



UNRBA Board Meeting September 15, 2021

**Remote Access Only
(see next slides)**



Remote Access for UNRBA Board Meetings

Equipment Type	Access Information	Notes
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Computers without audio capabilities, or audio that is not working	Join Microsoft Teams Meeting (888) 404-2493 Passcode: 228 349 066# 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: 228 349 066# 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 30 minutes prior to the official meeting start time 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**
- UNRBA meetings are open meetings; however, for this remote access meeting, please **limit the discussion to UNRBA Board Members** to facilitate moving through action items

September 15, 2021 UNRBA Board Agenda

- **Opening—Sig Hutchinson, Chair**
- **Action Items – UNRBA Board**
 - Approval of June 16, 2021, Meeting Minutes
 - Approval of the Treasurer’s Report
 - Review of UNRBA IRS Tax Submittal Form 990 Prior to Submittal
 - Review of UNRBA Audit Form
 - Authorization for Executive Director to Comment on Proposed Chlorophyll-a Site Specific Standards for High Rock Lake
- **Action Item – Compliance Group Committee**
 - None
- **Status Reports and Informational Items**
 - EPA Approval of NC 2020 303(d) List
 - EPA Approval of Ambient Water Quality Criteria Recommendations for Lakes and Reservoirs
 - Statistical Model Development and Regulatory Options for the Chlorophyll-a Water Quality Standard
 - Modeling and Regulatory Support (MRS) Status
 - Communications
 - Re-examination Timeline
 - Status of the UNRBA Stage I Existing Development Interim Alternative Implementation Approach (IAIA)
 - Ongoing Discussions/Issues
- **Closing Comments**

Opening—Sig Hutchinson

Opening

- Introductions, Board member comments, and announcements
- Roll call for quorum
- Identification of any conflicts
- Review and approval of agenda

Action Items - UNRBA Board

**Approval of June 16, 2021
Meeting Minutes**

Approval of the Treasurer's Report

9/9/2021

Balance Forward: (per bank statement - 6/30/2021)

Checking	\$	128,002.18
Savings		569,674.45

Debits:

McGill Asso. (2021 Invs)	\$	36,837.89
Brown & Caldwell (MRS, FY 21, Invs)		34,223.59
Barnes & Thornburg (2021 Invs)		3,057.50
Sauber Water Quality Consulting (2021 Invs)		4,760.00
HDR, Inc. (2021 Inv)		168.00
Phthisic Consulting, Inc. (2021 Invs)		1,140.00
The Insurance Shoppe		1,152.00
Penn National Insurance		589.00
MFG Consulting, LLC (2021 Invs)		480.00
Total Debits	\$	82,407.98

Credits:

Interest (checking)	\$	144.28
Interest (savings)		737.93
FY 2021 - 22 Membership Fees		1,158,916.07
NC DEQ Grant Reimbursement		-
Transfer from Savings to Checking		-

Account Balance (per bank statement - 8/31/2021)

Checking	\$	1,204,654.55
Savings		570,412.38

Total UNRBA Account Balance :

\$ 1,775,066.93

Review of UNRBA IRS Tax Submittal Form 990 Prior to Submittal

- The UNRBA's tax preparation contractor has completed the IRS filing for the UNRBA for tax year July 1, 2020 to June 30, 2021.
- A copy of the draft return, Form 990, has been provided to the Board of Directors prior to this meeting.
- The form provides for the opportunity for Board member review prior to submittal.
- The form will be submitted later this month.
- It is requested that any comments or questions be directed to Haywood and Forrest by September 22, 2021.

Review of UNRBA Audit Form

- The UNRBA Audit process has begun by Winston, Williams, Creech, Evans & Company, LLP
- Several questionnaires need to be completed, including one for Board Directors that was provided prior to the meeting.
- We are requesting that each Board Director complete the form and mail it directly to the audit firm. Instructions for submittal are included with the form.
 - We have also provided a link to the UNRBA's policy and procedures manual for your reference.
 - Several of the questions can be responded to as “not applicable.”
- Processing of invoices and management of the financial business of the UNRBA is handled through the review and approval process described in the policy manual. This process is managed through review by the budget officer for the UNRBA, Haywood, the Executive Director, the Chair and the Treasurer.
- The Audit itself is the main method for assuring that all financial business of the UNRBA is appropriate and that no fraud is occurring. All financial actions are summarized at each meeting in the Treasurer's report.

Authorization for Executive Director to Comment on Proposed Chlorophyll-a Site Specific Standards for High Rock Lake

- In July, the NC Environmental Management Commission (EMC) voted to send the proposed High Rock Lake Site Specific Water Quality Standard out to public hearing
- The official public notice was issued in the September 1st edition of the NC Register
- The hearing will be virtual and is scheduled for October 28th at 6:00 PM with the comment period ending on November 15th
- This proposal is precedent setting for site specific chlorophyll-a criteria in NC lakes and reservoirs and will likely affect the process for establishing a site-specific standard for Falls Lake
- The Executive Director requests that the Board reaffirm his authorization to comment on this rule-making precedent.

**No Action Items for the
Compliance Group Committee
(CGC)**

Status Reports and Informational Items

EPA Approval of NC 2020 303(d) List

EPA Approval of NC 2020 303(d) List

- On June 3, 2021, EPA approved North Carolina's submittal of the 2020 303(d) list of waters not attaining water quality standards
 - This approval facilitated DWR's decision to finalize the Integrated Report (IR) that includes all 305(b) water quality assessments
 - Falls Lake assessments are not included in the 303(d) list because of the current water quality management strategy
- DWR, in responding to UNRBA Comments, stated *"DWR acknowledges that the UNRBA is currently in the process of developing updated models for Falls Lake and has also conducted special studies to further the ecological understanding of the lake. These studies will support the development of any future site-specific approach(es), through the rules readoption process. Following rules readoption, DWR will determine if a site-specific assessment approach is called for and adjust the Integrated Report Category Assignment Procedure as necessary."*
- The 2022 methodology has been approved by the NC EMC

EPA Approval of Ambient Water Quality Criteria Recommendations for Lakes and Reservoirs

EPA Approval of Ambient Water Quality Criteria Recommendations for Lakes and Reservoirs

- EPA noticed their Draft Ambient Water Quality Criteria Recommendations for Lakes and Reservoirs on May 22, 2020
- The UNRBA submitted comments, and a summary of these was provided during the August 4, 2020 PFC meeting ([August2020 PFC PowerPoint Presentation](#), slides 15-26)
- EPA issued final approval of the criteria on August 13, 2021. EPA's approved recommendations are available at [Ambient Water Quality Criteria to Address Nutrient Pollution in Lakes and Reservoirs | US EPA](#)
- States are not required to adopt these criteria
- EPA states it is not applicable to site-specific applications

Statistical Model Development and Regulatory Options for the Chlorophyll-a Water Quality Standard

Statistical Model Development and Regulatory Options for the Chlorophyll-a Water Quality Standard

- The UNRBA is developing a statistical/Bayesian model to link the water quality in Falls Lake to its designated uses
- The Technical Advisors Workgroup for the legal group, MRSW, and PFC have identified local subject matter experts to provide data and information regarding satisfaction with the designated uses of Falls Lake
- The modeling team will be coordinating virtual meetings with these experts to understand the types of data and information that are tracked with respect to designated uses to inform development of the statistical/Bayesian modeling
- Development of a site-specific chlorophyll-a standard represents an important consideration for a revised Falls Lake management strategy and is linked to this modeling effort
- Subject matter expert, Dr. Marty Lebo, was approved by the Board in June and has begun his work in support of this effort.

Modeling and Regulatory Support for the Re-examination of Stage II

Watershed Modeling Status

- Watershed Analysis Risk Management Framework (WARMF)
- Calibrated for stream flow, temperature, sediment (next slide)
- Improvements have been made based on input from MRSW, PFC, DWR, and third-party reviewers funded by the UNC Collaboratory
- Approved by the MRSW and the PFC for building lake models and developing the re-examination strategy
- Requests for additional information are being incorporated into watershed modeling report and modeling status updates at MRSW, PFC, and Board meetings
 - Sources of loading to Falls Lake
 - Watershed modeling report and model files
 - Discussions of uncertainty and model bias

Performance Summary for Lake Loading Stations on “Big 5” Tributaries (2015-18)

Parameter	Ellerbe	Eno	Flat	Knap	Little
Temperature	Very good	Good	Good	Good	Good
TSS	Low	Fair	Low	Fair	Good
Ammonia	Very good	High	Very good	Very good	High
Nitrate	Very good	Fair	Fair	Fair	Very good
TKN	Fair	Very good	Good	Very good	Fair
TN	Very good	Very good	Very good	Good	Good
TP	Very good	Very good	Good	Low	Very good
TOC	Very good	Very good	Very good	Very good	Very good
Chlorophyll-a	Low	Good	Very good	Very good	Very good

- Performance rankings are based on numeric criteria specified in the [UNRBA Modeling Quality Assurance Project Plan](#)
- TSS performance compared to laboratory measurements that exclude suspended organic material (total minus volatile suspended solids)

Lake Modeling Status

- Output from the watershed model has been approved to support development of two lake models
 - WARMF Lake
 - Environmental Fluid Dynamics Code (EFDC)
- Modeling team is reaching out to Collaboratory-funded researchers to review modeling as it progresses
- Model documentation is under development
- The PFC, MRSW, and the scenario screening workgroup is in the process of selecting scenarios for evaluation with the models; potential list to be presented to the Board in the Fall

Status of Two Scenario Workgroups

- The MRSW and PFC have formed two workgroups to provide input to the modeling team on scenarios
- The Model Scenario Output Workgroup has recommended use of an online reporting tool to compare scenarios
- The Scenario Screening Workgroup is ranking potential scenarios to recommend to the MRSW and PFC and Board for evaluation

Communications

Continued Coordination with the UNC Collaboratory

- The UNRBA and UNC Collaboratory have met virtually to discuss
 - Research studies for fiscal year 2022
 - Planning for a joint symposium in Spring 2022
- The Falls Lake researchers will be presenting at upcoming UNRBA MRSW and PFC meetings to ensure the modeling team is integrating these studies into the models
 - Water movement
 - Nitrogen processing
 - Sediment and carbon cycling
 - Water quality impacts of onsite wastewater treatment systems
- The UNRBA Modeling Team has been and will continue to reach out to the Falls Lake researchers as the modeling progresses to ensure the best science and available information is incorporated

UNRBA Technical Stakeholder Workshop

- The UNRBA Technical Stakeholder Workshop was postponed until FY2022 (this fiscal year) due to COVID-19 and the Collaboratory/UNRBA Symposium.
- Anticipate first half of meeting to provide an update on model calibration for WARMF and EFDC and loading summaries to Falls Lake
- Second half is typically small group sessions; potential topics include review and stakeholder input of
 - Discussion of scenarios under consideration
 - Data sources for the statistical model
 - Output metrics for the statistical model
- This meeting will likely be held as a virtual meeting

Meetings with DWR, DEQ, and EPA Region IV

- DEQ leadership
 - Provide an overview of technical work
 - Monitoring
 - Modeling
 - Collaboratory research and coordination
- DWR planning and modeling groups
 - Review of technical work
 - Monitoring
 - Modeling
 - Collaboratory research and coordination
 - Approach for re-examination
- The Executive Director and his team discussed the modeling project with Tim Wool (manager of Region IV's modeling program) on August 30th 2021
 - Overview of the Rules and need for re-examination
 - Modeling status and request for modeling files and modeling report when final

External Stakeholder Communication Needs

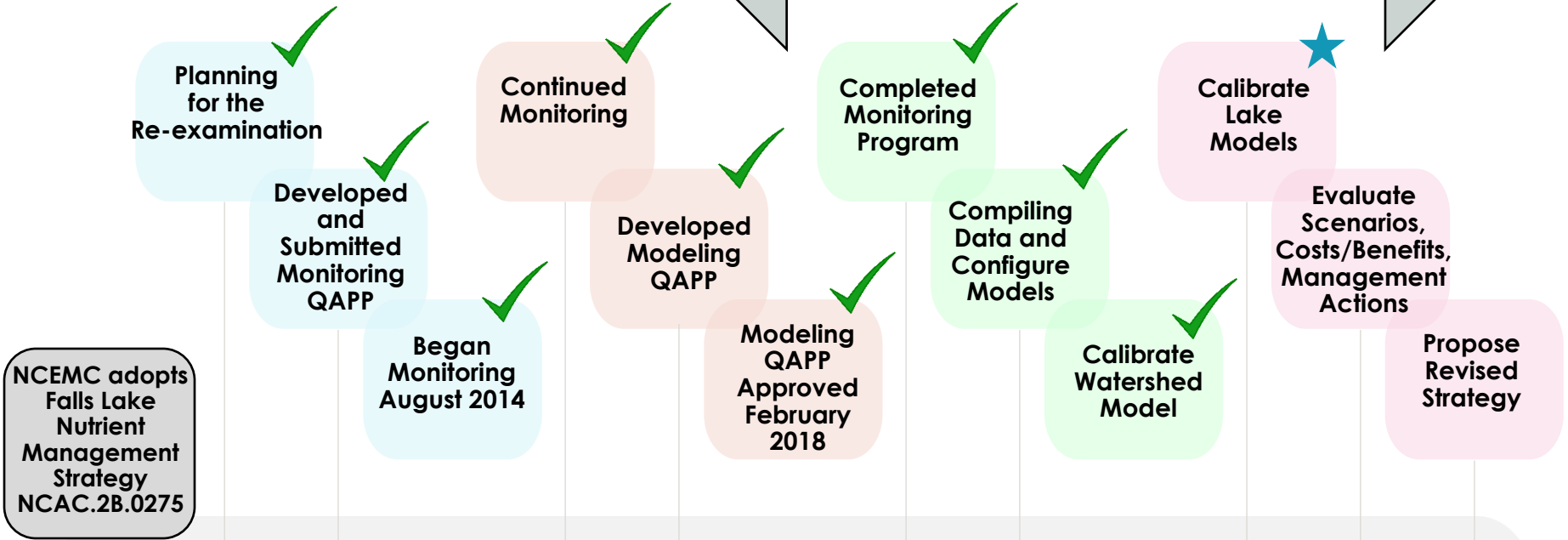
- Objectives continue to be reviewed relative to communication opportunities with stakeholders.
- To support the re-examination process and achieve broad support for the UNRBA recommendations, additional outreach to external stakeholders including DWR, DEQ, and other interested stakeholders is needed;
- Coordination with local leaders to convey messages and facilitate outreach will be necessary.
- This effort will require the support of the UNRBA membership, staff and Board representatives.
- As a reminder, the [Infographic](#) and [Fast Facts](#) are available online <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 online <https://nutrients.web.unc.edu/resources/>

Re-examination Timeline

Multi-year UNRBA Stage II Re-examination Timeline

★ In progress
✓ Completed

← Coordination with the UNC Collaboratory and Extensive Communication Efforts →



NCEMC adopts Falls Lake Nutrient Management Strategy NCAC.2B.0275

2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023

1
Planning

2
Monitoring

3
Modeling

4
Developing New Strategy

**Status of the Stage I Existing
Development Interim Alternative
Implementation Approach
Program Development**

Status of the IAIA Program

- On June 16, 2021, the UNRBA Compliance Group Committee (CGC) submitted the Stage I Existing Development Interim Alternative Implementation Approach (IAIA) Program to DWR and the EMC
- DWR acknowledged receipt of the submittal on June 30th and implementation of the program began on July 1st
- A reporting tool has been developed and reviewed by the IAIA Reporting Workgroup. This tool will be distributed to the PFC for review and discussion prior to their next meeting
- Person County Board of Commissioners voted to proceed with moving forward with utilizing the undeveloped 300 acre “County Farm” site for IAIA compliance

Ongoing Discussions/Issues

Ongoing Items

- Leadership and organizational changes at DEQ and EPA
 - Elizabeth Biser was confirmed by the NC Senate as Secretary of DEQ on August 24, 2021 ([Senate confirms Elizabeth Biser as DEQ secretary | Coastal Review, NC DEQ: Elizabeth S. Biser](#))
- Intensive workgroup activity and management of expectations and resources—A lot to do between now and recommendations in 2023
- Ongoing DEQ/DWR Items
 - MOA
 - Neuse Watershed Model Information Session – Delivery Factors for WWTP

Closing Comments

**The next UNRBA Board Meeting is
Scheduled for November 17, 2021
from 9:30 AM to Noon
Currently Planned as Virtual**