

Lake Jesup Water Quality

**Before and After BMAP
In-Lake and Primary Tributaries**



ST. JOHNS RIVER WATER MANAGEMENT DISTRICT

Monitoring Sites Included

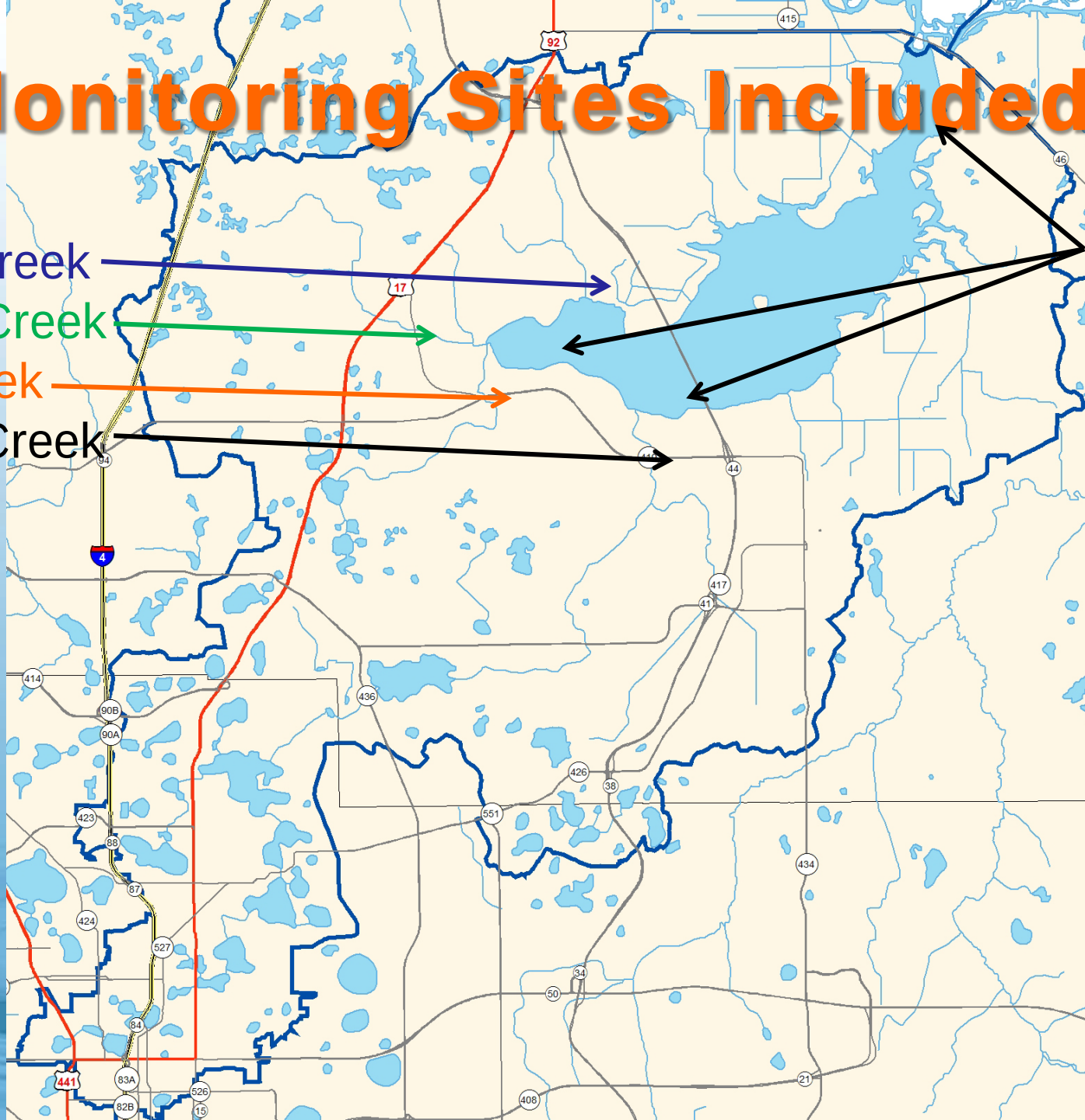
6-Mile Creek

Soldier Creek

Gee Creek

Howell Creek

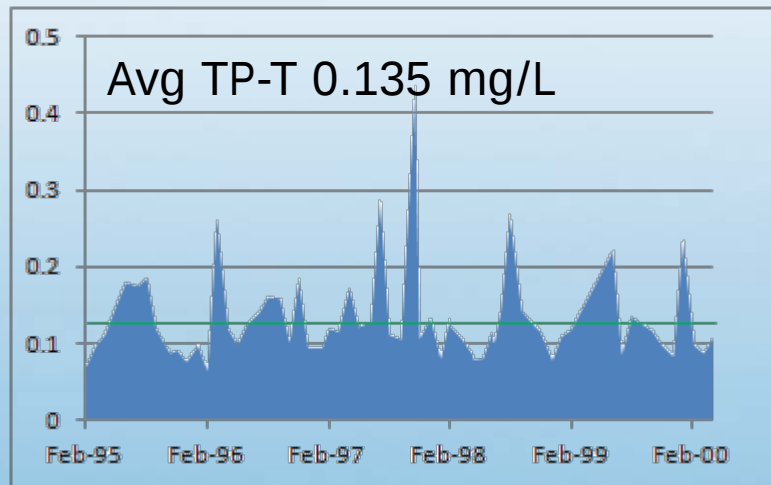
3 In-lake sites



WATER DISTRICT

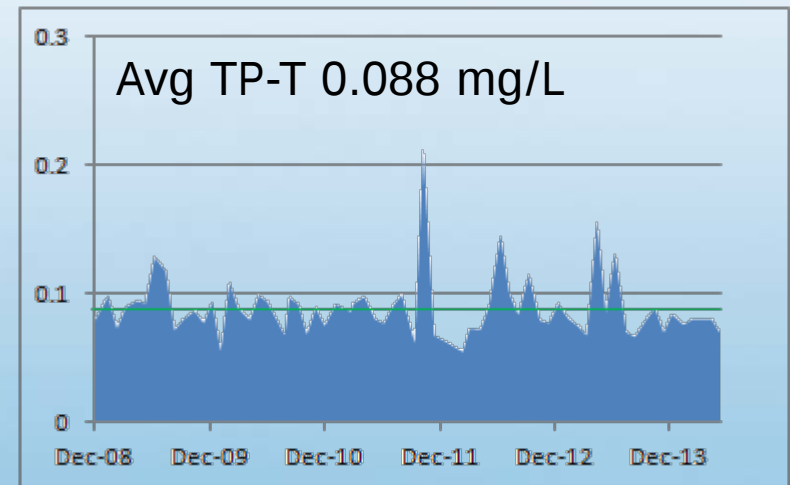
Bottom Line

1995 - 2000



Howell Creek TP-T '95 – '00

2008 - 2014



Howell Creek TP-T '08 – '14

- 34%

Howell Creek TP-T



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Bottom Line

❖ Soldier and Gee

- No TP-T change and no change in discharge

❖ 6-Mile Creek/Sanford Avenue Canal

- No TP-T change

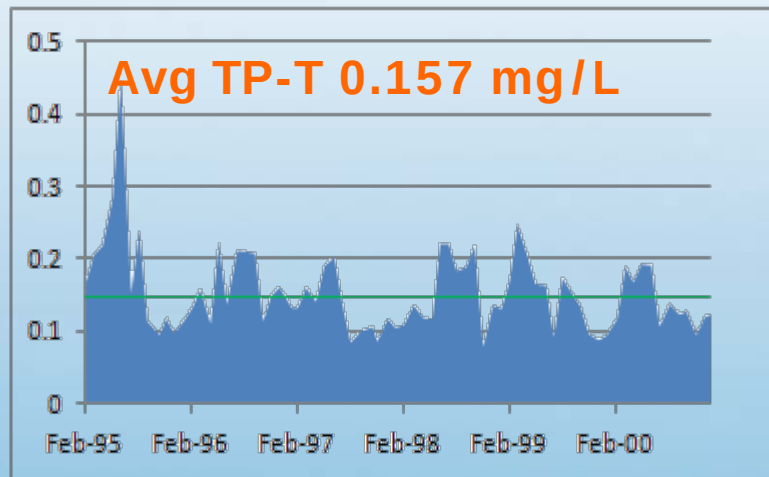
0.114 mg/L TP
Gee Creek

0.141 mg/L TP
Soldier Creek

0.162 mg/L TP
6-Mile Creek

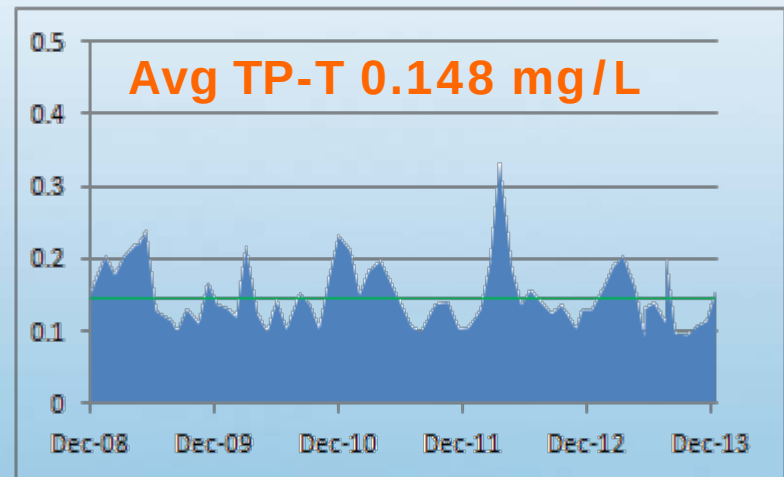
Bottom Line

1995 - 2000



Lake Jesup TP-T '95 – '00

2008 - 2014



Lake Jesup TP-T '08 – '14

0 %

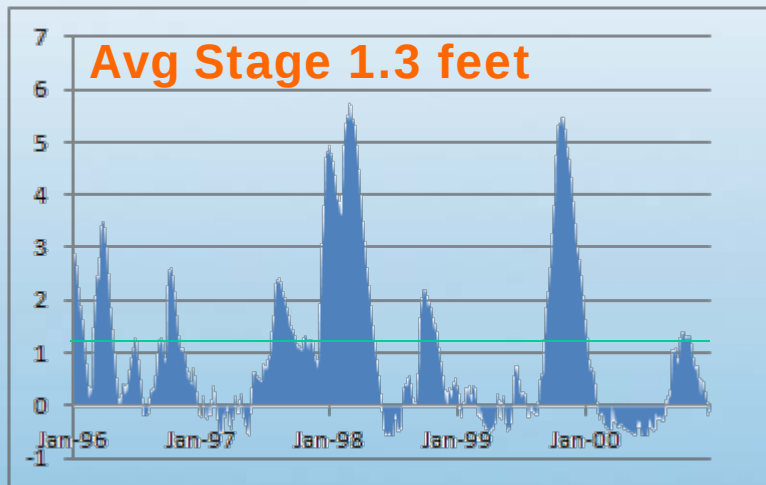
Lake Jesup TP-T



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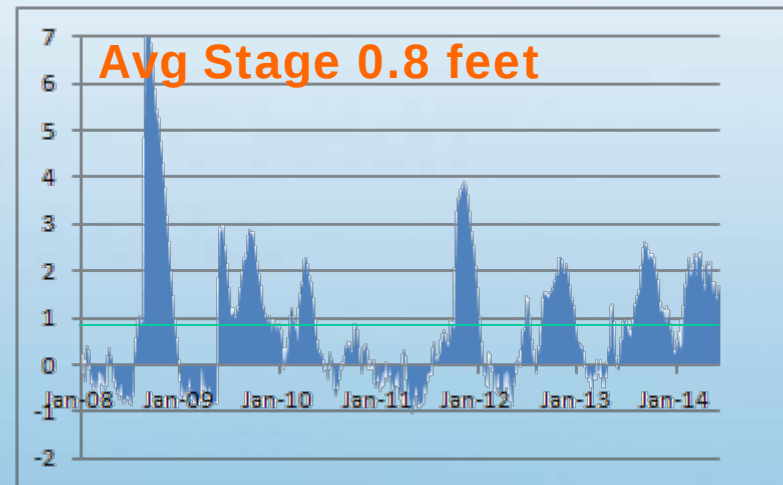
HOWEVER ...

1996 - 2000



Lake Jesup Stage '96 – '00

2008 - 2014



Lake Jesup Stage '08 – '14

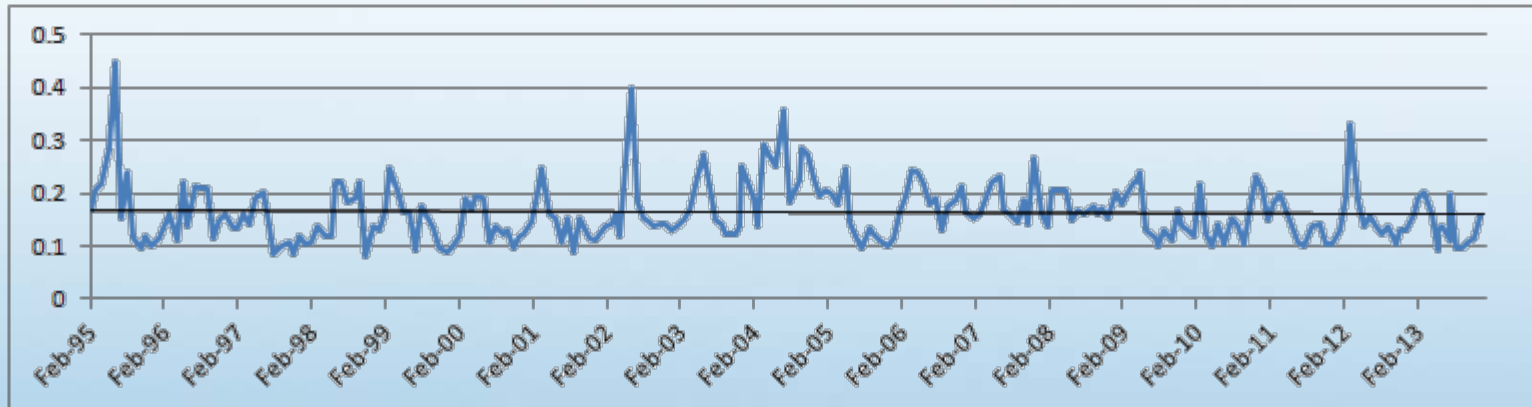
- 38%

Lake Jesup Stage

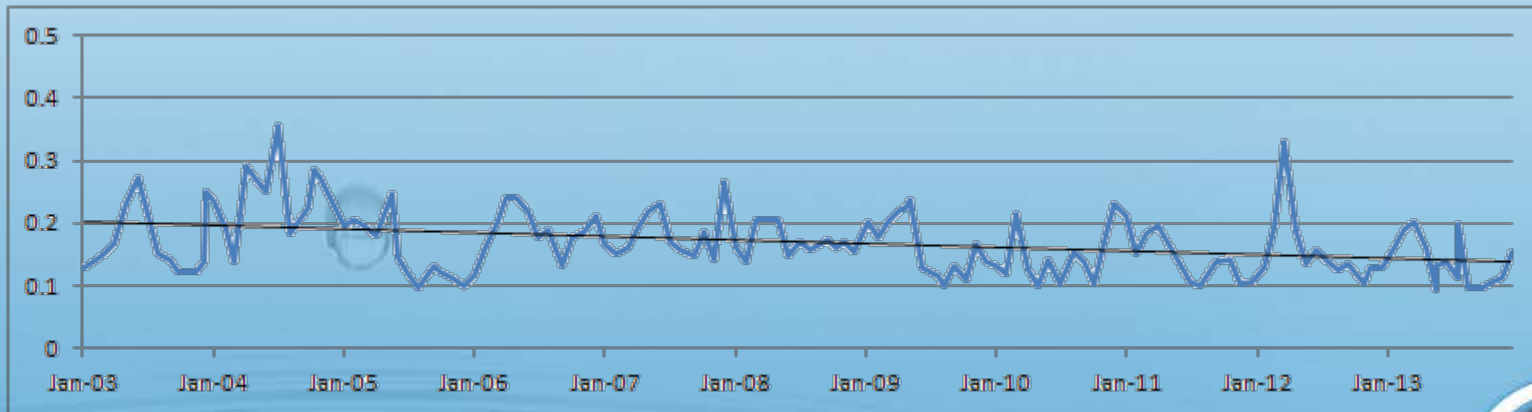


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AND ...



Although Long Term TP-T Record Shows No Significant Downward Trend

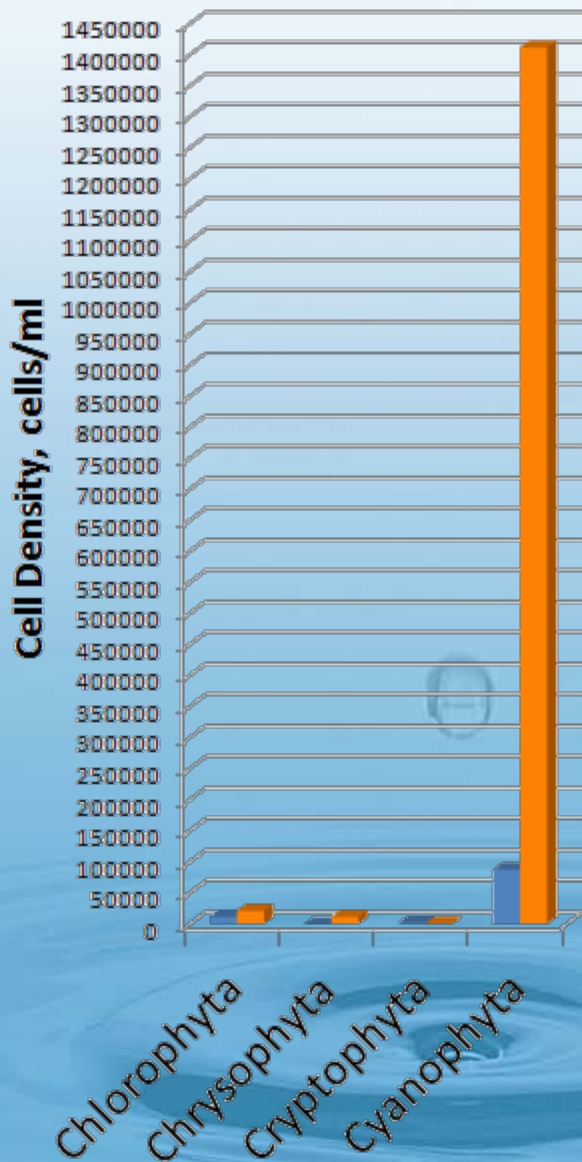


11-Year TP-T Trend Shows Significant Decline



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Unfortunately ...



+ 87 %

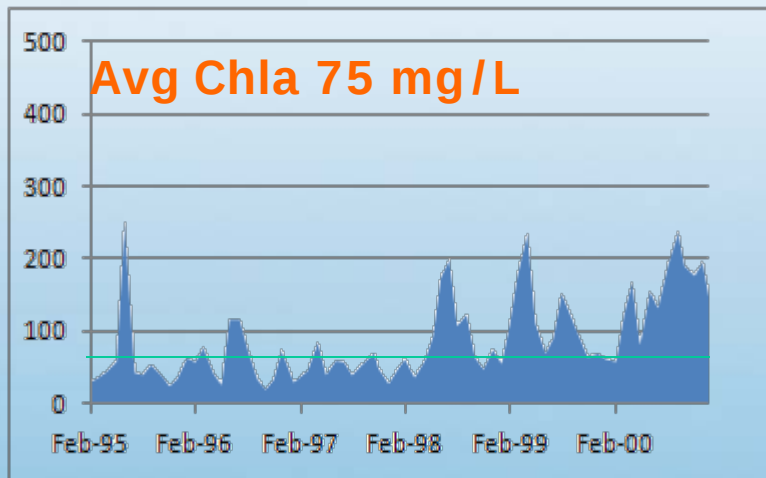
■ pre-BMAP
■ post-BMAP

Cyanobacteria genus are mostly nitrogen fixers & *Cylindrospermopsis raciborskii* population exploded in 2007



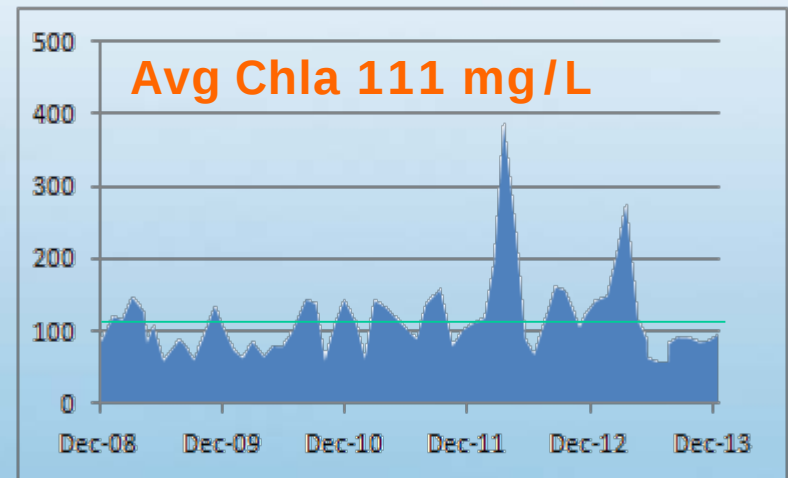
Bottom Line

1995 - 2000



Lake Jesup Chl-a '95 – '00

2008 - 2014



Lake Jesup Chl-a '08 – '14

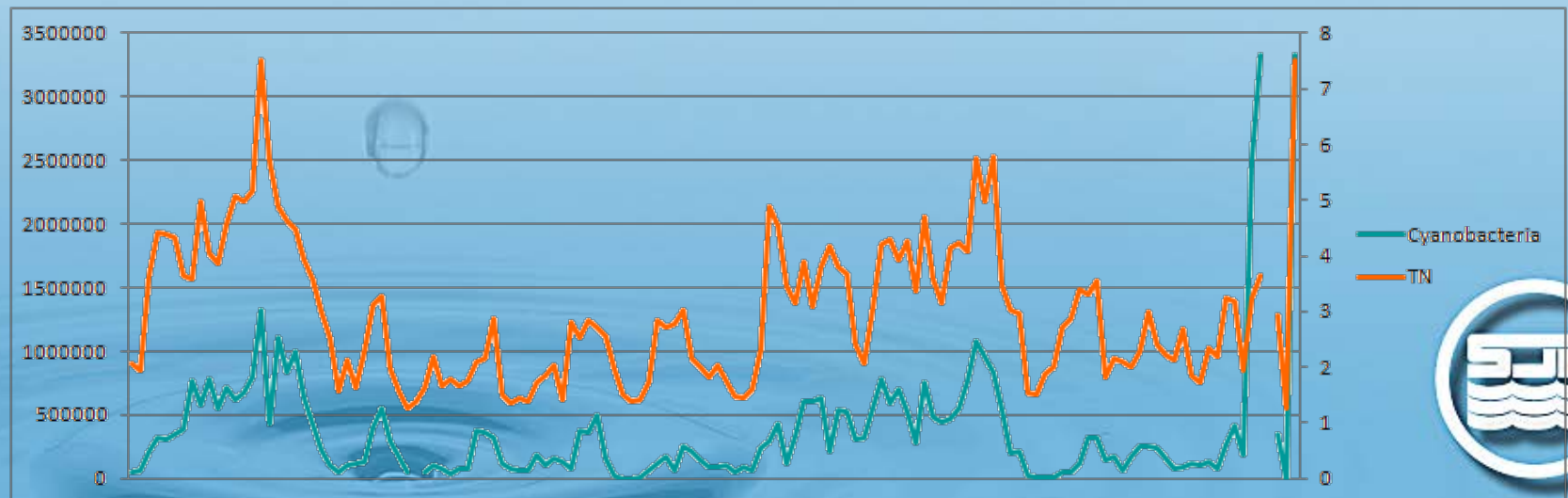
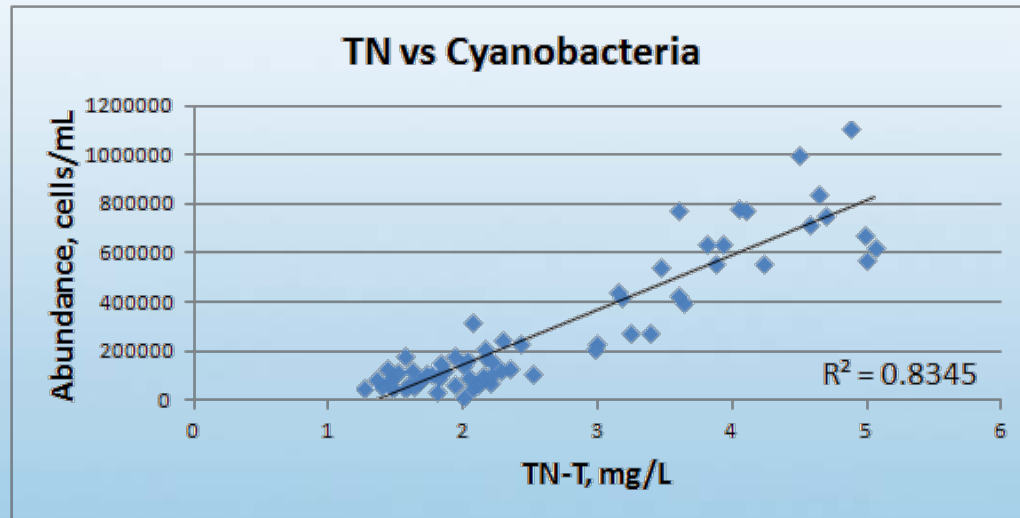
+ 48 %

Lake Jesup Chl-a



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Nitrogen Behavior



Quick Summary: Some Good, Some Encouraging, Some Opportunities

- ❖ Howell Creek TP & TN concentrations and loads down
- ❖ Soldier, Gee and 6-Mile unchanged
- ❖ Jesup TP unchanged, Chl a and TN up
- ❖ Jesup stage way down
- ❖ Cyanobacteria abundance way up

