

**Modeling and Regulatory Support Workgroup (MRSW) and  
Path Forward Committee (PFC) Meetings**  
February 2, 2021, 9:00 AM to 1:15 PM  
**Remote Access Only (see last page of agenda for instructions)**

Materials related to the MRSW and PFC Meetings have been placed on the UNRBA website unless noted otherwise on the [Meeting page](#). A direct link to the meeting presentations for the MRSW and PFC meetings are provided [MRSW Meeting for February 2, 2021](#) and [PFC Meeting for February 2, 2021](#).

**Modeling and Regulatory Support Workgroup Agenda, 9:00 to 11:00**

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

**II. MRSW Meeting Plans for the Remainder of the Fiscal Year**

Two additional MRSW meetings are planned for May and June. Topics to discuss include recommendations from the Model Scenario Output Workgroup and the Scenario Screening Workgroup. The MRSW will also provide input on the preliminary draft scope of work and budget for the FY2022 MRS and Communications Project. During the meetings the modelers will provide updates on watershed water quality calibration and EFDC lake calibration. Nutrient loading summaries for the watershed model will be presented following calibration of all water quality parameters.

**III. Modeling and Regulatory Support Status – WARMF Watershed and EFDC Lake**

Item Summary (Alix Matos): The modeling team is working on several reporting deliverables including the required report for the 319-funded revisions to the Watershed Analysis Risk Management Framework (WARMF) model code, the final transition monitoring technical memorandum, and the draft watershed model hydrologic calibration report. The modeling team met virtually with staff from the Division of Water Resources (DWR) and third-party reviewers from the UNC Collaboratory to discuss considerations for the EFDC water balance. The modeling team provided recommendations via email to apportion balance flows to 17 lake tributaries and to implement a statistical smoothing approach; the MRSW voted to approve the recommendations via email. All water quality inputs have been formatted for the WARMF and water quality calibration is underway. Preliminary calibration results for sediment and total organic carbon concentrations in the tributaries of Falls Lake will be presented during the meeting.

**IV. Model Scenario Output Workgroup – Status Update**

Item Summary (Jenn Tavantzis and Michelle Woolfolk): The Model Scenario Output Workgroup (MSOW) was formed during the November 2020 MRSW meeting; this group met twice in January 2021 to discuss the types of information and output formats associated with modeling scenarios using the UNRBA watershed and lake modeling tools. A status update will be provided during the February 2021 MRSW meeting. The third MSOW meeting will be February 8, 2021.

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

Item Summary (Alix Matos and Forrest Westall): The UNRBA legal workgroup discussed the FY2021 scope of work with Barnes and Thornburg to provide legal support. The primary task for FY2021 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. Next steps

and input requirements of the Statistical Model will be discussed. To support this effort, a Technical Advisors Workgroup to the Legal Team and Statistical Modelers was formed during the January PFC meeting. The Technical Advisors Workgroup will be comprised of MRSW and PFC members who will identify staff at their jurisdictions to provide specific input. Evaluation of other State's site-specific standards for chlorophyll-a and nutrient-related standards is ongoing.

**VI. Review of Modeling Work Relative to Re-Examination Process**

Item Summary (Forrest Westall and Alix Matos): The UNRBA's Re-examination process is entering into the last two and a half years of the effort to develop specific recommendations for revision to the Falls Lake Nutrient Management Strategy. The amount of work remaining is significant and as the effort moves from finalization of the modeling tools into the evaluation of scenarios it is critical that we keep this overall goal in mind. The MRS work is essential to the development of these recommendations, but there are significant policy issues and communication goals that will need to be effectively addressed before the UNRBA can complete its Re-examination recommendations package for submittal to DWR and the EMC. It will be essential to effectively plan and carryout our MRS work to support the overall UNRBA objectives.

**THE MRSW MEETING WILL BE FOLLOWED BY A ONE-HALF HOUR BREAK.**

**Path Forward Committee Agenda, 11:30 to 1:15**

**I. Opening Comments, Agenda Review/Revisions — Co-Chairs Kenny Waldroup and Michelle Woolfolk**

**II. Review Latest Draft of the Program Document for the UNRBA Stage I Existing Development Interim Alternative Implementation Approach (IAIA) — Informational Item**

Item Summary (Forrest Westall): The Division of Water Resources (DWR) has drafted the Revised Falls Lake Model Program with input from the UNRBA to allow for the IAIA for compliance with Stage I Existing Development Rules. DWR presented the draft Model Program which references the IAIA to the Environmental Management Commission (EMC) and its Water Quality Committee on January 13 and 14, 2021. The EMC voted to approve the Model Program and this action establishes the start date for the IAIA and any jurisdictions in the watershed undertaking compliance under an individual local program. The rules call for implementation six months after EMC approval of the Model Program. The UNRBA has been proceeding with the IAIA program for implementation to begin on July 1, 2021 to coincide with the fiscal year. Based on the schedule for implementation of the Model Program for Falls Lake, it is anticipated that the final IAIA program components (Bylaws revisions and the IAIA Program Document) will be presented to the UNRBA Board at the March 17, 2021 Board meeting. Two documents need to be finalized by the PFC prior to distribution to the Board ahead of the March 2021 meeting:

- UNRBA Bylaws - At the November 18, 2020 meeting, the Board Directors reviewed the proposed changes to the UNRBA Bylaws to allow for the IAIA. No comments or proposed revisions have been submitted by UNRBA members following this distribution.
- IAIA Program Document - In October 2020, DWR provided comments on the UNRBA's IAIA Program Document. The Program Document has been revised to address these comments, align with changes to the UNRBA Bylaws, include recommendations from the IAIA Reporting Workgroup, and to address comments from the EMC during their January 2021 meeting. Revisions to the IAIA Program Document will be reviewed during the February 2, 2021 PFC meeting.

Based on the schedule, the Board will review and act at the March 17, 2021 meeting on both the IAIA Program Document and the revised UNRBA Bylaws. PFC members are asked to provide comments on the revised documents via email by February 12<sup>th</sup> to allow for finalizing drafts for the March 17, 2021 Board of Directors meeting.

**III. Modeling and Regulatory Support Status — Informational Item**

Item Summary (Alix Matos and Forrest Westall): The modeling team is continuing work on the WARMF watershed model for water quality calibration and has begun model development of WARMF Lake. All datasets representing 2015 to 2018 have been input to the WARMF watershed model, and stream flow, total suspended sediments and total organic carbon have been calibrated preliminarily. Nutrient calibration for the watershed model is underway. The modelers are refining the calibration of lake level in the lake response model (EFDC hydrodynamic model) based on review and input from DWR and the UNC Collaboratory third party reviewers following approval of calibration approach by the MRSW. In preparation of the transition from model development and calibration to model scenario evaluation, the Modeling and Regulatory Support Workgroup (MRSW) and PFC have formed two workgroups that will provide recommendations for review and input from the MRSW and PFC. The Scenario Screening Group will recommend scenarios for consideration. The Scenario Output Group will recommend reporting formats for comparison of model scenarios to aid in interpretation and decision making. A draft of the WARMF watershed hydrologic model report will be provided to the MRSW for review following submittal of the 319 Final Report (revisions to the WARMF model code) and the final Transition Monitoring Technical Memorandum. A review of the multi-year UNRBA Stage II Re-examination timeline will also be provided during the meeting. The MRS work of the UNRBA is critical to the completion of the Re-examination and development of recommended policy provisions of an updated Falls Lake Nutrient Management Strategy. The work we have to complete over the next two and a half years is significant. We will need the help of the UNRBA membership in keeping the focus on our overall goal of making recommendations to DWR and the EMC.

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

Item Summary (Forrest Westall): The importance of establishing a site-specific standard for Falls Lake has been reviewed a number of times over the last two years. At the January Board meeting this topic was again discussed. Because of the flexibility that will be built into the Statistical Model, this effort is being coordinated with the work of the Legal Group and the UNRBA's legal subject matter expert. Additional coordination sessions with the Statistical Modeling Team and the Legal Group will be scheduled in the coming months. Because development of a site-specific chlorophyll-a standard represents an important consideration for a revised Falls Lake management strategy, a workgroup to support these efforts was formed during the January PFC meeting and will provide input to the statistical modelers and the legal group and provide recommendations to the MRSW and PFC.

**V. Status of MRSW and PFC Workgroups— Informational Item**

Item Summary (Alix Matos): The UNRBA Technical Stakeholder Workshop has been postponed to FY2021 due to COVID-19 and the joint Symposium with the UNC Collaboratory. During the November MRSW meeting, the MRSW formed two workgroups to recommend scenarios for evaluation (Scenario Screening Group) and to recommend output summaries for comparing scenarios (Model Scenario Output Group). A

third workgroup for IAIA Reporting was formed at the December PFC meeting. As noted, a fourth workgroup was formed during the January PFC meeting to provide technical input to the legal team and statistical modeling team in terms (Technical Advisors Workgroup). These four groups will provide recommendations to the MRSW and/or PFC for consideration. A brief status update for each workgroup will be provided.

**VI. Communications Support — Informational Item**

Item Summary (Alix Matos): Planning for the joint Collaboratory and UNRBA Symposium continues. A meeting with the Collaboratory researchers was held on January 27<sup>th</sup>. The general plan will be to have presentations by the Collaboratory Researchers and the UNRBA to summarize the work underway and review the schedule for completion of the Collaboratory’s assessment of Falls Lake and the UNRBA’s Re-examination of the Falls Lake Rules. The second portion of the Symposium would engage attendees to get needed input related to the issues important to stakeholders. The UNRBA will also seek to elicit input on potential scenarios during the joint Symposium pending development of the meeting plan with the Collaboratory. The UNRBA Technical Stakeholder Workshop has been postponed until FY2021 due to COVID-19. We plan to use the stakeholder session to review the work of the MRS effort and to begin discussion of the scenarios under consideration. Input from the technical stakeholders will be used to help clarify scenario evaluation. Objectives continue to be reviewed relative to communication opportunities with stakeholders. To support the re-examination process and achieve broad support for the UNRBA recommendations, additional outreach to external stakeholders including DWR, DEQ, and other interested stakeholders is needed; coordination with local leaders to convey messages and facilitate outreach will be necessary. This is a huge undertaking. To be successful, this effort will require the support of the UNRBA membership, staff, and Board representatives. The Executive Director communicated with the Board and PFC members following the January Board meeting. As a reminder, several work products are available online to facilitate communications:

- The UNRBA [Infographic](#) and [Fast Facts](#) are available here: <https://upperneuse.org/resource-library>
- An [Overview of the Work of the UNRBA](#) provided to the UNC Collaboratory for inclusion in their reporting is available here: <https://nutrients.web.unc.edu/resources/>

**VII. Other Status Items—Information Item**

Item Summary (Forrest Westall): Brief statements on several ongoing activities:

- Ongoing DEQ/DWR Items— MOA, DWR 2020 Integrated Report and 303(d) assessments, Board authorized the Executive Director to make UNRBA comments on High Rock Lake Site Specific Chlorophyll-a Criteria, 2019 UNRBA Final Monitoring Report meeting, Reminder: Neuse Watershed Model Information Session / Delivery Factors for WWTPs

**VIII. Closing Comments— Co-Chairs Kenny Waldroup and Michelle Woolfolk**

<p><b>Next PFC Meeting: March 2, 2021, 9:30 AM to Noon, Remote Access</b> <b>Next BOD Meeting: March 17, 2021, 9:30 AM to Noon, Remote Access</b> <b>Next MRSW Meeting: May 4, 2021, 9:00 AM to 11:00 AM, Remote Access</b></p>
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### 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