

*Mattataall Lake
Stewardship Association
Annual Report*

June 23, 2019

New Loon Cages



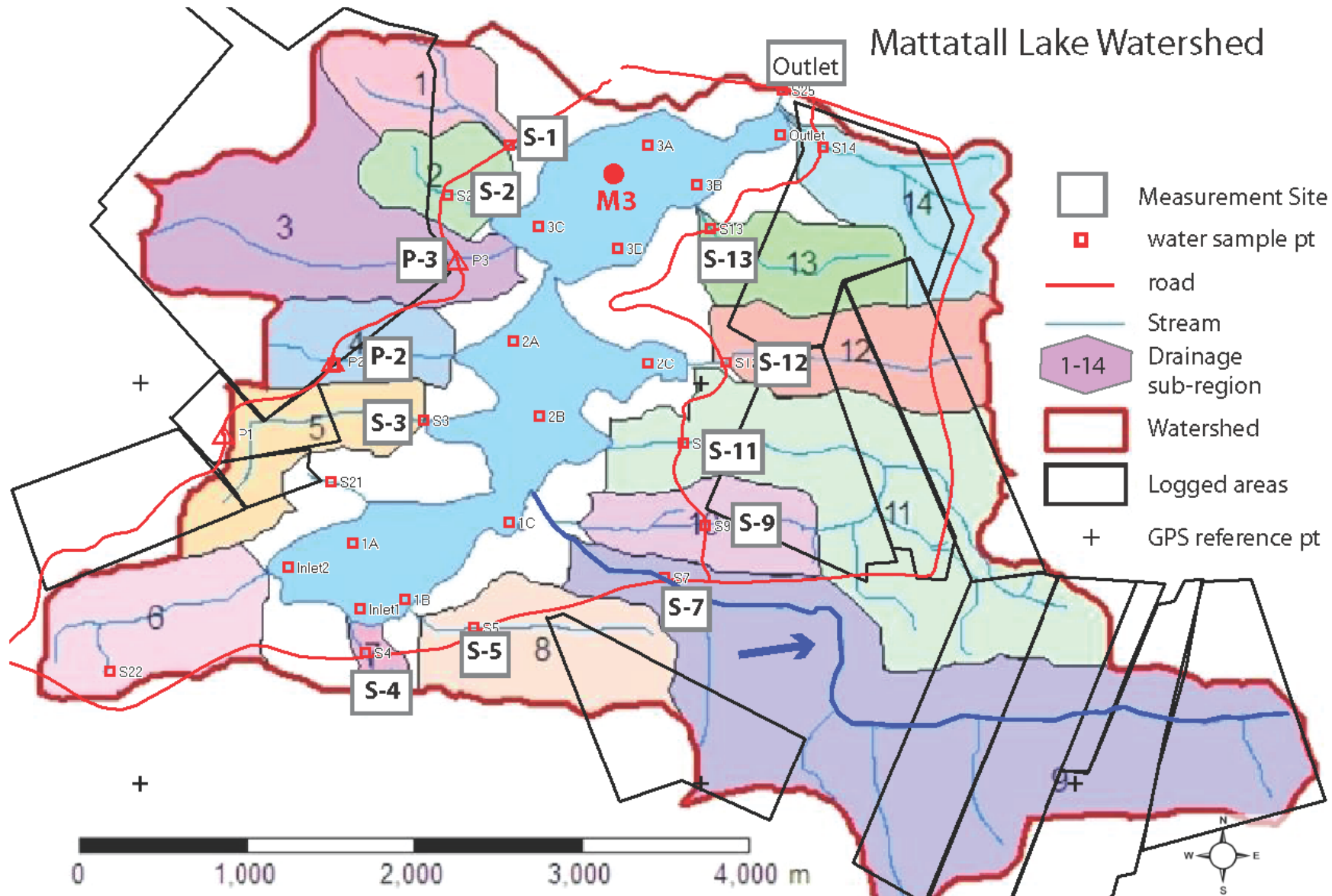
What have we learned about water properties of Mattatall Lake ?

Trophic status	TP ($\mu\text{g L}^{-1}$)
Source	CCME (2004)
Ultra-oligotrophic	< 4
Oligotrophic	4-10
Mesotrophic	10-20
Meso-eutrophic	20-35
Eutrophic	30-100
Hypereutrophic	> 100

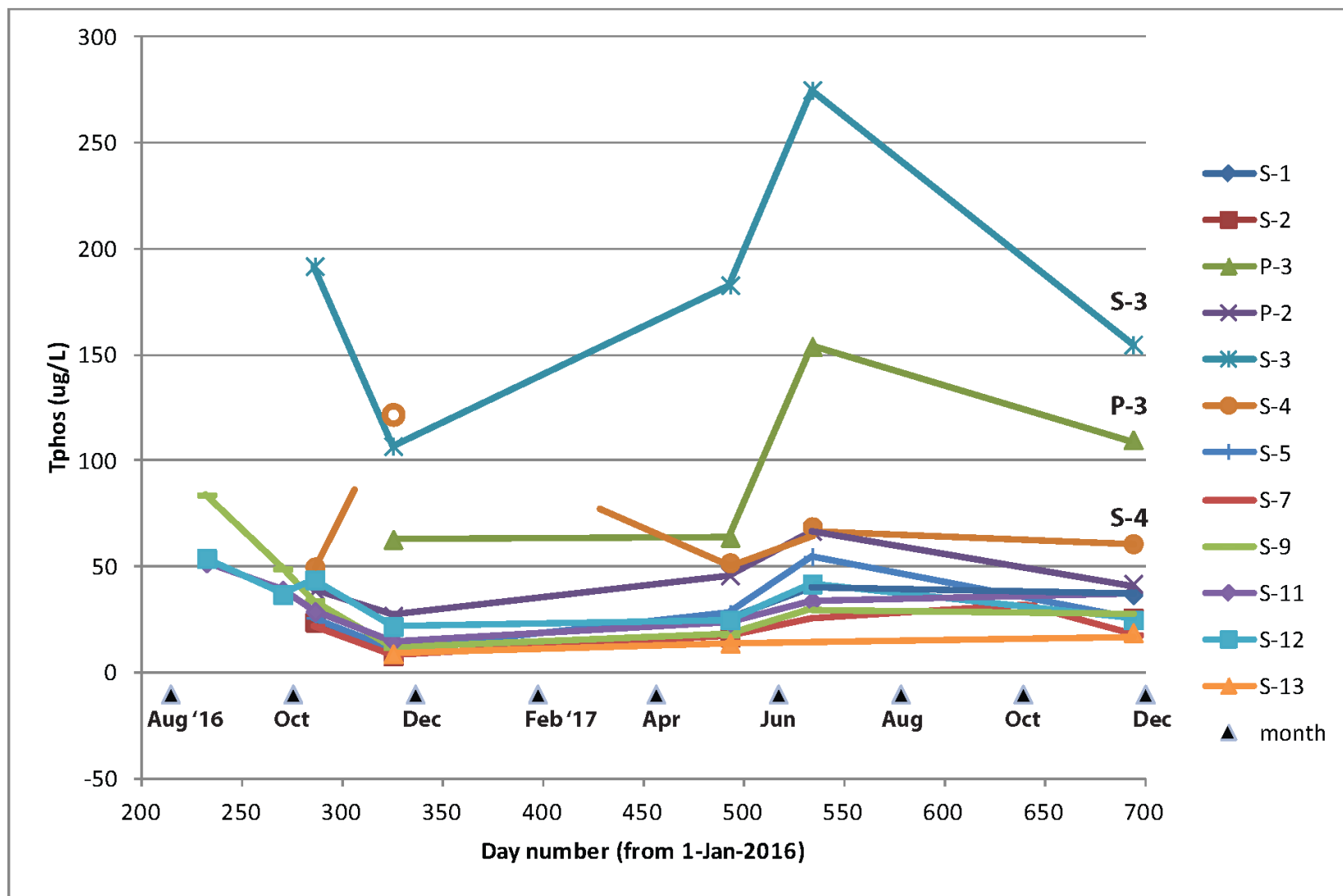


Sources of Phosphorus

- *from Watershed into Lake*
- *from sediments within Lake*



Tphos values for streams entering Lake Mattatall



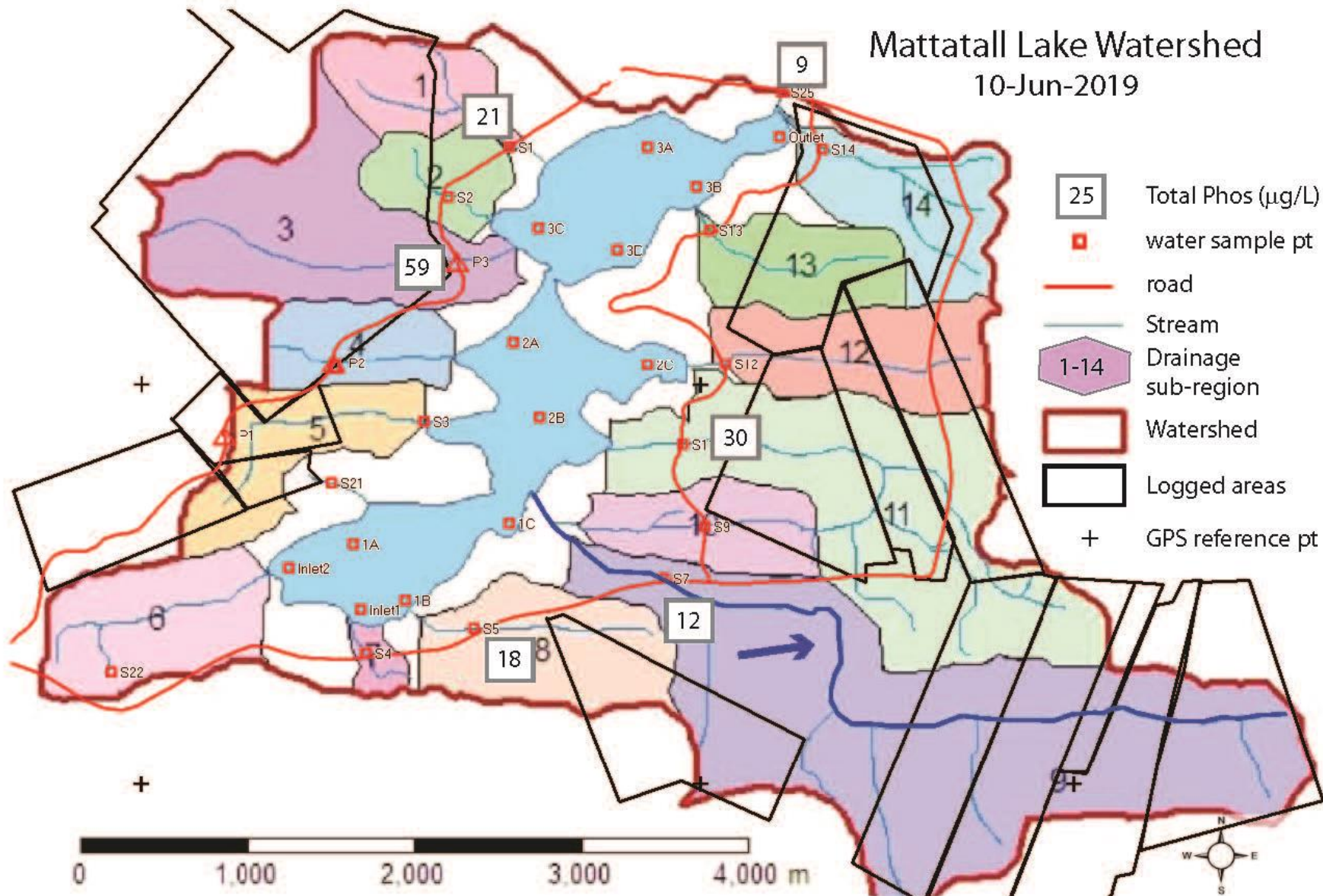
Mattattall Lake Watershed
4-Jun-2018

Legend:

- 25 Total Phos ($\mu\text{g/L}$)
- water sample pt
- road
- Stream
- Drainage sub-region (1-14)
- Watershed
- Logged areas
- GPS reference pt

Scale: 0 to 4,000 m

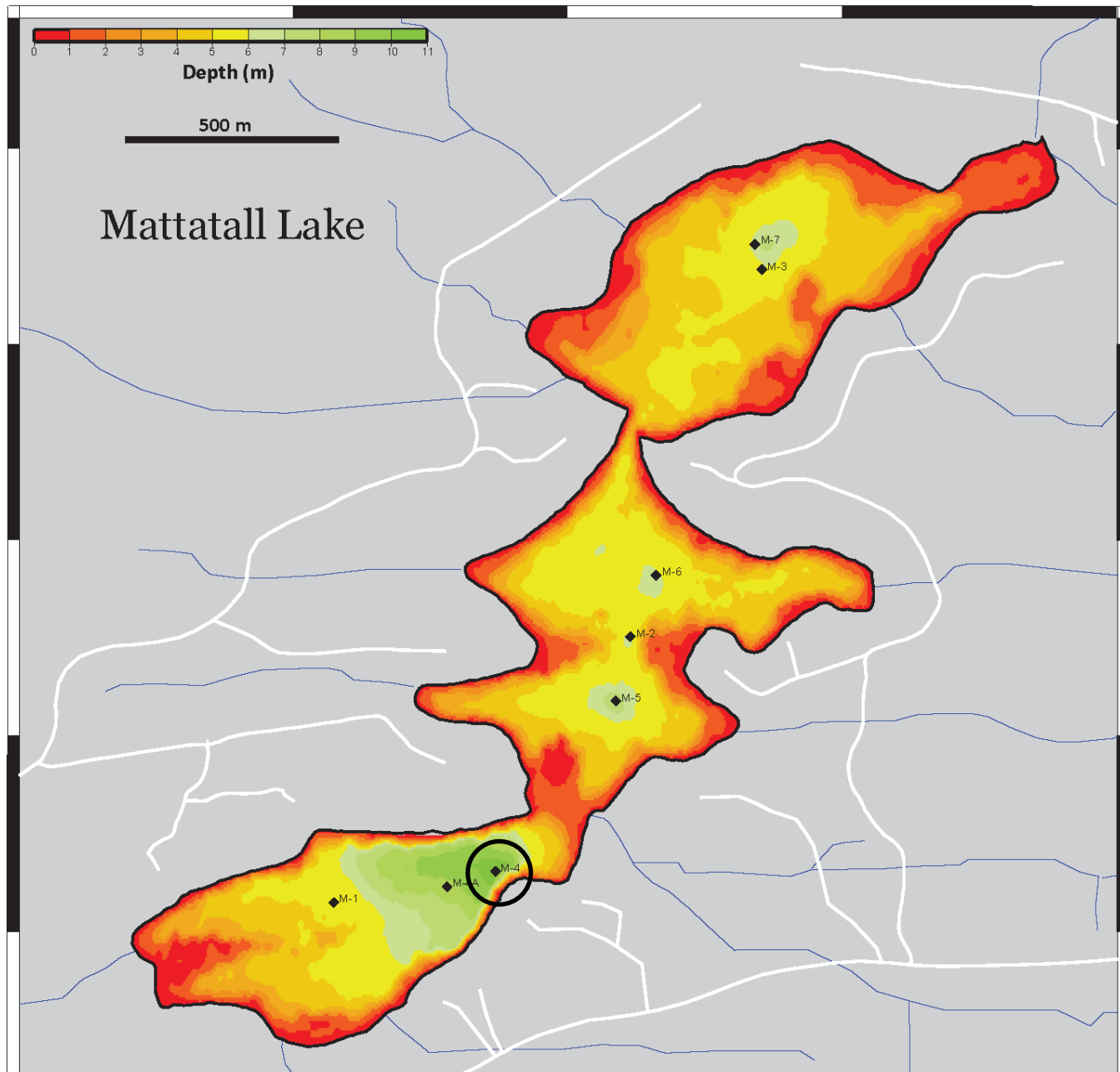
North Arrow



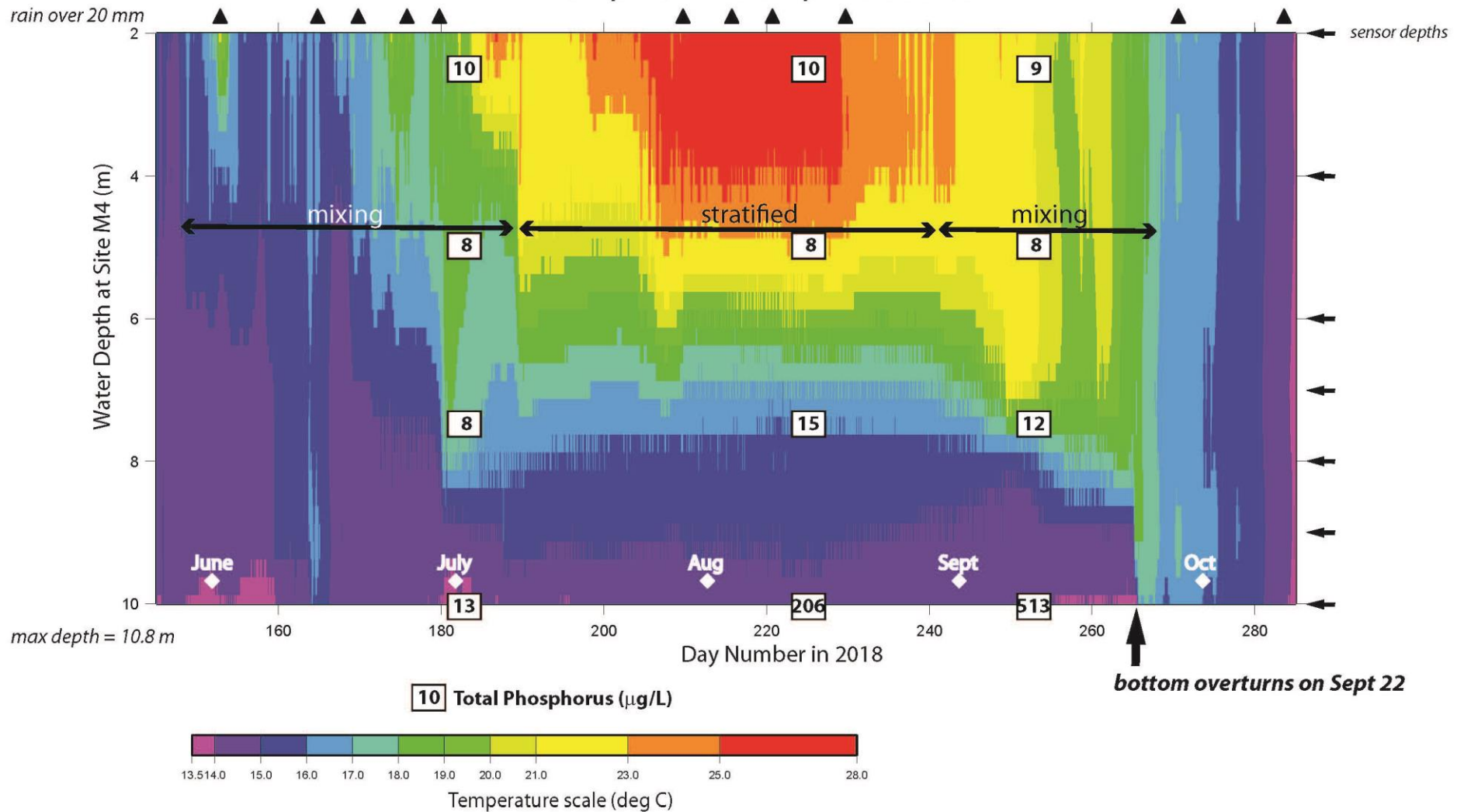
45° 42' 00"N

45° 41' 30"N

45° 41' 00"N



Temperatures & Tphos at Site M4



Lakemattatall.ca

Projects & Research

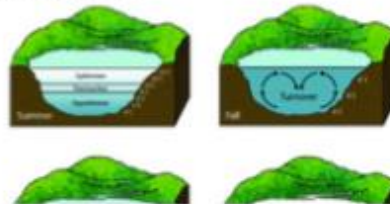


Outlet Restoration

The lake's natural outlet, before Aqua Vista Dr. was built in 2001, was a 25m wide flat wetland. An engineering study conducted by Design Point Engineering in Sept 2016 concluded...

[Read more >](#)

Lake Turnover



Introduction to Lake Processes

A basic introduction on lake processes relevant to Lake Mattatall has been made available to us courtesy of Dr. R. Jamieson (Centre for Water Resources Studies, Characterization of Phosphorus Sources in...

[Read more >](#)



Water Quality Research

One of the primary controls on algal growth is the concentration of phosphorus in the water. It does not take much increase in phosphorus from low levels of around 10...

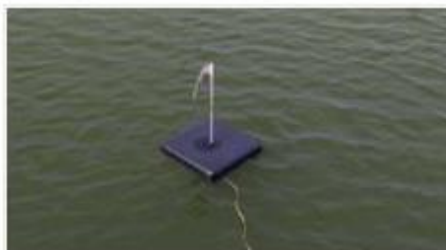
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Algal Blooms

Many types of algae occur naturally in lake waters. They are generally categorized as a large, diverse group of photosynthetic organisms that can be subdivided into the larger and more...

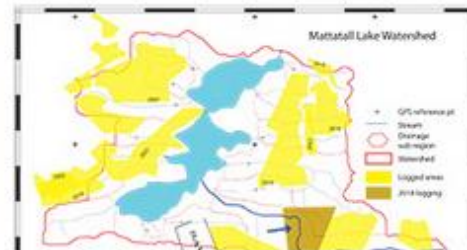
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Sonic device

A Sonic Solutions Quatro-DB sonic device was purchased from Algae Control and installed in the SW end of the Lake in July 2016. The device was intended to have an...

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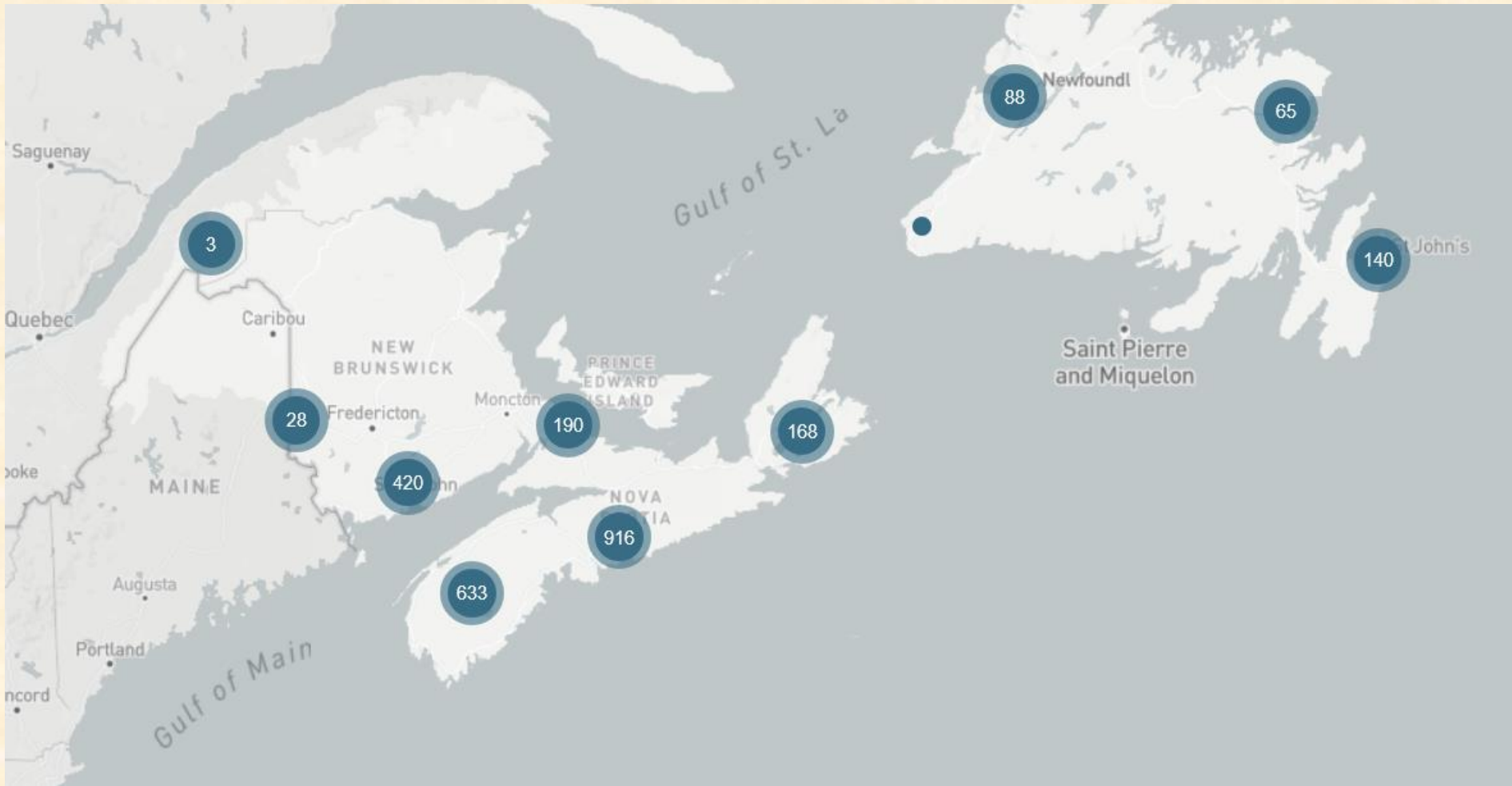
Watershed Study

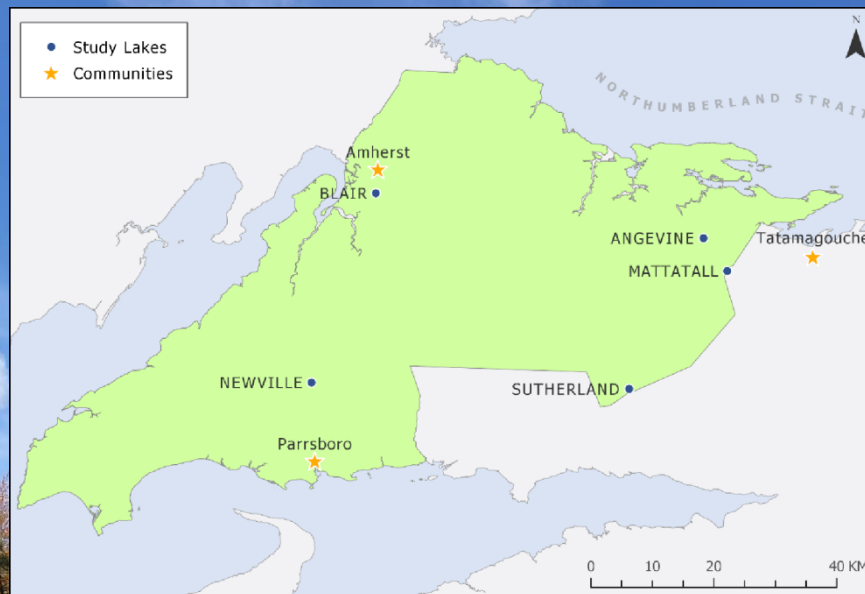
The Mattatall Lake Watershed encloses a flat lying region of numerous streams that empty into the lake (map from Nguyen-Quang et al., 2016). Since the Lake is shallow and its...

[Read more >](#)

Data Archived in

<https://atlanticdatastream.ca/>





Cumberland County Lake Water Quality Study

Preliminary Results 2018

Dalhousie University

Centre for Water Resources Studies

Former Beaver Pond off Alba Dr.



**And NOW a word from the
South Mattatall Lake Association**

Mattatall Lake Outflow

24'

An aerial photograph showing a narrow, winding waterway (outflow) cutting through a dense field of tall, yellow-green grasses. A horizontal gravel or dirt path crosses the waterway. A black line with the text '24'' is drawn across the path, indicating a measurement. The waterway continues below the path, surrounded by more vegetation.



MLSA Annual Report– June 23, 2019

Depth of Outlet stream same as present culvert



lake height above culvert



Bridge Construction Project Timeline

- Design Point Engineering Study Report (Sept 2016)
- MLSA Mandate (June 2017)
- Aqua Vista Road Owner Approval (Oct 2017)
- Bridge Design Approved (June 2018)
- Funding target met (Aug 2018)
- M&NE Pipeline Approval (Sept 2018)
- Contract signed with Gridline Construction (Feb 2019)
- NS Environment Approval (June 2019)
- **Scheduled Construction July 15-18**

Future Cost Commitments

- Any repairs to Aqua Vista Dr due to construction
- Future maintenance & repairs of bridge

The MLSA board acknowledges that on completion of the Outflow Project that will replace the single westernmost culvert (of the existing four culverts) with a steel bridge where the road crosses the Mattatall Lake Outflow Stream, it accepts responsibility for future maintenance and repairs associated with the bridge structure.

	FINANCIAL 2018-19		
	April 1, 2018 to March 31, 2019		
	<u>2018-19</u>	<u>2018-19</u>	<u>2019-20</u>
	<u>Budget</u>	<u>Actuals</u>	<u>Budget</u>
# Residents Contributing	- 40	55	- 40
Beginning Bank Balance	- \$30,530.74	- \$30,530.74	- \$62,466.05
Revenues	-	-	-
Membership Fees	\$800.00	\$1,100.00	\$800.00
Contributions by Residents	\$7,200.00	\$9,520.00	\$7,200.00
Bridge Donations - Residents		\$23,627.00	
Bridge Donations - Corporate		\$2,000.00	
County of Colchester	\$7,000.00		\$0.00
County of Cumberland			
Department of Environment			
Total Revenue	\$15,000.00	\$36,247.00	\$8,000.00

	2018-19 Budget	2018-19 Actuals	2019-20 Budget
Expenses			
Water Treatment:			
Testing	\$4,000.00	\$633.36	\$500.00
Quatro Device	\$0.00	\$0.00	\$0.00
Professional Fees:			
Outflow Culvert Replacement Project	\$48,500.00	\$0.00	\$59,800.00
Outflow Dredging Project	\$5,000.00	\$0.00	\$6,000.00
Shoreline Remediation Workshop	\$1,500.00	\$1,500.00	\$0.00
Engineering	\$0.00	\$0.00	\$0.00
Insurance (\$600 / year)	\$600.00	\$600.00	\$600.00
Other:			
Website Development/Maintenance Fee		\$784.88	\$138.00
Watershed signage		on hold	\$500.00
Firemans Assoc - Rec Hall Rental		\$110.00	\$110.00
Registry of Joint Stocks		\$31.15	\$31.00
Bower Construction		\$575.00	
Association Fees:			
North American Lake Mgmt Society	\$400.00	on hold	\$400.00
DOE application fee	\$0.00	\$0.00	\$0.00
Administration and bank charges	\$500.00	\$77.30	\$600.00
Total Expenses	\$60,500.00	\$4,311.69	\$68,679.00
Revenue less Expenses	-\$45,500.00	\$31,935.31	\$2,287.05

Special Resolution to amend By-Law 23

Current By-Law 23:

The number of directors shall be 9. The subscribers to the Memorandum of Association of the society shall be the first directors of the Society.

Proposed Amendment:

By-Law 23: *The number of directors shall be 7.*

Current members of the board:

Keith Loudon, president

Gary Jollimore, vice-president

Donna Spracklin, secretary

Deborah Lusby, treasurer

L. (Jake) Jacobson, member-at-large

John Green, member-at-large, retiring

Rodney Dennis, member-at-large, retiring

We ask for two
volunteers to serve for
2-3 years

Membership 2019-20: \$20+\$180 = \$200

By e-transfer: Deborah.Lusby@novascotia.ca

By cheque: payable to Mattatall Lake Stewardship Association
hand in today or give later to any board member
mail to: Deborah Lusby, 6560 Geldert St., Halifax, NS B3H 2C8

Receipts will be emailed