

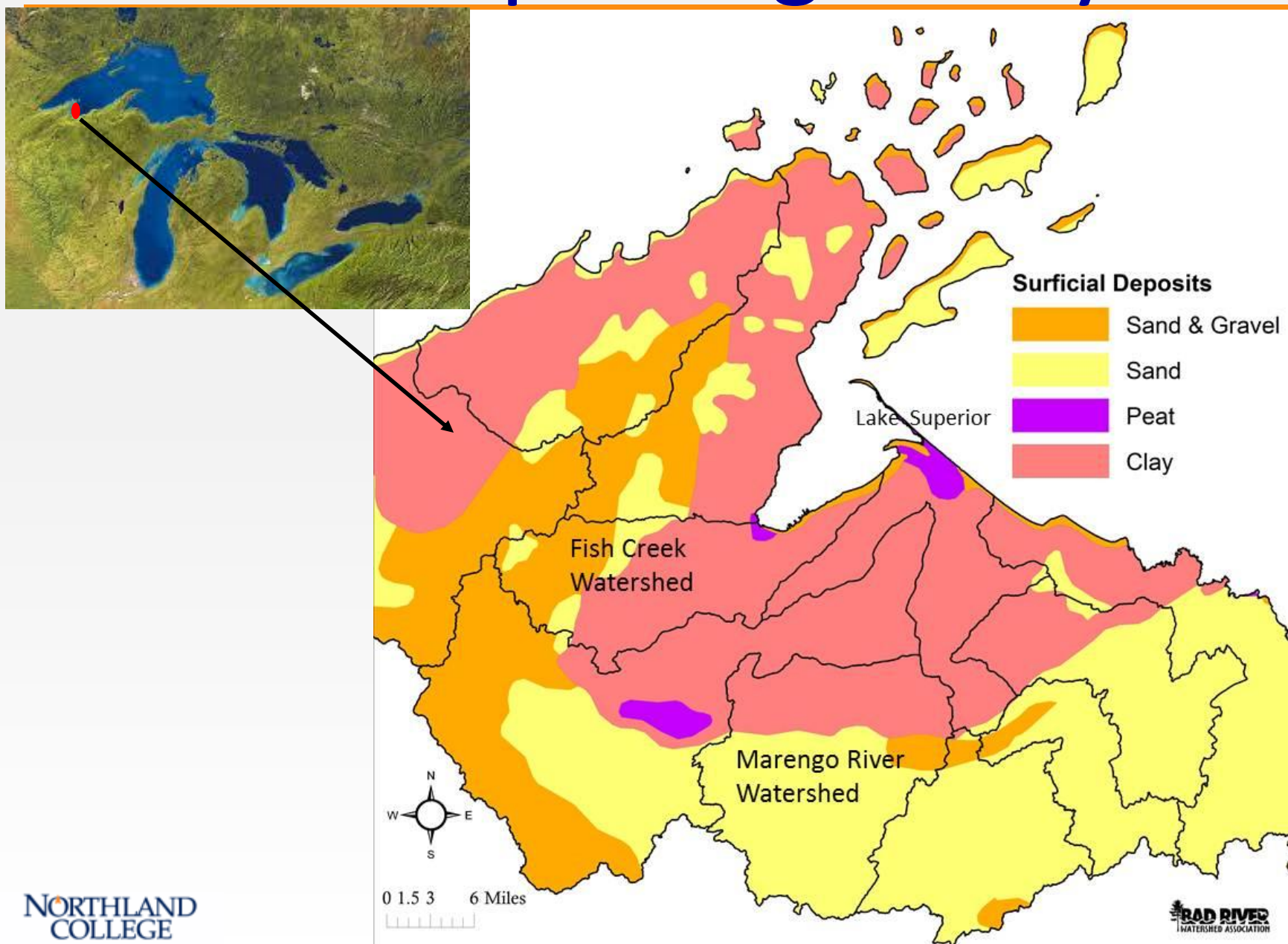
Tributary Influences on Water Quality in Lake Superior's Chequamegon Bay



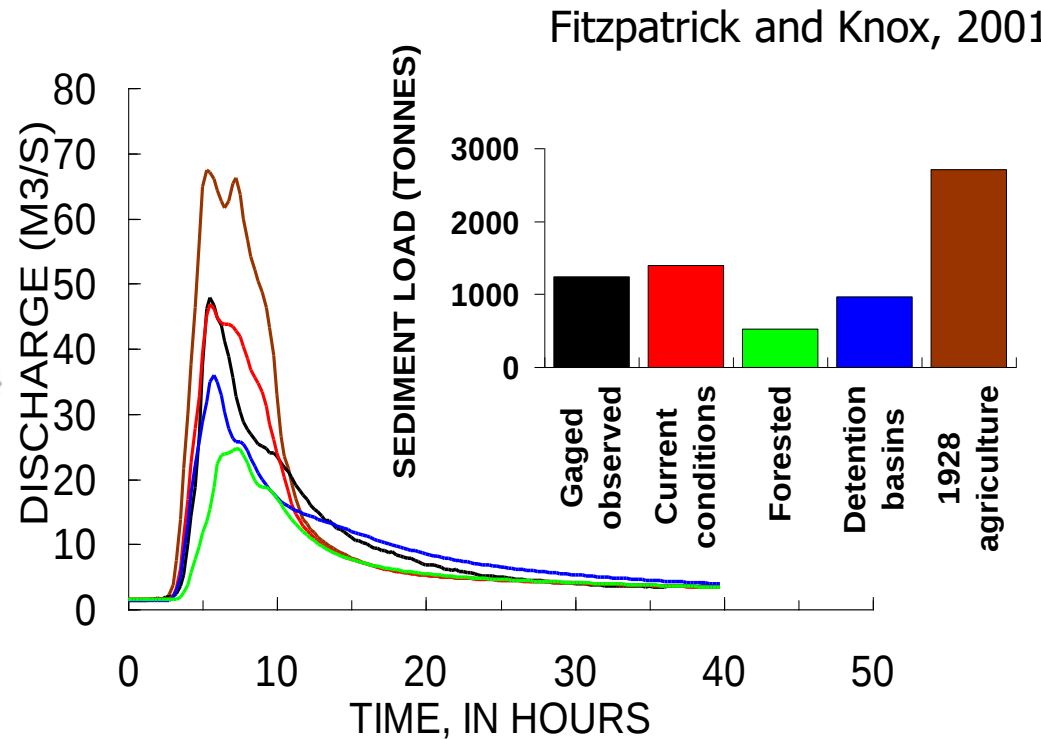
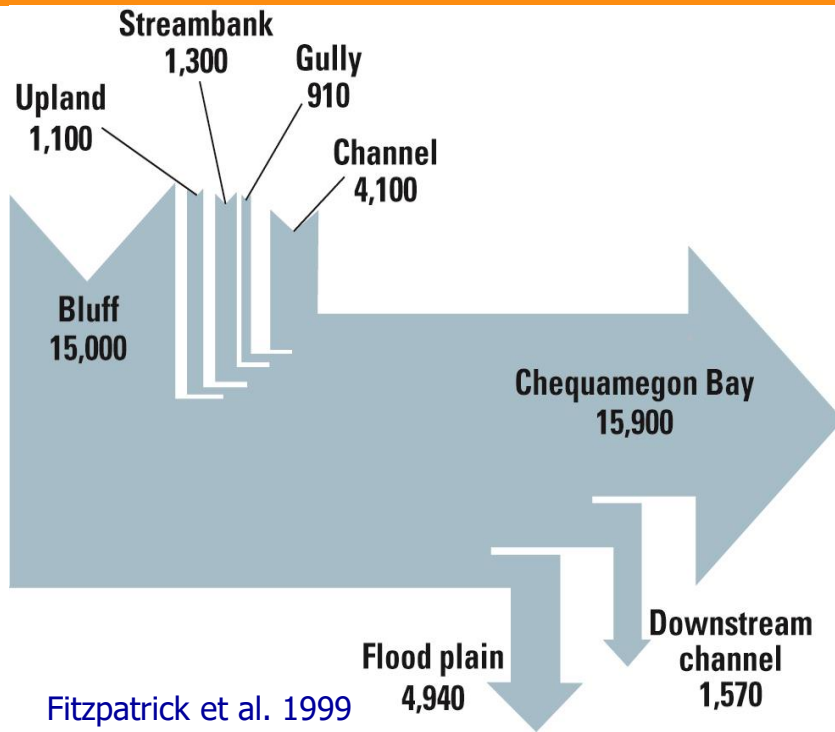
Matt Hudson

Matt Cooper, Randy Lehr, Chris McNerney

Chequamegon Bay

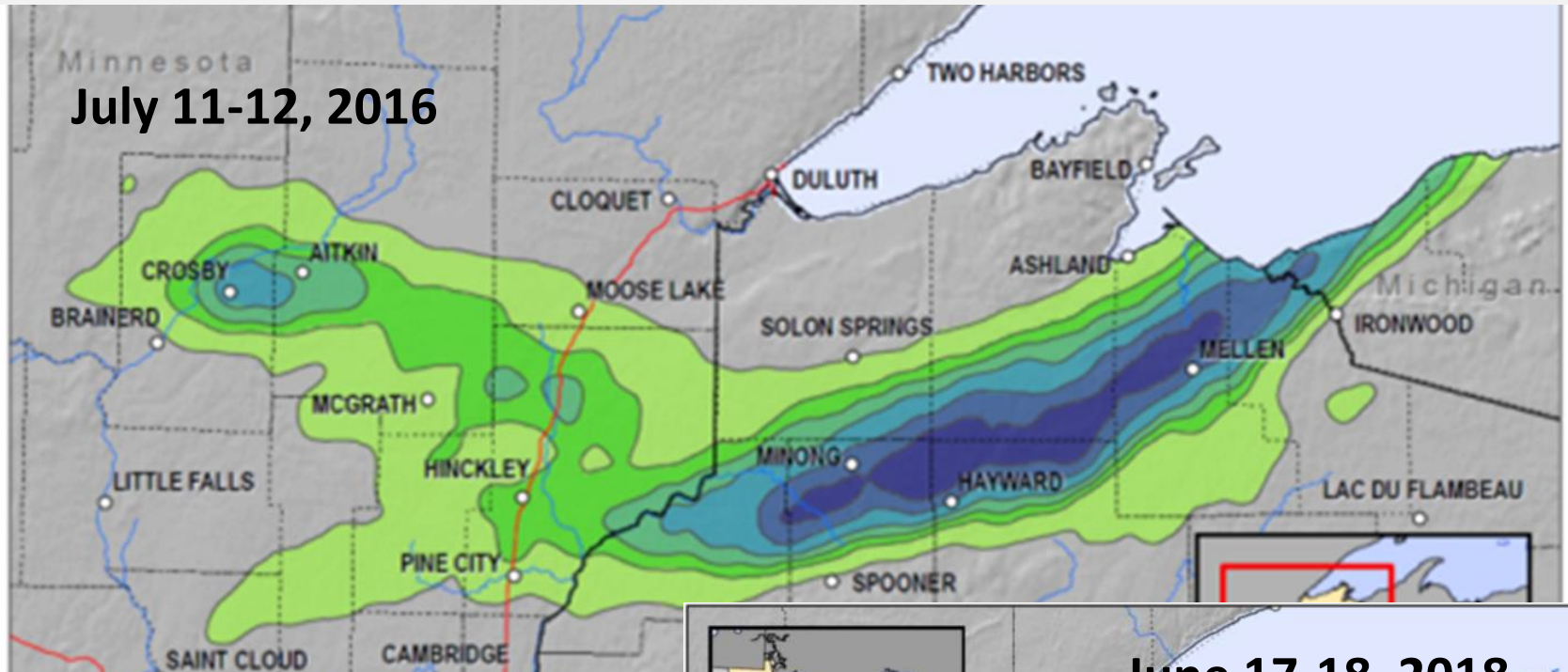


Historical Land Cover Change Drives Excess Erosion and Sedimentation

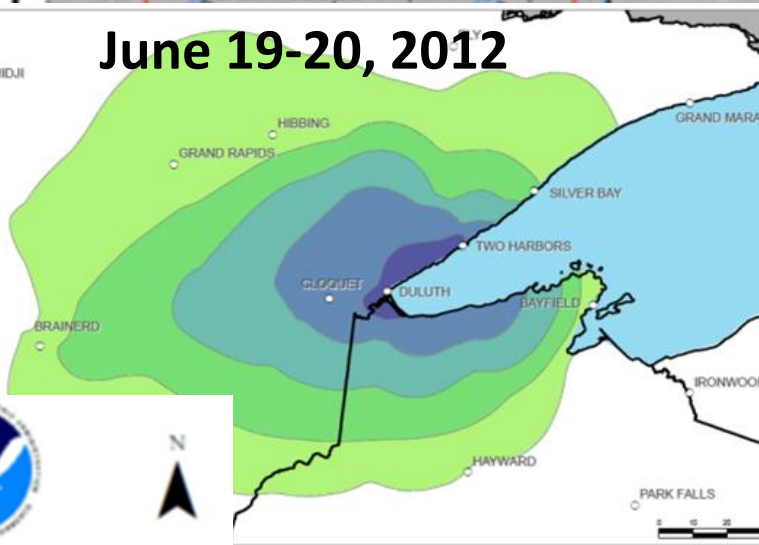


Increase in Event Magnitude

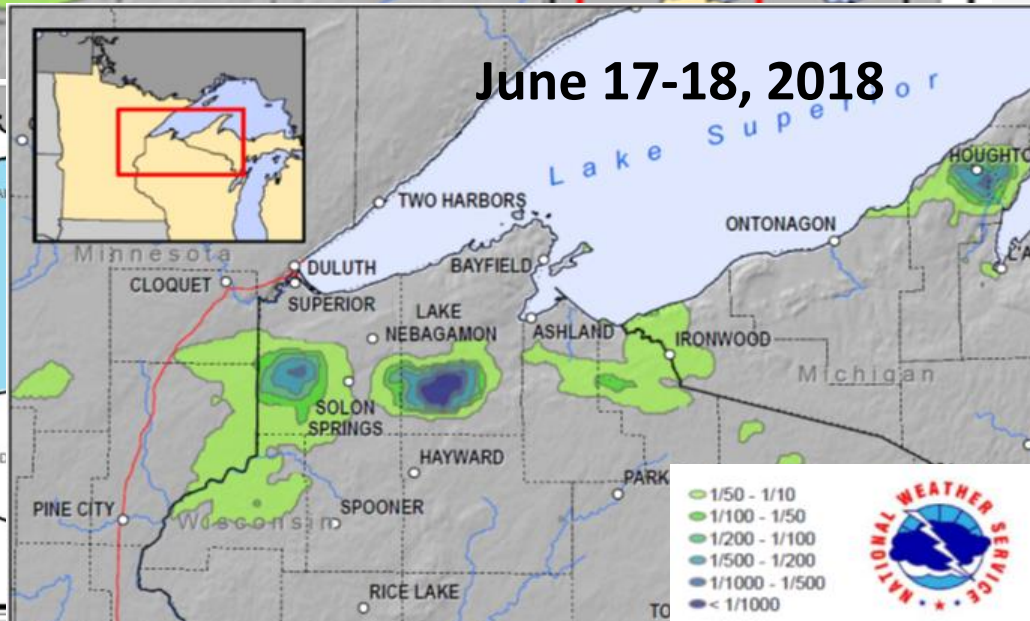
July 11-12, 2016



June 19-20, 2012



June 17-18, 2018



Ecosystem Monitoring

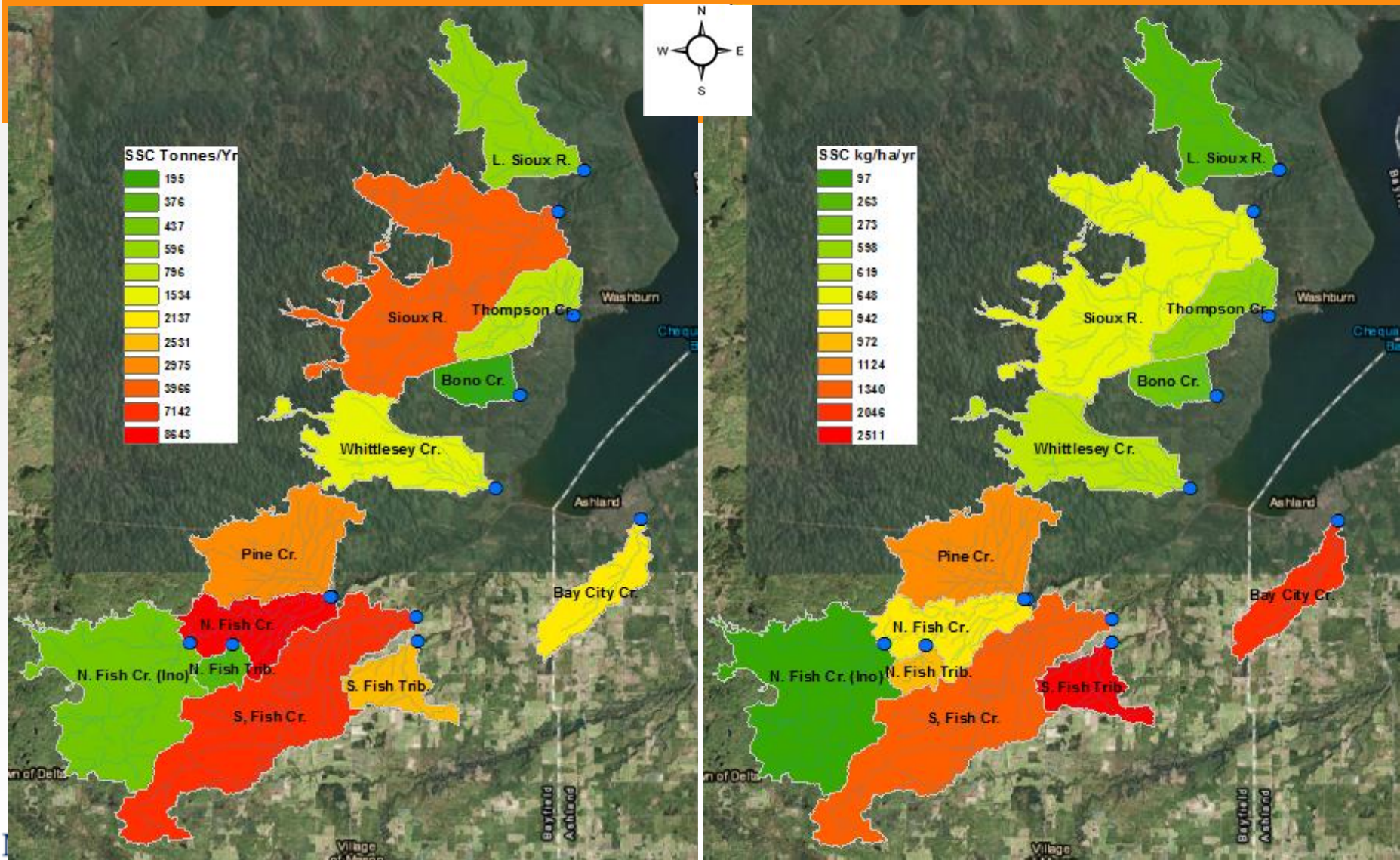


From: WISCLAND Dataset,
WDNR, 2016



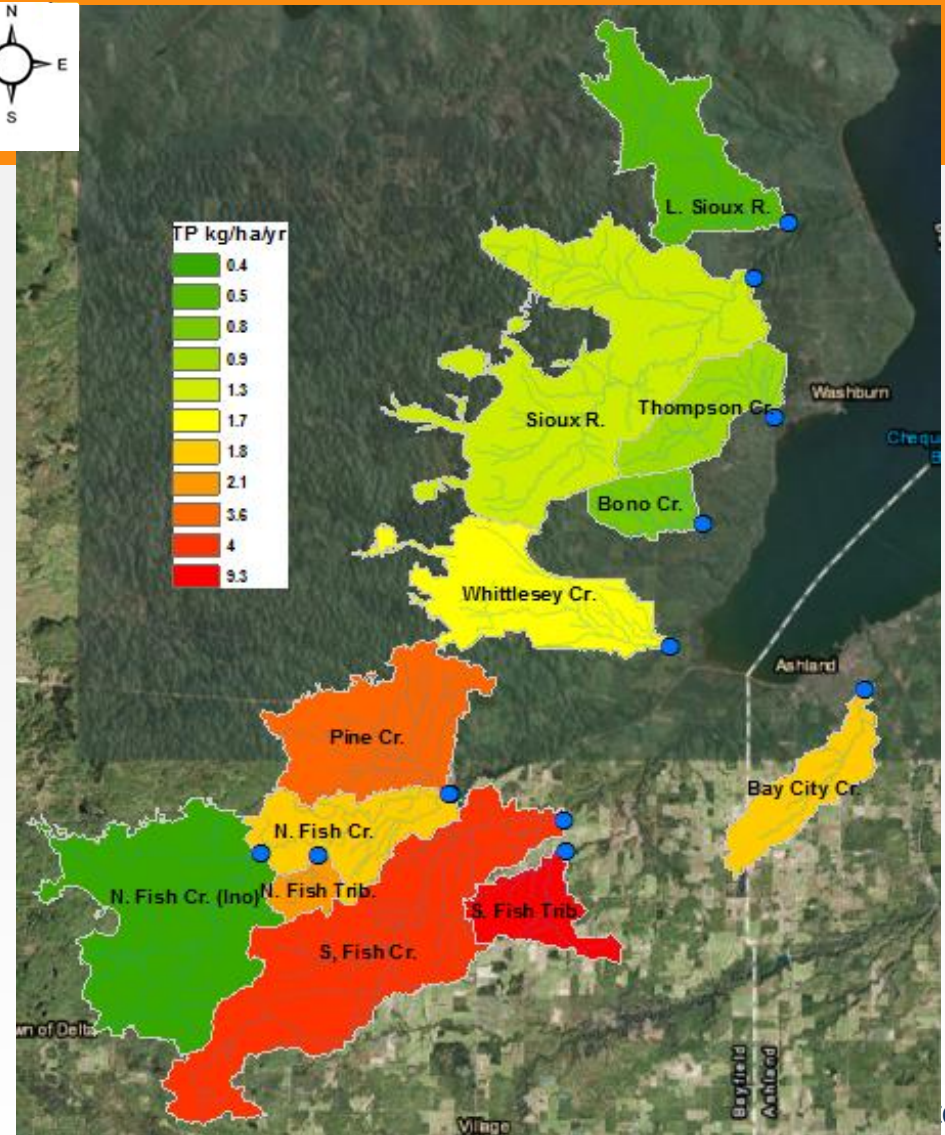
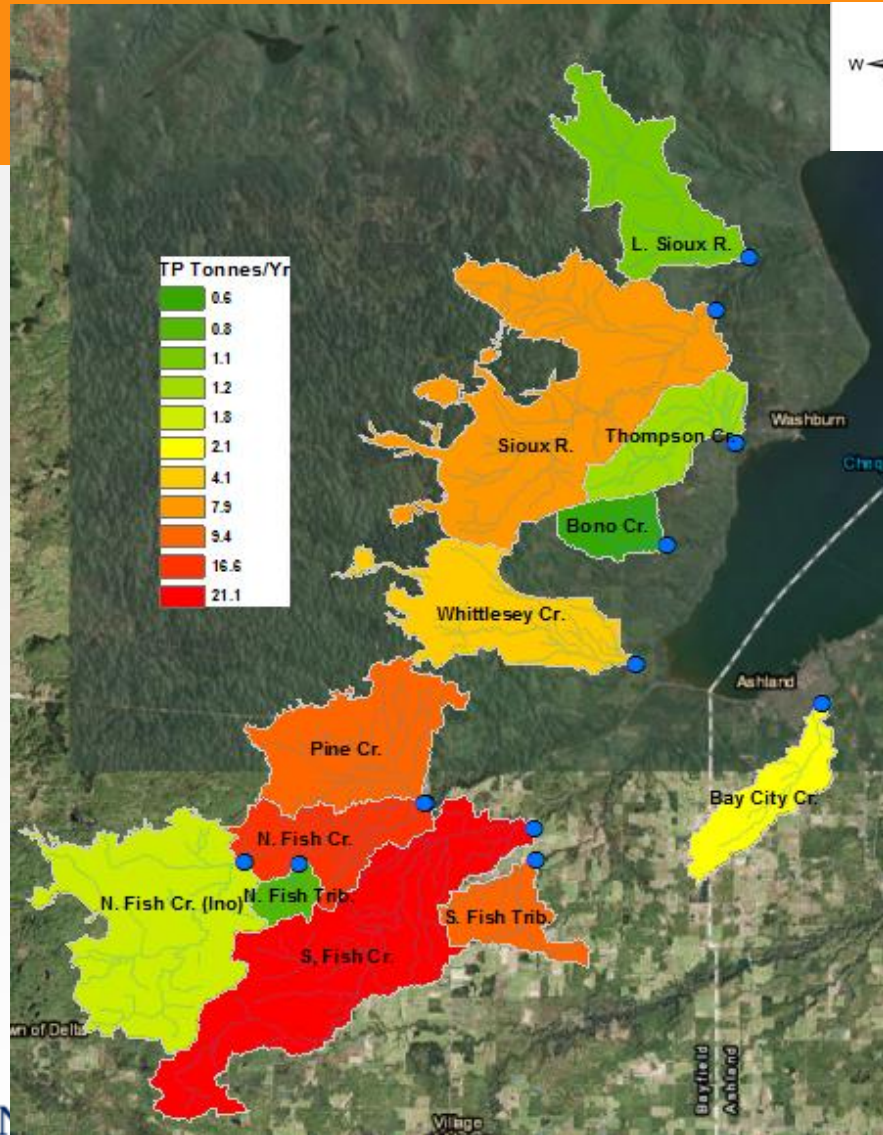
Suspended Sediment Load & Yield, 2014-2016

Of monitored stations – 63% of suspended load from Fish Creek



Total Phosphorus Load & Yield, 2014-2016

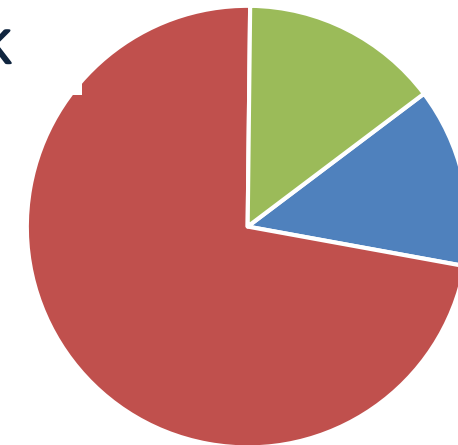
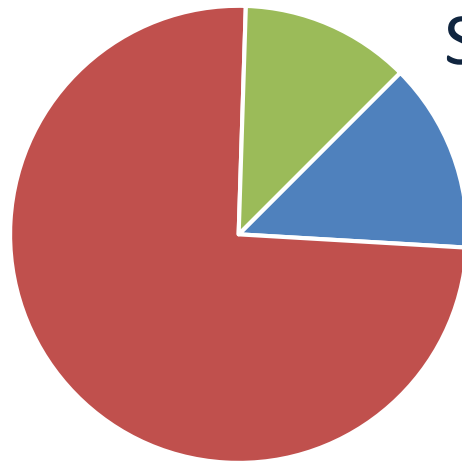
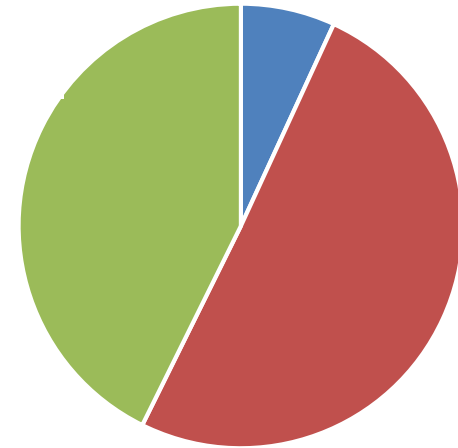
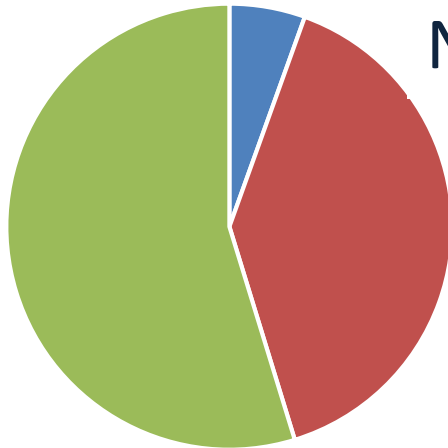
Of monitored stations – 69% of total TP load from Fish Creek



Episodic Events are Key

Suspended Sediment Load

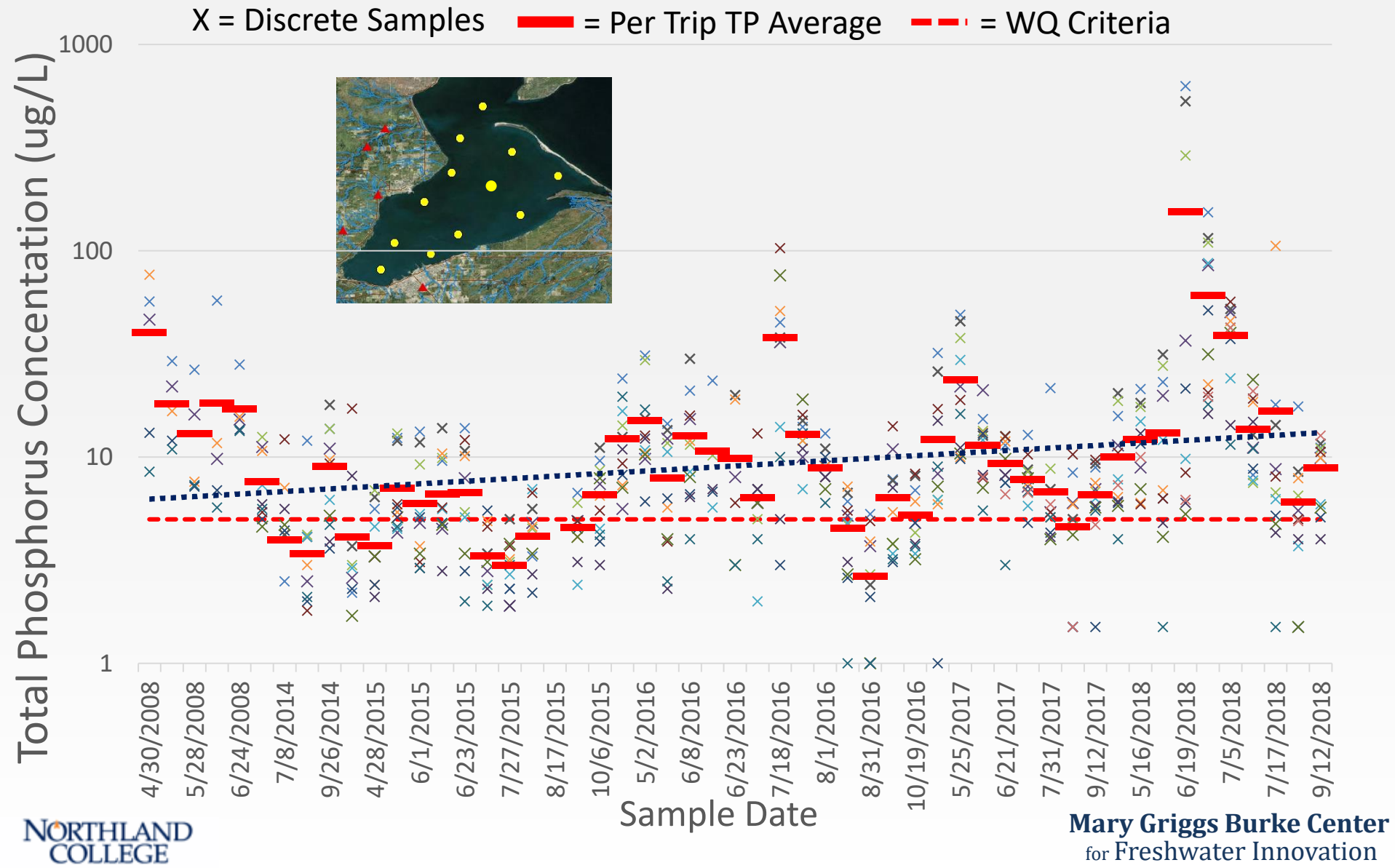
Total Phosphorus Load



■ 2016 ■ 2018 ■ 2014-18 Other

■ 2016 ■ 2018 ■ 2014-18 Other

Surface Total Phosphorus: 2008, 2014-2018

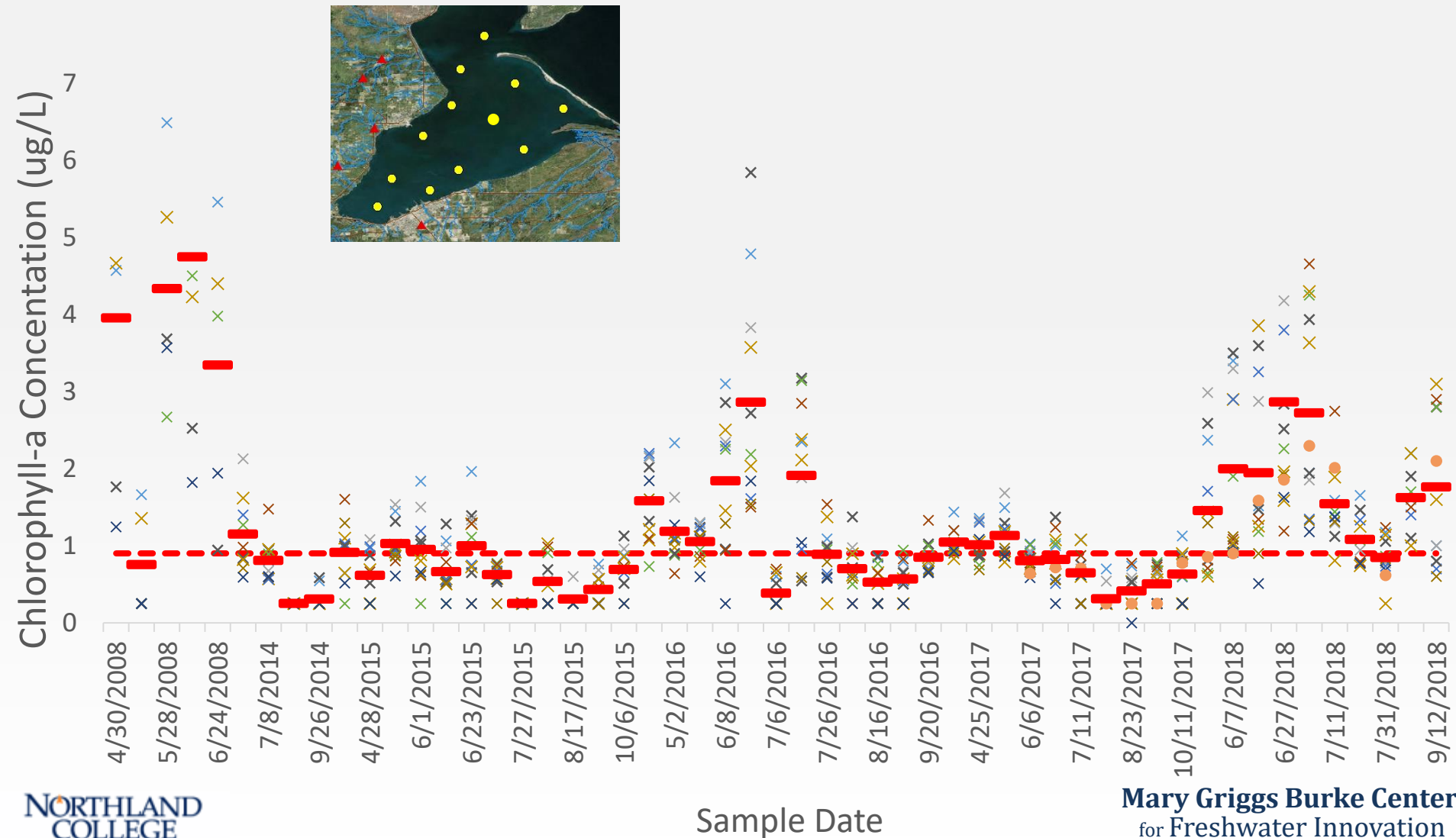


Chlorophyll-a: 2008, 2014-2018

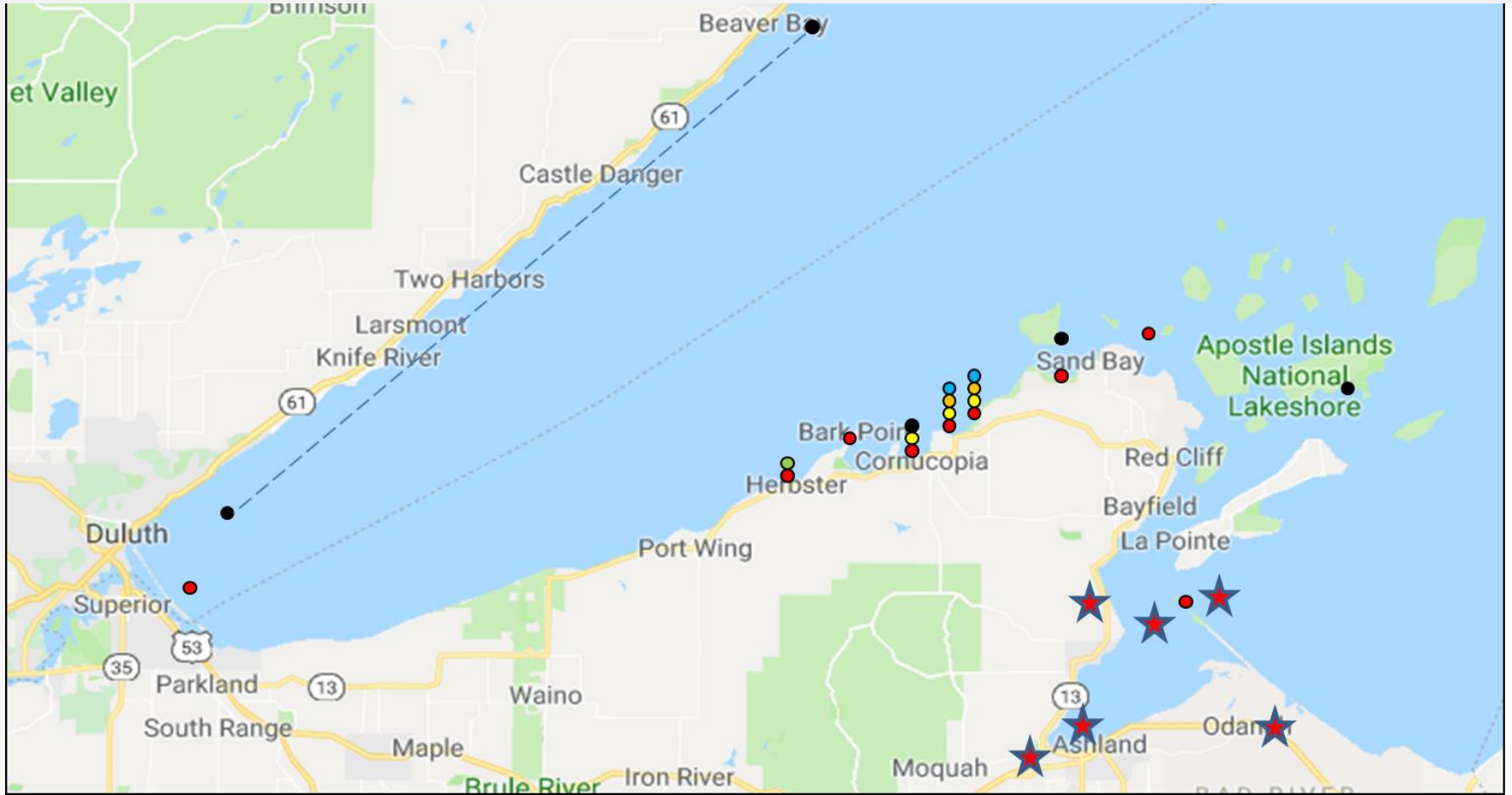
X = Discrete Samples

■ = Per Trip Chl-a Average

- - - = Median



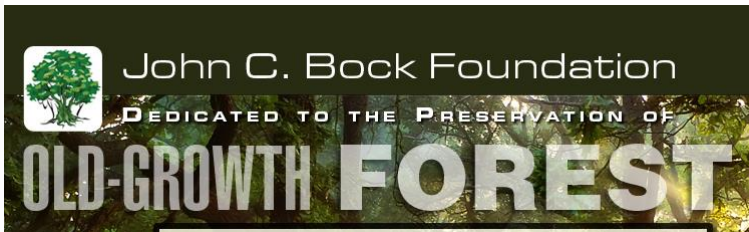
Potential Cyanobacteria Sources- Cheq. Bay



- Anecdotal Historical Observations
- 2012 Observations
- 2015 Observations
- 2016 Observations
- 2017 Observations
- 2018 Observations
- ★ Proposed 2019 Sample Locations

Acknowledgements

- Funding



- Project Implementation
 - Burke Center Student Researchers

