

Division of Mitigation Services 2019-20 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) 2019-20, the NC Division of Mitigation Services (DMS):

- Assisted the North Carolina Department of Transportation (NCDOT) obtain permits for 65 transportation projects by providing 112,875.500 stream mitigation credits and 169.827 wetland mitigation credits.
- Assisted customers with 199 development projects in the Statewide Stream and Wetland, Riparian Buffer, and Nutrient Offset In-Lieu Fee (ILF) Programs by providing:
 - 37,036.75 stream credits,
 - 68.20 wetland credits,
 - 9,788,954.78 credits of buffer mitigation (equivalent to 224.72 ac buffer restoration)
 - 4,660.35 pounds of nitrogen reduction, and
 - 1,006.74 pounds of phosphorus reduction.
- NC Legislature created a new Flood Attenuation Program to be housed in DMS. As funding is appropriated, DMS will utilize its Full-Delivery procurement processes to acquire high quality projects.



Program-Wide

The FY 2019-20 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 2019-20 the State Property Office closed 62 conservation easement transactions totaling 679.32 acres associated with DMS' projects.
- All properties that closed during FY 2019-20 are shown in [Appendix A-1](#).
- A full inventory of all properties acquired to date is presented in [Appendix A-2](#).
- More than 79,670 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

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	\$275 to \$490	\$558.81
Freshwater Wetland	\$29,500 to \$106,400	\$61,264.36 to \$144,876.09
Coastal Marsh Wetland	N/A*	\$560,000.00
Riparian Buffer	\$0.73 to \$3.28	\$0.94 to \$4.00
Nutrient Offset Nitrogen	\$89.00	\$9.24 to \$107.88
Nutrient Offset Phosphorus	N/A*	\$130.83 to \$301.95

*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 2019-2020 are listed in [Appendix B](#).

MITIGATION TYPE	RANGE OF BANK PRICES PER CREDIT
Stream Mitigation Credits	\$425 to \$690
Riparian Wetland Mitigation Credits	\$41,819 to \$91,969
Non-Riparian Wetland Mitigation Credits	\$40,000 to \$75,000
Coastal Marsh Mitigation Credits	None Submitted
Riparian Buffer Mitigation Credits	\$0.75 to \$3.50
Nitrogen Offset Credits	\$6.78 to \$180.00
Phosphorus Offset Credits	\$96.00 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](#).



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 7/1/2018 through 6/30/2019					
Streams (Linear Feet)	Q1	Q2	Q3	Q4	YTD
Lost from permitting	7,896.00	23,796.00	20,621.50	28,807.01	81,120.51
Gained from permitting (mitigation)	6,207.00	4,905.00	4,000.50	7,533.50	22,645.00
Wetlands (Acres)	Q1	Q2	Q3	Q4	YTD
Lost from permitting	8.61	19.88	19.63	91.64	139.76
Gained from permitting (mitigation)	7.30	8.96	6.61	84.95	107.82
Riparian Buffers (Acres)	Q1	Q2	Q3	Q4	YTD
Lost from permitting	4.87	26.57	14.52	16.30	62.26
Gained from permitting (mitigation)	2.16	5.89	7.29	8.35	23.68

*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.



DMS Program Fiscal Summary

Detailed information showing the FY 19-20 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	\$597,329.37	\$38,133,017.25	\$16,910,102.20	\$8,625,112.59
Revenues	\$40,995,974.82	\$27,746,161.64	\$9,225,335.67	(\$57,742.06)
Expenditures	\$41,593,303.24	\$14,744,771.03	\$5,641,678.88	\$1,324,908.98
Adjustment to Cash Basis	\$0.00	\$50,513.32	\$0.00	\$32,206.63
Bond Index Fund	\$0.00	\$1,676,292.18	\$0.00	\$1,068,782.14
Ending Cash and Bond Balance	\$0.95	\$52,760,186.72	\$20,493,758.99	\$8,279,037.06



NCDOT Stream & Wetland ILF

REQUIREMENTS

FUND STATUS

EXPENDITURES

COMPLIANCE

INVENTORY



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 2019-20 DMS provided mitigation for 65 NCDOT transportation permitted projects requiring stream and/or wetland mitigation.
- ❖ For these NCDOT projects, DMS is providing 112,875.500 stream mitigation credits and 169.827 wetland mitigation credits.
- ❖ Appendix D-1 provides NCDOT Stream and Wetland Program permitted requirements for fiscal 2019-20.



NCDOT Stream & Wetland ILF Fund Status

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

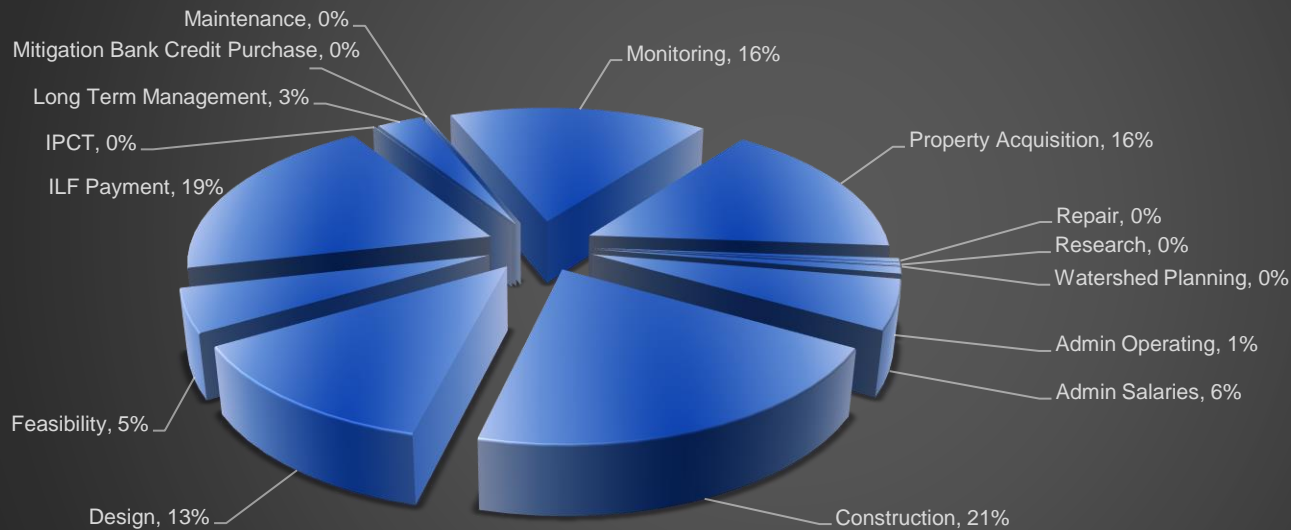
Beginning Cash and Bond Balance	\$597,329.37
Revenues	\$40,995,974.82
Expenditures	\$41,593,303.24
Bond Index Fund	\$0.00
Ending Cash and Bond Balance	\$0.95



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.

\$41.6 Million Total in 2019-2020



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 \$23 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	1,033,891.20	1,029,049.40	4,841.80	99.53%	694,042.737
Wetlands	2,371.06	2,370.31	0.74	99.99%	8,780.662

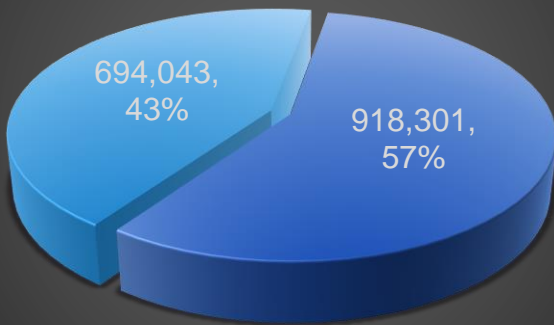
**Includes surplus credits developed by NCDOT and managed by DMS*



NCDOT Stream & Wetland ILF Inventory

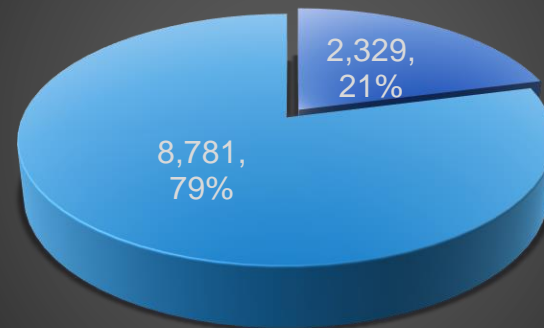
The NCDOT Stream and Wetland ILF Program's gross inventory* totaled 1,612,343.52 stream credits and 11,109.83 wetland credits. A large portion of these credits are unassigned and available for future permit requirements as projected in the state's Transportation Improvement Program. Detailed information 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 2019-20



■ Applied Credits (57%) ■ Unassigned Credits (43%)

Wetland Inventory fiscal 2019-20



■ Applied Credits (21%) ■ Unassigned Credits (79%)

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



Statewide Stream & Wetland ILF

REQUIREMENTS

FUND STATUS

EXPENDITURES

COMPLIANCE

INVENTORY



Statewide Stream & Wetland ILF

- ❖ In fiscal 2019-20, DMS accepted 149 new customer ILF payments into the Statewide Stream and Wetland Program, totaling \$22,809,194.51.
- ❖ These 149 customer payments represent 37,036.75 stream credits and 68.20 wetland credits.
- ❖ Appendix D-2 provides Statewide Stream and Wetland Program fiscal 2019-20 receipts and requirements.



Statewide Stream & Wetland ILF Fund Status

(2981, 2937)

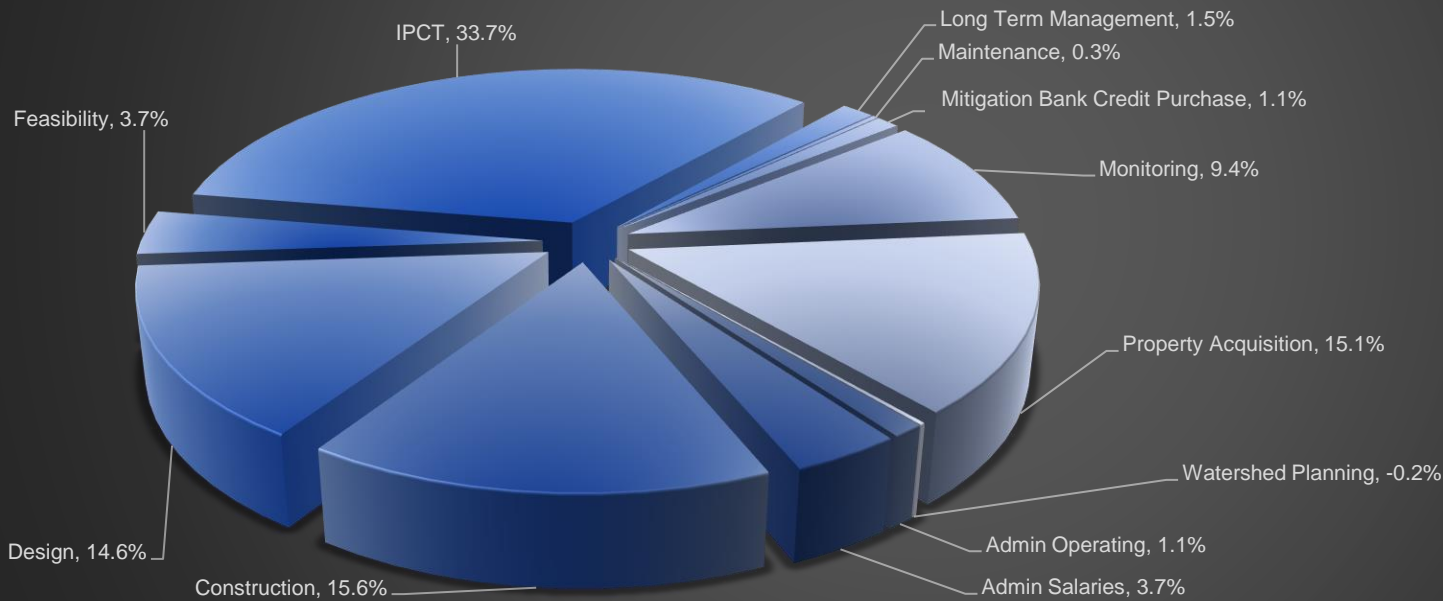
Beginning Cash and Bond Balance	\$38,133,017.25
Revenues	\$27,746,161.64
Expenditures	\$14,744,771.03
Adjustment to Cash Basis	\$50,513.32
Bond Index Fund	\$1,676,292.18
Ending Cash and Bond Balance	\$52,760,186.72



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.

\$14.7 Million Total Fiscal 2019-2020



Statewide Stream & Wetland ILF Compliance

For fiscal 2019-20, the Statewide Stream and Wetland Program had satisfied 99.07 percent of all stream requirements and 98.93 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	670,728.86	664,512.19	6,216.68	99.07%	119,538.44
Wetlands	1,451.15	1,435.59	15.56	98.93%	279.15



Statewide Stream & Wetland ILF Program Inventory

The Statewide Stream and Wetland Program's gross inventory totaled 668,092 stream credits and 1,521.45 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 2019-20

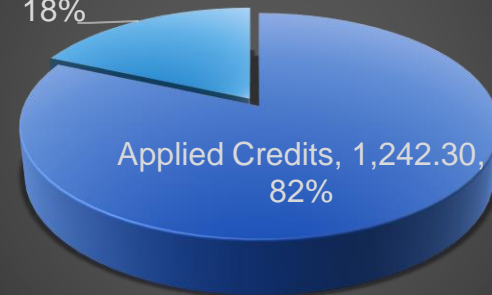
Unassigned Credits, 119,538,
18%



■ Applied Credits ■ Unassigned Credits

Wetland Inventory Fiscal 2019-20

Unassigned Credits, 279.15,
18%



■ Applied Credits ■ Unassigned Credits

Unassigned credits are generated for future development.



Riparian Buffer Mitigation ILF

REQUIREMENTS

FUND STATUS

EXPENDITURES



COMPLIANCE &
INVENTORY



Riparian Buffer Mitigation ILF

- ❖ In fiscal 2019-20, DMS received 38 new customer payments into the Riparian Buffer Mitigation Program, totaling \$8,835,162.08.
- ❖ These 38 customer payments represent 9,788,954.78 credits of buffer mitigation – equivalent to 224.72 acres of buffer restoration.
- ❖ Approximately 93.8% of the fiscal 2019-20 requirements came from twelve NCDOT projects.
- ❖ Appendix D-3 provides Riparian Buffer Program fiscal 2019-20 receipts and requirements.



Riparian Buffer ILF Fund Status

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

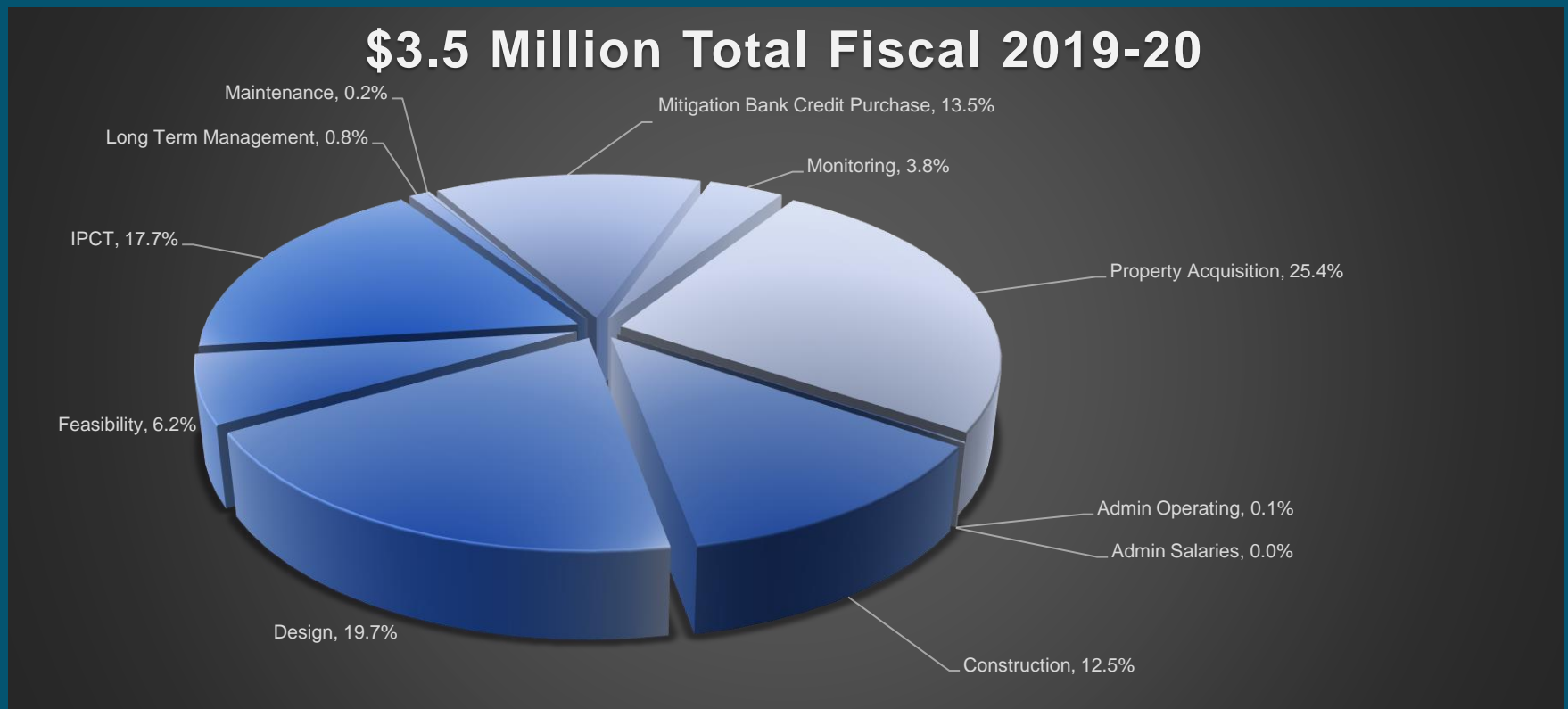
Beginning Cash and Bond Balance	\$16,910,102.20
Revenues	\$9,225,335.67
Expenditures	\$5,641,678.88
Bond Index Fund	\$0.00
Ending Cash and Bond Balance	\$20,493,758.99

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	11,840,317.93	11,108,450.27	731,867.66	93.82%	97,589.33
Catawba	211,700.00	211,700.00	0	100.00%	31,535.00
Neuse	26,012,426.83	25,530,362.36	482,064.47	98.15%	4,641,213.24
Tar-Pamlico	4,590,264.58	4,288,041.28	302,223.30	93.42%	0.45
Yadkin	555,318.00	54,135.33	501,182.67	9.75%	0.00
Grand Total	43,210,027.34	41,192,689.25	2,017,338.10	95.33%	4,770,338.02

**Unassigned credits are generated for future development.*



Nutrient Offset ILF

REQUIREMENTS

FUND STATUS

EXPENDITURES

COMPLIANCE &
INVENTORY



Nutrient Offset ILF

- ❖ In fiscal 2019-20, DMS received 43 customer payments into the Nutrient Offset Program, totaling \$260,696.93
- ❖ These 68 customer payments represent reductions of 4,660.35 pounds of nitrogen and 1,006.74 pounds of phosphorus.
- ❖ DMS issued 10 refunds in 2019-2020 totaling \$539,950.11 during the fiscal year resulting in net negative overall revenue for the year.
- ❖ Appendix D-4 provides Nutrient Offset Program fiscal 2019-20 receipts and requirements.



Nutrient Offset ILF Fund Status

(2982-9829)

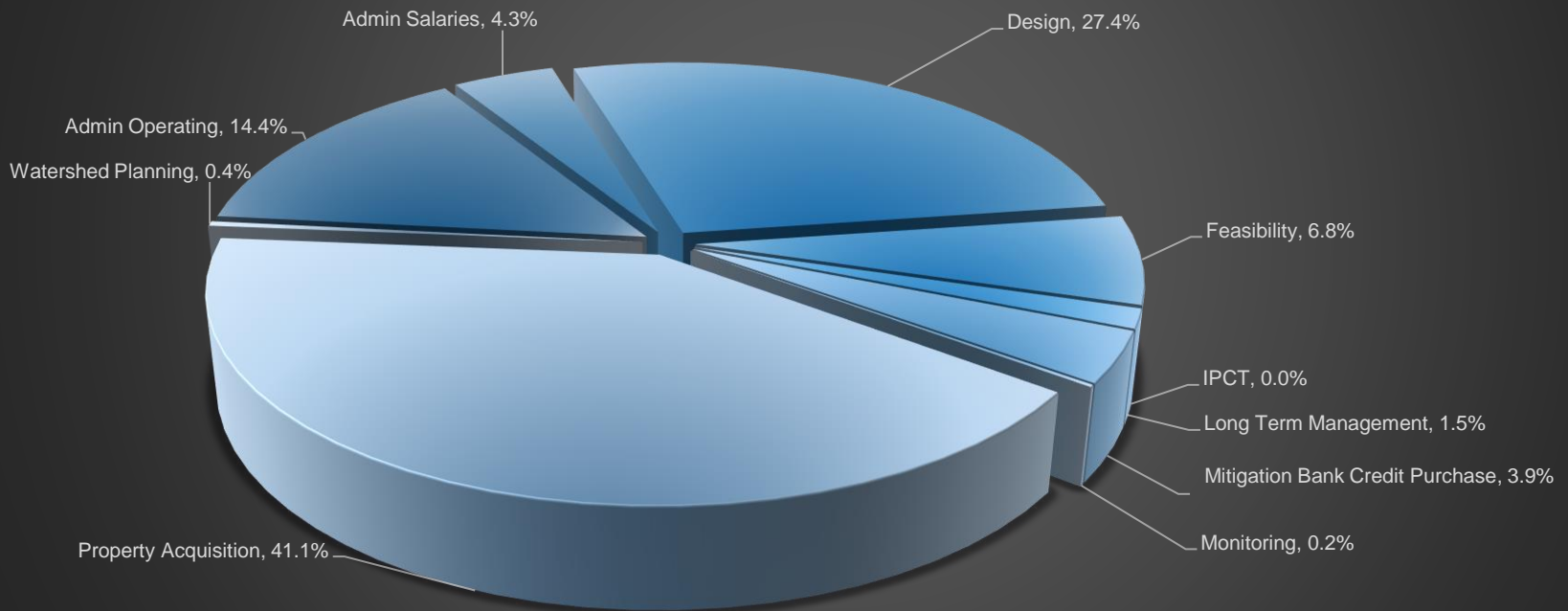
Beginning Cash Balance	\$8,625,112.59
Revenues	(\$57,742.06)
Expenditures	\$1,324,908.98
Adjustment to Cash Basis	\$32,206.63
Bond Index Fund	\$1,068,782.14
Ending Cash Balance	\$8,279,037.06



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.

\$1.3 Million Total Fiscal 2019-20



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	15,216.32	15,216.32	0.00	100%	14,539.188
Falls Phosphorus	2,857.28	1,717.09	1,140.18	60.10%	0.00
Jordan Nitrogen	53,921.85	42,123.54	11,798.31	78.12%	4.29
Jordan Phosphorus	18.18	5.95	12.23	32.73%	1,543.28
Neuse Nitrogen	1,363,982.61	1,363,982.61	0	100.00%	104,873.38
Tar Pamlico Nitrogen	148,035.68	147,823.93	211.75	99.86%	35,826.26
Tar Pamlico Phosphorus	11,250.24	11,198.66	51.58	100.00%	679.74
Grand Total	1,595,649.80	1,582,435.74	13,214.06	99.17%	157,466.13

*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](#)

Appendix E - Expenditures

[D-4. Nutrient Offset
Requirements](#)

Appendix F - Inventory

Regulatory Addendum

[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](#)



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