

**Modeling and Regulatory Support Workgroup (MRSW) Meeting**  
March 1, 2022, 9:30 AM to 12:00 PM  
**Remote Access Only (see last page of agenda for instructions)**

Materials related to the meeting will be placed on the UNRBA [Meeting page](#) prior to the meeting.

**I. Opening Comments, Agenda Review/Revisions — Chair, Michelle Woolfolk**

**II. Modeling and Regulatory Support Status**

Item Summary (Scott Sheeder, Silong Lu, and Alix Matos): The Executive Director is reviewing the WARMF watershed modeling report that describes development and calibration of the watershed model as well as summaries of loading delivered to Falls Lake. Both he and the MRSW Chair have reviewed the Executive Summary which was provided to the MRSW ahead of this meeting. The modeling team will review the Executive Summary and seek input from the MRSW. The full modeling report will be distributed to the MRSW after the Executive Director and Chair have reviewed and comments have been addressed by the modeling team. Additional loading summaries by tributary and county are under development and will be provided as an appendix to the watershed modeling report.

Preliminary water quality calibration of WARMF Lake is proceeding using the output from the WARMF watershed model. Visual comparisons of preliminary simulations to lake observations will be reviewed for the upper most segment above Interstate 85 during the meeting. Scripts are being developed to generate performance criteria based on averaging the appropriate number of water layers for the monitoring stations being used for calibration.

Environmental Fluid Dynamics Code (EFDC) water quality calibration is also underway using the output from the WARMF watershed model. The UNRBA Modeling Quality Assurance Project Plan specifies different statistics to evaluate performance of EFDC, and these will be reviewed during the meeting. Visual comparisons of preliminary simulation results and lake water quality observations will be reviewed at an upper lake location and near the dam.

**III. MRSW Workgroup Reports**

Item Summary (Michelle Woolfolk): The Scenario Screening workgroup continues to evaluate potential scenarios for evaluation with the models. The Scenario Output workgroup has completed their charge of developing reporting formats to facilitate comparison of scenario output. Members of the Scenario Screening Workgroup will provide status reports to the MRSW. The modeling team will discuss preliminary options for evaluating scenarios on urban and agricultural lands in the watershed model.

**IV. Plan for Statistical Model Development and Regulatory Options for the Chlorophyll-a Water Quality Standard**

Item Summary (Forrest Westall and Alix Matos): The primary task is to begin consideration of a petition for rulemaking for Falls Lake (e.g., site specific criteria). This work will be partially supported by the UNRBA Statistical Model of Falls Lake. The models supporting the Re-examination of the Falls Nutrient Management Strategy will be discussed with an emphasis on the Statistical Model. The statistical modeling team has been reaching out to contacts provided by the Technical Advisors Workgroup to collect data and information regarding satisfaction of designated uses in Falls Lake. DWR has also provided input on the contact list. National and local datasets are being formatted to build the model. The statistical modeling team and the legal team are also coordinating with Dr. Marty Lebo who has been identified as a Subject

Matter Expert for assistance to the UNRBA for evaluating site-specific criteria for Falls Lake. Evaluation of other State's site-specific standards for chlorophyll-a and nutrient-related standards is ongoing.

**V. Communications Outreach and Preparation**

Item Summary (Forrest Westall): There are several items of outreach that are underway. We have reached out to Danny Smith, the DWR Director, to set up a workshop session with DWR to discuss the work of the UNRBA and preliminary results on the Re-examination, process for site-specific water quality standard petition and the High Rock Lake site-specific rulemaking process. We have also identified the development of several data presentation tools and data visualization figures to illustrate some of the important findings of our work to policy makers, UNRBA representatives, DWR, stakeholders and even, hopefully, the general public. General data presentation, base statistical relationships, and key findings from the data report and the watershed model are extremely important and need to be presented in ways that everyone can appreciate and understand. These "conversations" are important and represent the basis of discussing potential regulatory options for the UNRBA's proposed recommendations on rule readoption.

**VI. Upcoming WRRRI Annual Conference Presentation with the NC Collaboratory (March 23, 2022)**

The UNRBA and NC Collaboratory are jointly presenting a full conference session on Falls Lake at the 2022 Annual Conference of the Water Resources Research Institute (WRRRI). Speakers for this 80-minute session will include the Director of the Institute of the Environment, Dr. Michael Piehler; Outreach Director, UNC Policy Collaboratory, Mr. Steve Wall; the Executive Director of the UNRBA, Mr. Forrest Westall; and the project manager for the UNRBA's Modeling and Regulatory Support Effort, Ms. Alix Matos. The Falls Lake session will address the following topics:

- Falls Lake Nutrient Management Strategy and the need for a re-examination
- Integration of the work of the UNRBA and UNC Policy Collaboratory in the re-examination process
- Summary of past and current research on Falls Lake and its watershed
- Incorporation of research into watershed and lake model development and calibration
- Status of the Collaboratory research and UNRBA model development
- Timeline for review, stakeholder input, and deadline for recommendations from the Collaboratory and the UNRBA

Registration for the hybrid [2022 NC WRRRI Annual Conference](#) is now open. Visit this registration page for rates and information about this in-person and virtual event.

**VII. Upcoming Joint Symposium with the NC Collaboratory (April 7, 2022)**

The UNRBA is collaborating with the UNC Institute for the Environment to provide the 2022 Falls Lake Nutrient Management Study Research Symposium. The purpose of this year's symposium is to inform stakeholders of recent research that has been funded by the NC Collaboratory and UNRBA's efforts to re-examine the Falls Lake Nutrient Management Strategy. The symposium will feature updates from researchers from UNC, NC State, and East Carolina University, as well as the UNRBA. Specific details are below:

Falls Lake Nutrient Management Study Research Symposium  
Thursday, April 7, 2022 from 10:00 am to 4:00 pm  
North Carolina Botanical Garden, Reeves Auditorium

100 Old Mason Farm Rd, Chapel Hill, NC

Lunch and morning coffee will be provided.

The symposium is free, but registration is required. You can register at the following link:

[https://unc.az1.qualtrics.com/jfe/form/SV\\_bgy9wmjpv4qIKXk](https://unc.az1.qualtrics.com/jfe/form/SV_bgy9wmjpv4qIKXk)

Questions about the symposium can be directed to Grant Parkins, Watershed Education Coordinator with the UNC Institute for the Environment, <mailto:parkins@unc.edu>

**VIII. Transfer of Asset Purchased for UNRBA Monitoring Program**

Item Summary (Alix Matos): The UNRBA purchased an inflatable boat during the UNRBA Monitoring Program to assist with collection of bathymetric data along the lake shoreline and lake arms. The purchase was made when the contract was with Cardno, Inc. and the boat was transferred to the care of BC when the contract was executed with that firm. Since the monitoring program is no longer active, the boat is no longer needed. The MRSW will discuss options for transferring the property to another organization and develop recommendations to present to the Board in March.

**IX. Discussion of Potential IAIA Reporting Dates**

Item Summary (Forrest Westall): Local governments participating in the IAIA are required to submit annual compliance reports to DWR and copy the UNRBA. The UNRBA will compile these reports and create a summary report. The IAIA Program Document does not specify a deadline for submitting annual reports; establishing this expectation will be helpful to the reporting process. The Executive Director submitted three options for consideration by the MRSW and PFC in an email dated February 23, 2022. He requested that one person from each jurisdiction submit a vote to him (with copy to Alix Matos and Haywood Phthisic) by February 28<sup>th</sup>. An update will be provided during the MRSW meeting.

Next BOD Meeting: March 16, 2022, 9:30 AM to Noon

WRRRI Annual Conference: March 23, 2022, 3 PM to 4:20 PM

Joint Symposium: April 7, 2022, 10 AM to 4 PM

Next MRSW or PFC Meeting: May 3, 2022, 9:30 AM to Noon

### Remote Access Instructions for the MRSW and PFC Meetings

This meeting will open 10 minutes prior to the official meeting start time to allow for users to test equipment and ensure communication methods are functioning.

Equipment Type	Access Information	Notes
Computers with microphones and speakers	<a href="#">Join Microsoft Teams Meeting</a> <b>Please mute your microphone unless you want to provide input.</b>	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	<a href="#">Join Microsoft Teams Meeting</a> (888) 404-2493 Passcode: 371 817 961# <b>Please mute your phone unless you want to provide input.</b>	Follow instructions above. <b>Turn down your computer speakers, mute your computer microphone</b> , dial the number through your phone and enter the passcode.
Phone only	(888) 404-2493 Passcode: 371 817 961#	Dial the toll-free number and enter the passcode. <b>Please mute your phone unless you want to provide input.</b>

### Remote Access Guidelines

- 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/device microphone or phone microphone to minimize background noise