Aquifer Recharge at Flatford Swamp (H089)

Sammy Smith
Hydrogeologist II
Water Resources

March 25, 2022

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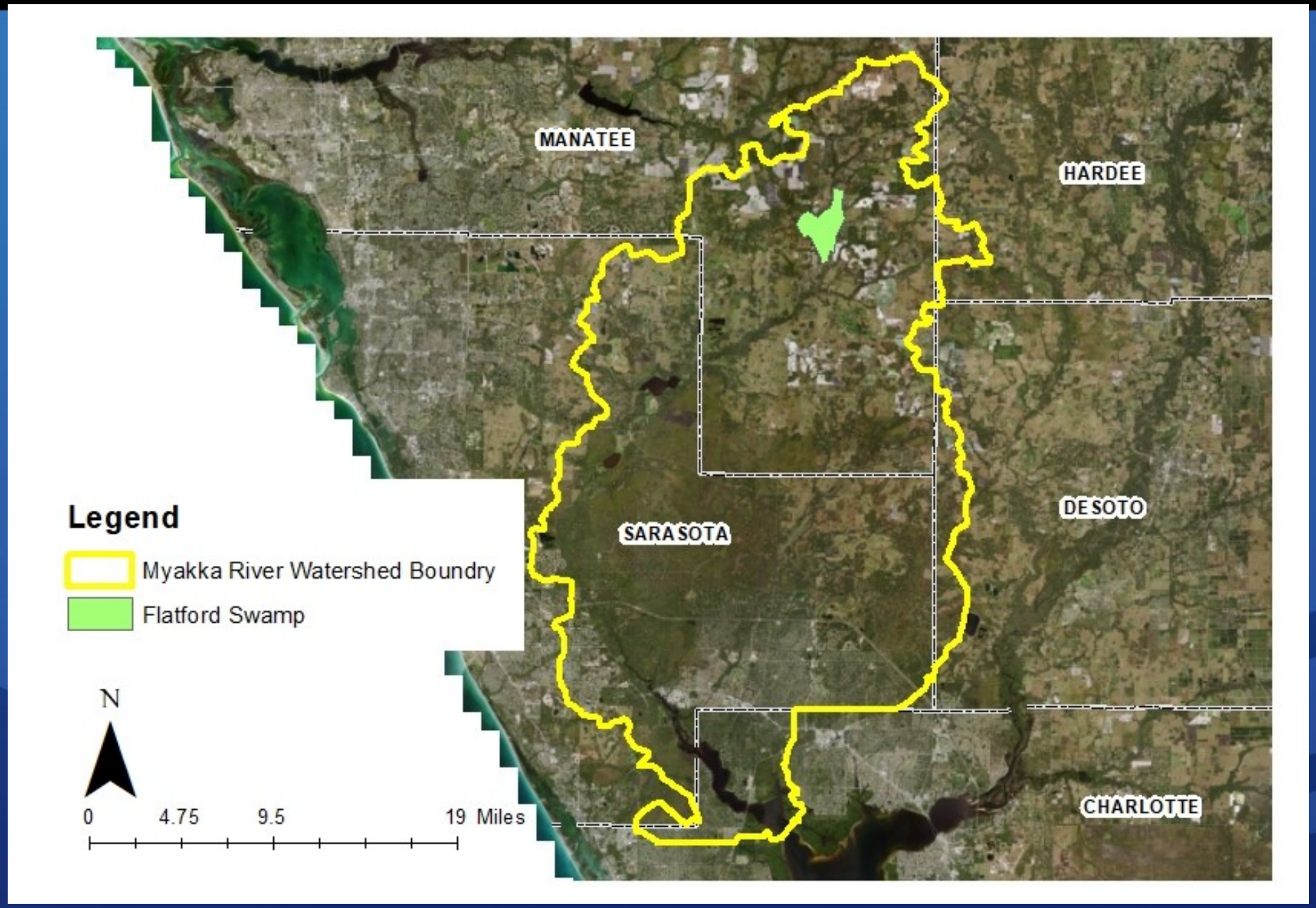

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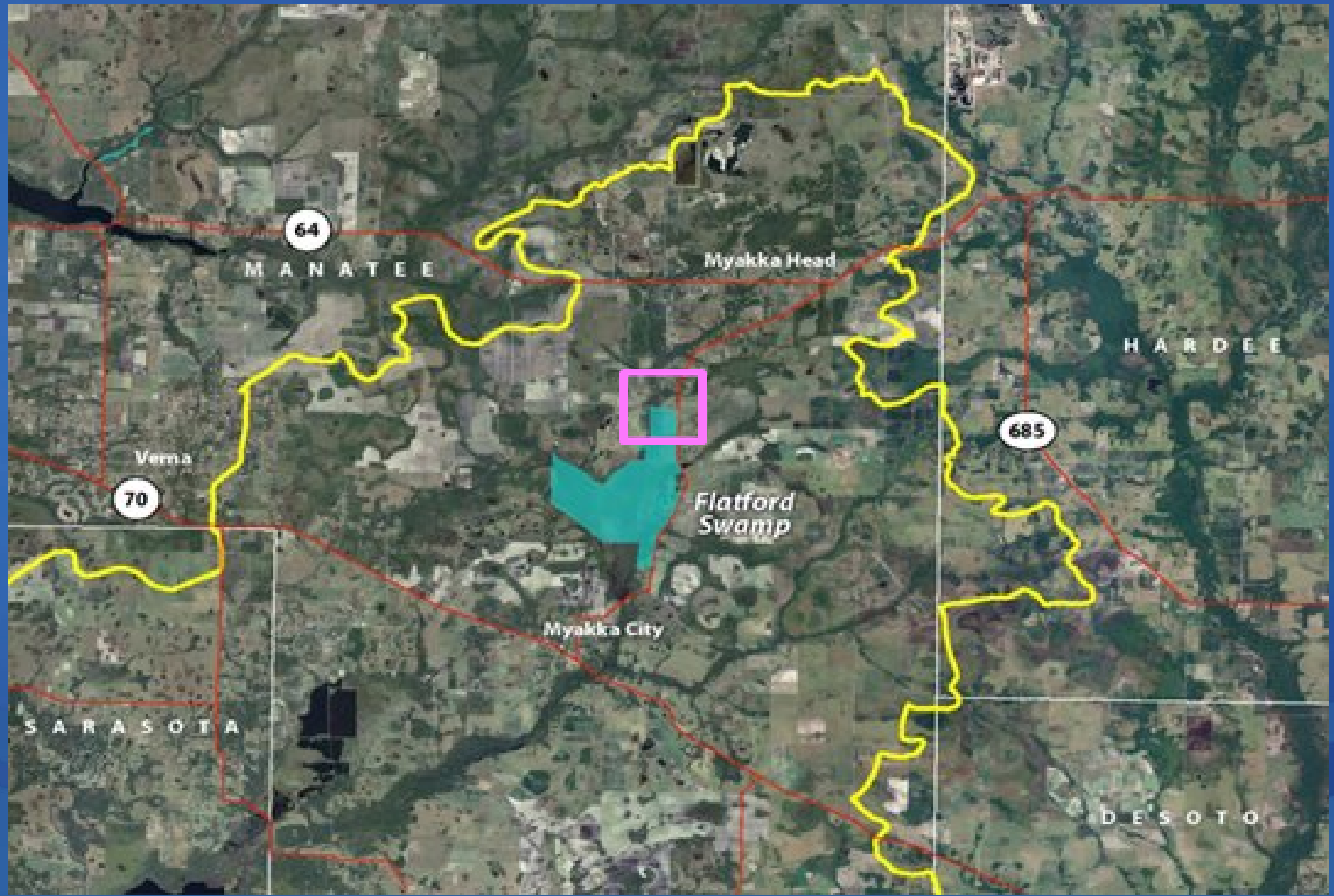

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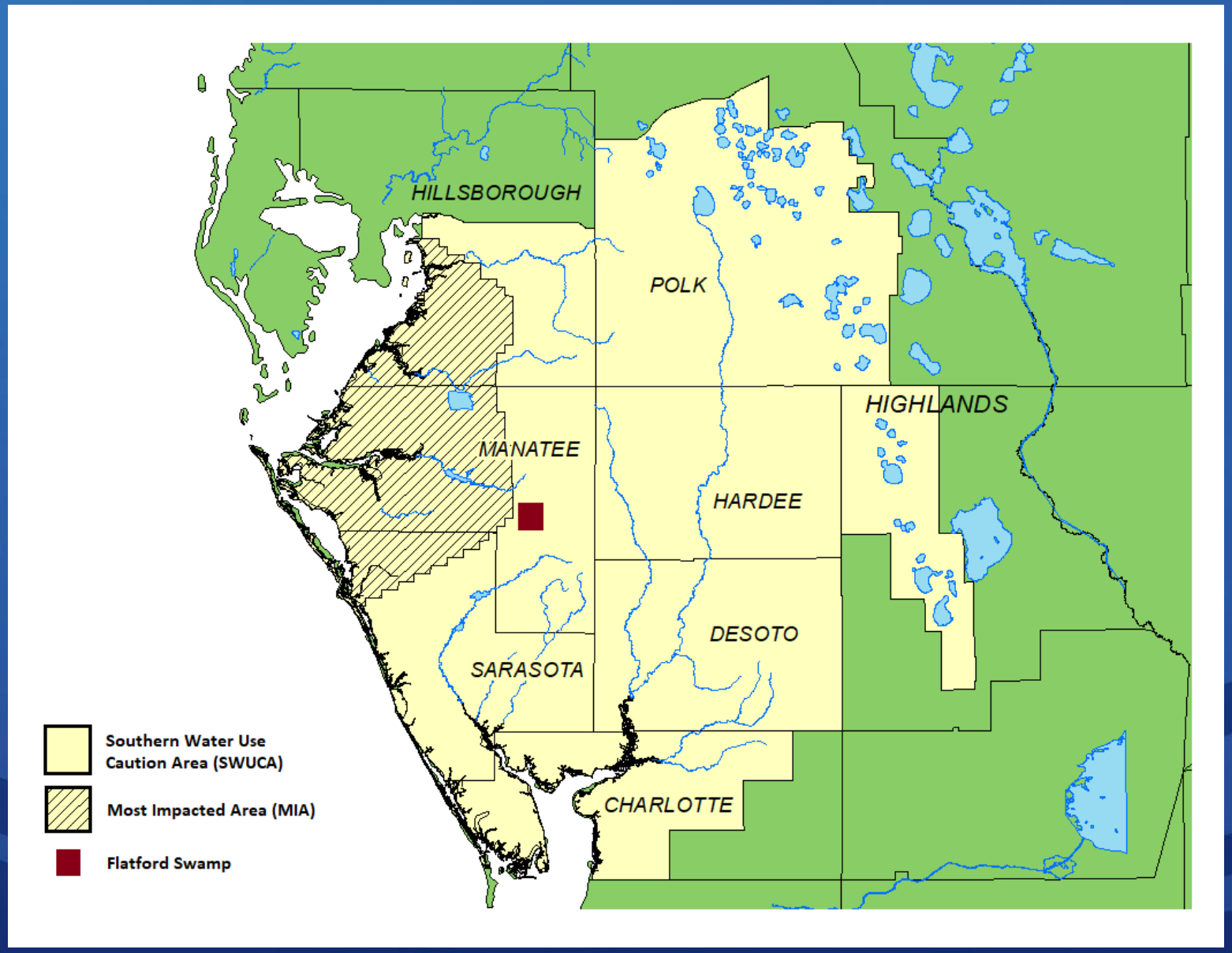
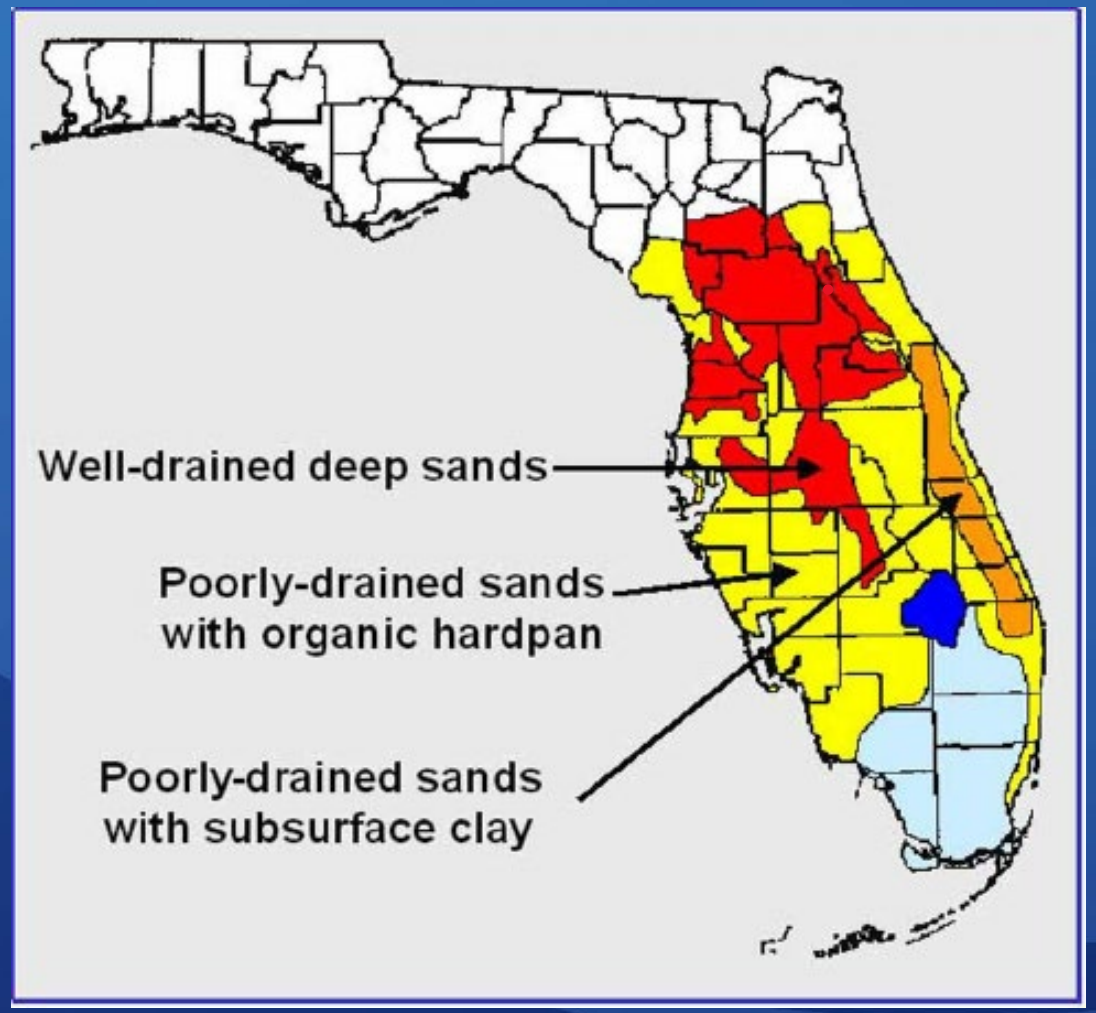
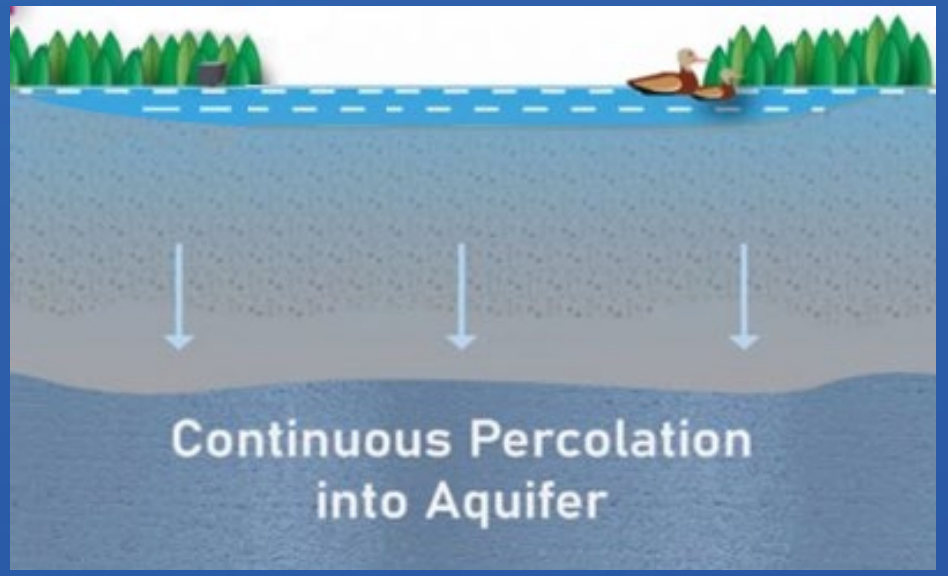
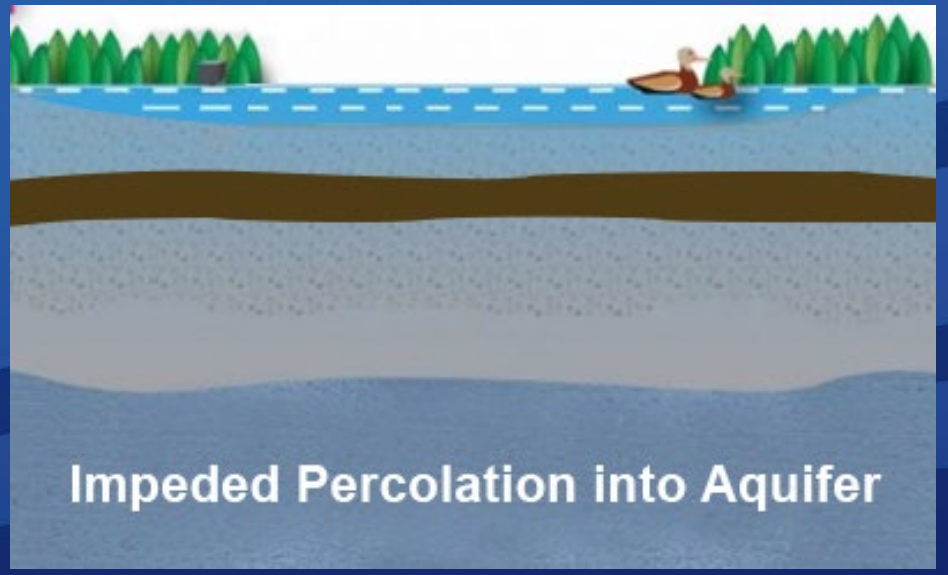


Geomorphology (Hardpan):

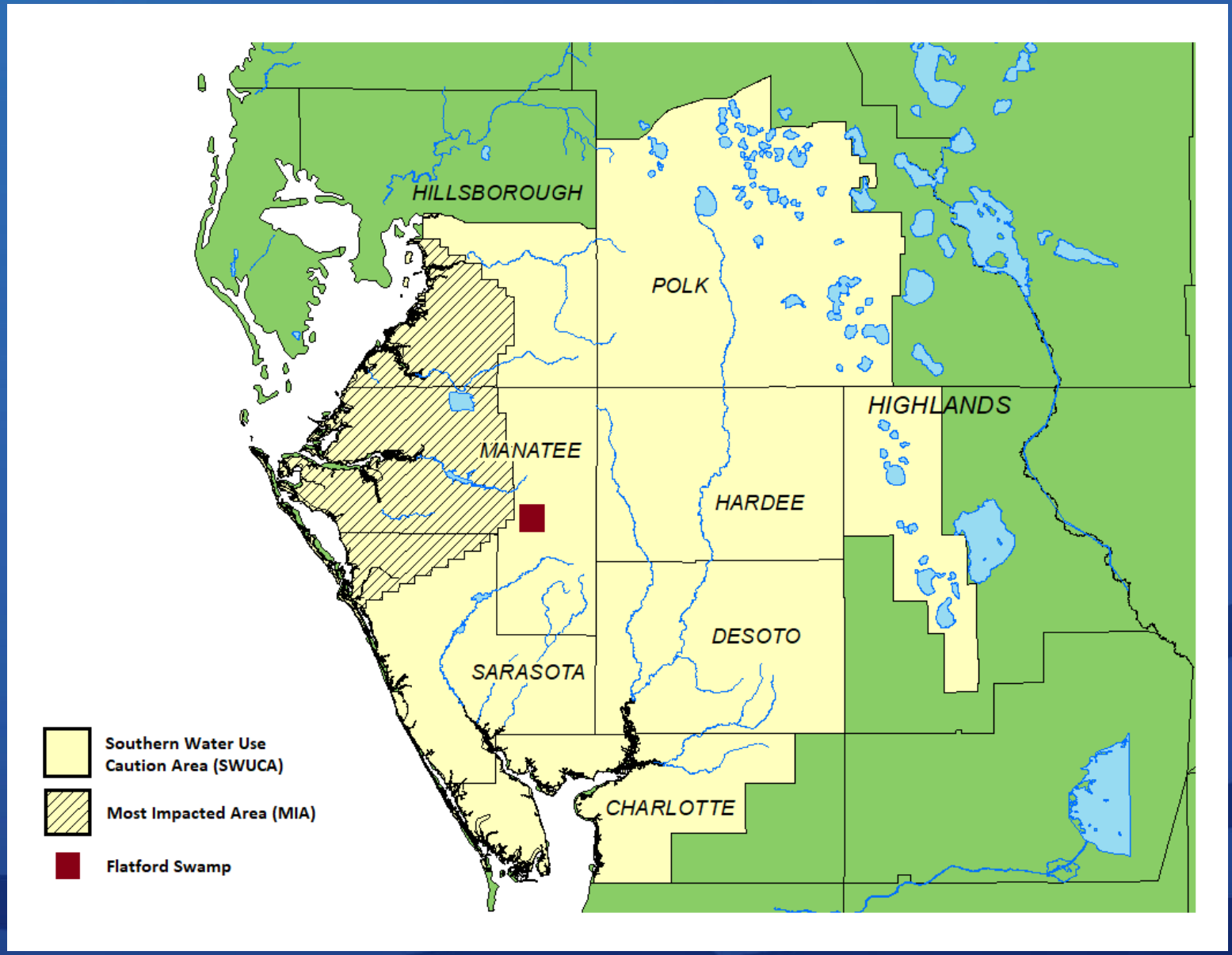






Multiple Benefits

- Trend back toward historic hydroperiod
- Improve aquifer level in the Southern Water Use Caution Area (SWUCA)
- Saltwater Intrusion (mitigation)



Integrated Modeling

Table 1 below outlines the combined average discharges at three tributaries in the original model which is now updated to a time period from 1994 through 2014.

Month	Average (cfs)	Minimum (cfs)	Maximum (cfs)
January	17.48	7.93	30.91
February	15.62	5.94	33.15
March	14.18	5.73	29.56
April	16.14	6.00	32.94
May	14.77	4.50	27.32
June	21.99	5.68	44.35
July	44.58	26.17	55.00
August	49.18	33.03	55.00
September	49.89	33.00	55.00
October	18.64	11.69	21.33
November	12.44	9.12	18.21
December	13.50	8.87	21.85
Annual Average	24.03	13.14	35.39

Table 1. Total Monthly Average Diversion Flows 1994 through 2014

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Integrated Modeling: Scenario 2

Scenario 2 – In Scenario 2, pumping from Ogleby Creek and Maple Creek were eliminated and the Myakka River pumping rate was reduced to 2 MGD (3.09 cfs). The resulting excess flows diverted are shown below.

Month	Average (cfs)	Minimum (cfs)	Maximum (cfs)
January	3.09	3.09	3.09
February	3.09	3.09	3.09
March	2.93	2.14	3.09
April	2.84	1.76	3.09
May	2.76	1.66	3.09
June	2.89	1.86	3.09
July	3.09	2.93	3.09
August	3.09	3.09	3.09
September	3.09	3.09	3.09
October	3.09	3.09	3.09
November	3.09	3.09	3.09
December	3.09	3.09	3.09
Annual Average	3.01	2.67	3.09

Table 4. Total Monthly Average Diversion Flows 1994 through 2014, Scenario 2

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How and Why the Treatment Plan Has Changed:

- May 2021: New direction
  - Meet Primary Drinking Water Standards prior to injection
  - Requires chemical disinfection
- Review of Literature & Studies
- Decision to use chloramination + SBS
- Governing Board Approval (December 2021)
- Revision of infrastructure ongoing

Current Project Status:

- Construction is ongoing (anticipated completion in June 2022)
- Application for renewal of Operational Testing Permit submitted in December 2021
- Begin Operational Testing – Late Summer 2022

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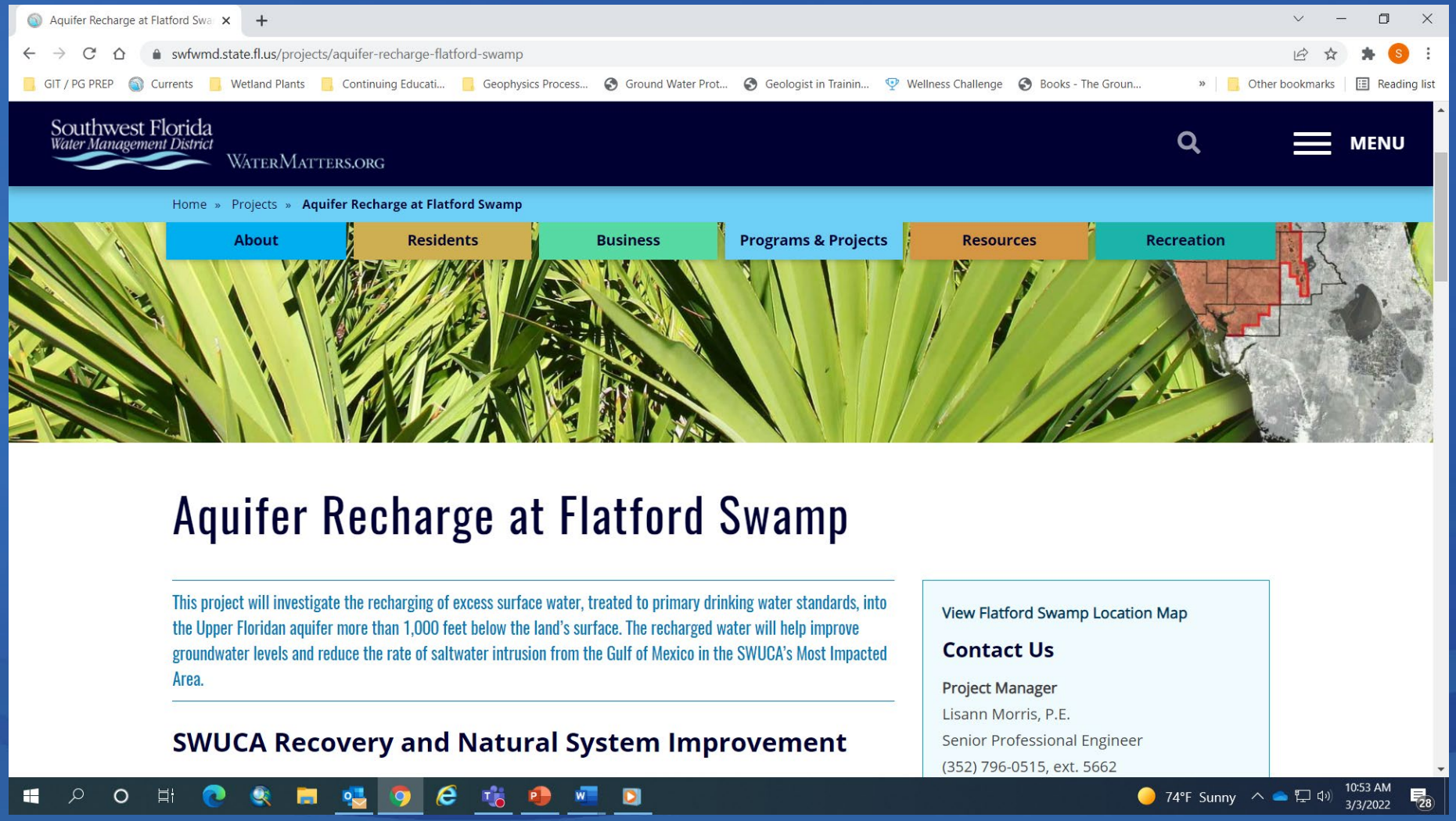
Website Updates:



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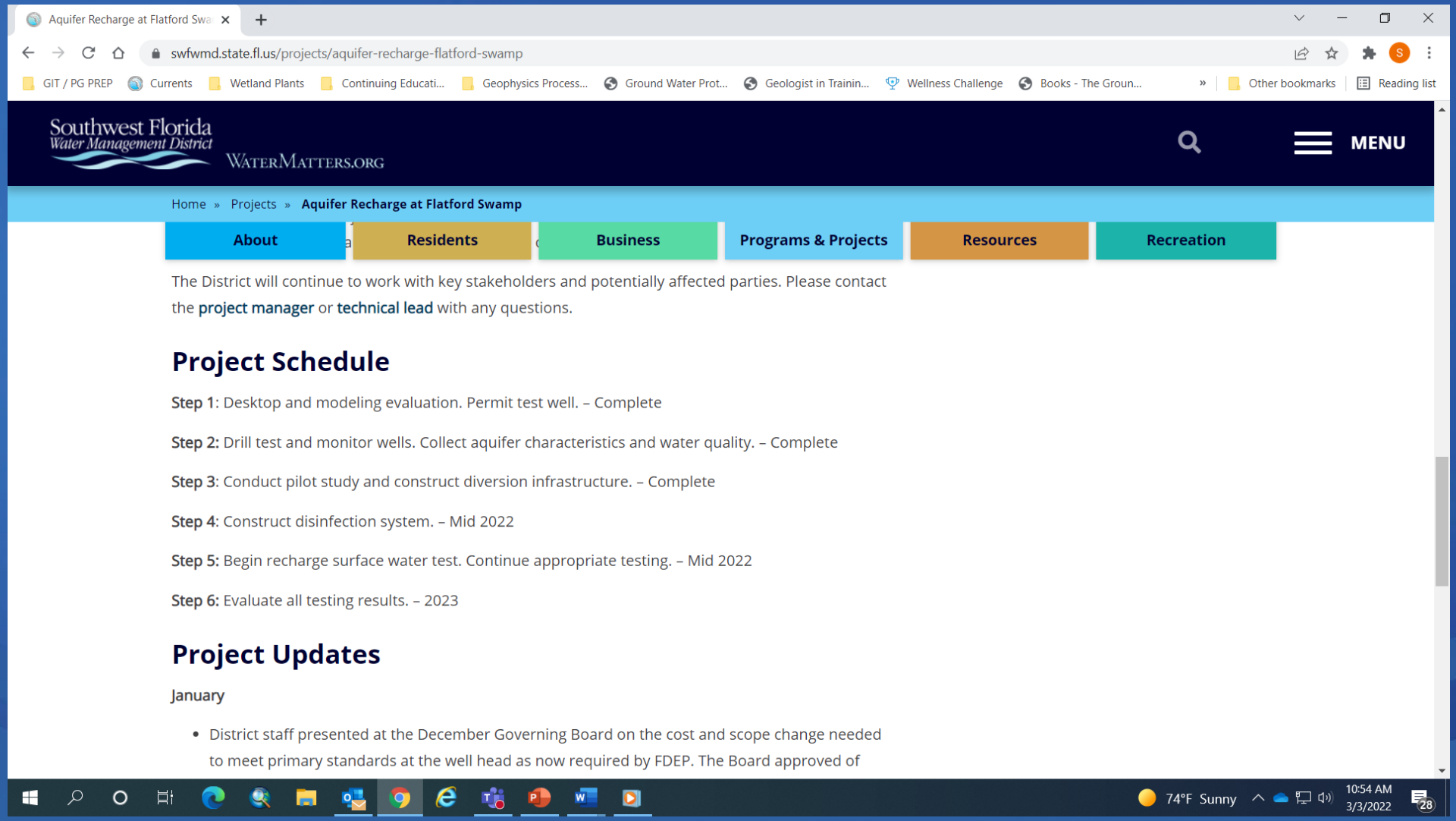

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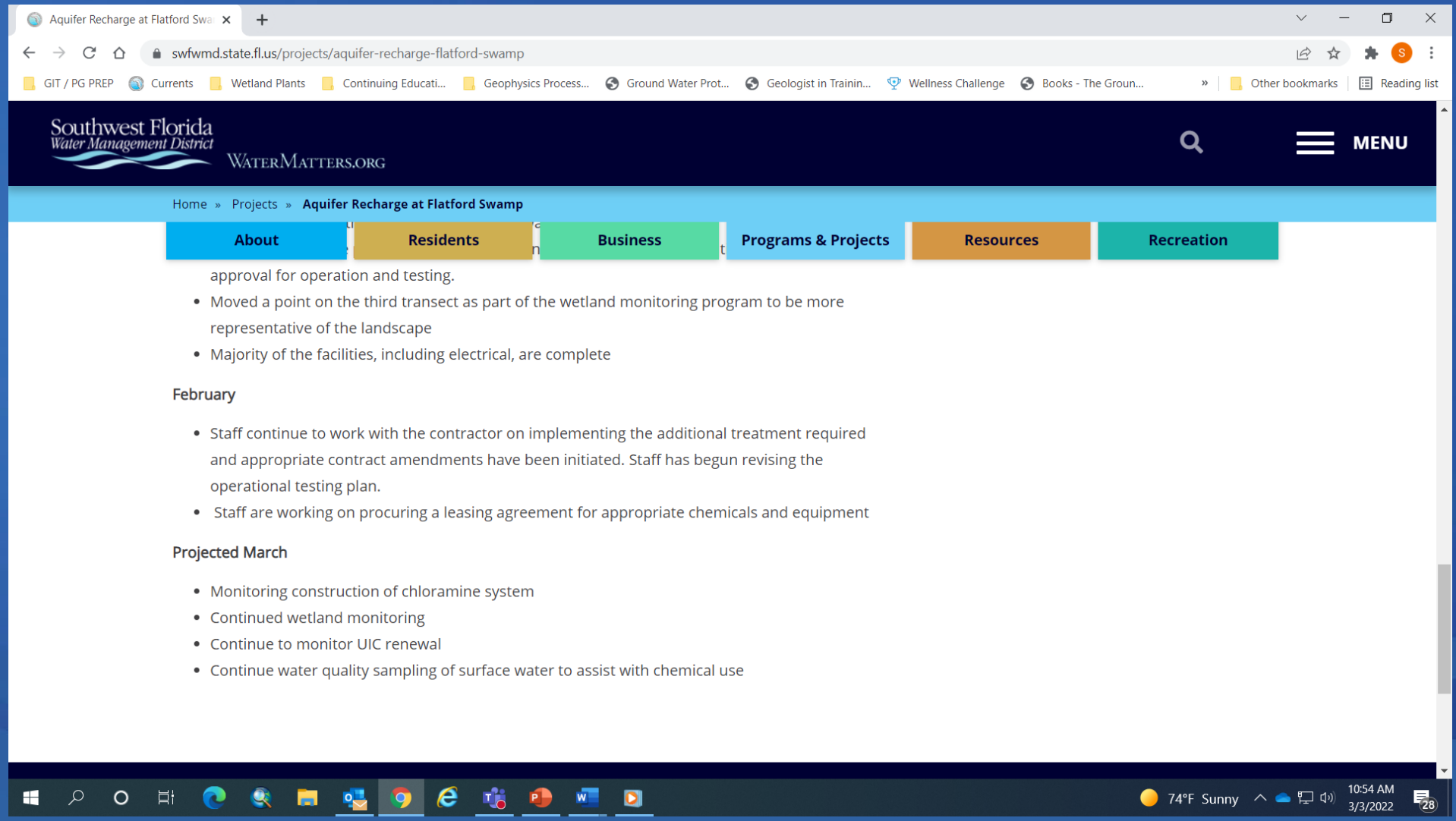

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Potential Future Build-Out:

- Fully dependent on results of operational testing of the first well
- If results are favorable – we will request Governing Board permission to go operational and apply for an operations permit
- Next phase? – potentially to the west (Coker-Ogleby Creek)
- Total number of wells at build-out? (Depends on results of testing and GB decision-making)

Questions?