Falls Lake Alternative Existing Development Management Approach

Nutrient Scientific Advisory Board Meeting May 1, 2020

Agenda

- Review current rule structure for existing development under the Falls Lake Nutrient Management Strategy
- Discuss why an alternative approach is needed
- Summarize preliminary program guidance developed by the UNRBA
- Describe prospective implementation schedule and next steps

Falls Lake Nutrient Management Strategy: Existing Development Rules

- Load reduction requirements are based on two stages
  - Stage II is currently being re-examined by the UNRBA
  - Stage I load reductions require local governments to reduce nutrient loading from development that occurred between 2007 and 2012 back to 2006 levels
- Local governments are allowed to **combine** load reduction requirements from existing development and wastewater treatment
- Local governments are allowed to work together as a **group** to meet existing development load reductions

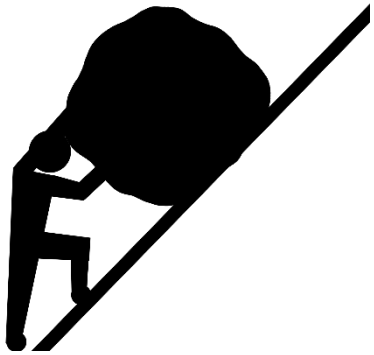
The Falls Lake Alternative Existing Development Management Approach focus on Stage I.

Challenges with the Current Rule Structure

- Requires estimates of pre-development loading rates
  - May be calculated using tools like SNAP or JFSLAT
  - Rules also include default loading rates
    - Default rates can result in zero (even negative) load reductions
    - DWR and jurisdictions were not able to resolve use of these rates
- Requires estimates of increase in loading due to development
  - May be calculated using tools like SNAP or JFSLAT
  - Rules are unclear on how loading from onsite systems should be factored in
  - Different jurisdictions have different types of data, applied different calculation tools, and used different assumptions
  - Difficult to get “fair” estimates across all jurisdictions

Challenges with the Current Rule Structure

- Requires implementation of practices with State-approved nutrient load reduction credits
  - Difficult to account for age and level of maintenance
  - Ignores bypass of storms greater than 1”
- Ignores activities that are beneficial, but difficult to quantify in terms of pounds reduced, e.g.,
  - Education and public outreach programs
    - Maintenance of onsite wastewater treatment systems
    - Fertilizer application to lawns
    - Pet waste pickup
  - Repairing leaking sewer lines
  - Buffer restoration in developed areas

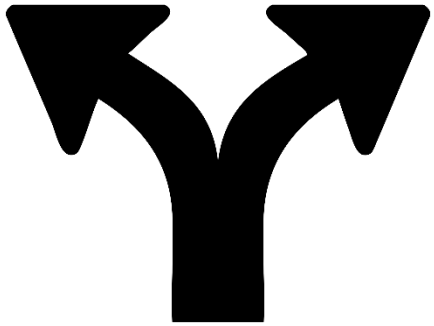


Estimates of Stage I Credits and Requirements

- Estimate of the combined watershed-wide Stage I existing development load reduction **requirements**
  - 6,000 pounds of nitrogen per year
  - 800 pounds of phosphorus per year
- Combined watershed-wide post-baseline reduction **credits** from WWTPs with additional load reductions from non-point source practices implemented since 2006
  - 50,000 pounds of nitrogen per year
  - 5,000 pounds of phosphorus per year

Need for an Alternative Approach

- Jurisdictions and DWR have found it difficult to negotiate Stage I Existing Development load reduction requirements
- Many beneficial activities are not creditable
  - Need to expand the tool box
- Most non-point source load reductions have been implemented by a few jurisdictions
  - Prefer to engage everyone in the watershed



UNRBA Proposed Alternative

- In 2018, the UNRBA began developing an alternative called the Stage I Existing Development Interim Alternative Implementation Approach (IAIA)
  - "Interim" until the Stage II re-examination is complete
  - Alternative – does not focus on counting pounds
- Additional participants included staff from DWR and non-governmental organizations
- Focuses on investment in eligible practices rather than counting pounds of nutrients
- Provides more flexibility and cooperation
- Voluntary program – members may choose to implement individual local programs under the current rules

Allowance in the Rules for an Alternative

- Language in the rules regarding group compliance and combining requirements allows for an alternative approach
- Reasonable assurance that Stage I load reduction requirements will be met
  - ★ Credits from wastewater treatment plants are high compared to required reductions
  - ★ Wastewater treatment plants have good historic performance
  - ★ IAIA ensures continued implementation of nutrient reducing measures

Summary of Preliminary Draft IAIA Program Guidance

Objectives of the Interim Alternative Implementation Approach

- Promote reasonable progress
- Implement projects in the watershed while the re-examination continues toward completion
- Demonstrate commitment of the UNRBA to
  - Maintain uses and provide water quality improvement
  - Provide a reasonable, fair, and equitable management strategy
- Utilize existing programs when available to efficiently implement eligible projects and activities
  - Minimize administrative and process delays
  - Seek ways to lower costs in the development and installation of projects

Participation in the Process

- Process began in 2018 with many discussions, iterations, and input across a range of organizations
  - UNRBA Members
    - Path Forward Committee
      - IAIA Workgroup
  - Staff from Division of Water Resources Planning Group
    - John Huisman
    - Rich Gannon
    - Jim Hawhee
  - Representative for non-governmental organizations
    - Peter Raabe
  - Representative for agriculture
    - Anne Coan

Potential Eligible Activities

- 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
- Programmatic measures addressing
  - Fertilizer application education for businesses and homeowners
  - Onsite wastewater treatment system inspection, maintenance tracking, and tank pump-out programs
  - Pet-waste education and waste management stations
- Illicit discharge detection and elimination
- Stream and riparian buffer restoration and enhancement
- Land conservation in high priority areas
- Greenways, parks, and projects with water quality and quantity benefits

Potential Eligible Activities, Continued

- Infrastructure and wastewater improvements including
  - Repair and replacement of leaky infrastructure
  - Reduction of sanitary sewer overflows
  - Extension of sewer lines to areas using onsite wastewater treatment systems or package plants
  - Repair and replacement of malfunctioning septic systems and discharging sand filter systems
- Projects and activities implemented to address other state and federal water quality regulations (MS4 permits/Phase I or II communities, TMDLs on streams, etc.)
- Projects and activities that focus on flooding that have an associated water quality benefit
- Additional projects and activities beyond those listed above pending vetting with other UNRBA members and DEQ

Example Investment Distribution for Stage I Existing Development IAIA

- Would only apply to the period leading up to the new strategy resulting from the re-examination of Stage II
- Represents minimum amounts
- Assumes a total annual funding of $1.5 million per year if everyone participates
- Applies the existing UNRBA fee structure
- Allows for rollover from one year to the next

Member	Annual Funding Level	Member	Annual Funding Level
Town of Butner	$23,393	Town of Hillsborough	$34,221
City of Creedmoor	$16,926	Orange County	$161,943
City of Durham	$337,587	Person County	$114,394
Durham County	$133,300	City of Raleigh	$466,081
Franklin County	$19,058	Wake County	$88,968
Granville County	$100,453	Town of Wake Forest	$13,692

Funding Options

- Self-funded – An individual member may use funds for eligible projects and activities within and managed by their own jurisdiction.
- Interlocal agreement – Individual members may enter into an interlocal agreement where eligible projects and activities are jointly funded.
- Funding other local organizations –
  - Individual members may contribute funds to other local organizations including local Soil and Water Conservation Districts, County Health Departments, watershed associations, and land conservation groups.
  - The receiving local program would be responsible for prioritizing and selecting eligible projects and activities.
  - Use of funds by other local programs would be limited to projects and activities associated with water quality and quantity benefits.

Funding Options, Continued

- Contribution to UNRBA pool of funds –
  - Individual members may contribute to a joint funding pool that would be used by the UNRBA to fund eligible projects and activities.
  - May expend these funds through existing local organizations, a mitigation bank, contractor, etc.
  - A joint selection process would be used to select projects and activities
  - May accumulate funds for one or more years until sufficient funds are acquired to support a meaningful project or activity

Reporting to Support Tracking

- Each member would submit annual reports to DEQ:
  - **Funding option(s)** used and additional partners
  - Primary **organization responsible** for management and distribution of funds
  - **Types and locations** of projects and activities planned or implemented and linkages to water quality benefits
  - **Status of projects** and activities (permitting, construction, etc.)
  - **Funds allocated** (cash and in-kind)
  - Estimated nitrogen and phosphorus reductions associated with projects and activities if quantifiable or other **tracking metric** for activities without crediting methods
  - Anticipated **timeline** for completion of each project
- The UNRBA would compile and summarize the reports

Duration

- Potentially begin in the fiscal year 2022 budgeting cycle (July 2021) or the following cycle
- Continue until a revised nutrient management strategy for Stage II is put in place and implementation begins
- Previous and ongoing nutrient reduction activities and projects will count in the newly developed management strategy for Stage II
- Investments made to maintain water quality/uses and improve water quality would include work performed previously
- Voluntary participation renews annually; reverts back to individual local program if not renewed

Compliance Options

- Two compliance options exist for jurisdictions
  - Individual local program
    - Assignment of Stage I Existing Development load reduction requirements to individual jurisdictions
    - Tracking pounds of nutrients reduced
    - Annual accounting
  - Group compliance under the IAIA
    - Investment-based tracking
    - Annual reporting including tracking metrics for specific practices
    - Submittal of annual reports to DWR

Participant Responsibilities

- Adherence to existing rules (e.g., Neuse Buffer Rules)
- Requirements of grant-funded projects are met (allocations are not claimed as match on more than one project and expenditures are allowed)
- Written agreements are in place regarding use of funds by local organizations
- Issues regarding credit sharing associated with agricultural projects are negotiated with input from the Falls Lake Watershed Oversight Committee and included in the written agreement

Contributions from Participants

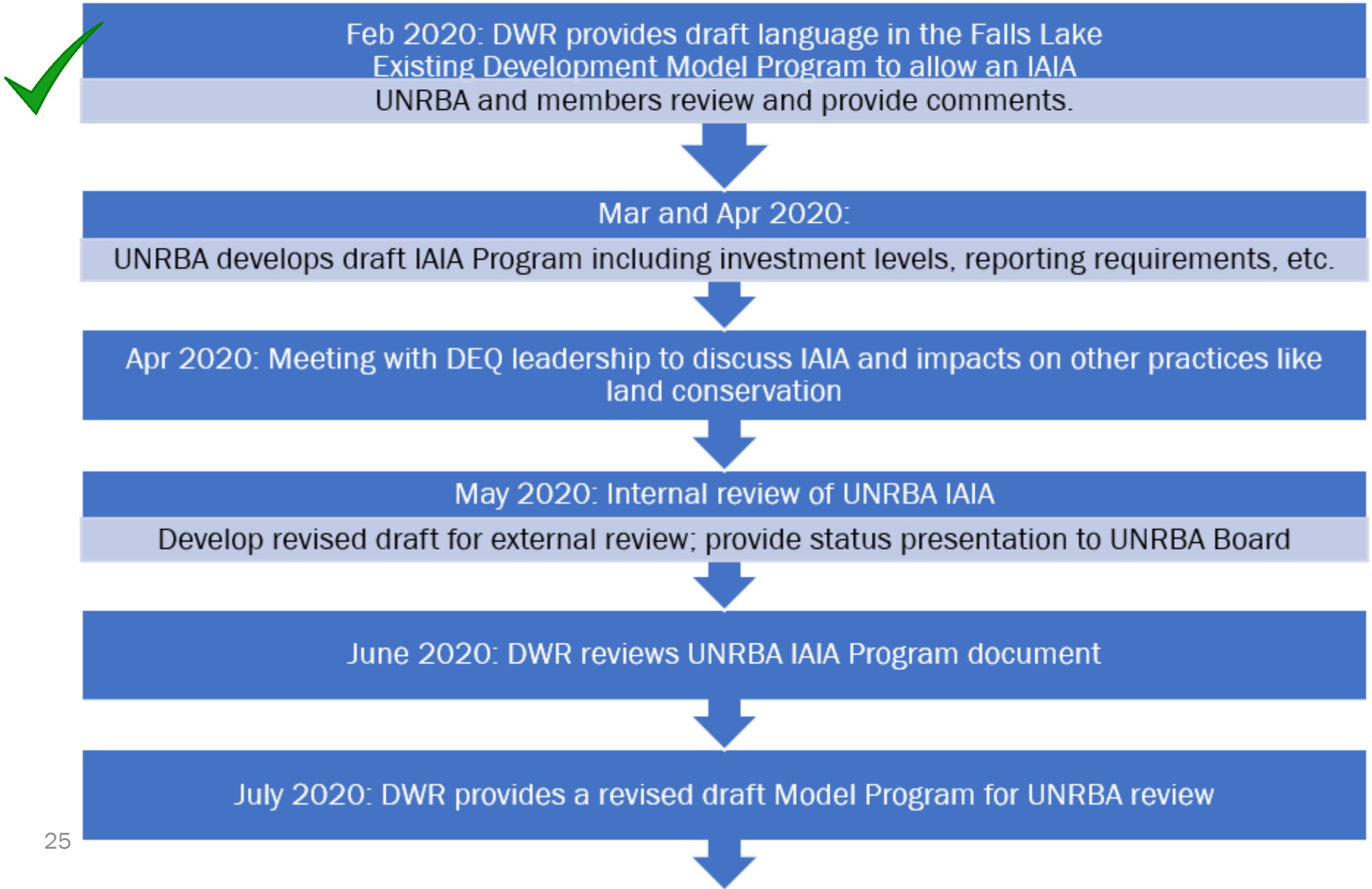
- In excess of minimum requirements may rollover to the next year(s)
- Will count toward the re-examination strategy for Stage II, including those investments made between the baseline period and the start of the IAIA
- Should be fully reported, even those above the minimum amount established for the IAIA
  - Facilitate tracking of activities
  - Communicate progress

Year 1 Program Monitoring

- IAIA is intended to maximize flexibility and adapt program as needed
- The following would not be limited in year 1, but rather monitored and adapted as needed
  - Distribution of types of activities implemented
  - Amount of expenses associated with project planning, design, land acquisition, permitting, construction, operation and maintenance
  - Amount of investment from in-kind technical services

Prospective Implementation Schedule and Next Steps

Prospective Development Schedule for UNRBA IAIA Program Implemented under the Falls Lake existing rules. Potential start date of July 1, 2021.



August 2020: UNRBA reviews DWR Model Program and finalizes IAIA Program

Sep 2020: DWR finalizes draft Model Program

Presentation of IAIA Program to UNRBA Board; DWR/UNRBA information update to EMC WQC

Oct 2020: Local governments brief local councils and decision makers;
UNRBA prepare for UNRBA/DWR/NGO presentation to EMC WQ Committee

Nov 2020: UNRBA Board action to submit, or not, to the EMC for approval in January

Present Model Program with IAIA to EMC WQ Committee; DWR information update to full EMC

Jan 2021: Model Program submittal to full EMC for approval

July 2021: Submit and begin implementation of either the IAIA (with signatures of participants) or individual jurisdictions submit their own Local Programs

Next Steps

- Continue working with DWR and DEQ toward implementation of the IAIA under the Falls Lake Rules
- Coordinate with local councils and decision makers
- Develop interlocal agreements
  - Participation in the IAIA
  - Joint projects
- Develop a reporting template to streamline summary report

Closing Comments
Additional Discussion