

UNRBA Board of Directors

Monitoring Program Status Update June 20, 2018



Routine Monitoring Update



Routine Monitoring Status

| Date | Sample Collection | Sample Analysis | Data Review | Posted to Database |
|----------------|----------------------|--------------------|----------------|-----------------------|
| Aug - Dec 2014 | ✓ | ✓ | ✓ | ✓ |
| Jan - Dec 2015 | ✓ | ✓ | ✓ | ✓ |
| Jan - Dec 2016 | ✓ | ✓ | ✓ | ✓ |
| Jan - Dec 2017 | ✓ | ✓ | ✓ | ✓ |
| January 2018 | ✓ | ✓ | ✓ | ✓ |
| February 2018 | ✓ | ✓ | ✓ | ✓ |
| March 2018 | ✓ | ✓ | ✓ | ✓ |
| April 2018 | ✓ | ✓ | | |
| May 2018 | ✓ | ✓ | | |
| June 2018 | ✓ | | | |
| July 2018 | | | | |
| August 2018 | | | | |
| September 2018 | | | | |
| October 2018 | | | | |

The UNRBA has now generated 47 months water quality data.

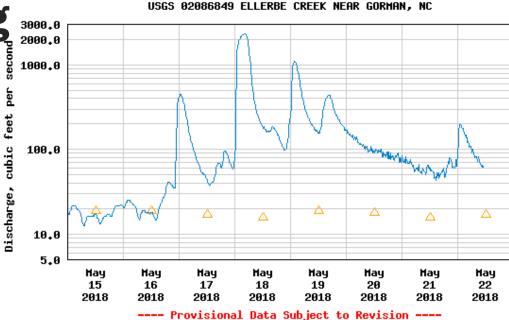
Only 4 months remaining in the planned data collection window for the modeling effort of the re-examination.

Special Studies Update

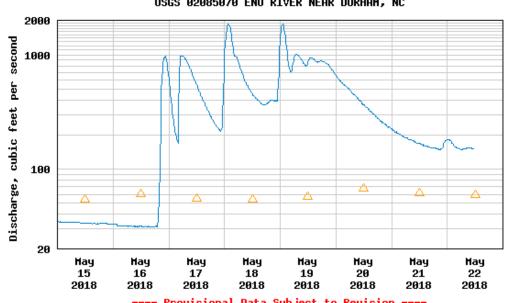


High Flow Sampling

- Six events so far in FY2018
 - January 23
 - January 29
 - March 21
 - April 16
 - April 27
 - May 18







---- Provisional Data Subject to Revision

Median daily statistic (54 years) — Discharge

Sediment Study

- EPA conducted in situ sediment monitoring the first week of June
- UNC Collaboratory provided fiscal support for Dr. Alperin to collect and analyze sediment cores along side EPA's chambers

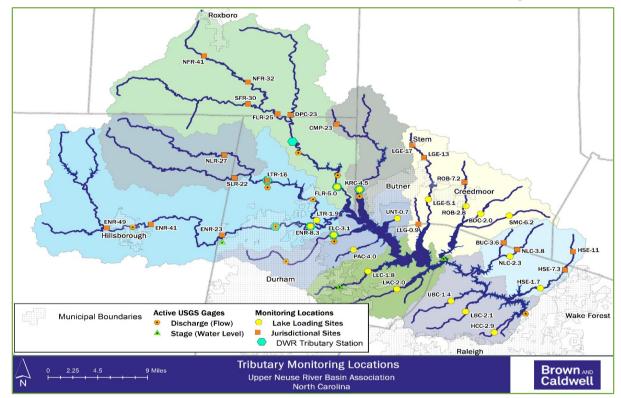
Fiscal Year 2019 Monitoring Program Scope and Budget



FY2019 Monitoring Program

I. Completion of Routine Monitoring

- Obtain data through October 2018 to support the modeling efforts
- Same 38 stations and parameters that have been evaluated since August 2014
- Acquisition of data from other monitoring entities through October 2018
- Analysis of data from UNRBA and other entities
- Preparation of a Final Report to transmit data to the modeling team



FY2019 Monitoring Program

II. Transition Monitoring

- Reduced level of ongoing monitoring to look for status and trends
- 12 tributary stations
- Analyze nitrogen and phosphorus at all stations; analyze total organic carbon at six stations nearest to the lake
- Obtain data from other monitoring entities

Prepare brief summary memo near the end of the fiscal year



FY2019 Monitoring Program

Budget

| Phase | Consultant Labor | Subcontractor Costs | Miscellaneous Expenses | Total | | | |
|--|---------------------|------------------------|---------------------------|-----------|--|--|--|
| I. Completion of Routine Monitoring | | | | | | | |
| Phase 110: Routine Tributary Monitoring | \$16,250 | \$61,250 | \$250 | \$77,750 | | | |
| Phase 210: QA/QC, QAPP & Monitoring Plan Management, Data Management | \$18,750 | \$0 | \$0 | \$18,750 | | | |
| Phase 310: Analysis and Reporting | \$83,000 | \$0 | \$0 | \$83,000 | | | |
| Phase 410: Communication and Meetings | \$19,750 | \$0 | \$750 | \$20,500 | | | |
| Subtotals | \$137,750 | \$61,250 | \$1,000 | \$200,000 | | | |
| II. Transition Monitoring | | | | | | | |
| Phase 510: Tributary Monitoring | \$5,250 | \$21,250 | \$0 | \$26,500 | | | |
| Phase 610: Data Management and Reporting | \$6,775 | \$0 | \$50 | \$6,825 | | | |
| Subtotals | \$12,025 | \$21,250 | \$50 | \$33,325 | | | |
| TOTALS | \$149,775 | \$82,500 | \$1,050 | \$233,325 | | | |



