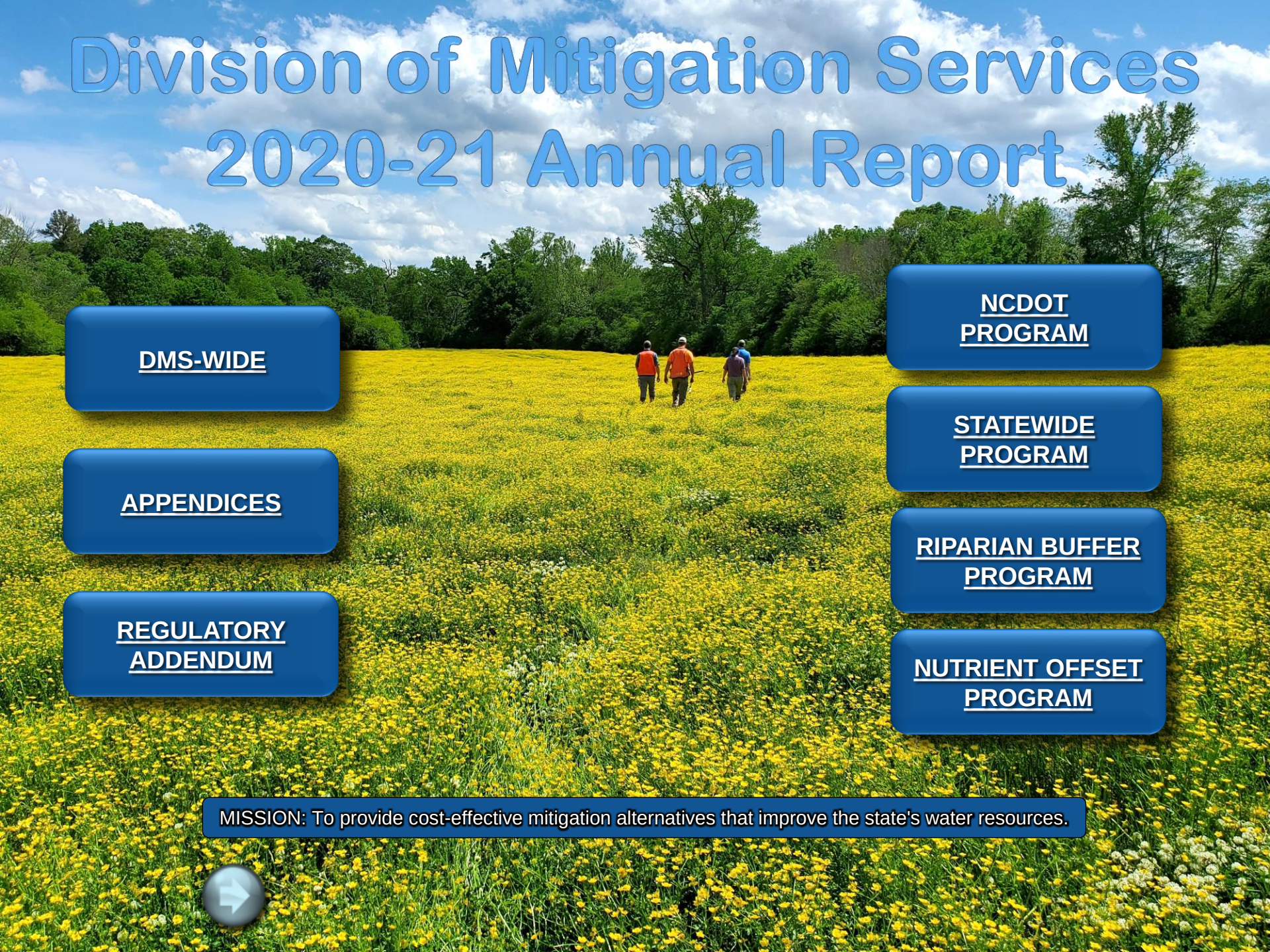
Division of Mitigation Services 2020-21 Annual Report



DMS-WIDE

APPENDICES

REGULATORY ADDENDUM

NCDOT PROGRAM

STATEWIDE PROGRAM

RIPARIAN BUFFER PROGRAM

NUTRIENT OFFSET PROGRAM

MISSION: To provide cost-effective mitigation alternatives that improve the state's water resources.

Executive Summary

In Fiscal Year (FY) 2020-21, the NC Division of Mitigation Services (DMS):

- Assisted the North Carolina Department of Transportation (NCDOT) obtain permits for 42 transportation projects by providing 32,675 stream mitigation credits and 90.584 wetland mitigation credits.

- Assisted customers with 194 development projects in the Statewide Stream and Wetland, Riparian Buffer, and Nutrient Offset In-Lieu Fee (ILF) Programs by providing:
    - 20,592 stream credits,
    - 34.943 wetland credits,
    - 918,710 credits of buffer mitigation (equivalent to 21.9 ac buffer restoration)
    - 19,606 pounds of nitrogen reduction, and
    - 1,705 pounds of phosphorus reduction.

- Despite the Covid-19 pandemic, DMS was able to remain fully operational throughout the year. No customers experienced mitigation delays despite elevated levels of mitigation requests.

Program-Wide

The FY 2020-21 DMS Annual Report fulfills statutory and regulatory reporting requirements as detailed in the 2010 NCDEQ/DMS In-Lieu Fee Instrument governing In-Lieu Fee Programs for Stream & Wetland Mitigation and the Federal Rules in 33 CFR Parts 325 and 332 & 40 CFR Part 230, and North Carolina G.S. §143-214.13.

DMS operates four in-lieu fee programs:

- **NC DOT Statewide Stream and Wetland ILF**
- **Statewide Stream and Wetland ILF**
- **Riparian Buffer ILF, and**
- **Nutrient Offset ILF Program**

Property

- During FY 2020-21 the State Property Office closed 41 conservation easement transactions totaling 542 acres associated with DMS' projects.
- All properties that closed during FY 2020-21 are shown in Appendix A-1.
- A full inventory of all properties acquired to date is presented in Appendix A-2.
- More than 79,000 acres of conservation land or conservation easements have been acquired by DMS and partners to date.
- A full list of DMS projects is in Appendices A-3, A-4, A-5, and A-6.

Program Costs

Recent credit costs were summarized by analyzing Full Delivery contracts and Mitigation Bank purchases awarded over the last 3 fiscal years. The data includes project contracts, admin, overhead, and other costs required to complete these projects. The program rates for the last 3 years are also summarized.

CREDIT TYPE	RANGE OF RECENT CREDIT COSTS PER CREDIT	PROGRAM RATES**
Stream	$312.86 to $755.71	$507 to $559
Freshwater Wetland	$35,714.29 to $152,000	$52,273.99 to $144,876
Coastal Marsh Wetland	N/A*	$560,000
Riparian Buffer	$1.71 to $5.00	$0.94 to $4.38
Nutrient Offset Nitrogen	$11.21 to $214.29	$8.28 to $136.25
Nutrient Offset Phosphorus	$157.14 to $413.48	$117.96 to $343.93

*DMS did not implement any Coastal Marsh wetland projects in the last three fiscal years.
**Program rates are set using the Actual Cost Method, which is a full cost accounting method and may result in premium rates in high costs watersheds.

Cost Analysis of Private Mitigation Banks

Reporting requirements of G.S. §143 214.13 require DMS to compare project costs with private mitigation bank rates. For this analysis, DMS used the actual submitted prices for Mitigation Bank Credits from Requests for Bids in the last fiscal year. A complete list of purchased bank credits during 2020-21 are listed in Appendix B.

MITIGATION TYPE	RANGE OF BANK PRICES PER CREDIT
Stream Mitigation Credits	$425 to $800
Riparian Wetland Mitigation Credits	$41,819 to $120,000
Non-Riparian Wetland Mitigation Credits	$40,000 to $75,000
Coastal Marsh Mitigation Credits	None Submitted
Riparian Buffer Mitigation Credits	$0.85 to $3.50
Nitrogen Offset Credits	$9.24 to $180.00
Phosphorus Offset Credits	$130.83 to $350.00

Advance Credits

The In-Lieu Fee mitigation instrument allocated advance credits by river basin and eight-digit cataloging units for use by DMS. Pursuant to this operating agreement, this annual report includes a summary of the status and use of "Advance Credits" as defined by Federal rules in Appendix C.

Mitigation Losses and Gains

G.S. §143-214.13 requires DMS to document statewide wetland losses and gains and compensatory mitigation performed under G.S. §143-214.8 through G.S. §143-214.12. The data below have been provided by the Division of Water Resources (DWR*) and reflect permitting by the Department of Environmental Quality (DEQ). This remainder of this report documents DMS compensatory mitigation. Complete lists of DMS mitigation requirements and assets are provided in the Regulatory Addendum.

DWR Quarterly Reports for 7/1/2020 through 6/30/2021					
Streams (Linear Feet)	Q1	Q2	Q3	Q4	YTD
Lost from permitting	31,207	20,380	37,731	19,268	108,586
Gained from permitting (mitigation)	13,395	15,771	7,066	493	36,725
Wetlands (Acres)	Q1	Q2	Q3	Q4	YTD
Lost from permitting	22.58	94.43	15.78	156.86	289.65
Gained from permitting (mitigation)	6.65	137.48	7.20	26.38	177.71
Riparian Buffers (Acres)	Q1	Q2	Q3	Q4	YTD
Lost from permitting	18.02	10.34	13.47	89.02	130.85
Gained from permitting (mitigation)	5.63	3.31	6.18	14.03	29.15

*Due to permit processes, mitigation and impacts may not (usually do not) occur in the same quarter. Data may include impacts to resources that do not require mitigation (under required thresholds, for example). Due to versions and revisions, different versions of the same project may occur in the same reporting period causing a double calculation of impacts. As of May 4, 2017 the stream mitigation threshold requirements changed. Only impacts 300 lf or greater of perennial stream require mitigation. Mitigation required by USACE applicable to permitted impacts is not tracked by DWR. Data is from the DWR database only.

DMS ILF Programs

NCDOT Stream & Wetland

Statewide Stream & Wetland

Riparian Buffer

Nutrient Offset

Each of the four DMS In-Lieu Fee Programs are financially independent funds that operate solely on receipts and do not receive any appropriations from the General Assembly.

DMS Program Fiscal Summary

Detailed information showing the FY 2020-21 fund status for each of the DMS In-Lieu-Fee Programs.

	NCDOT In-Lieu Fee Program	Statewide Stream & Wetland In-Lieu-Fee Program	Riparian Buffer In-Lieu-Fee Program	Nutrient Offset In-Lieu Fee Program
Beginning Cash	**($5,451,500.69)**	**$55,591,280.56**	**$21,474,825.87**	**$7,173,303.66**
Revenues	$43,188,357.89	$14,664,168.54	$1,539,503.71	$770,802.59
Expenditures	($34,723,220.00)	($19,471,596.43)	($6,887,507.48)	($785,885.78)
Adjustment to Cash Basis	$0	($47,968.30)	$0.00	($30,583.97)
Allow-FV Bond Index Fund	$0.00	$103,365.02	$0.00	$65,904.20
Bond Index Fund	$0.00	$1,767,215.71	$0.00	$1,126,753.81
Ending Cash and Cash Equivalents	**$3,013,637.20**	**$52,606,465.10**	**$16,126,822.10**	**$8,320,294.51**

NCDOT Stream & Wetland ILF

REQUIREMENTS

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NCDOT Stream & Wetland ILF

- The goal of this program is to produce mitigation credits to offset anticipated impacts from the implementation of the NCDOT seven-year Transportation Improvement Program (TIP). Anticipated impacts are provided to DMS by the Natural Environment Unit at NCDOT.
- In fiscal 2020-21 DMS provided mitigation for 42 NCDOT transportation permitted projects requiring stream and/or wetland mitigation.
- For these NCDOT projects, DMS is providing 32,675 stream mitigation credits and 90.854 wetland mitigation credits.
- Appendix D-1 provides NCDOT Stream and Wetland Program permitted requirements for fiscal 2020-21.

NCDOT Stream & Wetland ILF Fund Status

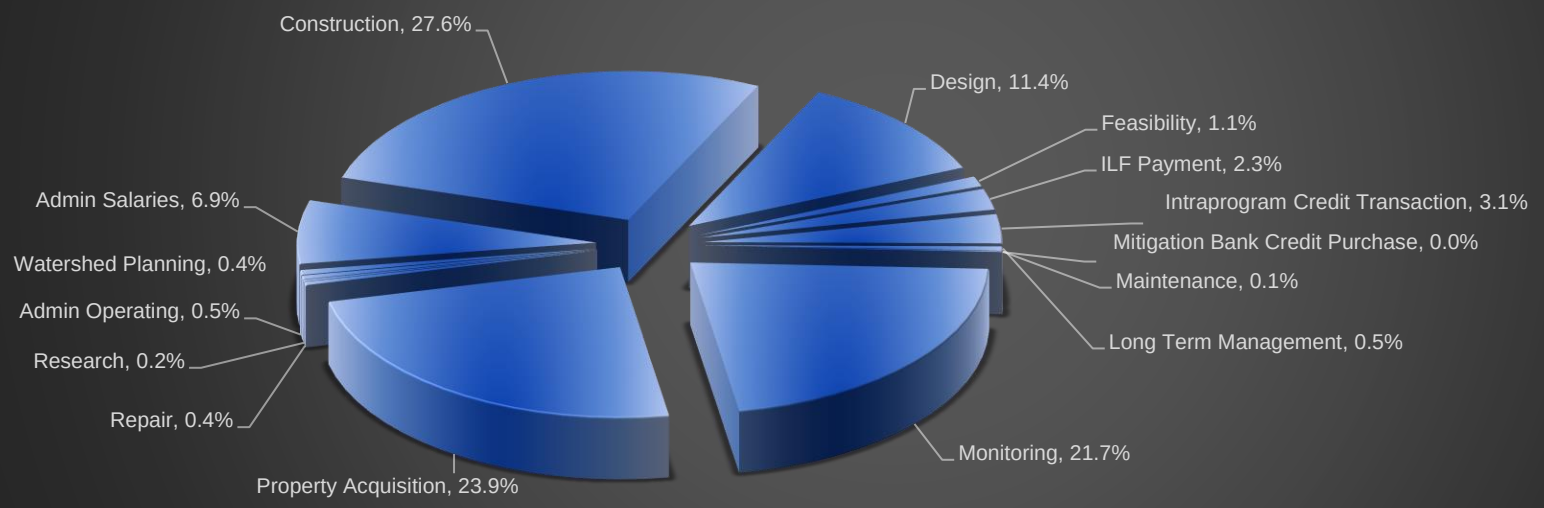
(2984, 2984-9310,2930-9303,)

Beginning Cash	**($5,451,500.69)**
Revenues	$43,188,357.89
Expenditures	($34,723,220.00)
Adjustment To Cash Basis	$0
Ending Cash and Bond Balance	**$3,015,637.20**

NCDOT Stream & Wetland ILF Expenditures

This figure summarizes the expenditures by payment type for the NCDOT Stream and Wetland Program. Appendix E provides a full listing of the expenditures by fund.

$ 34.7 Million Total in 2020-2021



NCDOT Stream & Wetland ILF Compliance

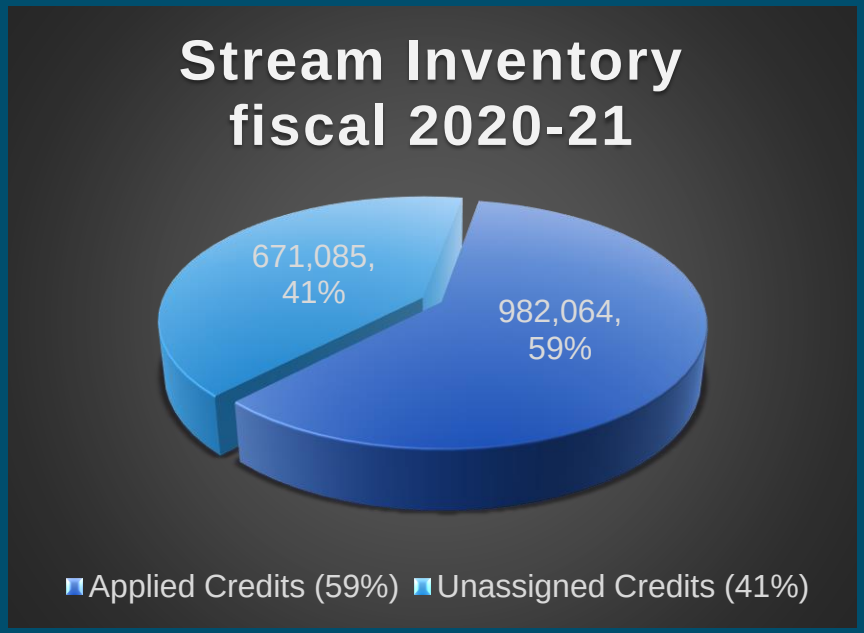
The NCDOT Stream and Wetland Program is a national leader in producing compensatory mitigation in advance of unavoidable environmental impacts. Since 2003, the agreements between NCDOT, NCDEQ, and the U.S. Army Corps of Engineers have allowed NCDOT to move forward with more than $25 billion in road development projects without delays associated with compensatory mitigation. Regulatory Addendum IV provides a detailed compliance action strategy by Cataloging Unit.

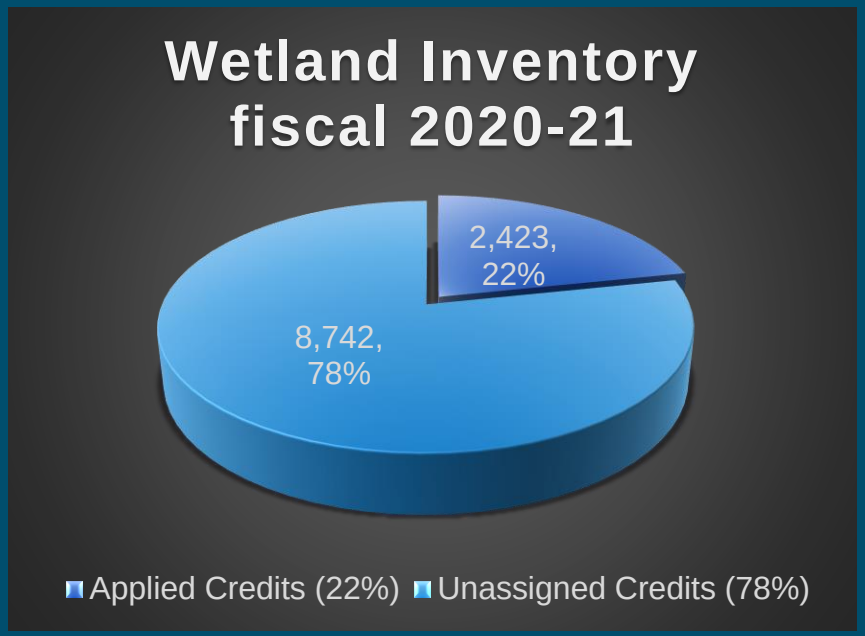
DOT Program Type	Requirements Due (credits)	Requirements Met (credits)	Requirements Not Met (credits)	Compliance (credits)	Total Advanced Mitigation * (unassigned)
Stream	1,0659.200	1,0659.200	0	100.00%	671,085.253
Wetlands	2461.924	2461.924	0	100.00%	8,742.199

**Includes surplus credits developed by NCDOT and managed by DMS*

NCDOT Stream & Wetland ILF Inventory

The NCDOT Stream and Wetland ILF Program's gross inventory* totaled 1,653,149 stream credits and 11,165 wetland credits. A large portion of these credits are unapplied and available for future permit requirements as projected in the state's Transportation Improvement Program. Detailed information about the NCDOT Stream and Wetland ILF Program Gross and Net inventories can be found in Appendices F-1 and F-2 (for non HQP), and F-3 and F-4 (for HQP).





**Includes surplus credits developed by NCDOT and managed by DMS.*
Unassigned credits are generated for future development.

Statewide Stream & Wetland ILF

REQUIREMENTS

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Statewide Stream & Wetland ILF

- In fiscal 2020-21, DMS accepted 131 new customer ILF payments into the Statewide Stream and Wetland Program, totaling $13,747,829.84.
- These 131 customer payments represent 114 development projects, 20,592.925 stream credits and 34.943 wetland credits.
- Appendix D-2 provides Statewide Stream and Wetland Program fiscal 2020-21 receipts and requirements.

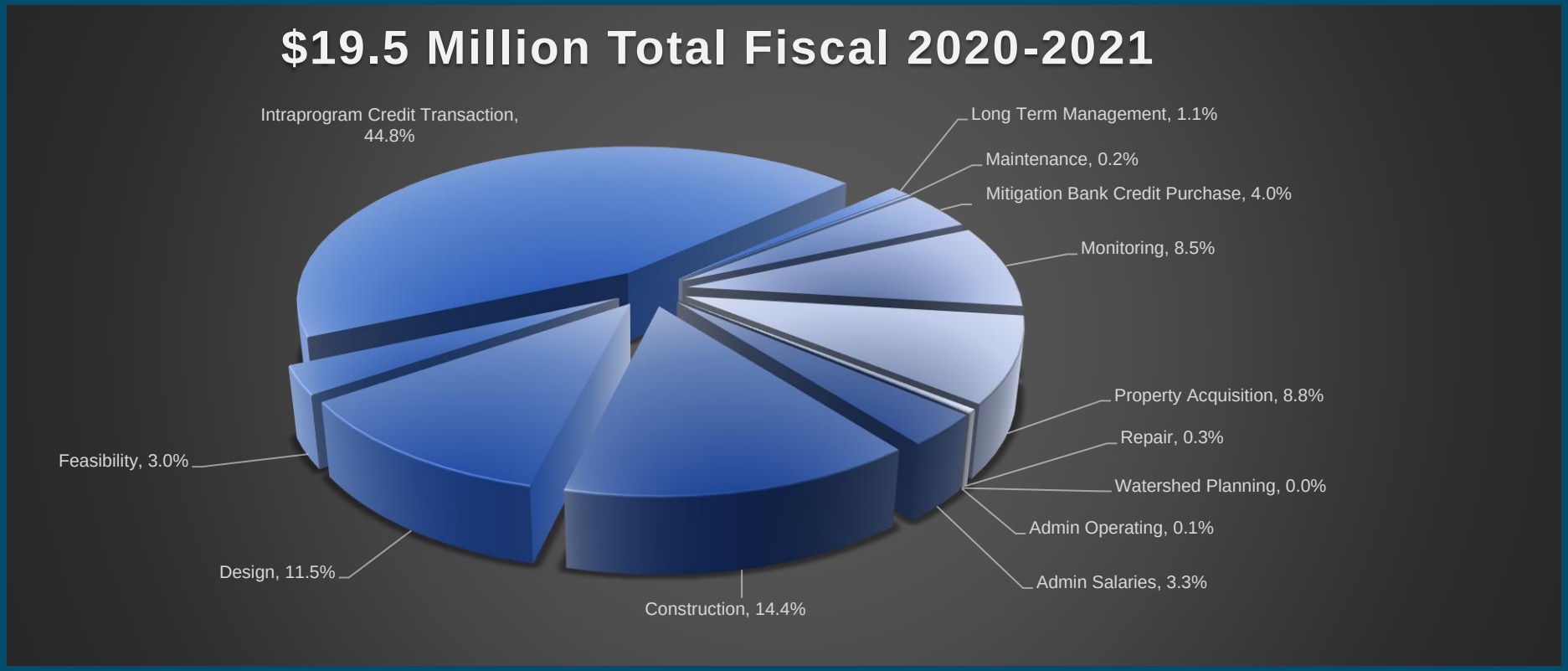
Statewide Stream & Wetland ILF Fund Status

(2981, 2937)

Beginning Cash	**$55,591,280.56**
Revenues	$14,664,168.54
Expenditures	($19,471,596.43)
Adjustment to Cash Basis	($47,968.30)
Allow-FV Bond Index Fund	$103,365.02
Bond Index Fund	$1,767,215.71
Ending Cash and Bond Balance	**$52,606,465.10**

Statewide Stream & Wetland ILF Expenditures

This figure summarizes the expenditures by payment type for the Statewide Stream and Wetland Program. Appendix E provides a full listing of the expenditures by fund.



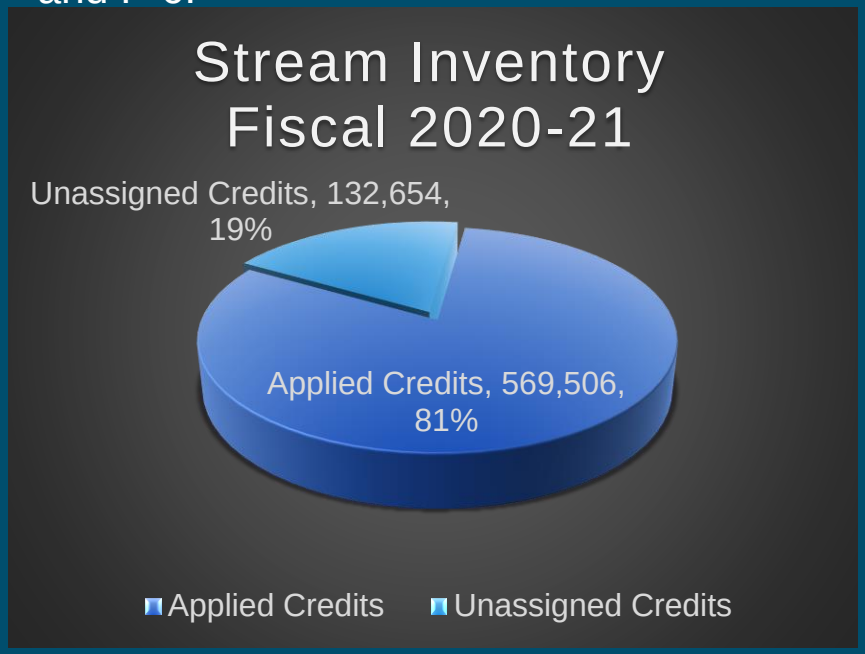
Statewide Stream & Wetland ILF Compliance

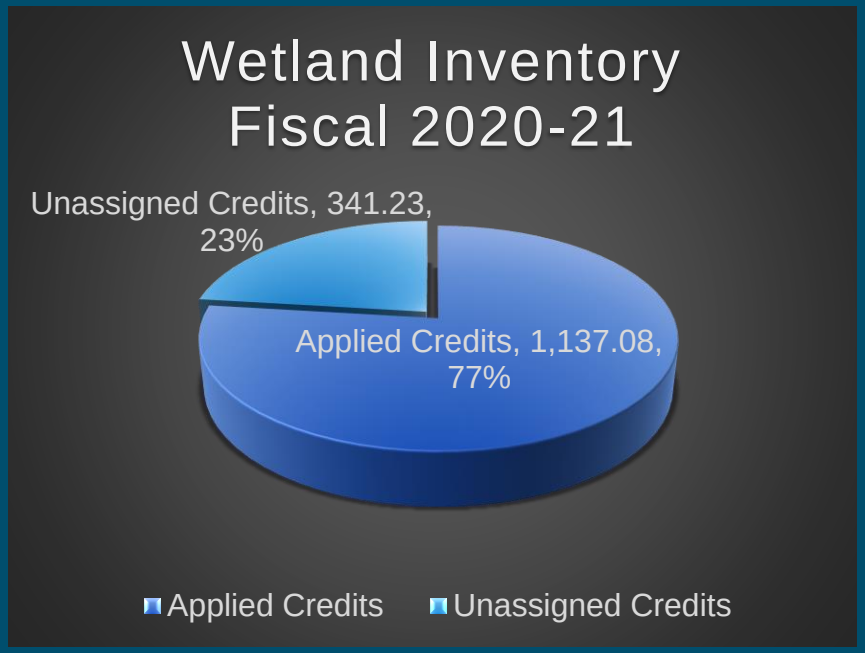
For fiscal 2020-21, the Statewide Stream and Wetland Program had satisfied 100 percent of all stream requirements and 100 percent of all wetland requirements. DMS continues to implement projects to address all of its permit requirements. Regulatory Addendum IV provides a detailed compliance action strategy by Cataloging Unit.

Statewide Program Type	Requirements Due (credits)	Requirements Met (credits)	Requirements Not Met (credits)	Compliance (credits)	Total Advanced Mitigation (Unassigned)
Stream	684,194.615	684,194.615	0	100.00%	132,654.216
Wetlands	1,478.309	1,478.309	0	100.00%	341.231

Statewide Stream & Wetland ILF Program Inventory

The Statewide Stream and Wetland Program's gross inventory totaled 702,159.754 stream credits and 1,611.772 wetland credits. Detailed information about the Statewide Stream and Wetland Program Gross and Net Inventories can be found in Appendices F-5 and F-6.





Unassigned credits are generated for future development.

Riparian Buffer Mitigation ILF

REQUIREMENTS

FUND STATUS

EXPENDITURES

COMPLIANCE & INVENTORY

Riparian Buffer Mitigation ILF

- In fiscal 2020-21, DMS received 25 new customer payments into the Riparian Buffer Mitigation Program, totaling $1,041,674.32.
- These 25 customer payments represent 918,710.500 credits of buffer mitigation – equivalent to 21.09 acres of buffer restoration.
- Approximately 77.67% of the fiscal 2020-21 requirements came from ten NCDOT projects.
- Appendix D-3 provides Riparian Buffer Program fiscal 2020-21 receipts and requirements.

Riparian Buffer ILF Fund Status

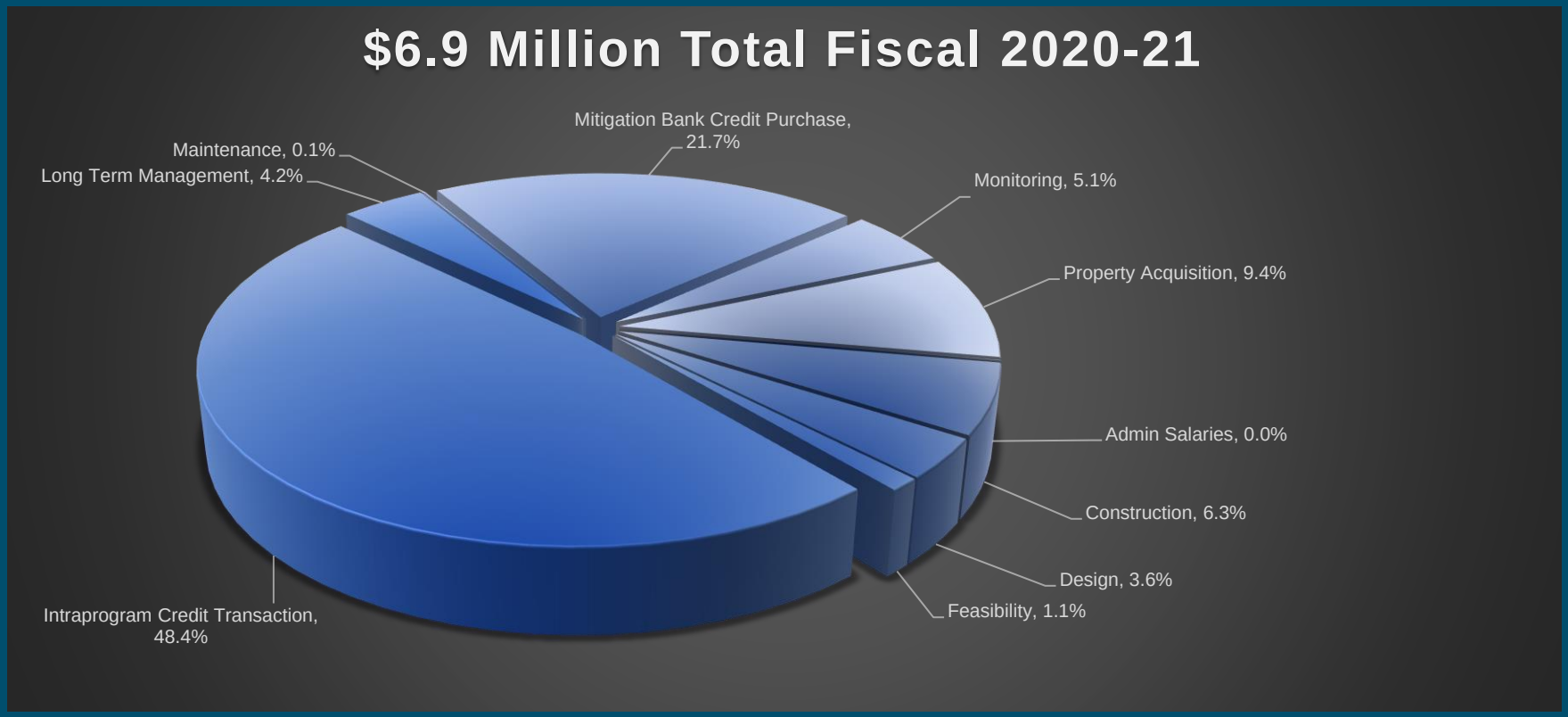
(29CA, 29CF, 29NE, 29TP, 29YA)

Beginning Cash	**$21,474,825.87**
Revenues	$1,539,503.71
Expenditures	($6,887,507.48)
Bond Index Fund	$0.00
Ending Cash and Bond Balance	**$16,126,822.10**

This table summarizes the finances of all five riparian buffer river basin funds.

Riparian Buffer ILF Expenditures

This figure summarizes the expenditures by payment type for the Riparian Buffer Mitigation Program. Appendix E provides a full listing of the expenditures by fund.



Riparian Buffer ILF Compliance and Inventory

Detailed information about the Riparian Buffer Program's compliance action strategy can be found in Regulatory Addendum IV and about the Program's Gross and Net Inventories can be found in Appendices F-7 and F-8.

Buffer Program Type	Requirements Due (credits)	Requirements Met (credits)	Requirements Not Met (credits)	Compliance	Total Advanced Mitigation (Unassigned*)
Cape Fear	11,951,396.71	11,192,946.3	758,450.41	93.65%	61,142.34
Catawba	243,235.00	243,235.00	0	100.00%	0
Neuse	35,389,190.83	34,895,526.64	493,664.19	98.61%	332,145.34
Tar-Pamlico	4,553,581.58	4,553,581.58	0	100.00%	170,353.61
Yadkin	555,318.00	54,135.33	501,182.67	9.75%	0
Grand Total	52,692,722.12	50,939,424.86	1,753,297.26	96.67%	563,640.293

**Unassigned credits are generated for future development.*

Nutrient Offset ILF

REQUIREMENTS

FUND STATUS

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Nutrient Offset ILF

- In fiscal 2020-21, DMS received 62 customer payments into the Nutrient Offset Program, totaling $705,167.35
- These 62 customer payments represent reductions of 19,606.113 pounds of nitrogen and 1,705.01 pounds of phosphorus.
- DMS did not receive any nutrient refund requests during the 2020-21 fiscal year.
- Appendix D-4 provides Nutrient Offset Program fiscal 2020-21 receipts and requirements.

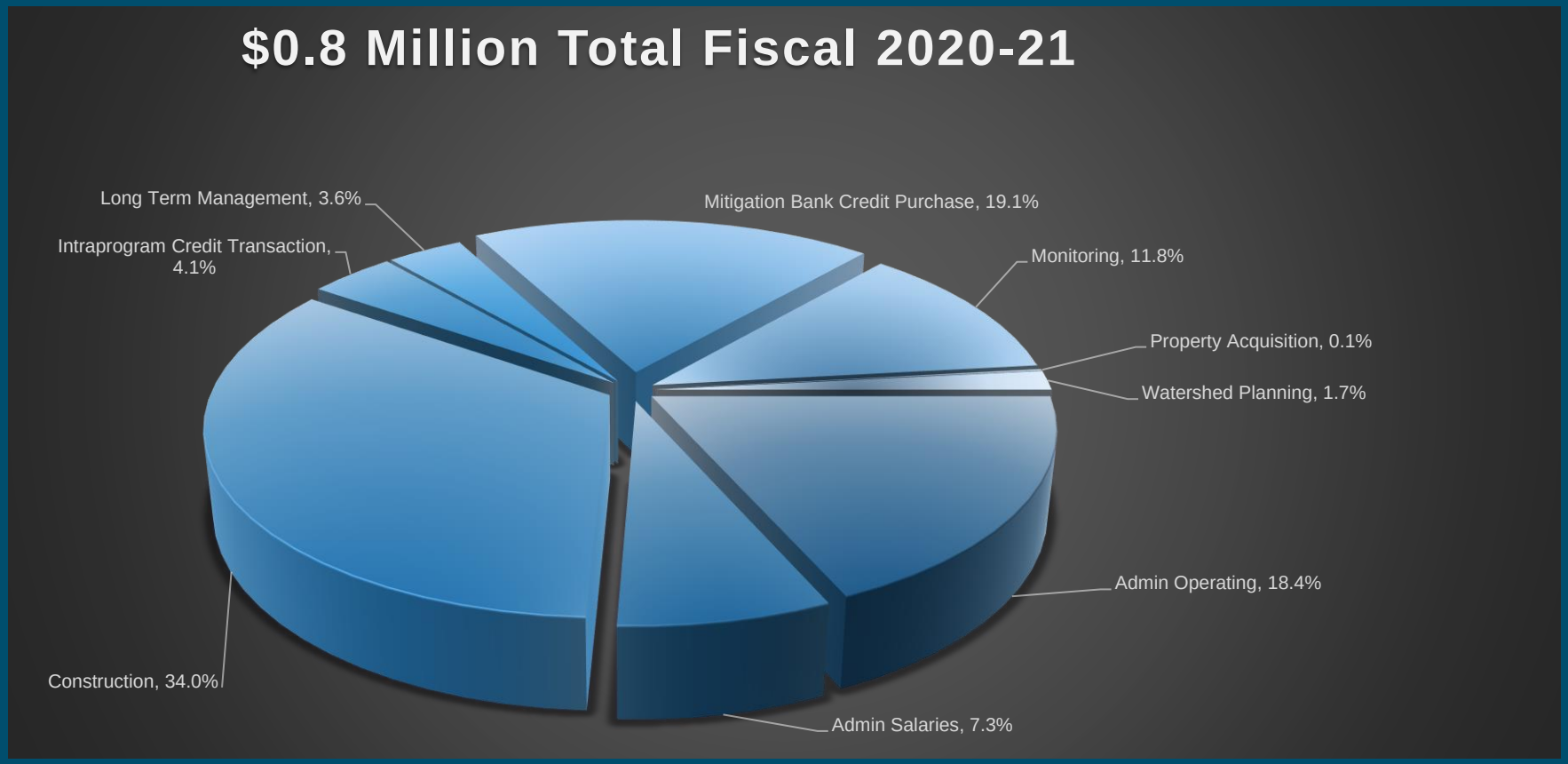
Nutrient Offset ILF Fund Status

(2982-9829)

Beginning Cash	**$7,173,303.66**
Revenues	$770,802.59
Expenditures	($785,885.78)
Adjustment to Cash Basis	($30,583.97)
Allow-FV Bond Index Fund	$65,904.20
Bond Index Fund	$1,126,753.81
Ending Cash Balance	**$8,320,294.51**

Nutrient Offset ILF Expenditures

This figure summarizes the expenditures by payment type for the Nutrient Offset Program. Appendix E provides a full listing of the expenditures by fund.



Nutrient Offset ILF Compliance and Inventory

DMS accepts payments for nitrogen reduction in the Neuse basin and nitrogen and phosphorus reductions in the Tar-Pamlico basin, the Falls Lake watershed and in the Jordan Lake watershed. Detailed information about the Nutrient Offset Program's Gross and Net Inventories can be found in Appendices F-9 and F-10, and about the Program's compliance action strategies can be found in Regulatory Addendum IV.

Nutrient Offset Program Type	Requirements Due (credits)	Requirements Met (credits)	Requirements Not Met (credits)	Compliance (credits)	Total Advanced Mitigation (Unassigned*)
Falls Nitrogen	15,216.320	15,216.320	0.000	100.00%	66.221.088
Falls Phosphorus	3,644.015	3,644.015	0.000	100.00%	1,379.120
Jordan Nitrogen	53,924.450	43,305.118	10,619.332	80.31%	0.002
Jordan Phosphorus	18.420	6.190	12.230	66.40%	1,543.037
Neuse Nitrogen	1,363,260.386	1,363,260.386	0.000	100.00%	123,509.588
Tar Pamlico Nitrogen	148,104.320	148,104.320	0.000	100.00%	36,682.378
Tar Pamlico Phosphorus	11,469.999	11,469.999	0.000	100.00%	1,069.748
Grand Total	**1,595,637.910**	**1,585,006.350**	**10,631.562**	**99.33%**	**230,404.391**

**Unassigned credits are generated for future development.*

Appendices

Appendix A - Property

- A-1. Closed Fiscal Year
- A-2. Cumulative Properties
- A-3. Non-HQP Site List
- A-4. HQP Site List
- A-5. Riparian Buffer ILF Projects
- A-6. Nutrient Offset ILF Projects

Appendix B - Mitigation Bank Costs

Appendix C – Advance Credits

- C. Advance Credit Summary

Appendix D – FY Requirements

- D-1. NCDOT FY Requirements
- D-2. Statewide FY Requirements
- D-3. Riparian Buffer FY Requirements
- D-4. Nutrient Offset Requirements

Appendix E - Expenditures

Appendix F - Inventory

- F-1. NCDOT Gross Assets (no HQP)
- F-2. NCDOT Net Assets (no HQP)
- F-3. NCDOT Gross Assets (HQP)
- F-4. NCDOT Net Assets (HQP)
- F-5. Statewide Gross Assets
- F-6. Statewide Net Assets
- F-7. Riparian Buffer Gross Assets
- F-8. Riparian Buffer Net Assets
- F-9. Nutrient Offset Program Gross Assets
- F-10. Nutrient Offset Program Net Assets

Regulatory Addendum

click on each to download, or here for Full Appendices

Regulatory Addendum

Addendum I. - Requirement Ledgers

- I-A. NCDOT Program– Requirement Ledger
- I-B. Statewide Program – Requirement Ledger
- I-C. Riparian Buffer Program – Requirement Ledger
- I-D. Nutrient Offset Program – Requirement Ledger

Addendum II. – Asset Ledgers

- II-A1. NCDOT Stream and Wetland Program – Asset Ledger (Non-HQP)
- II-A2. Statewide Stream and Wetland Program – Asset Ledger
- II-B. NCDOT Program – (HQP) Asset Ledger
- II-C. Riparian Buffer Program – Asset Ledger
- II-D. Nutrient Offset Program – Asset Ledger

- Addendum III.– Advance Credit Ledger
- Addendum IV. – Action Strategies
- Addendum V. – River Basin Map
- Addendum VI. – Ecoregions Map

click on each to download, or here for Full Addendum