Media Release

For Immediate Release

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Water Testing on Alligator Creek (Escambia Slough)

August 12, 2022

Fernandina Beach, FL – On August 3, routine water monitoring by St. Marys Riverkeeper (Riverkeeper) Citizen Scientists on Alligator Creek (Escambia Slough) found elevated concentrations of Escherichia coli (E. coli) at the 8th street/Escambia Street sampling site (Figure 1). Riverkeeper immediately called the Department of Health in Nassau County and Florida Department of Environmental Protection to determine next steps for informing the public. Without hearing anything back, Riverkeeper posted on social media about the results and to discourage the community from recreating in the area until more information was given. Riverkeeper retested this site along with an upstream access point on August 9 and again found E.coli concentrations at 8th street/Escambia Street.

Our August 2022 results for those Slough sites are:

August 3 Alligator Creek at Escambia Street (Red circle #2) – 267 CFU/100ml
August 3 Alligator Creek at 8th Street/Escambia Street (Red circle #1) - 1,033 CFU/100ml
August 9 Alligator Creek at 8th Street/Escambia Street (Red circle #1) - 1,233 CFU/100ml
August 9 Alligator Creek at 14th Street (Green Circle) – 0 CFU/100ml

Environmental Protection Agency recommends recreational waters stay below 235 CFU/100ml while anything above 600 CFU/100ml, people should avoid any contact with the water. Graphs 1 and 2 show 2021 and 2022 data from both Escambia Street sample sites. Alligator Creek is a tidal estuary. The tide and the direction of water flow does impact results. To capture an accurate representation of E. coli in the water, the ideal tide to sample is a low, outgoing tide. This means that the creek water is flowing toward the river taking the bacteria with it from the source of the contamination. An incoming tide or high tide will dilute the creek with river water and not give a holistic picture of the health of the waterbody or help us pinpoint the source of the contamination.

If you suspect a septic system is failing or smell sewage, please contact the Environmental Health Office of the Nassau County Health Department at 904-557-9150.

Find Riverkeeper's sampling data from all monitored sites around the watershed on our website – stmarysriverkeeper.org/water-quality

Riverkeeper is in contact with Nassau County, City of Fernandina Beach, Florida Department of Environmental Protection, and the Health Department of Nassau County to investigate the source of this contamination.

In 2018, a similar report was filed with the city and FDEP where the geometric mean for both 2018 and 2019 Riverkeeper datasets at the Slough was 831 CFU/100ml. FDEP investigated and after testing for enterococcus (a better bacterial indicator then E.coli in brackish water) in February 2022, they determined that the Slough needed to be monitored more closely. In order for a waterbody to be labeled as 'impaired' and qualify for state grants, FDEP requires 5 regulatory level samples showing levels above state standard (shall not exceed a monthly geometric mean of 126 MPN) is required. FDEP tested for E.coli starting in March 2020 and their last recorded sample data was October 2021.

The sources of the 2018/2019 nonpoint source pollution were believed to be the septic systems of several houses in the area, illegal dumping, and the local predatory wildlife. Riverkeeper urged FDEP to do a septic tank audit of the area to narrow down the source of the contamination. This audit in partnership with Riverkeeper occurred but nothing came of it.

St. Marys Riverkeeper will continue to sample sites on Alligator Creek and across Nassau County and will publish the results on our social media page and on our website for transparency purposes and public awareness. Riverkeeper will also continue to work with the City of Fernandina Beach, Florida Department of Environmental Protection, Department of Health, and Nassau County to identify the source of the contamination and work to resolve the issue, ensure all citizens that utilize the area for recreation are aware of the dangers, and protect the health of the Amelia River and the St. Marys River.

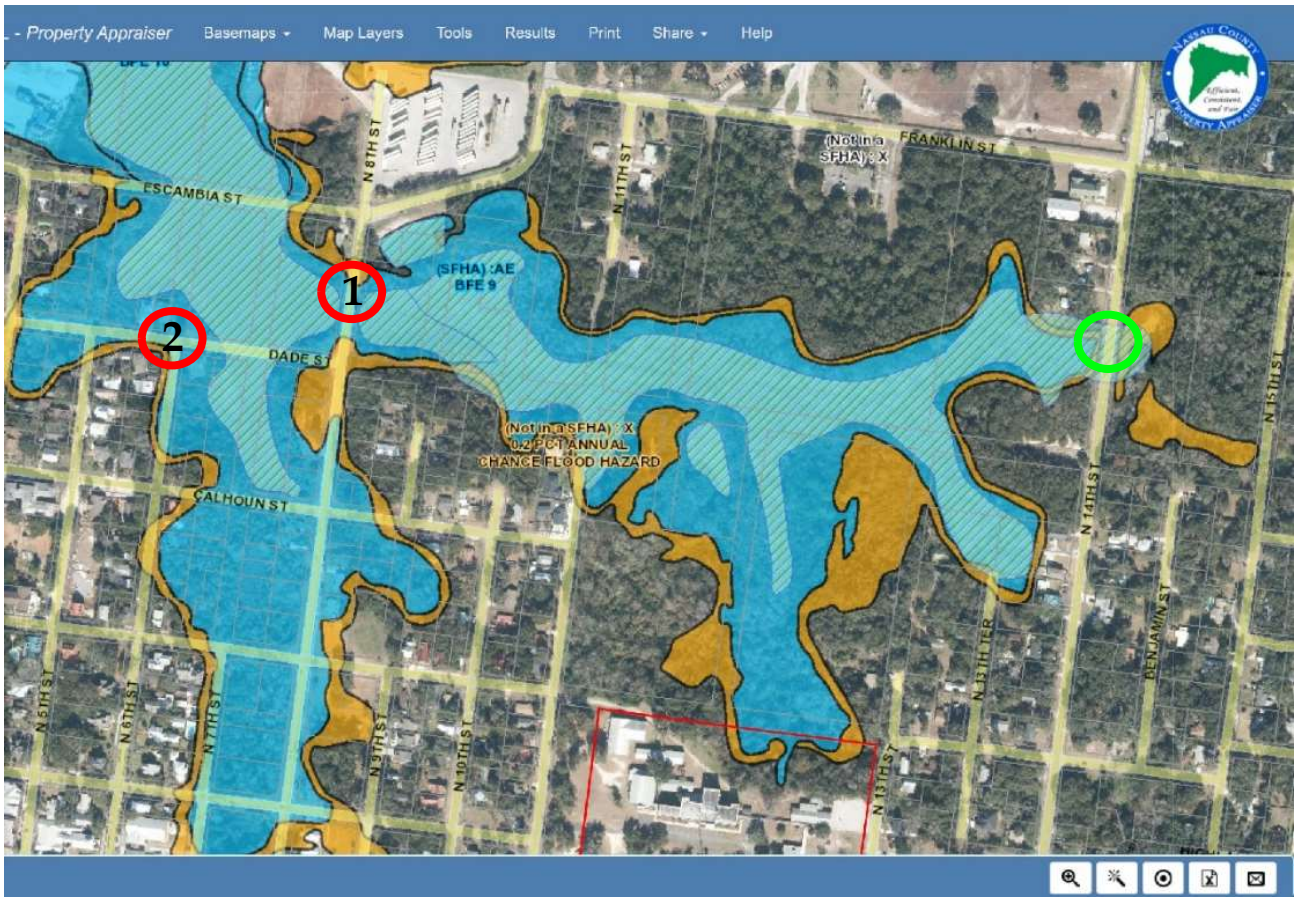
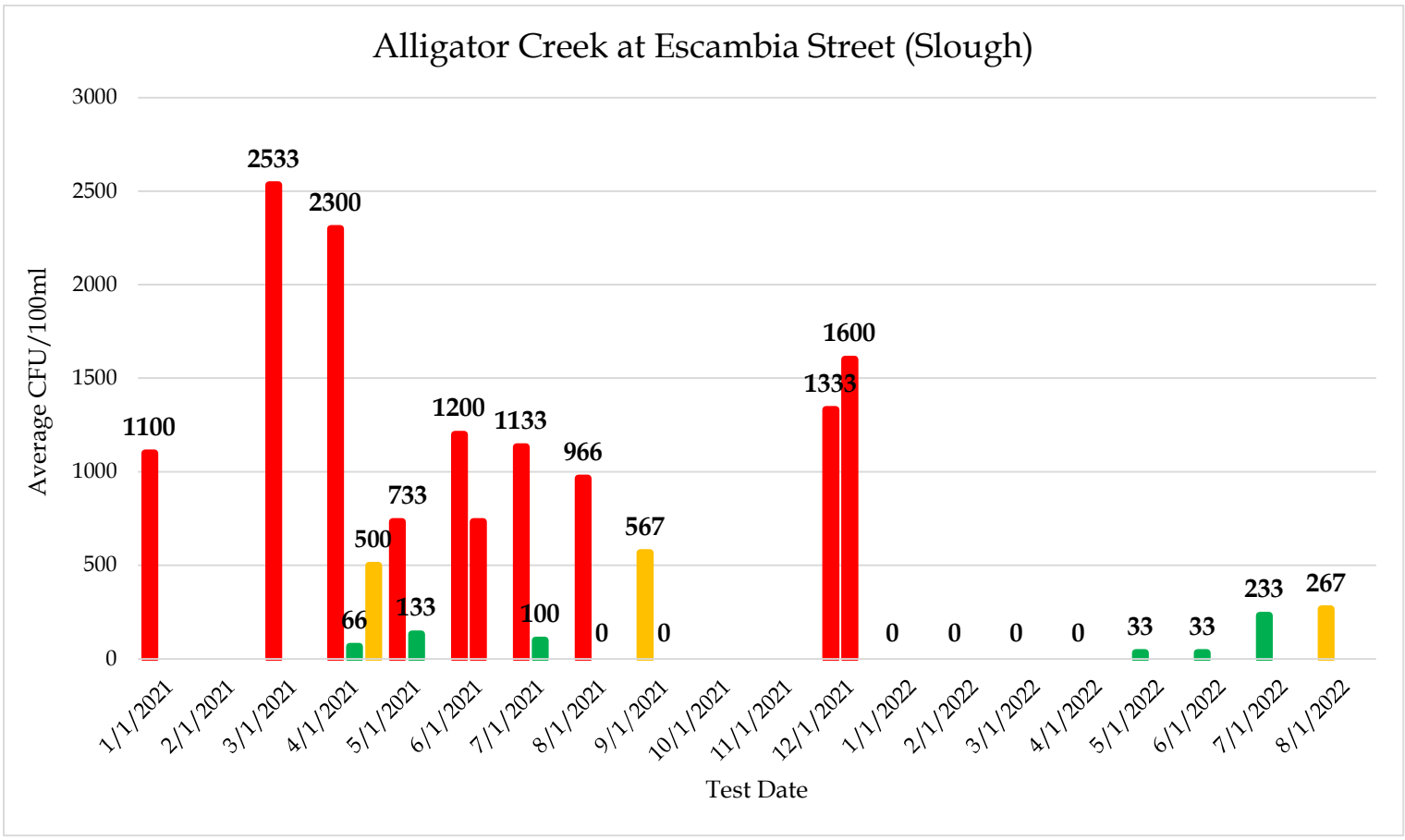


Figure 1 Flood basin of Alligator Creek (the Slough). Red circles are monthly testing site. Results from Red Circle 1 on August 3 and August 9 samples days were 1,033 CFU/100ml and 1,233 CFU/100ml respectively. Results from Red Circle 2 on August 3 was 267 CFU/100ml. Green circle on 14th Street is not a regularly tested site but is upstream to better pinpoint where the source of the issue may be. Results from this site from August 9 sampling was 0 CFU/100ml. Image from Nassau County Property Appraiser's website.



Alligator Creek at Escambia Street (Slough)		
Sample Date	**Average CFU/100ml**	**Tide**
1/6/2021	1100	Low/Outgoing
3/3/2021	2533	Low/Outgoing
3/3/2021	66	High/Incoming
4/7/2021	2300	outgoing
4/7/2021	133	outgoing
4/7/2021	500	high-incoming
5/5/2021	733	Low - Outgoing
5/5/2021	733	High - Incoming
6/2/2021	1200	Low - Outgoing
6/2/2021	100	High - Incoming
7/6/2021	1133	Low-Outgoing
7/6/2021	0	High-Incoming
8/4/2021	966	Low
8/4/2021	0	High
9/1/2021	567	High
9/1/2021	1600	Low
12/1/2021	1333	Low-Incoming
1/5/2022	0	High
2/2/2022	0	High-Outgoing
3/2/2022	0	High-Outgoing
4/6/2022	0	High-Incoming
5/4/2022	33	High-Incoming
6/8/2022	33	Low-Incoming
7/6/2022	233	Low-Incoming
7/6/2022	233	Low-Incoming
8/3/2022	267	Low-Incoming
1/6/2021	1100	Low/Outgoing
3/3/2021	2533	Low/Outgoing
3/3/2021	66	High/Incoming
4/7/2021	2300	outgoing
4/7/2021	133	outgoing
4/7/2021	500	high-incoming
5/5/2021	733	Low - Outgoing
5/5/2021	733	High - Incoming
6/2/2021	1200	Low - Outgoing
6/2/2021	100	High - Incoming
7/6/2021	1133	Low-Outgoing
7/6/2021	0	High-Incoming
8/4/2021	966	Low