Project Briefing

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Escambia Slough

- Began showing abnormally high counts of e-coli in June 2018.
- Testing by SMRK over the summer of 2019 showed continued contamination.
- State testing also showed high levels, and monitoring continues
- The cause is believed to be septic systems from a nearby neighborhood
- SMRK Water Quality Report from Feb. 2020
- SMRK Project briefing pdf

Summary

In June 2018, routine water monitoring by SMRK first showed a high increase in E. coli counts at Escambia Slough, which is part of the drainage system for downtown Fernandina Beach, FL. Further testing showed continued high counts and pointed possibly to homes in the area that are on septic systems as the source.

The EPA recommends recreational waters stay below 235 cfu/100ml. The geometric mean for both the SMRK 2018 and 2019 datasets at Escambia Slough was 831 cfu/100ml. The FLDEP is now also testing there every other month to determine if the water body should be designated as “impaired”, meaning it would qualify for state grants for clean up.

Project Updates:

March 2020	FLDEP tests again and this time finds very high levels, resulting in the creation of a new WBID (water body identification number) for Escambia Slough/ Alligator Creek. Creating a new WBID means frequent sampling every other month by the state.
February, 2020	SMRK recommends that FLDEP once again take samples, and also recommend a thorough audit of residences in the area on septic.
November, 2018	A FLDEP test found no fecal coliform from human sources. SMRK also had very low fecal coliform results at that time, but the counts went up significantly again in following months.
June 2018	SMRK water monitoring showed a marked increase in E. coli counts at our Escambia Slough. Began 30-day monitoring at four sites, which indicated the source of contamination is in the vicinity of Calhoun Street.

In June 2018, routine water monitoring by SMRK first showed a high increase in E-coli counts at Escambia Slough, which is part of the stormwater drainage system for downtown Fernandina Beach, FL. Further testing showed continued high counts and pointed possibly to homes in the area that are on septic systems as the source.

Over the summer of 2019, SMRK closely monitored four sites for 30 days. While bacterial counts are expected to increase as water temperatures increase in the summer, repeated counts of over 1,000 cfu/100 ml are extremely concerning. Because these counts were so high, fecal coliform and other pathogens likely exist in Escambia Slough. Local community members do use Escambia Slough recreationally in the form of subsistence fishing and cast-netting, and we have public health concerns for those community members. There are likely multiple sources for the high bacterial levels in Escambia Slough. Because the city stormwater system has been inspected and because we get elevated levels during wetter times of the year (indicating that runoff is a major source), the stormwater system is not likely a source. Several houses in the area that are still on septic systems. In addition to septic issues, illegal dumping seems to be an issue at Escambia Street, and there is also an alligator which lives in the area and likely stores kills in the culverts.

The state Environmental Protection Agency responded to a request to test the site, but the first test showed no problems. The SMRK then paid for a regulatory level sample that showed very high levels of enteroccoccus in February, 2020. This is a better bacterial indicator than E-coli in brackish water. That result motivated a second visit from FLDEP. This time its sample showed very elevated levels of enteroccoccus as well as trace levels of drugs (another indicator that untreated sewage is an issue). Following that sample, FLDEP created a new WBID (water body I.D.) for Escambia Slough/ Alligator Creek. Creating a new WBID means frequent sampling every other month. FLDEP requires 5 regulatory level samples showing levels above state standard to label a water body impaired.

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