



UNRBA
Modeling and
Regulatory Support
Path Forward Committee
Meeting
July 2017



The background features a vertical line that divides the space. To the left of this line is a teal-colored shape that is roughly rectangular but has a diagonal cutout on its right side. To the right of the line is a brown-colored shape that is roughly rectangular but has a diagonal cutout on its left side, mirroring the teal shape. The text 'Modeling QAPP' is centered within the brown shape.

Modeling QAPP



Modeling QAPP – Status

- > Members of several groups have reviewed the draft QAPP
 - UNRBA MRSW and PFC
 - Representatives from agriculture
 - DWR
 - NCDOT
- > Met with MRSW on June 20th to discuss responses to comments
- > Provided a revised draft to MRSW and PFC on June 24th
- > Provided interim draft to DWR to review revisions on July 11th
 - Requested DWR provide additional feedback by July 28th
- > We will finalize and distribute to DWR and EPA after comments have been addressed and contractor roles have been updated



Draft Work Plan



Multi-year Work Plan

- > Provided draft to MRSW and PFC on June 15th
- > Discussed with MRSW on June 20th
- > Finalized and distributed final draft on July 25th



Draft Work Plan – Example Activities for Next Year

- > Develop the EFDC model grid
- > Begin exploratory analyses for statistical modeling
- > Review the FY2018 Monitoring Program Annual Report and recommendations regarding the need for a 5th year of data
- > Compile and summarize watershed characterization datasets
 - Formal requests for data could begin in September
 - Members could begin compilation of data sets to prepare in advance
 - Example datasets follow
- > Work with stakeholders including DWR, EPA, and UNC to ensure that data sets and assumptions are appropriate, accurate, and reflect the best available information
- > Develop a data management plan



Preparing for Data Acquisition – Land Use

- > WARMF simulates nutrient loading from the watershed
- > One primary input is land use/land cover
- > Publicly available sources
 - USGS National Land Cover Dataset (30-m resolution; latest 2011)
 - USDA Cropscape (30-m resolution; latest 2011 overall with 2016 crops)
- > UNRBA members and interested stakeholders may also have land use/land cover data
 - Spatial coverages at higher resolution (e.g., Durham Co and City)
 - Ground truthing information (e.g., agricultural representatives)
 - Corrections/modifications (e.g., NCDOT)



Preparing for Data Acquisition – Wastewater

- > WARMF accounts for loading associated with wastewater
 - Point source discharges from wastewater treatment plants
 - Sanitary sewer overflows (SSOs)
 - Onsite wastewater disposal
- > Publicly available sources
 - Discharge monitoring reports from EPA and DEQ (weekly to monthly)
 - Non-discharge permits from DEQ
 - DEQ Basinwide Information Management System for SSOs
- > UNRBA members may have more refined data
 - Wastewater discharges and concentrations (daily to weekly)
 - Inventories of onsite site disposal systems, failure rates, complaints, etc.



Planning for Data Acquisition – Impoundments

- > WARMF accounts for water withdrawals and nutrient processing in impoundments
- > Requires hydrologic information and withdrawal data
- > Publicly available sources
 - DWR Neuse River Basin Hydrologic Model
- > UNRBA members may also have pertinent data
 - Stage/storage relationships
 - Outlet control structure data
 - Water withdrawals