Division of Mitigation Services 2015-16 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) 2015-16, the NC Division of Mitigation Services (DMS):

- Helped North Carolina Department of Transportation (NCDOT) obtain permits for 82 transportation projects by providing 55,014 stream mitigation credits and 31.27 wetland mitigation credits.

- Assisted customers with 131 development projects in the Statewide Stream and Wetland, Riparian Buffer, and Nutrient Offset In-Lieu Fee (ILF) Programs by providing:
    - 23,186 stream credits,
    - 76.6 wetland credits,
    - 8.56 acres of buffer mitigation,
    - 10,220 pounds of nitrogen reduction, and
    - 963 pounds of phosphorus reduction.

- Received 94% of its nutrient payments from private developers for schools, recreational, medical, and other commercial and residential projects.

Program-Wide

The FY 2015-16 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 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 2015-16, the State Property Office closed 31 conservation easement transactions totaling 233.7 acres associated with DMS' projects.
- All properties that closed during FY 2015-16 are shown in Appendix A-1.
- A full inventory of all properties acquired to date is presented in Appendix A-2.
- More than 76,800 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	$297 (Standard); $391 (High)
Riparian Wetland	$15,000 to $98,500	$40,297 (Standard); $71,273 (High)
Non-Riparian Wetland	$28,000 to $62,458	$26,445 (Standard); $51,422 (High)
Coastal Marsh Wetland	N/A*	$175,323
Riparian Buffer	$0.80 to $1.43	$1.11
Nutrient Offset Nitrogen	$12.68 to $137.80**	$8.60 to $125.22**
Nutrient Offset Phosphorus	$155.01 to $287.91**	$167.14 to $382.41**

*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 submitted prices for Mitigation Bank Credits from its request for Bids in the last fiscal year.

MITIGATION TYPE	RANGE OF BANK PRICES PER CREDIT
Stream Mitigation Units	$270 to $400
Riparian Wetland Mitigation Units	$37,000 to $72,000
Non-Riparian Wetland Mitigation Units	$19,850 to $52,000
Coastal Marsh Mitigation Units	None Submitted
Riparian Buffer Mitigation Units	$0.90 to $1.55
Nitrogen Offset Credits	$16.00 to $135.00
Phosphorus Offset Credits	$168.50 to $750.00

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.

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 the Department of Environmental Quality (DEQ). 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 7/1/2015 through 6/30/2016					
Streams (Linear Feet)	Q1	Q2	Q3	Q4	YTD
Lost from permitting	18,391.9	13,690.61	21,188.00	40,782.06	94,052.57
Gained from permitting (mitigation)	11,622.0	3,731.00	8,317.00	19,964.00	43,634.00
Wetlands (Acres)	Q1	Q2	Q3	Q4	YTD
Lost from permitting	14.30	16.94	36.35	17.55	85.14
Gained from permitting (mitigation)	2.86	8.79	23.14	7.47	42.26
Riparian Buffers (Acres)	Q1	Q2	Q3	Q4	YTD
Lost from permitting	12.94	12.07	20.83	12.39	58.23
Gained from permitting (mitigation)	3.27	2.13	4.63	3.29	13.32

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

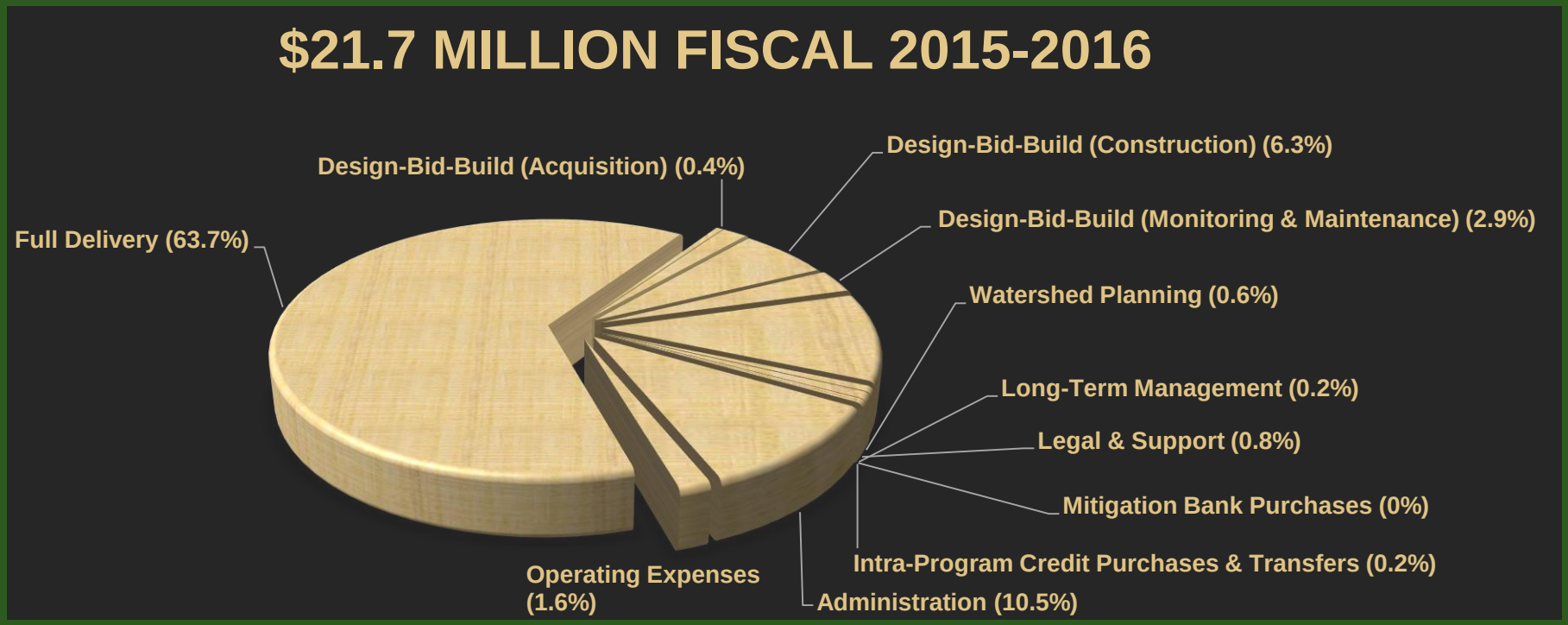
- The goal of this program is to produce mitigation credits to offset anticipated impacts from the implementation of the NCDOT seven-year Transportation Improvement Program (TIP). Anticipated impacts are provided to DMS by the Natural Environment Unit at NCDOT.
- In fiscal 2015-16 DMS accepted mitigation for 82 NCDOT transportation projects requiring stream and/or wetland mitigation.
- For these NCDOT projects, DMS is providing for 55,014 stream mitigation credits and 31.27 wetland mitigation credits.
- Appendix D-1 provides NCDOT Stream and Wetland Program permitted requirements for fiscal 2015-16.

NCDOT Stream & Wetland ILF Fund Status

Beginning Cash Balance	$8,107,137.05
Revenue	$24,005,750.98
Expenditures	($21,706,424.55)
Ending Cash Balance	$10,406,463.48
Cost to Complete Program Requirements	($61,374,514.44)
Projected Encumbrance Adjustment	($8,093,889.56)
Net Accounts Receivable	$59,061,940.52
Total Projected Cash Reserve	$0.00

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.



NCDOT Stream & Wetland ILF Compliance

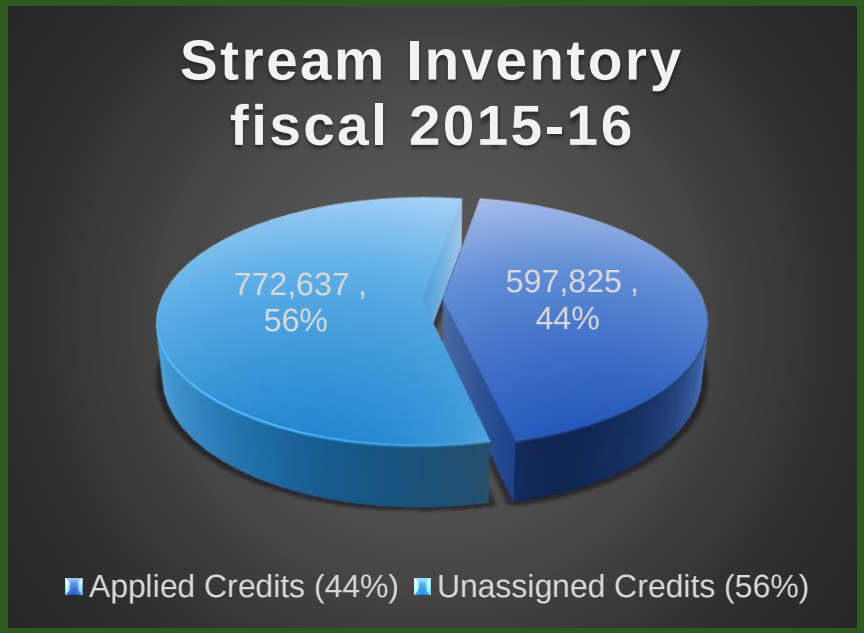
The NCDOT Stream and Wetland Program is a national leader in producing compensatory mitigation in advance of unavoidable environmental impacts. Since 2003, the agreements between NCDOT, NCDEQ, and the U.S. Army Corps of Engineers have allowed NCDOT to move forward with more than $15 billion in road development projects without delays associated with compensatory mitigation. Regulatory Addendum IV provides a detailed compliance action strategy by Cataloging Unit.

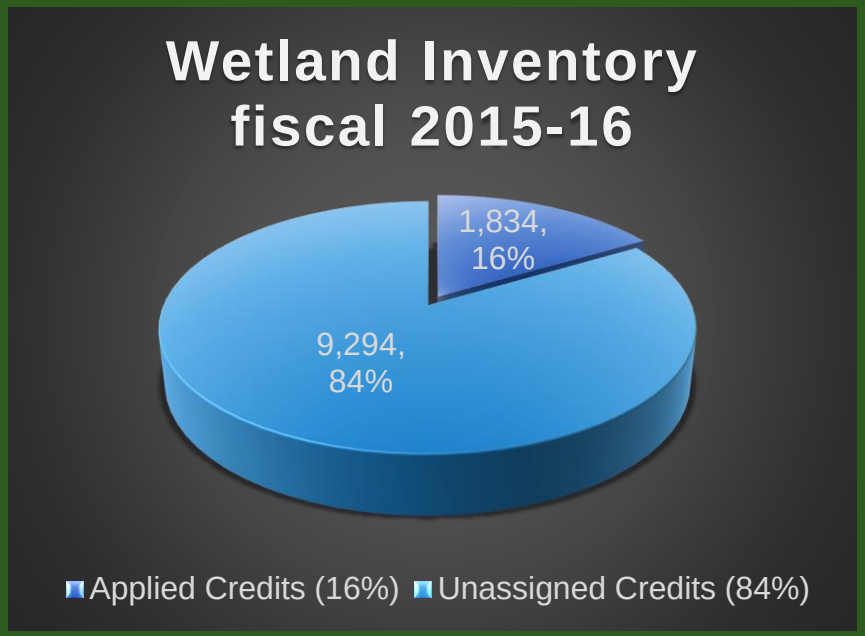
DOT Program Type	Requirements Due (credits)	Requirements Met (credits)	Requirements Not Met (credits)	Compliance (credits)	Total Advanced Mitigation * (unassigned)
Stream	636,894	634,605	2,289	99.64%	772,637
Wetlands	1,359.23	1,356.08	3.15	99.77%	9,294.42

**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 1,370,462 stream credits and 11,129 wetland credits. The vast majority 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

Statewide Stream & Wetland ILF

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Statewide Stream & Wetland ILF Requirements

- In fiscal 2015-16, DMS received 81 customer payments into the Statewide Stream and Wetland Program, totaling $13,464,713.25.
- These 81 customer payments represent 23,186 stream credits and 76.6 wetland credits.
- Appendix D-2 provides Statewide Stream and Wetland Program fiscal 2015-16 receipts and requirements.

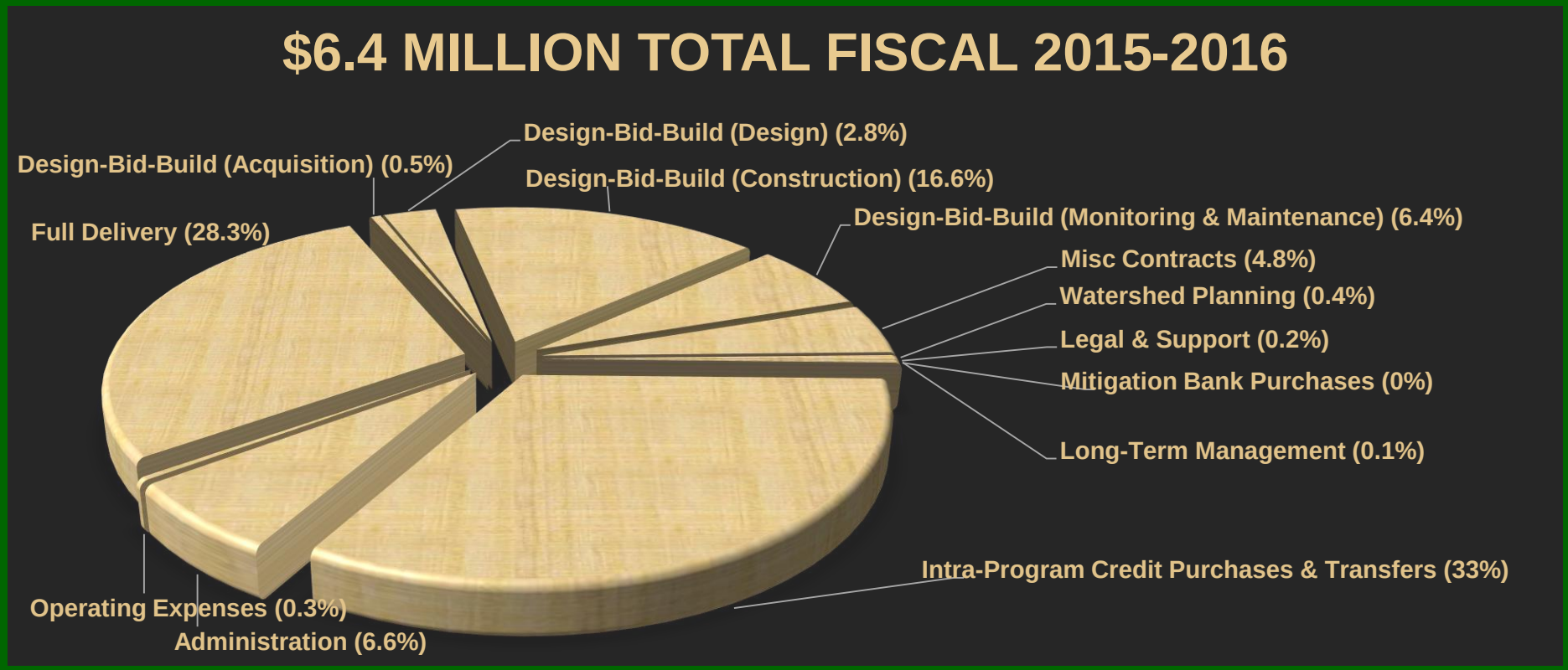
Statewide Stream & Wetland ILF Fund Status

Beginning Cash Balance	$13,231,282.77
Revenue	$19,726,920.87
Expenditures	($6,438,098.66)
Ending Cash Balance	$26,520,104.98
Cost to Complete Program Requirements	($32,962,281.18)
Projected Encumbrance Adjustment	($5,326,618.57)
Net Accounts Receivable	$7,013,532.63
Total Projected Cash Reserve	($4,755,262.14)

Net Asset Inventory Value	$32,230,029.55
Grand Total Program	$27,474,767.41

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.



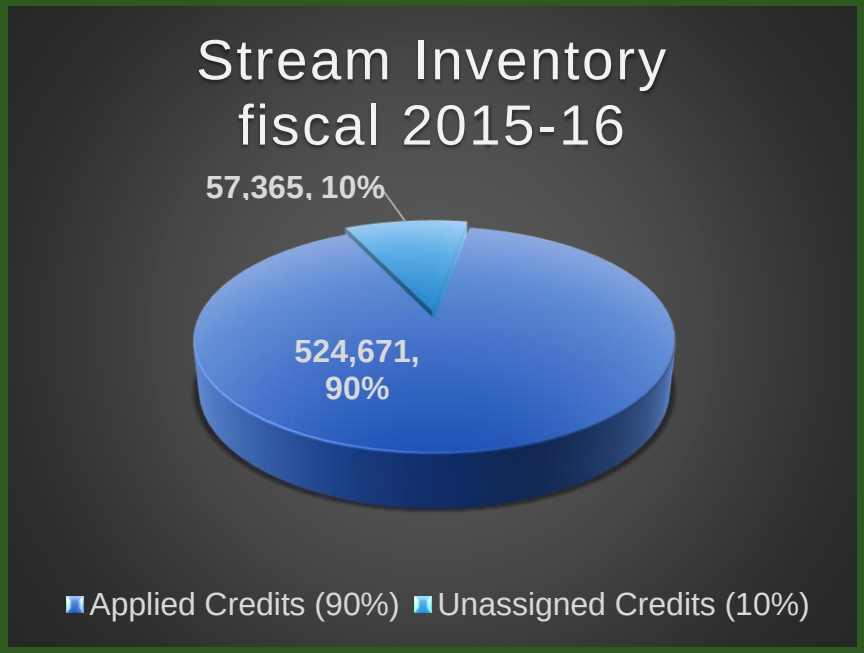
Statewide Stream & Wetland ILF Compliance

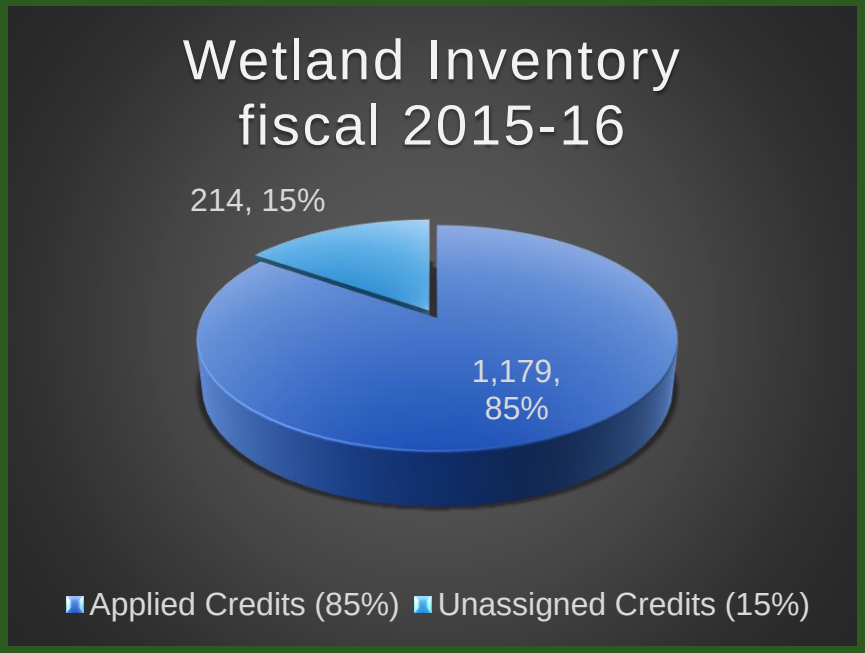
For fiscal 2015-16, the Statewide Stream and Wetland Program had satisfied 99.20 percent of all stream requirements and 97.61 percent of all wetland requirements. The Statewide Stream and Wetland Program also measures compliance by percentage of permits satisfied. DMS continues to implement projects 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	555,865	551,445	4,419	99.20%	57,365
Wetlands	1,042	1,017	24.89	97.61%	213.74

Statewide Stream & Wetland ILF Program Inventory

The Statewide Stream and Wetland Program's gross inventory totaled 582,036 stream credits and 1,393 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.





Riparian Buffer Mitigation ILF

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Riparian Buffer Mitigation ILF Requirements

- In fiscal 2015-16, DMS received 16 customer payments into the Riparian Buffer Mitigation Program, totaling $410,175.83.
- These 16 customer payments represent 372,757 square feet (8.56 acres) of buffer mitigation.
- Approximately 5.49% of the fiscal 2015-16 requirements came from NCDOT.
- Appendix D-3 provides Riparian Buffer Program fiscal 2015-16 receipts and requirements.

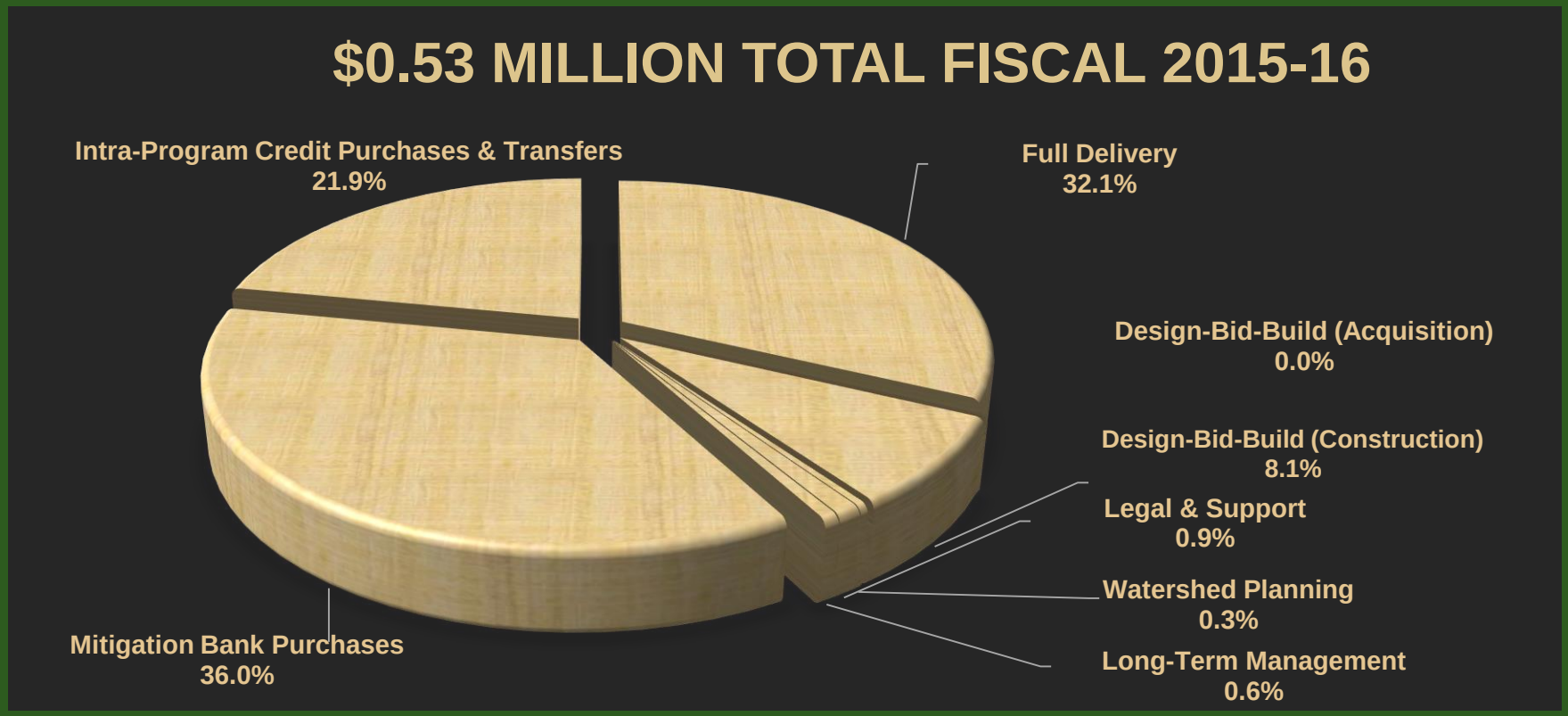
Riparian Buffer ILF Fund Status

Beginning Cash Balance	$8,391,560.27
Revenue	$1,384,602.49
Expenditures	($526,001.78)
Ending Cash Balance	$9,250,160.98
Cost to Complete Program Requirements	($10,181,576.69)
Projected Encumbrance Adjustment	$3,648,018.58
Net Accounts Receivable	$309,924.23
Total Projected Cash Reserve	$3,026,527.11
Net Asset Inventory Value	$1,559,590.86
Grand Total Program	$4,586,117.97

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	9,778,108	6,518,958	3,259,150	66.67%	0.20
Catawba	145,060	145,060	0	100.00%	72,740
Neuse	21,972,656	21,517,069	455,587	97.93%	1,033,715
Tar-Pamlico	2,668,181	2,436,086	232,095	91.30%	152,085
Yadkin	22,575	22,575	0	100.00%	0
Grand Total	34,586,580	30,639,748	3,946,832	88.59%	1,258,540

Nutrient Offset ILF

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Nutrient Offset ILF Requirements

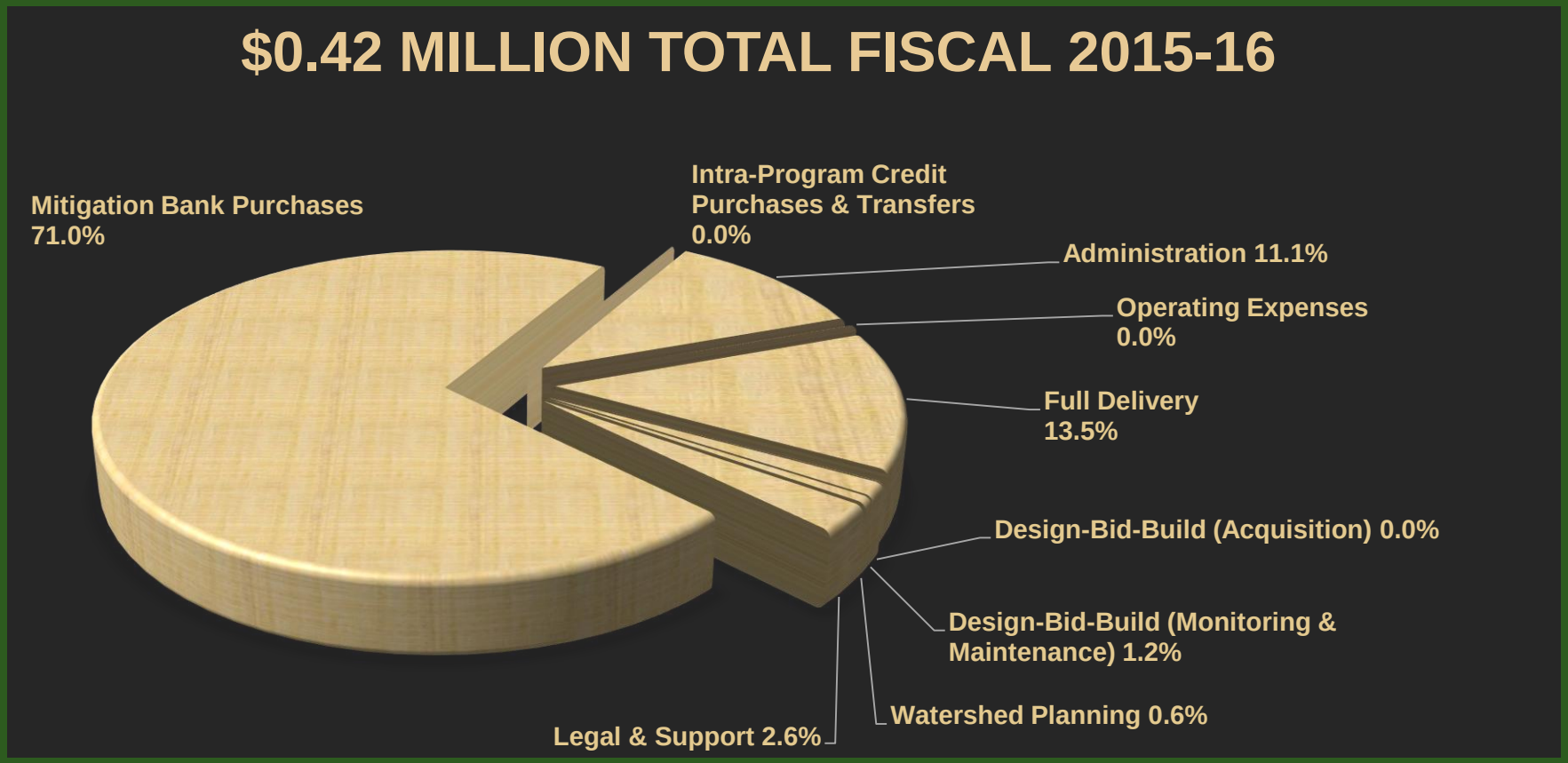
- In fiscal 2015-16, DMS received 34 customer payments into the Nutrient Offset Program, totaling $1,353,961.75.
- These 34 customer payments represent reductions of 10,220.25 pounds of nitrogen and 962.66 pounds of phosphorus.
- 94% of the fiscal 2015-16 payments came from private developers for schools, recreational, medical, and other commercial and residential projects.
- Appendix D-4 provides Nutrient Offset Program fiscal 2015-16 receipts and requirements.

Nutrient Offset ILF Fund Status

Beginning Cash Balance	$5,588,643.57
Revenue	$1,039,383.36
Expenditures	($422,817.60)
Ending Cash Balance	$6,205,209.33
Cost to Complete Program Requirements	($5,845,933.27)
Projected Encumbrance Adjustment	$3,104,705.73
Net Accounts Receivable	($4,688.20)
Total Projected Cash Reserve	$3,459,293.59
Net Asset Inventory Value	$4,359,068.48
Grand Total Program	$7,818,362.07

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 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	25,322	20,445	4,877	80.74%	0
Jordan Phosphorus	12.23	12.23	0	100.00%	289
Neuse Nitrogen	1,355,556	1,355,556	0	100.00%	112,133
Tar Pamlico Nitrogen	100,164	100,164	0	100.00%	80,901
Tar Pamlico Phosphorus	6,331	6,331	0	100.00%	5,395
Grand Total	**1,502,617**	**1,497,740**	**4,877**	**99.68%**	**199,861**

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-A. NCDOT and 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