



TRACKING NUTRIENTS THROUGH SYSTEMS

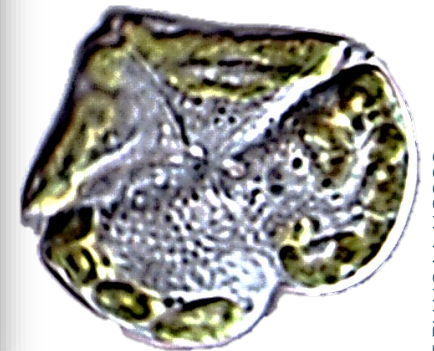
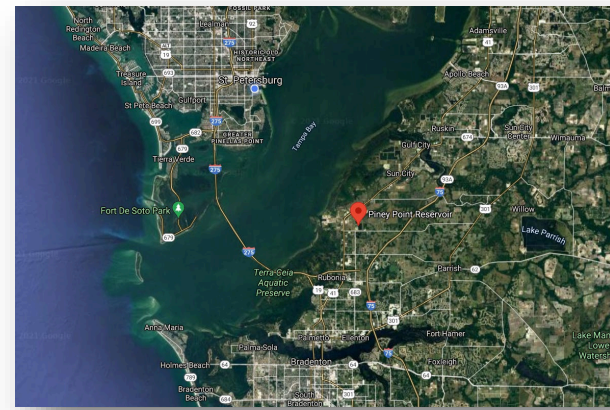
TRACKING NUTRIENTS THROUGH THE PINEY POINT DISCHARGE EVENT

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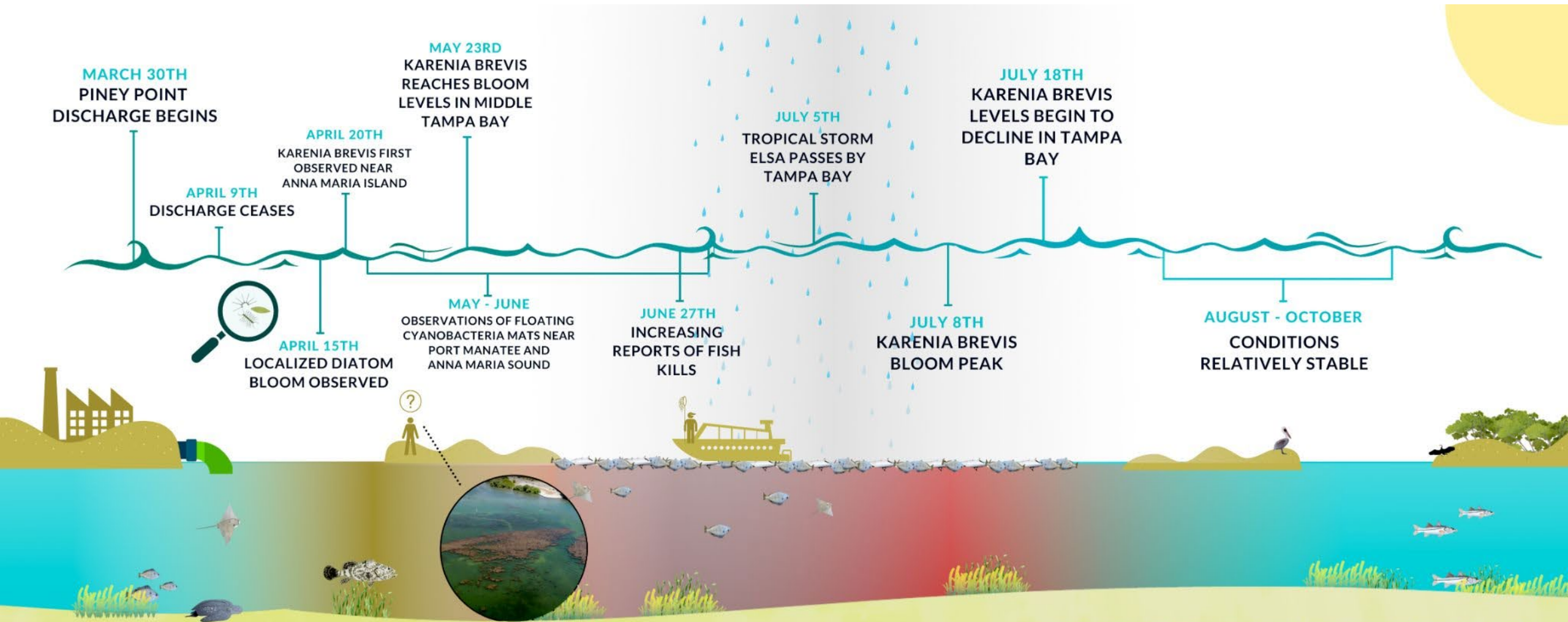


BACKGROUND

- **Closure two decades in the making**
- **March 25, 2021: Failing containment wall results in state & local emergency orders**
- **March 30 - April 9, 2021: 215MGal discharged to Lower Tampa Bay, 205 tons TN**



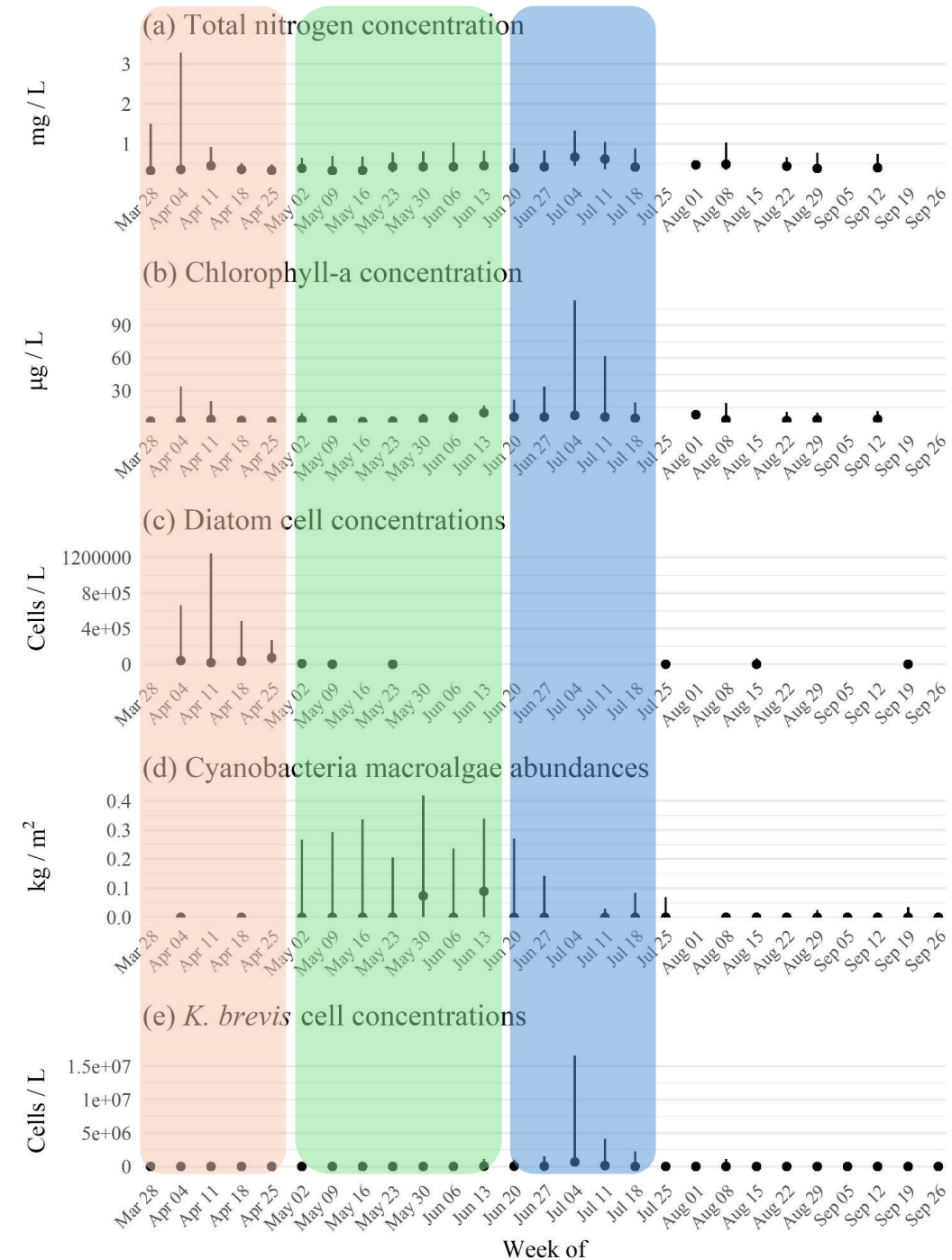
TRACKING NUTRIENTS



CHALLENGES

Developing a narrative of nutrient flows from April through July

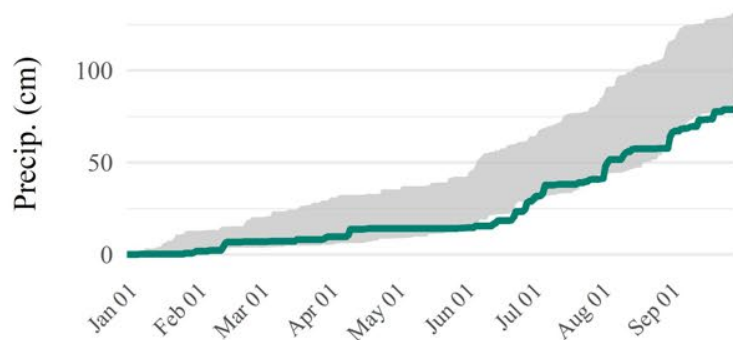
1. Large diatom bloom in April in the vicinity of the discharge area
2. High abundance of cyanobacteria in Anna Maria Sound and Port Manatee
3. Bloom concentrations of red tide in lower and middle Tampa Bay from June through July



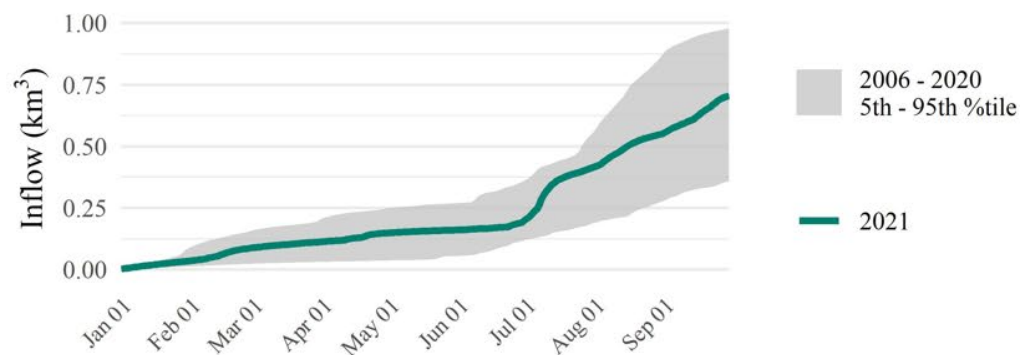
REFLECTION

Confounding factors made it difficult to state with 100% certainty that Piney Point drove the 2021 bloom

Rainfall



Riverine Inflow



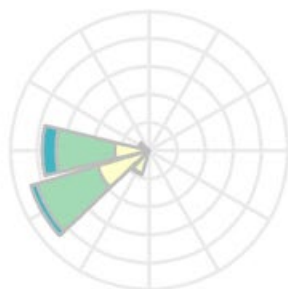
Wind Roses

Apr 1st - Jul 2nd

Pre-storm, Jul 3rd - 4th

Post-storm, Jul 5th - 6th

Jul 7th - Sep 30th



Wind Speed (m/s)

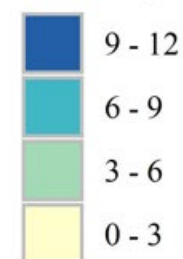


IMAGE BY NOAA-NCCOS

ACKNOWLEDGEMENTS



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