ROY COOPER
Governor
MICHAEL S. REGAN
Secretary
LINDA CULPEPPER
Interim Director

NORTH CAROLINA
Environmental Quality

January 4, ~~2018~~ 2019

To: Local Governments Implementing the Neuse and Tar-Pamlico Stormwater Rules (15A NCAC 02B .0235 and .0258)

From: Rich Gannon, Nonpoint Source Planning Branch Chief, N.C. Division of Water Resources

Re: Use of the NC SCM Credit Document in Neuse and Tar-Pamlico Basins

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As you are hopefully aware, the NC Environmental Management Commission is in the process of amending the Neuse and Tar-Pamlico nutrient strategy rules. This readoption provides many opportunities to improve our historical approach to stormwater management in these basins. We appreciate your helpful input on draft rules to date and will notify you as the public comment period approaches in 2019.

One improvement proposed with the draft rules is the introduction of the Stormwater Nitrogen and Phosphorus (SNAP) tool as the compliance accounting method. Among its many benefits, SNAP will expand the stormwater control options available to developers. However, given rulemaking timeframes, implementation of this tool may be two or three years away. In the meantime, developers subject to the current rules will continue to use existing accounting tools.

That said, the Division can provide some of the advances captured in the SNAP tool for your use now as a rule compliance option for the interim period until the basin stormwater rules are readopted. The NC Stormwater Control Measure Credit Document was published last year by the N.C. Division of Energy, Mineral, and Land Resources. Table A-3 in the document, "Other SCM Benefits," provides an expanded set of SCMs relative to current Neuse and Tar options, and also revises percentage reduction values for nitrogen and phosphorus across all SCMs. These updates can be applied within current Neuse and Tar-Pamlico stormwater calculation tools. In addition, the document provides a wealth of background information on stormwater control measure (SCM) nutrient performance (much of which is incorporated into the SNAP tool). The document is available at https://deq.nc.gov/sw-bmp-manual, and Table A-3 is copied at the end of this memorandum for reference.

Thus, to begin making SCM advances available during this interim period, **the Division authorizes use of the set of practices and percentage nutrient reduction values in Table A-3 of the NC Stormwater Control Measure Credit Document toward stormwater nutrient compliance requirements in the Neuse and Tar-Pamlico basins.** This interim measure is intended to provide new regulatory flexibility and certainty for developers and local governments alike by providing nutrient reduction credit to more SCM types. We also note that cost savings are likely to result because in most cases, Table A-3 provides a more generous credit than those provided in the existing Neuse and Tar-Pamlico calculation methods.

Please note that while this memorandum authorizes the use of Table A-3, it does not require it. However, to streamline program oversight and ensure logical consistency, DWR requests that either all nutrient reduction values in Table A-3 be adopted by local jurisdictions or none of them. Please also note that adopting the nutrient crediting figures in Table A-3 does not obligate jurisdictions to accept all SCM types listed in the table.

Local governments that shift to the use of Table A-3 are advised to communicate any local program changes to us and to relevant stakeholders within their communities. The Division does not intend to amend the existing

tools and supporting documents applicable to the Neuse and Tar-Pamlico stormwater rules to reflect this guidance.

Any questions regarding this guidance may be directed to Jim Hawhee at jim.hawhee@ncdenr.gov or (919) 707-3675. As requested above, please also notify Jim regarding whether your jurisdiction has elected to utilize these updated crediting values by March 15, 2019.

A-3. Other SCM Benefits

SCM Type	Protection of Streambanks	Protection of Stream Temp.	Removal of Bacteria	% TN Removal[1]	% TP Removal[1]
Bioretention	Excellent	Good	Excellent	35-65[2]	45-60[2]
Infiltration	Excellent	Excellent	Excellent	84	84
Permeable Pavement (infiltration)	Excellent	Excellent	Excellent	84	84
Permeable Pavement (detention)	Fair	Good	Good	30	30
Wet Pond	Fair	Poor	Fair	30	30
Stormwater Wetland	Good	Fair	Good	44	40
Sand Filter	Poor	Fair	Good	35	45
Rainwater Harvesting	Excellent	Excellent	Good	Variable[3]	Variable[3]
Green Roof	Good	Good	Good	30	30
DIS	Good	Good	Good	30	35
SCM Type	Protection of Streambanks	Protection of Stream Temp.	Removal of Bacteria	% TN Removal[1]	% TP Removal[1]
LS-FS	Poor	Poor	Poor	30	35
Pollutant removal Swale (wet)	Fair	Fair	Poor	30	30
Pollutant removal Swale (dry)	Poor	Fair	Poor	10	10
Dry Pond	Poor	Poor	Poor	10	10

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512 North Salisbury Street | 1611 Mail Service Center | Raleigh, North Carolina 27699-1611
919.707.9000

StormFilter	Poor	Fair	Fair	50	70
Silva Cell	Excellent	Good	Excellent	35-65[2]	45-60[2]
Filterra	Fair	Good	Good	35	45
BayFilter	Poor	Fair	Fair	TBD[4]	TBD[4]

[1] Percentage TN and TP removal rates are offered in this table because they remain relevant in the areas subject to Neuse and Tar-Pamlico NSW Stormwater. Eventually, these areas will use the accounting tool and EMCs that apply to the Falls and Jordan Lake areas.

[2] Bioretention or Silva Cell w/out IWS: 35% TN & 45% TP,
Bioretention or Silva Cell w/IWS: 60% TN & 60% TP in the Coastal Plain, 40% TN & 45% TP elsewhere

[3] Rainwater harvesting removal rates depend on the discharge point for the effluent.

[4] The current data is not sufficient to assess BayFilter for effectiveness at nutrient removal.