UNRBA Monitoring Program

Board of Directors Meeting

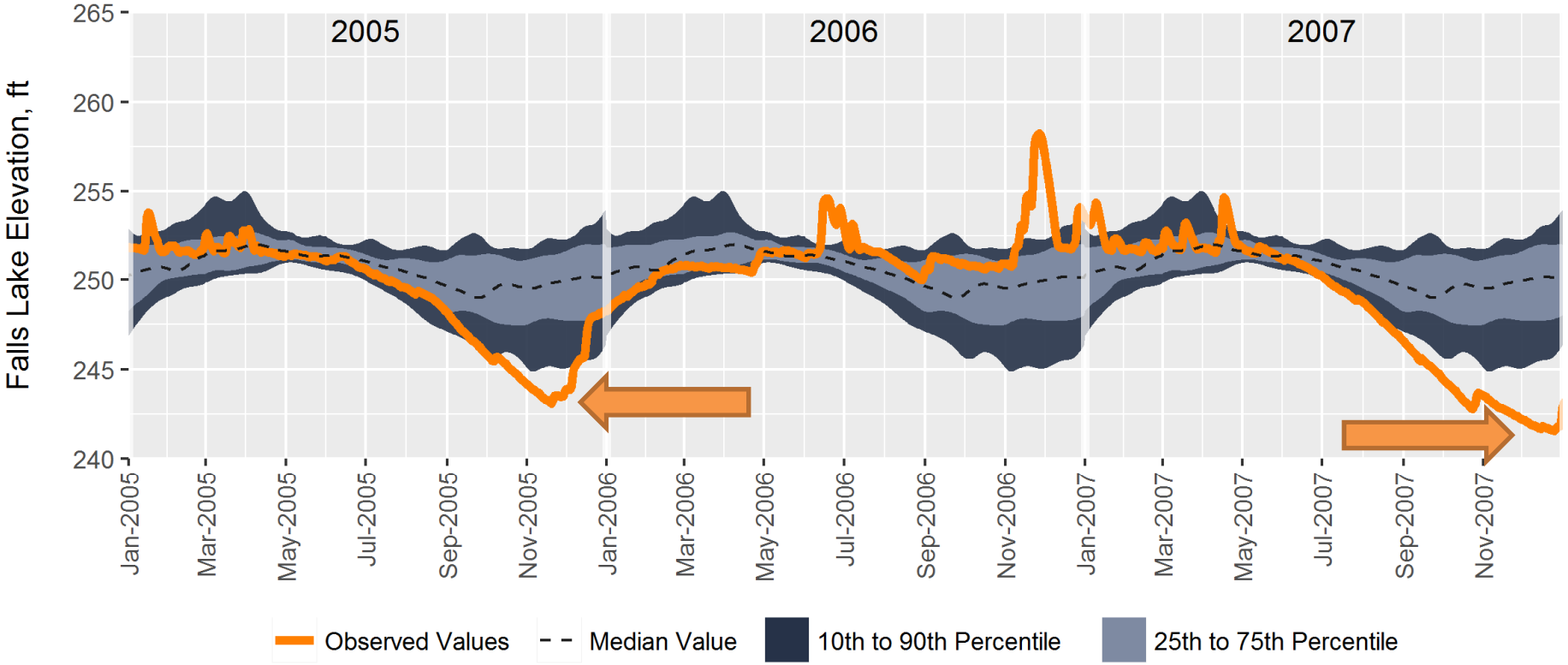
November 2016

November 16, 2016

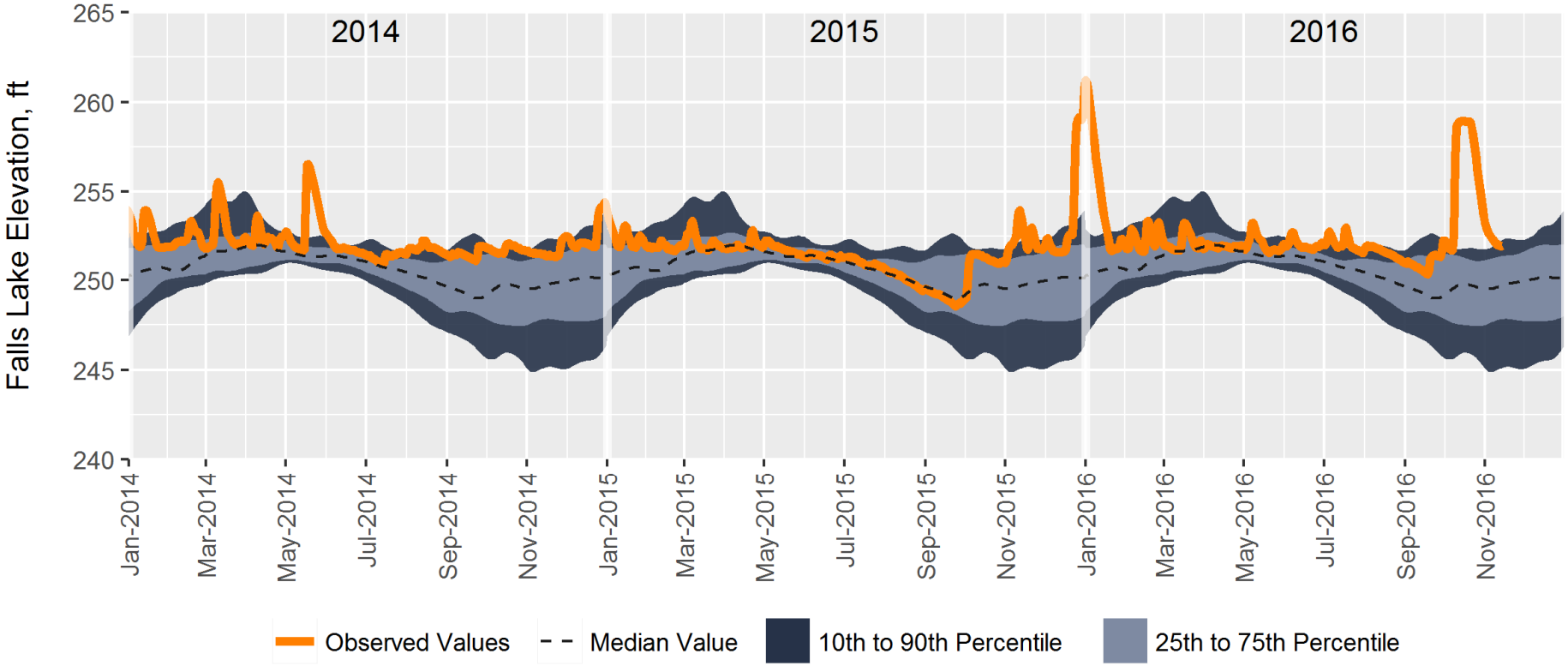
Routine Monitoring – Data generation status

Date	Sample Collection	Sample Analysis	Data Review	Posted to Database
Aug-Dec 2014	✓	✓	✓	✓
Jan-Dec 2015	✓	✓	✓	✓
Jan-2016	✓	✓	✓	✓
Feb-2016	✓	✓	✓	✓
Mar-2016	✓	✓	✓	✓
Apr-2016	✓	✓	✓	✓
May-2016	✓	✓	✓	✓
Jun-2016	✓	✓	✓	✓
Jul-2016	✓	✓	✓	✓
Aug-2016	✓	✓	✓	✓
Sep-2016	✓	✓	✓	
Oct-2016	✓			
Nov-2016	✓			
Dec-2016				

Lake Level - Model baseline years



Lake Level – UNRBA Monitoring Program



Falls Lake Monitoring Pro

https://www.unrba.org/monitoring-program

Unrba

Upper Neuse River Basin Association

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Falls Lake Monitoring Program

The information below provides downloadable files for the Falls Lake Monitoring Program sponsored by the UNRBA.

Monitoring Plan and Quality Assurance Project Plan:

- DWR Approved Monitoring Plan July 15 2014
- DWR Approved Quality Assurance Project Plan (QAPP) July 30, 2014
- Monitoring Site Map, Revised 11/02/15
- 2015 Annual Monitoring Report
- 2014 Annual Monitoring Report
- 2015 Interim Monitoring Report
- 2016 Interim Monitoring Report

Interim Report

- Updates the previous annual report with data collected between January and June 2016

- These 6 months are consistent with data collected throughout the monitoring program.

Special Studies Updates

Cardno®
Shaping the Future

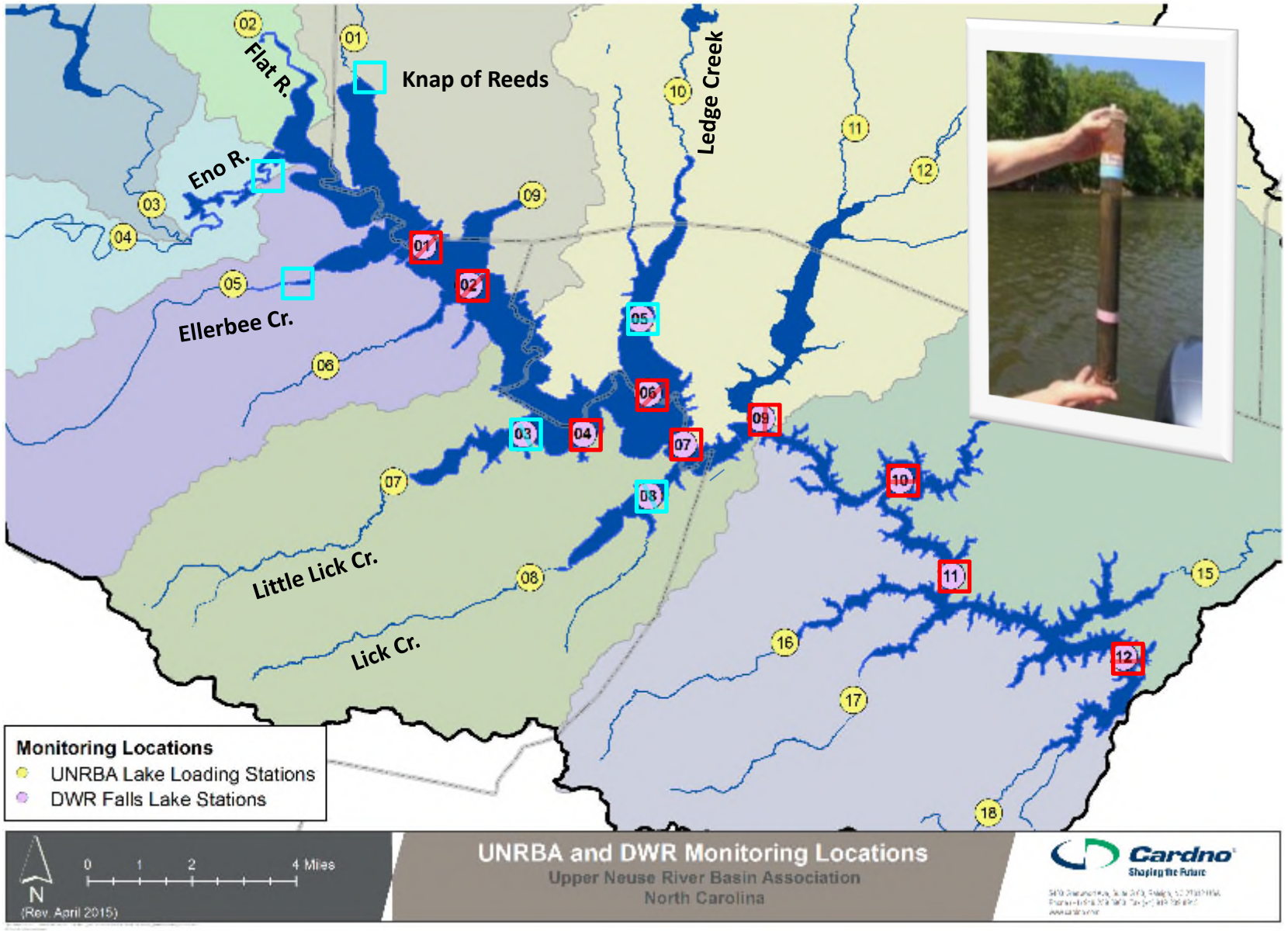
Sediment study:
How important are sediments as a source of nutrients?

Professor Marc Alperin

UNC-Chapel Hill

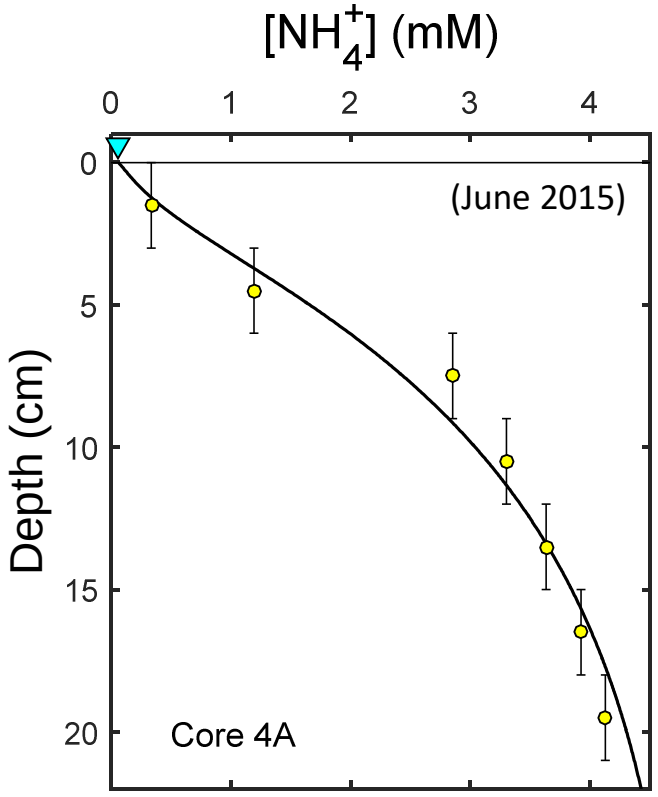
October PFC Meeting

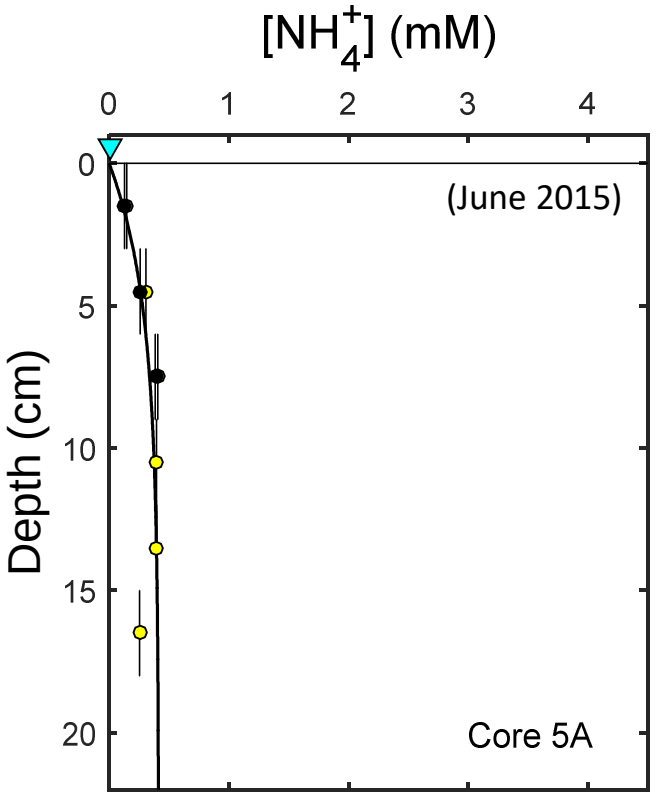
29 Cores; 9 “Transects”



Neuse River Main Stem Stations

Tributary (flooded) Stations



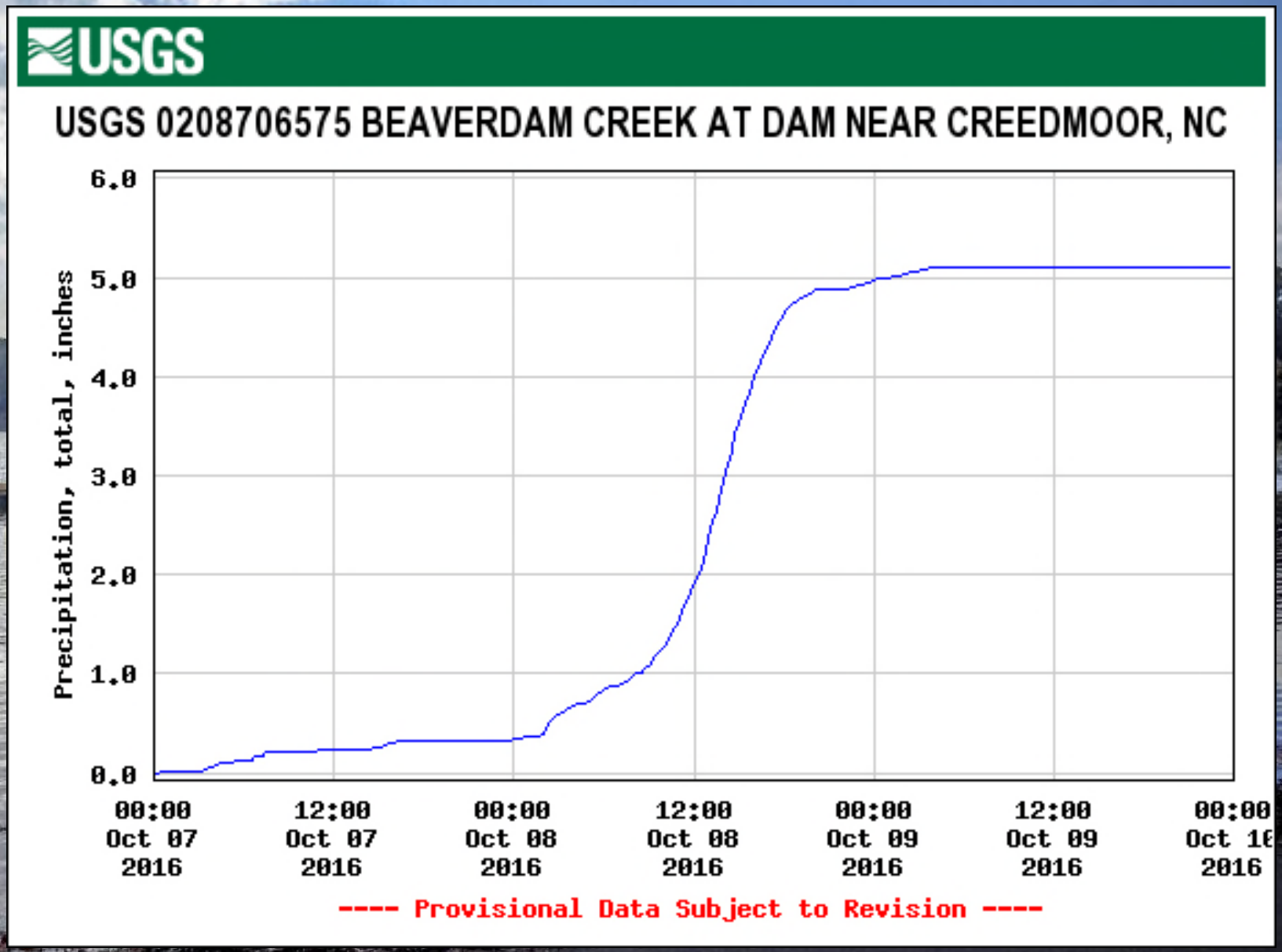


Sediment Flux: 0.08 g $N \cdot m^{-2} \cdot d^{-1}$

0.02 g $N \cdot m^{-2} \cdot d^{-1}$

General conclusions from sediment study

- **Significant variability** in flux estimates among locations
- Sediment ammonia release is **similar to total tributary N load**
- The sediments are a **nitrogen reservoir**; *even if tributary inputs were eliminated, it is estimated that it would take **25 years** to release just 85% of the stored N.*

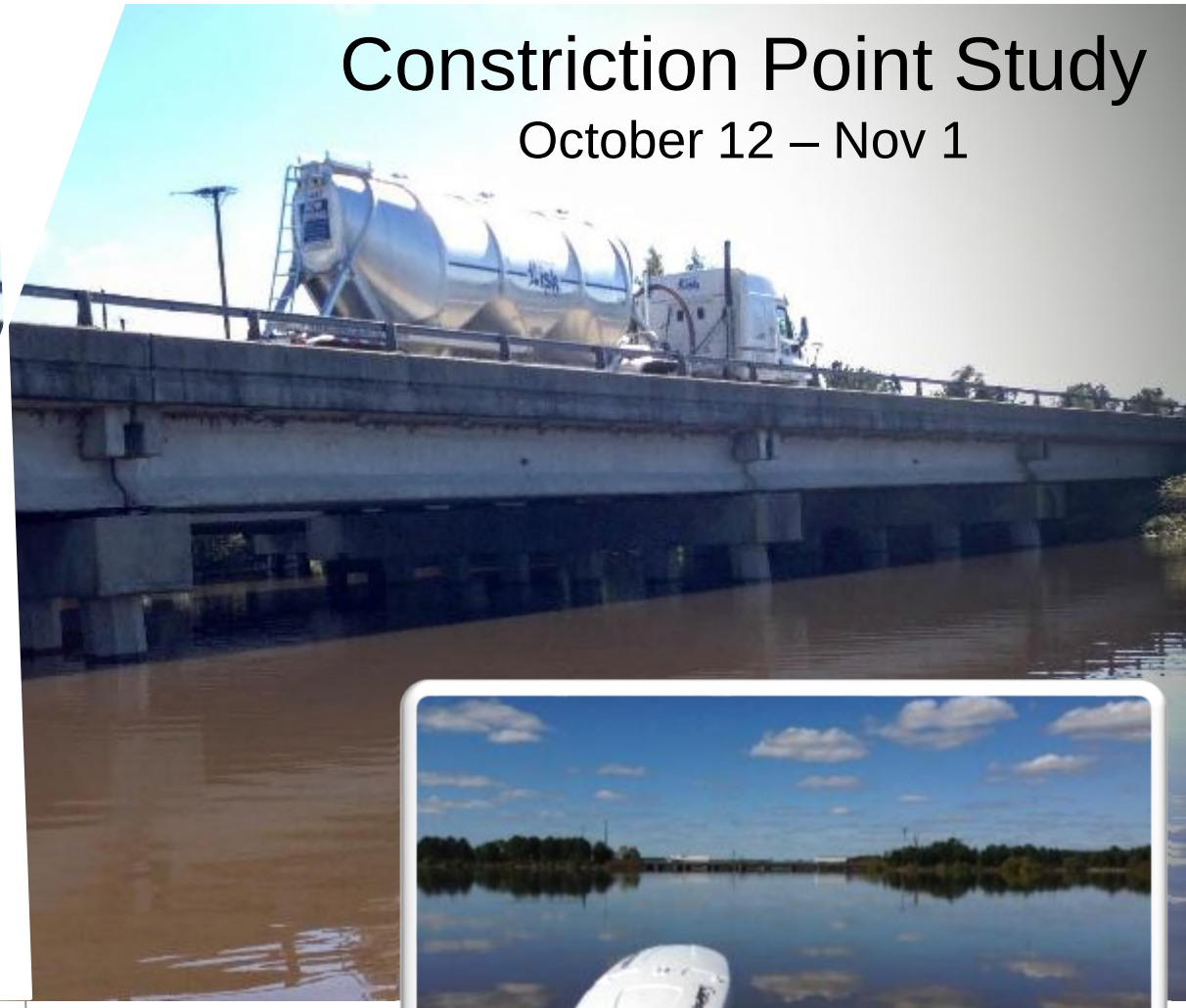


Hurricane Matthew

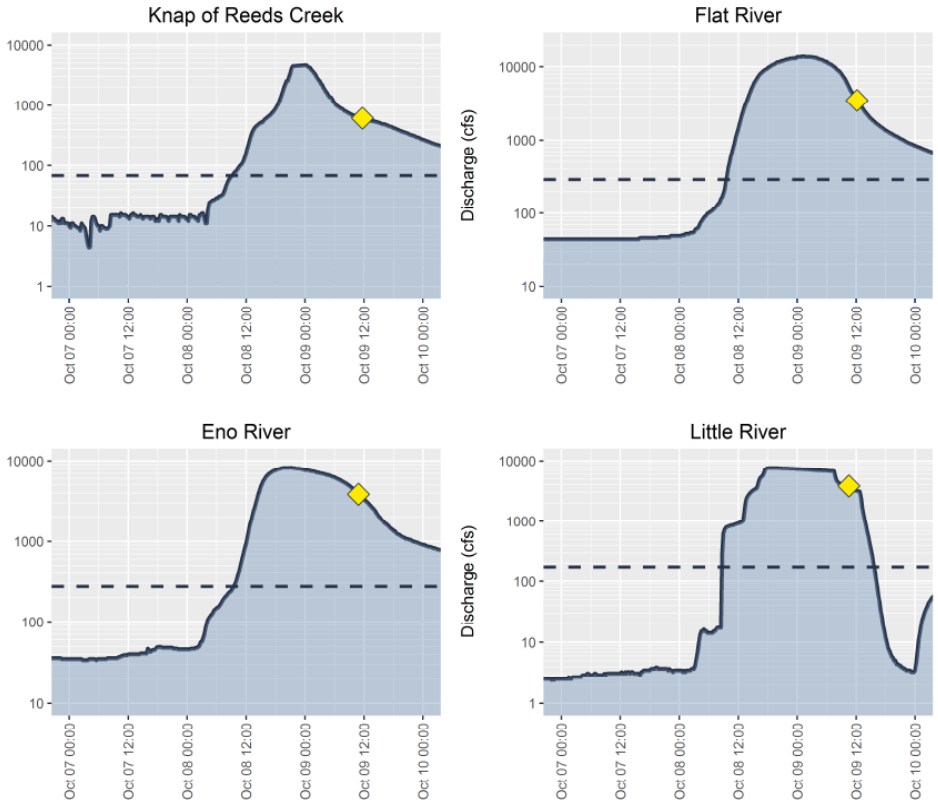
Hurricane Matthew

Constriction Point Study

October 12 – Nov 1



High Flow Sampling



High flow sampling in August, September, & October.