South Florida Wildlands Association
1314 East Las Olas Blvd., #2297
Fort Lauderdale, FL 33301

June 28, 2024

Re: Draft 2024 District Sea Level Rise and Flood Resiliency Plan

South Florida Wildlands Association appreciates the opportunity to provide these comments to the Resiliency Plan.

These comments will be brief but will be supplemented by a comprehensive letter we recently submitted to the Village of Wellington in November of 2023. The letter was written in opposition to the filling of state and federal jurisdictional wetlands in the Village of Wellington for a project known as Wellington South.

In our letter, we emphasize the critical importance of natural wetlands and the many services they provide. Those include aquifer recharge, water purification, fish and wildlife habitat, outdoor recreation, and even carbon sequestration. But in the context of flood control and resiliency at a time of sea level rise and more intense and frequent "big rain events"- the most important aspect of wetlands is the tremendous boost they provide to flood control. That service is not replaced by impoundments, canals, pump stations, or other artificial flood control infrastructure.

Below is a quote from a U.S Environmental Protection Agency (EPA) document titled, Wetlands: Protecting Life and Property from Flooding, U.S. EPA, EPA843-F-06-001, Office of Water, May 2006

See: https://www.epa.gov/sites/default/files/2016-02/documents/flooding.pdf

The Federal Emergency Management Agency (FEMA) states that floods are the most common and widespread of all natural disasters—except fire. Most communities in the United States have experienced some kind of flooding. FEMA

encourages the use of wetlands for stormwater detention in lieu of, or in conjunction with, traditional structural flood control measures. (Source: FEMA)

How Do Wetlands Help Reduce Flooding?

The effectiveness of wetlands for flood abatement may vary, depending on the size of the area, type and condition of vegetation, slope, location of the wetland in the flood path and the saturation of wetland soils before flooding. A one-acre wetland can typically store about three-acre feet of water, or one million gallons. An acrefoot is one acre of land, about three-quarters the size of a football field, covered one foot deep in water. Three acre-feet describes the same area of land covered by three feet of water. Trees and other wetland vegetation help slow the speed of flood waters. This action, combined with water storage, can actually lower flood heights and reduce the water's destructive potential.

Clearly, both the EPA and FEMA have determined that natural wetlands already provide the best flood protection money can buy. When those wetlands are paved over, their effect is just the opposite. Water is not retained and must be shunted to other places through the built environment which is already at its limit in dealing with flood waters.

We recommend the SFWMD cease the permitting of all natural wetlands within the District to accommodate the new climate conditions that are now upon us. No matter how much flood control infrastructure is constructed, the paving over of South Florida's wetlands will only exacerbate an already bad situation and contribute to a deterioration of the South Florida environment.

Another important point raised in the SFWA letter is the minimization of the value of wetlands impacted by invasive plant species by the SFWMD. In many cases, the fact that wetlands contain invasive plant species such as melaleuca is due to the property owner not restoring them with native wetland plants. When it comes time to mitigate the loss of those wetlands, they are viewed as degraded or "crappy" wetlands (quote from a SFWMD reviewer regarding wetlands in Wellington South).

But, regarding their function in flood control and resiliency, that is simply not the case. As stated in a literature review by Audubon (Melaleuca and Evaluations of Wetland Functions: Melaleuca presence does not justify losing wetlands) the following is true.

See:

https://corkscrew.audubon.org/sites/default/files/static_pages/attachments/melaleuca_aof_fact_sheet_4-10.pdf

"While long assumed to drain wetlands, melaleuca has not been definitively shown to lower groundwater levels through evapotranspiration at any greater rate than native species. Consequently, melaleuca-invaded wetlands retain most of their natural capacities to store and attenuate flood waters, recharge aquifers, cleanse pollutants, and regulate base flows in watersheds."

SFWMD should immediately recognize this critical function of wetlands even when they are covered with invasive plants and cease their description of them as "degraded." Instead, they should be treated the same as other wetlands and add a requirement that landowners restore native vegetation to enhance their ability to provide wildlife habitat and other services. Along with not allowing them to be dredged, drained, filled, and paved over, South Florida's natural wetlands can continue to provide a massive contribution to flood control during future, difficult times.

Thank you for considering these comments. Feel free to contact us with any questions.

Regards,

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