads to Lake Okeechobee, when coupled with constructed wetlands.
- ✓ However, reservoirs south of the lake will tend to increase outlet capacity from the lake and do better at decreasing estuary discharges. An EAA reservoir has the additional benefit of increasing flows to Florida Bay and the Everglades.

The EAA Reservoir Project is not scheduled to begin until 2021.

Is this Proposal Feasible?

Yes, because it is part of a plan that has already been agreed upon by state and federal governments and stakeholders. Detailed design on a previous footprint has already been completed, so much of the preliminary engineering has been worked out and the project was included in the initial CERP authorization.¹ The cost-share element also makes it feasible, since the state will not have to pay for the entire cost. CEPP is currently pending congressional authorization.

How much will it Cost?

CEPP is estimated to cost \$1.9 billion and the land for that project has already been acquired. The EAA Reservoir Project, including land acquisition and construction, is estimated to cost \$2.4 billion if built on a 60,000-acre footprint as contemplated in CERP. Since these projects are cost-shared with the federal government, the state's cost would be \$2.15 billion. Amendment 1 and Legacy Florida, which implements it, can cover the cost. Legacy Florida will provide \$4.8 billion of funding through 2035.²

¹ PL 106-541, Section 601(b)(2)(C)(ii).

² While the \$100 million carve-out for CERP projects goes through 2025-2026, the \$200 million distribution as a whole carries on for the life of the constitutional amendment. Thus, even after the CERP dedication expires, Legacy Florida will generate income that can and should be used on CERP projects.