

Division of Mitigation Services

2017-18 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) 2017-18, the NC Division of Mitigation Services (DMS):

- Assisted the North Carolina Department of Transportation (NCDOT) obtain permits for 99 transportation projects by providing 66,182 stream mitigation credits and 76.492 wetland mitigation credits.
- Assisted customers with 190 development projects in the Statewide Stream and Wetland, Riparian Buffer, and Nutrient Offset In-Lieu Fee (ILF) Programs by providing:
 - 16,331 stream credits,
 - 179.915 wetland credits,
 - 85.9 acres of buffer mitigation,
 - 4,105.02 pounds of nitrogen reduction, and
 - 413.34 pounds of phosphorus reduction.
 - Received 82.1% of the stream, wetland, buffer and nutrient payments from private developers for schools, churches, and commercial and residential projects.



Program-Wide

The FY 2017-18 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 2017-18, 43 conservation easements associated with DMS' projects were acquired totaling 348 acres.
- Acquisitions during FY 2017-18 are shown in [Appendix A-1](#).
- A full inventory of all properties acquired to date is presented in [Appendix A-2](#).
- A full list of DMS projects is in Appendices [A-3](#), [A-4](#), [A-5](#), and [A-6](#).



Program Costs

Mitigation credit costs for the last fiscal year have been determined by analyzing Full Delivery contracts and Mitigation Bank purchases awarded over the last 3 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	\$279 to \$529	\$507
Freshwater Wetland	\$5,400 to \$76,897	\$60,187.45 to \$106,598.74
Coastal Marsh Wetland	N/A*	\$560,000
Riparian Buffer	\$0.23 to \$1.53	\$0.97 to \$3.91
Nutrient Offset Nitrogen	\$78.80 to \$121.54	\$8.28 to \$132
Nutrient Offset Phosphorus	N/A*	\$117.96 to \$343.93

*DMS did not implement any Coastal Marsh wetland or Phosphorus nutrient offset projects in the last three fiscal years.

**Mitigation fees are set using the Actual Cost Method and may result in premium costs by region.



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 2017-2018 are listed in [Appendix B](#).

MITIGATION TYPE	RANGE OF BANK PRICES PER CREDIT
Stream Mitigation Units	\$294 to \$680
Riparian Wetland Mitigation Units	\$39,769 to \$76,000
Non-Riparian Wetland Mitigation Units	\$18,500 to \$50,000
Coastal Marsh Mitigation Units	None Submitted
Riparian Buffer Mitigation Units	\$0.88 to \$2.75
Nitrogen Offset Credits	\$11.00 to \$125.00
Phosphorus Offset Credits	\$200.00 to \$385.00



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 7/1/2017 through 6/30/2018					
Streams (Linear Feet)	Q1	Q2	Q3	Q4	YTD
Lost from permitting	26,180.45	27,538.40	16,670.51	17,101.00	87,490.36
Gained from permitting (mitigation)	15,356.00	8,366.30	4,744.00	2,090.00	30,556.30
Wetlands (Acres)	Q1	Q2	Q3	Q4	YTD
Lost from permitting	12.89	45.73	15.89	15.29	89.80
Gained from permitting (mitigation)	5.04	41.53	2.76	4.11	53.44
Riparian Buffers (Acres)	Q1	Q2	Q3	Q4	YTD
Lost from permitting	18.63	30.75	35.94	17.38	106.70
Gained from permitting (mitigation)	6.84	47.35	24.14	6.19	84.52

*Due to permit versions and revisions, "issued dates" for mitigation and impacts may not occur in the same quarter. Buffer impacts may also include impacts from non-buffer basins if applicants included that value in their Pre-Construction Notification. Areas of impact may include stream stabilization, ephemeral or intermittent channels, impacts to multiple small channels, isolated wetlands, etc. that do not require mitigation. Due to versions and revisions, different versions of the same project may occur in the same quarter causing a double calculation of impacts. As of May 4, 2017 the stream mitigation threshold requirements changed so that only impacts 300 lf or greater of perennial stream require mitigation.



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
Projected Encumbrance Adjustment	Estimate of end of year adjustments to Cost to Complete Estimate to account for recent changes in project assets, requirements, and future expected contracts.
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 2017-18 DMS provided mitigation for 99 NCDOT transportation permitted projects requiring stream and/or wetland mitigation.
- ❖ For these NCDOT projects, DMS is providing 66,182 stream mitigation credits and 76.492 wetland mitigation credits.
- ❖ Appendix D-1 provides NCDOT Stream and Wetland Program permitted requirements for fiscal 2017-18.



NCDOT Stream & Wetland ILF Fund Status

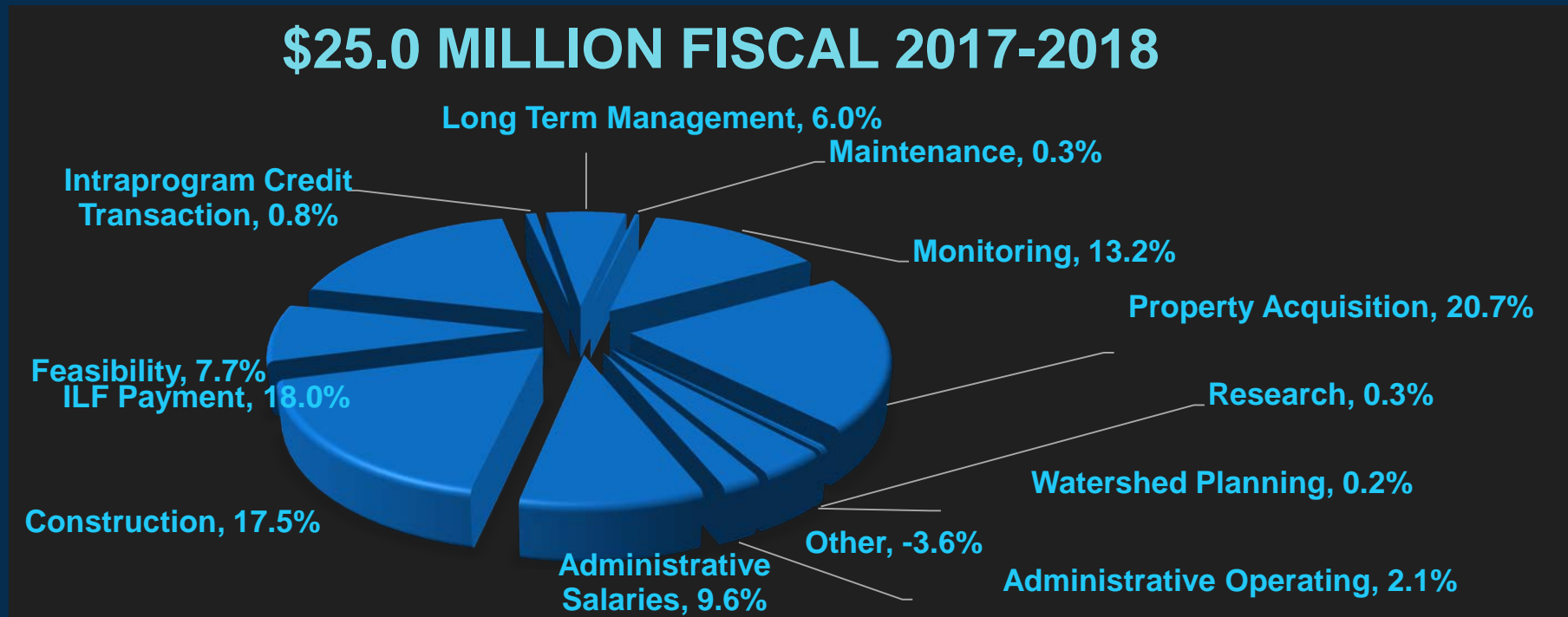
(2984)

Beginning Cash Balance		\$7,738,499.56
	Revenue	22,157,960.51
	Expenditures	(\$ 25,008,243.22)
Ending Cash Balance		\$4,888,216.85
	Cost to Complete Program Requirements	(\$151,234,476.35)
	Net Accounts Receivable	\$146,346,259.50
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 \$18 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	828,648.70	828,648.70	0	100%	764,200.47
Wetlands	1,482.65	1,481.89	0.77	99.95%	9,114.32

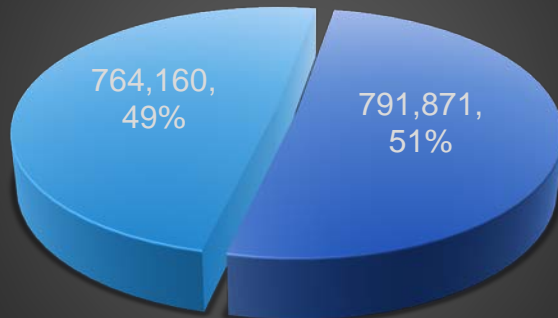
**Includes surplus credits developed by NCDOT and managed by DMS*



NCDOT Stream & Wetland ILF Inventory

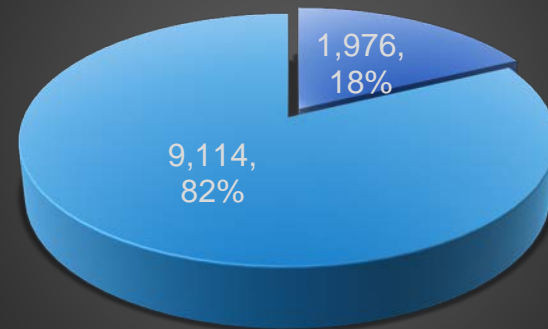
The NCDOT Stream and Wetland ILF Program's gross inventory* totaled 1,556,031.66 stream credits and 11,090.09 wetland credits. The vast majority of these credits are unassigned and available for future permit requirements as projected in the state's Transportation Improvement Program. Detailed information 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 2017-18



■ Applied Credits (51%) ■ Unassigned Credits (49%)

Wetland Inventory fiscal 2017-18



■ Applied Credits (18%) ■ Unassigned Credits (82%)

**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 2017-18, DMS received 119 customer payments into the Statewide Stream and Wetland Program, totaling \$14,643,993.63.
- ❖ These 119 customer payments represent 16,331 stream credits and 179.915 wetland credits.
- ❖ Appendix D-2 provides Statewide Stream and Wetland Program fiscal 2017-18 receipts and requirements.



Statewide Stream & Wetland ILF Fund Status

(2981, 2937)

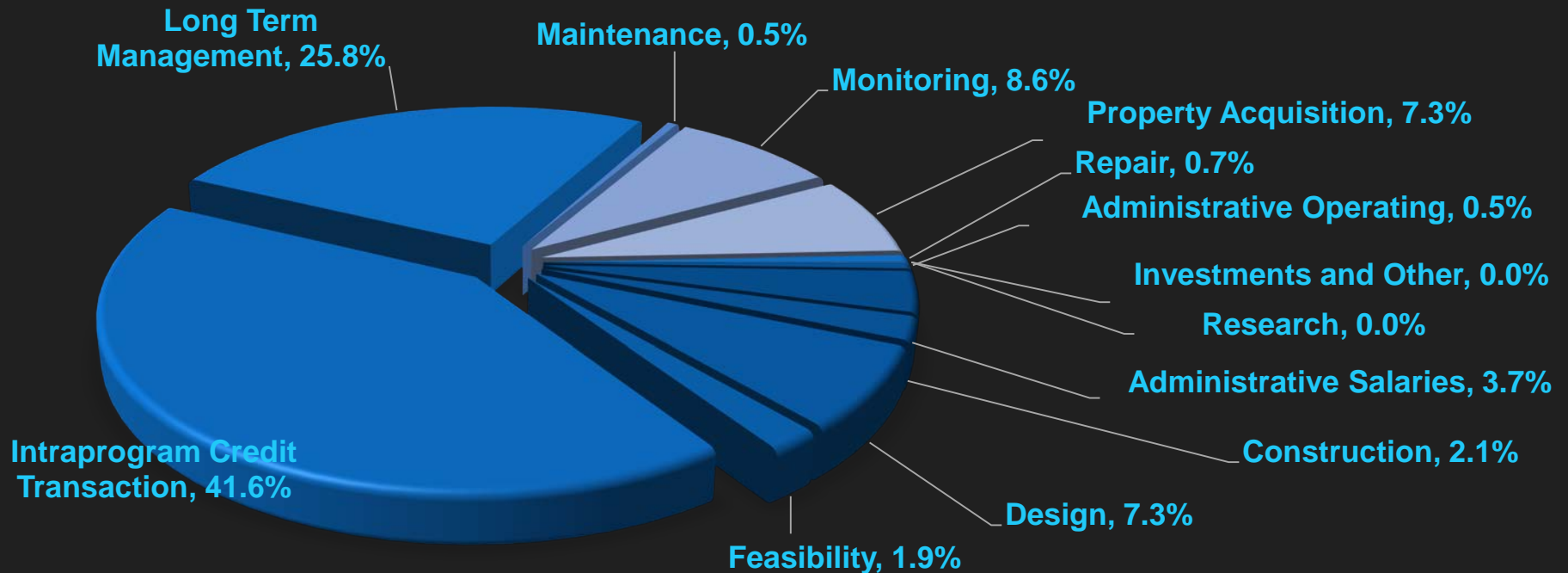
Total Cash and Investments	\$ 34,891,424.99
Revenue	\$ 15,257,719.24
Expenditures	(\$14,967,137.70)
FV Bond Index Fund	(\$ 739,296.22)
Other	\$274,728.45
Total Cash and Investments	\$ 34,717,438.76
Cost to Complete Program Requirements	(\$59,492,134.10)
Total Projected Cash Reserve	(\$24,774,695.34)
Net Asset Inventory Value	\$65,850,600.94
Grand Total Program	\$41,075,905.60



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.

\$14.97 MILLION TOTAL FISCAL 2017-2018



Statewide Stream & Wetland ILF Compliance

For fiscal 2016-17, the Statewide Stream and Wetland Program had satisfied 99.71 percent of all stream requirements and 98.36 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.

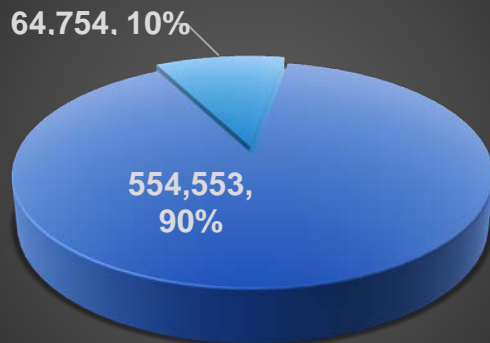
Statewide Program Type	Requirements Due (credits)	Requirements Met (credits)	Requirements Not Met (credits)	Compliance (credits)	Total Advanced Mitigation (unassigned)
Stream	588,110.70	586,432.10	1,678.60	99.71%	78,493.60
Wetlands	1,152.35	1,133.45	18.90	98.36%	398.58



Statewide Stream & Wetland ILF Program Inventory

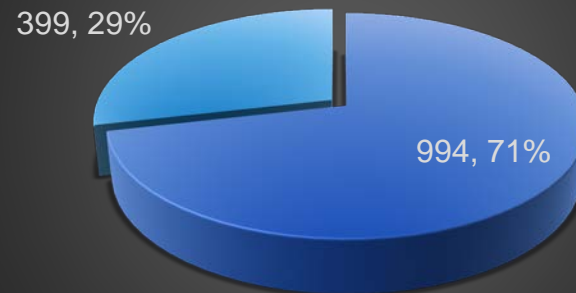
The Statewide Stream and Wetland Program's gross inventory totaled 619,307.08 stream credits and 1,392.76 wetland credits. Detailed information about the Statewide Stream and Wetland Program Gross and Net Inventories can be found in Appendices [F-5](#) and [F-6](#).

Stream Inventory fiscal 2017-18



■ Applied Credits (90%) ■ Unassigned Credits (10%)

Wetland Inventory fiscal 2017-18



■ Applied Credits (71%) ■ Unassigned Credits (29%)



Riparian Buffer Mitigation ILF

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Riparian Buffer Mitigation ILF Requirements

- ❖ In fiscal 2017-18, DMS received 36 customer payments into the Riparian Buffer Mitigation Program, totaling \$6,502,311.32.
- ❖ These 36 customer payments represent 3,742,170 square feet (85.9 acres) of buffer mitigation.
- ❖ Approximately 46% of the fiscal 2017-18 requirements came from ten NCDOT projects.
- ❖ Appendix D-3 provides Riparian Buffer Program fiscal 2017-18 receipts and requirements.



Riparian Buffer ILF Fund Status

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

Beginning Cash Balance	\$ 11,232,628.97
Revenue	\$ 7,078,426.43
Expenditures	(\$ 2,122,244.22)
Ending Cash Balance	\$ 16,188,811.18
Cost to Complete Program Requirements	(\$18,009,599.93)
Net Accounts Receivable	(\$1,250.46)
Total Projected Cash Reserve	(\$1,822,039.21)
Net Asset Inventory Value	\$671,504.12
Grand Total Program	(\$1,150,535.09)

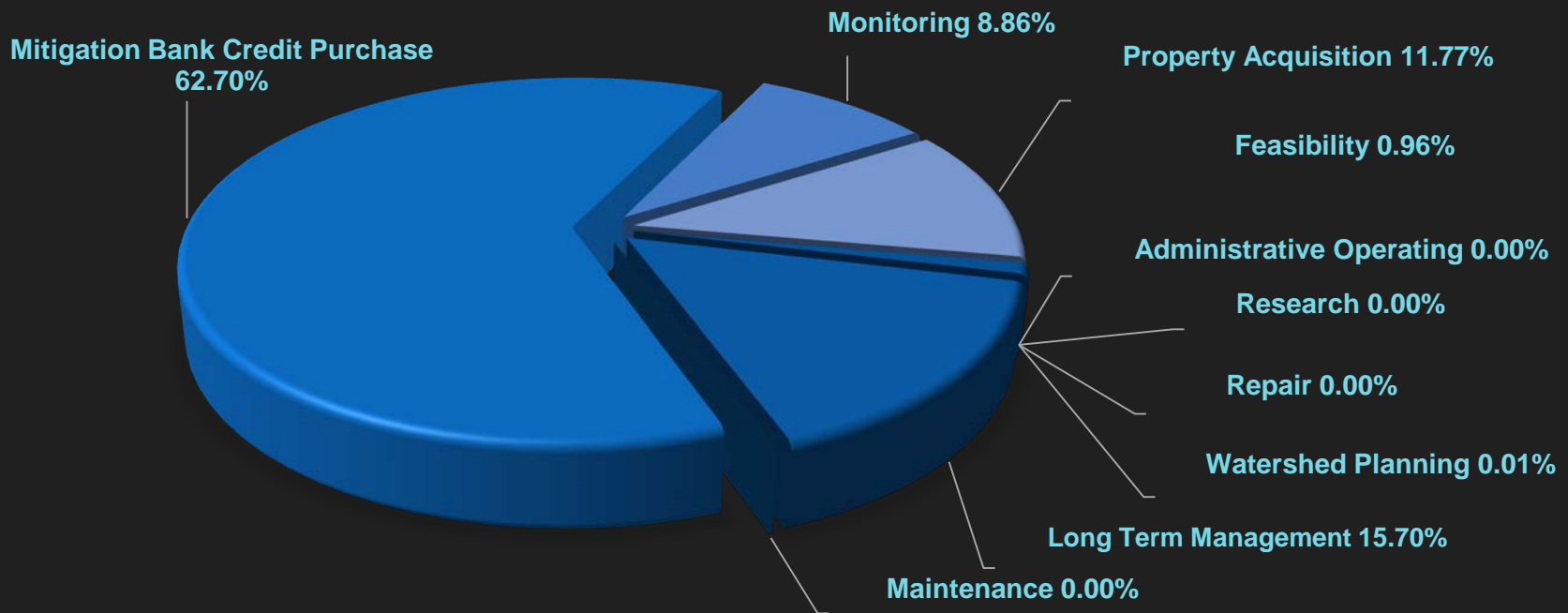
This table summarizes the finances of all five riparian buffer river basin funds.



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.

\$2.1 MILLION TOTAL FISCAL 2017-18



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	10,307,362.60	8,307,295.63	2,000,066.97	80.60%	29,434.30
Catawba	155,957.00	155,957.00	0	100.00%	0.00
Neuse	23,982,779.83	23,953,452.33	29,327.50	99.88%	662,823.24
Tar-Pamlico	3,031,282.58	2,581,541.55	449,741.03	85.16%	12.65
Yadkin	22,575	22,575	0	100.00%	0
Grand Total	37,499,957.01	35,020,821.51	2,479,135.50	93.39%	692,270.18



Nutrient Offset ILF

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Nutrient Offset ILF Requirements

- ❖ In fiscal 2017-18, DMS received 35 customer payments into the Nutrient Offset Program, totaling \$424,202.12
- ❖ These 35 customer payments represent reductions of 4,105.02 pounds of nitrogen and 413.34 pounds of phosphorus.
- ❖ 80% of the fiscal 2017-18 payments came from private developers for schools, recreational, medical, and other commercial and residential projects.
- ❖ Appendix D-4 provides Nutrient Offset Program fiscal 2017-18 receipts and requirements.



Nutrient Offset ILF

Fund Status

(2982-9829)

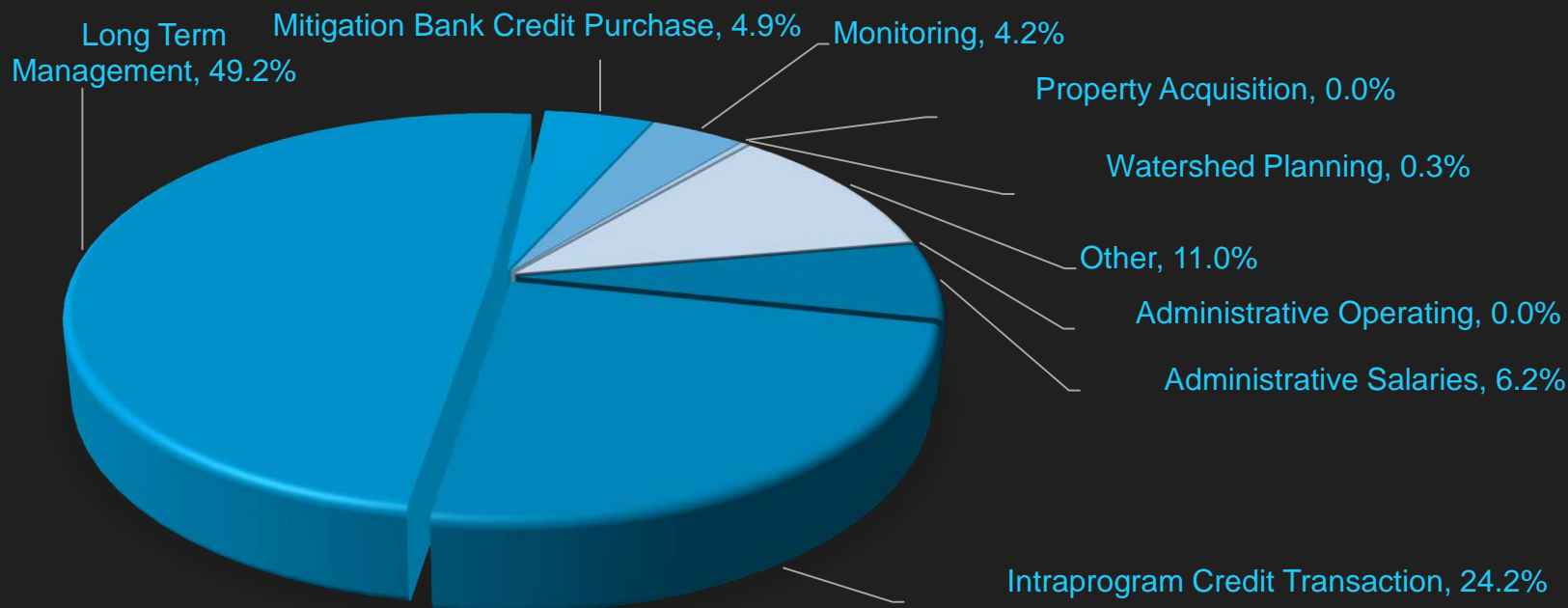
Beginning Cash Balance	\$6,778,702.59
Revenue	\$ 520,742.92
Expenditures	(\$ 845,153.12)
FV Bond Index Fund	(\$ 90,558.55)
Ending Cash and Liquid Assets	\$ 6,363,733.84
Cost to Complete Program Requirements	(\$3,473,150.20)
Net Accounts Receivable	\$0
Total Projected Cash Reserve	\$2,890,583.64
Net Asset Inventory Value	\$3,005,635.81
Grand Total Program	\$5,896,219.45



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.

\$0.85 MILLION TOTAL FISCAL 2017-18



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	15,138.24	15,138.24	0	100.00%	11,569.76
Falls Phosphorus	1,674.15	1,674.15	0	100.00%	45.99
Jordan Nitrogen	38,667.21	22,142.10	16,525.11	57.26%	0
Jordan Phosphorus	12.23	0	12.23	0.00%	289.44
Neuse Nitrogen	1,359,824.08	1,359,824.08	0	100.00%	109,425.15
Tar Pamlico Nitrogen	100,395.59	100,395.59	0	100.00%	83,592.95
Tar Pamlico Phosphorus	6,761.50	6,761.50	0	100.00%	5,152.72
Grand Total	1,522,473.01	1,505,935.67	16,537.34	98.91%	210,076.02



Appendices

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



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

Regulatory Addendum



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