

Path Forward Committee Meeting
9:30 AM on October 6, 2020
Remote Access Only (see next slides)



Remote Access Options

Equipment Type	Access Information	Notes
Computers with microphones and speakers	Join Microsoft Teams Meeting Please mute your microphone unless you want to provide input.	Press control and click on this link to bring up Microsoft Teams through the internet. You can view the screen share and communicate through your computer's speakers and microphone
Computers without audio capabilities, or audio that is not working	Join Microsoft Teams Meeting (888) 404-2493 Passcode: 371 817 961# Please mute your phone unless you want to provide input.	Follow instructions above Turn down your computer speakers, mute your computer microphone, and dial the toll-free number through your phone and enter the passcode
Phone only	(888) 404-2493 Passcode: 371 817 961# Please mute your phone unless you want to provide input.	Dial the toll-free number and enter the passcode

Remote Access Guidelines

- This meeting will open 10 minutes prior to the first meeting start time (e.g., MRSW) to allow users to **test equipment** and ensure communication methods are working
- If you dial in through your phone, mute your microphone and turn down your speakers to **avoid feedback**
- Unless you are speaking, please mute your computer or device microphone and phone microphone to **minimize background noise**

Agenda

- Opening comments
- Potential Change in MRSW and PFC Meeting Times
- Steps Toward Establishing the Interim Alternative Implementation Approach
- Summary of the Draft Falls Lake Model Program
- Plan for Development of a Site-specific Chlorophyll-a Standard
- Modeling and Regulatory Support Status
- Communications Support
- Other items
- Closing comments

Potential Change in MRSW and PFC Meeting Times

Potential Change in PFC and MRSW Meeting Times

- Additional meeting time for MRSW is recommended
 - Past meetings have been 1.5 hours
 - More time for technical discussions would be helpful
- Recommended change to utilize established meeting dates and range of meeting times
 - For months with MRSW and PFC meetings
 - MRSW 9:00 AM to 11:00 AM
 - 30-minute break
 - PFC 11:30 AM to 1:15 PM
 - For months with only PFC meeting
 - PFC 9:30 AM to 12:00 PM

Steps Toward Establishing the UNRBA Stage I Existing Development (ED) Interim Alternative Implementation Approach (IAIA)

IAIA Program Status

(summaries of recent meetings follow)

- Core principles document and updated draft Program distributed July 17th
- PFC members provided update on likely participation at August and September meetings
- September 5, 2020 discussion with Wake Forest
- September 10, 2020 discussion with Franklin County
- September 16, 2020 UNRBA Board moved to continue to develop IAIA including an Interlocal Agreement

Summary of PFC Discussions (August and September Meetings)

- Jurisdictions likely to participate
 - Hillsborough
 - Butner
 - Person County
 - City of Durham
 - Durham County
 - Granville County
 - Creedmoor
 - Orange County (communicated via email following the meeting)
 - City of Raleigh
 - Franklin County
 - Wake County
- Discussions with local leadership ongoing
 - Wake Forest

Discussion with Wake Forest

- September 1, 2020
- Executive Director participated in Town Council meeting to describe IAIA
- Wake Forest's Stage I load reduction requirements are small
- Town indicated they are still evaluating their options

Discussion with Franklin County

- September 10, 2020
- Conference call with County staff
- Staff plan to recommend to their commission to participate in IAIA during October 5, 2020 commission meeting and request motion to authorize participation in development of ILA
- Staff raised questions about potential additional eligible actions under the IAIA:
 - Down zoning Unified Development Ordinances (UDO) to reduce density
 - Requiring increases in open space requirements
 - Overtreatment on new development
 - Accepting resources to change UDO as an eligible expense

UNRBA Board Meeting Discussion

- September 16, 2020 – Board voted to
 - Continue development of IAIA
 - Authorize legal representatives to develop interlocal agreement (ILA) which will require approval by each governing body
 - Present the IAIA to their councils/commissions for local action
 - Report back on status at November 18, 2020 Board meeting

Ongoing Actions for IAIA Development

- UNRBA to provide input to DWR on draft Model Program thru October 9, 2020
- Legal representatives of likely participants to develop draft Interlocal Agreement (ILA)
 - Executive Director working to add members to group for jurisdictions not currently represented
 - PFC to review and provide comment
 - Local councils/commissions to review
 - UNRBA Board to provide feedback (November 18, 2020)
- PFC to discuss IAIA reporting elements at November 3, 2020 meeting
- ILA to be signed by participants and submitted with the Model Program to the EMC ahead of January 14, 2021 EMC meeting (back up submittal in March)
- Anticipate Program start July 1, 2021

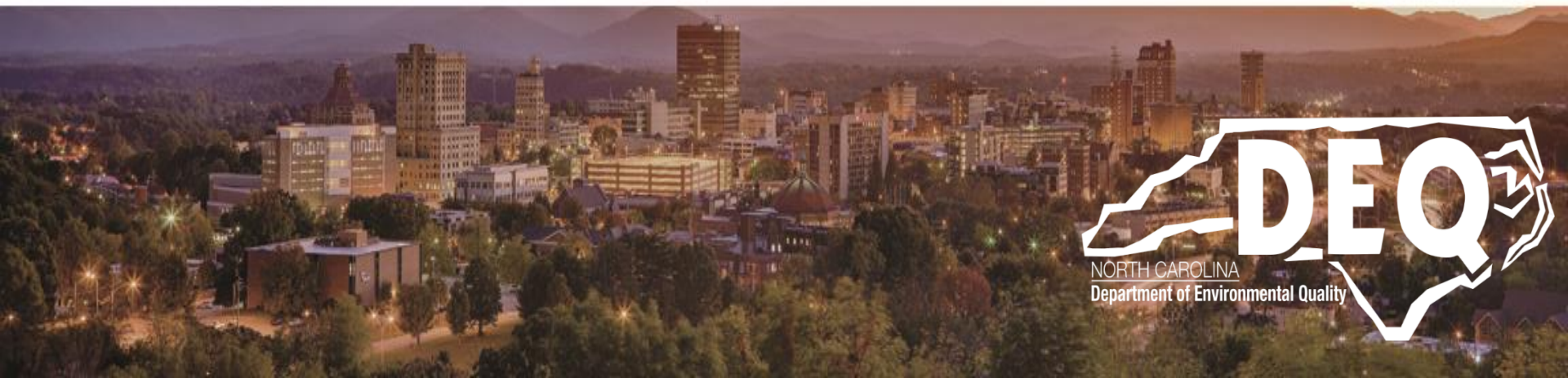
Summary of the Draft Falls Lake Model Program



Draft Falls Lake Existing Development Model Program

UNRBA PFC – October 6, 2020

**John Huisman, DWR
Nonpoint Source Planning Branch**



Falls Lake Existing Development Rule (.0278)

Stage I Requirements

- LG's implement load reduction programs to offset nutrient loading from lands developed post-baseline (2006) & before New Development Rule in place (2012)
- DWR to develop Model Program by
 - Draft Model Program presented to EMC in 2013 per the rule
 - Requested EMC allow Division to continue working with stakeholders
- Post-2013 DWR continued to collaborate with LG's
 - Expanding the “toolbox” of available nutrient reducing practices
 - Developing preliminary jurisdictional loads
 - Revising Model Program & Developing Alternative Implementation Option
- Challenges w/ Implementation
 - New practices standards, crediting = slow process
 - Disagreements on jurisdictional loads, credit values for practices



Overview of Model Program

Section 1.0 – Introduction

- Model Program is a Guidance Document
 - Guidance for developing local programs
 - Interpretive guidance for technical decisions
 - Identifies minimum elements to include in Stage I program submittals per the Rule
- Model Program Recognizes 2 approaches for complying w/ requirements of Rule
 - 1) Implementation of a local load reduction program: **(Pounds Accounting)**
 - 2) Work together via Item (6) of Rule, a “joint compliance” approach: **(IAIA Program)**

“A municipality shall have the option of working with the county or counties in which it falls, or with another municipality or municipalities within the same subwatershed, to jointly meet the loading targets from all lands within their combined jurisdictions within a subwatershed. A local government may utilize private or third party sellers. All reductions involving trading with other parties shall meet the requirements of Rule 15A NCAC 02B .0282.”



Overview of Model Program

Section 1.1 – Preliminary Estimate of Stage I Load Reduction Need

- Preliminary Estimate of Stage I Load Reductions
 - Provided to show scale of reductions needed in Stage I
 - Upper & Lower range created using data compiled by Falls local governments
 - Based on development between 2006 – 2012

Combined Preliminary Estimate of Stage I Load Reduction Needs for Falls Local Governments

Total Nitrogen (lbs./year)	Total Phosphorus (lbs./year)
6,767 – 15,867	917 – 2,017

- **Note: Affected parties choosing to implement local load reduction programs will need to work with Division to develop their final individual Stage I load reduction needs**



Overview of Model Program

Section 2.0 – Required Elements of Local Programs

- Estimated Stage I load reduction needs aka “Jurisdictional Load”
- Measures opportunity assessment
 - Evaluation of opportunity & load reduction potential of practices
 - Table 2 in MP provides status of practices listed in rule
- Implementation plan
 - Types of activities and lands affected
 - Prioritization of practices; magnitude and duration of reductions expected
- Annual Reporting Plan
 - Details of Annual Report provided in Section 6.0



Overview of Model Program

Section 3.0 – Calculation of Stage I Load Reduction Needs



- Provides basic instructions for calculating jurisdictional loads and guidance on DWR's expectations for supporting documentation
- “Interim Period” Defined
 - Starting Point: January 1, 2007 / End Point: ~ 2012
 - Development after new development ordinance in place but vested to be included
- Spatial Extent of Development Analysis
 - Include all projects approved during interim period including expansions
 - Note assumptions made, resources and tools used
- Guidance for Calculating Stormwater & Onsite wastewater loads



Overview of Model Program

Section 4.0 – Joint Compliance Approach



- Language of this Section Already Drafted in Collaboration with UNRBA
- Addresses Voluntary Implementation Option of Regulated Entities Merging Reduction Needs & Meeting them Collectively
- UNRBA Proposal: **Interim Alternative Implementation Approach (IAIA)**
 - Investment based approach using joint compliance
 - Ensures projects are implemented in Stage I, deemphasizes pounds-counting
 - Affected parties commit to fixed amount of \$ each year on projects



Overview of Model Program

Section 5.0 – Process for Developing & Implementing Plans



- Brief Section Outlining Process Timelines
 - LG's submit local programs & begin implementation within 6 months of MP approval
 - Division has 14 months after MP to make recommendation to EMC on Local Programs
 - Division intends to complete this task much quicker
- Updating Local Programs
 - DWR plans to request delegation of authority for approval of future revisions
- Terminating Participation in Joint Compliance Approach
 - Advance written notice to DWR required
 - Will need to have local program in place to ensure no lapse in implementation



Overview of Model Program

Section 6.0 – Annual Reporting



Annual Reporting Elements

Summary of load reducing activities implemented and terminated

- Types & number of new activities implemented or terminated
- Estimated annual reductions or increases from each activity
- Duration of anticipated loading reductions for new activities
- Type & number of measures due for credit renewal, & annual reductions affected
- Costs/efficiencies of each activity (to extent possible)

Inspection and maintenance activities and issues

- Numbers of types of measures inspected relative to cumulative # of measures
- Summary of maintenance and repairs performed
- Parties performing inspections, maintenance and repairs

Summary of anticipated activities for the next reporting period

- Measures planned for next reporting cycle
- Anticipated reductions (lb/yr)
- Comparison of current reductions & planned reductions to overall reduction needs

Accounting / Tracking Progress

- Reductions achieved by new measures, load increases from terminated measures
- Resulting net change in loading from actions taken in that reporting cycle
- Adjustments to allocations & load reduction needs via annexation or demolitions
- Summary tabulation of load reduction progress
- Comparison to proposed load reduction progress in approved program

Evaluation of implementation challenges or obstacles encountered

- Issues encountered
- Actions taken / Addition resource needs

Proposed Annual Due Date: October 31st

Overview of Model Program

Section 7.0 – Trading

- Details of any trades or nutrient credit purchases to be documented in annual report
- Criteria Guiding Trades under Existing Development Rule Provided by
 - Cross-strategy Nutrient Offset Rule (15A NCAC 02B . 0703)
 - Falls Trading Rule (15A NCAC 02B .0282)



Timeline & Next Steps

- September 16th : Draft Model Program Provided for Comment
- October: Revise MP to address comments
- November: Model Program to WQC*
- January 2021: Request EMC approval of Final Model Program
- July 2021: Local Programs Submitted - **Implementation Begins**
- Within 14 months DWR makes recommendations to EMC on local programs
 - Staff plan to complete this process sooner



QUESTIONS / COMMENTS

John Huisman

*Environmental Program Consultant
N.C. Dept. Of Environmental Quality
Division of Water Resources*

john.huisman@ncdenr.gov



Plan for Developing Recommendations for Support of a Site-specific Chlorophyll-a Standard For Falls Lake

Planning for Development of a Petition for Site Specific Criteria

- The UNRBA legal workgroup discussed the FY2021 scope of work with Barnes and Thornburg to provide legal support to the UNRBA
- The primary task for FY2021 is to begin developing a petition for site specific criteria for Falls Lake
- The work plan was discussed at the September PFC and Board meetings
- This work will rely partially on the UNRBA Statistical Model of Falls Lake
- The legal team and statistical modeling team discussed the synergies between these efforts on October 5, 2020

Modeling and Regulatory Support (MRS) Status

MRSW Decisions and External Input

- MRSW decisions are guided by the “double pyramid” elements
- Technical decisions that do not affect these elements are based on scientific data, literature, modeling best practices, etc.
- All meeting participants are encouraged to provide input throughout the process so the MRSW can consider and adapt while models are being developed, as appropriate
 - DWR staff
 - Daniel Obenour, 3rd party review
 - Non governmental organizations (NGOs)
 - Other regulated entities
- The goal of this open process is to hear concerns and questions early when changes can be made efficiently, not after work has been completed

Watershed Modeling Status

- Modifying the Watershed Analysis Risk Management Framework (WARMF) model code to simulate many types of onsite wastewater treatment systems
 - Code has been developed
 - Testing is underway
 - Coordination with UNC Collaboratory researchers to review output after their analyses are processed
- Water quality modeling inputs are being formatted
 - Sanitary sewer overflows
 - Wastewater treatment plant effluent
 - Nutrient application rates
 - Onsite wastewater treatment systems

WARMF Lake Segmentation Decision - Status

- Modeling team discussed lake segmentation with subject matter experts on July 14, 2020
- Presented recommendation to the MRSW during the September 1, 2020
- Meeting participants requested consideration of additional segment break
- Modeling team provided supplemental slide deck on September 22, 2020 with a revised recommendation for an additional segment break at Fish Dam/Cheek Road
- Preliminary feedback from MRSW via email has been approval of the additional break at this location
- MRSW will finalize decision at the November 3, 2020 meeting

WARMF Lake Calibration Approach - Status

- Modeling team discussed two calibration approaches for WARMF Lake with the MRSW on September 1, 2020
 1. Calibrate to the midpoint or average condition of each segment
 2. Calibrate to the downstream end of each segment
- Modeling team recommended calibrating to downstream end of each segment to ensure accurate transfer of nutrients from one segment to the next
- Meeting participants requested more information
- Modeling team provided supplemental slide deck to support this decision on September 22, 2020
- Preliminary feedback from MRSW via email has been confirmation of the original recommendation
- MRSW will finalize decision at the November 3, 2020 meeting

Upcoming MRSW Meeting Topics

- November 3, 2020
 - Finalize decisions regarding WARMF Lake segmentation and calibration approach
 - Briefly describe input datasets to support water quality modeling
- December 1, 2020
 - Provide overview of the Falls Lake statistical model and how it fits into the re-examination process
 - Summarize meeting with legal group from October 5, 2020
 - Describe approach for integrating the statistical modeling with the evaluation of regulatory options

Planning for DWR Meeting to Follow Up on EFDC Hydrodynamic Modeling

- During the August MRSW meeting, the modeling team presented preliminary modeling results for the hydrodynamic calibration of the Falls Lake EFDC model
- DWR modeling staff requested additional information about the model development and calibration
 - Additional performance criteria
 - Discussion of water balance assumptions
- Modeling team is continuing to work on model calibration
- Will compile the requested information and schedule a meeting with DWR to discuss next iteration
- MRSW members are welcome to participate in this remote meeting (not yet scheduled)

Reporting Status

- Executive Director has provided comments on an interim draft of the hydrologic model development and calibration for the WARMF watershed model
- Modeling team is working to address these comments and include the model calibration output formats requested by the MRSW
- Modeling team anticipates a draft for review by the MRSW in November

Communications Support

PFC Communications Planning for FY2021

- Anticipated meetings in FY2021
 - Spring Symposium with the UNC Collaboratory
 - UNRBA Technical Stakeholder Workshop
 - WRRRI Annual Conference
 - Meetings with DEQ/DWR
 - EFDC Hydrodynamic Model
 - 2019 UNRBA Annual Monitoring Report
- PFC to work through meetings iteratively beginning in Dec.
 - Identify audience
 - Discuss key messages
 - Identify supporting materials
- Additional meetings
 - DWR meetings to discuss water quality calibration of watershed and lake models
 - Model Training
 - Discussions with local leaders
 - Interactions with the public
 - Seeking input on re-examination proposals

Summary of Kickoff Call for Spring Symposium

- Executive Director, communications support contractor, and subject matter experts participated in a conference call with Grant Parkins and Victoria Triana at the UNC Institute for the Environment (IE) on September 17, 2020
- Planning for a one-day symposium, similar in format to the Jordan Lake symposia
- Audience will range from elected officials to technical staff including NGOs, UNRBA members, and other regulated entities
- This year will focus on summarizing Falls Lake Collaboratory research efforts and how they fit into the UNRBA re-examination and modeling efforts
- IE team developing a draft agenda and will seek input from the UNRBA communications team; PFC to review subsequent draft
- IE project includes funding for and will arrange for a venue and food

Other Status Items

Ongoing Items

- Ongoing DEQ/DWR Items
 - MOA
 - DWR 2020 Integrated Report and 303(d) assessments
 - 2019 UNRBA Data Report meeting
 - Schedule for face to face when possible
 - Follow up meeting on EFDC Hydrodynamic Calibration questions
 - IAIA Program meeting with DEQ/DWR
 - Schedule for face to face when possible

Future Meetings as Currently Scheduled:

Next MRSW Meeting

November 3, 2020, 9:00 AM to 11:00 AM
Remote Meeting

Next PFC Meeting

November 3, 2020, 11:30 AM to 1:15 PM
Remote Meeting

Next BOD Meeting

November 18, 2020, 9:30 AM to Noon
Remote Meeting

Closing Comments

Additional Discussion