UNRBA PFC Meeting
August 5, 2025
9:30 AM to Noon

Butner Town Hall with Remote Option

(see agenda for remote access instructions)

Agenda

- Opening comments, agenda review/revisions
- Status and timeline for Falls rules readoption
- Review Comments Received, Recent Discussions, and Latest UNRBA Draft-Draft Rules Sections
- Extension of IAIA Program and Annual Reports Due Soon
- Communications
- Other Items
- Closing comments

Opening Comments, Agenda Review/Revisions

Status and Timeline for Falls Rules Readoption

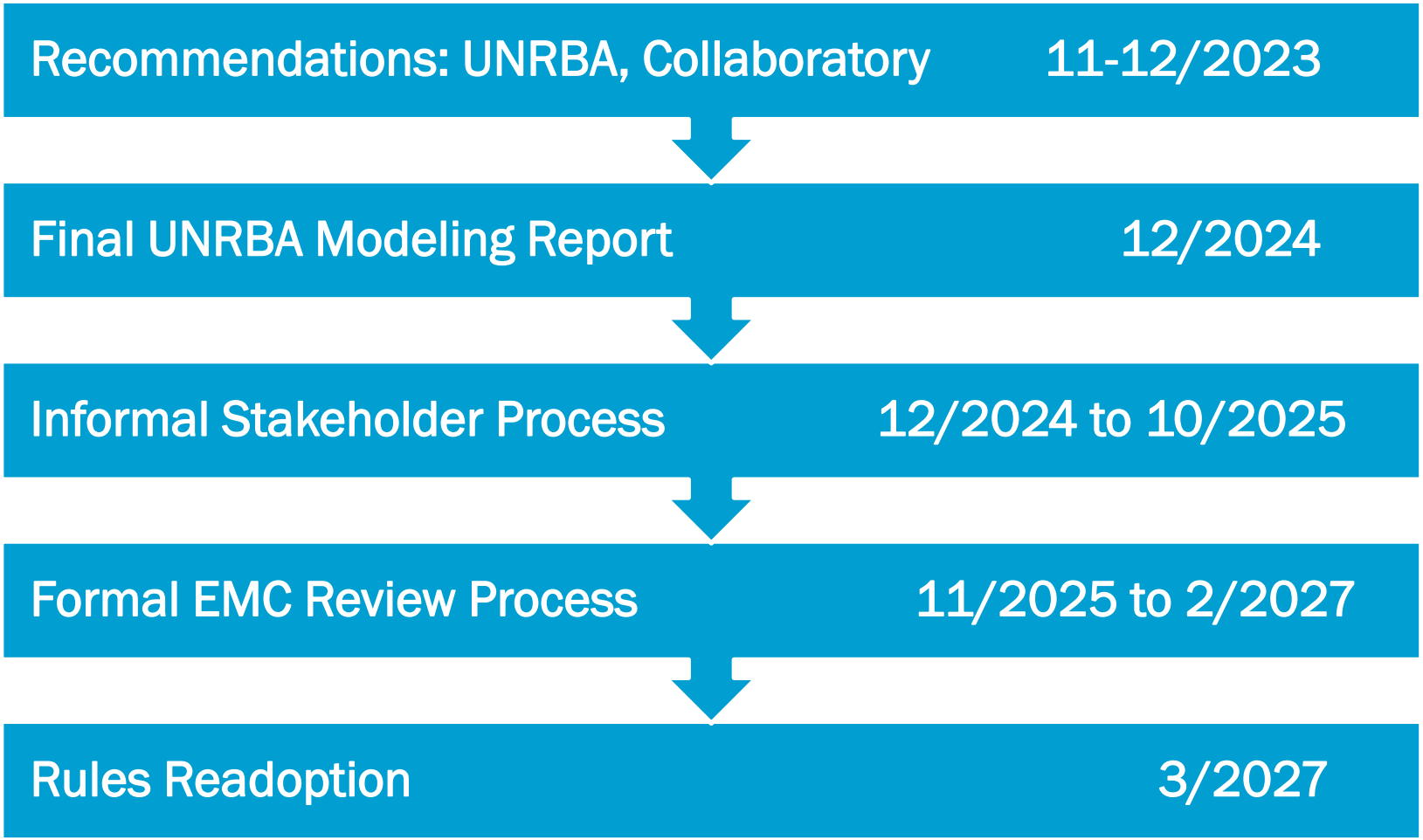
Status of UNRBA Rules Development Process

- The UNRBA hosted 18 workgroup meetings and two workgroup workshops between December 2024 and April 2025.
- Four very preliminary draft rule sections were distributed to the PFC and other interested stakeholders before the May 6, 2025, PFC meeting and June 3, 2025, PFC meeting
- Comments and suggestions from participants were requested by May 20, 2025.
- On June 24, 2025, DWR hosted a stakeholders meeting to discuss concepts for rules readoption
- Comments and discussion notes have been compiled in marked-up versions of the UNRBA draft rules and distributed ahead of this meeting
- Discussions with DWR continue on topics and coordination on draft rules (see next slide)

Meetings with DWR and Rules Timeline

- August 29th –UNRBA's proposed assessment methodology in the draft Purpose and Scope Rule
- September (TBD) - constraints on WWTPs under the current rules that must be addressed
- Other outstanding discussion items
  - DWR's proposed cap on land conservation
  - DWR's proposal for new development
  - DWR's proposal to change the baseline period to 2015 to 2018 and require an additional 50% reduction in total nitrogen
- Following these meetings, the draft rules will be revised as needed and redistributed to the PFC and stakeholders before the September 2, 2025, PFC meeting
- Our goal is to distribute draft rules to the UNRBA Board of Directors and additional stakeholders for review and discussion at the September 17, 2025, Board meeting

Rules Readoption Schedule



UNRBA: Upper Neuse River Basin Association
EMC: Environmental Management Commission

Anticipated Schedule - Falls Lake Rules Development Process

Draft-Draft-Draft

Four Workgroups

- 12/24 to 4/25
  - 18 workgroup meetings
  - 2 workgroup workshops
- Discussed concepts and challenges
- Developed initial drafts

Draft-Draft

PFC, Board, EMC informational items, and Expanded Stakeholders

- 5/2025 to 10/2025
- Reviewed draft-drafts at UNRBA May and June PFC meetings
- DWR June Stakeholder Meeting
- Collecting fiscal data
- Refining drafts for UNRBA Board recommendation

Draft → Final → Rules

Formal Process

- 11/2025 to 3/2027
- Present to WQC
- Present to EMC
- Public comment period
- Public hearings
- Rules to RRC with fiscal analysis

Note: UNRBA and DWR continue to coordinate on development of a joint package for the EMC. We continue to discuss how to address differences between our recommendations.

EMC: Environmental Management Commission
WQC: EMC Water Quality Committee
RRC: Rules Review Commission

Review Comments Received, Recent Discussions, and Latest UNRBA Draft-Draft Rules Sections

Purpose and Scope Rule

UNRBA's Proposal to Retain Baseline as 2006

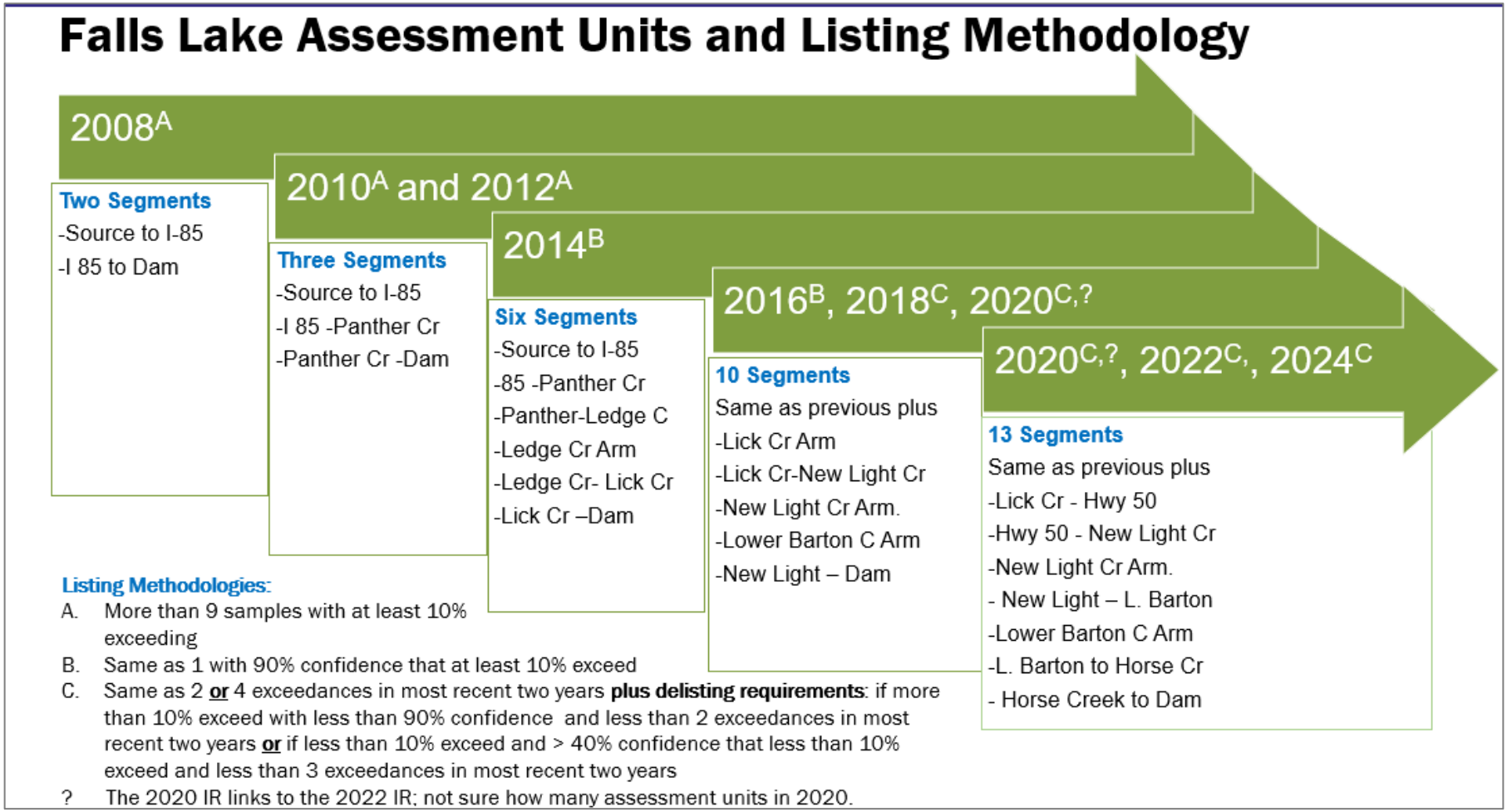
- UNRBA recommends maintaining the current baseline period (2006)
  - Simplify fiscal analysis
  - Credit early implementation
  - Acknowledge agriculture and WWTPs have met/exceeded Stage I
- DWR is considering changing the baseline period to 2015 to 2018 and assigning required nitrogen reductions of 50% relative to an adjusted baseline period.
  - Not feasible
  - Requires reductions from all sources, including forests
  - Ignores implementation efforts made prior to 2015 to 2018
  - WWTPs are already implementing best available technology
    - Further reductions are not feasible
    - Reverse osmosis is not feasible

UNRBA's Proposal to Retain Baseline as 2006

- Related note:
  DWR's draft rules for other watersheds (Jordan example below) say:
  - (6)(g): "Increases in programmatic activities carried out by the regulated party **relative to rule effective date** , including street sweeping, catch basin cleanouts, use of catch basin inserts, onsite wastewater system inspection, maintenance, pump-out, repair, and replacement, and pet waste station installation and operation; …fertilizer management
  - Credits should be relative to the baseline year of the rules, not the rule effective date to align with the goals of the rule

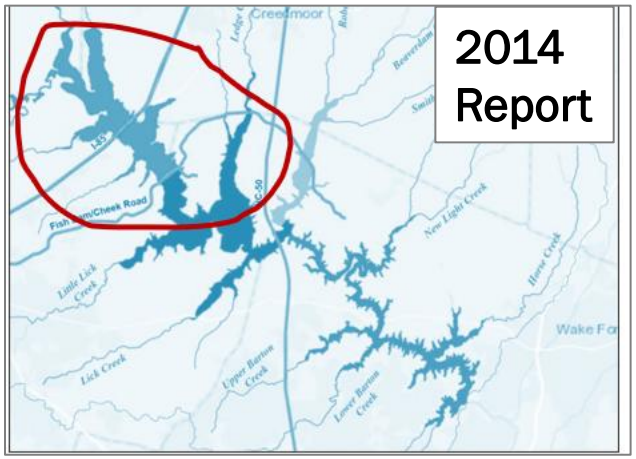
Falls Segments and 303(d) Assessment Methodology

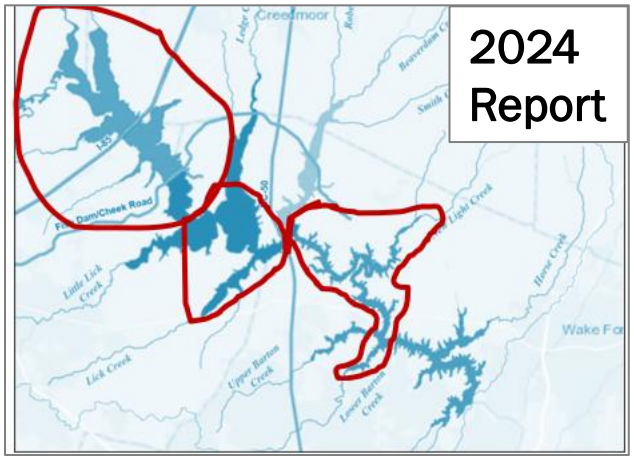
- Falls Lake has been assessed 9 times since 2008
- The methods and/or segments have changed 6 times

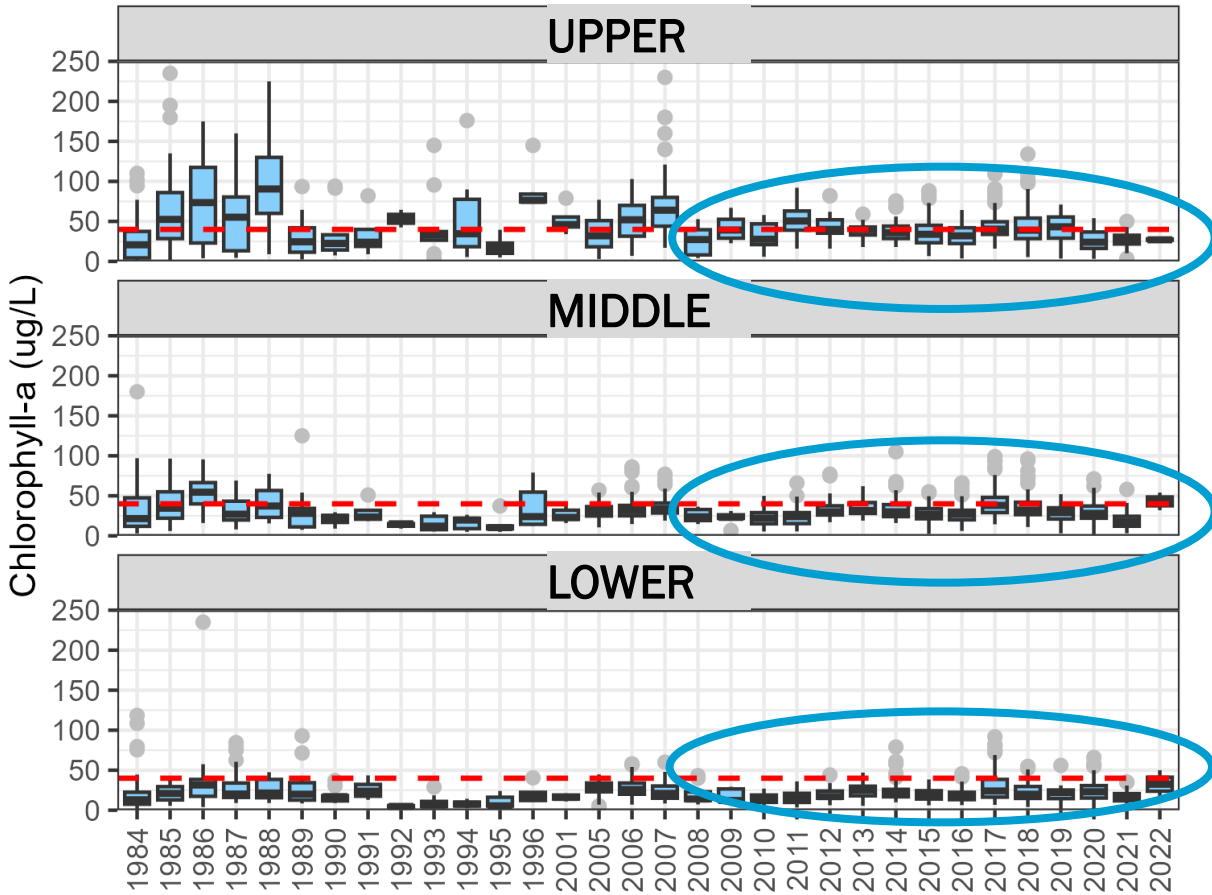


A Stable and Scientific Approach is Needed

- Moving target shows worsening conditions over past decade
- Not true! Water quality has been stable over this period

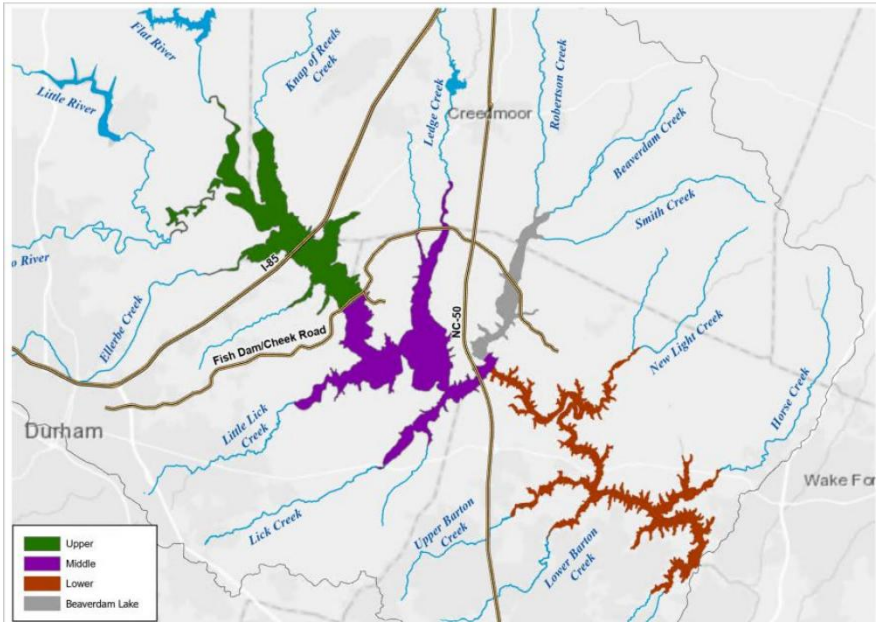






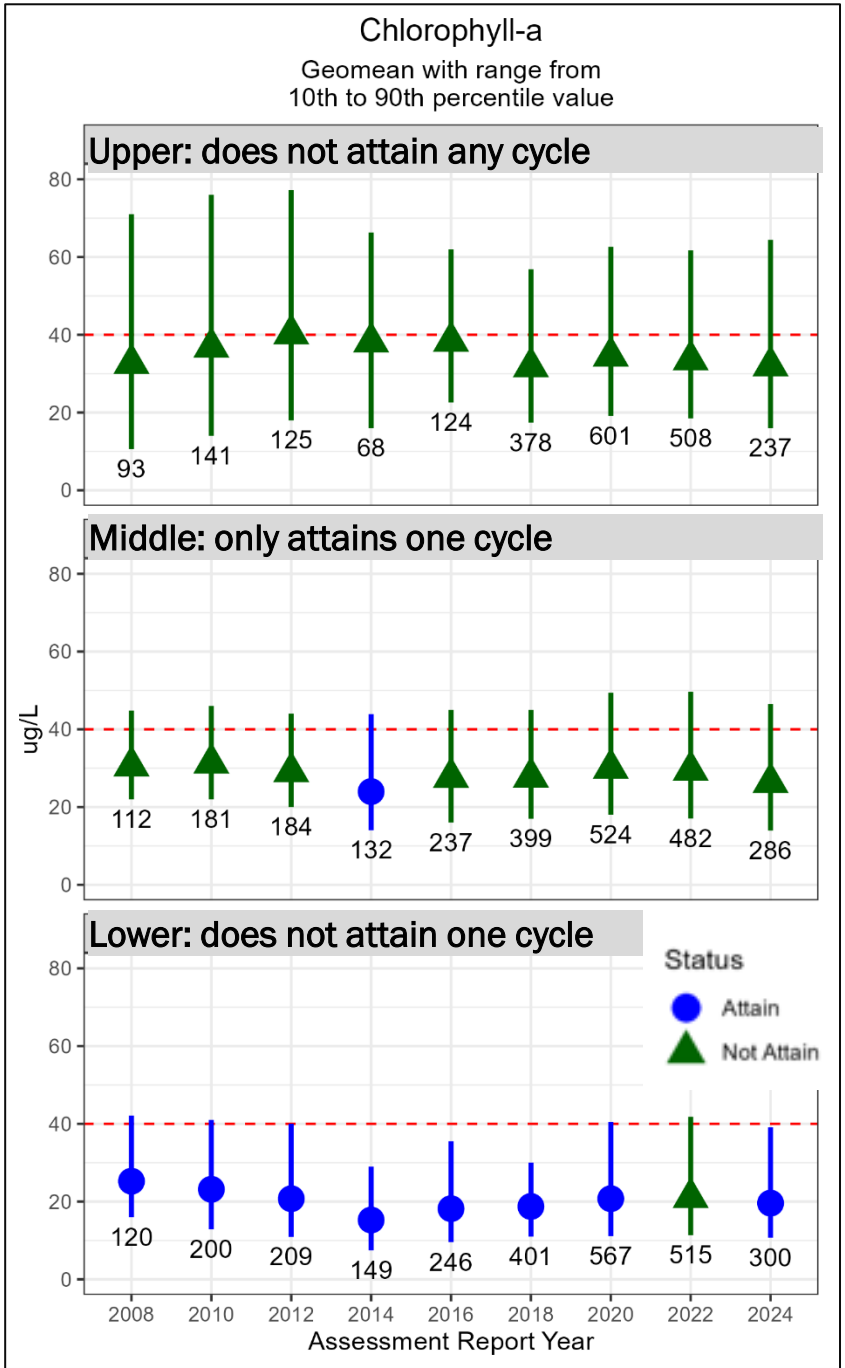
UNRBA's Falls-Specific Proposal

- Based on the most recent assessment methodology, but
  - Lumps all stations within each segment (upper, middle, lower)
  - Omits shallow-water stations (less than 6-ft at normal pool)
  - Removes "not attaining" trigger based on a few samples above the standard
- Results are more consistent with monitoring data
- Includes a revised monitoring proposal to restart tributaries
  - 6 stations in lake
  - 5 tributary stations



Results from UNRBA's Proposal

- Upper lake
  - "Not attaining" all years
- Middle lake
  - Usually not attaining
- Lower lake
  - Usually attaining
- Draft-draft rules require implementation until <u>all three</u> segments are attaining
- Goal is <u>not</u> to show attainment everywhere, but to have a stable, scientifically-based approach
- Important to show impacts of nutrient reductions that have occurred – else "why do it"?



UNRBA's Proposal for a Comprehensive Evaluation of Trophic Status

- Retains comparison to water quality standards; e.g.,
  - Chlorophyll-a
  - pH and dissolved oxygen
  - Turbidity
- Expands evaluation to include use support information
  - Algal species and toxin data (NC DEQ)
  - Water treatability (City of Raleigh)
  - Fishery and wildlife impacts (NC Wildlife Resources Commission)
  - Other users (US Army Corps of Engineers, NC State Parks, local government parks and recreational departments, and representatives of sport-fishing clubs)
- Evaluates nutrient loading trends since lake was filled (normal loading and flow-weighted)
- Evaluates water quality distributions since lake was filled

Further Discussion on Assessment

- During the June 20th meeting with DWR, the idea was raised to keep the Falls assessment approach tied to the State approach and to use the UNRBA's proposed approach only as a communication tool
  - This means the assessment approach will continue to change over time
  - This will likely show worsening conditions over time and allow staff and others to say the lake is getting worse when it is not
  - The PFC needs to weigh in on this discussion
- Also discussed the need for approval by EPA for a Falls specific approach
  - DWR indicated they could facilitate setting up a meeting
  - UNRBA is working with Fred Andes on compiling information for other states on this topic

Pause for Discussion of Purpose and Scope Rule

Existing Managed Lands Rule

DWR/UNRBA Discussion on Land Conservation

- June 20th meeting: discussed the proposed rule language from DWR's draft Jordan Lake Rules:
  - 20% cap on land conservation that is "preservation only"
  - Full credit for areas that have certain enhancements
  - DWR points to numeric buffer credits applied to new development and WWTPs as the basis for tiered credit
- The UNRBA does not support limiting investment credit
  - Would apply only to existing managed lands and additional investment in watershed health by WWTPs
  - Conservation is self-limiting (land availability and site characteristics, negotiations, development pressure, etc.)
  - If upland areas of sites are not funded, they will likely be developed and worsen riparian conditions
  - Conservation organizations
    - Carefully select sites for funding
    - Actively manage sites and annually monitor compliance
    - Implement corrective actions as needed

UNRBA's Proposal - Land Conservation

- Rather than cap investment credit for parts or types of sites, specify the requirements for land conservation in rule
- For example:
  Land conservation projects eligible for investment credit shall meet the following requirements:
  - Be pre-screened and prioritized by a land-conservation or watershed organization or local government based on evaluation of water quality benefits
  - Include activities to enhance water quality
  - Provide protection under a permanent easement or similar contractual vehicle
  - Require annual monitoring and reporting of vegetative health, compliance with easement requirements, and description and schedule of corrective actions for non-compliance with easement requirements.

DWR's Proposal - Limit Investment Credit When Meeting Other Requirements

- June 24th DWR All Stakeholder meeting: DWR mentioned that meeting "other regulatory requirements" may no longer be allowed under the investment-based approach
- It is unclear what regulations and permits DWR is referring to
- DWR has not offered specifics during Jordan or Falls meetings
- UNRBA agrees there should be a distinction across regulated sectors (e.g., not double counting projects for existing and new development)
- UNRBA supports continued allowance of investment credits for projects implemented to comply with MS4 permits or TMDLs
  - Projects in the watershed implemented since baseline
  - Projects with water quality/watershed health benefit
- DWR is currently allowing these projects for investment credit (see the DWR and EMC approved IAIA Program Document)
- It is unclear if or why DWR no longer wants to allow these projects

DWR's Proposal - Separate the Falls Ag Rule

- During the June 24th DWR All Stakeholder meeting, DWR discussed their proposal to have separate rules
  - Ag Rule (would be 0752)
  - Existing Development Rule (would be 0754)
- The UNRBA workgroups and PFC have discussed several times wanting to combine these rules
  - Facilitate cooperation under an investment-based approach
  - Aid implementation under an Existing Managed Lands Rule
- The PFC needs to discuss whether they are comfortable separating these rules or want to continue with one rule
- During June 3rd PFC meeting, representatives of agriculture expressed that the ag community would like to
  - Retain their formalized role in rule implementation
  - Compile ag data annually to monitor trends rather than rely on a 5-year snapshot

Pause for Discussion of Existing Managed Lands Rule

New Development Rule

UNRBA's Proposal– Purpose of New D Rule

- UNRBA had revised this section based on stakeholder input:
  - (1)(d) To support integrated watershed health by promoting practices that enhance stormwater infiltration, groundwater recharge, urban greening, and flooding resilience
- Following distribution of the July version of the drafts, other stakeholders pointed out this language is
  - Vague in its requirements; likely would not pass RRC review
  - May be interpreted as only allowing practices that enhance those listed elements (infiltration, etc.)
- As the SNAP tool provides higher credits for practices that enhance infiltration, etc., the structural mechanisms to get at most of the intent of the July version of (1)(d) are present.
- We present this revised version of the language for discussion:
  - (1)(d) For DEQ to support integrated watershed health by establishing nutrient credits for non-engineered practices in coordination with the Falls Lake Watershed Association

UNRBA's Proposal– Development Excluded

- UNRBA revised its Development Excluded section to align with the recently adopted House Bill 926.
  - Retains reference to Common Plan of Development
  - Most stakeholders agreed should be used for consistency with State and Federal law
- DWR and UNRBA discussed House Bill 926 on June 20th
- It is "relaxed" relative to current rule and other proposals for development excluded discussed by the New Development Workgroup and PFC; however,
  - Only applies to single lots of development
  - Impacts to Falls Lake will be limited
  - Addresses previous concerns regarding passing land to heirs
  - Would be a potential "lightening rod" to push back on House Bill 926 with little gain for water quality

Discussion of Removing the Phosphorus Target

- Stakeholders questioned removing the phosphorus (P) loading target from the new development rule during DWR's June 24th All Stakeholder Meeting
- The current P target of 0.33 lb-P/ac/yr is too low
  - Confirmed with the UNRBA watershed model
  - Requires nearly every development to buy phosphorus offsets with nitrogen offsets needed less frequently
  - There are not sufficient phosphorus credits in the watershed to continue providing offsite credits
- Rather than increasing the P loading rate (e.g., Tar Pam is 0.8 lb-P/ac/yr), DWR suggested removing the P target
  - The UNRBA New Development Workgroup and PFC agreed

UNRBA's Proposal – Remove P Target

- Keep the nitrogen (N) loading target the same (2.2 lb-N/ac/yr)
  - UNRBA watershed modeling indicated this could be increased
  - Workgroup and PFC decided consistency for N was best
- Address phosphorus (P) with the following requirements
  - Require a primary stormwater control measure (SCM) on site if the built upon area will exceed 12% (DWR's suggestion)
    - Primary SCMs are required to remove 85% total suspended solids
    - Most P from development is associated with sediment
  - Require stormwater practices that treat P and N
  - Track and report N and P loading (SNAP Tool)
  - Closely monitor water quality and revise rules as needed

DWR Comment – Ambiguous Requirements

- During their June 24th All Stakeholders Meeting for the Falls Rules Readoption Process, DWR listed for additional discussion
  - Inclusion of runoff reduction requirements
  - Peak rate match requirements
- Specific details were not provided
- UNRBA has stated several times the need for scientifically-backed reasons for changing requirements
- New development rules are contentious in general, and UNRBA aims to retain the current framework with the exception of adjustments to improve implementation
- It is unclear if this is in reference to UNRBA workgroup discussions or DWR'S proposals for other watersheds like High Rock Lake which are very different than UNRBA's proposed rules

Stakeholder Input – Runoff Volume Match and Secondary Practices for Nutrients

- Concern has been expressed that the runoff volume match compliance option may result in increases in nutrient loading, especially relative to current P loading targets
- DWR staff suggested a follow-up meeting with UNRBA members, DWR, and DEMLR to discuss
  - Runoff volume match
  - Use of other secondary practices (DEMLR no longer credits)
  - Use of soil improvement for new development
  - Allowing nutrient crediting under DWR even if DEMLR will not credit for other requirements
- Ties to the latest proposed change to the Purpose:
  - (1)(d) For DEQ to support integrated watershed health by establishing nutrient credits for non-engineered practices in coordination with the Falls Lake Watershed Association

Pause for Discussion of New Development Rule

Wastewater Rule

Discussion with DWR About WWTP Challenges

- On June 20th, UNRBA and DWR discussed challenges with current Stage I load allocations for WWTPs
  - Based on 2008/2009 discharge flow rates plus 10%
  - Plants are currently at ~ half permitted capacity
  - Reverse osmosis would be required to meet even Stage I loads at permitted flow (not feasible)
  - Limiting facilities to less than permitted capacity is not economically or politically viable

Setting Limits of "Best Achievable Technology"

- UNRBA proposed setting allocations using permitted flow rates and best available technology (BAT)
  - Based on Tar-Pam Rule, BAT is 3.5 mg-N/L and 0.5 mg-P/L
  - DWR suggests BAT for Falls of 3.0 mg-N/L and 0.1 mg-P/L
- The three largest WWTPs are currently implementing BAT using 5-stage biological nutrient removal and chemical coagulants
- UNRBA Watershed Analysis Risk Management Framework (WARMF) and UNRBA Environmental Fluid Dynamics Code (EFDC) are being used to simulate water quality assuming effluent concentrations of 3.0 mg-N/L and 0.1 mg-P/L
- It is essential that both lake model results be available before we discuss potential impacts of the proposed wastewater rule. Results will be shared when available

UNRBA Proposal - Multi-faceted, Adaptive Approach

- Require best achievable technology
- Allow facilities to utilize permitted flows
- Track emerging technologies; optimize facilities
- Invest combined $500,000/yr in watershed health
- Monitor receiving streams and Falls Lake to support adaptive management as flows increase
- Use predictive modeling to evaluate chlorophyll-a (proposed rules and future changes)

Pause for Discussion of Wastewater Rule

Extension of IAIA Program and Annual Reports Due Soon

Extension of the IAIA Program

- IAIA is approved as a five-year program with an option to extend until Falls Rules are readopted.
  - The five-year period ends June 2026
  - Projected rule readoption date is in March 2027
  - IAIA program will need to be extended
- During the November 19, 2025, UNRBA Board meeting, we are planning to include a Compliance Group Committee (CGC) meeting to consider submitting a request to the EMC to approve an extension of the IAIA program
  - Five years, or
  - Until the Falls Rules are readopted and an updated watershed protection plan is developed and approved by the Commission (i.e., an updated Program Document)

Year Four of the IAIA Ended June 30th

- The fourth-year of the Stage I Existing Development Interim Alternative Implementation Approach (IAIA) ended June 30th
- Annual reports from each participant are due to John Huisman at the Division of Water Resources (DWR) with a copy to the Executive Director and Alix Matos by **September 30, 2025**.
- The latest version of the template is available here
  - Save a local copy of this latest version 6.3
  - Rename with your "JuridictionName" and "FY25" in the file name
  - Review the "Instructions" tab and "Column Explanations" tab
  - Enter FY2025 projects into the "User Input" tab
    - Blue cells are dropdown menus
    - Purple cells are automatically populated
    - Green cells are user entered values or text
    - Carry over from the previous year must be entered manually

Communications

Additional Information and Activities

- Continued discussion and input from stakeholders on draft-draft rules
- Continued coordination with DWR on draft rules and fiscal analysis
- Additional stakeholders will be included when the draft-draft goes to the Board by September 2025
- Status updates to the EMC (most recently July 10, 2025)
- Planning a meeting with the new Secretary of DEQ
- Planning a meeting with staff from the NC Office of State Budget Management
- Planning a meeting with EPA

Other Items

Ongoing Discussions/Issues

- DWR Neuse Watershed Model/Delivery Factors for WWTP –
  - Final modeling report presented January 28th
  - DWR provided a status update to EMC on May 8th
- Ongoing NC State University UNRBA and Jordan Lake One Water research study
- Impacts on implementation of nutrient requirements in light of PFAS/PFOS and other emerging requirements on wastewater management costs to local governments. DWR developing an implementation plan for control of these pollutants—EMC to review

Links to Reference Documents

- UNRBA Consensus Principles II to guide development of the revised Falls Lake Rules
  - Based on scientific conclusions resulting from a 10-year evaluation of Falls Lake and its watershed by the UNRBA, NC Collaboratory, and other organizations
  - Companion document: "Concepts and Principles for the UNRBA Recommendations for a Revised Falls Lake Nutrient Management Strategy"
    - History of Falls Reservoir and Falls Rules
    - Summary of key findings from modeling and monitoring
    - Recommendations for revised nutrient management strategy
- Additional information available online in the UNRBA Resource Library: https://unrba.org/resource-library.
- Falls Lake water quality evaluation conducted by Dr. Marty Lebo to support development of Falls specific assessment methodology
- UNRBA Lake Modeling Report (summarizes historic water quality monitoring data and use support information)
- Final Program Document: Stage I Existing Development Interim Alternative Implementation Approach (IAIA)

Closing Comments

Next PFC Meeting Scheduled for
September 2, 2025
9:30 AM to 12:00 PM

Next Board Meeting Scheduled for
September 17, 2025
9:30 AM to 12:00 PM