



UNRBA  
Nutrient Credit  
Development  
Project  
PFC Meeting  
February 2017



February 22, 2017



# Credit Development



## Status of Stormwater Practices Approved by the PFC

- Three practices developed by the UNRBA are included in the revised NC Stormwater Design Manual and Crediting Document
  - **Bioretention design variants**
  - **Level spreader filter strip design variants**
  - **Infiltration devices (over/under sized)**
- Stormwater Design Manual and Credit Document are available at <https://deq.nc.gov/about/divisions/energy-mineral-land-resources/energy-mineral-land-permit-guidance/stormwater-bmp-manual>
- DEMLR (Division of Energy, Mineral, and Land Resources) is accepting comments on the Stormwater Design Manual through March 31
- DEMLR indicates that practices and credits may be used now



## Status of Non Structural Practices Approved by the PFC

- DWR staff seeking Director approval for **soil improvement with pervious area nutrient management** at the end of this month
- DWR released **cattle exclusion** and **removal of illicit discharges** for public comment on February 9<sup>th</sup>
- DEQ has not responded to the latest UNRBA submittal for **land conservation**, or the letter from ten conservation groups supporting this practice



## Status of Buffer Restoration

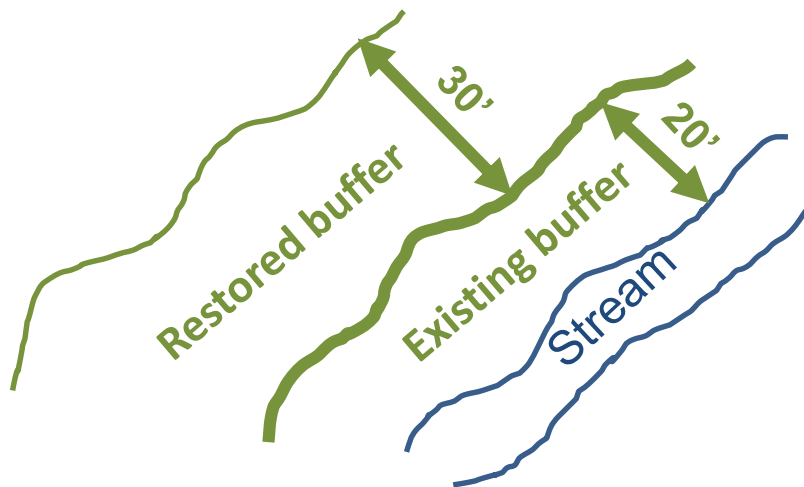
- Practice standard was reviewed by the PFC and NSAB in December
- Contractors compiled and provided preliminary responses to comments to DWR
- Multiple conference calls with DWR in January and February
  - Agreed on flexible approach for applying discount factors for survivorship (post 5-year planting period)
  - Did not reach agreement on percent removal efficiencies for projects where existing, fully functioning buffers exist
- PFC received final practice standard on February 20<sup>th</sup>
  - Practice standard includes the approach proposed by DWR
  - An Excel file was provided to the PFC for the alternative method
- Recent communication with DEMLR may affect procedures for new development projects





## DWR's Approach for Crediting Projects with Existing Buffers

- Calculate the incremental increase in percent removal using the existing and post-project width by subtracting values; e.g.,
  - 20 ft of existing buffer + 30 ft of buffer restoration = 50 ft total
  - Incremental removal efficiency would be the removal efficiency for a 50 ft buffer (30%) minus the removal efficiency for a 20 ft buffer (20%) which equals 10%

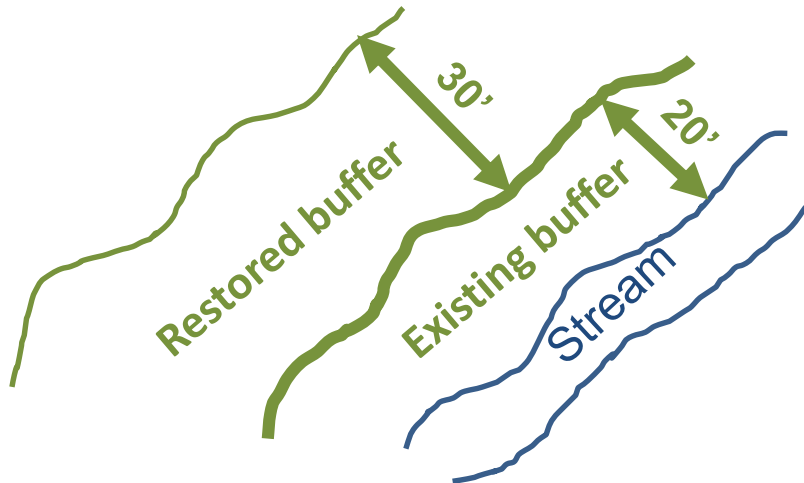


Buffer Width from Top-of-Bank (feet)	Percent Nitrogen & Phosphorus Reduction
20	20.0
30	25.0
40	27.5
50	30.0



## Alternative Approach for Projects with Existing Buffers

- Assume “treatment train” similar to BMPs in series in JFSNAT Tool
- Recognizes that the outer (new) buffer will reduce loading to the inner (existing) buffer; e.g.,
  - Use look up table to identify the intersection of 20 ft of existing buffer with 50 ft post-project width for a removal efficiency of 20 percent



	Nutrient Reductions when Project Includes Pre-existing buffer		Width of Pre-Existing Fully Functioning Buffer (feet)	
	Width (ft)	20	30...	
Total Width of Completed Buffer (feet)	20	0%		
	25	7%		
	30	12%	0%	
	35	15%	7%	
	40	16%	11%	
	45	18%	14%	
	50...	20%	15%	



## Recommendation for Moving Forward

- DWR has stated they will not approve the alternative
- They are willing to revisit their credits following review and input by additional subject matter experts
- Given our scheduling constraints to finalize the UNRBA Credit Tool by June 2017, we recommend submitting with DWR's approach
  - Credits may be revised in the future following additional study or input from subject matter experts
  - The number of potential projects affected by this issue in developed areas is likely low





## PFC Discussion of Submitting the Buffer Practice Standard

- Revised in response to NSAB and PFC comments
- Includes DWR's proposed approach for projects with existing buffers
- May need revise language for new development before final submittal



# Project Schedule



## Proposed Schedule

- February
  - Drafting the User Guidance Document (structural practices)
  - Begin coding non-structural practices into the UNRBA Credit Tool
  - Public comment period for cattle exclusion and illicit discharge elimination
  - Final PFC review and approval for buffer restoration in developed areas
- March
  - Review public comments on cattle exclusion and illicit discharge elimination
  - Public comment period for buffer restoration
  - Continue coding practices into the UNRBA Credit Tool
  - Continue drafting the User Guidance Document



## Proposed Schedule

- April
  - Present the UNRBA Credit Tool and User Guide to the Task Force
  - Revise based on feedback
- May
  - Present the UNRBA Credit Tool and User Guide to the PFC
  - Revise and finalize both
- June
  - Wrap up

