

UNRBA Board Meeting

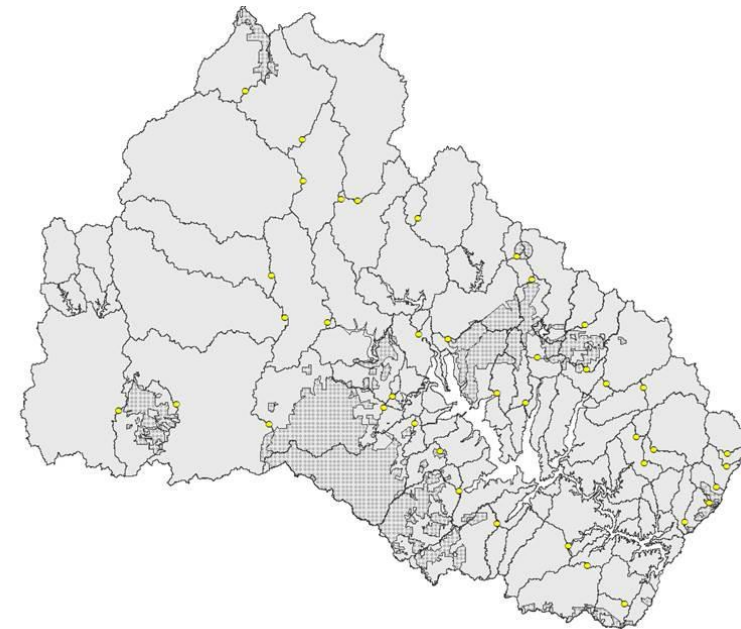
MRS Project Status Update

June 20, 2018



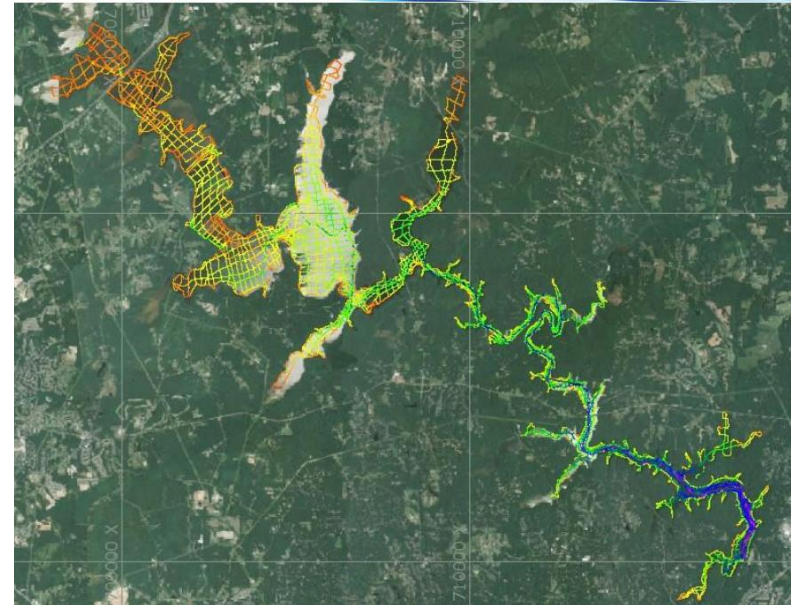
Status of FY 2018 Activities

- Continuing to receive data from organizations in the watershed
 - Developing summaries of data and application
- Submitted the data management plan for review by the MRSW
- Developed the model grid for the hydrodynamic lake water quality model
- Delineated preliminary modeling subwatersheds
- Conducted preliminary analyses of lake water quality with respect to segmentation



Development of Falls Lake Model Grid

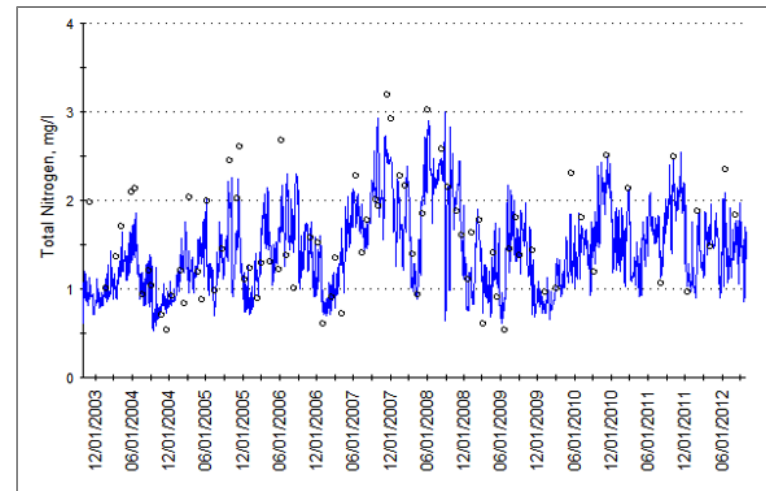
- Relied on the bathymetry data collected by the UNRBA
- Converted the depth measurements to a model grid
- The DWR model grid had 519 grid cells. It was developed using 17 transects measured across Falls Lake.
- The UNRBA model grid has 804 grid cells. It was developed using sonar data measured along many transects across Falls Lake.



UNRBA Transects for the Bathymetry Study

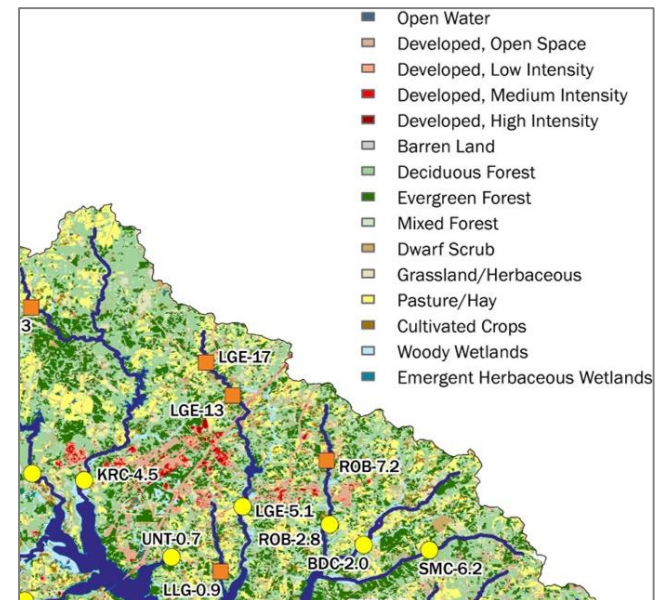
Overview of FY2019 Activities

- Primary goals of FY2019
 - Continue to compile and process watershed data
 - Finalize modeling subwatersheds incorporating feedback from stakeholders
 - Develop model input files for the watershed and lake models
 - Host two stakeholder meetings
- Six tasks associated with Year 1 of Phase 3 as described in the Modeling Quality Assurance Project Plan



Task 311: Data Collection, Processing, and Analysis

- Continue to compile watershed data
 - Watershed stakeholders continue to provide data
 - USGS land use data will be released (or re-released) in December 2018
 - 2006 (Baseline year of Falls Rules)
 - 2011 (Before new development rules)
 - 2016 (Middle of the UNRBA monitoring)
- Process data and information for two modeling periods
 - 2005 to 2007
 - 2014 to 2018



Task 312: Model Configuration and Statistical Analyses

- Develop model input files for the watershed and lake models
 - Meteorology and atmospheric deposition (wet and dry)
 - Discharges to waters, reservoir releases, and withdrawals
- Develop calibration datasets
 - USGS stream flows and water levels
 - Water quality data (UNRBA and members, DWR, universities)
- Finalize delineation of modeling subwatersheds
 - Discuss with stakeholders at Fall meeting
- Statistical analyses to support modeling
 - Identify which stations in the lake have similar water quality
 - Evaluate meteorological models for application
 - Update nutrient loading estimates to Falls Lake
 - Analyze lake profile data to support hydrodynamic calibration

Task 313: Iterative Reporting

- Develop two technical memoranda to describe the available data
 - Split the content of the memoranda to support stakeholder meetings
 - Provide to stakeholders in advance of meetings
 - Describe preliminary assumptions and note areas for specific discussion
- Develop one technical memorandum to describe the statistical analyses to support modeling

Task 314: Update Multi-Year Work Plan and Draft Scope for FY2020

- Update the work plan and schedule with input from the UNRBA
- Draft the scope of work for FY2020

Task 315: Regulatory Support & Coordination with the UNRBA Communications Team

- Support the UNRBA with planning and preparing for meetings with agency staff and interested parties
- Coordinate with the communications team to ensure technical accuracy and consistency across UNRBA work products

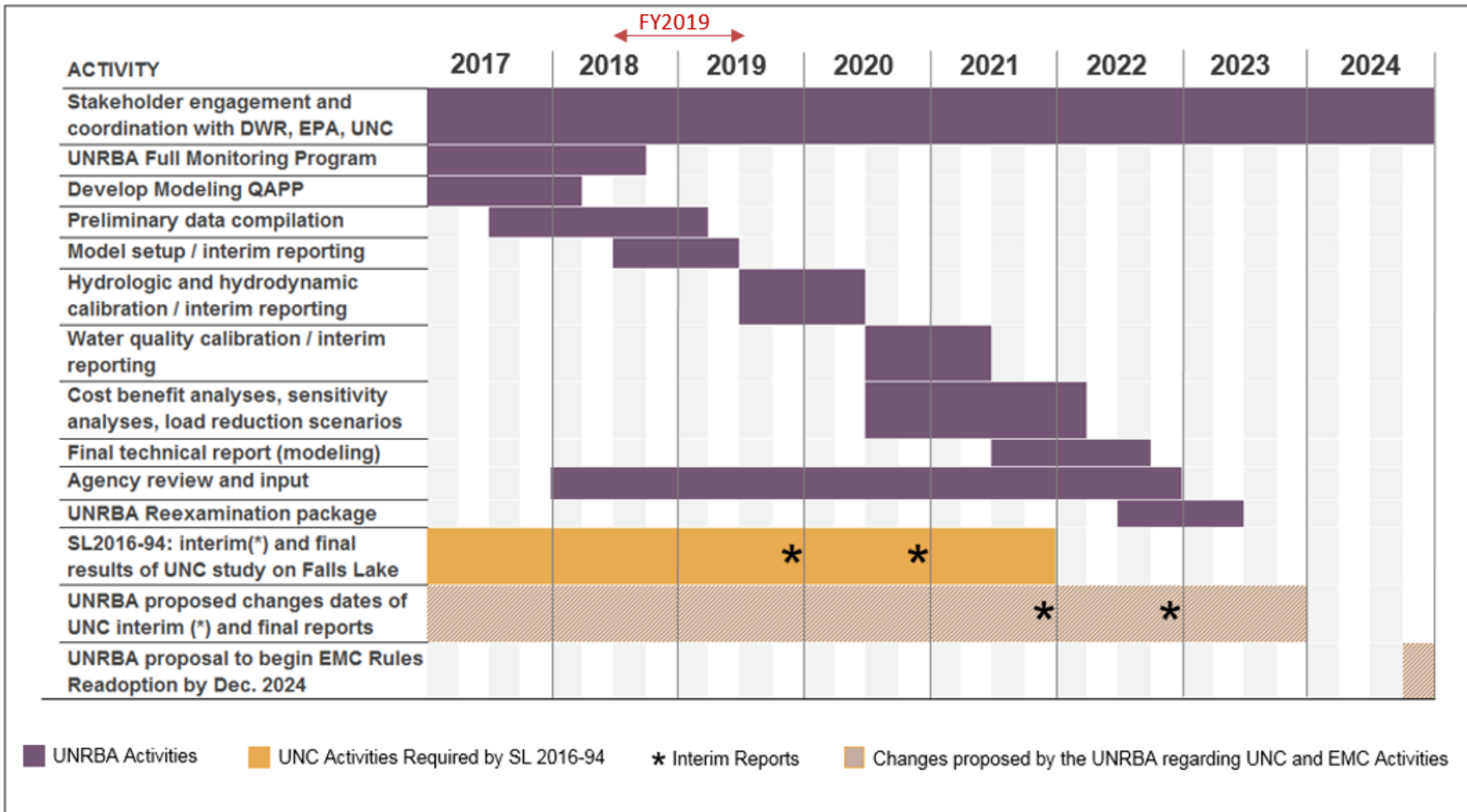
Task 316: Client Communications, Stakeholder Workshops, Project Management

- Provide status updates at Board meetings and Path Forward Committee meetings
- Routine calls with the Executive Director
- Preparation and attendance at two stakeholder meetings
 - Fall 2018
 - Review of the preliminary modeling subwatersheds and rivers delineations
 - Feedback from stakeholders on further delineation
 - Presentation of time series data that will be used as model inputs or calibration data
 - Presentation of the lake model grid
 - Discussion of applying models to generate meteorology inputs
 - Spring 2019
 - Discuss spatial data used for modeling (land uses, nutrient applications, septic systems, agricultural practices, and soils data)
 - Presentation and feedback on lake segments for empirical lake modeling

FY2019 Budget Summary

Task	Budget
Task 311: Data Collection, Processing, and Analysis	\$181,700
Task 312: Model Configuration and Statistical Analyses	\$152,300
Task 313: Iterative Reporting	\$53,400
Task 314: Update Multi-Year Work Plan and Develop Year 4 Scope of Work	\$22,500
Task 315: Regulatory Support and Coordination with Communications Team	\$29,700
Task 316: Client Communications, Stakeholder Workshops, and Project Management	\$75,400
Total	\$515,000

Multi-Year Schedule



Questions ?

