

NEUSE RIVER COMPLIANCE ASSOCIATION®
Post Office Box 1410
Clayton, North Carolina 27528 - 1410

March 25, 2022

Mr. Richard Rogers, Director
N. C. DEQ - Division of Water Resources
1617 Mail Service Center
Raleigh, North Carolina 27699-1617

Re: NPDES Permit No. NCC000001
Annual Report for 2021

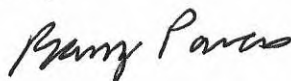
Dear Mr. Rodgers:

The Neuse River Compliance Association is pleased to submit its 2021 annual report as required in the above referenced permit. As included in the attached report, the co-permittee members delivered a total of 564,859 pounds of total nitrogen to the Neuse Estuary during calendar year 2021, approximately 46% of the permit limit of 1,214,838 pounds for 2021.

We are very proud of the continued accomplishments of the Association and the efforts made by our members to control nitrogen loading to the Neuse River Estuary.

We hope that the enclosed report provides the detailed information that the Division has requested. If you have any questions, or if you need any further information, please contact our Executive Director, Haywood M. Phthisic, III, at 919.796.8049.

Sincerely,



Barry Parks
Chairman

cc: Haywood M. Phthisic, III
Board Member

Enclosures: Annual Report

NEUSE RIVER COMPLIANCE ASSOCIATION (NRCA)

2021 ANNUAL REPORT

NPDES PERMIT NCC000001

(i). Co-Permittee Members of the NRCA for Calendar Year 2021

| | |
|---------------------------------|--------------------------|
| Town of Apex - | NPDES Permit # NC0064050 |
| Town of Kenly - | NPDES Permit # NC0064891 |
| Town of Benson - | NPDES Permit # NC0020389 |
| City of Kinston - | NPDES Permit # NC0024236 |
| Town of Cary | |
| North Plant - | NPDES Permit # NC0048879 |
| South Plant - | NPDES Permit # NC0065102 |
| City of Raleigh | |
| Neuse WWTP - | NPDES Permit # NC0029033 |
| Smith Creek WWTP - | NPDES Permit # NC0030759 |
| Little Creek WWTP - | NPDES Permit # NC0079316 |
| Johnston County - | NPDES Permit # NC0030716 |
| City of Goldsboro - | NPDES Permit # NC0023949 |
| Town of Clayton - | NPDES Permit # NC0025453 |
| City of New Bern - | NPDES Permit # NC0025348 |
| Contentnea MSD - | NPDES Permit # NC0032077 |
| City of Wilson - | NPDES Permit # NC0023906 |
| Town of Farmville - | NPDES Permit # NC0029572 |
| Town of LaGrange - | NPDES Permit # NC0021644 |
| MCAS Cherry Point - | NPDES Permit # NC0003816 |
| Dupont-Kinston, Inc. - | NPDES Permit # NC0003760 |
| Aqua N.C., Neuse Colony - | NPDES Permit # NC0064564 |
| Duke Energy Progress - | NPDES Permit # NC0003417 |
| South Granville W&S Authority - | NPDES Permit # NC0026824 |
| City of Havelock - | NPDES Permit # NC0021253 |
| CWS Systems, Inc. - | NPDES Permit # NC0033111 |
| Craven County - | NPDES Permit # NC0089460 |
| Town of Hillsborough | NPDES Permit # NC0026433 |
| City of Durham | NPDES Permit # NC0023841 |

(ii). Summary of revisions in the NRCA 's membership for 2021:

The Town of Snow Hill joined the NRCA effective January 1, 2022 and has been added to the NRCA's NPDES permit effective that data.

(iii). Summary of all purchases, sales, trades, leases, and other transactions affecting the TN allocations of the Association or its Co-Permittee members in 2021:

There were temporary and permanent total nitrogen allocations trades between NRCA members in 2021.

Short Term Lease Agreements in 2021 -

- * **Craven County** leased 5,000 lbs. of estuary nitrogen for their facility, NPDES # NC0089460, for 2021. Craven County leased from Dow Industrial Biosciences, LLC. Of Kinston. Craven County owns a water plant that the source ground water contains nitrogen. Craven County has no permanent nitrogen allocation.
- * **CWS Systems, Inc.** leased 9,500 estuary pounds of nitrogen from Contentnea MSD for 2021 for its facility at Fairfield Harbor, NPDES # NC0033111. A major upgrade is planned for this facility.
- * **Neuse Colony (Aqua, N. C.)** leased 700 estuary pounds from Dow Industrial Biosciences, LLC. for 2021 for its facility, NPDES # NC0064564. This facility serves a large residential development that is experiencing above average growth. A major upgrade is planned for this facility
- * **Town of Kenly** leased 500 estuary pounds from the Town of Benson for 2021 for its facility, NPDES # NC0064891

Permanent Transfer Agreements in 2021 -

- * **City of Raleigh** purchased 13,000 estuary pounds of nitrogen from International Paper, Inc., NC0003191, for its facility, NPDES Permit # NC0029033.
- * **Johnston County** purchased 1,000 estuary pounds from Phillips Plating, NC0001881 for its facility, NPDES Permit # NC0030716.

(iv). Assessments by NRCA –

In 2020 the NRCA assessed the Craven County for exceeding its total nitrogen allocation. The exceedance was 984 end of pipe pounds and the Town was assessed \$3,554.70. The NRCA has received the assessment payment.

A complete list of all sales and leased in the NRCA from 2003 through 2021 is included with this report.

Progress Achieved:

The Association is extremely proud of the commitment, experience, and knowledge of its members in reducing nitrogen delivery to the Neuse River Estuary since the implementation of the Neuse Nutrient Management Strategy in 1998 as demonstrated below.

| Year | Total Average Flow (MGD) | Total Nitrogen (lbs.) Delivered to the Neuse Estuary |
|------|--------------------------|--|
| 1995 | 83.808 | 1,784,130 |
| 1996 | 85.675 | 1,741,492 |
| 1997 | 81.444 | 1,653,262 |
| 1998 | 93.442 | 1,387,717 |
| 1999 | 94.659 | 1,123,169 |
| 2000 | 92.582 | 1,056,202 |
| 2001 | 86.818 | 907,381 |
| 2002 | 89.926 | 797,991 |
| 2003 | 107.463 | 711,398 |
| 2004 | 101.203 | 558,553 |
| 2005 | 101.757 | 566,627 |
| 2006 | 102.970 | 542,205 |
| 2007 | 92.994 | 461,325 |
| 2008 | 90.563 | 489,798 |
| 2009 | 98.570 | 497,002 |
| 2010 | 101.852 | 584,192 |
| 2011 | 93.384 | 513,269 |
| 2012 | 97.248 | 540,892 |
| 2013 | 102.847 | 514,847 |
| 2014 | 108.359 | 568,387 |
| 2015 | 108.721 | 610,915 |
| 2016 | 108.734 | 593,145 |
| 2017 | 101.510 | 491,822 |
| 2018 | 113.122 | 556,567 |
| 2019 | 105.573 | 481,011 |
| 2020 | 126.823 | 516,645 |
| 2021 | 123.839 | 564,843 |

NEUSE RIVER COMPLIANCE ASSOCIATION

Total Nitrogen Monitoring Report for 2021

Date: March 21, 2022

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| NPDES Permit #: NCC00001 | | END OF PIPE | | | | | ESTUARY | | | | |
|--------------------------------|----------------|-------------------|----------------------|--------------------------------|-------------------------------|------------------|---------------------------|---------------------------|---------------------------------------|----------------------------|-------------------------|
| FACILITY | NPDES Permit # | Permit Flow (MGD) | 2021 Avg. Flow (MGD) | Member TN Allocation (Lbs/Yr.) | Member TN Discharge (Lbs/Yr.) | Transport Factor | 2021 Lease (Estuary Lbs.) | Member Estuary Allocation | Adjusted TN Allocation 2021 (Lbs/Yr.) | 2021 TN Delivery (Lbs/Yr.) | % of Estuary Allocation |
| SGWASA | NC0026824 | 5.500 | 1.452 | 22,420 | 10,255 | 10% | 0 | 2,242 | 0 | 1,025 | 46 |
| Town of Hillsborough | NC0026433 | 3.000 | 1.078 | 10,422 | 4,698 | 10% | 0 | 1,042 | 0 | 470 | 45 |
| City of Durham | NC0023841 | 20.000 | 9.404 | 97,665 | 57,993 | 10% | 0 | 9,767 | 0 | 5,799 | 59 |
| Town of Apex | NC0064050 | 3.600 | 1.221 | 40,547 | 15,444 | 50% | 0 | 20,274 | 0 | 7,722 | 38 |
| Town of Benson | NC0020389 | 1.900 | 1.293 | 33,070 | 18,011 | 50% | -500 | 16,535 | 16,035 | 9,006 | 54 |
| Town of Cary ~ North | NC0048879 | 12.000 | 6.209 | 143,246 | 43,757 | 50% | 0 | 71,623 | 0 | 21,879 | 31 |
| Town of Cary ~ South | NC0065102 | 12.800 | 5.437 | 180,211 | 26,755 | 50% | 0 | 90,105 | 0 | 13,377 | 15 |
| City of Raleigh ~ Smith Creek | NC0030759 | 3.000 | 2.218 | 70,814 | 29,921 | 50% | 0 | 35,407 | 0 | 14,961 | 42 |
| City of Raleigh ~ Neuse | NC0029033 | 75.000 | 47.482 | 713,373 | 271,665 | 50% | 0 | 356,687 | 0 | 135,833 | 47 |
| Raleigh ~ Ground Water | NA | NA | NA | NA | 60,651 | 50% | | NA | | 30,326 | |
| City of Raleigh ~ Little Creek | NC0079316 | 2.200 | 0.863 | 26,660 | 6,926 | 50% | 0 | 13,330 | 0 | 3,463 | 26 |
| Town of Clayton | NC0025453 | 2.500 | 1.617 | 22,832 | 22,326 | 50% | 0 | 11,416 | 0 | 11,163 | 98 |
| Neuse Colony, (Aqua NC) | NC0064564 | 0.350 | 0.316 | 8,447 | 9,191 | 50% | 700 | 4,224 | 4,924 | 4,595 | 93 |
| Johnston County | NC0030716 | 9.500 | 5.978 | 73,476 | 43,229 | 50% | 0 | 36,738 | 0 | 21,614 | 59 |
| Town of Kenly | NC0064891 | 0.630 | 0.437 | 7,096 | 6,235 | 50% | 500 | 3,548 | 4,048 | 3,117 | 77 |
| Town of Farmville | NC0029572 | 3.500 | 1.422 | 42,211 | 3,920 | 50% | 0 | 21,106 | 0 | 1,960 | 9 |
| City of Wilson | NC0023906 | 14.000 | 9.696 | 157,886 | 68,737 | 50% | 0 | 78,943 | 0 | 34,369 | 44 |
| Duke Energy ~ Lee Facility | NC0003417 | NA | 0.104 | 3,260 | 102 | 70% | 0 | 2,282 | 0 | 71 | 3 |
| City of Goldsboro | NC0023949 | 14.200 | 11.340 | 199,822 | 116,382 | 70% | 0 | 139,876 | 0 | 81,467 | 58 |
| Town of LaGrange | NC0021644 | 0.750 | 0.735 | 8,447 | 7,726 | 70% | 0 | 5,913 | 0 | 5,409 | 91 |
| City of Kinston (Regional) | NC0024236 | 11.850 | 5.569 | 126,711 | 59,470 | 70% | 0 | 88,697 | 0 | 41,629 | 47 |
| Contentnea MSD | NC0032077 | 3.500 | 2.150 | 37,100 | 7,012 | 70% | -9,500 | 25,970 | 16,470 | 4,908 | 30 |
| Dow - Dupont, Inc. | NC0003760 | 3.600 | 0.278 | 25,493 | 1,807 | 70% | -5,700 | 17,845 | 12,145 | 1,265 | 10 |
| City of New Bern | NC0025348 | 6.500 | 3.815 | 64,210 | 57,598 | 100% | 0 | 64,210 | 0 | 57,598 | 90 |
| MCAS Cherry Point | NC0003816 | 3.500 | 1.269 | 39,421 | 15,026 | 100% | 0 | 39,421 | 0 | 15,026 | 38 |
| City of Havelock | NC0021253 | 2.250 | 1.371 | 21,400 | 14,392 | 100% | 0 | 21,400 | 0 | 14,392 | 67 |
| Craven County | NC0084460 | 0.000 | 0.772 | 0 | 3,435 | 100% | 5,000 | 0 | 5,000 | 3,435 | 69 |
| Carolina Water Service, Inc. | NC0033111 | 0.600 | 0.313 | 11,263 | 18,979 | 100% | 9,500 | 11,263 | 20,763 | 18,979 | 91 |
| | | 216.230 | 123.840 | | | | | | | 564,859 | |

This Compliance Report has been compiled from co-permittee members' monthly discharge monitoring reports. I certify that this report is accurate and complete to the best of my knowledge.

Barry Parks
 Barry Parks, Chairman, Neuse River Compliance Association

3/25/22
 Date

- NOTES: 1. Average Total Nitrogen Concentration End of Pipe by NRCA Members during 2021: **2.50** mg/L
 2. Average Total Nitrogen Concentration with ground water contribution in 2021: **2.66** mg/L
 3. NRCA's Annual Report Prepared By: Haywood M. Phthisic, III, Executive Director

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Total Nitrogen Monitoring Report for 2021

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| FACILITY | January, 2021 | | | February, 2021 | | | March, 2021 | | | April, 2021 | | |
|--------------------------------|------------------|-----------------|------------------|------------------|-----------------|------------------|------------------|-----------------|------------------|------------------|-----------------|------------------|
| | Flow (MG) | TN Conc. (mg/L) | TN Disch. (Lbs.) | Flow (MG) | TN Conc. (mg/L) | TN Disch. (Lbs.) | Flow (MG) | TN Conc. (mg/L) | TN Disch. (Lbs.) | Flow (MG) | TN Conc. (mg/L) | TN Disch. (Lbs.) |
| SGWASA | 60.540 | 3.0060 | 1,518 | 77.451 | 3.1025 | 2,004 | 52.413 | 2.0150 | 881 | 45.435 | 2.0440 | 775 |
| Town of Hillsborough | 41.518 | 1.2125 | 420 | 51.255 | 1.8600 | 795 | 40.090 | 1.2080 | 404 | 33.666 | 1.6375 | 460 |
| City of Durham | 394.000 | 2.0600 | 6,769 | 419.000 | 3.4875 | 12,187 | 325.690 | 1.2380 | 3,363 | 292.570 | 1.5460 | 3,772 |
| Town of Apex | 49.642 | 3.7475 | 1,552 | 51.977 | 4.0800 | 1,769 | 43.603 | 4.5760 | 1,664 | 36.014 | 4.4650 | 1,341 |
| Town of Benson | 67.983 | 3.6225 | 2,054 | 69.216 | 3.9050 | 2,254 | 53.351 | 3.5540 | 1,581 | 39.480 | 2.7025 | 890 |
| Town of Cary ~ North | 216.850 | 2.4675 | 4,463 | 215.630 | 2.6050 | 4,685 | 195.980 | 2.3200 | 3,792 | 177.680 | 1.8175 | 2,693 |
| Town of Cary ~ South | 195.170 | 1.9127 | 3,113 | 206.080 | 2.0000 | 3,437 | 189.720 | 1.7285 | 2,735 | 164.150 | 1.6367 | 2,241 |
| City of Raleigh ~ Smith Creek | 74.702 | 4.4925 | 2,799 | 72.931 | 4.1850 | 2,546 | 69.289 | 3.9380 | 2,276 | 63.302 | 4.3475 | 2,295 |
| City of Raleigh ~ Neuse | 1,616.103 | 1.3300 | 17,926 | 1,654.063 | 1.8775 | 25,900 | 1,556.970 | 1.7240 | 22,386 | 1,383.540 | 1.8575 | 21,433 |
| Raleigh ~ Ground Water | | | 5,054 | | | 5,054 | | | 5,054 | | | 5,055 |
| City of Raleigh ~ Little Creek | 38.630 | 1.6900 | 544 | 46.410 | 2.1050 | 815 | 33.440 | 2.0380 | 568 | 24.488 | 2.5150 | 514 |
| Town of Clayton | 59.651 | 5.3600 | 2,667 | 63.431 | 4.0450 | 2,140 | 49.470 | 5.4390 | 2,244 | 43.070 | 1.4080 | 506 |
| Neuse Colony (Aqua NC) | 9.795 | 7.2130 | 589 | 8.227 | 7.5245 | 516 | 9.364 | 8.3357 | 651 | 9.068 | 8.4470 | 639 |
| Johnston County | 272.273 | 2.6975 | 6,125 | 286.776 | 3.9775 | 9,513 | 234.143 | 1.3880 | 2,710 | 153.450 | 1.8875 | 2,416 |
| Town of Kenly | 20.281 | 4.3950 | 743 | 22.153 | 4.8125 | 889 | 15.591 | 4.2020 | 546 | 11.432 | 4.5000 | 429 |
| Town of Farmville | 67.890 | 0.5500 | 311 | 87.790 | 1.2000 | 879 | 54.621 | 1.4620 | 666 | 39.313 | 1.0075 | 330 |
| City of Wilson | 469.700 | 2.4875 | 9,744 | 501.760 | 2.7775 | 11,623 | 341.810 | 2.0020 | 5,707 | 261.530 | 1.8450 | 4,024 |
| Duke Energy ~ Lee Facility | 6.570 | 0.5300 | 29 | 3.420 | 0.2700 | 8 | 13.510 | 0.2700 | 30 | 0.007 | 1.2000 | 0 |
| City of Goldsboro ~ Pipe 01 | 518.720 | 3.7300 | 16,136 | 539.870 | 4.2225 | 19,012 | 455.100 | 3.8300 | 14,537 | 329.010 | 2.3300 | 6,393 |
| City of Goldsboro ~ Pipe 02 | 0.000 | 0.0000 | 0 | 0.000 | 0.0000 | 0 | 0.000 | 0.0000 | 0 | 0.000 | 0.0000 | 0 |
| Town of LaGrange | 39.293 | 2.8100 | 921 | 38.004 | 2.8150 | 892 | 37.063 | 2.3900 | 739 | 26.213 | 3.1325 | 685 |
| City of Kinston (Regional) | 311.870 | 1.3125 | 3,414 | 321.900 | 13.2775 | 35,645 | 254.630 | 1.4920 | 3,168 | 171.377 | 1.9850 | 2,837 |
| Contentnea MSD | 97.802 | 0.9125 | 744 | 99.972 | 1.1500 | 959 | 75.764 | 1.9760 | 1,249 | 53.570 | 0.9325 | 417 |
| Dow - Dupont, Inc. | 12.338 | 1.0725 | 110 | 12.124 | 0.8675 | 88 | 11.594 | 1.1250 | 109 | 8.190 | 1.1960 | 82 |
| City of New Bern | 178.220 | 4.8000 | 7,135 | 196.730 | 5.2600 | 8,630 | 161.020 | 5.9800 | 8,031 | 127.910 | 6.0400 | 6,443 |
| MCAS Cherry Point | 47.340 | 6.2500 | 2,468 | 49.040 | 4.1000 | 1,677 | 41.200 | 3.4600 | 1,189 | 32.940 | 3.0000 | 824 |
| City of Havelock | 52.811 | 2.1925 | 966 | 56.110 | 3.1200 | 1,460 | 47.412 | 3.1725 | 1,254 | 38.820 | 2.6660 | 863 |
| Craven County | 16.368 | 1.3500 | 184 | 16.268 | 1.2000 | 163 | 18.135 | 1.4600 | 221 | 19.740 | 1.4000 | 230 |
| Carolina Water Service, Inc. | 12.500 | 17.3650 | 1,810 | 11.450 | 15.6425 | 1,494 | 10.740 | 19.0000 | 1,702 | 7.900 | 19.6500 | 1,295 |
| Totals | 4,948.560 | | 100,309 | 5,179.038 | | 157,032 | 4,391.713 | | 89,458 | 3,593.865 | | 69,882 |

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Total Nitrogen Monitoring Report for 2021

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| FACILITY | May, 2021 | | | June, 2021 | | | July, 2021 | | | August, 2021 | | |
|--------------------------------|------------------|-----------------|------------------|------------------|-----------------|------------------|------------------|-----------------|------------------|------------------|-----------------|------------------|
| | Flow (MG) | TN Conc. (mg/L) | TN Disch. (Lbs.) | Flow (MG) | TN Conc. (mg/L) | TN Disch. (Lbs.) | Flow (MG) | TN Conc. (mg/L) | TN Disch. (Lbs.) | Flow (MG) | TN Conc. (mg/L) | TN Disch. (Lbs.) |
| SGWASA | 36.113 | 2.0920 | 630 | 41.881 | 2.2175 | 775 | 42.689 | 1.5880 | 565 | 37.216 | 1.8000 | 559 |
| Town of Hillsborough | 27.405 | 1.4575 | 333 | 27.272 | 1.5060 | 343 | 28.944 | 1.8825 | 454 | 28.987 | 1.5100 | 365 |
| City of Durham | 253.880 | 1.3560 | 2,871 | 272.720 | 1.8050 | 4,105 | 271.680 | 1.5225 | 3,450 | 246.260 | 1.7400 | 3,574 |
| Town of Apex | 32.759 | 4.4775 | 1,223 | 33.170 | 4.4520 | 1,232 | 34.219 | 4.0350 | 1,152 | 31.125 | 4.2220 | 1,096 |
| Town of Benson | 25.110 | 2.9850 | 625 | 31.350 | 2.9380 | 768 | 47.207 | 2.6825 | 1,056 | 34.371 | 4.5900 | 1,316 |
| Town of Cary ~ North | 174.630 | 2.2350 | 3,255 | 179.530 | 2.4350 | 3,646 | 189.370 | 2.4592 | 3,884 | 184.810 | 2.7192 | 4,191 |
| Town of Cary ~ South | 153.770 | 1.4950 | 1,917 | 157.670 | 1.3492 | 1,774 | 163.298 | 1.4725 | 2,005 | 155.230 | 1.5846 | 2,051 |
| City of Raleigh ~ Smith Creek | 65.141 | 5.2400 | 2,847 | 64.640 | 3.3880 | 1,826 | 68.436 | 4.1325 | 2,359 | 67.585 | 4.1925 | 2,363 |
| City of Raleigh ~ Neuse | 1,337.182 | 1.8225 | 20,325 | 1,367.734 | 1.6440 | 18,753 | 1,457.526 | 1.8700 | 22,731 | 1,435.967 | 2.0250 | 24,251 |
| Raleigh ~ Ground Water | | | 5,054 | | | 5,054 | | | 5,054 | | | 5,054 |
| City of Raleigh ~ Little Creek | 20.432 | 2.6450 | 451 | 24.051 | 2.5280 | 507 | 26.431 | 4.7850 | 1,055 | 21.997 | 4.2740 | 784 |
| Town of Clayton | 42.145 | 3.5725 | 1,256 | 45.437 | 3.4680 | 1,314 | 50.536 | 3.7525 | 1,582 | 50.320 | 4.2900 | 1,800 |
| Neuse Colony (Aqua NC) | 11.029 | 9.9571 | 916 | 10.457 | 10.7888 | 941 | 10.680 | 10.3167 | 919 | 10.049 | 10.6857 | 896 |
| Johnston County | 132.525 | 2.0175 | 2,230 | 163.290 | 2.4880 | 3,388 | 210.304 | 2.2675 | 3,977 | 194.835 | 1.6880 | 2,743 |
| Town of Kenly | 9.079 | 4.1150 | 312 | 14.583 | 3.8600 | 469 | 15.059 | 4.4350 | 557 | 15.168 | 4.6625 | 590 |
| Town of Farmville | 23.479 | 0.6300 | 123 | 58.009 | 0.7440 | 360 | 44.792 | 0.8175 | 305 | 63.350 | 0.8750 | 462 |
| City of Wilson | 192.680 | 2.3250 | 3,736 | 351.170 | 2.0760 | 6,080 | 298.370 | 2.0500 | 5,101 | 328.140 | 2.5200 | 6,896 |
| Duke Energy ~ Lee Facility | 0.000 | 0.0000 | 0 | 3.850 | 0.2900 | 9 | 6.890 | 0.3300 | 19 | 3.840 | 0.2000 | 6 |
| City of Goldsboro ~ Pipe 01 | 266.820 | 2.2525 | 5,012 | 389.840 | 2.9800 | 9,689 | 394.890 | 2.5340 | 8,345 | 385.650 | 3.2975 | 10,606 |
| City of Goldsboro ~ Pipe 02 | 0.000 | 0.0000 | 0 | 0.000 | 0.0000 | 0 | 0.000 | 0.0000 | 0 | 0.000 | 0.0000 | 0 |
| Town of LaGrange | 13.644 | 3.9500 | 449 | 24.503 | 4.5400 | 928 | 22.968 | 4.0860 | 783 | 28.044 | 3.7250 | 871 |
| City of Kinston (Regional) | 110.230 | 2.0775 | 1,910 | 144.100 | 1.4200 | 1,707 | 137.101 | 1.3650 | 1,561 | 201.750 | 2.0200 | 3,399 |
| Contentnea MSD | 40.813 | 0.9925 | 338 | 86.341 | 1.0280 | 740 | 74.123 | 1.0825 | 669 | 89.030 | 0.7640 | 567 |
| Dow - Dupont, Inc. | 6.572 | 8.6350 | 473 | 10.740 | 3.5250 | 316 | 11.284 | 0.8980 | 85 | 10.881 | 0.8940 | 81 |
| City of New Bern | 0.000 | 0.0000 | 0 | 138.520 | 3.0700 | 3,547 | 123.930 | 4.9200 | 5,085 | 147.530 | 5.5600 | 6,841 |
| MCAS Cherry Point | 31.060 | 4.7500 | 1,230 | 43.200 | 3.5600 | 1,283 | 38.320 | 3.3500 | 1,071 | 43.610 | 0.6800 | 247 |
| City of Havelock | 35.092 | 4.0750 | 1,193 | 48.870 | 4.1750 | 1,702 | 42.883 | 4.2100 | 1,506 | 49.718 | 3.4375 | 1,425 |
| Craven County | 28.892 | 1.5000 | 361 | 27.360 | 1.6600 | 379 | 30.101 | 1.5250 | 383 | 27.156 | 1.3400 | 303 |
| Carolina Water Service, Inc. | 8.340 | 19.4575 | 1,353 | 9.500 | 20.4120 | 1,617 | 9.500 | 20.3350 | 1,611 | 10.340 | 20.8120 | 1,795 |
| Totals | 3,078.822 | | 60,425 | 3,769.788 | | 73,251 | 3,851.531 | | 77,323 | 3,902.959 | | 85,134 |

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| FACILITY | September, 2021 | | | October, 2021 | | | November, 2021 | | | December, 2021 | | |
|--------------------------------|------------------|-----------------|------------------|------------------|-----------------|------------------|------------------|-----------------|------------------|------------------|-----------------|------------------|
| | Flow (MG) | TN Conc. (mg/L) | TN Disch. (Lbs.) | Flow (MG) | TN Conc. (mg/L) | TN Disch. (Lbs.) | Flow (MG) | TN Conc. (mg/L) | TN Disch. (Lbs.) | Flow (MG) | TN Conc. (mg/L) | TN Disch. (Lbs.) |
| SGWASA | 32.697 | 1.7560 | 479 | 37.544 | 2.4216 | 758 | 31.437 | 2.5120 | 659 | 34.724 | 2.2560 | 653 |
| Town of Hillsborough | 28.333 | 1.4475 | 342 | 29.514 | 1.6100 | 396 | 26.455 | 1.6800 | 371 | 30.062 | 1.4260 | 358 |
| City of Durham | 240.070 | 1.1475 | 2,298 | 258.700 | 1.9216 | 4,146 | 234.000 | 2.2840 | 4,457 | 223.800 | 2.5200 | 4,704 |
| Town of Apex | 30.767 | 3.8750 | 994 | 36.081 | 3.8500 | 1,159 | 31.646 | 3.9980 | 1,055 | 34.687 | 4.1775 | 1,209 |
| Town of Benson | 26.130 | 9.8060 | 2,137 | 25.341 | 8.8475 | 1,870 | 25.103 | 11.0125 | 2,306 | 27.269 | 5.0760 | 1,154 |
| Town of Cary ~ North | 175.350 | 2.4279 | 3,551 | 189.140 | 1.6442 | 2,594 | 180.620 | 2.4350 | 3,668 | 186.670 | 2.1420 | 3,335 |
| Town of Cary ~ South | 143.000 | 1.5054 | 1,795 | 156.240 | 1.3675 | 1,782 | 147.420 | 1.3975 | 1,718 | 152.810 | 1.7142 | 2,185 |
| City of Raleigh ~ Smith Creek | 64.129 | 4.3540 | 2,329 | 65.784 | 4.5525 | 2,498 | 65.032 | 4.6750 | 2,536 | 68.422 | 5.6940 | 3,249 |
| City of Raleigh ~ Neuse | 1,374.673 | 1.9520 | 22,379 | 1,444.551 | 2.5025 | 30,149 | 1,334.038 | 2.1060 | 23,431 | 1,368.561 | 1.9275 | 22,000 |
| Raleigh ~ Ground Water | | | 5,055 | | | 5,054 | | | 5,055 | | | 5,054 |
| City of Raleigh ~ Little Creek | 18.729 | 2.3950 | 374 | 19.982 | 2.4900 | 415 | 19.199 | 2.7480 | 440 | 21.074 | 2.6125 | 459 |
| Town of Clayton | 42.396 | 4.4060 | 1,558 | 47.269 | 5.1000 | 2,011 | 46.150 | 7.0675 | 2,720 | 50.483 | 6.0075 | 2,529 |
| Neuse Colony (Aqua NC) | 10.144 | 10.5400 | 892 | 8.720 | 10.9250 | 795 | 9.325 | 9.9500 | 774 | 8.460 | 9.4180 | 664 |
| Johnston County | 140.850 | 1.8725 | 2,200 | 132.494 | 2.1700 | 2,398 | 120.330 | 2.4640 | 2,473 | 140.678 | 2.6050 | 3,056 |
| Town of Kenly | 8.519 | 5.8840 | 418 | 9.549 | 5.1600 | 411 | 8.062 | 5.4920 | 369 | 10.052 | 5.9725 | 501 |
| Town of Farmville | 20.279 | 0.8220 | 139 | 21.134 | 0.4750 | 84 | 19.174 | 0.5900 | 94 | 19.180 | 1.0380 | 166 |
| City of Wilson | 205.850 | 2.0275 | 3,481 | 193.770 | 2.7775 | 4,489 | 182.630 | 2.2280 | 3,394 | 211.660 | 2.5275 | 4,462 |
| Duke Energy ~ Lee Facility | 0.000 | 0.0000 | 0 | 0.000 | 0.0000 | 0 | 0.000 | 0.0000 | 0 | 0.000 | 0.0000 | 0 |
| City of Goldsboro ~ Pipe 01 | 239.390 | 3.2225 | 6,434 | 217.030 | 4.4080 | 7,979 | 195.550 | 3.8350 | 6,254 | 207.250 | 3.4620 | 5,984 |
| City of Goldsboro ~ Pipe 02 | 0.000 | 0.0000 | 0 | 0.000 | 0.0000 | 0 | 0.000 | 0.0000 | 0 | 0.000 | 0.0000 | 0 |
| Town of LaGrange | 12.992 | 4.8960 | 530 | 9.374 | 4.4200 | 346 | 8.220 | 4.2300 | 290 | 7.988 | 4.3920 | 293 |
| City of Kinston (Regional) | 105.480 | 1.9100 | 1,680 | 93.021 | 2.0575 | 1,596 | 86.489 | 1.7620 | 1,271 | 94.586 | 1.6250 | 1,282 |
| Contentnea MSD | 44.511 | 0.9300 | 345 | 41.970 | 1.0000 | 350 | 41.089 | 0.8440 | 289 | 39.834 | 1.0375 | 345 |
| Dow - Dupont, Inc. | 5.310 | 2.1050 | 93 | 4.619 | 7.7770 | 300 | 2.820 | 1.2750 | 30 | 4.867 | 1.0200 | 41 |
| City of New Bern | 110.470 | 5.0500 | 4,653 | 0.000 | 0.0000 | 0 | 103.120 | 3.0600 | 2,632 | 105.100 | 5.2500 | 4,602 |
| MCAS Cherry Point | 33.140 | 6.1750 | 1,707 | 35.930 | 3.6750 | 1,101 | 32.660 | 4.3800 | 1,193 | 34.770 | 3.5750 | 1,037 |
| City of Havelock | 32.927 | 3.8420 | 1,055 | 31.800 | 3.6800 | 976 | 30.238 | 3.4700 | 875 | 33.824 | 3.9600 | 1,117 |
| Craven County | 26.010 | 1.3750 | 298 | 25.389 | 1.8250 | 386 | 23.460 | 1.2600 | 247 | 23.064 | 1.4500 | 279 |
| Carolina Water Service, Inc. | 9.030 | 23.8775 | 1,798 | 8.773 | 21.5550 | 1,577 | 8.190 | 20.4320 | 1,396 | 8.153 | 22.5150 | 1,531 |
| Totals | 3,181.176 | | 69,014 | 3,143.719 | | 75,617 | 3,012.457 | | 69,996 | 3,148.028 | | 72,248 |

NEUSE RIVER COMPLIANCE ASSOCIATION

Total Nitrogen Monitoring Report for 2021

Date: March 21, 2022

Page 5 of 5

| FACILITY | Total Q (MG) | EOP Total Nitrogen (Lbs) | EOP Avg Conc. (mg/L) | Avg Q (MGD) |
|--------------------------------|-----------------|--------------------------------|----------------------------|----------------|
| SGWASA | 530.140 | 10,255 | 2.32 | 1.452 |
| Town of Hillsborough | 393.501 | 4,698 | 1.43 | 1.078 |
| City of Durham | 3,432.370 | 57,993 | 2.03 | 9.404 |
| Town of Apex | 445.690 | 15,444 | 4.15 | 1.221 |
| Town of Benson | 471.911 | 18,011 | 4.58 | 1.293 |
| Town of Cary ~ North | 2,266.260 | 43,757 | 2.32 | 6.209 |
| Town of Cary ~ South | 1,984.558 | 26,755 | 1.62 | 5.437 |
| City of Raleigh ~ Smith Creek | 809.393 | 29,921 | 4.43 | 2.218 |
| City of Raleigh ~ Neuse | 17,330.908 | 271,665 | 1.88 | 47.482 |
| Raleigh ~ Ground Water | | 60,651 | | |
| City of Raleigh ~ Little Creek | 314.863 | 6,926 | 2.64 | 0.863 |
| Town of Clayton | 590.358 | 22,326 | 4.53 | 1.617 |
| Neuse Colony (Aqua NC) | 115.317 | 9,191 | 9.56 | 0.316 |
| Johnston County | 2,181.948 | 43,229 | 2.38 | 5.978 |
| Town of Kenly | 159.528 | 6,235 | 4.69 | 0.437 |
| Town of Farmville | 519.011 | 3,920 | 0.91 | 1.422 |
| City of Wilson | 3,539.070 | 68,737 | 2.33 | 9.696 |
| Duke Energy ~ Lee Facility | 38.087 | 102 | 0.32 | 0.104 |
| City of Goldsboro ~ Pipe 01 | 4,139.120 | 116,382 | 3.37 | 11.340 |
| City of Goldsboro ~ Pipe 02 | 0.000 | 0 | 0.00 | 0.000 |
| Town of LaGrange | 268.306 | 7,726 | 3.45 | 0.735 |
| City of Kinston (Regional) | 2,032.534 | 59,470 | 3.51 | 5.569 |
| Contentnea MSD | 784.819 | 7,012 | 1.07 | 2.150 |
| Dow - Dupont, Inc. | 101.339 | 1,807 | 2.14 | 0.278 |
| City of New Bern | 1,392.550 | 57,598 | 4.96 | 3.815 |
| MCAS Cherry Point | 463.210 | 15,026 | 3.89 | 1.269 |
| City of Havelock | 500.505 | 14,392 | 3.45 | 1.371 |
| Craven County | 281.943 | 3,435 | 1.46 | 0.772 |
| Carolina Water Service, Inc. | 114.416 | 18,979 | 19.89 | 0.313 |
| Operating Totals | 45,201.655 | 940,993 | 2.50 | 123.840 |
| Association Totals | 45,201.655 | 1,001,644 | 2.66 | 123.840 |