



DANIELLA LEVINE CAVA  
MAYOR  
MIAMI-DADE COUNTY

June 23, 2021

Via Email:  
Andrew.D.Kelly@usace.army.mil

Colonel Andrew Kelly  
District Commander  
U.S. Army Corps of Engineers Jacksonville District  
701 San Marco Blvd. Jacksonville, FL 32207

Re: Lake Okeechobee System Operating Manual (LOSOM)

Dear Colonel Kelly:

Thank you to you and the dedicated members of the US Army Corps of Engineers, Jacksonville District for the important collaboration and partnership with Miami-Dade County on the protection of our water supply, Everglades Restoration, and Biscayne Bay restoration. The purpose of this letter is to provide Miami-Dade's recommendations as the Army Corps of Engineers nears the preferred alternative milestone of the Lake Okeechobee System Operating Manual (LOSOM) formulation phase.

Miami-Dade County's over 2.7 million residents are blessed to have two National Parks, two State aquatic preserves, a State critical wildlife area, and a national marine sanctuary within our borders. All of them ecologically connected and supported by fresh water emanating from the greater Everglades ecosystem.

The Central and South Florida project that has made agriculture and our urban communities possible in South Florida, has the unfortunate effect of blocking much of the water that once had flowed into South Florida from Lake Okeechobee and the more upstream portions of the Everglades resulting in severe degradation of the ecosystem and the species it supports. In particular, the southernmost portions of the coastal Everglades including Florida Bay and Biscayne Bay are increasingly imperiled. The reduction in freshwater flows from Lake Okeechobee and the greater Everglades has resulted in increased and rapidly fluctuating salinities in these coastal estuaries. The salinity of the water oftentimes rises to well above ocean salinities, creating damaging hypersaline conditions not just within Florida Bay but Biscayne Bay as well. Of additional concern, the fresh water that does reach Biscayne Bay from our canals is often of poor quality and polluted with nutrients that can result in damaging algal blooms and the loss of seagrass beds.

Colonel Andrew Kelly, District Commander  
U.S. Army Corps of Engineers

The County's sole source of drinking water, the Biscayne aquifer, is also becoming increasingly impacted as a result of inadequate water from the regional system in the southernmost part of the County, and this condition is being exacerbated due to sea level rise. Groundwater levels in the southern portion of the County are not sufficient during the dry season to prevent the landward migration of the salt front within the Biscayne aquifer. I am attaching a graphic that illustrates how serious this problem has become in southern Miami-Dade County. This graphic is a compilation of many years of data collected with the assistance of the County's partner in this monitoring program, the U.S. Geological Survey (USGS). Under a recent USGS study, the average rate of migration landward of the saltwater interface is now up to 140 meters per year. Please note the location of the County's Newton wellfield on the graphic in relation to the location of the salt front in this area. The County is planning to take this wellfield out of service as the salt front advances to these production wells. Without sufficient water deliveries to this area from the Central and Southern Florida System to address this threat, the advancing salt front will impact the residents of Miami-Dade County as well as the water supply for residents of Monroe County. Please note the location of the Florida Keys Aqueduct Authority's well field on this graphic in relation to the advancing salt front. This is the wellfield that provides most of the drinking water to the residents of Monroe County in the Florida Keys.

Based on the above concerns, Miami-Dade County respectfully requests that a much stronger emphasis be placed on LOSOM objective 3C (Improve water supply performance of the Lower East Coast Service Area) and objective 4D (Enhance ecology in Lake Okeechobee, northern estuaries and across the south Florida ecosystem **including** South Florida) in the selection of the preferred alternative. We are specifically requesting significantly increased flows south with an emphasis on dry season flows to better address the aforementioned project objectives. To that end, we also request that water be specifically allocated to South Florida for these purposes under this Army Corps of Engineers' effort.

Please contact Sean McCrackine of my staff at [sean.mccrackine@miamidade.gov](mailto:sean.mccrackine@miamidade.gov) if you have any questions regarding this matter or if we may provide additional supporting information.

Sincerely,

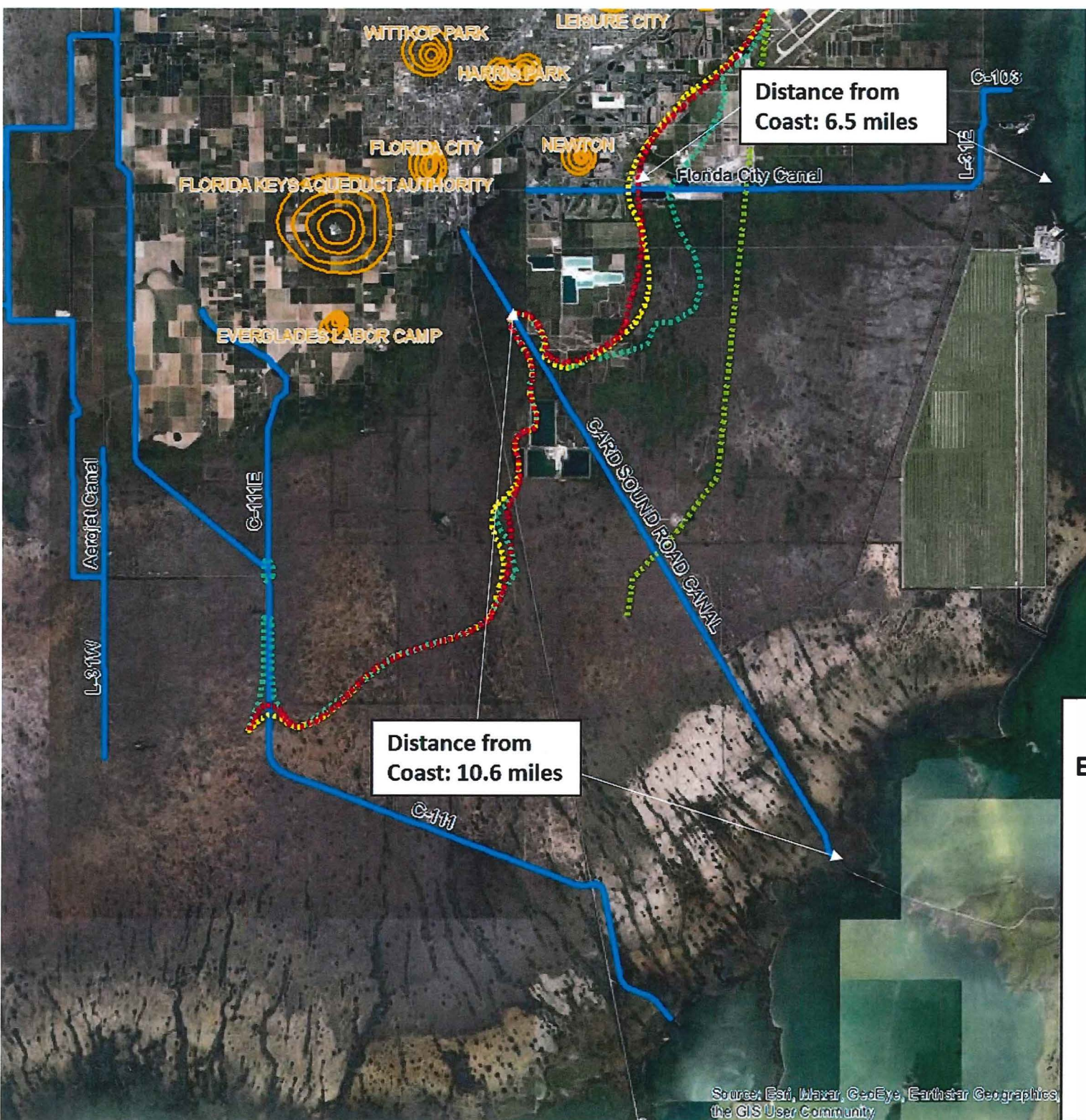


Copies to:

Monroe County  
Florida Keys Aqueduct Authority  
South Florida Water Management District  
EPA Region IV  
Biscayne National Park  
Everglades National Park  
United States Geological Survey  
Florida Keys National Marine Sanctuary



# Miami Dade County Salt Intrusion Extent



Distance from Coast: 6.5 miles

Distance from Coast: 10.6 miles

**Salt Intrusion at the Base of the Biscayne Aquifer (1,000 mg/L Chlorides)**

## US Geological Survey Data

- ..... 2018 Salt Intrusion Line
- ..... 2016 Salt Intrusion Line
- ..... 2011 Salt Intrusion Line
- ..... 1995 Salt Intrusion Line
- ..... Wellfield Protection Areas

Source: Esti, Marx, GeoEye, Earthstar Geographics, the GIS User Community