

From: [Silvanima, James](#)
To: [Hogue, Alicia](#); [Sutton, Kaitlyn](#); [Seal, Thomas](#); [Sapp, Kristen](#); [Sunderman-Barnes, Stephanie](#); [Burtchett, Jade](#)
Cc: [Woeber, Nathan \(Andy\)](#); [Espy, Julie](#)
Subject: RE: ESOC projects & report
Date: Monday, April 22, 2019 9:19:05 AM
Attachments: [Sucralose Detections in Lakes 2015 Revised.pdf](#)
[All_Lakes_SucraloseDetections_SortByConc_Revised.xlsx](#)

Good Morning,

Attached is a map which I instructed Andy to produced depicting the distribution and magnitude of sucralose detections for large and small lakes. Also attached is an export containing results for each lake sampled (concentrations of sucralose, acetaminophen, carbamazepine, primidone, diuron, linuron, and imidacloprid) and some basic geographic information. The map shows the most impacted basins to be the Upper St. Johns, Kissimmee River, Tampa Bay Tribes, Sarasota Bay – Peace – Myaka, Lower St. Johns, Choctawhatchee – St. Andrew, Ocholockonee St. Marks. The following table provides the basic statistics for the 2015 lakes sampling event for sucralose.

Given the long environmental half-life of sucralose (1-2 years) and the longer retention times of lentic vs lotic waters, I do not find these results all that surprising. Perhaps we need to focus on lakes showing more recent indicators of wastewater by looking at the pharmaceutical detections in conjunction with sucralose? The pharma's half-lives are on the order of days. We can discuss on Friday.

Results Section

Sucralose Detections in the Status Monitoring Network (2015)				
Resource	Number of Detected Sites	Total Sampling Sites	Percent Detected	Sucralose Concentration Range (nanograms per Liter)
Canal	35	60	58.3	14 (I ¹) – 1,700
Stream	54	90	60	12 (I) - 960
River	72	90	80	17 (I) – 27,000
Large lake	68	90	75.5	12 (I) – 1,400
Small lake	35	78	44.8	14 (I) – 1,400
Unconfined aquifers (number of wells)	28	120	23.3	12 (I) – 3,700
All Resources	292	528	55.3	12 (I) – 27,000

1 = (I) value not quantifiable by the analysis method

Table 2: Sucralose Detections in the Status Monitoring Network (2015)

Jay

From: Silvanima, James
Sent: Friday, April 19, 2019 8:42 AM
To: Hogue, Alicia <Alicia.Hogue@FloridaDEP.gov>; Sutton, Kaitlyn <Kaitlyn.Sutton@dep.state.fl.us>; Seal, Thomas <Thomas.Seal@dep.state.fl.us>; Sapp, Kristen <Kristen.Sapp@dep.state.fl.us>; Sunderman-Barnes, Stephanie <Stephanie.SundermanBarnes@dep.state.fl.us>; Burtchett, Jade <Jade.Burtchett@dep.state.fl.us>
Cc: Woeber, Nathan (Andy) <Nathan.Woeber@dep.state.fl.us>; Espy, Julie <Julie.Espy@dep.state.fl.us>
Subject: RE: ESOC projects & report

See correction below in red.

From: Silvanima, James
Sent: Friday, April 19, 2019 8:07 AM
To: Hogue, Alicia <Alicia.Hogue@FloridaDEP.gov>; Sutton, Kaitlyn <Kaitlyn.Sutton@dep.state.fl.us>; Seal, Thomas <Thomas.Seal@dep.state.fl.us>; Sapp, Kristen <Kristen.Sapp@dep.state.fl.us>; Sunderman-Barnes, Stephanie

<Stephanie.SundermanBarnes@dep.state.fl.us>; Burtchett, Jade <Jade.Burtchett@dep.state.fl.us>
Cc: Woeber, Nathan (Andy) <Nathan.Woeber@dep.state.fl.us>; Espy, Julie <Julie.Espy@dep.state.fl.us>
Subject: RE: ESOC projects & report

All,

The following is a link to a map showing the locations of lakes with sucralose detections (page 9, Fig. 3 Silvanima et al. 2018).
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As you will see, the basins which appear to be effected the most are Kissimmee River, Lake Worth Lagoon – Palm Beach Coast, **St. Lucie Loxahatchee** and Ocklawaha. The Panhandle is relatively ‘clean’ with the exception of northern Ochlockonee – St. Marks and the Southwest Coast is hitless for lakes.

Andy and I will prepare some information on the individual lakes. One idea is to order by sucralose concentration and start working with those showing the highest concentrations first. If my memory serves me correctly these are in the greater Orlando area in the Kissimmee Basin. We’ll see. We can also provide the percentage of sampled lakes within each basin showing detections of sucralose.

Jay

-----Original Appointment-----

From: Hogue, Alicia

Sent: Tuesday, April 16, 2019 4:09 PM

To: Hogue, Alicia; Silvanima, James; Sutton, Kaitlyn; Seal, Thomas; Sapp, Kristen; Sunderman-Barnes, Stephanie; Burtchett, Jade

Subject: ESOC projects & report

When: Friday, April 26, 2019 10:00 AM-11:00 AM (UTC-05:00) Eastern Time (US & Canada).

Where: BMC_DEAR_272

We need to discuss the Status lakes sucralose sites. I spoke to Julie and she gave us these questions to answer (below). Jay, I am suspecting that a lot of the work will be done out of your shop, but I will let you inform us on what you think, please.

Which lakes have the sucralose detections? Where are they? What are the associated land uses? What are potential sources of sucralose? Would additional monitoring or recon of the sites help?

Also on the agenda are the lessons learned and future recommendations section of the report that Kristen is writing up for us.

Thanks,
Alicia