

Cleaning Up Phosphorus Pollution in the Everglades & the 10 ppb Phosphorus Standard

How and Why the 10ppb Standard Was Set—Under Florida law the Everglades must be cleaned up to meet a 10 part per billion water quality standard. This standard evolved from a 1988 federal lawsuit against the state. A Consent Decree entered in Federal District Court requires this reduction from the 100ppb+ pollution that has historically emitted from the Everglades Agricultural Area. State law, known as the Everglades Forever Act requires efforts to meet the 10 part per billion standard by the end of 2006, but the absolute deadline for compliance was relaxed by the legislature in 2003 until 2016. The Federal consent decree continues in force. Federal Judge Federico Moreno continues to have jurisdiction to enforce the Consent Decree.



The 10ppb phosphorus standard was adopted as a “Default Standard” for the Everglades by the Legislature in 1994. At the time, all available science indicated that this standard was needed to protect the natural sawgrass Everglades from shifting to a cattail-dominated system hostile to wildlife (actual phosphorus levels in the natural Everglades are commonly at 6 parts per billion or less).

In July, 2003, the Florida Environmental Regulation Commission adopted the final phosphorus standard for the Everglades at 10ppb. This occurred after years of efforts by the sugar industry to disprove the appropriateness of 10ppb as the standard. A hearing similar to a court trial took place during in 2004 where opponents of the 10ppb standard made their best attempt to convince an Administrative Law Judge that the adopted standard was inappropriate, not supported by science, or unachievable. Opponents of the 10ppb standard lost on all counts, and the ALJ ruled in June of 2004 that the standard was appropriate and supported by the best available science.

Can the 10ppb Phosphorus Standard Be Achieved?—The cleanup plan for phosphorus depends on a two part system. First, phosphorus is lowered in sugar cane field discharges through “Best Management Practices” that strive to retain water and phosphorus on each farm and reduce water and phosphorus outflow from the farms. Second, over 50,000 acres of “Stormwater Treatment Areas”, consisting of marsh impoundments where phosphorus settles from water and is removed from water by plants serve as a final treatment stage. To date, actual performance shows that when not overloaded with water or phosphorus, final discharges from the STAs can approach achieving the 10ppb standard. Since achieving the standard is measured over an average of stations located in the Everglades Conservation Areas, meeting the standard appears feasible. The principal challenges to meeting the standard appear to be the overloading of STAs due to inadequate water storage capacity in the EAA, (indicating need for further expansion of storage and the size of the STAs), plus refinements in the Best Management Practices. Audubon has recommended all of these improvements. The prospective acquisition of 187,000 acres in holdings of the U.S. Sugar Corporation opens the way for STA expansion and more water storage, making achievement of the standard a near certainty if the right decisions are made by the South Florida Water Management District concerning the use of those lands.