

Draft Framework: Stage I Existing Development (ED) Interim Alternative Implementation Approach (IAIA)

Overview

Since 2018, the Upper Neuse River Basin Association (UNRBA) has been exploring an alternative option for achieving compliance with Stage I Existing Development (ED) nutrient load reductions required by the current Falls Lake Nutrient Management Strategy (the Rules). An important aspect of this alternative approach is to promote additional reductions in ED nutrient loading over the interim period between the time an alternative approach is established and when the Falls Lake Rules are readopted (expected in 2025 or later). This Stage I interim alternative implementation approach (IAIA) would be based on voluntary participation and would still allow jurisdictions to seek compliance with Stage I ED nutrient load reductions under the existing Rules. Opting out of the Stage I IAIA would require a jurisdiction to develop a Stage I ED program consistent with the Rules. However, participating in the IAIA, if put in place, is intended to allow a jurisdiction to achieve full Stage I ED compliance once a regulatory pathway is established (see section on compliance determination).

In addition to evaluating the Stage I implementation options, the UNRBA is continuing its effort to re-examine Stage II of the Rules. Figure 1 shows the two options for Stage I compliance and summarizes the ongoing re-examination process for Stage II.

This framework document provides more information on the regulatory background, objectives, and potential functionality of a Stage I IAIA. This framework is preliminary and is still under consideration by the UNRBA. Specific program components and details would be developed through an implementation plan that would be developed following approval of a version of this framework by the UNRBA. Board action is required to approve the framework and to authorize actions toward the development of an actual Stage I IAIA program.

Options for Complying with Stage I Existing Development (thru at least 2024 per Session Law 2018-5)

- | | |
|---------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------|
| <input type="checkbox"/> Existing Stage I ED Rules | <input type="checkbox"/> Stage I IAIA |
| <input type="checkbox"/> Local governments negotiate Stage I load reduction requirements with DWR | <input type="checkbox"/> Develop a pathway for implementation (under existing Rules or with new legislation) |
| <input type="checkbox"/> DWR to develop, and EMC to adopt, model program | <input type="checkbox"/> Focus on improvements to water quality and base compliance on investment levels |
| <input type="checkbox"/> Local governments develop local programs | <input type="checkbox"/> Use existing programs to efficiently implement projects |
| <input type="checkbox"/> Local governments implement projects and track nutrient pounds reduced | <input type="checkbox"/> Expand list of eligible activities beyond those with State-approved credits |
| <input type="checkbox"/> Comply with requirements before re-examination rules are re-adopted | <input type="checkbox"/> Allow members to implement projects individually or under joint agreements |

Re-examination Strategy for Stage II

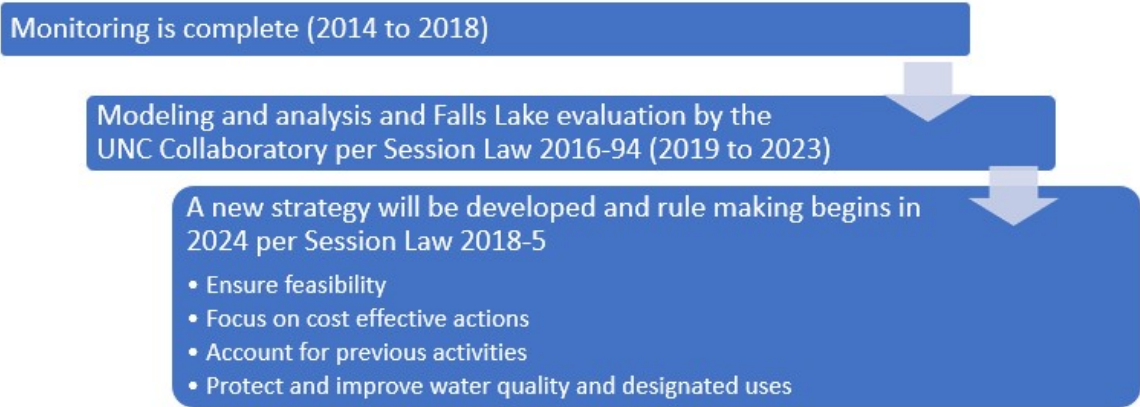


Figure 1. Stage I Existing Development Compliance Options and Stage II Re-examination Strategy

Regulatory Background

In 2011, the NC Environmental Management Commission adopted the Falls Lake Nutrient Management Strategy (“the Rules”). The Rules include two stages of nutrient reductions that are the most stringent and costly nutrient reduction requirements ever passed in NC. The Rules acknowledged that there is considerable uncertainty associated with the requirements under Stage II, and the Rules allow for a re-examination if certain steps are followed. The UNRBA began planning for the re-examination of Stage II in 2011, and the re-examination is based on a significant monitoring and modeling effort. All of the steps required to undertake the re-examination have been completed or are underway, and approvals from DEQ have been secured at each step of the process. Monitoring started in August 2014 and was completed in October 2018. Modeling and other analyses to support the re-examination are underway.

The Rules define specific requirements for Stage I and Stage II for different sectors of the regulated community. The Stage I requirements have been met by major point sources (wastewater treatment systems operated by local governments and utilities in the watershed) and agriculture. The Stage I ED requirements for local governments have not been set by the NC Division of Water Resources (DWR). The original schedule included development of a Model Program for ED by DWR by 2013, approval by the NC Environmental Management Commission (EMC), and implementation of local government programs beginning within six months of EMC approval and completed by 2021.

Through the passage of Session Laws [2016-94](#) and [2018-5](#), the legislature modified the schedule for completion of Stage I ED to the date at which the Falls Lake Rules would be re-adopted (after completion of the UNRBA re-examination and the Collaboratory’s evaluation of Falls Lake). The Session Laws do not alter the rule requirements for implementation of Stage I, but implementation cannot proceed until the preliminary actions by DWR and the EMC are taken as called for in the rule. [Session Law 2018-5](#) states that the rules re-adoption process for the Falls Lake Strategy must be started by the EMC no later than December 31st, 2024. It also states that the due dates for reduction actions and goals originally set to be completed by December 31, 2020, and the reduction actions and goals identified as Stage II in the Falls Lake Rules are delayed until readopted Falls Lake Rules become effective.

The IAIA would be an alternative to Stage I Existing Development requirements under the Falls Lake Nutrient Management Strategy. While the implementation of an IAIA may provide important information about how a similar approach may work as an alternative to Stage II, it is separate from the UNRBA re-examination that relies on an extensive water quality monitoring program and development of watershed and lake models. The IAIA is a “bridge” to continue water quality improvements until a new nutrient management strategy can be put in place for the watershed. The re-examination strategy would account for and provide jurisdictional “credit” for all reduction projects implemented since 2006.

The rules associated with Stage I ED present challenges in both interpretation and implementation. Also, the extent of reductions already accomplished through nutrient treatment improvements at the major wastewater treatment facilities, as well as reductions from nonpoint sources such as

impervious surface removal and repair of leaking sewer lines, result in loading reductions above and beyond estimates of the total requirements for Stage I ED. If the jurisdictions combine their efforts as the Rule allows, these reductions could be shared (by agreement) and used by all participating jurisdictions to show the required ED reductions for Stage I have been achieved. The additional reductions from point sources in particular represent loading decreases much higher than the total of the estimated reductions required by local governments to meet Stage I ED requirements. **If compliance with the Stage I ED requirements is approached through the sharing of these credits, local governments would have less incentive to implement additional projects in the watershed under the current rule structure until the adoption of a new nutrient management strategy. Rather than undertaking this route to compliance, members of the UNRBA have supported the idea of taking additional reasonable and cost-effective actions aimed at reducing water quality impacts to the Lake from existing development in the watershed.**

In 2018, the UNRBA began discussing a Stage I IAIA that could be used to legally comply with the Stage I ED requirements by taking supplemental reduction actions and to provide a pilot for a potential alternative approach when developing a revised nutrient management strategy through the re-examination. A Stage I IAIA would allow jurisdictions to undertake actions in the interim period (before the Stage II re-examination is complete and a new strategy is adopted and in place) that would provide short and long-term improvements in water quality in the watershed and the lake. The Stage I IAIA would use an investment-based tracking system rather than a nutrient load reduction-based tracking system as prescribed under the jurisdiction-by-jurisdiction provisions of the Rules. Some UNRBA members began implementing projects toward reducing the impacts from existing development well before the Falls Lake Rules were adopted and put in place. Some actions can be tracked back to 2006, the baseline year in the Rules. This was well before load reduction targets were established. For simplicity and to expedite program implementation, the Stage I IAIA would not attempt to account for projects implemented since 2006 and would focus on projects implemented between the start of the IAIA and the re-examination and re-adoption of a revised Stage II nutrient management strategy. While the Stage I IAIA would not account for early implementation, the UNRBA and its members agree that jurisdictions that undertook early project development will receive full credit for those projects under the revised strategy developed through the re-examination process. The Rules state that “the Commission shall recognize reduction credit for early implementation of policies and practices implemented after January 1, 2007 and before timeframes required by this Rule, to reduce runoff and discharge of nitrogen and phosphorus per Session Law 2009-486.” **There is solid agreement among UNRBA members that early implementation efforts will be fully acknowledged and credited under a revised nutrient management strategy for Falls Lake.**

The following information represents a draft Stage I IAIA framework based on the discussions to date by the PFC and the IAIA Workgroup. This draft framework was distributed to the Board of Directors on November 12, 2019 in advance of the November 20, 2019 Board of Directors meeting. The Board of Directors will decide on November 20, 2019 whether or not to continue development of a program description for implementation of the IAIA.

Objectives and Guiding Principals

The UNRBA members, with input from external stakeholders including DWR staff, representatives from agriculture, officials managing State-owned land use activities in the watershed, and non-governmental organizations, have identified the following objectives and guiding principles for the development and consideration of a Stage I IAIA:

- Promote additional progress and communicate a commitment to maintain designated uses and improve water quality in the Lake through the following actions:
 - Implement projects in the watershed focused on water quality improvements while the re-examination process continues toward completion
 - Use a simplified approach based on funding levels to overcome challenges with the Rules as currently written
- Reach agreement on an appropriate, fair and equitable funding level among participants for a Stage I IAIA based on investment accounting while maintaining a commitment to develop information on nutrient loading reductions expected from each project/program based on adopted credit practice information or best available information
- Maintain a commitment to developing a replacement strategy through the re-examination process that will provide credit for actions taken or projects developed since the end of 2006 including those implemented under a Stage I IAIA and those exceeding the minimum investment levels set for a Stage I IAIA.
- Determine nutrient reduction values (when feasible) for each project or activity and track these values for future use with the understanding that Stage I IAIA compliance will be strictly based on financial investment
- Provide an interim approach that would be fair to all participating jurisdictions and help lay the foundation for ongoing consideration of innovative management approaches
- Expand the list of available management practices to encourage a broad use of watershed improvement actions
- Demonstrate the UNRBA's continued commitment to achieving a reasonable, fair, cost-effective, and equitable management strategy for Falls Lake
- Provide an opportunity to coordinate a joint compliance effort within the participating members of the UNRBA
- Utilize existing water quality improvement programs (see Administration section) when available to efficiently implement eligible projects and activities in order to:
 - Minimize administrative and process delays
 - Seek ways to lower costs in the development and installation of projects
 - Allow flexibility with program implementation
- Provide multiple, flexible and innovative options for funding projects and activities that include individual jurisdictions, partnerships, or consolidation of funds by the UNRBA
- Achieve agreement with DWR, with stakeholder input, that an adopted Stage I ED IAIA would be recognized as providing full Stage I ED compliance through the interim period leading to a new strategy for nutrient management in Falls Lake

Potential Eligible Activities

Funding of Stage I IAIA eligible projects and activities would be tracked against the minimum investment levels determined by the UNRBA. Cost effectiveness in terms of water quality improvement would be factored into selection of projects and activities. Expenses associated with site screening and selection, planning, land acquisition, design, permitting, demolition and removal (e.g., impervious surfaces); construction, operation, and maintenance **for the following types of projects and activities that benefit water quality and quantity and that represent a full financial commitment for installation/adoption of the program or project** would be eligible under the Stage I IAIA (see Administration section that includes general reporting requirements for demonstrating project linkage to improving water quality in the watershed and the lake):

- All State-approved practices with established nutrient credits including stormwater control measures
- Green infrastructure and best management practices that include water quality and quantity improvements
- Stream and riparian buffer restoration and enhancement
- Programmatic measures addressing
 - Fertilizer application by businesses and homeowners
 - Onsite wastewater treatment system inspection programs, maintenance tracking, repair, replacement, and pump-out programs
 - Pet waste pickup education and waste management stations
- Infrastructure improvements including
 - Repair and replacement of leaky infrastructure
 - Reduction of sanitary sewer overflows
 - Extension of sewer lines to areas using onsite systems or package plants
- Illicit discharge detection and elimination
- Land conservation in high priority areas
- Floodplain restoration and reconnection
- Greenways and parks with water quality and quantity benefits

Projects and activities implemented by individual members to address other state and federal water quality regulations would not be excluded from eligibility (MS4 permits/Phase I or II communities, TMDLs on streams, etc.), but would require that project-by-project eligibility would be established through consultation with DWR and in consideration of the funding source. Projects implemented by the UNRBA using consolidated funds would not be used to meet individual member regulatory requirements without written agreement by the UNRBA.

Additional projects and activities beyond those listed above would be allowed pending vetting with other UNRBA members and DEQ/DWR. Any project, practice, or program undertaken must demonstrate that its application has a positive connection to improving water quality or managing water quantity in the watershed or catchment where it is being implemented. Project selection and commitment will be coordinated through DWR and receive concurrence before being implemented.

Stage I IAIA Participant Minimum Investment Amounts

At the August PFC meeting, the PFC generally agreed that using the current UNRBA fee structure calculation method (excluding members without ED requirements) would be sufficient and acceptable for assigning the proportion of annual minimum investment level for individual participants in the IAIA. The IAIA Workgroup agreed by consensus to apply the current fee structure to develop minimum investment amounts. Subsequent drafts of this framework would include the investment amounts approved by the UNRBA.

Minimum investment amounts are not restricted to a contribution to a UNRBA pool of funds. As described in the Administration section below, there are four general funding options that Stage I ED IAIA participants may use to satisfy their minimum investment level.

Administration

Primary roles of the UNRBA related to the Stage I IAIA could be to assist the members in the establishment of a workable framework and program, compile progress reports from UNRBA members, summarize progress from the membership as a whole, and coordinate funding activities based on the approach taken by the jurisdictions to fund projects (see funding options below). The UNRBA could also assist jurisdictions in developing methods and processes for prioritizing projects and activities that focus on water quality improvement. The Stage I IAIA would not require the UNRBA to receive and manage the funds from members investing through their own projects or with other cooperating programs between participants, but some members may wish to pool their resources through the UNRBA. It would, however, be the responsibility of each participating jurisdiction to account for and report its projects/actions and provide the investment levels made under the IAIA.

This framework has identified four potential options available to the members to demonstrate and manage their participation in the Stage I IAIA. Every effort will be made to provide flexibility in the application of each option. Investment amounts on an annual basis by project/action would be reported to DEQ and the UNRBA for tracking purposes, and funding may be “cash” or in-kind (e.g., self-funded projects, donation of technical-service hours, or use of equipment). The UNRBA would provide a summary report to DWR. An individual IAIA participant would not be limited to one of the four available options, but rather may allocate resources using one or more of the funding options:

- Self-funded – An individual participant may use funds for eligible projects and activities within and managed by their own jurisdiction.
- Interlocal agreement – Individual participants may enter into an interlocal agreement where eligible projects and activities are jointly funded by two or more jurisdictions.
- Funding existing local programs - Individual participants may contribute funds towards eligible projects or activities to other local programs including local Soil and Water

Conservation Districts, County Health Departments, watershed associations, land conservation groups, and UNRBA members that do not have ED requirements that are implementing projects to improve water quality. The receiving local program would be responsible for prioritizing and selecting from the list of eligible projects and activities under their established procedures for setting priority. Use of funds by other local programs would be limited to projects and activities associated with water quality and watershed improvement benefits. A separate agreement may be required to specify use of funds through other local programs.

- Contribution to UNRBA pool of funds – individual participants may contribute to a joint funding pool that would be coordinated by the UNRBA to fund eligible projects and activities. The UNRBA may expend these funds through existing local programs (see examples listed in bullet above), a mitigation bank, contractor, etc. The UNRBA, with input from the contributing jurisdictions, would select projects and activities to fund through a joint selection process for use of the UNRBA pool of funds.

Regardless of the type of funding arrangement used to demonstrate participation under the Stage I IAIA, each local government participating in the program may need to report the following types of information depending on the funding option utilized (i.e., as information is available):

- Funding option and participants
- Primary organization responsible for management and distribution of funds
- Types and locations of projects and activities planned and linkage to addressing water quality in the watershed and lake
- Status of projects and activities
- Funds allocated (cash and in-kind)
- Estimated nitrogen and phosphorus reductions associated with projects and activities if quantifiable, or other tracking metric, based on the information available for the action/project, for activities without State-approved nutrient credits
- Anticipated timeline for completion

Duration

The Stage I IAIA would likely begin in the fiscal year 2022 budgeting cycle and continue until a revised nutrient management strategy is put in place and implementation could begin. However, the actual implementation date will depend on the administrative and legal approaches used to establish the IAIA. The adoption of the revised nutrient management strategy does not have a specific compliance date but must be achieved in accordance with [Session Law 2018-5](#) which specifies that the EMC must begin rule re-adoption no later than December 31, 2024. Depending on the process used to re-adopt the rules or implement a revised Falls Lake Nutrient Management Strategy, it could be two or more years beyond the “beginning” of the process.

It is essential to the viability of the IAIA that previous and ongoing nutrient reduction activities and projects, including those implemented prior to and under a Stage I IAIA, would be credited as actions/investments/reductions specified in whatever newly developed management strategy is finally adopted (as developed through the re-examination of Stage II). Projects and activities

implemented during the interim period that maintain and improve water quality and designated uses would include the cost of work performed previously.

If participating jurisdictions seek to pool funds using the UNRBA, those funds may be allowed to accumulate, by participant agreement, for one or more years until sufficient amounts are acquired to support a meaningful project or activity. Project selection for pooled funds will be determined through coordination with the UNRBA and the jurisdictions contributing to the pool. Funds accumulated at the end of the Stage I IAIA would be allocated by the UNRBA to a project, activity, or existing local program selected through consultation with the contributing jurisdictions.

Stage I Implementation Options

Local governments would have two options for complying with Stage I ED Rules if an IAIA is approved by the UNRBA and established. Provided the UNRBA membership and those jurisdictions agreeing to participate move forward with this alternate approach, an appropriate IAIA compliance process will need to be evaluated by the Legal Workgroup and PFC, approved by the Board, and coordinated with DEQ before a final process for putting the program in place is developed.

Jurisdictions choosing to operate under the existing Falls Lake Rules, would need to negotiate Stage I ED load reduction requirements with DWR. DWR would use these jurisdictional reduction requirements for inclusion in the draft Model Program for consideration by the EMC. Clearly, those jurisdictions taking this path will want to engage in the review of the draft Model Program and provide input and adjustments in the draft before it is acted on by the EMC. Depending on the acceptability of the program to the jurisdictions seeking compliance under the established rule requirements, there is some risk that one or more of the jurisdictions could challenge the validity of the Model Program. If this happens, implementation could be delayed. Provided the Model Program process proceeds and is adopted by the EMC, jurisdictions are required, within six months of the EMC action to develop and submit a Local Program to DWR and the EMC and begin immediately to implement that plan (the Rules establish a specific Local Program approval process).

An alternative to this process is the Stage I IAIA outlined in this document. The UNRBA, with input from DWR, is exploring two possible approaches for implementing an IAIA.

First, it may be possible to implement the Stage I IAIA under the provisions of the existing Rules which allow for trading among regulated entities; however, the agency would need to develop its regulatory basis for using the current Rules. Because the wastewater dischargers have greatly exceeded their Stage I nutrient load reductions, producing a temporary credit that is roughly an order of magnitude greater than that projected to be required in total under the Stage I ED program, actual ED compliance is essentially assured for the short-term. This makes the Stage I IAIA a trading and joint compliance approach that could potentially be approved under the existing Stage I ED Rule. This process requires an assessment of the existing Rule provisions that address joint compliance and a determination by DWR that such an approach is viable. This approach could, with quick agency action, allow the IAIA to be implemented within a relatively short period of time.

A second approach for implementing the IAIA would be the passage of legislation crafted to authorize the IAIA as an alternative to the current Rule requirements. As noted, the General Assembly has prevented the EMC from revising the Falls Lake Rules, but that does not prevent the Legislature from

modifying the requirements by making the IAIA an alternative to compliance under the Rule. The specific provisions of the program could be included in the legislation. If a bill is required for implementation, DWR has expressed interest in collaborating on the language. Legislative action could allow for quick implementation; however, since there are significant details within an IAIA, crafting legislation and building a regulatory program within law will require a significant effort.

Compliance Determination

Under a Stage I IAIA, compliance would be determined based on investment as determined by the participating members of the UNRBA. Financial investment levels set by a method approved by the participating jurisdictions of the UNRBA and budget allocation for this purpose at the jurisdictional level would represent annual compliance (or for multi-year projects, compliance over that period). Specific project development would be documented and reported to DEQ and, for coordination purposes, the UNRBA. Projects and activities would be tracked, and final completion would be documented. Nutrient reduction estimates would be developed based on approved practice values or best available information. Depending on the approach specified in the revised strategy developed under the re-examination, this tracking information may be used.

Stage I IAIA participants would individually submit reports to DEQ and provide copies to the UNRBA. The UNRBA would consolidate the reports from each jurisdiction and submit a summary report to DEQ showing overall investment level and project status for all jurisdictions.

Stage I IAIA Program Development

If the Board decides at the November 20, 2019 Board of Directors meeting that further development of a Stage I IAIA is warranted, then the IAIA Workgroup and PFC would develop an IAIA Program Description that provides additional details on how the IAIA could be implemented. This IAIA Program Description would be reviewed and acted on by the Board, tentatively at the January 15, 2020 Board of Directors meeting.