Consolidated Buffer Mitigation Rule

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Background on Proposed Rule

- Rules required by state statute – G.S. 143-214.20
- EMC to adopt rules concerning "Construction of an alternative measure (of buffer mitigation) that reduces nutrient loading as well as or better than the riparian buffer that is lost."
- Proposed rule intended to implement this statute as well as revise, update and consolidate the existing mitigation rules.

Benefits of Proposed Rule Changes

- Easier to understand rules, consistent across locations, greater flexibility for compliance, promotes consistent enforcement
- Increases the number of sites and options for buffer mitigation which provides value to communities, homeowners, and land developers
- Address issues of concern through evaluation of options for specific provisions of rule
- Makes existing rules consistent with the principles in Executive Order 70 and SB781

Current Options for Buffer Mitigation

- Restoration or Enhancement of a “non-forested riparian buffer”
- Payment of Fee to the Riparian Buffer Restoration Fund or approved mitigation bank
- Donation of Real Property

Buffer Restoration

- Restoration of a “non-forested riparian buffer”
  - Plant trees in non-wooded areas along streams shown on USGS topographic map or County soil survey map
  - At least two native hardwood species planted at a density sufficient to provide 320 stems/acre at maturity
  - Monitor vegetative survival for five years
  - Conservation easement in perpetuity

Proposed Rule

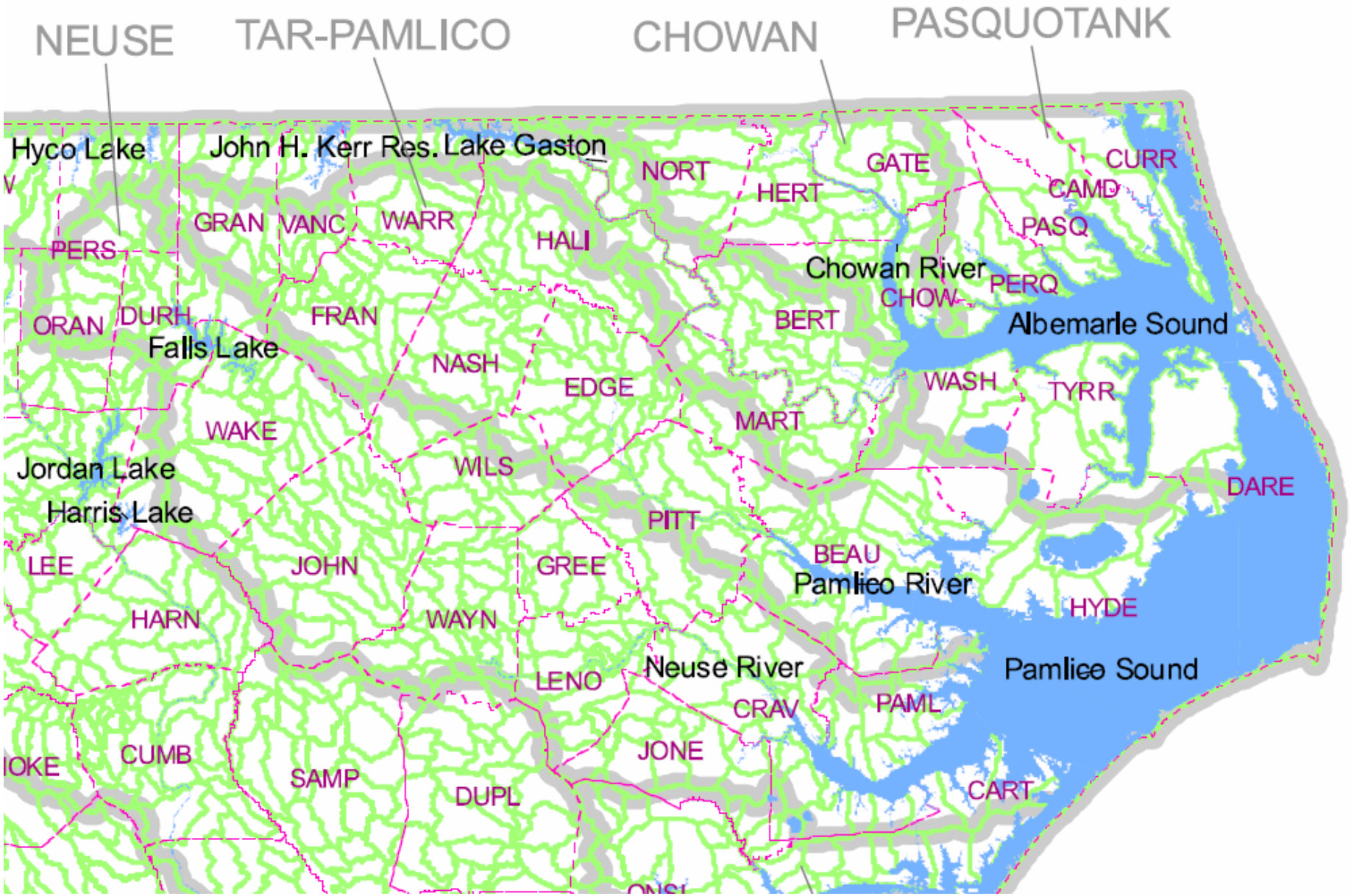
Major changes/additions between proposed rule and old rules

Location of Mitigation Multipliers

Adjacent 8-digit HUC	Within 8-digit HUC	Within 12-digit HUC	Mitigation Option
Option A			
n/a	n/a	1	1) On-site mitigation
2.0	1	1	2) All other types of mitigation
Option B			
n/a	n/a	0.75	1) On-site mitigation
2.0	1.5	1	2) All other types of mitigation
Option C			
n/a	n/a	0.75	1) On-site mitigation
2.0	1.0	0.75	2) All other types of mitigation

8 digit HUCs in Neuse and Tar-Pamlico

12 digit HUCs in Neuse and Tar-Pamlico Basins



Geographic Restrictions on Mitigation Location

- Falls Lake, Goose Creek, Randleman Lake Watersheds: Mitigation must be in watershed
- Jordan Lake: Mitigation must be in same subwatershed as the impact

Long-Term Stewardship of Buffer Mitigation Sites

- Conservation easement in perpetuity
- Transfer of property to a local land trust, local govt., or state organization (Stewardship Office, NCWRC, etc.)
- Non-wasting endowment sufficient to ensure long-term monitoring and maintenance

Existing Sanitary Sewer Easements in Proposed Buffer Mitigation Sites

- Option 1: If sewer easement is present, the portion of the easement within the buffer (Zone 1 or Zone 2) NOT suitable for mitigation. May get credit for narrower buffer if urban site [(k)(2)(D)]

- Option 2: If sewer easement is present, no credit within easement for Zone 1. Credit for Zone 2 portion of easement provided that Zone 1 outside easement is restored, Zone 2 is vegetated, and diffuse flow maintained throughout buffer.

Alternative Buffer Mitigation Options (Non-Structural/Vegetative)

- Coastal Headwater Stream Mitigation Sites
  - Must meet buffer performance standards
  - Credit 50 feet each way from center line of valley
  - No wetland credit within buffer area
- Unmapped Stream Buffer Restoration/Enhancement
- Narrower Buffers on Urban Streams
  - Credit dependant on width of forested buffer (no credit for buffers <20 feet)
  - Credit dependant on on-site stormwater management

Narrower Buffers on Urban Streams

Urban = area with 24% impervious or greater and where post-construction stormwater requirements apply

Credit = Area of Restored Buffer

Stormwater Management – elimination of stormwater outfalls or installation of BMPs to treat stormwater prior to discharge to stream

Buffer Width 31'-50'	Buffer Width 20'-30'	Buffer Width <20'
With Stormwater Management		
Full Credit	75% Credit	No Credit
No Stormwater Management		
50% Credit	25% Credit	No Credit

Alternative Buffer Mitigation Options (Non-Structural/Vegetative)

- Enhancement of Grazed Forested Riparian Areas
  - Some forest structure (closed canopy) present
  - Demonstration of grazing for >20 years
  - Exclude livestock and plant as necessary
  - Enhancement credit (2:1) awarded

Alternative Buffer Mitigation Options (Non-Structural/Vegetative)

- Buffer Preservation
  - Preservation of Unmapped Streams: 5:1 credit ratio
  - (Not Applicable for Randleman)
  - Preservation of Mapped Streams
    - Option 1: 10:1 credit ratio
    - Option 2: 10:1 credit ratio on rural sites, 3:1 credit ratio on urban sites
  - 1:1 restoration or 3:1 enhancement required to offset footprint of impact prior to using preservation to satisfy remainder of mitigation requirement

Alternative Buffer Mitigation Options (Structural/BMPs)

- 1:1 restoration or 3:1 enhancement required to offset footprint of impact prior to using structural options to satisfy remainder of mitigation requirement
- BMPs required by other local, state or federal rules/regulations cannot be used for buffer mitigation
- Retrofit or expansion of existing BMPs allowed if not required by other local, state or federal rules/regulations
- BMP must provide at least 30% total N and 35% total P removal
- Must follow DWQ BMP Manual
- Requires bonding and endowment for long-term monitoring and maintenance

Other Alternative Buffer Mitigation Options

- May be considered by DWQ on a case-by-case basis
- Must meet or exceed nutrient removal functions of riparian buffer impacted
- Must meet other requirements related to bonding, O&M, and long-term endowment
- Public notice and comment period
- DWQ present recommendations to Environmental Management Commission

Retroactive Credit for Alternative Buffer Mitigation Sites

- Option 1: Projects that have been constructed and are within required monitoring period as of the effective date of this Rule are eligible for use as Alternative Buffer Mitigation

- Option 2: Projects that have been constructed and are within required monitoring period are eligible for use as Alternative Buffer Mitigation. Projects that have been completed and released from monitoring requirements on or before the effective date of the Rule are eligible for use as alternative buffer mitigation for a period of ten years from the effective date of the rule

Credit Accounting on Mitigation Sites

- Buffer credit on stream mitigation sites
  - Option 1: Allow buffer and stream mitigation with separate accounting on same site (current status)
  - Option 2: Tie stream and buffer credits together; a stream impact with associated buffer impact can be offset by stream and buffer credit from stream site. Additional buffer mitigation need must be acquired elsewhere (or strand stream credit)
  - Option 3: Riparian buffer mitigation credit cannot be generated on stream mitigation sites.

- If Options 1 or 2: wetlands restored within 50-foot buffer can be used as wetland credit OR buffer credit, NOT both

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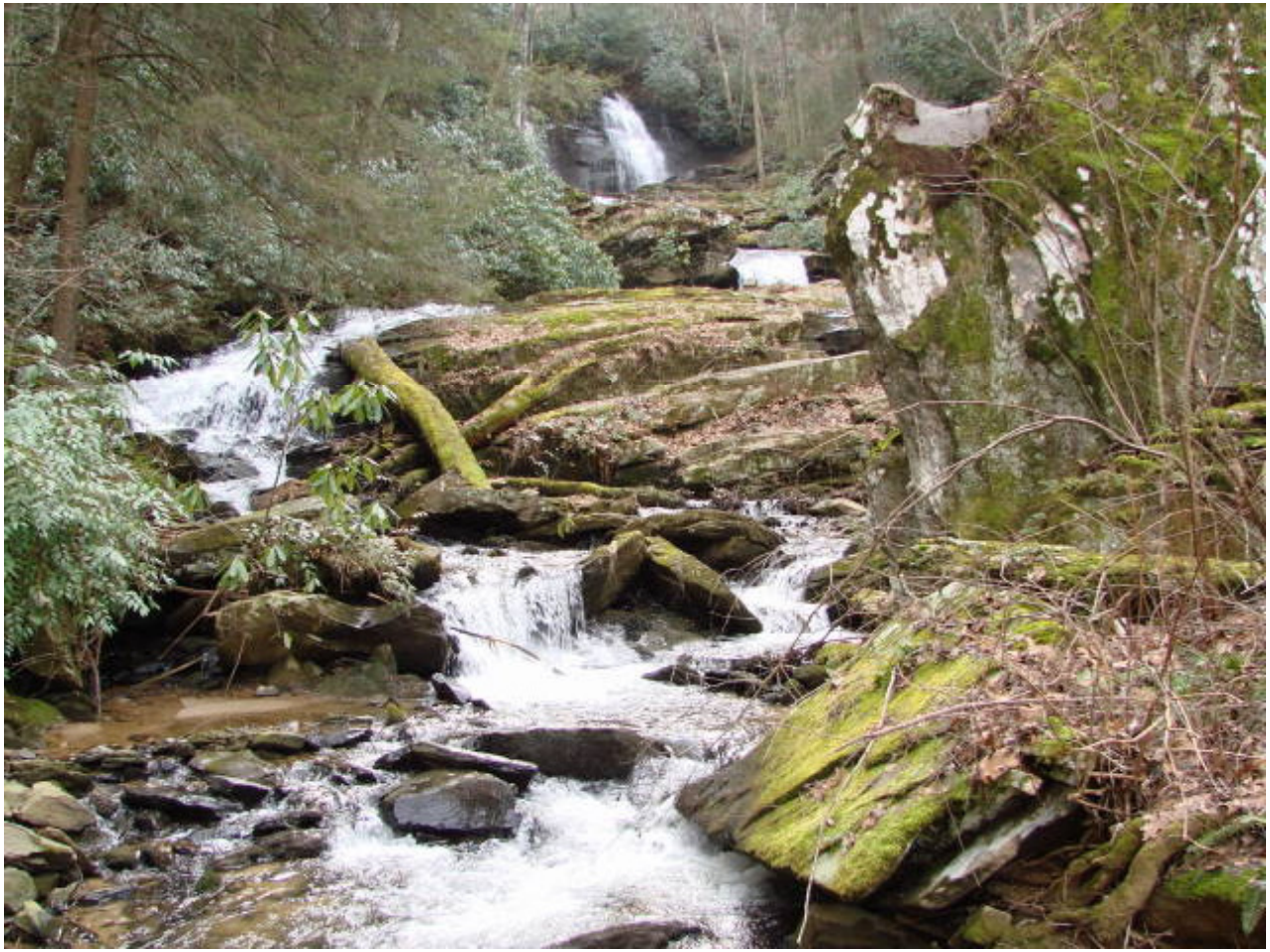
Questions?