ENVIRONMENTAL MANAGEMENT COMMISSION
FISCAL NOTE FOR PROPOSED AMENDMENTS TO
DIVISION OF MITIGATION SERVICES RULES

Rule Amendments: 15A NCAC 02R .0101 -.0102 Purpose and Definitions
15A NCAC 02R .0201-.0203 Basinwide Restoration Plans
15A NCAC 02R .0301 Compensatory Mitigation - General
15A NCAC 02R .0302 Mitigation Banks
15A NCAC 02R .0402 Schedule of Fees
15A NCAC 02R .0403 Donation of Property
15A NCAC 02R .0601 Riparian Buffer Mitigation Fees to the NC Ecosystem Enhancement Program
15A NCAC 02R .0602 Nutrient Offset Payment Rates for the NC Ecosystem Enhancement Program

Name of Commission: Environmental Management Commission

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Impact Summary: State government: Yes
Local government: Yes
Federal government: Yes
Substantial impact: Yes, as this rule will have total costs and benefits that exceed $1,000,000 in one year.

Authority: G.S. 143-214.8; 143-214.9; 143-214.11; 143-215.3

Necessity: Proposed amendments will update rule language to reflect current procedures and implement sustainable methods for calculating rate schedules based on actual costs.

I. Summary

As required by § 150B-21.3A for the periodic review and expiration of existing rules, NCDEQ Division of Mitigation Services proposes to readopt the rules in 15A NCAC 02R with amendments. The proposed amendments will accomplish several goals. The first is to update the rules to reflect recent name changes for the department and division which were changed from the Department of Environment and Natural Resources (NCDENR) to the Department of Environmental Quality (DEQ) and the North Carolina Ecosystem Enhancement Program (NCEEP) to the Division of Mitigation Services (DMS). The nature of other proposed amendments is to update language related to the components and procedures of the Division; many of the rules in this subchapter have not been updated since they were adopted in 1998. A third type of amendment relates to clarifications to rule language being proposed in response to public comments received pertaining to the determinations made during the review process under

§ 150B-21.3A(c). Finally, division staff are proposing amendments to the rate schedule calculation procedures to bring increased accuracy and responsiveness to the rules governing rate schedules in this subchapter and to ensure that the rates capture the actual costs of implementing the program.

The following rules contain amendments that consist of technical corrections, updates, and clarifications, but do not result in a cost to customers or partners:

15A NCAC 02R .0101 Purpose
This rule is proposed for repeal.

15A NCAC 02R .0102 Definitions
Proposed amendments seek to address comments on definitions received during the stakeholder process and public comment period from the rules review.

15A NCAC 02R .0203 Public Involvement; Availability
Proposed amendments update format, program name change and website links.

15A NCAC 02R .0301 Compensatory Mitigation - General
Proposed amendments to this rule consist of updating the language to address comments received during the rules review public comment period. These updates will more clearly define what it means to be consistent with the basinwide restoration plans. The proposed changes define consistency based on a demonstration of advancing ecosystem functional goals, and updates references.

15A NCAC .0302 Mitigation Banks
Proposed amendments update federal references and language the define consistency based on advancing functional improvement goals.

15A NCAC 02R .0403 Donation of Property
The changes proposed are technical in nature and serve to clarify existing language and update contact information and references provided in the rule.

This analysis will focus on the costs and benefits of the proposed amendments to rules governing the rate schedules for DMS in-lieu fee mitigation programs. DMS is proposing to update the rate calculation methods for the stream and wetland and riparian buffer programs (15A NCAC 02R .0402 and .0601) where financial analyses indicate the current rates are below the cost of providing mitigation services to the regulated public. The proposed changes will allow DMS to determine and publish actual cost rates for services provided. Under the current rate schedule, DMS has no means of quickly adjusting to changes in costs outside of annual inflation adjustments which are insufficient to keep pace with changes in program costs. DMS is also proposing minor modifications to the rate-setting methodology for the Nutrient Offset program (15A NCAC 02R .0602).

II. Necessity of the Rate Changes

Without the ILF program in areas where private mitigation bank credits are unavailable, developers would be required to either eliminate or reduce the source of their mitigation

requirements (e.g. impacts) or be required to build expensive permittee-provided mitigation projects. Currently, DMS rates are not keeping pace with the real costs of mitigation. The under-collection of fees threatens the sustainability of this service. Over 1,600 customers have benefitted from the Statewide Stream and Wetland ILF program with almost 2,000 separate mitigation requirements accepted by DMS. Likewise, over 400 customers have benefitted from the Riparian Buffer ILF program with over 500 separate mitigation requirements met by DMS. A summary of payment activity by sector is contained in Appendix I.

The current fee schedule for stream and wetland credits is based on program costs enumerated in the period preceding the last rule amendment in 2008. While the rule contains an annual inflation adjustment, changes in the regulatory environment, legislatively mandated procurement strategies, and construction, maintenance and project stewardship costs have resulted in program costs exceeding revenue in most areas of the state.

The current fee schedule for riparian buffer credits was based on program costs enumerated in 1996. While the rule contains an annual inflation adjustment, changes in the regulations and project stewardship costs have resulted in program costs exceeding revenue in some areas of the state and in costs being lower than revenue in other areas of the state. Note that state law requires that the funds collected in the Riparian Buffer ILF be utilized within the same river basin.

Participation in the in-lieu fee programs is completely voluntary. In-lieu fee program (ILF) customers include private developers, and government entities at local, state and federal levels. There is a potential that most sectors of the development community who elect to use the DMS ILF programs to fulfill mitigation requirements will have increased payments associated with the revised rate calculation methods when compared to the current rate schedules which are mostly below the actual costs to render the services. Some customers will have lower payments, but overall, the rates will result in a net increase in payments. The development community will benefit from implementation of the proposed rate calculation methods as it allows the ILF programs to remain financially solvent and because developers are net savers when able to access the ILF program and avoid the high costs of permittee-provided mitigation. Furthermore, the proposed rate calculation allows the ILF to continue its role of simplifying, facilitating and accelerating the permit and compensatory mitigation process for developers by providing a reliable, quick, and cost-efficient provider of compensatory mitigation credits. A detailed analysis of cost and benefit estimates and an explanation of assumptions is provided later in this document.

III. Proposed Changes to Basinwide Restoration Plans

The proposed amendments to 15A NCAC 02R .0201-.0203 seek to update language to reflect DMS' current Basinwide Restoration Planning components which focus on ecosystem functional improvements in watersheds rather than on spatially locating projects within specific regions. The proposed updates are not expected to change the workload or costs associated with implementing the basinwide restoration plans. However, since the area where potential compensatory mitigation projects may be implemented is enlarged to include the entire watershed, the theoretical supply of potential mitigation sites in each watershed is expected to increase. This increase in the number of potential mitigation sites creates the opportunity for the program and its contractors to identify and implement lower-cost projects in the future

which would directly benefit the program and the developers who elect to utilize the program's ILF services.

IV. Proposed Changes to In-Lieu Fee Mitigation Program Rates

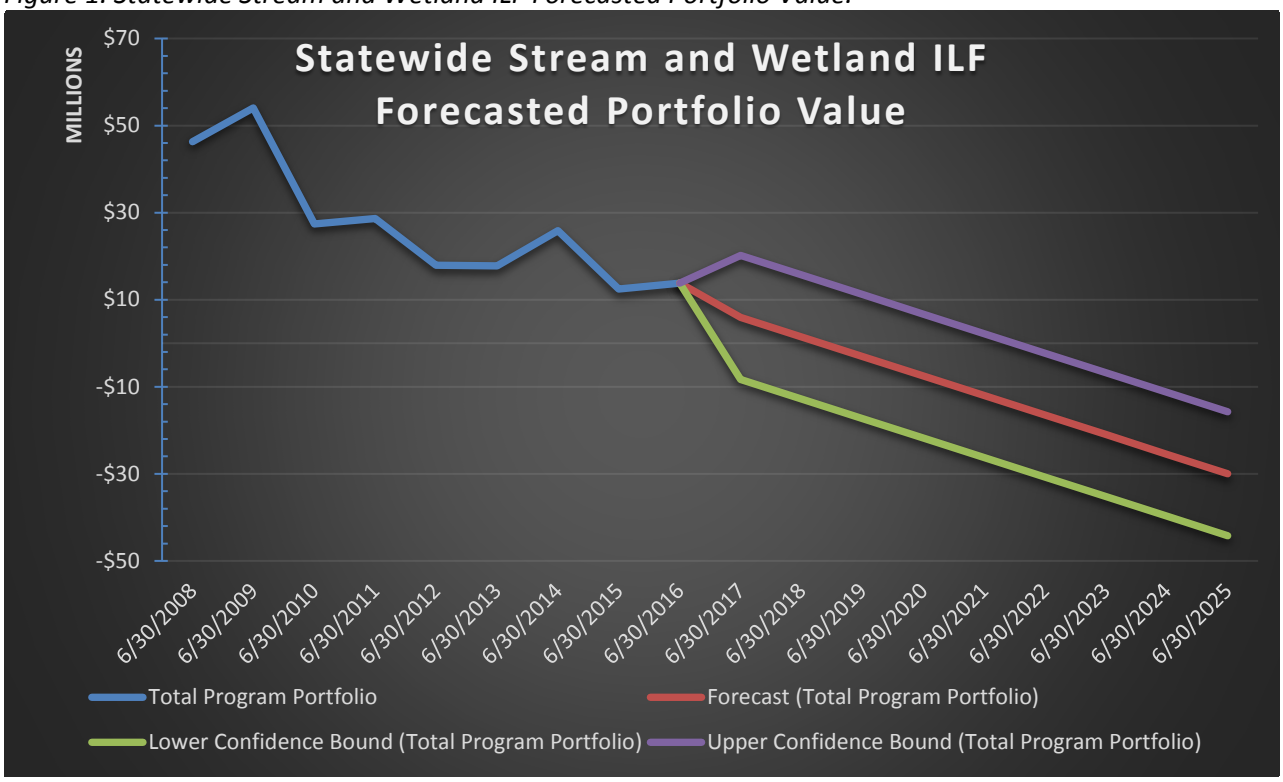
This fiscal analysis was prepared to assist members of the EMC and the public in their review of the proposed amendments to the rules in 15A NCAC 02R. To keep pace with a dynamic market and prevent disruptions or suspension of the delivery of the Division's services to the development community, the Division of Mitigation Services (DMS) proposes amending two rules to allow for the use of Actual Cost Methods (ACMs) to calculate payment rates for stream, wetland, and riparian buffer mitigation similar to the current method for calculating nutrient offset rates. The nutrient rate actual cost methodology (15A NCAC 02R .0602), is the result of an extensive stakeholder process and has been in effect since 2010. It has proven to be an accurate, transparent, and well-accepted means of adjusting rates in response to both increasing and decreasing program costs. The Division also proposes minor modifications to the rate setting methodology for the nutrient offset program.

A. 15A NCAC 02R .0402 Schedule of Fees – Stream and Wetland Payment Rates for the NC Division of Mitigation Services

15A NCAC 02R .0402 establishes rates for payments into the Statewide Stream and Wetland In-Lieu Fee (ILF) program operated by DMS based on a two-tiered fee schedule. Participation in this program is voluntary for developers. Rules adopted by the Environmental Management Commission, certifications issued by the Department under USC 1341, and permits or authorizations issued by the United States Army Corps of Engineers under 33 USC 1344 allow permittees seeking third-party compensatory mitigation the option of using the ILF program to fulfill stream and/or wetland mitigation requirements when private mitigation bank credits are not available.

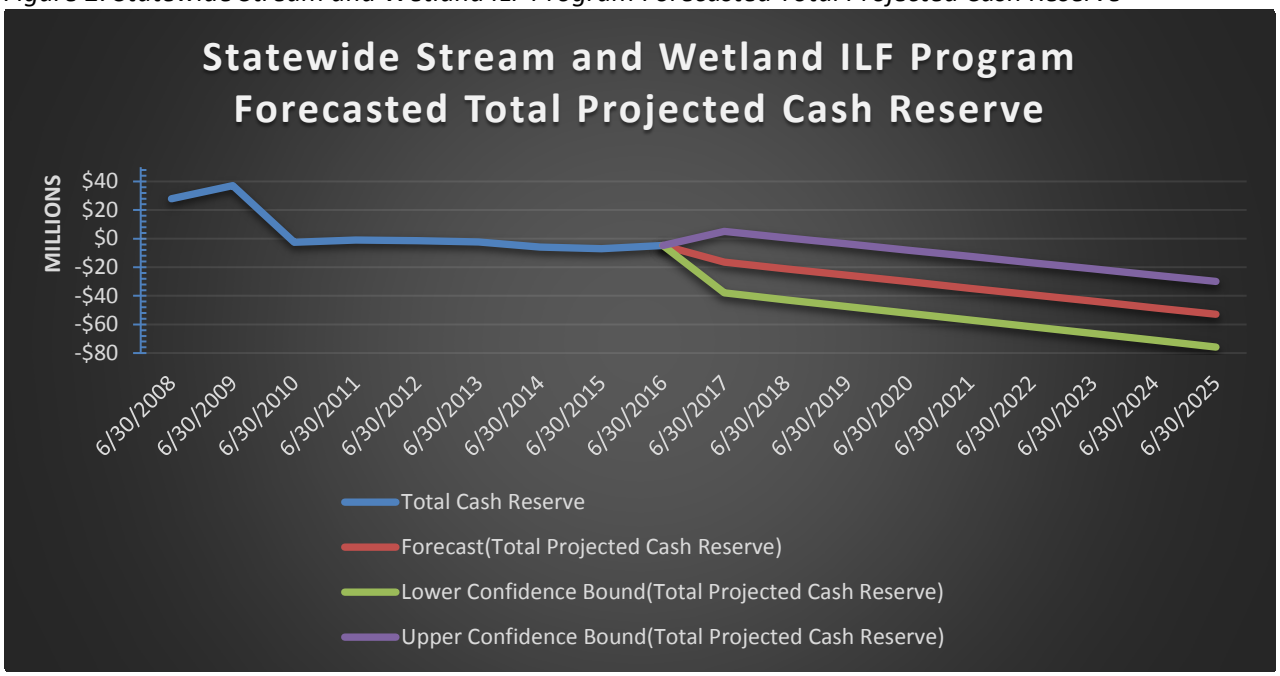
The under-collection of fees threatens the sustainability of this service. DMS is completely receipt-based, thus, financial solvency is essential to the ability of the program to operate. Figure 1 below shows the financial condition of the Statewide Stream and Wetland ILF Program since the 2008 fees were adopted. The portfolio includes the program's net assets (credits, cash, etc.) and liabilities (existing and future contracts and other costs necessary to complete program requirements). As indicated in Figure 1, as costs have continued to outpace fees, the overall portfolio value has declined and the future projections indicate that the portfolio values will go negative between 2017 and 2022 if rate schedules are not modified. The forecasted projections include 95% confidence intervals.

Figure 1. Statewide Stream and Wetland ILF Forecasted Portfolio Value.



Similarly, Figure 2 demonstrates a similar trend for the Statewide Stream and Wetland ILF Program cash reserves.

Figure 2. Statewide Stream and Wetland ILF Program Forecasted Total Projected Cash Reserve



As DMS proceeds toward re-adoption of this rule per § 150B-21.3A, Division staff identified the need for the rate schedule to adjust in response to changing program costs. This will provide for an efficient and effective means of setting rates that consistently reflect actual project costs in accordance with paragraph (c) of 15A NCAC 02R .0402.

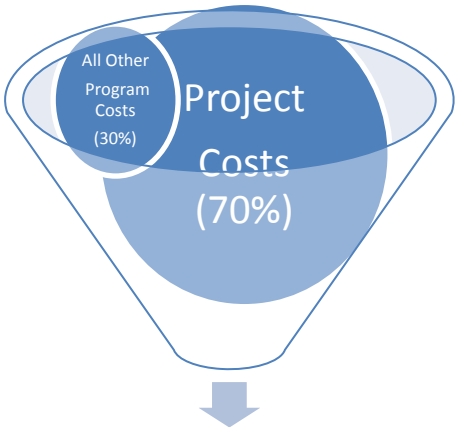
The proposed amendments to 15A NCAC 02R .0402 are two-fold. The primary purpose is to establish an Actual Cost Method (ACM) that calculates the rate schedule for stream and wetland mitigation payments to DMS. This ACM will adjust the rates annually based on the actual project implementation costs of the program. The subsequent rate adjustments will allow DMS to continue to operate a fiscally responsible and financially sustainable service for the regulated community. Without the ILF program, developers would be required to either reduce or eliminate the source of their mitigation requirements (e.g. impacts), or be required to build expensive, complicated, and time-consuming permittee-provided mitigation projects in areas where private mitigation bank credits are unavailable, or to wait until mitigation bank credits become available.

The proposed amendments will also eliminate the rounding requirement for wetland mitigation payments outlined in 15A NCAC .0402 (a). This procedure has been a source of confusion for customers and regulatory staff alike. The use of an ACM will render the rounding procedures unnecessary and reduce the number of credits invoiced to customers. The proposed amendments will also combine the rates for riparian and non-riparian wetlands to form a single freshwater wetland rate. Analysis of DMS statewide mitigation procurement data has shown that the costs of providing riparian and non-riparian wetland credits are similar and do not justify separate rates for these two wetland types.

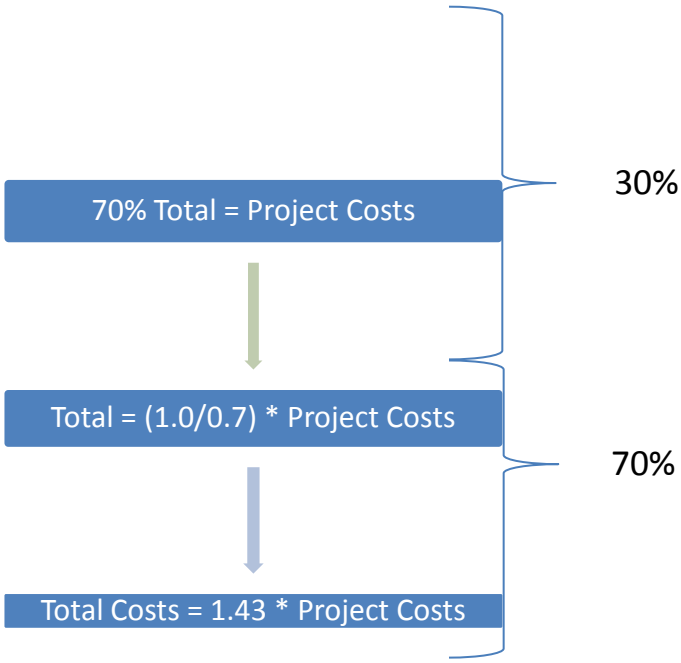
The proposed actual cost method for the stream and wetland rates is more simplified than the actual cost methods for calculating riparian buffer rates and nutrient offset rates. A more simplified method is required because of the size of the program (over 500 projects) and the regulatory complexity and dynamic regulatory changes that are experienced in the stream and wetland program. Stream and wetland mitigation projects initiated more than 3 years ago are likely to have been implemented under significantly different rules, laws, and policies rendering the costs of these older projects substantially different and unrepresentative of the costs of implementing new projects. For example, a project developed in 1999 will have significantly different costs per credit primarily because of the different regulatory requirements in effect during those earlier years. Although the actual cost method can account for these differences by adjusting the costs and the credits into present-day values, this task would be very difficult to accurately quantify given the continuous and extensive regulatory changes experienced for stream and wetland compensatory mitigation. Consequently, the stream and wetland actual cost method was simplified to utilize only the last 3 years of full-delivery and mitigation bank credit purchase projects to calculate the rate. This near-term window effectively reduces the potential impact of regulatory shifts on costs to provide a more accurate and precise calculation of present day costs. This simplification was unnecessary for the riparian buffer and nutrient offset actual cost methods as those programs operate in a less complex regulatory arena where calculating present-day credits are straightforward.

The stream and wetland actual cost method also simplifies the rate calculation by determining the program rate by using a static coefficient of 1.43. The overall program rate is determined by project costs, administrative costs, overhead inventory, and credit risk. Project costs are 70% of

the overall costs of the program whereas administrative costs, overhead inventory, and credit risk represent 30% of the overall program costs. The coefficient of 1.43 is the mathematical multiplier that allows the overall rate to be calculated solely by measuring project costs:



Actual Total Costs = 1.43 x Project Costs



These simplifications will allow the program to accurately and efficiently calculate actual cost rates. The potential downside to the simplification will be that the program will need to exercise cost discipline to ensure that non-project related costs are contained within the 30% parameters. If the program is unable to maintain non-project related costs within these parameters, the program will need to revisit rule-making in the future to propose appropriate adjustments.

Finally, DMS is proposing to raise the rate for coastal wetland mitigation credits to $825,000 per credit from $175,323. DMS researched pricing in 13 states and the District of Columbia along the eastern US to determine what other programs are charging for coastal wetland mitigation credits. Although most states had no coastal wetland fees, three states (Virginia, Massachusetts, and New Hampshire) had similar programs with rates for coastal wetland credits. Table 1 below summarizes the findings. DMS chose to propose the median rate from these comparisons as the initial DMS coastal wetland rate. This rate increase is necessary for DMS to continue to offer coastal wetland credits. While the rate increase is significant, it is reflective of the higher real estate costs along the North Carolina coast and the low volume of payments compared to other mitigation types. Since 1996, the Statewide Stream and Wetland ILF Program has received only 9 coastal wetland payments totaling 2.21 credits. The low volume of coastal wetland payments and credits results in the need for producing small projects very infrequently that offer little to no economies of scale. Under the proposed rules, when DMS implements two full-delivery or bank credit coastal marsh projects, the DMS coastal wetland rate will be then be based on the actual costs of those projects using the actual cost method.

Table 1. Other State coastal wetland ILF rates

State Program	Wetland Type	Price Range (Present Day)
VA ILF	Tidal Wetlands	$429,457 -$644,187
MA ILF	Saltmarsh	$1,006,515
NH ILF	Saltmarsh	$451,542
Median Fee		**$825,325**

B. 15A NCAC 02R .0601 Riparian Buffer Mitigation Fees to the NC Division of Mitigation Services

15A NCAC 02R .0601 establishes rates for payments into the Riparian Buffer ILF mitigation program operated by DMS for the purchase of riparian buffer mitigation credits where rules adopted by the EMC allow this option toward fulfillment of riparian buffer mitigation requirements. Participation in this program is voluntary for developers. The purpose of the proposed amendments to this rule is to establish an Actual Cost Method (ACM) that calculates the rate schedule for riparian buffer mitigation payments to DMS. This ACM will adjust rates quarterly based on the actual costs of implementing the program. The subsequent rate adjustments will allow DMS to continue to operate a fiscally responsible and financially sustainable service for the regulated community. The ILF program assists developers and promotes economic development by simplifying, facilitating and accelerating the permit and compensatory mitigation process.

Figures 3 and 4 show the portfolio values and projected cash reserves for the Riparian Buffer ILF Program in all areas. Note that state law requires that the funds collected in the Riparian Buffer ILF be utilized within the same river basin. The under-collection of fees in areas where costs exceed the rate threatens the sustainability of this service which has been used by over 400 developers since the program's inception to meet more than 500 riparian buffer mitigation requirements. One important difference between the Statewide Stream and Wetland Program and the Riparian Buffer Program is revealed in the figures. Although both programs are on a negative trajectory indicating current rates are not sustainable, the Riparian Buffer Program's negative decline is on a slower trajectory. The program's portfolio value is expected to reach zero by 2024. However there remains a 5% chance the net portfolio value could go to zero as early as 2017-2018.

The proposed amended rule allows for the creation of "premium watershed rates" when costs in designated service areas exceed the general rate schedule by 33%. Currently there are two areas in the state, the Randleman Watershed and the Jordan Lake Lower New Hope Watershed, that will be designated premium watershed rates and the actual cost rate will be based on the specific costs to implement the program in those regions. These two areas are discussed in more detail below in the Costs section.

Figure 3. Riparian Buffer ILF Program Forecasted Portfolio Value

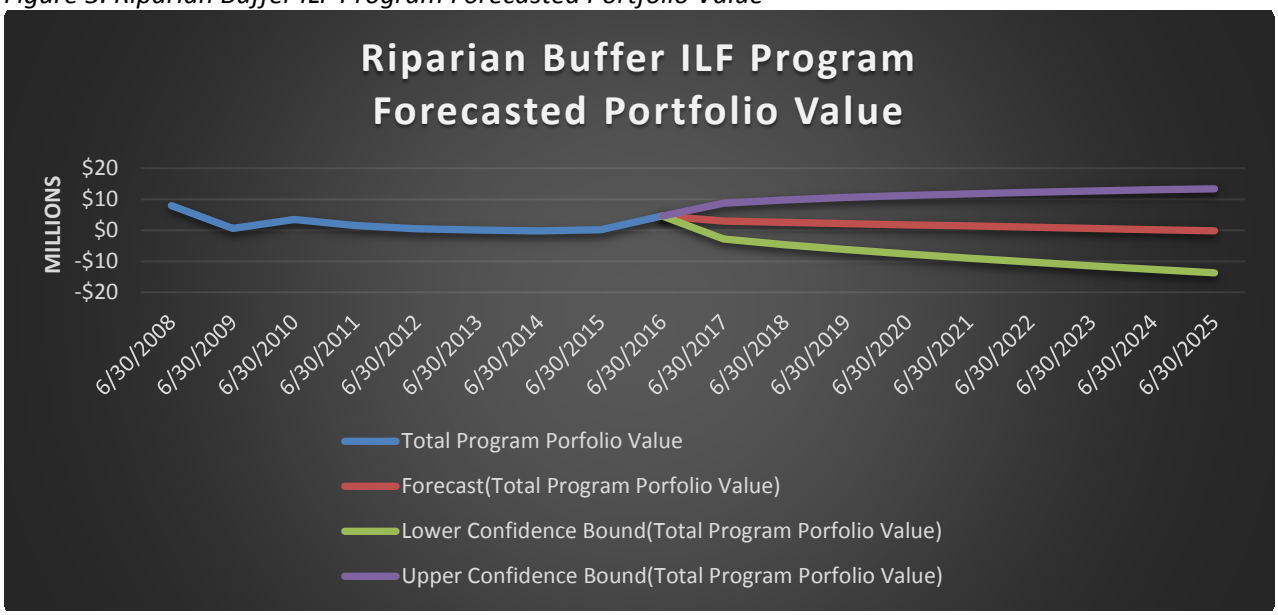
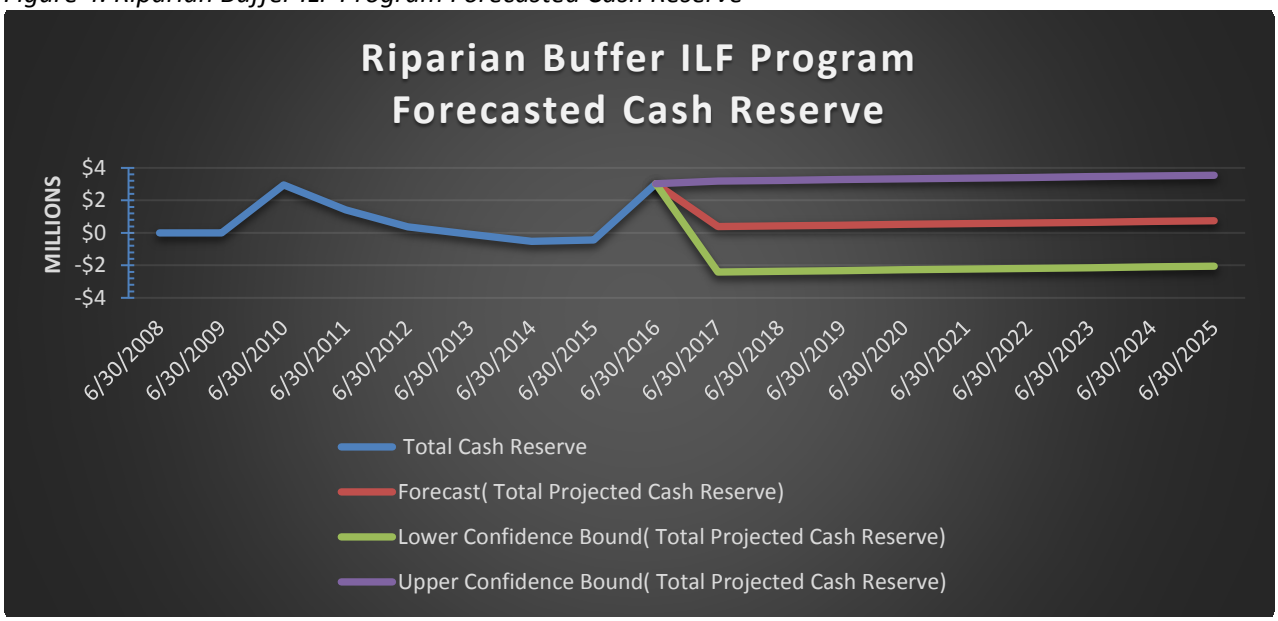


Figure 4. Riparian Buffer ILF Program Forecasted Cash Reserve



C. Rule 15A NCAC 02R .0602 Nutrient Offset Payment Rates for the NC Division of Mitigation Services

Currently, 02R .0602 contains an actual cost method for determining rates for nutrient offset payments to DMS where rules adopted by the EMC allow this option toward fulfillment of nutrient load reduction requirements. This rate calculation method adopted in 2010 has been very effective for the adjustment of nitrogen and phosphorus buy-down rates in response to

changes in project costs resulting from regulatory decisions, procurement strategies and other factors that affect program costs.

The proposed amendments to this rule include renaming “special watershed rates” to “premium watershed rates” and adjusting the threshold in which a premium watershed rate may be established from 40% higher costs to 33% higher costs. Based on the last nutrient offset rate calculation, this modification would not cause the creation of any new premium watershed rates. However, since the threshold is lower, more watersheds could potentially fall into the category of premium watershed rates under this proposal if costs were to rise 33% above the general rates. When a watershed is classified as a premium watershed, the rate for that watershed is determined by the actual costs of implementing the program in that specific area.

The proposed amendments also seek to modify the ACM’s “Adjustment Factor” enumerated in .0602 (g)(3) to address instances when the number of pounds being paid into the program approaches zero. Staff have determined that this amendment will not increase rates or result in a cost to customers. DMS also proposes to amend the rule to allow for immediate rate adjustments if the program determines it is necessary to suspend acceptance of payments due to significant cost increases. The current rule requires DMS to wait until the beginning of the next quarter even if costs are known to be significantly higher than the present rate.

Figures 5 and 6 show the portfolio values and projected cash reserves for the Nutrient Offset ILF Program.

Figure 5. Nutrient Offset ILF Program Forecasted Portfolio Value.

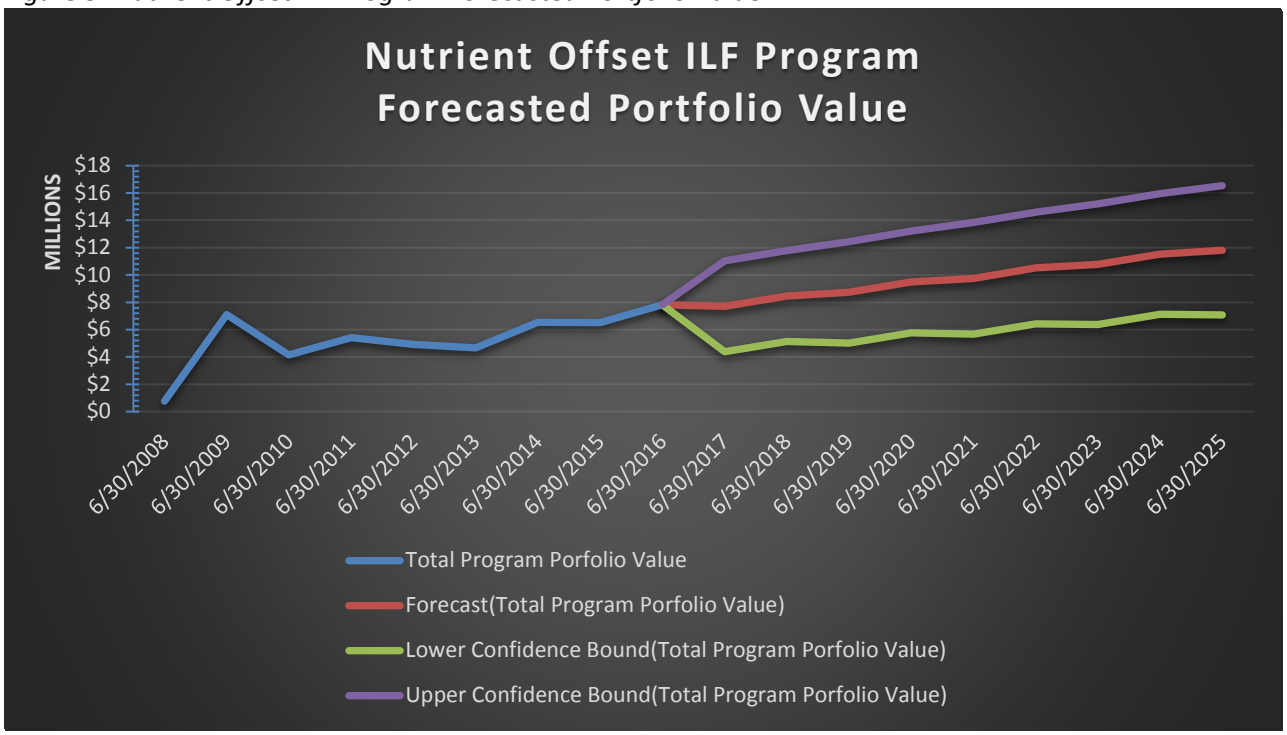
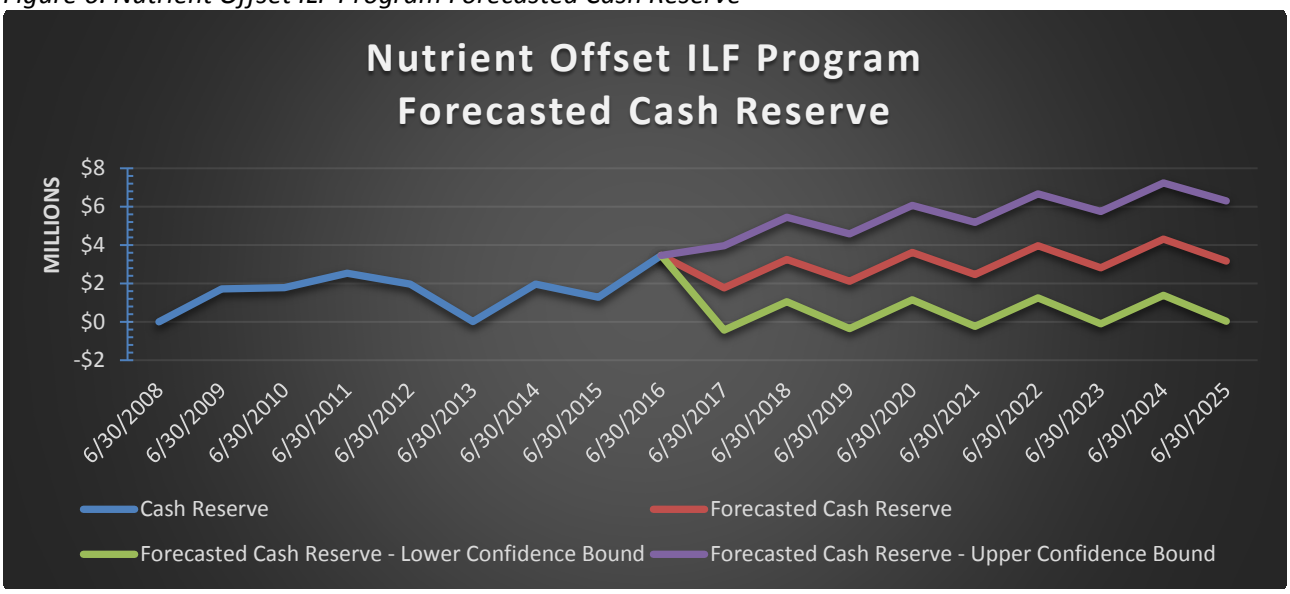


Figure 6. Nutrient Offset ILF Program Forecasted Cash Reserve



V. Costs

15A NCAC 02R .0402 Schedule of Fees – Stream and Wetland Payment Rates for the NC Division of Mitigation Services

As a direct result of the proposed amendments to 15A NCAC 02R .0402, there will be changes to the rates and therefore potential changes in costs and savings to multiple entities. Private sector and public sector entities (including state, local, and federal government entities) electing to purchase credits to meet compensatory mitigation requirements will be subject to the revised rate schedule. Whereas currently, ILF participants have been able to pay using rates that were below actual costs, the revised rates will reflect the current actual cost of implementing the program. Estimates of rates using the proposed Actual Cost Method and current cost data are shown in Table 2. These estimated initial rates are subject to change as they are based on data available at the time this analysis was performed.

Table 2. Stream and Wetland Current and Estimated Initial Rates based on ACM

	Current Rate	Current Rate	Estimated Initial Rate	% Change	% Change
	High	Standard		High	Standard
Stream	$391	$297	$458	17.06%	54.11%
Riparian Wetland	$71,273	$40,297	N/A	N/A	N/A
Non-riparian Wetland	$51,422	$26,445	N/A	N/A	N/A
Freshwater Wetland	N/A	N/A	$67,851	N/A	N/A
Coastal Marsh Wetland	$175,323	$175,323	$825,000	370.56%	370.56%

The DMS rates have historically been similar to the rates charged by private mitigation banks even though the two systems utilize very different business models. DMS routinely procures private mitigation banking credits when DMS has existing credit needs and the private mitigation banks have credits available. In North Carolina, most private banks have limited credit availability and are concentrated in the Cape Fear, Neuse, and to a lesser extent the Tar-Pamlico basins. Historically banks have only been able to provide approximately 3-7% of DMS's annual mitigation credit needs. Nevertheless, DMS solicits requests for bids annually to all mitigation banks in North Carolina. Table 3 below shows the actual submitted prices for mitigation banks credits from its request for bids during the 2015-2016 fiscal year.

Table 3. Private Mitigation Bank Submitted Bids in Fiscal Year 2015-2016

Mitigation Type	Range of Mitigation Bank Prices per credit
Stream	$270 to $400
Riparian Wetland	$37,000 to $72,000
Non-Riparian Wetland	$19,850 to $52,000
Coastal Marsh	None Submitted
Riparian Buffer	$0.90 to $1.55
Nitrogen	$16.00 to $135.00
Phosphorus	$168.50 to $750.00

In 2017, the North Carolina Department of Transportation (NCDOT) solicited bids to purchase stream mitigation banks credits in Neuse 03020201 and 03020202. NCDOT received 58 banks site submittals. Of these 58, 2 submittals were from existing mitigation banks sites with available credits, 16 were from sites that had no available credits but were expected to have credits available for sale within the request period, and 40 submittals were from firms who had not yet secured a banking instrument but planned to develop a bank and have credits within the request period. The costs of these submittals are shown in Table 4 below.

Table 4. NCDOT Request for Proposals for Mitigation Bank Credits

Stream Credits	Location	Bank Rate	DMS current Rate	Bank Costs	DMS Cost Comparison	Difference	% Difference
94,867.06	All Sites	$375.82	$369.12	$35,653,085.04	$35,017,359.46	$635,725.58	1.78%
73,165.56	Neuse 03020201	$339.78	$391.00	$24,859,864.62	$28,572,013.96	-$3,712,149.34	-14.93%
22,081.50	Neuse 03020202	$497.74	$297.00	$10,990,820.43	$6,558,205.50	$4,432,614.93	40.33%
29,033.00	Dam Removal (NS 01)	$318.00	$391.00	$9,232,494.00	$11,351,903.00	-$2,119,409.00	-22.96%
65,834.06	Non-Dam Removal Projects	$401.32	$359.47	$26,420,591.04	$23,665,456.46	$2,755,134.58	10.43%

The costs of these existing and future bank credits were more expensive on average than existing DMS rates which is expected since the existing rates on average are below the program's actual costs. When compared to the initial estimated rate of $458 under the proposed actual cost method, the mitigation bank rates in Neuse 03030201 was less expensive and the Neuse 03030202 was more expensive.

One of the banks proposed in Neuse 03030201 under the NCDOT RFP was a dam removal project which was significantly less expensive than other sites and skews the average costs lower. Dam removal mitigation has been uncommon in North Carolina. DMS has implemented two dam removal stream mitigation projects in North Carolina. DMS's two dam projects cost $128.54 and $172.77 dollars as measured in present-day dollars. The new bank dam removal project cost $318 costs per credit, a substantial difference but still less expensive than other traditional stream projects. If the dam removal site project is removed, then the private mitigation bank credits were 10.43% more expensive than current DMS rates on average and 40.33% more expensive in Neuse 03020202. Since the Neuse river basin has one of the highest stream credit demand curves in North Carolina, mitigation banks are more active in this basin. In lower demand regions, the price of mitigation bank credits is generally expected to be higher due to the higher risk probability that credits might take longer to sell.

Baseline Analysis – Proposed Rate Method Not Adopted & DMS Ceases Services

Currently the Statewide Stream & Wetland ILF program actual costs per credit exceed credit rates. If the proposed amendments and actual cost rates are not adopted, the Statewide Stream & Wetland ILF program's financial condition are expected to continue to decline until it will be forced to cease stream and wetland credit services. In the event of a closure to the Statewide Stream & Wetland, mitigation providers and developers will be affected:

- Existing DMS mitigation contractors and full-delivery providers will no longer have a DMS market to sell credits to and will be forced to either become a mitigation bank, subcontract with a mitigation bank, become a permitee-provided mitigation consultant, or go out of business. The most likely scenario is that the number of full-delivery and mitigation contractor firms will decrease due to the high barriers to entry and that mitigation would become more concentrated among the surviving firms.
- If DMS no longer provides ILF services, the largest buyer of stream and mitigation procurement (DMS) will be dispersed to small individual developers who may lack expertise in the market. The lack of a large expert buyers in a market decreases leverage and purchasing power in the market which usually leads to upward pressure on price.
- If DMS is no longer a mitigation provider, the services of companies that facilitate permittee-provided mitigation will likely be in greater demand, particularly when mitigation banks have no available credits. The higher demand may allow for these firms to have pricing leverage leading to higher costs to developers and higher margins for providers.
- Elimination of DMS ILF program will result in a shortage of mitigation credits to support current economic development in North Carolina. Mitigation banks are currently able to meet 3-7% of DMS's annual stream and wetland mitigation procurement needs. For mitigation bank credits to meet all the stream and wetland credit demand currently

satisfied by DMS, available and released bank credit supply would need to increase 14 to 33 times greater than current supply, including supply in regions where mitigation demand is low. Because banks credits are released annually on a 7-year cycle, banks can only sell a portion of a bank's credits in any given year. Banks would also need to develop approximately 7-times as many credits as the market's annual credit demand in every region to ensure sufficient credits are available for any given year. Because the required capital investments are large and the risks that future demand may dissipate or disappear are even larger, banks are unlikely to make these investments in most regions of North Carolina due to low mitigation demand.

- In all scenarios, the amount of private sector mitigation work is not expected to increase. DMS already outsources all its mitigation procurement to the private sector in a competitive bid process. By collecting payments from multiple developers, the DMS program can package mitigation procurement into larger, multi-credit mitigation projects that are more efficient, create economies of scale, and produce lower costs and higher environmental benefits than can be achieved by implementing smaller individual projects. In a scenario where DMS ceases operations, the net effect would likely result in a transfer of benefits from one private provider type to a different private provider type. The three main private provider types are permittee providers, full-delivery firms, and mitigation banks. If the DMS ILF programs are terminated, mitigation work amongst the private providers will be reduced or eliminated for firms associated with full-delivery mitigation projects.
- More developers would be forced to implement permittee-provided mitigation resulting in smaller more expensive projects and higher mitigation costs to developers.
- The cessation of the DMS ILF program also results in the cessation of the Statewide Stream & Wetland ILF watershed planning program which is currently funded by program revenue. Since mitigation, by federal law, is required to be done in a watershed context, this service would need to be provided elsewhere, either by the private sector or by another State program. DMS's watershed planning expenditures only measure 1-3% of DMS's annual expenditures. Although the cost to implement the watershed planning costs are not large, the primary costs with its loss would be lower returns on investment in the form of potentially less environmentally beneficial project selections. Some mitigation providers also utilize these watershed plans in their mitigation projects.
- In regions where banks already exist (these are also historically higher mitigation demand regions), the lack of an alternative solution for when banks have no credits available may lead to upward pricing pressures as supply may become constrained.
- It is unlikely that this scenario will lead to a significant increase in mitigation banks in lower demand regions. Mitigation banks have already had legal priority provider status since 2008 in these regions and have failed to provide any meaningful number of banks or amounts of mitigation credits in these regions.
- If banks do not have available credits, there is the potential for regulatory agencies to be unwilling to expand mitigation bank service areas. This outcome would lead to either more small expensive permittee mitigation or in some cases, regulatory agencies not requiring mitigation which would be a benefit to developers but a cost to the environment (as environmental damages would receive no compensation).

Impact of Adopting Proposed Rate Method

DMS Customers

To extrapolate the potential impacts on DMS customers from the proposed actual cost method, five years of historical stream and wetland ILF payments were used to estimate the average annual credit purchases from DMS Stream and Wetland ILF program. Table 5 shows the total annual payment amount at the current rate schedule compared to what the payment would be at the current estimated ACM rate.

Table 5. Payment Amounts Pre- and Post-ACM

	Stream	Riparian	Non-Riparian	Coastal (estimated)
Average Total Credits/Year	11,753	36.5	9.2	0.25
Average Number of Payments /Year	25	45	19	1 or fewer
Annual Payment Total - Current Fee	$4,361,855	$2,489,519	$378,480	$43,831
Payment Total - ACM Fee	$5,383,084	$2,478,636	$626,703	$206,250
Difference	$1,021,229	$-10,882	$248,223	$162,419

Most customers purchasing riparian wetland credits will experience little change in their payment amount for that credit type but overall costs will decrease slightly. Most customers purchasing stream or non-riparian credits will experience an increase in their payment amount under the proposed rates. When compared to the current fee schedule with separate riparian and non-riparian rates, the non-riparian cost increase is significant because many non-riparian payments are now paid in standard (lower) fee HUCs. However, the actual program costs for developing non-riparian credits are higher than the current fee schedule in these areas so the current rate structure is unsustainable. The elimination of the quarter-acre rounding provision in the rule, however, will help reduce the total payment amount under this new structure for customers who elect to use the ILF program. The elimination of the quarter-acre rounding provision will result in substantial savings for the customers who purchase wetland credits. The estimates in Table 5 above incorporate the savings from eliminating the quarter-acre rounding provision. Table 6 below shows the savings that eliminating rounding had when applied to the same last five years of ILF payments.

Table 6. Estimated Savings from Eliminating Rounding on Last 5 years of ILF wetland payments

Mitigation Type	Actual Credits	Invoiced Credits (Rounded to nearest 0.25)	Difference	Savings at Proposed ACM Rate
Riparian Wetland	211.15	230.25	-19.10	$1,296,171.22
Non-riparian Wetland	53.39	61.00	-7.61	$516,563.23
Coastal Marsh Wetland	1.26	3.75	-2.49	$2,054,250.00

The proposed ACM rates reflect the program's cost to procure credits from bank credit purchases and full delivery providers. In North Carolina, roughly 90 percent of permittees seek mitigation credits from third-party providers that are private mitigation banks and/or the State's ILF programs. The two primary reasons for this is that both options usually save permittees time and money when compared to permittee-responsible mitigation. Permittee responsible mitigation requires the permitee to implement a 7 to 9-year mitigation project and assume the full risk that the project might fail. If the project fails, the permittee would still be responsible for producing the mitigation by either purchasing credits, fixing the failing project, or producing a second project to generate credits. The proposed changes are not expected to change customer behavior as roughly ten percent will continue to perform permittee responsible mitigation. However, developers who experience higher ILF payment or banking costs, are incentivized to find ways to reduce their environmental impacts to reduce their mitigation obligations and therefore mitigation costs.

Mitigation Bank Customers

Under the proposed rules, there are no anticipated direct effect to mitigation bank customers. Mitigation banks will still have priority provider status under the law and private developers will not be legally allowed to access the DMS ILF programs regardless of rates until all available private mitigation banks credits are exhausted. Mitigation bank pricing is independent of DMS rates. There are no requirements set under the rules that will directly affect mitigation bank pricing extended to their customers. Historically, however, some mitigation banks have set rates that closely match DMS rates. Consequently, one may anticipate that as DMS raises or lowers its rates, the mitigation banking industry may also lower or raise its rates. The factors that lead to decreasing rates are based on supply and demand of mitigation credits in the market and the regulatory framework that determines what constitutes a mitigation project and a mitigation credit. Mitigation banks do not currently have significant competition from other mitigation banks as the overall market to sell credits is limited in size. Most service areas in North Carolina currently are unable to support a single mitigation bank due to the low demand for credits. In higher demand areas, a few banks may be able to meet the majority of the mitigation needs for the area. Consequently, downward pricing pressure is likely limited by the lack of competition from other mitigation banks.

Under these conditions, an indirect effect of the rule is that most mitigation bank rates are likely to match DMS's rates when DMS rates increase. Thus, developers who elect to purchase

credits from mitigation banks will likely incur similar costs to those that can purchase from DMS when bank credits are unavailable. Even if bank prices were initially substantially lower than DMS rates, DMS rates would likely move towards those bank prices as DMS also purchases mitigation bank credits and the rate is based on the actual costs of full-delivery and mitigation bank credit purchases from the last 3 years. So, any initial rate disparities are likely to decline within a few years of the actual cost method being implemented.

However, since mitigation banks tend to concentrate in the high demand regions which allow for banks to build larger projects, and DMS operates in high and low demand regions, DMS may incur higher costs when required to develop smaller projects in the lower demand regions. Furthermore, mitigation bank credit prices are usually associated with a single project in a single location. Individual site costs can be highly variable for both banks and DMS. DMS is proposing a single statewide rate that captures both high and low cost regions. Because of these differences, bank rates and DMS rates are not expected to be precisely the same and some variations may arise in various regions of the state. These differences are why the rule has the provision that regions where the costs are 33% higher than the general rate will become a premium rate area and the rate will be based in the actual costs of providing services for that specific area.

Private Sector Providers

Mitigation banking companies will not incur any direct costs associated with the proposed amendments but may incur market power opportunity costs. The proposed changes create a method for setting DMS rates based on actual DMS incurred costs of procuring mitigation from the private sector providers. The proposed rate method does not determine if rates will go up or down. The DMS rates will go up or down based on the actual costs of mitigation projects procured from the private sector by DMS. Mitigation bank rates are currently unregulated in North Carolina; banks are permitted to set their own rates independent of DMS rates. Under North Carolina General Statutes, private developers are not allowed to purchase DMS mitigation credits when banks have credits available and, therefore, DMS does not compete on price with mitigation banks for these customers. DMS receives payments from private developers only after all available mitigation bank credits have been purchased. Only state and federal governmental agencies, and the cities of Raleigh, Charlotte, and Greensboro are exempt from the bank preference law and can choose their mitigation provider. However, in total, these governmental requests represent less than 5% of the total requests in the Statewide Stream and Wetland ILF program.

- The mitigation banks may have market power opportunity costs due to changes in the market that could develop under the baseline condition where the rules and rate methods are not adopted. Under the baseline condition, the DMS Stream and Wetland and Riparian Buffer ILF programs are likely to be terminated between 2019 and 2024 due to being unable to remain financially sustainable. Under these conditions mitigation banks would likely experience increased market power as the number of available credits in the market are diminished. The level of these opportunity costs cannot be precisely measured but are discussed in more detail in the Risks Analysis section.
- Mitigation contractors, full-delivery providers, and other DMS program vendors will not incur any costs associated with the proposed changes.

- The number of developers who elect to pursue permittee-provided mitigation is expected to be unchanged by the proposed rate method.
- Mitigation providers who work directly with clients to produce permittee-provided mitigation are not directly affected by the proposed amendments but may have market power opportunity costs that could otherwise develop in the baseline condition as market credits diminish. In the baseline condition, demand for permittee provided mitigation is expected to increase when the ILF programs are terminated and mitigation bank credits are not available. If the proposed rate methods are adopted, the demand for permittee-provided mitigation is expected to be unchanged.
- Under the proposed rules, the DMS rates will respond to the actual costs of mitigation projects contracted by DMS from the vendors. If the market has sufficient numbers of mitigation vendors to compete on price, the DMS rate will not only represent actual costs, it will also be reflective of undistorted market rates.

A concern that affects market pricing is the high barrier to entry to either become a mitigation bank or mitigation contractor. Due to the technical nature of the projects, the high capital requirement, high bonding requirement, slow approval process, risk, and complex regulations, the total number of banks, mitigation contractors, and full-delivery providers is constrained. Most regions of North Carolina have zero mitigation banks despite laws that offer priority provider status to banks since 2008. As noted above, all mitigation banks in North Carolina can currently only meet 3-7% of DMS total annual mitigation credit procurement needs. Similarly, in many regions of the state, requests for mitigation credit proposals from full-delivery providers and mitigation banks often results in less than three submittals. Low demand regions and small need requests have low numbers of submittals. Wetland projects in the Piedmont and Mountain regions have also historically had low response rates.

15A NCAC 02R .0601 Riparian Buffer Mitigation Fees

Baseline Analysis – Proposed Rate Method Not Adopted & DMS Ceases Services

Currently the Riparian Buffer ILF programs actual costs per credit exceed credit rates. If the proposed amendments and actual cost rates are not adopted, the Riparian Buffer ILF program's financial condition will continue to decline until it will be forced to cease riparian buffer credit services. This is most likely to occur in the Cape Fear river basin first as actual costs greatly outpace rates. In the event of a closure to the Riparian Buffer ILF program, mitigation providers and developers will be affected:

DMS Customers and Private Sector Providers Costs and Benefits

The costs and benefits to mitigation providers (full delivery providers, mitigation banks, permittee provided mitigation providers), and developers discussed in the previous section covering *15A NCAC 02R. 0402,* are equally applicable to the proposed rule amendments to 15A NCAC 02R .0601. Rather than duplicate the previous discussion here, they are incorporated by reference and this section will cover the specific differences and details solely associated with 15A NCAC 02R .0601.

Other ILF Programs

DMS's project implementation costs in the Nutrient Offset ILF and the Statewide ILF program will increase if Riparian Buffer ILF program size decreases in size or ceases to exist. The net effect is that lower volume results in fewer projects, smaller project sizes, fewer multiple credit type projects, lower economies of scale, and the higher overall costs in the remaining ILF programs. The consequence is that the other ILF programs will need to raise fees to compensate for these losses. The benefits of scale are discussed in detail in the Benefits section.

Impact of Adopting Proposed Rate Method

Adopting the proposed Riparian Buffer ACM rate method will allow the program to be financially stable in the higher cost river basins where costs far exceed the current rates and allow the program to maintain riparian credit services when banking credits are not available.

DMS Customers

To extrapolate the potential impacts on DMS customers of the estimated ACM buffer rates, five years of historical ILF payments were used to estimate the average annual credit purchases from the DMS Riparian Buffer ILF program. Table 7 shows the current rates and the estimated rates using the ACM method proposed in 15A NCAC 02R .0601. Table 8 shows the projected total payment amounts at the current 2017 rate schedule compared to total payments using the projected ACM rates.

Table 7. Riparian Buffer Current and Proposed Rates

	2017 Rate Per Credit	ACM Rate Per Credit
Standard Fee HUCs	$1.16	$1.06
Randleman	$1.16	$2.98
Jordan Lower New Hope	$1.16	$2.98

Table 8. Riparian Buffer Payment Amounts Pre-and Post ACM

	Standard Rate Areas	Randleman ACM Rate Area	Lower New Hope ACM Rate Area
Current Rate	$1.16	$1.16	$1.16
Projected ACM Rate	$1.06	$2.98	$2.98
Average Credits/Year	970,701	152,547	7,061
Average Number of Paid Requirements /Year	17	2-3	1-2
Annual Payment Total - Current Fee	$1,126,013	$176,955	$8,191
Annual Payment Total - ACM Fee	$1,028,943	$454,590	$21,042
Difference	($97,070)	$277,636	$12,851

As shown in Table 8, most customers will have decreased costs under the proposed riparian buffer ACM rules. Only customers in the two premium rate areas are estimated to have higher costs. Currently there are no mitigation bank credits available in these two regions. The Randleman watershed has historically been the most expensive location in North Carolina for riparian buffer mitigation credits. Utilizing the ACM rate will allow the program to charge the actual costs of delivering services in this high cost area. The Lower New Hope watershed rate will initially be the same as the Randleman watershed. This is due to the lack of two DMS mitigation projects in this area at this time. DMS has been unable to secure mitigation projects in this area at the current standard rates. Per the rule, whenever a rate area does not have two projects, the highest rate in the program shall be utilized (e.g. in this case the Randleman Watershed Rate). After two projects are established in the Lower New Hope, the rate will be based solely on the costs of delivering services in the Lower New Hope.

NCDOT Customer

The effects that the proposed riparian buffer rate method would have on NCDOT was specifically examined. The number of NCDOT riparian buffer payments from the last 6 years were examined across all buffer regulated watersheds. Based on historical usage and the estimated proposed credit rates, NCDOT would have decreased credit payment costs in all buffer regulated regions of North Carolina except for the Randleman watershed where NCDOT represents a significant percentage of the historical customer base. NCDOT has not yet been a riparian buffer customer in the Lower New Hope watershed. Assuming that NCDOT future riparian buffer credit demand is consistent with the historical 6 year average, the net cost of the adopting the proposed rate method using the estimated rates is estimated to be $95,000 per year. However this outcome is dependent on the locational mix of future NCDOT credit needs. Should NCDOT build fewer transportation projects in the Randleman and/or more projects in the other lower rate regions of North Carolina, adopting the proposed rates would likely result in no additional costs and likely result in savings.

15A NCAC 02R .0602 Nutrient Offset Payment Rates for the NC Ecosystem Enhancement Program

There are no additional costs associated with the amendment to 15A NCAC 02R .0602. There will be benefits which are discussed in Section VI below.

VI. Benefits

15A NCAC 02R .0402 Schedule of Fees – Stream and Wetland Payment Rates for the NC Division of Mitigation Services and 15A NCAC 02R .0402 Schedule of Fees and 15A NCAC 02R .0601 Riparian Buffer Mitigation Fees

The proposed amendments to 15A NCAC 02R .0402, .0601 and .0602 will benefit DMS, the development community, as well as other mitigation partners. The primary benefit associated with the proposed rule amendments is that DMS will be able to continue to provide quality mitigation services to customers statewide when banking credits are unavailable. Since the proposed rule establishes rates that adjust upward and downward as actual costs increase or

decrease, the proposed rule amendments will provide financial stability and sustainability for the ILF program while also providing fair and accurate pricing to the development community. Over 1,600 customers have benefitted from the Statewide Stream and Wetland ILF program with almost 2,000 separate mitigation requirements accepted by DMS. Likewise, over 400 customers have benefitted from the Riparian Buffer ILF program with over 500 separate mitigation requirements met by DMS.

Savings to Developers

About 10% of compensatory mitigation is implemented as permittee- provided mitigation. Usually the developers that elect to implement permittee-provided mitigation have large impacts that would justify the large capital expense required to implement a mitigation project. The types of developers that elect to do permittee-provided mitigation may also have permanent staff that are dedicated to managing or implementing a mitigation program. Most developers have much smaller impacts and mitigation requirements. The costs of providing small mitigation sites (from any provider type) can be very high as they do not offer any economies of scale. Design costs, mobilization costs, construction costs, monitoring costs, and stewardship costs all become less expensive per credit on larger projects. Combined with the required 7 to 9 years required to complete a permittee-provided project, it is not surprising that permittee-provided mitigation is infrequently implemented. ILF mitigation offers developers the option of navigating the mitigation pathway in as little as a few hours but usually within one to two weeks. The ILF option also allows a developer to avoid the highly technical, complex, and evolving regulations that govern the implementation of mitigation projects. These two benefits save considerable time, money, and lowers the mitigation risk to zero for the permittee. The minimum costs for ILF programs and most mitigation banks to acquire, design, construct, monitor for 7 years, and provide long-term management in perpetuity usually will exceed $600,000 per mitigation project. Developers achieve very large savings when they elect to purchase mitigation credits from an ILF program or from a mitigation bank

DMS mitigation services provides substantial cost savings and certainty versus permittee-responsible mitigation. As a consistent and reliable source of appropriately priced quality mitigation credits the ILF program reduces costs and risks to the development community by assuming the responsibility for compensatory mitigation for permittees and consolidating mitigation activities to increase economies of scale. Figures 7 and 8 below show the cost relationship between the size of 35 DMS single category full-delivery projects since 2002 and the cost of the credits. The costs per credits for each project have been inflated to 2017 present-day values for comparison. As both tables clearly show, smaller projects (as might be done by a permitee or by a smaller version of DMS) are substantially more expensive. This is the primary reason permitees elect to use third-party provider mitigation services: the costs are substantially lower.

Figure 7. Project Size and Stream Cost Per Credit

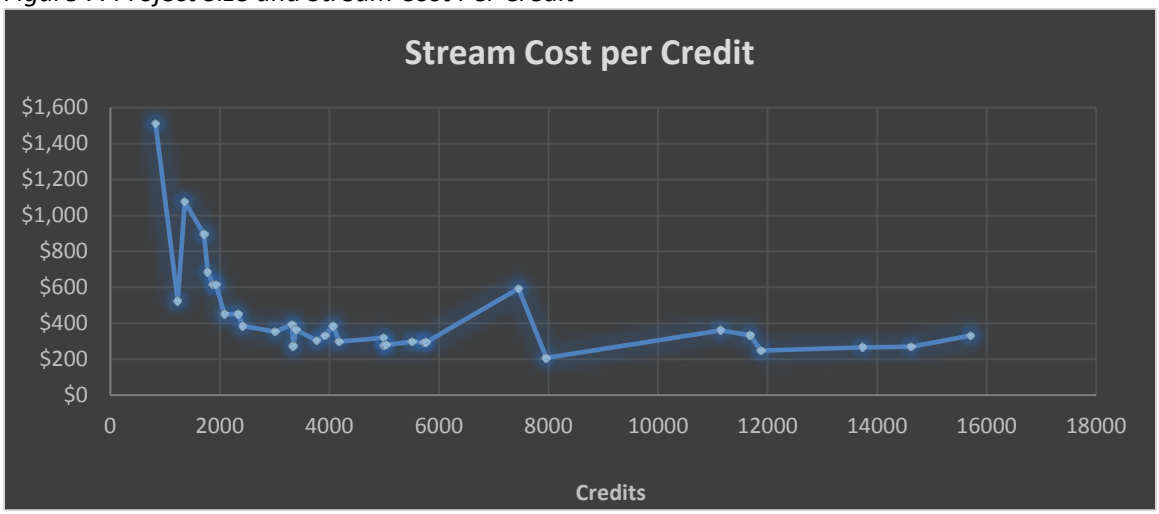
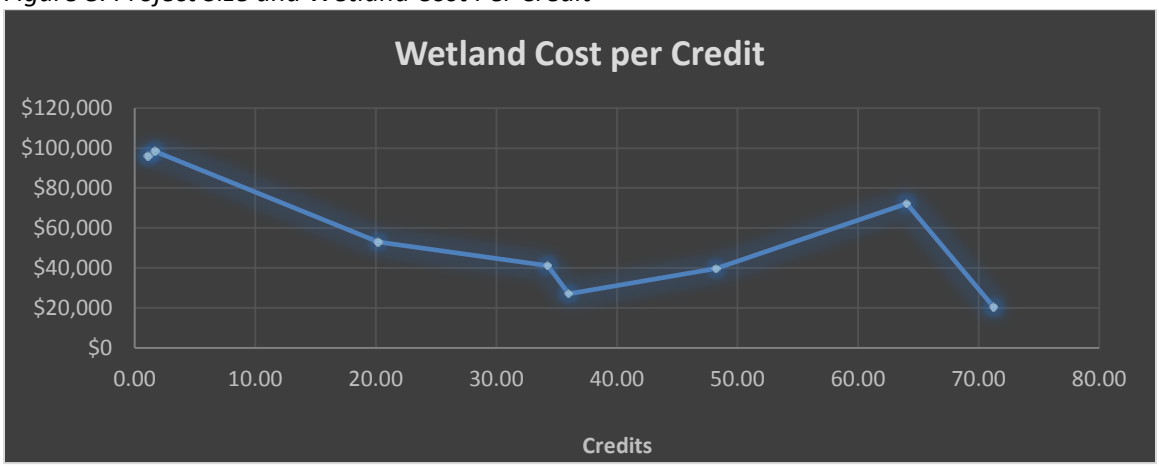


Figure 8. Project Size and Wetland Cost Per Credit



If DMS were forced to cease operations, permittee-provided mitigation would be expected to increase since mitigation banks do not currently and would not be expected to provide services in all areas of North Carolina. All private developers that utilize DMS ILF services were unable to purchase mitigation bank credits.

To estimate the potential savings that developers accrue annually by having access to third-party ILF stream and wetland credits, DMS reviewed ILF customers who had made stream, riparian wetland, and/or non-riparian wetland payments from the last 6 fiscal years. All of these customers did not have mitigation bank credits available for purchase. An estimate of savings was based on the size of the developers' credit needs and the average cost per credits as shown in Figures 7 and 8 above. A minimum project size of $400,000 was utilized as a conservative estimate of the lowest viable project cost. Table 9 shows the savings that developers obtain by avoiding permittee-provided mitigation. On average, the private development community as a whole currently saves up to $23.4 million annually. However, if ILF services were terminated as the case in the baseline condition, the annual savings are expected to decrease but be greater

than $1.6 million but less than $23.4 million as some developers would attempt to reduce impacts or abandon their development projects rather than incur the high costs of permittee-provided mitigation. It is also expected that some mitigation banks may also elect to enter the market since a larger bank that services multiple smaller developers is far less expensive. However, given that new banks have not yet entered the market despite bank preference laws already in place, banks may not be motivated to enter these markets until higher rates and higher margins can be realized. This would still result in additional costs to developers.

Table 9. Estimated Current Annual Savings to Developers.

Number of Permittees Studied	397
Number of Permittees who did not save on project costs by using ILF	3
Total Estimated Additional Savings	$140,000,000
Average Additional Savings Per Permittee	$350,000
Average Annual Additional Savings	$23,400,000

The precise number of developers who would terminate projects or implement permittee-provided mitigation, as well as the amount of new bank development cannot be precisely quantified and would be variable by region. Table 9, however, clearly demonstrates that developers remain significant net savers under the proposed rules despite the estimated increase in fees.

In addition, electing to use a third-party mitigation provider such as DMS ILF program creates savings by reducing the length of the permit process, greatly simplifying permit review, and eliminating the 7-9-year mitigation project process. The additional benefit of eliminating a risky and lengthy regulatory process cannot be underestimated.

The adoption of the rules is also expected to create net savings for developers in the mid to long term for banks credit purchases and permittee-provided mitigation by avoiding the potential costs discussed in the baseline condition –specifically the potential for regional credit shortages and leveraged market power positions by providers.

<u>North Carolina Department of Transportation (NCDOT)</u>

Prior to the formation of the DMS ILF Program for the North Carolina Department of Transportation (NCDOT), NCDOT had as much as 50% of its transportation construction program delayed due to lack of successful mitigation. Since 2003, when NCDOT elected to utilize the DMS ILF program, NCDOT has not experienced a single transportation project delay due to compensatory mitigation. Today's annual construction transportation plan exceeds $2 billion. The annual potential savings from zero transportation delays on a budget as large as that of NCDOT's probably exceeds the entire annual DMS NCDOT ILF budget which ranges from $25-40 million per year. It was due to these high risk and high costs that DMS developed a separate steam and wetland ILF Program specifically for NCDOT.

Adoption of the proposed amendments ensures DMS will also be able to continue to provide cost-effective and reliable mitigation services to the NCDOT. Although the non-NCDOT ILF programs are the primary beneficiary of the rule amendments, the rule amendments allow DMS to continue to assume the responsibility of procuring credits and the associated risk, offering NCDOT efficient mitigation solutions for required permits. Both NCDOT and other customers directly benefit when the total program volume is higher, as larger projects can be more efficiently delivered than smaller projects. Of the ILF programs, NCDOT participates most commonly in the Riparian Buffer ILF Program. NCDOT is not a regular customer to the Statewide Stream and Wetland ILF Program and has not participated in it within the last 5 years because DMS operates a separate stream and wetland ILF program specific for NCDOT to address those needs. However, it is very important to note that the Statewide ILF Program is the primary alternative mitigation solution for resolving NCDOT mitigation problems. NCDOT may request to participate in the Statewide Stream and Wetland Program when unanticipated mitigation needs arise that endanger the delivery of transportation projects. Currently this scenario is rare as NCDOT orders stream and wetland mitigation credits in the NCDOT ILF program for the transportation projects 5 to 7 years ahead of the permit application. Consequently, NCDOT will not incur any direct costs from a change in rates to the Statewide Stream and Wetland ILF program. Eliminating delays on a single large new construction transportation project could save millions of NCDOT dollars.

However, NCDOT will lose major savings and efficiencies if the DMS Statewide Stream and Wetland ILF Program ceases to provide mitigation services. There are two primary areas where NCDOT would be greatly affected:

1. Currently DMS is able to procure larger, more environmentally beneficial, less expensive, and fewer stream and mitigation projects when it combines the mitigation needs of the Statewide Stream and Wetland ILF Program with the NCDOT Stream and Wetland ILF Program. If DMS ceases to offer mitigation services in the Statewide ILF Program, then the NCDOT program will be required to build smaller, less environmentally beneficial, more expensive, and more projects than it would otherwise be required to do for the NCDOT Stream and Wetland ILF Program.
2. NCDOT would no longer be able to sell surplus credits to the Statewide Stream and Wetland ILF Program and Riparian Buffer ILF Program. Currently these sales finance a portion of the annual NCDOT Stream and Wetland ILF Program costs. Without these sales, NCDOT would be required to spend more to finance the NCDOT Stream and Wetland ILF which would consequently decrease NCDOT's other investments in transportation projects.

DMS and NCDOT have analyzed these costs and benefits multiple times since 2004 and have concluded that the synergies generate substantial savings to NCDOT. The major synergies identified by DMS and NCDOT include:

- Allows DMS to function as a larger, more efficient organization designed to meet the mitigation needs of both programs.
- Allows DMS to accept the mitigation responsibility for a large number of NCDOT TIP projects that otherwise may have been delayed while additional mitigation was developed to address those project needs.
- Substantially decreases threats to future NCDOT lets.
- Provides higher environmental compliance under both ILF programs.

- Reduces the number of projects required to meet regulatory requirements for both ILF Programs.
- Eliminates need to develop additional projects in locations where one of the ILF programs already had surplus.
- Reduces the number of times when small expensive projects must be procured.
- Reduces inefficiencies associated with building projects by utilizing, selling, and reducing surplus.
- Selling unneeded surplus credits reduces NCDOT ILF programs quarterly cash requirements.
- Increases efficiencies of scale, by allowing future projects to be larger.

DMS has estimated that combining DOT and non-DOT needs when procuring mitigation projects has reduced the total number of mitigation projects by 5 to 10 annually. Since the smallest stream and wetland mitigation projects average approximately $600-800 thousand dollars, the annual savings from these synergies is $3 to $8 million annually. In the first four years of the program, an estimated 74 projects were avoided resulting in approximately $30 million in savings to NCDOT.

Similarly, the cessation of the Statewide Stream and Wetland ILF Program would also terminate the sale of NCDOT's surplus mitigation credits. Selling surplus credits is a major source of revenue for NCDOT. Since 2003, the Statewide Stream and Wetland ILF Program has generated $39.5 million dollars from sales of mitigation credits from the NCDOT Stream and Wetland ILF Program. This equates to an average revenue stream of $3 million annually.

Savings to State Regulators and Environmental Benefits

DMS also provides important oversight and quality assurance for stream, wetland and buffer mitigation projects which reduces the burden on state, federal and local regulatory agency staff and increases mitigation effectiveness compared to permittee-responsible mitigation.

Basinwide restoration planning is another important service facilitated by DMS which helps satisfy federal requirements for mitigation to take place in a watershed planning context. The extensive history, partnerships, experience and data available from DMS informs the improvement of mitigation site development and monitoring.

A valuable additional benefit of third-party mitigation such as the DMS ILF programs that is difficult to quantify is related to mitigation regulations. Utilization of the in-lieu fee program saves the regulator administrative costs associated with reviewing, approving, monitoring and enforcing smaller more numerous permittee-provided projects.

Benefits to Full-Delivery Providers and Mitigation Contractors

Full-delivery firms and mitigation contractors are expected to benefit from the adoption of the proposed rule amendments. Although some full-delivery firms participate in the mitigation banking industry, not all do. Similarly many specialized mitigation contractors subcontract with full-delivery firms or provide supporting services outside of mitigation banking. Under the Baseline Analysis, DMS would close the Statewide Stream & Wetland and Riparian Buffer ILF

programs. Closure of the ILF programs would also mean closure DMS's full-delivery procurement for these ILFs. Existing DMS mitigation contractors and full-delivery providers would likely be forced to either become a mitigation bank, subcontract with a mitigation bank, become a permitee-provided mitigation consultant, or go out of business. The most likely scenario is that the number of full-delivery and mitigation contractor firms would decrease due to the high barriers to entry and that mitigation would become more concentrated among the surviving firms. Avoiding these outcomes is a benefit to the firms that specialize in the full-delivery and mitigation support markets. An additional benefit that full-delivery provides is that more and smaller firms can participate in the mitigation industry.

Other ILF Program Benefits

Adoption of the proposed rules and the subsequent continuation of the Statewide Stream & Wetland and Riparian Buffer program will create substantial savings in the NCDOT Stream & Wetland ILF and Nutrient Offset ILF programs. The major reason that riparian buffer rates have been able to remain relatively stable since their inception in 1998 is due to the cost synergies that exist between the Riparian Buffer ILF Program, the Statewide Stream and Wetland ILF Program, and the Nutrient Offset ILF Programs. There are very large savings when riparian buffer credits are developed in conjunction with other types of mitigation credits. These savings are particularly pronounced when stream or wetland credits are combined to also produce riparian buffer credits on a single project. All the land acquisition, design, mobilization, monitoring and stewardship costs can be implemented far more efficiently when done as single project. The combination of multiple program needs also allows for larger projects which creates additional economies of scale. Of the 45 full-delivery, design-bid-build, and mitigation bank credit purchases contracted by DMS, riparian buffer projects that were implemented with streams and/or wetlands were found to be 58% less expensive than projects implemented solely as riparian buffer projects.

The termination of the Riparian Buffer Program would directly affect the costs associated with the Statewide Stream and Wetland Program. The Statewide Stream and Wetland Program has sold 5,022,125 riparian buffer credits to the Riparian Buffer ILF program for $4,494,799. The average annual sales over the last 9 years is $499,420. Termination of the program would eliminate these sales and increase costs of the Statewide ILF Program by $499,420 annually. The same effect would occur to the Nutrient Offset ILF Program where the program has sold an average of $373,333 annually over the last 3 years. Eliminating the buffer program would increase costs to the Nutrient program by $373,333 annually. Increased program costs ultimately would lead to increase rates that would negatively affect developers.

15A NCAC 02R .0602 Nutrient Offset Payment Rates for the NC Ecosystem Enhancement Program

Customers will be positively affected by the proposed amendment in the rule to allow for immediate rate adjustments if the program determines it is necessary to suspend acceptance of payments due to significant cost increases. The current rule requires DMS to postpone rate adjustments until the beginning of the next quarter even if costs are known to be significantly higher than the present rate. In cases where costs become significantly higher than the published rate, DMS is forced to suspend collections of payments for up to 3 months until the

rate is recalculated. Under this scenario, the developer seeking nutrient credits will be unable to move forward with their development without redesigning their construction project, waiting until mitigation bank credits become available, or wait until DMS can recalculate fees to actual costs in the next quarter. This situation has occurred in the past and this proposed amendment will prevent it from occurring in the future.

Although the recalculated rate would be higher, the alternative would most likely be significantly worse. Redesigning a fully permitted development project can be expensive or impossible depending on the site constraints. For nutrient reductions, developers are required to meet a threshold of nutrient reduction on-site. The remainder of their nutrient offset can be acquired from a mitigation bank or from the DMS Nutrient Offset ILF program. DMS is only an option when no private bank credits are available. For developers, the nutrient buydown is typically the last step in the development process before construction commences. In these cases, it is common for the construction equipment to already be mobilized and on site. Since mobilization represents a substantial portion of construction costs, developers who have equipment mobilized can lose substantial sums of money if forced to wait for either mitigation bank credits or DMS credits to become available. Demobilization and remobilization are undesirable high cost consequences. The proposed amendment resolves this problem by allowing DMS to immediately recalculate the fee to give relief to developers who find themselves in this situation.

VII. Risk Analysis

There are several possible risks associated with the proposed amendments to *15A NCAC 02R .0402 and .0601* which are listed below:

Political Risk –The development community may perceive the rates changes negatively because in many cases it will increase their payment amount. The initial perception should be tempered by understanding that the fee will solely be based on the actual costs of implementing the program. Furthermore, since the participation in the program is voluntary, developers are free to elect not to use the program. As shown in this document, the development community will be net savers under the proposed amendments to the rule primarily by continuing access to ILF program services when bank credits are not available which will save them significant dollars by avoiding higher permittee-provided mitigation costs or having to terminate development projects due to cost. Over the middle to long-term, the rule also would reduce the potential of leveraged pricing in credit shortage situations. However, the data is not available to precisely measure the probabilities for each of these potential effects.

Uncertainty Risk - The net impact of the rules on both banks and developers has uncertainty over the very long run under the baseline scenario of no action because insufficient data is available to precisely determine (1) how many mitigation banks would enter markets where they are currently not present; (2) how many banks would enter low demand markets, if any, (3) whether enough banks would enter markets to provide meaningful competition, and (4) whether existing firms would consolidate to create or maintain monopoly or oligopoly statuses.

Regulatory Risks – Mitigation costs are mainly influenced by regulations. These regulations determine the intensity, duration, and characteristics of credit-generating mitigation projects. If

costs continue to escalate, there may be pressure to change the regulations to reduce costs. Fortunately, the current and proposed ACM methods are designed to adjust both upward and downward as these costs fluctuate. Failure to implement the proposed ACM methods would elevate the risk resulting from future regulatory changes.

Contracting Risk – The simplified ACM used to calculate stream and wetland rates requires the program to exercise cost discipline to ensure that, on average, non-project related costs are contained within the 30% parameters of the method. If the program is unable to maintain non-project related costs within these parameters, the program will need to revisit rule-making in the future to propose appropriate adjustments.

Method Assumptions – In the proposed amendments to the stream and wetland rates, the project data incorporated into the ACM is limited to the last three years. One risk to the rate method occurs if the program contracts a very low number of projects. Under that scenario, a limited number of projects would have a larger-than-expected effect on the average project price and the average credit cost. In the riparian buffer ACM, there is an adjustment factor to account for program costs that exceed program revenues. This adjustment factor component becomes less effective when revenues are low.

VIII. Alternative Policies

1. No Change – Failure to adopt the proposed ACM for Rules 15A NCAC 02R .0402 and .0601 would negatively impact DMS, its customers and partners. As stated previously, DMS operates on receipts paid per the fee schedule by mitigation type. If the fees collected are below the actual cost to procure credits, then the program will lose money on a continual basis until DMS is unable to accept payments and take on additional mitigation responsibility.

   Should DMS cease to offer mitigation services, permittees themselves or other third-party mitigation providers would need to produce sufficient credits to meet demand from regulated entities in areas where private bank credits are not available. Another possible outcome is that permittees would seek bank credits outside of the area of the impact potentially increasing their required mitigation and decreasing the proximity to the impact. These scenarios would increase the financial burden and time investment on permittees and would also result in delays in meeting compensatory mitigation requirements. At present, few private mitigation banks are available in the vast majority of the state and even where available, are periodically sold out of credits. Though banks are designated by state law to be “preferred” as a mitigation option, DMS has proven to be an important and reliable mitigation alternative for the development community. DMS is the largest mitigation provider in the United States and has more successful mitigation sites than any other provider to date.

   Without a consolidated and reliable provider of statewide mitigation services, the Interagency Review Team’s (IRT) workload and responsibilities would increase significantly as those agencies bear the burden of managing and tracking projects from numerous sources. This would equate to an increase in staffing and associated cost for agencies

comprising the IRT. Likewise, NCDOT would need to respond by adjusting their staff and workloads and potentially their let schedule and permit processes. In addition, without adequate revenue, DMS would be unable to continue providing Basinwide restoration and watershed planning services which are essential for the most effective mitigation.

2. Static Rate versus Actual Cost Rate– As shown in Table 2, the current stream rates in both the Higher and Standard Fee areas are lower than the proposed stream rate based on actual project costs. For wetlands, a single rate based on an average of the Higher and Standard rates would be inadequate to cover the cost of providing wetland credits. If the rate is set higher than the current Higher fee areas based on actual cost, problems arise from the rate being static should project costs exceed the fee. If the rates do not reflect the actual cost to procure credits, then the program will lose money on a continual basis until DMS can no longer accept payments from developers. The implementation of the ACM in the DMS Nutrient Offset ILF program has proven to be an effective and efficient means of adjusting rates when costs change. Expanding the ACM to the other programs will allow mitigation providers who partner with DMS to focus on procuring mitigation rather than being held to a static rate schedule.

   For riparian buffer rates the disparity between costs in areas identified as "premium watershed rate" areas and other areas where DMS offers riparian buffer credits creates the ability for the rate to be adjusted to reflect the actual costs for that area. Without the premium watershed component of the rule, the program fee collection may suffer significantly if a disproportionate or high number of payments are made in a high cost region of the state. Again, the nutrient offset ACM has proven successful in the use of premium watershed rates for higher cost areas and offers increased sophistication in reflecting actual costs when they differ substantially from region to region.

IX. Summary of Economic Impacts

Adoption of the proposed amendments will result in DMS setting rates based on the actual costs of implementing each DMS ILF program. Since current rates are below actual costs for streams, non-riparian wetlands, coastal wetlands, and, in two regions of the state, riparian buffer credits, most ILF customers are expected to have higher costs, estimated at $1.7M per year. ILF customers who are seeking to purchase riparian wetland credits and riparian buffer credits in the Neuse, Catawba, Goose Creek, Falls Lake, and Tar-Pamlico areas are expected to experience decreased costs. There are no expected direct costs to mitigation banks, mitigation full-delivery providers, and mitigation contractors from the adoption of the proposed amendments and ACM methods but there are market power opportunity costs for mitigation contractors and banks.

The costs of adopting the proposed amendments and rate methods are significantly outweighed by the benefits. Table 10 at the end of the section summarizes the net effects of adopting the proposed amendments. Table 11 at the end of the section summarizes the most significant potential estimated net costs and benefits by entity. The primary benefit of the proposed amendments is that they will allow DMS to maintain a financially sustainable program without disruption of its mitigation services for developers when and where bank credits are unavailable. The proposed methods will allow DMS ILF rates to automatically adjust to changes

(up or down) in program costs. The operation of the DMS ILF program enables the consolidation of many small developer mitigation needs and allows DMS to procure larger, more efficient, more effective, and less expensive mitigation from private mitigation providers.

Developers who would otherwise be forced to either abandon or modify economic development projects to avoid or reduce mitigation requirements, or to implement costly and complex 7 to 9-year permittee-provided mitigation projects will greatly benefit from having access to the DMS ILF programs when bank credits are not available. Whereas the total potential savings to developers who avoid permittee provided mitigation is an estimated $23.4 million annually, the absence of ILF program would likely create smaller savings. Some new mitigation banks would likely increase or create supply, though at prices commensurate with the level of market supply. Overall the development community would likely implement a combination of bank credit purchases, permittee-provided mitigation, and termination or modification of development. DMS mitigation costs are substantially lower than permittee-provided mitigation costs. The ILF mitigation process offers a greatly simplified and expedited permit process as compared to permittee-provided mitigation. Whereas permittee-provided mitigation requires 7 to 9-years for completion, the ILF process expedites the mitigation process to as little as a few days for the developer. The ILF process also provides stability to the developer by ensuring that credit availability does not become a major constraint. Credit availability also reduces the risk that credit shortages do not create distorted market prices. Stability also enables developers to better plan, budget, and acquire financing for development projects and for mitigation credits. The minor adjustments made to the rules regarding “consistency” offer the potential of identifying more and lower-priced mitigation projects. Lower cost projects will result in lower rates and lower mitigation costs to developers.

The regulatory agencies will benefit from the consolidation of mitigation that occurs through third-party mitigation providers by avoiding the increased administrative costs and workload that large numbers of permitee-provided mitigation proposals would require. The total number of mitigation projects and permittee-provided mitigation is substantially lower when banks and ILF mitigation options are available. These reductions reduce the number of mitigation proposals that must be reviewed, approved, managed, and enforced.

The environment benefits from having larger, more effective mitigation projects. DMS procures all stream and wetland mitigation projects through a watershed planning process that ensures watershed functions and needs are more effectively addressed by the projects procured. Permittee-provided mitigation projects historically have had a lower success rate than any other type of mitigation. Federal law ranks permittee-provided mitigation as the least-preferred source of compensatory mitigation.

Mitigation providers will benefit from the adoption of the rules as well. DMS, as a consolidated purchaser of compensatory mitigation reduces the large barriers to entry that exist for firms to participate and provide mitigation services. DMS enables private full-delivery firms, design firms, construction firms, and monitoring firms to participate and compete in a competitive bid process. The termination of the program would decrease opportunities for most firms and providers though it would not be expected to change the overall amount of mitigation work. The most likely outcome is that mitigation work would be transferred away from full-delivery firms and some mitigation contractors and concentrate work to mitigation banks with existing banking instruments. However, all providers, including banks, should benefit from the proposed

rate methods in the short run, as DMS rate schedules would adjust to existing market rates. Since DMS is required by law to first purchase credits from full-delivery firms and mitigation banks, DMS rates should more closely track rates charges by mitigation banks – although some differences are still expected since DMS operates in many higher cost watersheds where mitigation banks do not offer services.

In the middle to long-term, mitigation banks and firms that implement permittee provided mitigation are expected to have market power opportunity costs. Since ILF programs eliminate most credit shortage scenarios for developers, particularly in lower demand regions, these firms would not develop market power due to supply constraints. In the absence of ILF programs and when credit supply is limited, these firms are expected to capture some of the developer savings ($1.6M to $23.4M). Thus, over the mid to long term, these firms may bear net costs from the proposed rule and developers will capture net benefits.

NCDOT is a primary beneficiary from DMS offering multiple ILF programs even though NCDOT typically only utilizes two of the ILF programs. The Statewide Stream and Wetland Program, Riparian Buffer ILF Program, the Nutrient Offset ILF Program, and the NCDOT Stream and Wetland Program are each able to be implemented much more efficiently and at lower costs. The combined needs of all four of the ILF programs are collected to procure larger, more effective, and less expensive projects. Multi-credit projects that provide multiple mitigation credit types are far less expensive than single mitigation type projects. For example, riparian buffer projects, when combined with stream and/or wetlands are 58% less expensive than implementing riparian buffer only projects. The operation of the Statewide Stream and Wetland ILF program, Riparian Buffer ILF program, and Nutrient Offset ILF program offers an avenue for NCDOT to dispense of surplus mitigation credits. These sales generate over $3 million annually for NCDOT. The combined approach to acquiring projects also greatly reduces the number of projects necessary to satisfy the combined mitigation needs of the various programs. Each ILF program is able to reduce the number of necessary projects which decreases the costs per credit for each program. Annual savings range from $6 million to $8 million per year for stream and wetland credits.

Table 10. Summarized Net Effect of Adopting proposed rule amendments.

Net Effects
Rates reflect actual program costs
Rates automatically update
Rates respond quickly (up or down) to changes in costs
DMS mitigation services available
Larger less expensive projects
More multi-credit type projects
Larger more environmentally beneficial projects
Expedites permit process
Maintains regulatory administrative workload
Maintains larger diversity of private mitigation providers
Mitigation credit shortages do not distort markets
Riparian Buffer rates estimated to decrease in most regions
Riparian wetland rates estimated to decrease
Simpler stream and wetland rate structure easier to understand
Nutrient rate adjustment factor effect limited in low volume payment scenarios
High cost region threshold more easily met -- allows rates specific to those regions
Stream Wetland rates estimated to be higher
Randleman Watershed and Jordan Lake Lower New Hope riparian buffer rates estimated to be higher

Table 11. Summarized Estimated Annual Major Net Costs and Benefits by Entity

	Near Term Annual Impacts (approx 2019-2024)[1]
COSTS	
Developers (all sectors)	($1,700,000)
- NCDOT	($95,000)
DMS	($-)
State regulators	($-)
Private Mitigation Providers	- (Unquantified)
Total Costs	($1,795,000)
BENEFITS	
Developers (all sectors)	$1,700,000 - $23,400,000
- NCDOT	$6,000,000 - $11,000,000
DMS	$1,700,000
State regulators	+ Unquantified
Private Mitigation Providers	+ Unquantified
Total Benefits	$11,900,000 - $33,600,000
NET IMPACT	
Developers (all sectors)	$0 - $21,700,000
- NCDOT	$5,900,000 - $10,900,000
DMS	$1,700,000
State regulators	+ Unquantified
Private Mitigation Providers	(+/-) Unquantified

. [1] The full economic impacts of the rule are expected to occur initially between 2019-2024. This is the anticipated time period during which - If no rate changes are adopted – DMS would terminate the Statewide Stream & Wetland ILF program and some or all of the Riparian Buffer ILF program. Note: Impact estimates are presented in 2017 dollars.

Appendix I - Payments by Sector

Looking at customer data since FY2011-2012, Tables A, B, and C show the frequency and magnitude of payments by sector type. Note that between 65% and 90% of all government entities do not meet the criteria needed for exemption from the bank preference law. Of the total amount of government customers, 10% clearly do meet the exemption requirements of the law.

Table A. Number of Payments into Statewide Stream and Wetland ILF (SSWS) and Riparian Buffer ILF.

Credit Type	Private	Government	NCDOT	Total
SSWS Stream	113	33	0	146
SSWS Wetland	237	68	0	305
Riparian Buffer ILF	343	107	52	502

Table B. Percentage of Payments into Statewide Stream and Wetland ILF (SSWS) and Riparian Buffer ILF.

Credit Type	Private	Government	NCDOT	Total
SSWS Stream	77.40%	22.60%	0.00%	100.00%
SSWS Wetland	77.70%	22.30%	0.00%	100.00%
Riparian Buffer ILF	68.33%	21.31%	10.36%	100.00%

Table C. NCDOT Payments into the Riparian Buffer ILF Program.

Year Paid	Total Buffer Credits	Sum of Buffer Fees
2013	820,182.00	$836,585.64
2014	1,542,492.00	$1,619,616.60
2015	707,864.00	$754,655.61
2016	1,325,619.00	$1,470,477.15
2017	366,053.00	$406,318.83
Grand Total	4,762,210.00	$5,087,653.83
Average	952,442.00	$1,017,530.77

Appendix II

SUBCHAPTER 02R – ~~ECOSYSTEM ENHANCEMENT PROGRAM~~ DIVISION OF MITIGATION SERVICES

SECTION .0100 - PURPOSE AND DEFINITIONS

15A NCAC 02R .0101 PURPOSE

~~This Subchapter establishes the North Carolina Ecosystem Enhancement Program pursuant to G.S. 143-214.8 through 143-214.13.~~

History Note: *Authority G.S. 143-214.8; 143-214.9; 143-215.3;*
Eff. August 1, 1998;
Amended Eff. July 3, 2008.
Repealed Eff. XX, 1, 20XX.

15A NCAC 02R .0102 DEFINITIONS

The definition of any word or phrase used in this Subchapter shall be the same as given in G.S. 143, Article 21. The following words and phrases~~, which are not defined by statute,~~ shall ~~be interpreted as follows~~ mean:

(1) ~~"Mitigation bank" means a site where wetlands or other aquatic resources are restored, created, enhanced, or preserved expressly for the purpose of providing compensatory mitigation in advance of authorized impacts to similar resources.~~ "Aquatic resources" means wetlands, streams, lakes, rivers, springs, seeps, reservoirs, ponds, groundwater, riparian areas, and the fauna that reside within them. Aquatic resources may include permanent, seasonal, flowing, standing, natural, or man-made water bodies.

(2) "Non-riparian wetlands" means Class WL wetlands as defined in 15A NCAC 2B .0101(c)(8) whose major source of water is precipitation. ~~Wetland types generally considered to be~~ Examples of non-riparian wetlands include wet flats, ~~pocosins~~pocosins, and ephemeral wetlands.

(3) "Riparian area" means an area that does not meet the definition of wetlands found at 15A NCAC 2B .0202 and that is located within 300 feet of any perennial or intermittent water body as shown by the most recently published version of the United States Geological Survey 1:24,000 (7.5 minute) scale topographic map (available at http:viewer.nationalmap.gov) or other site-specific data.

(4) "Riparian wetlands" means Class WL wetlands as defined in 15A NCAC 2B .0101(c)(8) whose ~~major~~ primary source of water is ground water or surface water. ~~Wetland types generally considered to be riparian~~ Examples of riparian wetlands include freshwater marshes, swamp forests, bottomland hardwood forests, headwater forests, bog forests, mountain ~~bogs~~ bogs, and seeps.

History Note: *Authority G.S. 143-214.8; 143-214.9; 143-214.11;143-215.3;*
Eff. August 1, 1998.

SECTION .0200 - BASINWIDE RESTORATION PLANS

15A NCAC 02R .0201 PURPOSE

~~The purpose of the Basinwide Restoration Plans is to identify wetlands and riparian areas within each of the 17 major river basins of the state that have the potential, through restoration, enhancement, creation or preservation, to contribute to the goals of the Ecosystem Enhancement Program.~~

History Note: *Authority G.S. 143-214.10; 143-215.3;*
Eff. August 1, 1998;
Amended Eff. July 3, 2008.
Repealed Eff. XX, 1, 20XX.

15A NCAC 02R .0202 COMPONENTS

~~(a)~~ ~~The~~ Each Basinwide Restoration ~~Plans~~ Plan ~~for each of the 17 major river basins~~ shall consist of the following components conducted by DMS staff and contractors:

(1) an assessment of the ~~existing wetlands and riparian area~~ baseline aquatic ~~resources~~ resource functions within each ~~basin;~~ 8-digit cataloging unit;

(2) an assessment of the ~~existing needs of the river~~potential functional improvement of aquatic resources within each ~~basin~~ 8-digit cataloging unit; ~~as identified by the Department with input from other state and federal agencies, local governments, institutions of higher learning, non-profit organizations and the general public;~~

(3) identification of aquatic resource areas that have the potential, if restored or enhanced, to contribute to the functional goals of the Basinwide Restoration Plans;

(4) identification of ~~wetland and reparian~~ aquatic resource areas that have the potential, if preserved, to contribute to the functional goals of the Basinwide Restoration Plans;

(5) a summary of the 8-digit cataloging unit characteristics, identification of priority ecosystem functions that have been degraded or lost, and opportunities for functional improvement; ~~prioritization of the areas identified in Subparagraphs (3) and (4) of this Paragraph based on the area's ability to contribute to the specific goals of the Basinwide Restoration Plans and the needs of each 8-digit sub-basin river basin as identified in Subparagraph (2) of this Paragraph;~~ and

(6) an outline of the specific ~~goal~~ goals to be accomplished through implementation of the Basinwide Restoration Plan.

~~(b) During the period July 1, 1997 through June 30, 2002, the Department may develop and implement Basinwide Restoration Plans that include only the following information:~~

~~(1) an assessment of the existing needs of the river basin as identified by the Department with input from other state and federal agencies, local governments, institutions of higher learning, non-profit organizations and the general public;~~

~~(2) identification of areas that have the potential, if restored or enhanced, to contribute to the specific goals of the Basinwide Restoration Plans;~~

~~(3) prioritization of the areas identified in Subparagraph (2) of this Paragraph based on the area's ability to contribute to the goals of the Basinwide Restoration Plans and the needs of each river basin as identified in Subparagraph (b)(1) of this Rule;~~

~~(4) identification of wetland and riparian areas that have the potential, if preserved, to contribute to the goals of the Basinwide Restoration Plans; and~~

~~(5) an outline of the specific goals to be accomplished through implementation of the Basinwide Restoration Plan.~~

History Note: *Authority G.S. 143-214.10; 143-215.3;143-214.9*
Eff. August 1, 1998.

15A NCAC 02R .0203 PUBLIC INVOLVEMENT; AVAILABILITY

(a) The ~~Secretary,~~ Secretary or the Secretary's ~~designee,~~ designee shall provide interested parties an opportunity to review and comment on the proposed Basinwide Restoration Plans.

(b) The Basinwide Restoration Plans shall be available for review through the ~~Ecosystem Enhancement Program's~~ Division of Mitigation Services' website at ~~www.nceep.net.~~http://deq.nc.gov/about/divisions/mitigation-services.

History Note: *Authority G.S. 143-214.10; 143-215.3;*
Eff. August 1, 1998;
Amended Eff. July 3, 2008.

SECTION .0300 - COMPENSATORY MITIGATION

15A NCAC 02R .0301 GENERAL

All projects implemented for the purpose of satisfying compensatory mitigation requirements of certifications issued by the Department under 33 ~~USC '~~ U.S.C. Section ~~1341;~~ 1341 and permits or authorizations issued by the United States Army Corps of Engineers (Corps) under 33 ~~USC '~~ U.S.C. Section 1344~~,~~ shall be consistent with the Basinwide Restoration Plan for the appropriate river basin. A project ~~is~~ shall be consistent with the Basinwide Restoration Plan if the project ~~is located within an area that is identified as a priority for restoration in the Basinwide Restoration Plan; or is located at a site that is otherwise consistent with the goals outlined~~

~~in the Basinwide Restoration Plan for the appropriate river basin;~~ demonstrates that it advances the functional improvement goals identified in the Basinwide Restoration Plan. or is ~~approved~~ determined to be consistent by the United States Army Corps of Engineers.

History Note: *Authority G.S. 143-214.11; 143-214.12; 143-215.3;*
Eff. August 1, 1998.

15A NCAC 02R .0302 MITIGATION BANKS

~~(a)~~ All sponsors of mitigation banks that submit a prospectus to the United States Army Corps of Engineers after the effective date of this Rule must provide the Secretary, or the Secretary's designee documentation that the proposed mitigation bank is consistent with the approved Basinwide Restoration Plan for the appropriate river basin and meets the requirements of G.S. 143-214.11(f). A mitigation bank is consistent with the Basinwide Restoration Plans if the mitigation bank is ~~located within an area that is identified as a priority for restoration~~ demonstrates that it advances the functional improvement goals identified in the Basinwide Restoration Plan in the Basinwide Restoration Plan; or is located at a site that is otherwise consistent with the goals outlined in the Basinwide Restoration Plan for the appropriate river basin; or is approved by the United States Army Corps of Engineers. The Secretary, or the Secretary's designee, shall provide comments concerning this documentation through participation on the ~~Mitigation Bank~~ Interagency Review Team in accordance with 33 CFR Part 332 Compensatory Mitigation for Losses of Aquatic Resources ~~"Federal Guidance for the Establishment, Use and Operation of Mitigation Banks," found in Volume 60, Number 228 of the Federal Register, November 28, 1995~~. The signature of the Secretary, or the Secretary's designee, on the Mitigation Banking Instrument, described in the above guidance, shall be considered as a finding by the Department that the mitigation bank is consistent with the Basinwide Restoration Plan.

~~(b) Each credit in a proposed mitigation bank must include a minimum of one acre of restoration or creation as defined in 15A NCAC 2H .0506(h)(4).~~

History Note: *Authority G.S. 143-214.11; 143-214.12; 143-215.3;*
Eff. August 1, 1998.

SECTION .0400 - ECOSYSTEM RESTORATION FUND

15A NCAC 02R .0401 PURPOSE

~~This Section establishes the Ecosystem Restoration Fund pursuant to G.S. 143-214.12.~~

History Note: *Authority G.S. 143-214.11; 143-214.12; 143-215.3;*
Eff. August 1, 1998;
Amended Eff. July 3, 2008.
Repealed Eff. XX, 1, 20XX.

15A NCAC 02R .0402 ~~SCHEDULE OF FEES~~ RATE SCHEDULE- STREAM AND WETLAND RATES FOR THE NC DIVISION OF MITIGATION SERVICES

(a) For the purposes of this Rule:

(1) "cost" or "costs" shall mean the NC Division of Mitigation Services In-Lieu Fee Mitigation Program's costs associated with stream or wetland projects in a given rate area, as described in this Rule; and

(2) "credit" or "credits" shall mean the number of credits of stream or wetland compensatory mitigation that have been

(A) requested by the applicant; and

(B) specified in the approved certifications issued by the Department and in the permits or authorizations issued by the United States Army Corps of Engineers pursuant to 33 U.S.C. Section 1344.

(b) The in-lieu fee shall be calculated by multiplying the rate, as established in this Rule, by the total number of credits.

(c) The Program shall calculate and publish general statewide stream and wetland payment rates and premium stream and wetland rates for watersheds as identified in Paragraph (d) of this Rule. Rates shall be published on the Division's website (https://deq.nc.gov/about/divisions/mitigation-services).

(d) Payment rates shall be developed for stream, freshwater wetland, and coastal wetland credits. Streams shall consist of classified surface waters other than wetlands as defined in 15A NCAC 02B .0202, freshwater wetlands shall consist of Class WL wetlands as defined in 15A NCAC 02B .0101(c)(8) and includes riparian and non-riparian wetlands, and Coastal wetlands shall consist of Class SWL wetlands as defined in 15A NCAC 07H .0205.

(e) ~~Special~~ Premium Watershed Rate. The Program shall apply ~~special~~ premium watershed rates for the following areas:

(1) Any 8-digit cataloging unit (as defined by the United States Geological Survey), mitigation service area, or smaller watershed where costs are 33 percent greater than the general statewide rate shall have a surcharge equal to the difference between the general statewide rate and the actual cost of mitigation in that mitigation service area.

(2) The initial coastal wetland rate shall be $825,000 per credit.

(f) Rate Adjustment Frequency. Initial rates shall be effective as of the effective date of this Rule. They shall be calculated and adjusted on July 1 of each year and shall become effective on those dates. Rate

adjustments shall be published on the Program's website two weeks prior to the effective date. The rate shall be adjusted within two business days if the Program suspends acceptance of payments at the current rate.

(g) Payment rates for streams and wetlands shall be determined for a rate area using the following equation and presented in per-credit values:

$$ActualCostRate = 1.43\frac{ActualProjectCosts_{PresentDay}}{ActualCredits_{PresentDay}}$$

Where:

(1) "Actual Project Costs$_{PresentDay}$" means the sum of all full delivery project and mitigation bank credit purchase costs, adjusted for inflation, as described in this Paragraph. Only the costs of full delivery and mitigation bank credit purchase projects that were contracted within the last three years, including completed projects, terminated projects, and projects in process, shall be included in the calculation of Actual Project Costs. At the time the rate is calculated, all contracts and expenditures shall be adjusted to present-day values using the annual composite USACE Civil Works Construction Cost Index. This document is hereby incorporated by reference, including subsequent amendments and editions. A copy of this document may be obtained at no cost at http://www.publications.usace.army.mil/Portals/76/Publications/EngineerManuals/EM_1110-2-1304.pdf. If the USACE Civil Works Construction Cost Index is not available, it shall be calculated using the average annual percentage change over the last three-year period;

(2) "Project costs" means the total costs associated with development of stream or wetland compensatory mitigation projects including identification, land acquisition, project design, project construction, monitoring, maintenance, and long-term stewardship;

(3) The "cost for projects in process" means the sum of expenditures of project contracts to date, contracted cost to complete existing contracts, and the projected cost of future contracts needed to complete those projects required to fulfill Program obligations in the rate area;

(4) "Actual Credits$_{PresentDay}$" means the total number of credits from Actual Project Costs$_{PresentDay}$ at the time of calculation. If the Actual Credits$_{PresentDay}$ for an existing or completed project is reduced, the Actual Costs$_{PresentDay}$ for that existing or completed project shall be proportionally adjusted.

~~(a) The amount of payment into the Fund necessary to achieve compliance with compensatory mitigation requirements shall be determined in accordance with Subparagraphs (1) through (7) of this Paragraph. The fee shall be based on the acres and types of compensatory mitigation specified in the approved certifications issued by the Department u n d e r 33 USC 1341; and permits or authorizations issued by the United States Army Corps of Engineers under 33 USC 1344. Payments shall be rounded up in increments of linear feet for~~

~~streams and in 0.25 acre increments for wetlands, e.g. for streams, 520.3 linear feet of compensatory mitigation would be considered as 521 feet, and for wetlands, 2.35 acres of required compensatory mitigation would be considered as 2.5 acres for the purpose of calculating the amount of payment.~~

~~(b) Payments made pursuant to Subparagraphs (3) through (6) of this Paragraph are subject to separate fees determined by which 8-digit hydrologic unit (as defined by the United States Geological Survey) the permitted impact is located. Fees are assessed according to the location of the permitted impact and mitigation type as follows:~~

~~(1) Fees in Subparagraphs (3) and (4) shall be applied to the following 8 digit hydrologic units organized by river basin: Broad: 03050105; Cape Fear: 03030002, 03030004, 03030005, 03030007; Catawba: 03050101, 03050102, 03050103; French Broad: 06010106, 06010105, 06010108; Hiwassee: 06020002; Little Tennessee: 06010202, 06010203, 06010204; Lumber 03040207; Neuse: 03020201; New: 05050001; Roanoke: 03010107; Savannah: 03060101, 03060102; Tar Pamlico: 03020101; Watauga: 06010103; White Oak: 03030001, 03020106; Yadkin: 03040102, 03040103, 03040105, 03040202~~

~~(2) Fees in Subparagraphs (5) and (6) shall be applied to all other 8 digit hydrologic units not listed in Subparagraph (1).~~

~~(3) Classified surface waters other than wetlands as defined in 15A NCAC 02B .0202. The payment shall be three hundred and twenty three dollars ($323.00) per linear foot of stream.~~

~~(4) Class WL wetlands as defined in 15A NCAC 02B .0101(e)(8). The payment shall be:~~

~~(A) Forty three thousand dollars ($43,000) per acre for non riparian wetlands.~~

~~(B) Fifty nine thousand and six hundred dollars ($59,600) per acre for riparian wetlands.~~

~~(5) Classified surface waters other than wetlands as defined in 15A NCAC 02B .0202. The payment shall be two hundred and forty four dollars ($244.00) per linear foot of stream.~~

~~(6) Class WL wetlands as defined in 15A NCAC 02B .0101(e)(8). The payment shall be:~~

~~(A) Twenty two thousand one hundred and thirteen dollars ($22,113) per acre for non riparian wetlands.~~

~~(B) Thirty three thousand six hundred and ninety six ($33,696) per acre for riparian wetlands.~~

~~(7) Class SWL wetlands as defined in 15A NCAC 02B .0101(d)(4). The payment shall be one hundred and forty six thousand and six hundred and fifteen dollars ($146,615.00) per acre.~~

~~(c) The fees outlined in Subparagraphs (b)(1) through (b)(7) and Paragraph (e) of this Rule shall be reviewed annually by the Department and compared to the actual cost of restoration activities conducted by the Department, including planning, monitoring and maintenance costs. Based upon this annual review, revisions to Paragraph (a) of this Rule shall be recommended to the Commission when adjustments to this Schedule of Fees are deemed necessary to ensure that the Schedule of Fees reflects the actual costs of restoration activities.~~

~~(d) The fees outlined in Subparagraphs (b)(1) through (b)(7) and Paragraph (e) of this Rule shall be adjusted for inflation on an annual basis using the Civil Works Construction Cost Index System published by the US Army Corps of Engineers. This adjustment shall occur at the end of each calendar year as follows: the fees in Subparagraphs (b)(1) through (b)(7) and Paragraph (e) of this Rule for each year shall be multiplied by the annual composite Civil Works Construction Cost Index yearly percentage change issued in September of each year and the result shall be the increase to that fee for the next fiscal year. The revised fees shall be made available via the NC Ecosystem Enhancement Program's web site (www.nceep.netand become effective on the following July 1st.~~

~~(e) For properties and easements donated to the NC Department of Environment and Natural Resources, a fee of one thousand dollars ($1,000) per acre shall be charged at the time the land or easement is transferred to the Department's Conservation Grant Fund Endowment to cover costs of long term management of the property. For properties that are less than one acre in size, the minimum payment shall be one thousand dollars ($1,000). This charge applies only to properties and easements donated to the Department for the sole purpose of property or easement maintenance. This does not apply to properties or easements donated to the Department in association with restoration projects conducted by the Department.~~

History Note: *Authority G.S. 143-214.11; 143-214.12; 143-215.3;*
Eff. August 1, 1998;
Amended Eff. July 18, 2008; April 1, 2003.

15A NCAC 02R .0403 DONATION OF PROPERTY

(a) If approved by the Council of State, donations or dedications of interests in real ~~property,~~ property for the purposes of restoration, enhancement, or ~~preservation,~~ preservation may be accepted by the ~~Secretary,~~ Secretary or the Secretary's ~~designee,~~ designee if the property is consistent with the Basinwide Restoration Plan for the appropriate river basin subject to the factors listed in Paragraphs (b) and (c) of this Rule, or if the property interest is being donated to satisfy a condition of a certification issued by the Department ~~under~~ pursuant to 33 ~~USC~~ 33 U.S.C. Section 1341. ~~The property is consistent with the Basinwide Restoration Plan if the property is located within an area that is identified as a priority for restoration in the Basinwide Restoration Plan or is located at a site that is otherwise consistent with the goals outlined in the Basinwide Restoration Plan for the appropriate river basin.~~

(b) The factors that shall be considered by the ~~Secretary,~~ Secretary or the Secretary's ~~designee,~~ designee in determining whether to accept donations or dedications of interests in real property for the purposes of wetland or riparian area restoration or enhancement include the following:

(1) whether the property is

(A) adjacent to, or will become a part of, a Department compensatory mitigation project;

(B) adjacent to or includes a sensitive natural resource, as identified in the Basinwide Restoration Plan;

(C) adjacent to or includes property on which rare aquatic species, as identified by the North Carolina Natural Heritage Program in the "Natural Heritage Program List of Rare Animal Species of North Carolina" or the "Natural Heritage Program List of the Rare Plant Species of North Carolina," is known to have been found; or

(D) is adjacent to or includes a Significant Natural Heritage Area as identified by the North Carolina Natural Heritage Program at https://ncnhde.natureserve.org. These documents are hereby incorporated by reference, including subsequent amendments and editions. Copies of these documents may be obtained from the Department of Natural and Cultural Resources Division of Land and Water Stewardship at http://www.ncnhp.org/references/ publications/rare-animal-list and http://www.ncnhp.org/references/publications/rare-plant-list;

~~whether the property is adjacent to, or will become a part of, a Department approved restoration or preservation project; or is adjacent to or includes a sensitive natural resource, as identified in the Basinwide Restoration Plan; or is adjacent to or includes property with known occurrences of rare species as identified by the North Carolina Natural Heritage Program in the "Natural Heritage Program List of Rare Animal Species of North Carolina" or the "Natural Heritage Program List of the Rare Plant Species of North Carolina"; or is adjacent to or includes a Significant Natural Heritage Area as identified by the North Carolina Natural Heritage Program in the "North Carolina Natural Heritage Program Biennial Protection Plan, List of Significant Natural Heritage Areas." Copies of these documents may be obtained from the Department of Environment and Natural Resources Division of Parks and Recreation, Natural Heritage Program, PO Box 27687, Raleigh, North Carolina 27611;~~

(2) whether the size of the property is at least five contiguous acres;

(3) the likelihood that the site can be successfully restored or enhanced, based on hydrology, soils, and vegetation;

(4) the ~~extent~~ intensity of activities required to successfully restore or enhance the site. Sites requiring extreme measures for successful restoration, such as removal of structures or infrastructure, ~~will~~ shall not be accepted;

(5) the absence of cultural and historic resources;

(6) the prior, current, and future land use of the donated property and adjacent properties;

(7) the existence of federally or state-listed sensitive, endangered, or threatened species, or their critical habitat;

(8) the potential for enhancement of natural resource values of public lands;

(9) the absence of hazardous substance and solid waste;

(10) whether the property is adjacent to non-supporting, partially supporting, or support-threatened waters as designated by the Division of Water ~~Quality~~ Resources pursuant to 40 CFR 131.10(a) through (g). This material is available ~~for inspection at~~ from the Department of ~~Environment and Natural Resources~~ Environmental Quality, Division of Water ~~Quality~~ Resources, ~~Water Quality Section, 512 North Salisbury Street, Raleigh, North Carolina~~ at https://deq.nc.gov/about/divisions/water-resources/planning/classification-standards/surface-water-standards;

(11) the absence of encumbrances and conditions on the transfer of the property interests; and

(12) whether provisions have been made by the landowner for the long term maintenance and management of the property.

(c) The factors that shall be considered by the ~~Secretary,~~ Secretary or the Secretary's ~~designee,~~ designee in determining whether to accept donations or dedications of interests in real property for the purpose of preservation of existing wetland and riparian areas include the following:

(1) whether the property has clearly identifiable unique wetland or riparian area functions or values, such as federally or state-listed sensitive, ~~endangered~~ endangered, or threatened species, or their critical habitat;

(2) the potential for enhancement of natural resource values of public lands;

(3) whether the property is

(A) adjacent to, or will become a part of, a Department-approved restoration or preservation project;

(B) adjacent to or includes a sensitive natural resource, as identified in the Basinwide Restoration Plan;

(C) adjacent to or includes property on which rare aquatic species, as identified by the North Carolina Natural Heritage Program in the "Natural Heritage Program List of Rare Animal Species of North Carolina" or the "Natural Heritage Program List of the Rare Plant Species of North Carolina," is known to have been found; or

(D) is adjacent to or includes a Significant Natural Heritage Area as identified by the North Carolina Natural Heritage Program at https://ncnhde.natureserve.org/. These documents are hereby incorporated by reference, including subsequent amendments and editions. Copies of these documents may be obtained from the Department of Natural and Cultural Resources Division of Land and Water Stewardship at 1651 Mail Service Center Raleigh, NC 27603 or at http://www.ncnhp.org/references/publications/rare-animal-list and http://www.ncnhp.org/ references/publications/rare-plant-list;

~~whether the property is adjacent to, or will become a part of a Department approved restoration or preservation project; or is adjacent to or includes a sensitive natural resource, as identified in the Basinwide Restoration Plan; or is adjacent to or includes property with~~

~~known occurrences of rare species as identified by the North Carolina Natural Heritage Program in the "Natural Heritage Program List of Rare Animal Species of North Carolina" or the "Natural Heritage Program List of the Rare Plant Species of North Carolina"; or is adjacent to or includes a Significant Natural Heritage Area as identified by the North Carolina Natural Heritage Program in the "North Carolina Natural Heritage Program Biennial Protection Plan, List of Significant Natural Heritage Areas." Copies of these documents may be obtained from the Department of Environment and Natural Resources, Division of Parks and Recreation, Natural Heritage Program, PO Box 27687, Raleigh, North Carolina 27611;~~

(4) whether the size of the property is at least five contiguous acres;

(5) whether the property is under imminent threat of degradation;

(6) the prior, current, and future land use of the donated property and adjacent properties;

(7) the absence of extensive structures and infrastructure;

(8) the absence of hazardous substance and solid waste;

(9) the absence of cultural and historic resources;

(10) whether the property is adjacent to non-supporting, partially supporting, or support-threatened waters as designated by the Division of Water ~~Quality~~ Resources pursuant to 40 CFR 131.10(a) through (g). ~~This material is available for inspection at the Department of Environment and Natural Resources, Division of Water Quality, Water Quality Section, 512 North Salisbury Street, Raleigh, North Carolina~~;

(11) the absence of encumbrances and conditions on the transfer of the property interests; and

(12) whether provisions have been made by the landowner for the long term maintenance and management of the property.

(d) At the expense of the applicant or donor, the following information ~~must~~ shall be submitted with any proposal for donations or dedications of interest in real property:

(1) documentation that the property meets the criteria ~~outlined~~ in Paragraph (b) and (c) of this Rule;

(2) US Geologic Survey 1:24,000 (7.5 minute) scale topographic map, county tax map, USDA Natural Resource Conservation Service County Soil Survey Map, and county road map showing the location of the property to be donated along with information on existing site conditions, vegetation types, and the presence of existing structures and easements;

(3) a current property survey performed in accordance with the ~~procedures~~ requirements of the North Carolina Department of Administration, State Property Office as identified by the ~~State Board of Registration for Professional Engineers and Land Surveyors~~ North Carolina Board of Examiners for Engineers and Surveyors in "Standards of Practice for Land Surveying in North Carolina." Copies may be obtained at no charge from the North Carolina State Board of ~~Registration for Professional Engineers and Land~~ Examiners for

Engineers and Surveyors, ~~3620 Six Forks Road, Suite 300, Raleigh, North Carolina 27609;~~ www.ncbels.org;

(4) a current appraisal of the value of the property performed in accordance with the ~~procedures~~ requirements of the North Carolina Department of Administration, State Property Office as identified by the Appraisal Board in the "Uniform Standards of Professional ~~North Carolina~~ Appraisal Practice." Copies may be obtained at no cost from the Appraisal Foundation, ~~Publications Department, PO Box 96734, Washington, D.C. 20090-6734;~~ http://www.appraisalfoundation.org;

(5) a title certificate; and

(6) a Phase 1 Environmental Site Assessment documenting ~~documentation~~ that the property does not contain structures that present health or safety problems to the general public. If wells, septic, water, or sewer connections exist, they shall be filled, remediated, or closed at owner's expense~~,~~ and in accordance with ~~state~~ State and local health and safety regulations.

(e) In addition to the factors outlined in Paragraphs (b) through (d) of this Rule, the ~~Secretary,~~ Secretary or the Secretary's ~~designee,~~ designee shall consider the following factors when determining whether to accept a donation of interest in real property to satisfy compensatory mitigation requirements:

(1) whether restoration of the property will offset the adverse impacts of the permitted project; and

(2) whether the adverse impacts of the permitted project are within the same ~~subbasin~~ 8-digit cataloging unit as the property proposed for donation.

(f) Donations of interests in real property for the purpose of satisfying compensatory mitigation requirements ~~will~~ shall only be considered for acceptance ~~when~~ if the proposed donation ~~will offset~~ offsets an impact for which an application has already been made to the United States Army Corps of Engineers under 33 ~~USC~~ U.S.C. Section 1344 or to the Department under 33 ~~USC~~ U.S.C. Section 1341.

(g) For the purposes of satisfying compensatory mitigation requirements through the donation of interests in real property~~, for property~~ requiring restoration, enhancement, or preservation, the size of property to be donated ~~must~~ shall equal or exceed the acreage of wetland required to be mitigated under the approved permit, and every parcel ~~must~~ shall be a minimum of five contiguous acres in size.

(h) Donation of real property interests to satisfy compensatory mitigation requirements ~~will~~ shall only be accepted if such property meets the requirements of Paragraphs (a) through (i) of this Rule and 15A NCAC 2H ~~.0506(h) and~~ .0506(h) and if it satisfies the compensatory mitigation requirements of the approved permit.

(i) The donation of conservation easements to satisfy compensatory mitigation requirements ~~will~~ shall only be accepted if the conservation easement is granted in perpetuity and the property to be encumbered meets the requirements of Paragraphs (a) through (j) of this Rule, or if the property interest is being donated to satisfy a condition of a certification issued by the Department ~~under~~ pursuant to 33 ~~USC~~ U.S.C. Section 1341.

(j) Donation of interests in real property may contribute to or fulfill compensatory mitigation requirements that may be satisfied through payment of a fee ~~as outlined in the Schedule of Fees~~ according to the Rate Schedule in Rule ~~.0402(a)~~ .0402(c) of this Section. The value of the property interest shall be determined by an appraisal performed in accordance with Subparagraph (d)(4) of this Rule. The required fee as calculated in accordance with Rule ~~.0402(a)~~ .0402(c) of this Section shall be satisfied if the appraised value of the donated property interest is equal to or greater than the fee. If the appraised value of the donated property interest is less than the designated fee requirement as calculated in accordance with Rule ~~.0402(a)~~ .0402(c) of this Section, the applicant shall pay the remaining balance due.

History Note: *Authority G.S. 143-214.11; 143-214.12; 143-215.3;*
Eff. August 1, 1998.

SECTION .0500 - WETLANDS RESTORATION FUND

15A NCAC 02R .0501 PURPOSE
15A NCAC 02R .0502 DEFINITIONS
15A NCAC 02R .0503 SCHEDULE OF FEES
15A NCAC 02R .0504 PAYMENT

History Note: *Authority G.S. 143-214.11; 143-214.12;*
Temporary Adoption Eff. May 6, 1997;
Repealed Eff. August 1, 1998.

SECTION .0600 – RIPARIAN BUFFER RESTORATION FUND

15A NCAC 02R .0601 RIPARIAN BUFFER MITIGATION FEES TO THE NC ~~ECOSYSTEM ENHANCEMENT PROGRAM~~DIVISION OF MITIGATION SERVICES

(a) For the purposes of this Rule:

(1) "cost" or "costs" shall mean the NC Division of Mitigation Services In-Lieu Fee Mitigation Program's costs associated with riparian buffer mitigation projects in a given rate area, as described in this Rule; and

(2) "credit" or "credits" shall mean the number of credits of riparian buffer compensatory mitigation that have been

(A) requested by the applicant; and

(B) specified in the approved certifications issued by the Department.

(b) The Program shall calculate and publish one general riparian buffer mitigation payment rate applicable to all river basins where Commission rules allow riparian buffer mitigation payments and ~~special~~ premium

rates for specific watersheds, as identified in Paragraph (c) of this Rule. Rates shall be published on the Division's website (https://deq.nc.gov/about/divisions/mitigation-services). All rates shall be based on the costs incurred by the program in those watersheds.

(c) Premium Watershed Rates. The Program shall apply premium watershed rates to:

(1) The Randleman Lake Watershed;

(2) The Jordan Lower New Hope Watershed; and

(3) Any 8-digit cataloging unit, mitigation service area, or smaller watershed where costs are 33 percent greater than the general statewide rate shall have a surcharge equal to the difference between the general statewide rate and the actual cost of mitigation in that mitigation service area.

The initial rate for a premium watershed with fewer than two riparian buffer mitigation projects that have reached the design stage shall be the highest riparian buffer rate in effect under the Program. The initial rate shall be revised for a premium watershed in the quarter following a quarter in which at least two riparian buffer mitigation projects in that watershed have reached design stage.

(d) Rate Adjustment Frequency. Initial rates shall be effective as of the effective date of this Rule. They shall be adjusted quarterly whenever the rate calculation set forth in Paragraph (e) of this Rule exceeds the existing rate by at least ten percent. The rates shall also be adjusted annually. Annual calculations and adjusted rates shall be published by June 15 on the Program's website, http://deq.nc.gov/about/divisions/mitigation-services, and shall become effective July 1. Any quarterly rate adjustments shall become effective on the first day of October, January, or April, as applicable, and shall be published on the same website two weeks prior to that date. The rate shall be adjusted within two business days if the Program suspends acceptance of payments at the current rate

(e) Payment rates shall be determined for a rate area using the following equation and presented in per-credit values:

$$ActualCostRate = \frac{ActualCosts_{PresentDay}}{TotalRiparianBufferCredits_{PresentDay}} + AdjustmentFactor$$

Where:

(1) Actual $Costs_{PresentDay}$ means the sum of all costs, adjusted for inflation, as described in this Subparagraph. Costs shall mean project costs and administrative costs and shall include the costs of completed projects, terminated projects, and projects in process. At the time the rate is set, all completed land acquisition contracts and expenditures shall be adjusted to present-day values using the current North Carolina Department of Agriculture and Consumer Services' Agricultural Statistics Farm Real Estate Values. All other completed contracts and expenditures shall be adjusted to present day values using the annual composite USACE Civil Works Construction Cost Index. Future land acquisition contract

costs for projects in process shall be calculated using the Program's per-credit contract costs of the same type adjusted to the inflated future value at the time the contracts will be encumbered using the North Carolina Department of Agriculture and Consumer Services' Agricultural Statistics Farm Real Estate Values. All other future contracts shall be calculated using the Program's per-credit contract costs of the same type adjusted to the inflated future value at the time the contracts will be encumbered using the current composite USACE Civil Works Construction Cost Index. For projects in process where the contract type has not been determined, the cost of the project shall be calculated using the Program's average per credit cost adjusted to the future inflated value when the project will be initiated. Future year annual inflation rates shall be drawn from the USACE Civil Works Construction Cost Index. If not available from either source, they shall be calculated using the average annual percentage change over the last three-year period;

(2) As used in this Rule:

(A) "Project Costs" means the total costs associated with development of riparian buffer mitigation projects including identification, land acquisition, project design, project construction, monitoring, maintenance, and long-term stewardship.

(B) "Administrative Costs" are costs associated with administration of the Program including staffing, supplies and rent.

(C) The "cost for projects in process" means the sum of expenditures of project contracts to date, contracted cost to complete existing contracts, and the projected cost of future contracts needed to complete those projects required to fulfill Program riparian buffer mitigation obligations in the rate area.

(D) "Total Riparian Buffer $Credits_{PresentDay}$" means the total amount of credits provided by projects in the rate area at the time of calculation. If the Total Riparian Buffer $Credits_{PresentDay}$ for an existing or completed project is reduced, the Actual $Costs_{PresentDay}$ for that existing or completed project shall be proportionally adjusted;

(3) The Adjustment Factor shall be applied only in those calculation periods where actual costs are calculated to be greater than actual receipts.

$$AdjustmentFactor = \frac{(ActualCosts - ActualReceipts)}{NumberofRiparianBufferCreditsPaidDuringAdjustmentPeriod}$$

The Adjustment Factor shall not comprise more than 60% of the overall rate;

(A) "Actual Costs" shall be the same as Actual $Costs_{PresentDay}$ as defined in Subparagraph (1) of this Paragraph, except that the existing contracts and completed land acquisitions are not adjusted for inflation.

(B) "Actual Receipts" means the sum of all riparian buffer mitigation payments made to the Program in the rate area at the time of calculation.

(C) "Number of Riparian Buffer Credits Paid During Adjustment Period" means the average number of riparian buffer mitigation credits paid to the Program over the last three years in the rate area, multiplied by the adjustment period. If no payments have been made to the Program in a rate area the number of credits paid shall be 435,600 riparian buffer credits until greater than 435,600 riparian buffer credits have been purchased in that rate area.

(4) Adjustment Period shall be one to four years determined as follows for a rate area.

(A) One year if Actual Costs exceed Actual Receipts by less than five percent.

(B) Two years if Actual Costs exceed Actual Receipts by 5 percent or more but less than 15 percent.

(C) Three years if Actual Costs exceed Actual Receipts by 15 percent or more but less than 25 percent.

(D) Four years if Actual Costs exceed Actual Receipts by 25 percent or more.

~~The following is the process for payment of fees to the Riparian Buffer Restoration Fund administered by the North Carolina Ecosystem Enhancement Program as one option to mitigate riparian buffer impacts allowed under rules in 15A NCAC 02B. Persons who wish to use this option shall first meet the criteria established for doing so in the buffer rules in 15A NCAC 02B that reference this Rule. Such buffer rules include, but may not be limited to 15A NCAC 02B .0295. Persons who choose to satisfy their mitigation determination by paying a compensatory mitigation fee to the Riparian Buffer Restoration Fund as allowed here shall use the following procedure:~~

~~(1) SCHEDULE OF FEES: The amount of payment into the Fund shall be based on the costs of riparian buffer restoration. The payment amount shall be determined by multiplying the acres or square feet of mitigation required under other rules in 15A NCAC 02B by an initial value of ninety-six cents per square foot or forty-one thousand eight hundred and eighteen dollars per acre ($41,818/acre). This initial per acre rate shall be adjusted in January of each year by staff of the NC Ecosystem Enhancement Program based upon the construction cost index factor published every December in the Engineering News Record. The Engineering News Record is hereby incorporated by reference including subsequent amendments and editions, and is located at http://enr.construction.com/economics/ at an annual subscription cost of forty-nine dollars and ninety-nine cents ($49.99).~~

~~(2) The required fee shall be submitted to the N.C. Ecosystem Enhancement Program (NC EEP), 1652 Mail Service Center, Raleigh, NC 27699-1652 prior to any activity that results in the removal or degradation of the protected riparian buffer for which a "no practical alternatives" determination has been made pursuant to requirements of other rules in 15A NCAC 02B.~~

~~(3) The payment of a compensatory mitigation fee may be fully or partially satisfied by donation of real property interests pursuant to requirements of other rules in this Subchapter.~~

History Note: *Authority G.S. 143-214.1; 143-214.5; 143-214.5(i); 143-214.7; 143-214.12; 143-214.21; 143-215.3(a)(1); 143-215.6A; 143-215.6B; 143-215.6C; 143-215.8B; 143B-282(c); 143B-282(d);* ~~*S.L. 2005-190; S.L. 2006-259;*~~
Eff. August 11, 2009;
Amended Eff. May 1, 2015;
Transferred from 15A NCAC 02B .0269 Eff. May 1, 2015.

15A NCAC 02R .0602 NUTRIENT OFFSET PAYMENT RATES FOR THE NC ~~ECOSYSTEM ENHANCEMENT PROGRAM~~DIVISION OF MITIGATION SERVICES

(a) For the purposes of this Rule the term "cost' or "costs" means the costs of ~~The purpose of this Rule is to establish actual cost rates for the payment of nutrient offset fees to~~ the NC ~~Ecosystem Enhancement Program~~ Division of Mitigation Services, ~~subsequently~~ hereinafter in this Rule the "Program" associated with nutrient offset projects in a given rate area, as described in this Rule~~., where rules adopted by the Commission allow this option toward fulfillment of nutrient load reduction requirements and where the Program implements projects to achieve nutrient reductions. Wherever the term "cost" or "costs" is used in this Rule, it means the Program's costs associated with nutrient offset projects in a given rate area, as described below. For this purpose, the Program shall operate according to the requirements in this Rule.~~

(b) The Program shall calculate and publish general offset payment rates applicable to each river basin where Commission rules allow such nutrient offsets and ~~special~~ premium watershed rates for specific watersheds as identified in Paragraph (d) of this Rule. All rates shall be based on the ~~actual and complete~~ per-pound nutrient reduction costs incurred by ~~implementing projects~~ the Program in those watersheds.

(c) Payment rates shall be developed for nitrogen, phosphorus, or other nutrients as dictated by Commission ~~rule requirements~~ rules for each river basin. Rates shall be published on the Division's website (https://deq.nc.gov/about/ divisions/mitigation-services).

(d) ~~Special~~ Premium Watershed Rates. The Program shall apply ~~special~~ premium watershed rates to:

(1) The Neuse 03020201cataloging unit below the Falls watershed, the Jordan Lake watershed, and the Falls Lake watershed; and

(2) Any eight digit cataloging unit or smaller watershed subject to nutrient management rules where costs are ~~40~~ 33 percent greater than costs in the larger watershed or river basin ~~in which~~ where
that cataloging unit is located.

The initial rate for a ~~special~~ premium watershed with fewer than two nutrient reduction projects that have reached the design stage shall be the highest rate in effect under the Program for the applicable nutrient. The

initial rate shall be revised for a ~~special~~ premium watershed in the quarter following a quarter in which at least two nutrient reduction projects in that watershed have reached design stage.

(e) Once an area has been established as an area with ~~Special Watershed Rates,~~ premium watershed rates, it shall remain a ~~Special Watershed Rate~~ premium watershed rate area.

(f) Rate Adjustment Frequency. ~~Initial rates shall be effective as of the effective date of this Rule. They~~ Rates shall be adjusted quarterly whenever the rate ~~increases ten percent above the existing rate~~ calculation set forth in Paragraph (g) of this Rule exceeds the existing rate by at least ten percent. The rates shall also be adjusted annually. Annual calculations and adjusted rates shall be published by June ~~1~~15 on the Program's ~~Web site, www.nceep.net;~~ website http://deq.nc.gov/about/divisions/mitigation-services, and shall become effective July 1. Any quarterly rate adjustments shall become effective on the first day of October, January, or ~~April~~ April, as applicable, and shall be published on the same ~~Web site~~ website two weeks prior to that date. The rate shall be adjusted within two business days if the Program suspends acceptance of payments at the current rate pursuant to 15A NCAC 02B .0240 (e)(2).

(g) Payment rates for each nutrient shall be determined for a rate area using the following equation and presented in ~~per pound~~ per-pound values:

$$ActualCostRate = \frac{ActualCosts_{PresentDay}}{TotalPoundsOffset_{PresentDay}} + AdjustmentFactor$$

Where:

(1) ~~Actual Costs$_{PresentDay}$~~ "Actual Costs$_{PresentDay}$" means the sum of all costs adjusted for inflation as described in this ~~Sub-Item.~~ Subparagraph. Costs ~~are~~ shall mean project costs and administrative costs and shall include the costs of ~~. Projects in the calculation are~~ completed projects, terminated ~~projects~~ projects, and projects in process. At the time the rate is set~~, to ensure that collected payments are sufficient to implement new projects,~~ all completed land acquisition contracts and expenditures shall be adjusted to ~~present day~~ present-day values using the current North Carolina Department of Agriculture and Consumer Services' Agricultural Statistics Farm Real Estate Values. All other completed contracts and expenditures shall be adjusted to ~~present day~~ present-day values using the annual composite USACE Civil Works Construction Cost Index. Future land acquisition contract costs for projects in process ~~are~~ shall be calculated using the Program's ~~per credit~~ per-credit contract costs of the same type adjusted to the inflated future value ~~when~~ at the time the contracts will be encumbered using the North Carolina Department of Agriculture and Consumer Services' Agricultural Statistics Farm Real Estate Values. All other future contracts shall be calculated using the Program's ~~per credit~~ per-credit contract costs of the same type adjusted to the inflated future value ~~when~~ at the time the contracts will be encumbered using the current composite USACE Civil Works Construction Cost Index. For projects in process where the contract type has not been determined, the cost of the project shall be calculated using the Program's average per pound cost adjusted to the future

inflated value ~~when~~ at the time the project will be initiated. Future year annual inflation rates shall be drawn from ~~either the North Carolina Department of Agriculture and Consumer Services' Agricultural Statistics Farm Real Estate Values or~~ the USACE Civil Works Construction Cost Index. If not available from either source, they shall be calculated using the average annual percentage change over the last three-year period;

(2) As used in this Rule:

(A) ~~Project Costs~~ "Project Costs" ~~are~~ means the total costs associated with development of nutrient reduction projects including identification, land acquisition, project design, project construction, monitoring, ~~maintenance~~ maintenance, and long-term stewardship;

(B) ~~Administrative Costs~~ "Administrative Costs " ~~are~~ means costs associated with administration of the Program including staffing, ~~supplies~~ supplies, and rent; and

(C) The ~~cost~~ "costs" for projects in ~~process~~ process" ~~is~~ shall be the sum of expenditures of project contracts to date, contracted cost to complete existing contracts, and the projected cost of future contracts needed to complete those projects required to fulfill Program nutrient reduction obligations in the rate area;

(3) ~~Total~~ "Total Pounds ~~Offset$_{PresentDay}$~~ Offset$_{PresentDay}$" means the total number of pounds of a nutrient reduced by the Program's projects in the rate area at the time of calculation. If the Total Pounds Offset$_{PresentDay}$ for an existing or completed project is reduced, the Actual Costs$_{PresentDay}$ for that existing or completed project shall be proportionally adjusted; ~~and~~

~~(4)~~ $$AdjustmentFactor = \frac{(ActualCosts - ActualReceipts)}{NumberofPoundsPaidDuringAdjustmentPeriod}.$$

~~Where:~~

(A) The ~~Adjustment Factor~~ "Adjustment Factor" is a per-pound value used to bring actual costs and actual receipts into balance, ensuring that future payments are sufficient to cover the cost of implementing the Program in the rate area. The Adjustment Factor shall be calculated using the following formula:

$$AdjustmentFactor = \frac{(ActualCosts - ActualReceipts)}{NumberofPoundsPaidDuringAdjustmentPeriod}$$

(B) The Adjustment Factor shall be applied ~~in~~ only in those calculation periods where actual costs are calculated to be greater than actual receipts. The Adjustment Factor shall not comprise more than 60% of the overall rate;

(B) ~~Actual Costs~~ "Actual Costs" ~~are~~ shall be the same as Actual ~~CostsPresentDay~~ Costs$_{PresentDay}$ as defined in Subparagraph (1) of this Paragraph, except that the existing contracts and completed land acquisitions are not adjusted for inflation;

(C) ~~Actual Receipts~~ "Actual Receipts" ~~are~~ means the sum of all offset payments made to the Program ~~to date~~ in the rate area at the time of calculation; and

(D) ~~Number~~ "Number of Pounds Paid during Adjustment ~~Period~~ Period" ~~is~~ means the average number of pounds of a nutrient paid to the Program over the last three years in the rate ~~area,~~ area multiplied by the adjustment period. If no payments have been made to the Program in a rate area, the number of pounds paid shall be ~~set to~~ 1,000 pounds until greater than 1,000 pounds have been purchased in that rate area.

~~(5)~~(4) Adjustment Period ~~is~~ shall be one to four years determined as follows for a rate area:

(A) One year if Actual Costs exceed Actual Receipts by less than five percent;

(B) Two years if Actual Costs exceed Actual Receipts by five percent or more but less than 15 percent;

(C) Three years if Actual Costs exceed Actual Receipts by 15 percent or more but less than 25 percent; and

(D) Four years if Actual Costs exceed Actual Receipts by 25 percent or more.

(h) When individual projects produce more than one type of nutrient reduction, the project costs shall be prorated for each nutrient being offset by the project.

(i) In cases where an applicant is required to reduce more than one nutrient type and chooses to use the Program to offset nutrients, the applicant shall make a payment pursuant to 15A NCAC 02B .0240 (e)(3) for each nutrient type.

History Note: *Authority G.S. 143-214.1; 143-214.20; 143-214.21; S.L. 1995, c. 572; S.L. 2006, c. 215; S.L. 2007, c. 438; S.L. 2009, c. 337; S.L. 2009, c. 484; S.L. 2009, c. 486;*
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