220831 EBIWG Assignment 1 Recommendations
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Relevant EBIWG Option Section: Section V. Inspection Options

Proposed: NEW Option, to replace 220809 Section V Option F

SB-4D & FBC Relevant Sections, as currently written in Law & Code (https://www.floridabuilding.org/fbc/links_to_code_resources.html)

SB-4D Section 553.899(3)

FBCB 2020 Supp 2 Section 110.9.3

Need for Recommendation: (See end of document for Relevant Background Information)

From our understanding, the requirement that "If the building is located within 3 miles of a coastline as defined in s. 376.031…, the condominium association or cooperative association must have a milestone inspection performed by December 31 of the year in which the building reaches 25 years of age" was intended to address buildings that are exposed to saltwater or high chlorides.

As written, the three-mile offset from the coastline described in Sections SB-4D 553.899(3) and FBC 2020 S2 110.9.3 does not capture the buildings along all saltwater (saline) water bodies such as bays and inlets. As a result, several buildings will not be inspected as intended by the current language.

Additionally, the 3-mile offset from the s. 376.031 coastline overestimates the reach of saltwater in most coastal Florida counties. As such, in those areas, buildings will be required to be inspected at 25-years of age unnecessarily.

Saltwater Interface Maps already exist throughout the State and indicate which areas along the coast are exposed to saline water bodies and saline water tables (relative to foundations). These maps could be compiled into one source, preferably on ArcGIS, and utilized in lieu of the 3-mile coastline offset. Addressing the "coast" in this way will accurately capture which buildings are and are not exposed to salt water. See the figures from ArcGIS and SFWMD within the Relevant Background Information section at the end of this recommendation for screenshots of the existing maps.

Addressing this recommendation is necessary in order to ensure that the milestone inspections are sufficient to determine the structural integrity of a building.

Recommendation:

To ensure that the milestone inspections address buildings that are exposed to saltwater at an earlier age (25 years), the Legislature should consider revising the 25-year milestone inspection requirement in SB-4D 553.899(3) and FBC 2020 S2 110.9.3 to apply to buildings that are located between the uppermost water table's saltwater interface boundary and the coastline as defined by s. 376.031, rather than a 3-mile offset of the coastline. If acceptable, the Legislature should charge FDEP, USGS, and/or Other Agencies with compiling the existing saltwater interface line maps within PDF and ArcGIS, and publish a Statewide map as soon as possible. The building officials and building owners can then use the maps to easily locate the affected buildings. See the figures from ArcGIS and SFWMD within the Relevant Background Information section at the end of this recommendation for screenshots of the existing maps.

Relevant Background Material:

The below information is provided for the convenience of the EBIWG Members.

The coastline is defined in Florida Statute 376.031 as follows: (http://www.leg.state.fl.us/statutes/index.cfm?App_mode=Display_Statute&Search_String=&URL=0300-0399/0376/Sections/0376.031.html)

> (4) "Coastline" means the line of **mean low water along the portion of the coast that is in direct contact with the open sea** and the line marking the seaward limit of inland waters, as determined under the Convention on Territorial Seas and the Contiguous Zone, 15 U.S.T. (Pt. 2) 1606.

Coastline location compared to inland saltwater interface & the 3-mile coastline offset:

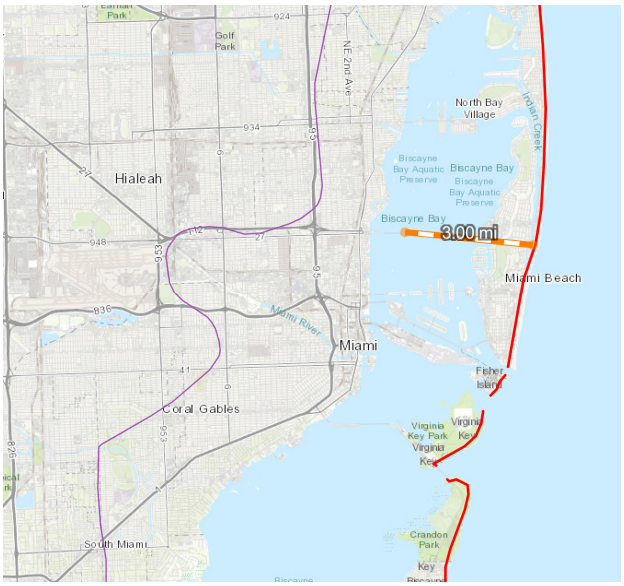

Figure A: The coastline (red line) with a 3-mile scale for reference within Miami-Dade County. Purple line indicates the Surficial Saltwater Interface Line of Biscayne Aquifer per SFWMD.

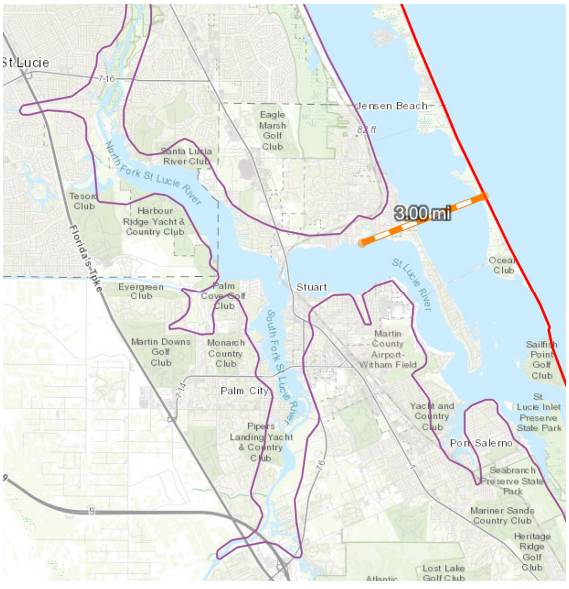

Figure B: The coastline (red line) with a 3-mile scale for reference within St. Lucie & Martin Counties. Purple line indicates the Surficial Saltwater Interface Line of Biscayne Aquifer per SFWMD.

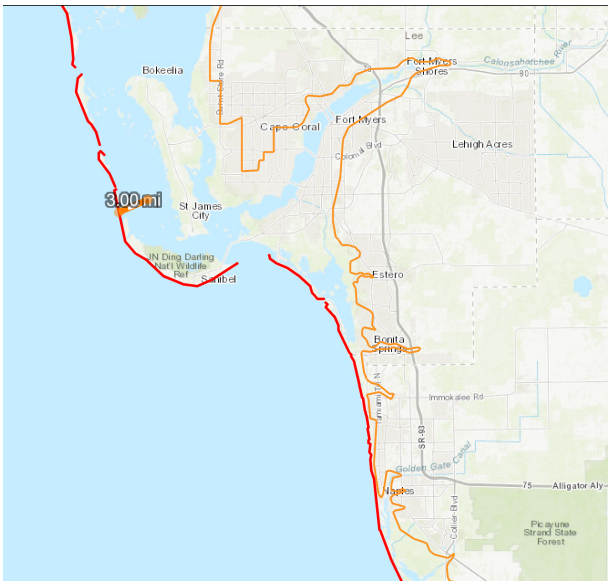

Figure C: The coastline (red line) with a 3-mile scale for reference within Lee & Collier Counties. Orange line indicates the Surficial Saltwater Interface Line of Water Table per SFWMD.

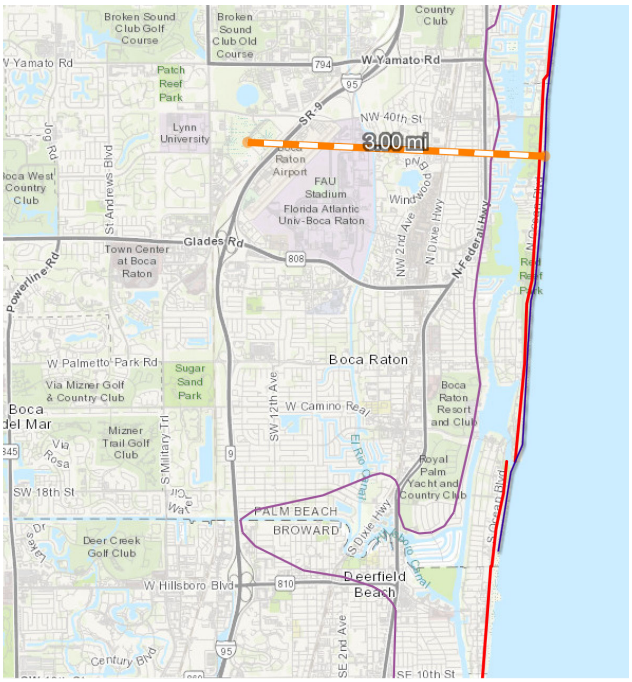

Figure D: The coastline (red line) with a 3-mile scale for reference within South Palm Beach County and North Broward County. Purple line indicates the Surficial Saltwater Interface Line of Biscayne Aquifer per SFWMD.

Saltwater Interface Maps

https://www.sfwmd.gov/sites/default/files/documents/ws-58_swi_mapping_report_final.pdf

https://www.sfwmd.gov/documents-by-tag/saltwaterinterface

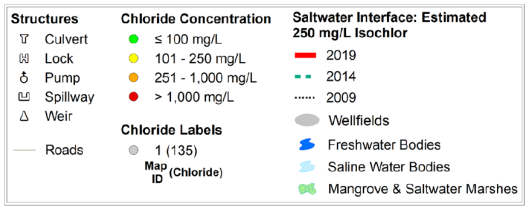

Figure 6. Legend identifying data layers in the 2019 saltwater interface maps.

Figure E: Legend for Figures F-J, Maps of Saltwater Interface Line

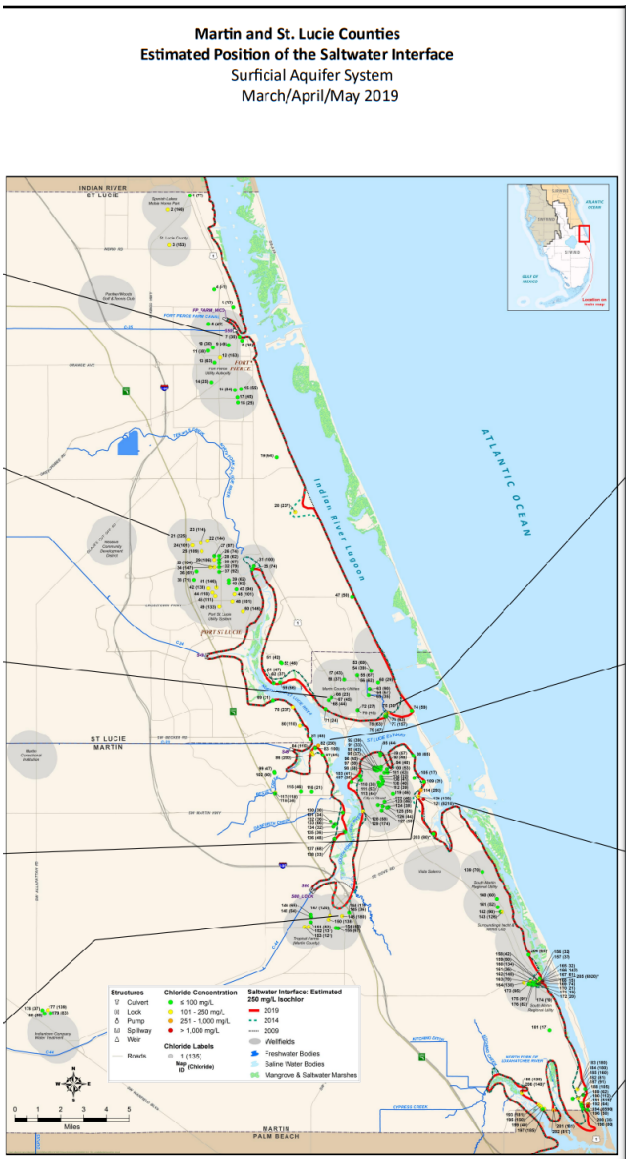

Figure F: Martin & St. Lucie Counties Map of Saline, Fresh, and Saltwater Bodies (2019)

Figure G: Palm Beach County Map of Saline, Fresh, and Saltwater Bodies (2019)

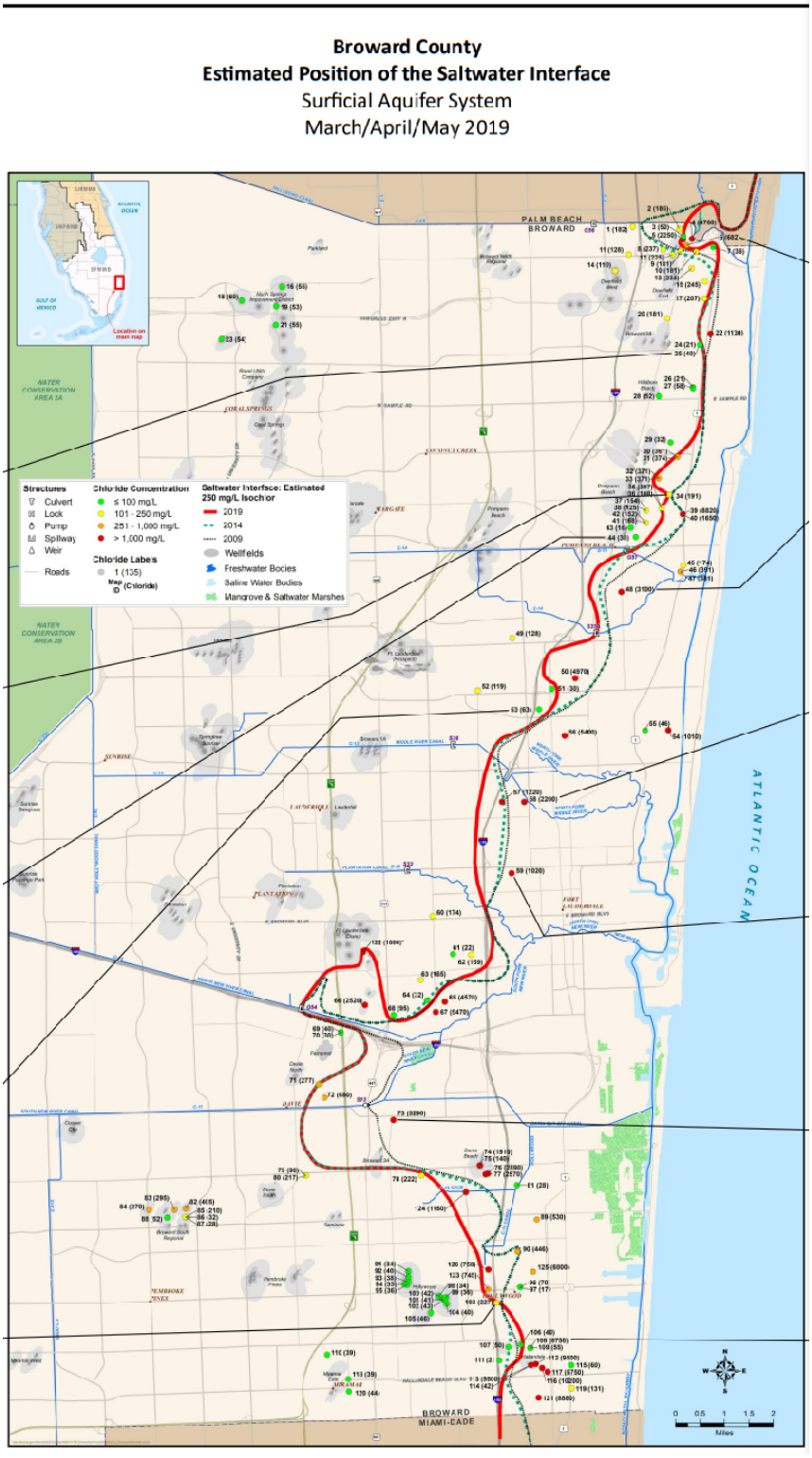

Figure H: Broward County Map of Saline, Fresh, and Saltwater Bodies (2019)

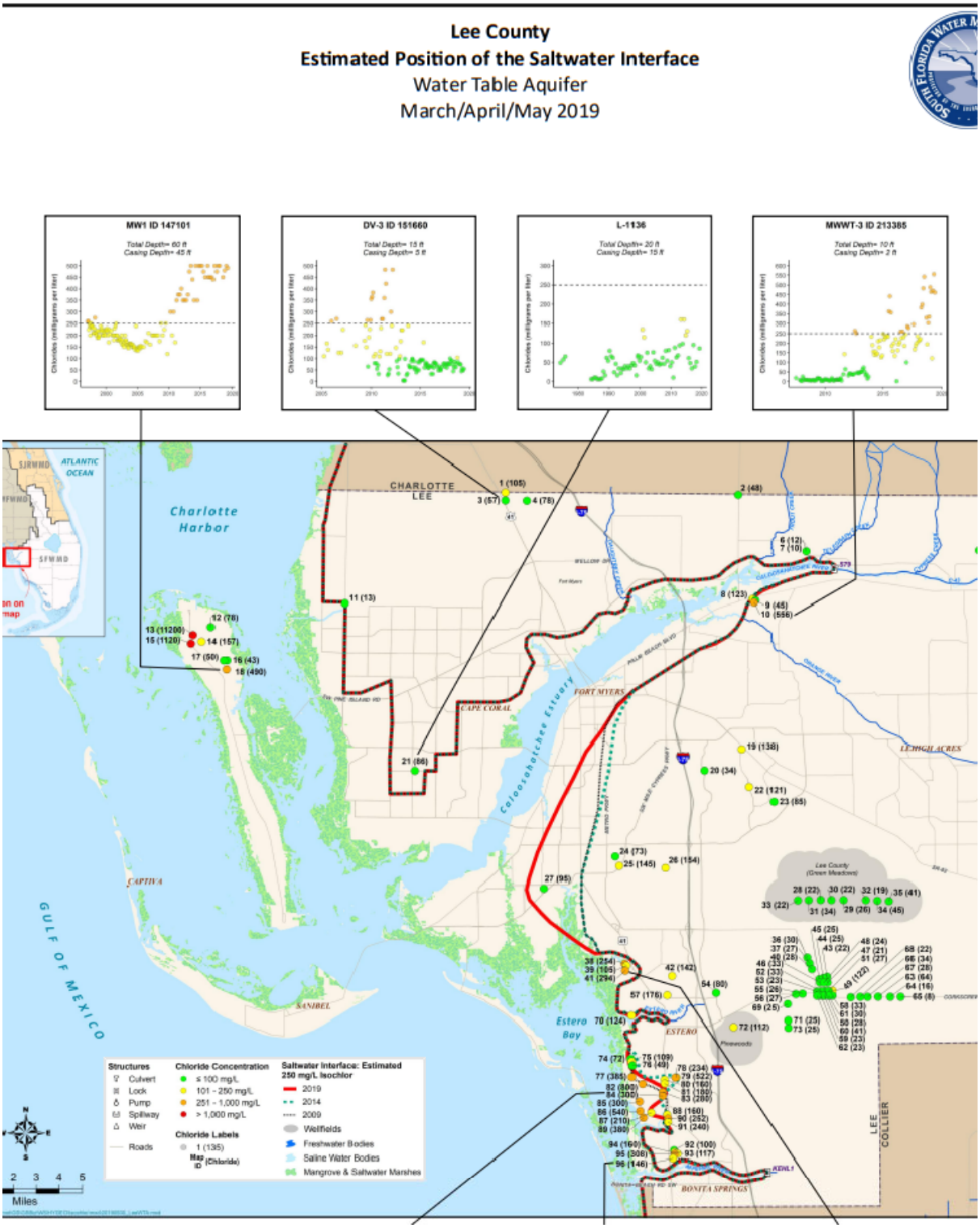

Figure I: Lee County Map of Saline, Fresh, and Saltwater Bodies (2019)

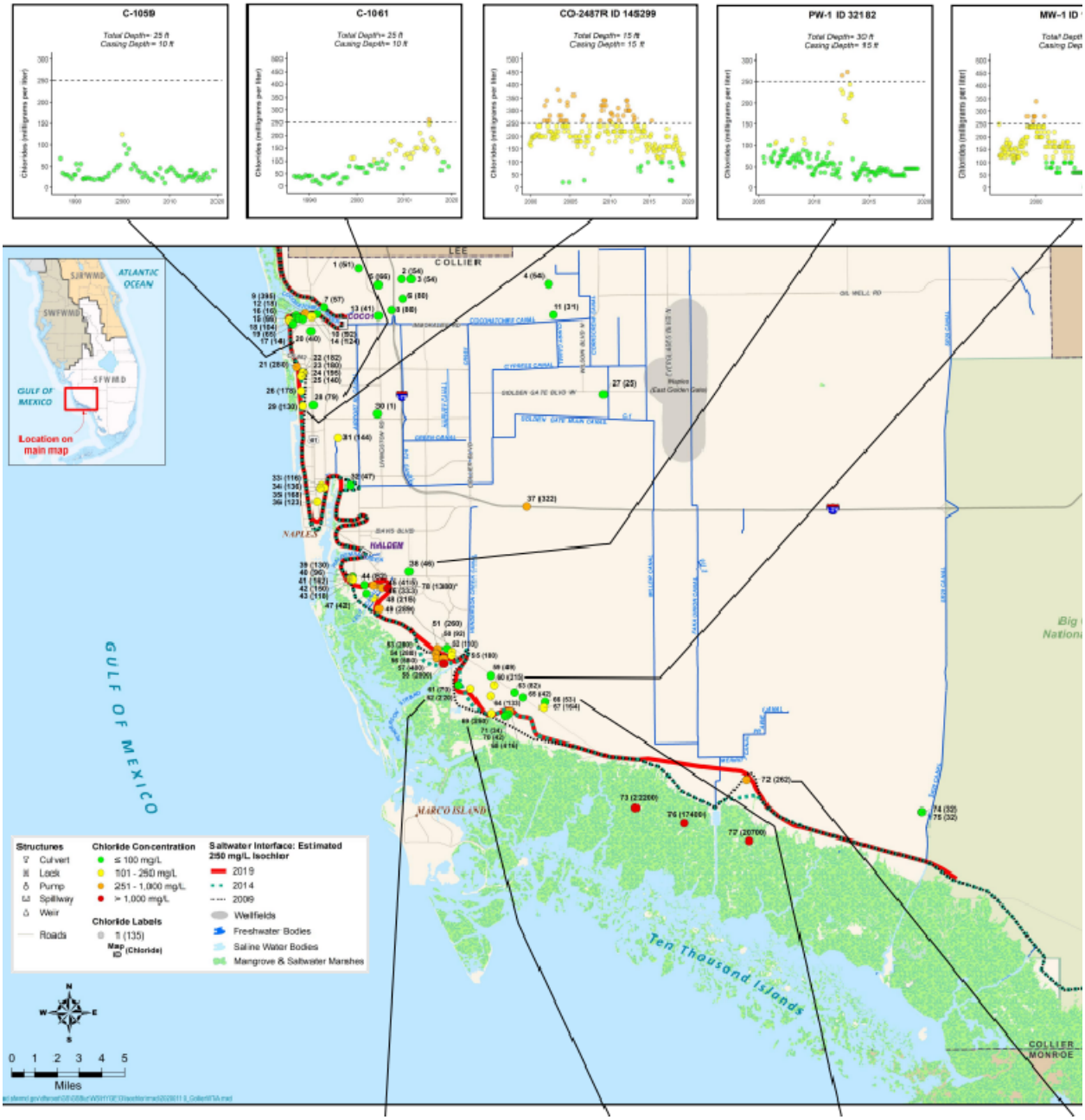

Figure J: Collier County Map of Saline, Fresh, and Saltwater Bodies (2019

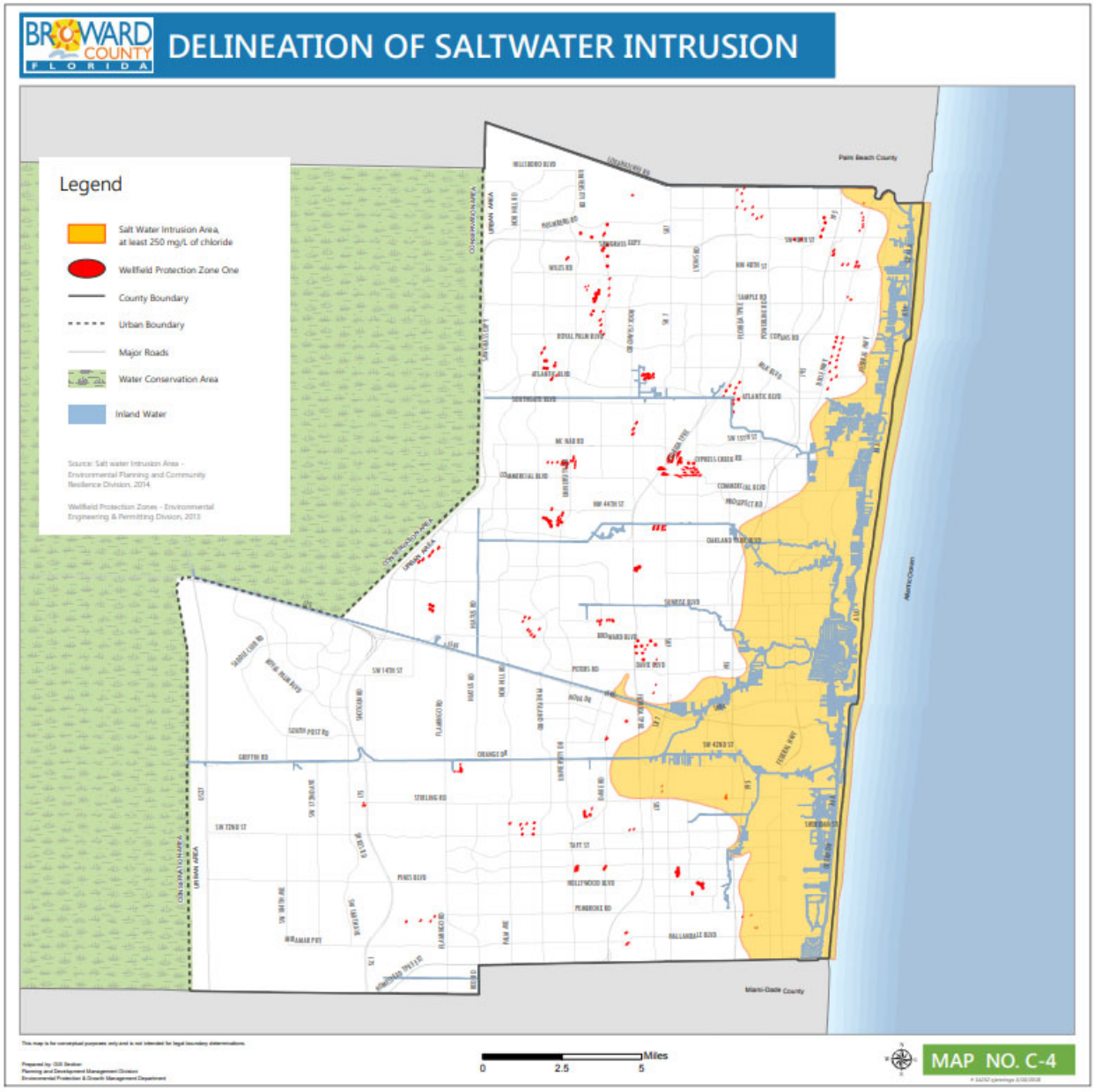

Figure K: Broward Delineation of Saltwater Intrusion

https://www.broward.org/BrowardNext/Documents/maps/C-4%20Delineation%20of%20Saltwater%20Intrusion.pdf

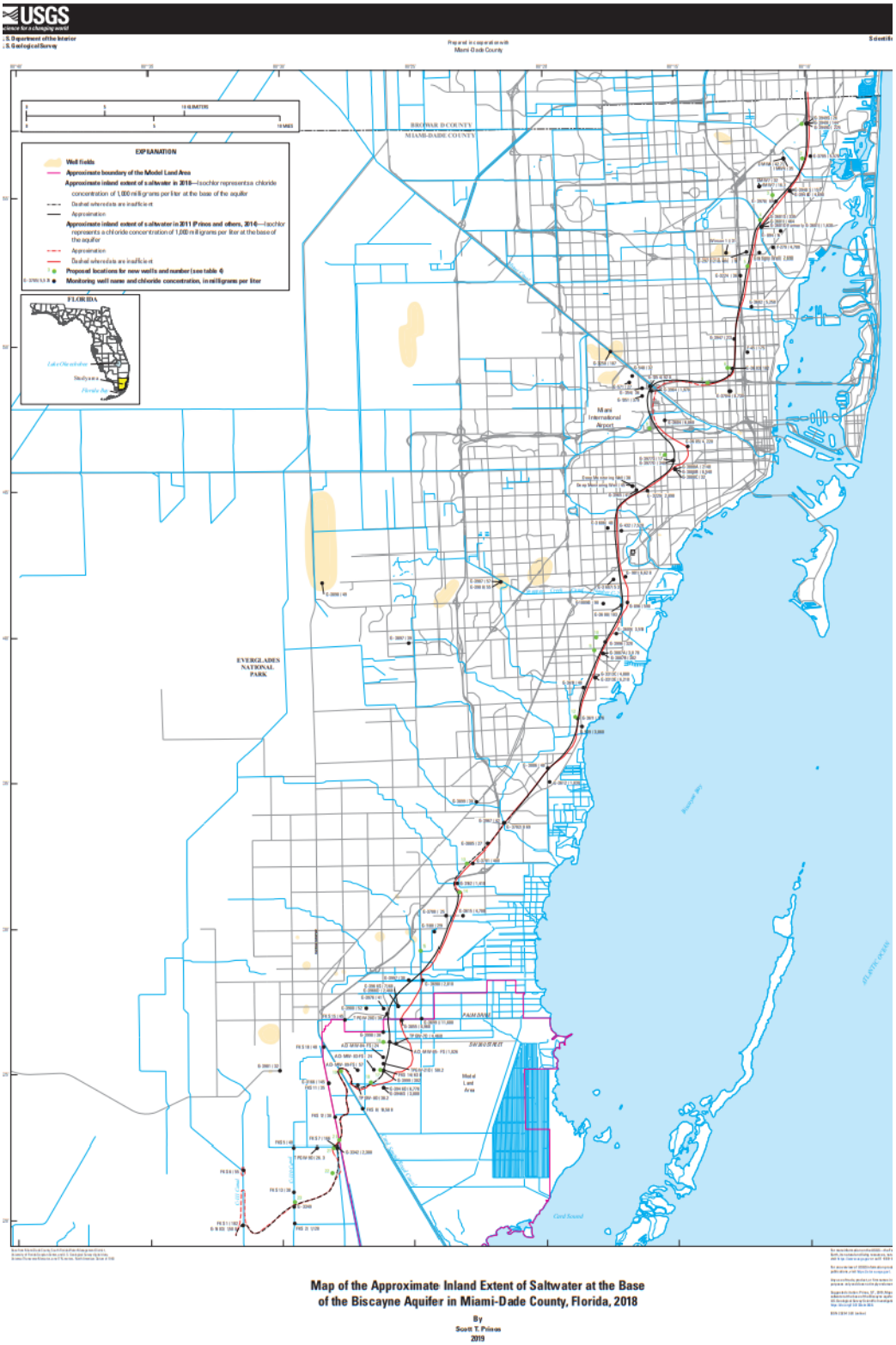

Figure L: Miami-Dade Approximate Inland Saltwater in Biscayne Aquifer as of 2018

https://pubs.usgs.gov/sim/3438/sim3438.pdf

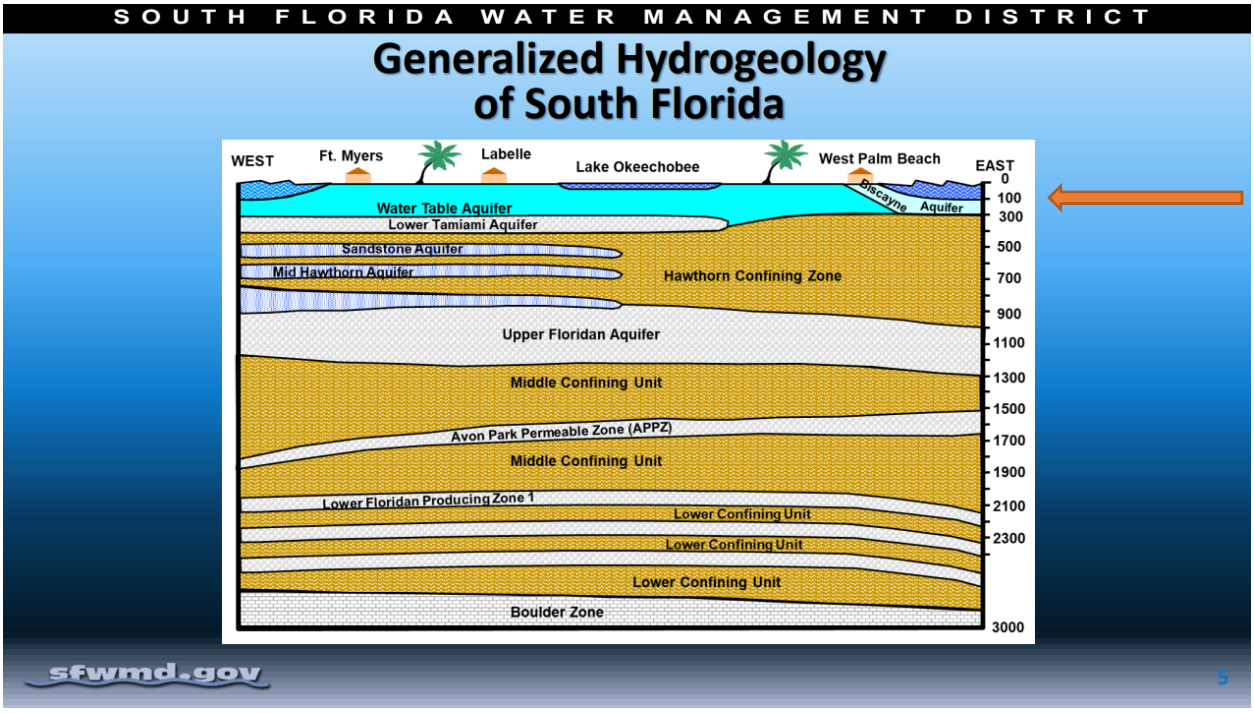

Figure M: Generalized Hydrogeology of South Florida showing the locations of the Biscayne and Water Table Aquifers

Note that the CCCL is not located along all of Florida's Coasts (https://floridadep.gov/CCCL)

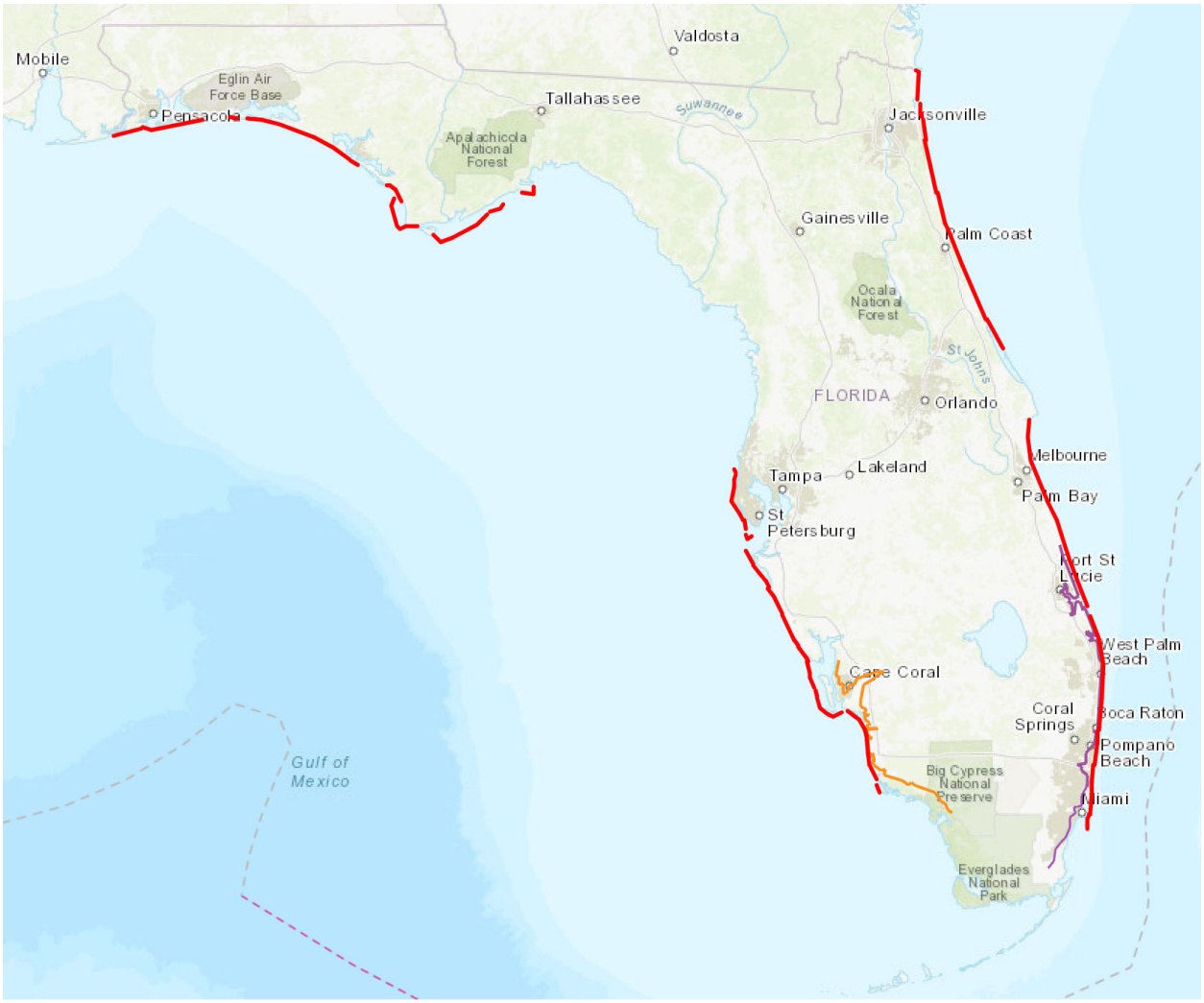

Figure N: Coastal Construction Control Line (CCCL) Location [Red Line]

Note that a 3-mile offset from the “coastline” along open sea exceeds the saltwater intrusion location along most of the coast, and also does not capture the saltwater intrusion along inlets and bays.

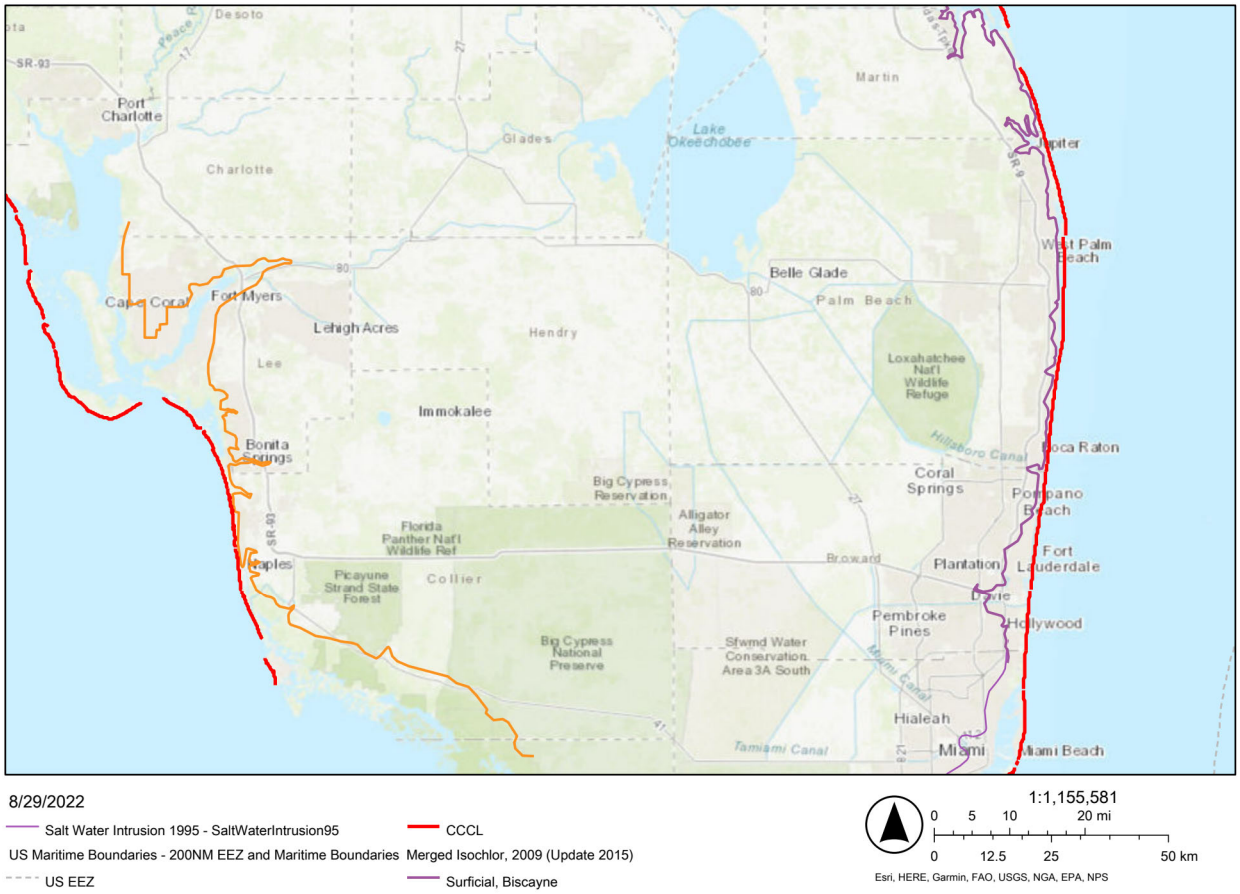

Figure O: ArcGIS Map showing the location of the open sea coastline compared to the saltwater interface line from SFWMD. Note scale in bottom right corner.