

North Carolina Department of Environmental Quality

Pat McCrory
Governor

Donald R. van der Vaart
Secretary

January 7, 2016

MEMORANDUM

TO: THE ENVIRONMENTAL REVIEW COMMISSION
The Honorable Jimmy Dixon, Co-Chair
The Honorable Chuck McGrady, Co-Chair
The Honorable Trudy Wade, Co-Chair

JOINT LEGISLATIVE COMMITTEE ON GOVERNMENTAL OPERATIONS
The Honorable Tim Moore, Co-Chair
The Honorable Phil Berger, Co-Chair

FROM: Matthew Dockham, Director of Legislative Affairs

SUBJECT: Implementation of DMS and use of Ecosystem Enhancement Fund Report

DATE: January 7, 2016

Pursuant to G.S. 143-214.13, "the Department of Environment and Natural Resources [renamed Department of Environmental Quality] shall report each year by November 1 to the Environmental Review Commission and to the Joint Legislative Commission on Governmental Operations regarding its progress in implementing the Division of Mitigation Services and its use of the funds in the Ecosystem Restoration Fund. Please consider the attached as the formal submission this report.

You may find this report online with active links and attachments at

http://portal.ncdenr.org/c/document_library/get_file?p_l_id=1169848&folderId=26113576&name=DLFE-118604.pdf.

If you have any questions or need additional information, please contact me by phone at (919) 707-8618 or via e-mail at matthew.dockham@ncdenr.gov.

cc: Tom Reeder, Assistant Secretary for Environment, NCDEQ
Michael Ellison, Director of Mitigation Services, NCDEQ

Division of Mitigation Services 2014-15 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) 2014-15, the NC Division of Mitigation Services (DMS):

- Renamed (formerly the Ecosystem Enhancement Program)
- Helped North Carolina Department of Transportation (NCDOT) obtain permits for 85 transportation projects by providing 98,709 stream mitigation credits and 266 wetland mitigation credits.
- Assisted customers with 134 development projects in the Statewide Stream and Wetland, Riparian Buffer, and Nutrient Offset In-Lieu Fee (ILF) Programs by providing:
 - 7,950 stream credits,
 - 20.8 wetland credits,
 - 26 acres of buffer mitigation,
 - 17,664 pounds of nitrogen reduction, and
 - 107 pounds of phosphorus reduction.
- Received 90% of its nutrient payments from private developers for schools, recreational, medical, and other commercial and residential projects.
- Elevated to Division status within the Department of Environment and Natural Resource



Program-Wide

The FY 2014-15 DMS Annual Report fulfills statutory and regulatory reporting requirements as detailed in the 2010 NCDENR/DMS In-Lieu Fee Instrument governing In-Lieu Fee Programs for Stream & Wetland Mitigation and the Federal Rules in 40 CFR Part 250/33, CFR Parts 325 and 332, 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 2014-15, the State Property Office closed 23 conservation easement transactions totaling 314.6 acres associated with DMS' projects.
- All properties that closed during FY 2014-15 are shown in Appendix A-1.
- A full inventory of all properties acquired to date is presented in Appendix A-2.
- More than 76,265 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

Average mitigation credit costs for the last fiscal year have been determined by analyzing Full Delivery contracts awarded over the last 5 fiscal years. The dataset includes actual contracts awarded and estimates of costs required to complete projects.

CREDIT TYPE	RANGE OF PROGRAM COSTS PER CREDIT	CURRENT FEES
Stream	\$220 to \$454	\$296 (Standard); \$390 (High)
Riparian Wetland	\$15,000 to \$98,500	\$40,256 (Standard); \$71,201 (High)
Non-Riparian Wetland	\$28,000 to \$62,458	\$26,418 (Standard); \$51,370 (High)
Coastal Marsh Wetland	N/A*	\$175,147
Riparian Buffer	\$0.80 to \$1.43	\$1.08
Nutrient Offset Nitrogen	\$12.68 to \$137.80**	\$12.21 to \$118.49**
Nutrient Offset Phosphorus	\$155.01 to \$287.91**	\$168.12 to \$291.04**

*DMS did not implement any Coastal Marsh wetland projects in the last five fiscal years.

**Nutrient Offset fees are set using the Actual Cost Method and vary by region, see [Nutrient Offset Mitigation Fees](#)



Cost Analysis of Private Mitigation Banks

Reporting requirements of G.S. §143 214.13 require DMS to compare DMS project costs with private mitigation bank rates. For this analysis, DMS used the actual costs paid for Mitigation Bank Credits it purchased in the last fiscal year.

MITIGATION TYPE	RANGE OF BANK PRICES PER CREDIT
Stream Mitigation Units	\$350 to \$376
Riparian Wetland Mitigation Units	\$34,000 to \$67,000
Non-Riparian Wetland Mitigation Units	Did Not Purchase
Coastal Marsh Mitigation Units	Did Not Purchase
Riparian Buffer Mitigation Units	\$1.00 to \$1.03
Nitrogen Offset Credits	\$82.00 to \$95.00
Phosphorus Offset Credits	Did Not Purchase



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.



Wetland Losses and Gains

Reporting requirements of G.S. §143-214.13 require 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 DENR. This annual report documents compensatory mitigation performed by DMS. Complete lists of mitigation requirements and assets are provided in the Regulatory Addendum.

DWR Quarterly Reports for 7/1/2014 through 6/30/2015					
Streams (Linear Feet)	Q1	Q2	Q3	Q4	YTD
Lost from permitting	16,526	10,710	11,957	20,306	59,499
Gained from permitting (mitigation)	6,681	2,046	4,443	9,450	22,620
Wetlands (Acres)	Q1	Q2	Q3	Q4	YTD
Lost from permitting	13.60	17.49	61.37	9.63	102.09
Gained from permitting (mitigation)	4.71	2.41	93.74	3.66	104.52
Riparian Buffers (Acres)	Q1	Q2	Q3	Q4	YTD
Lost from permitting	18.37	7.28	15.62	14.78	56.05
Gained from permitting (mitigation)	3.01	3.02	6.95	5.21	18.19

**Issued 401 permits and Buffer Authorizations, only. Source: Personal communication from Cyndi Karoly, NC Division of Water Resources on 7/27/2015*



Program Costs

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. A fund status report for each program is provided.



Financial Glossary

Financial Term	Definition
Beginning Cash Balance	Amount of cash in fund account at beginning of fiscal year (abbrev. FY)
Revenues	Amount of money collected during FY
Expenditures	Amount of money spent during FY
Ending Cash Balance	Amount of money in fund account at end of FY
Cost to Complete Program Requirements	Estimate of the amount of money needed to execute all of the remaining contracts and projects required to satisfy the program's mitigation obligations
Net Accounts Receivable	Outstanding receipts that will be collected over time
Net Asset Inventory Value	Current estimated value of unused credits available for sale at current fee schedule
Grand Total Program	Summary of all financial assets and liabilities



NCDOT Stream & Wetland ILF

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NCDOT Stream & Wetland ILF Requirements

- ❖ 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 2014-15 DMS accepted mitigation for 85 NCDOT transportation projects requiring stream and/or wetland mitigation.
- ❖ For these NCDOT projects, DMS is providing 98,709 stream mitigation units and 266 wetland mitigation units.
- ❖ Appendix D-1 provides NCDOT Stream and Wetland Program permitted requirements for fiscal 2014-15.



NCDOT Stream & Wetland ILF Fund Status

Beginning Cash Balance		\$3,066,791.59
	Revenue	\$22,481,498.15
	Expenditures	(\$17,441,152.69)
Ending Cash Balance		\$8,107,137.05
	Cost to Complete Program Requirements	(\$109,481,713.01)
	Net Accounts Receivable	\$109,481,713.01



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, NCDENR, and the U.S. Army Corps of Engineers have allowed NCDOT to move forward with more than \$15 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	494,486	494,486	0	100.00%	782,839
Wetlands	1,151.24	1,148.33	2.91	99.75%	9,553.32

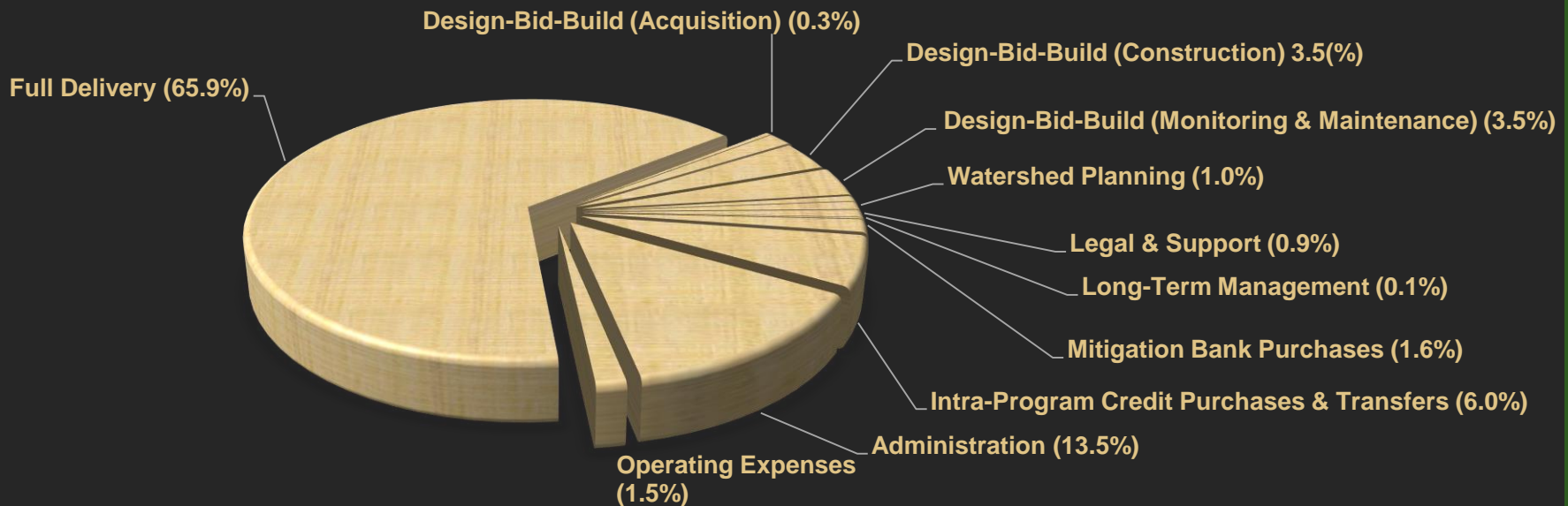
**Includes surplus credits developed by NCDOT and managed by DMS*



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.

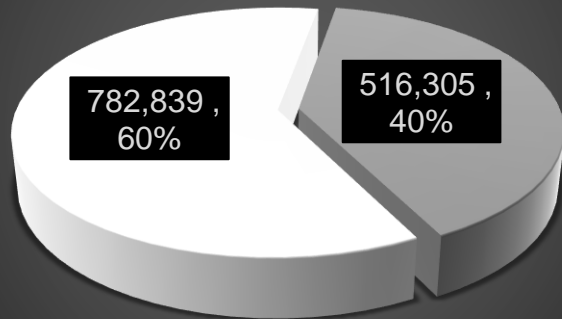
\$17.4 MILLION FISCAL 2014-2015



NCDOT Stream & Wetland ILF Inventory

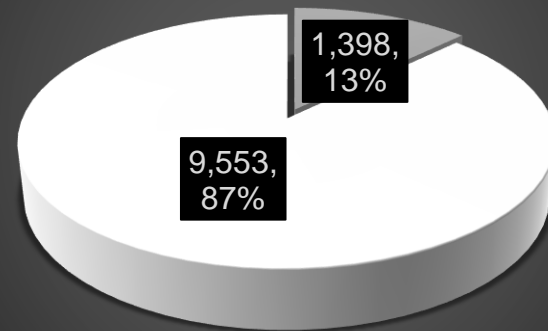
The NCDOT Stream and Wetland ILF Program's gross inventory* totaled 1,299,144 stream credits and 10,951 wetland credits. The vast majority of these credits are unassigned and available for future permit requirements as projected in the state's Transportation Improvement Program. Detailed information 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).

Stream Inventory fiscal 2014-15



■ Applied Credits (40%) ■ Unassigned Credits (60%)

Wetland Inventory fiscal 2014-15



■ Applied Credits (13%) ■ Unassigned Credits (87%)

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



Statewide Stream & Wetland ILF

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Statewide Stream & Wetland ILF Requirements

- ❖ In fiscal 2014-15, DMS received 67 customer payments into the Statewide Stream and Wetland Program, totaling \$4,426,450.50.
- ❖ These 67 customer payments represent 7,950 stream credits and 20.8 wetland credits.
- ❖ Appendix D-2 provides Statewide Stream and Wetland Program fiscal 2014-15 receipts and requirements.



Statewide Stream & Wetland ILF Fund Status

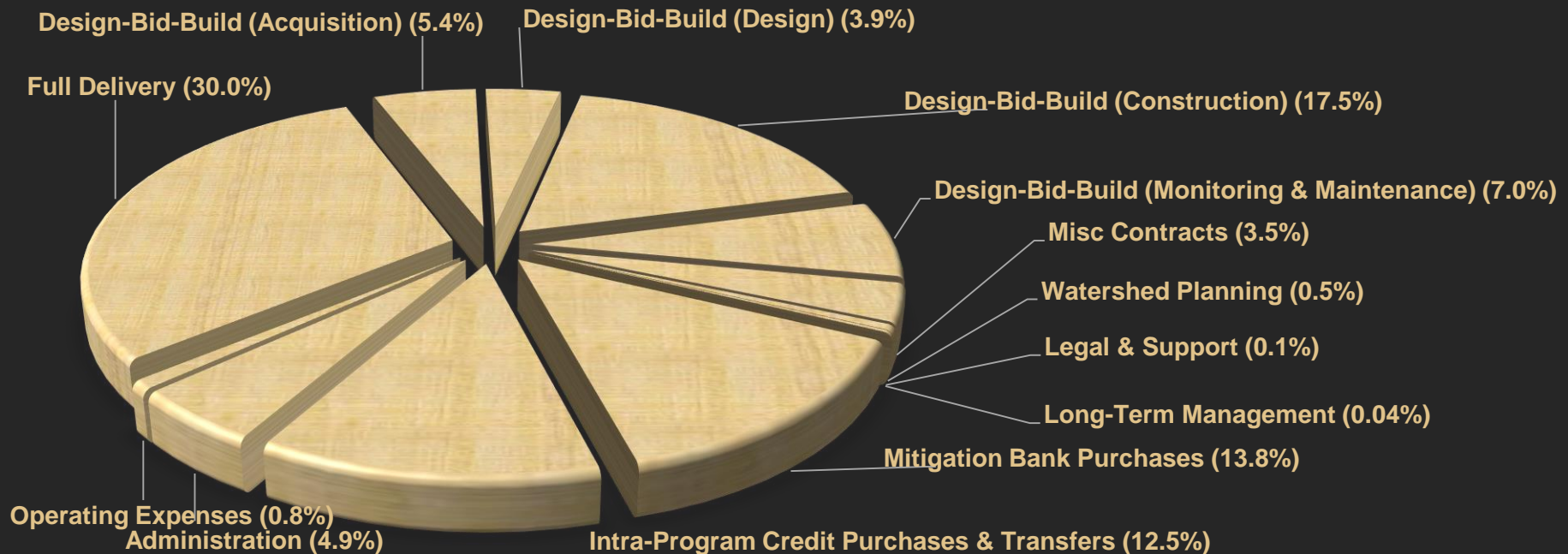
Beginning Cash Balance	\$9,902,811.35
Revenue	\$11,729,066.61
Expenditures	(\$8,400,595.19)
Ending Cash Balance	\$13,231,282.77
Cost to Complete Program Requirements	(\$33,518,177.17)
Net Accounts Receivable	\$13,259,734.24
Total Projected Cash Reserve	(\$7,027,160.16)
Net Asset Inventory Value	\$19,480,678.81
Grand Total Program	\$12,453,518.65



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.

\$8.4 MILLION TOTAL FISCAL 2014-2015



Statewide Stream & Wetland ILF Compliance

For fiscal 2014-15, the Statewide Stream and Wetland Program had satisfied 99.13 percent of all stream requirements and 97.79 percent of all wetland requirements. The Statewide Stream and Wetland Program also measures compliance by percentage of permits satisfied. DMS continues to implement projects to address all of its permit requirements. Regulatory Addendum IV provides a detailed compliance action strategy by Cataloging Unit.

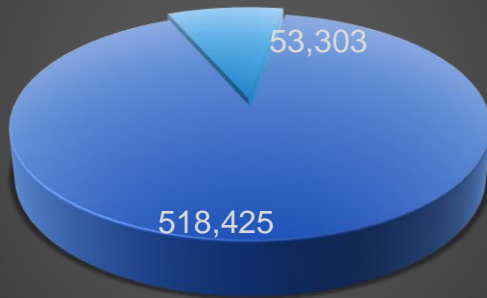
Statewide Program Type	Requirements Due (credits)	Requirements Met (credits)	Requirements Not Met (credits)	Compliance (credits)	Total Advanced Mitigation (unassigned)
Stream	547,914	543,163	4,751	99.13%	53,303
Wetlands	1,036	1,013	22.88	97.79%	185



Statewide Stream & Wetland ILF Program Inventory

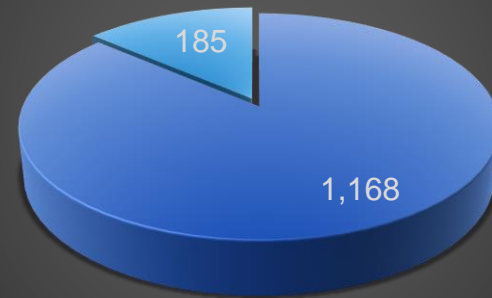
The Statewide Stream and Wetland Program's gross inventory totaled 571,728 stream credits and 1,353 wetland credits. Detailed information about the Statewide Stream and Wetland Program Gross and Net Inventories can be found in Appendices F-5 and F-6.

Stream Inventory fiscal 2014-15



■ Applied Credits (91%) ■ Unassigned Credits (9%)

Wetland Inventory fiscal 2014-15



■ Applied Credits (86%) ■ Unassigned Credits (14%)



Riparian Buffer Mitigation ILF

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Riparian Buffer Mitigation ILF Requirements

- ❖ In fiscal 2014-15, DMS received 24 customer payments into the Riparian Buffer Mitigation Program, totaling \$1,214,841.41.
- ❖ These 24 customer payments represent 1,145,788 square feet (26 acres) of buffer mitigation.
- ❖ Approximately 70% of the fiscal 2014-15 requirements came from NCDOT.
- ❖ Appendix D-3 provides Riparian Buffer Program fiscal 2014-15 receipts and requirements.



Riparian Buffer ILF Fund Status

Beginning Cash Balance	\$9,082,825.16
Revenue	\$1,443,835.04
Expenditures	(\$2,135,099.93)
Ending Cash Balance	\$8,391,560.27
Cost to Complete Program Requirements	(\$6,799,753.28)
Net Accounts Receivable	(\$2,032,994.00)
Total Projected Cash Reserve	(\$441,187.01)
Net Asset Inventory Value	\$665,519.07
Grand Total Program	\$224,332.06

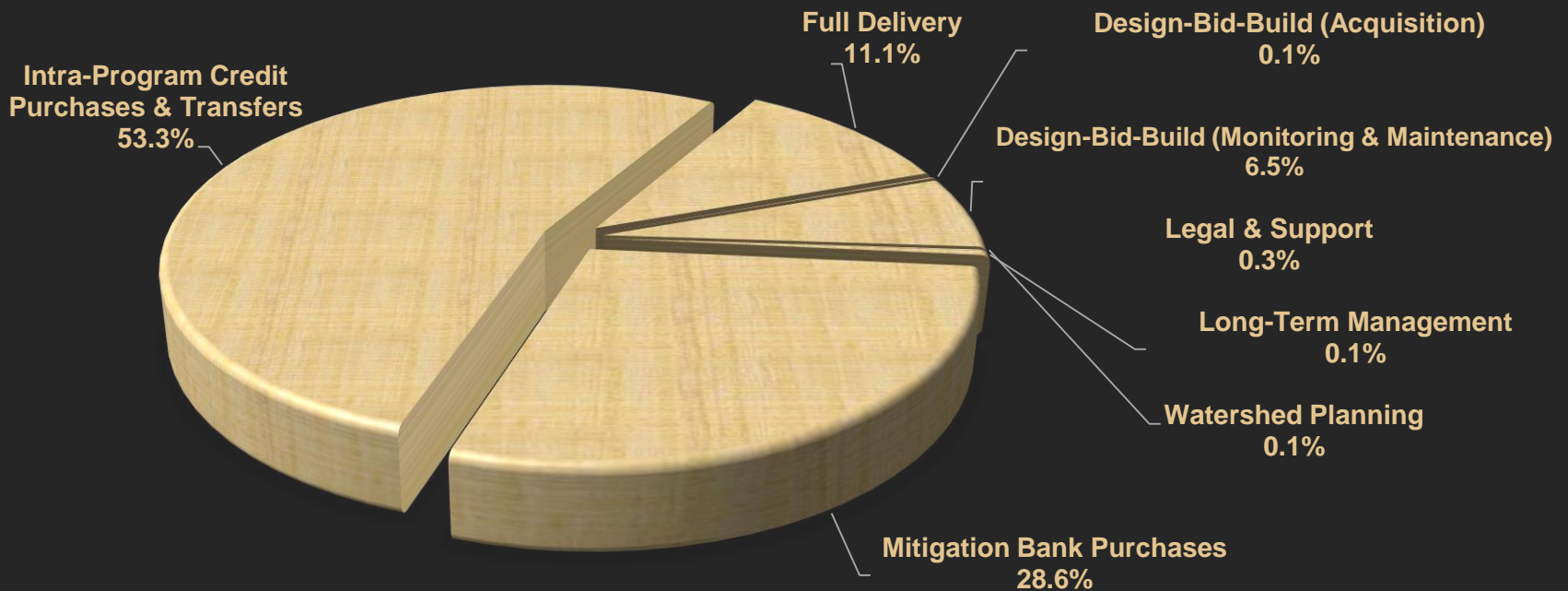
This table summarizes the finances of all five riparian buffer river basin funds.



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.

\$2.3 MILLION TOTAL FISCAL 2014-15



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	9,395,457	6,320,804	3,074,653	67.28%	281,762
Catawba	145,060	145,060	0	100.00%	72,740
Neuse	21,182,293	19,974,242	1,208,051	94.30%	0.03
Tar-Pamlico	2,668,616	2,072,944	595,672	77.68%	152,085
Yadkin	8,364	8,364	0	100.00%	14,211
Grand Total	33,399,791	28,521,415	4,878,376	85.39%	506,587



Nutrient Offset ILF

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INVENTORY



Nutrient Offset ILF Requirements

- ❖ In fiscal 2014-15, DMS received 48 customer payments into the Nutrient Offset Program, totaling \$1,895,432.41.
- ❖ These 48 customer payments represent reductions of 17,664 pounds of nitrogen and 107 pounds of phosphorus.
- ❖ 90% of the fiscal 2014-15 payments came from private developers for schools, recreational, medical, and other commercial and residential projects.
- ❖ Appendix D-4 provides Nutrient Offset Program fiscal 2014-15 receipts and requirements.



Nutrient Offset ILF Fund Status

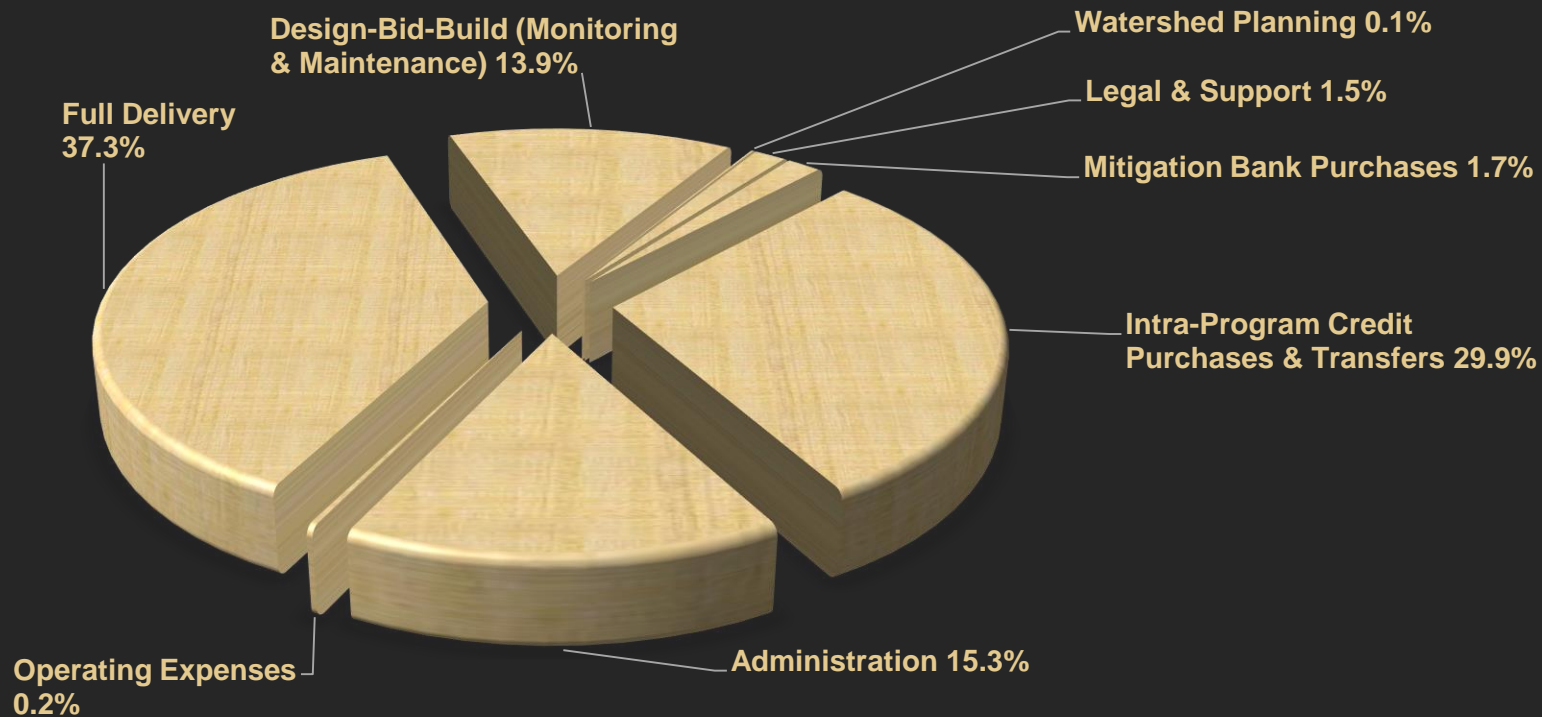
Beginning Cash Balance	\$3,970,391.96
Revenue	\$1,926,466.19
Expenditures	(\$308,214.58)
Ending Cash Balance	\$5,588,643.57
Cost to Complete Program Requirements	(\$4,300,000.00)
Net Accounts Receivable	\$0.00
Total Projected Cash Reserve	\$1,288,643.57
Net Asset Inventory Value	\$5,225,710.95
Grand Total Program	\$6,514,354.52



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.

\$0.46 MILLION TOTAL FISCAL 2013-14



Nutrient Offset ILF Compliance and Inventory

DMS accepts payments for nitrogen reduction in the Neuse basin and nitrogen and phosphorus 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	14,818	14,818	0	100.00%	568
Falls Phosphorus	413	413	0	100.00%	574
Jordan Nitrogen	13,835	13,835	0	100.00%	6,798
Jordan Phosphorus	12.23	12.23	0	100.00%	291
Neuse Nitrogen	1,352,384	1,352,384	0	100.00%	111,575
Tar Pamlico Nitrogen	99,736	99,736	0	100.00%	81,329
Tar Pamlico Phosphorus	6,224	6,224	0	100.00%	5,502
Grand Total	1,487,423	1,487,423	0	100.00%	206,637



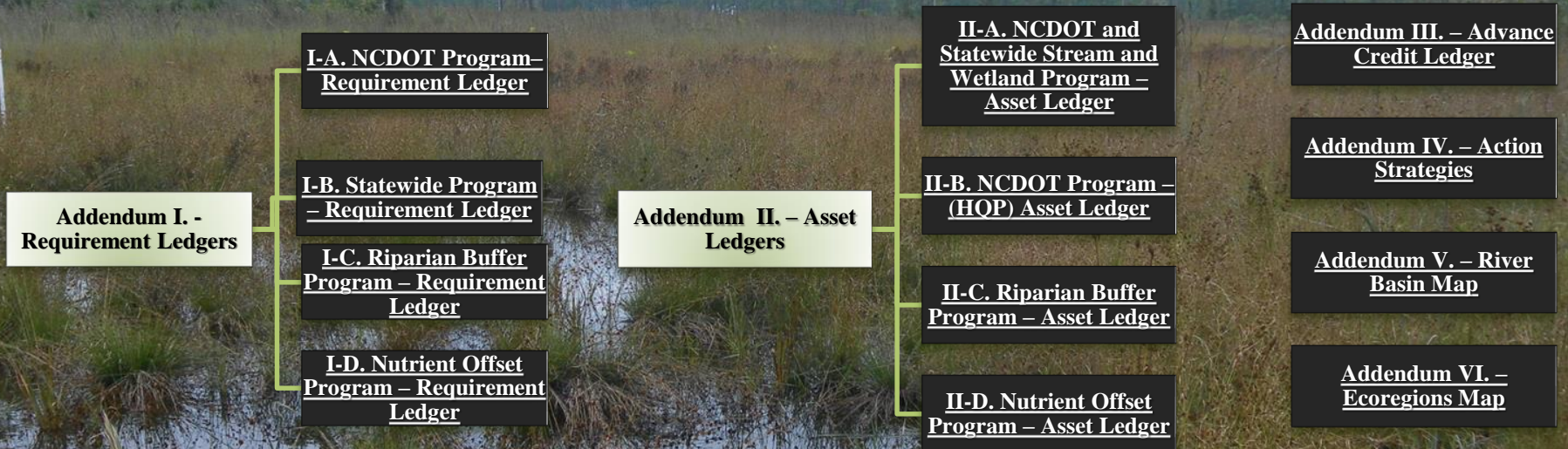
Appendices

Appendix A - Property	A-1. Closed Fiscal Year	Appendix F - Inventory	F-1. NCDOT Gross Assets (no HQP)
Appendix B - Mitigation Bank Costs	A-2. Cumulative Properties		F-2. NCDOT Net Assets (no HQP)
	A-3. Non-HQP Site List		F-3. NCDOT Gross Assets (HQP)
Appendix C - Advance Credits	A-4. HQP Site List		F-4. NCDOT Net Assets (HQP)
	A-5. Riparian Buffer ILF Projects		F-5. Statewide Gross Assets
Appendix D - FY Requirements	A-6. Nutrient Offset ILF Projects		F-6. Statewide Net Assets
	C. Advance Credit Summary		F-7. Riparian Buffer Gross Assets
Appendix E - Expenditures	D-1. NCDOT FY Requirements		F-8. Riparian Buffer Net Assets
	D-2. Statewide FY Requirements		F-9. Nutrient Offset Program Gross Assets
	D-3. Riparian Buffer FY Requirements		F-10. Nutrient Offset Program Net Assets
	D-4. Nutrient Offset Requirements		
		Regulatory Addendum	



click on each to download, or here for [Full Appendices](#)

Regulatory Addendum



click on each to download, or here for [Full Addendum](#)