Lower Neuse Basin Association
P.O. Box 1410
Clayton, North Carolina 27528-1410

Annual Monitoring Report
2022

Submitted By: _____, **Chairman**
John Kiviniemi

Prepared By: Haywood M. Phthisic, III, Executive Director

Lower Neuse Basin Association
Contact Information

Officers of the Lower Neuse Basin Association

Chairman -
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Associates:

Executive Director -
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Association Counsel -
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Coalition Web Site Address - https://www.lnba.net

Lower Neuse Basin Association

April 14, 2023

Members and Contact Information

A complete list of LNBA delegates for 2022 follows in Section I.

Monitoring Stations for 2022

A complete list of the monitoring stations with station numbers, descriptions, coordinates, county, sub basin and stream classification included in Section II. The LNBA staff visited each station during 2022.

The Agreement between the LNBA and the Division of Water Resources was renewed in 2019. The effective date was August 1, 2019 through July 31, 2024. There were several sampling stations, added, deleted, or moved to a better location for safety reasons or environmental conditions.

Quality Assurance/Quality Control Issues

Environment I reported no quality assurance or quality control issues in 2022.

Environment I reported it completed and passed proficiency testing for its satellite lab (field testing equipment) in 2022.

NCDEQ- DWQ did not conduct a field review and inspection in 2022.

On April 3, 2007, the Division of Water Quality suspended the collection and analysis of total recoverable metals as required by the monitoring coalitions. The metals are no longer collected as part of the LNBA MOA agreement.

Environment I's contact information and sampling methods/protocols are listed in Section III with the sampling errors and omissions for 2022.

Special Projects

The Lower Neuse Basin Association, in cooperation with its sister organization, the Neuse River Compliance Association, has continued with its partnership with Dr. Hans Pearl of the University of North Carolina at Chapel Hill, Institute of Marine Science. The two associations support the MODMON monitoring program of the Neuse River Estuary. The associations began assisting with this research in July 2006.

Suggested Changes

There are no suggested changes at this time.

Statistical Analysis of Data

Statistical analyses of the data for each monitoring station are included in Section IV.

Section I

LNBA Members and Contact Information

NPDES Permit #	LNBA Permittees Ownership and Facility	Authorized Representative and Title	County	Region	HUC (8 Digit)
NC0003417	Duke Energy Progress Lee Steam Plant	Jeffery D. Hines General Manager	Wayne	WaRO	3020201
NC0003760	CovationBio, Inc.	Shelby Are Plant Manager	Lenoir	WaRO	3020202
NC0020389	Town of Benson - Benson WWTP	Tim Robbins Public Utility Director	Johnston	RRO	3020201
NC0021253	City of Havelock - Havelock WWTP	Chris McGee City Manager	Craven	WaRO	3020204
NC0021644	Town of LaGrange - LaGrange WWTP	John Craft Town Manager	Lenoir	WaRO	3020202
NC0023906	City of Wilson - Wilson WWTP	Grant Goings City Manager	Wilson	RRO	3020203
NC0023949	City of Goldsboro - Goldsboro WWTP	Timothy M. Salmon City Manager	Wayne	WaRO	3020202
NC0024236	City of Kinston - Kinston Regional WWTF	Rhonda Barwick Director of Public Services	Lenoir	WaRO	3020202
NC0025348	City of New Bern - New Bern WWTP	Foster Hughes City Manager	Craven	WaRO	3020204
NC0025453	Town of Clayton - Little Creek WWTP	Rich Cappola Town Manager	Johnston	RRO	3020201
NC0029033	City of Raleigh - Neuse River WWTP	John Kiviniemi Assistant Utility Director	Wake	RRO	3020201
NC0029572	Town of Farmville - Farmville WWTP	David Hodgkins Town Manager	Pitt	WaRO	3020203
NC0030716	Johnston County Central Johnston County Regional WWTP	Rick J. Hester County Manager	Johnston	RRO	3020201
NC0030759	City of Raleigh - Smith Creek WWTP	John Kiviniemi Assistant Utility Director	Wake	RRO	3020201
NC0032077	Contentnea Metropolitan Sewerage District Contentnea MSD WWTP	Charles M. Smithwick, Jr. District Manager	Pitt	WaRO	3020203
NC0048879	Town of Cary - North WWTP	Jonathon Bulla North Cary Faciility Manager	Wake	RRO	3020201
NC0064050	Town of Apex - Apex WRF	Catherine Crosby Town Manager	Wake	RRO	3020201
NC0064891	Town of Kenly - Kenly Regional WWTP	Tony Sears Interim Town Manager	Johnston	RRO	3020201
NC0065102	Town of Cary - South WWTP	Jarrod Buchanan South Cary Facility Manager	Wake	RRO	3020201
NC0066516	Town of Fuquay Varina Terrible Creek WWTP	Adam Mitchell Town Manager	Wake	RRO	3020201
NC0020842	Town of Snow Hill Snow Hill WWTF	Todd Whaley Town Manager	Greene	WaRO	3020203
NC0079316	City of Raleigh - Little Creek WWTP	John Kiviniemi Assistant Utility Director	Wake	RRO	3020203
NC0084735	Johnston County Johnston County WTP	Rick J. Hester County Manager	Johnston	RRO	3020201

Section II

Monitoring Station Information

List Of Monitoring Stations

Station	Location	County	Lattitude	Longitude	Class	Sub-Basin
J2230000	Smith Creek @ SR 2045 (Burlington Mill Road) near Wake Forest	Wake	35.9182	-78.5348	C NSW	03020201
J2330000	Neuse River at SR 2215 (Buffalo Road) near Neuse	Wake	35.8479	-78.5302	C NSW	03020201
J3310000	Crabtree Creek @ SR 2921, North Raleigh Blvd, Raleigh	Wake	35.8041	-78.6081	C NSW	03020201
J3970000	Walnut Creek at SR 2551 (Barwell Road) near Raleigh	Wake	35.7493	-78.5345	C NSW	03020201
J4050000	Neuse River @ SR 2555 (Auburn Knightdale Road) near Raleigh	Wake	35.7266	-78.5139	C NSW	03020201
J4080000	Poplar Creek @ SR 2049 (Bethlehem Road) near Knightdale	Wake	35.7309	-78.4776	C NSW	03020201
J4110000	Marks Creek @ SR 1714 (Pitchard Road) near Archer's Lodge	Johnston	35.7062	-78.4312	C NSW	03020201
J4115000	Marks Creek @ Neuse River Trail near Archers Lodge	Johnston	35.693264	-78.438694	C NSW	03020201
J4130000	Neuse River @ SR 1700 (Covered Bridge Road) near Archer's Lodge	Johnston	35.6749	-78.4364	WS-V NSW	03020201
J4170000	Neuse River @ at NC 42E of Clayton	Johnston	35.6473	-78.4056	WS-IV NSW	03020201
J4370000	Neuse River at US 70 Business @ Smithfield	Johnston	35.5128	-78.3498	WS-IV NSW	03020201
J4414000	Swift Creek @ SR 1152 (Holly Springs Road) near Macedonia	Wake	35.7187	-78.7527	WS-III NSW	03020201
J4500000	Swift Creek @ Indian Creek former discharge location near Garner, N.C.	Wake	35.6476	-78.6041	C NSW	03020201
J4510500	Swift Creek at SR 1525, Cornwallis Road near Clayton	Johnston	35.5999	-78.5356	C NSW	03020201
J4511000	White Oak Creek @ N.C. 42 Hwy near Clayton, N.C.	Johnston	35.6176	-78.5281	C NSW	03020201
J4520000	Swift Creek @ SR 1562 (Steel Bridge Road) near Smithfield, N.C.	Johnston	35.5515	-78.46	C NSW	03020201
J4580000	Swift Creek @ SR 1501 (Swift Creek Road) near the Johnston County Airport	Johnston	35.5442	-78.397	C NSW	03020201
J4690000	Middle Creek @ SR 1152 (Holly Springs Road) near Holly Springs	Wake	35.6609	-78.8042	C NSW	03020201
J4868000	Middle Creek @ SR 1375 (Lake Wheeler Road) near Banks	Wake	35.6356	-78.7279	C NSW	03020201

Station	Location	County	Lattitude	Longitude	Class	Sub-Basin
J4980000	Middle Creek @ SR 1006 (Old Stage Road) near Willow Springs	Wake	35.6091	-78.6866	C NSW	03020201
J5002000	Middle Creek @ SR 1517 (Old Sanders Hse) near Edmonson	Johnston	35.5626	-78.5756	C NSW	03020201
J5010000	Middle Creek @ NC 210 near Smithfield	Johnston	35.5075	-78.4013	C NSW	03020201
J5170000	Black Creek @ SR 1162 (Black Creek Road) near Four Oaks	Johnston	35.46925	-78.45681	C NSW	03020201
J5250000	Neuse River @ SR 1201 (Richardson Bridge Road) near Cox Mill	Johnston	35.3741	-78.1962	WS-IV NSW	03020201
J5390000	Hannah Creek @ SR 1158 (Allens Crossroads Drive) near Benson	Johnston	35.3868	-78.511	C NSW	03020201
J5390800	Hannah Creek @ SR 1227 (Ivey Road) near Benson	Johnston	35.4025	-78.4952	C NSW	03020201
J5410000	Mill Creek @ SR 1200 (Richardson Bridge Road) near Cox Mill	Johnston	35.342	-78.2162	C NSW	03020201
J5500000	Falling Creek @ SR 1219 (Old Grantham Road) near Grantham	Wayne	35.3224	-78.1282	WS-IV NSW	03020201
J5630000	Little River @ SR 2320, Riley Road near Zebulon	Wake	35.8375	-78.3599	HQW NSW	03020201
J5685000	Little River at Weaver Road near Bagley	Johnston	35.5791	-78.1723	WS-V NSW	03020201
J5750000	Little River at SR 2339 (Bagley Road) near Lowell Mill	Johnston	35.5613	-78.1594	WS-V NSW	03020201
J5790000	Buffalo Creek @ SR 2358 (Lake Glad Road) near Webdell, N.C.	Wake	35.7697	-78.7697	C NSW	03020201
J5930000	Little River @ US 581 near Cherry Hospital	Wayne	35.393	-78.0258	C NSW	03020201
J6010950	Walnut Creek @ SR 1730 (Saint Johns Church Road) near Walnut Creek	Wayne	35.2817	-77.8686	C NSW	03020202
J6024000	Neuse River @ SR 1731 (Piney Grove Road) near Seven Springs	Wayne	35.229	-77.846	C NSW	03020202
J6044400	Bear Creek at SR 1603, Washington Street near LaGrange	Lenoir	35.3137	-77.8153	C Sw NSW	03020202
J6044500	Bear Creek @ SR 1311 (Bear Creek Road) near Kinston	Lenoir	35.2489	-77.7843	WS-IV Sw NSW	03020202
J6055000	Mosley Creek @ SR 1327 (Willey Measley Road) near LaGrange	Lenoir	35.3119	-77.7313	C Sw NSW	03020202
J6150000	Neuse River @ NC 11 Bypass at Kinston	Lenoir	35.2587	-77.5835	C NSW	03020202
J6250000	Neuse River @ NC 55 near Graingers	Lenoir	35.2957	-77.4962	C NSW	03020202

Station	Location	County	Lattitude	Longitude	Class	Sub-Basin
J6410000	Little Creek @ NC 97 near Zebulon	Wake	35.8279	-78.3025	C NSW	03020203
J6450000	Little Creek @ NC 39 near Zebulon	Wake	35.8125	-78.2681	C NSW	03020203
J6500000	Moccasin Creek @ SR 1131 (Antioch Church Road) near Conner	Wilson	35.7301	-78.1895	C NSW	03020203
J6680000	Turkey Creek @ SR 1101 (Claude Lewis Rodd) near Middlesex	Nash	35.7519	-78.1597	C NSW	03020203
J6765000	Contentnea Creek at Willow Springs drive near Dixie	Wilson	35.6838	-77.941	C Sw NSW	03020203
J6890000	Contentnea Creek @ SR 1622 (Evansdale Road) near Wilson	Wilson	35.6429	-77.8902	C Sw NSW	03020203
J7210000	Contentnea Creek @ NC 58 near Stantonsburg	Wilson	35.5861	-77.8111	C Sw NSW	03020203
J7240000	Toisnot Swamp @ SR 1539 (Sand Pit Road) near Stantonsburg	Wilson	35.5976	-77.7947	C Sw NSW	03020203
J7325000	Nahunta Swamp @ NC 58 near Contentnea	Greene	35.5081	-77.7455	C Sw NSW	03020203
J7330000	Contentnea Creek @ US 13 near Snow Hill	Greene	35.4585	-77.6753	C Sw NSW	03020203
J7690000	Little Contentnea Creek @ SR 1218 (Chinquapin Road) near Farmville	Pitt	35.5881	-77.5416	C Sw NSW	03020203
J7740000	Little Contentnea Creek @ SR 1110 (HWY 903) near Scuffleton	Pitt	35.4567	-77.4854	C Sw NSW	03020203
J7850000	Neuse River @ SR 1470 (Maple Cypress Road) at the boat ramp dock upstre	Craven	35.31368	-77.30287	C Sw NSW	03020202
J8870000	Trent River @ the Alfred Cunningham Drawbridge on E. Front Street, New Be	Craven	35.10159	-77.03708	SB Sw NSW	03020204

Section III

Contract Laboratory Information, Audits, MOA Revisions, and Sample Errors and Omissions

Contract Laboratory Providing All Sampling and Analysis

Environment I, Inc. (soon to be Waypoint Analytical)
Mark Oliveira, President
P.O. Box 7085
114 Oakmont Dr.
Greenville, N.C. 27835-7085
252.756.6208
moliveira@environment1inc.com

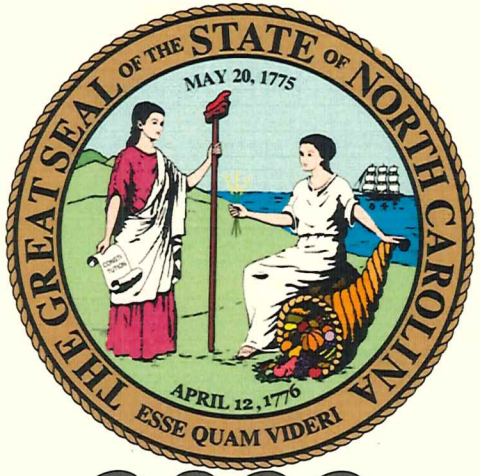
Environment 1, Inc. River Basin Method Codes 2022

Parameter	EPA / SM code	Rev./ date
Temp (˚ C)	SM 2550B	2010
DO (mg/l)	SM 4500 OG	2016
pH (su)	SM 4500 HB	2011
Conductivity (umhos/cm)	SM 2510 B	2011
Fecal Coliform	SM 9222 D	2015
Suspended Residue, (mg/l)	SM 2540 D	2015
Turbidity (NTU)	SM 2130 B	2011
Chlorophyll_a (ug/l)	EPA 445.0	Rev. 1.2 - 1997
NH3_N (mg/l)	EPA 350.1	Rev. 2.0 - 1993
TKN_N (mg/l)	EPA 351.2	Rev. 2.0 - 1993
NO2_NO3_N (mg/l)	EPA 353.2	Rev. 2.0 - 1993
TP (mg/l)	EPA 365.4	Rev. 2.0 - 1974

STATE OF NORTH CAROLINA DEPARTMENT OF ENVIRONMENTAL QUALITY

DIVISION OF WATER RESOURCES
LABORATORY CERTIFICATION BRANCH

In accordance with the provisions of N.C.G.S. 143-215.3 (a) (1), 143-215.3 (a)(10) and NCAC 2H.0800:



2022

Environment 1, Inc.

Is hereby certified to perform environmental analysis as listed on Attachment I and report monitoring data to DEQ for compliance with NPDES effluent, surface water, groundwater, and pretreatment regulations.

By reference 15A NCAC 2H .0800 is made a part of this certificate.

This certificate does not guarantee validity of data generated, but indicates the methodology, equipment, quality control procedures, records, and proficiency of the laboratory have been examined and found to be acceptable.

This certificate shall be valid until 12/31/2022

Certificate No. 10

Todd Crawford

Todd Crawford

North Carolina Wastewater/Groundwater Laboratory Certification

Certified Parameters Listing

Lab Name: Environment 1, Inc.
Address: 114 Oakmont Dr.
Greenville, NC 27858

Certificate Number: 10
Effective Date: 1/1/2022
Expiration Date: 12/31/2021
Date of Last Amendment: 10/13/2021

The above named laboratory, having duly met the requirements of 15A NCAC 2H.0800, is hereby certified for the measurement of the parameters listed below.

CERTIFIED PARAMETERS

INORGANIC

ALKALINITY
- SM 2320 B-2011 (Aqueous)

BACTERIA - COLIFORM FECAL
- SM 9221 E-2014 (MPN) (Aqueous)
- SM 9221 E-2014 (MPN) (Biosolids)
- SM 9222 D-2015 (MF) (Aqueous)

BACTERIA - COLIFORM TOTAL
- SM 9222 B-2015 (MF) (Aqueous)
- SM 9221 B-2014 (MPN) (Aqueous)

BACTERIA - ENTEROCOCCI
- IDEXX Enterolert® (MPN) (Aqueous)

BOD
- SM 5210 B-2016 (Aqueous)

CBOD
- SM 5210 B-2016 (Aqueous)

CHLORIDE
- SM 4500 Cl^- B-2011 (Aqueous)

CHLOROPHYLL a
- EPA 445.0, Rev. 1.2 (Fluorometric) (Aqueous)

COD
- Hach 8000 (Aqueous)

COLOR, ADMI
- SM 2120 F-2011 (ADMI) (Aqueous)

COLOR, PC
- SM 2120 B-2011 (PtCo) (Aqueous)

CONDUCTIVITY
- SM 2510 B-2011 (Aqueous)

CYANIDE
- SM 4500 CN^- E-2016 (Total) (Aqueous)
- SM 4500 CN^- E-2016 (Total) (Non-Aqueous)

DISSOLVED OXYGEN
- SM 4500 O G-2016 (Aqueous)

FLUORIDE
- SM 4500 F^- C-2011 (Aqueous)

HARDNESS TOTAL - WET CHEM
- SM 2340 C-2011 (Aqueous)

NITROGEN, AMMONIA
- EPA 350.1, Rev. 2.0, 1993 (Aqueous)

NITROGEN, NITRATE
- (NO3 + NO2 EPA 353.2, Rev. 2.0, 1993) - (NO2 EPA 353.2, Rev. 2.0, 1993) (Aqueous)

NITROGEN, NITRITE
- EPA 353.2, Rev. 2.0, 1993 (Aqueous)

NITROGEN, NO3 + NO2
- EPA 353.2, Rev. 2.0, 1993 (Aqueous)

NITROGEN, TOTAL KJELDAHL
- EPA 351.2, Rev. 2.0, 1993 (Aqueous)

OIL & GREASE
- EPA 1664 Rev. B (Aqueous)

ORGANIC CARBON, DISSOLVED
- SM 5310 C-2014 (UV Oxidation) (Aqueous)

ORGANIC CARBON, TOTAL
- SM 5310 C-2014 (UV Oxidation) (Aqueous)

pH
- SM 4500 H+B-2011 (Aqueous)

PHOSPHATE, ORTHO
- SM 4500 P E-2011 (Aqueous)

PHOSPHORUS, TOTAL
- EPA 365.4, 1974 (Aqueous)

RESIDUE, DISSOLVED 180 C
- SM 2540 C-2015 (Aqueous)
- ASTM D5907-13 (Aqueous)

RESIDUE, SETTLEABLE
- SM 2540 F-2015 (Aqueous)

RESIDUE, SUSPENDED
- SM 2540 D-2015 (Aqueous)

RESIDUE, TOTAL
- SM 2540 B-2015 (Aqueous)

This certification requires maintance of an acceptable quality assurance program, use of approved methodology, and satisfactory performance on evaluation samples. Laboratories are subject to civil penalties and/or decertification for infractions as set forth in 15A NCAC 2H.0807.

North Carolina Wastewater/Groundwater Laboratory Certification

Certified Parameters Listing

Lab Name: Environment 1, Inc.
Address: 114 Oakmont Dr.
Greenville, NC 27858

Certificate Number: 10
Effective Date: 1/1/2022
Expiration Date: 12/31/2021
Date of Last Amendment: 10/13/2021

The above named laboratory, having duly met the requirements of 15A NCAC 2H.0800, is hereby certified for the measurement of the parameters listed below.

CERTIFIED PARAMETERS

SM 2540 G-2015 (Non-Aqueous)
SALINITY
SM 2520 B-2011 (Aqueous)
SULFATE
SM 4500 $SO4^{2}$ E-2011 (Aqueous)
SULFIDE
SM 4500 S^{2-} D-2011 (Aqueous)
TEMPERATURE
SM 2550 B-2010 (Aqueous)
TURBIDITY
SM 2130 B-2011 (Aqueous)
METAL
ALUMINUM
EPA 200.7, Rev. 4.4, 1994 (Aqueous)
EPA 200.7, Rev. 4.4, 1994 (Non-Aqueous)
EPA 200.8, Rev. 5.4, 1994 (Aqueous)
SW-846 6020 B (Aqueous)
ANTIMONY
SM 3113 B-2010 (Aqueous)
EPA 200.8, Rev. 5.4, 1994 (Aqueous)
SW-846 6020 B (Aqueous)
ARSENIC
SM 3113 B-2010 (Aqueous)
SM 3113 B-2010 (Non-Aqueous)
EPA 200.8, Rev. 5.4, 1994 (Aqueous)
SW-846 6020 B (Aqueous)
BARIUM
EPA 200.7, Rev. 4.4, 1994 (Aqueous)
EPA 200.8, Rev. 5.4, 1994 (Aqueous)
SW-846 6020 B (Aqueous)
BERYLLIUM
EPA 200.7, Rev. 4.4, 1994 (Aqueous)
EPA 200.8, Rev. 5.4, 1994 (Aqueous)
SW-846 6020 B (Aqueous)
CADMIUM
SM 3113 B-2010 (Aqueous)
SM 3113 B-2010 (Non-Aqueous)
EPA 200.7, Rev. 4.4, 1994 (Aqueous)
EPA 200.8, Rev. 5.4, 1994 (Aqueous)
SW-846 6020 B (Aqueous)
CALCIUM
EPA 200.7, Rev. 4.4, 1994 (Aqueous)
EPA 200.7, Rev. 4.4, 1994 (Non-Aqueous)
EPA 200.8, Rev. 5.4, 1994 (Aqueous)
CHROMIUM TOTAL
EPA 200.7, Rev. 4.4, 1994 (Aqueous)
EPA 200.7, Rev. 4.4, 1994 (Non-Aqueous)
EPA 200.8, Rev. 5.4, 1994 (Aqueous)
SW-846 6020 B (Aqueous)
COBALT
EPA 200.7, Rev. 4.4, 1994 (Aqueous)
EPA 200.8, Rev. 5.4, 1994 (Aqueous)
SW-846 6020 B (Aqueous)
COPPER
SM 3111 B-2011 (Aqueous)
EPA 200.7, Rev. 4.4, 1994 (Aqueous)
EPA 200.7, Rev. 4.4, 1994 (Non-Aqueous)
EPA 200.8, Rev. 5.4, 1994 (Aqueous)
SW-846 6020 B (Aqueous)
IRON
SM 3111 B-2011 (Aqueous)
EPA 200.7, Rev. 4.4, 1994 (Aqueous)
EPA 200.7, Rev. 4.4, 1994 (Non-Aqueous)
EPA 200.8, Rev. 5.4, 1994 (Aqueous)
SW-846 6020 B (Aqueous)
LEAD
SM 3113 B-2010 (Aqueous)
SM 3113 B-2010 (Non-Aqueous)

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North Carolina Wastewater/Groundwater Laboratory Certification

Certified Parameters Listing

Lab Name:	Environment 1, Inc.	Certificate Number:	10
Address:	114 Oakmont Dr.	Effective Date:	1/1/2022
	Greenville, NC 27858	Expiration Date:	12/31/2021
		Date of Last Amendment:	10/13/2021

The above named laboratory, having duly met the requirements of 15A NCAC 2H.0800, is hereby certified for the measurement of the parameters listed below.

CERTIFIED PARAMETERS

EPA 200.7, Rev. 4.4, 1994 (Aqueous)
EPA 200.8, Rev. 5.4, 1994 (Aqueous)
SW-846 6020 B (Aqueous)

MAGNESIUM
SM 3111 B-2011 (Aqueous)
EPA 200.7, Rev. 4.4, 1994 (Aqueous)
EPA 200.7, Rev. 4.4, 1994 (Non-Aqueous)
EPA 200.8, Rev. 5.4, 1994 (Aqueous)

MANGANESE
SM 3111 B-2011 (Aqueous)
EPA 200.7, Rev. 4.4, 1994 (Aqueous)
EPA 200.7, Rev. 4.4, 1994 (Non-Aqueous)
EPA 200.8, Rev. 5.4, 1994 (Aqueous)

MERCURY
EPA 245.1, Rev. 3.0, 1994 (Aqueous)
SW-846 7471 B (Non-Aqueous)
EPA 1631 E (Aqueous)

MOLYBDENUM
EPA 200.7, Rev. 4.4, 1994 (Aqueous)
EPA 200.7, Rev. 4.4, 1994 (Non-Aqueous)
EPA 200.8, Rev. 5.4, 1994 (Aqueous)
SW-846 6020 B (Aqueous)

NICKEL
EPA 200.7, Rev. 4.4, 1994 (Aqueous)
EPA 200.7, Rev. 4.4, 1994 (Non-Aqueous)
EPA 200.8, Rev. 5.4, 1994 (Aqueous)
SW-846 6020 B (Aqueous)

POTASSIUM
SM 3111 B-2011 (Aqueous)
EPA 200.7, Rev. 4.4, 1994 (Aqueous)
EPA 200.7, Rev. 4.4, 1994 (Non-Aqueous)
EPA 200.8, Rev. 5.4, 1994 (Aqueous)

SELENIUM
SM 3113 B-2010 (Aqueous)
SM 3113 B-2010 (Non-Aqueous)
EPA 200.8, Rev. 5.4, 1994 (Aqueous)
SW-846 6020 B (Aqueous)

SILVER
SM 3113 B-2010 (Aqueous)
EPA 200.7, Rev. 4.4, 1994 (Aqueous)
EPA 200.7, Rev. 4.4, 1994 (Non-Aqueous)
EPA 200.8, Rev. 5.4, 1994 (Aqueous)
SW-846 6020 B (Aqueous)

SODIUM
SM 3111 B-2011 (Aqueous)
SM 3111 B-2011 (Non-Aqueous)
EPA 200.7, Rev. 4.4, 1994 (Aqueous)
EPA 200.7, Rev. 4.4, 1994 (Non-Aqueous)
EPA 200.8, Rev. 5.4, 1994 (Aqueous)

THALLIUM
EPA 279.2, 1978 (Aqueous)
EPA 200.8, Rev. 5.4, 1994 (Aqueous)
SW-846 6020 B (Aqueous)

TIN
EPA 200.7, Rev. 4.4, 1994 (Aqueous)
EPA 200.8, Rev. 5.4, 1994 (Aqueous)
SW-846 6020 B (Aqueous)

VANADIUM
EPA 200.7, Rev. 4.4, 1994 (Aqueous)
EPA 200.8, Rev. 5.4, 1994 (Aqueous)
SW-846 6020 B (Aqueous)

ZINC
SM 3111 B-2011 (Aqueous)
EPA 200.7, Rev. 4.4, 1994 (Aqueous)
EPA 200.7, Rev. 4.4, 1994 (Non-Aqueous)
EPA 200.8, Rev. 5.4, 1994 (Aqueous)
SW-846 6020 B (Aqueous)

ORGANIC

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North Carolina Wastewater/Groundwater Laboratory Certification

Certified Parameters Listing

Lab Name:	Environment 1, Inc.	Certificate Number:	10
Address:	114 Oakmont Dr.	Effective Date:	1/1/2022
	Greenville, NC 27858	Expiration Date:	12/31/2021
		Date of Last Amendment:	10/13/2021

The above named laboratory, having duly met the requirements of 15A NCAC 2H.0800, is hereby certified for the measurement of the parameters listed below.

CERTIFIED PARAMETERS

BASE NEUTRAL/ACID, ORGANICS
- EPA 625.1 (Aqueous)
- SW-846 8270 E (Aqueous)

CHLORINATED ACID HERBICIDES
- SW-846 8151 A (Aqueous)

PESTICIDES, ORGANOCHLORINE
- SW-846 8081 B (Aqueous)

PURGEABLE, AROMATICS
- EPA 602 (Aqueous)
- SM 6200 C-2011 (Aqueous)

PURGEABLE, HALOCARBONS
- SM 6200 C-2011 (Aqueous)

PURGEABLE, ORGANICS
- EPA 624.1 (Aqueous)
- SW-846 8260 D (Aqueous)

This certification requires maintance of an acceptable quality assurance program, use of approved methodology, and satisfactory performance on evaluation samples. Laboratories are subject to civil penalties and/or decertification for infractions as set forth in 15A NCAC 2H.0807.

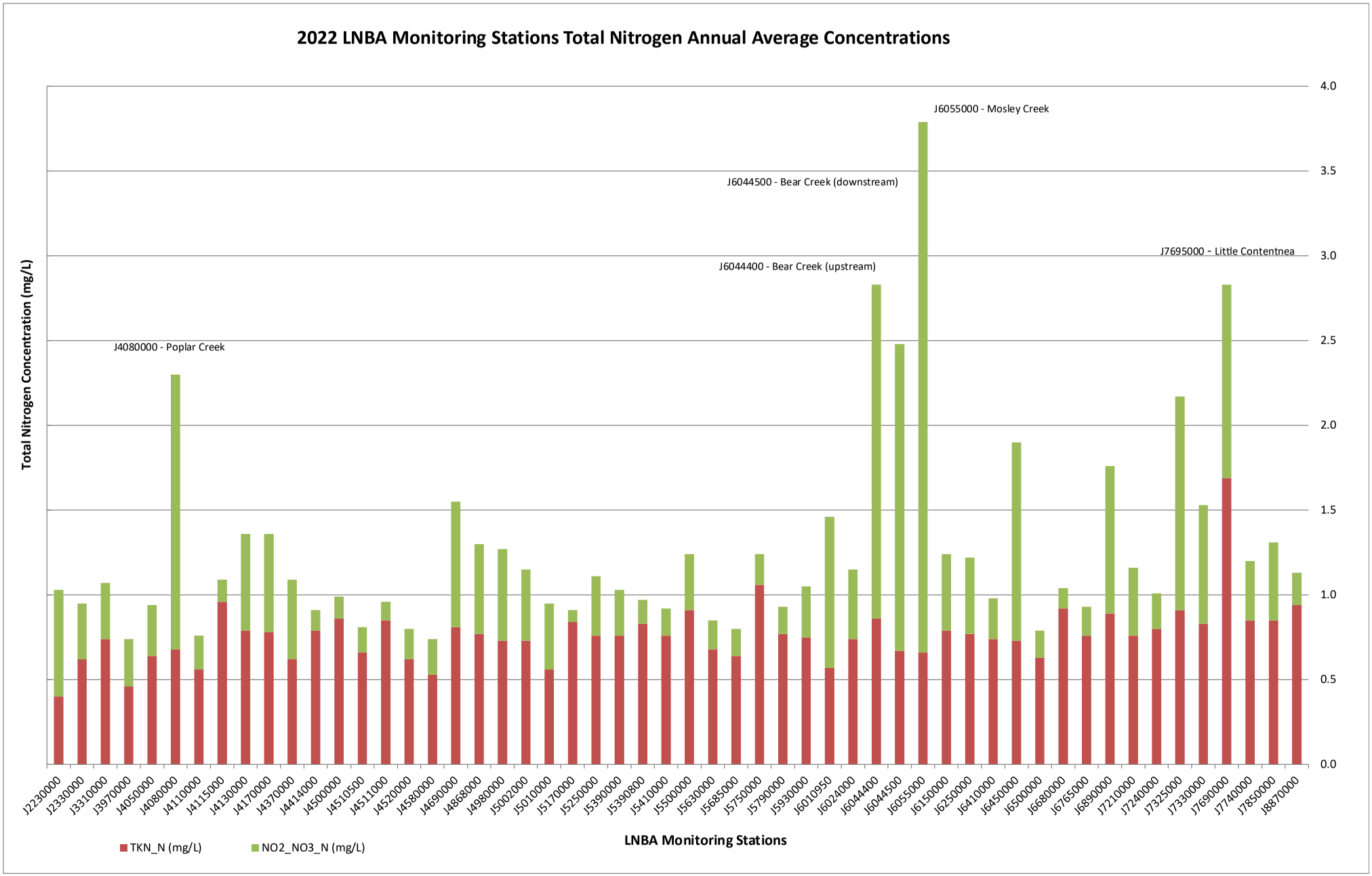
LNBA Sample Errors/Omissions for 2022

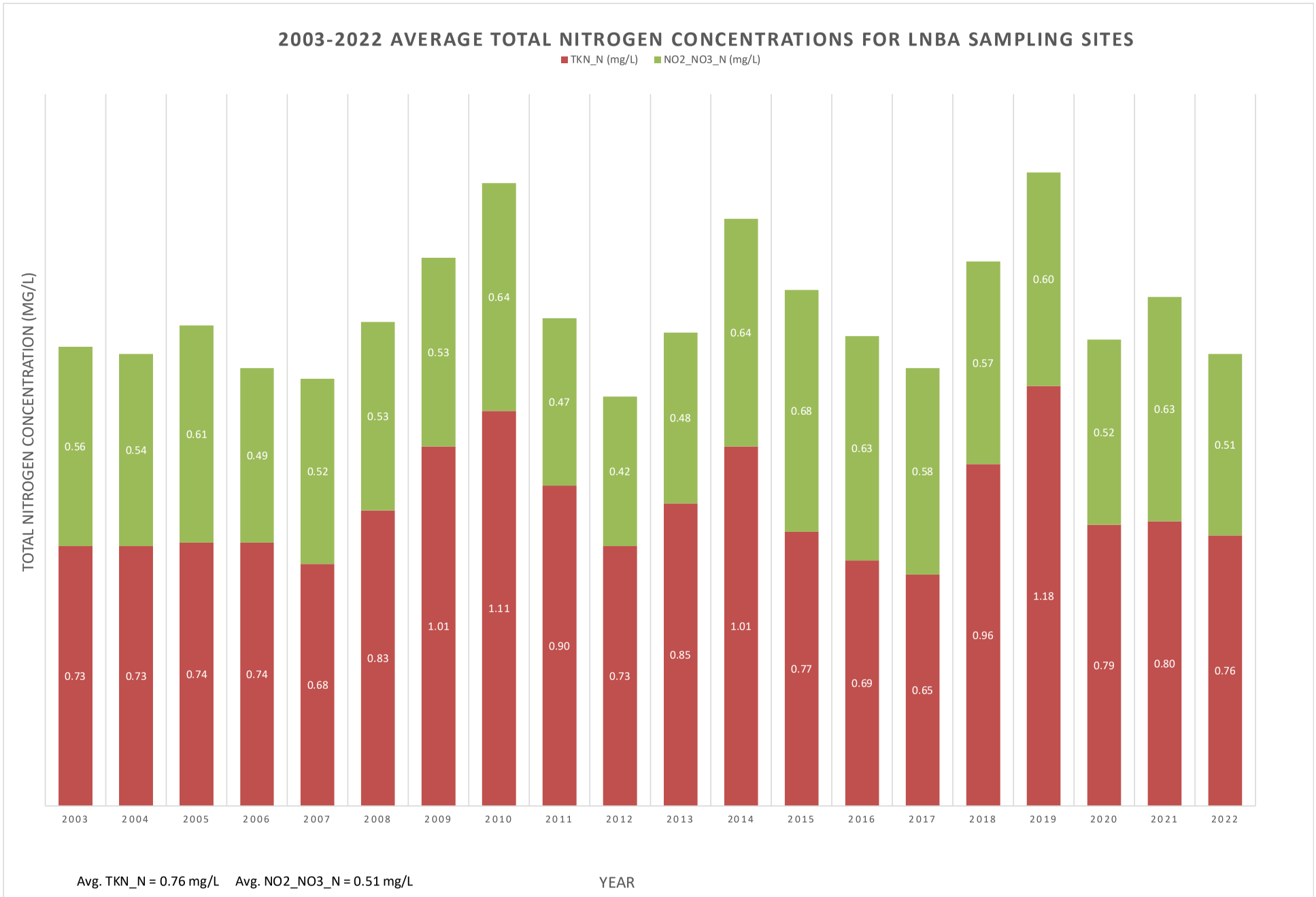
Date: 4/14/2023

May, 2022		
J2230000	5/4/2022	Unable to access- stream nearly dry
J4080000	5/16/2022	Unable to access- stream nearly dry
June, 2022		
J2230000	6/8/2022	Unable to access- stream nearly dry
J2230000	6/22/2022	Unable to access- stream nearly dry
J4080000	6/8/2022	Unable to access- stream nearly dry
J4690000	6/6/2022	Unable to access - construction
J4690000	6/23/2022	Unable to access - construction
J5390000	6/23/2022	Unable to Collect- Disconnected Stream
July, 2022		
J2230000	7/6/2022	Unable to access- stream nearly dry
J4080000	7/6/2022	Unable to access- stream nearly dry
J4110000	7/6/2022	Unable to access- stream nearly dry
J6055000	7/13/2022	Unable to access- stream nearly dry
J7850000	7/13/2022	Unable to access- road closed
August, 2022		
J4080000	8/15/2022	Unable to access- stream nearly dry
September, 2022		
J4080000	9/15/2022	Unable to access- stream nearly dry
J4690000	9/12/2022	Unable to access- road closed
J4690000	9/22/2022	Unable to access- road closed
November, 2022		
J4080000	11/28/2022	Unable to access- stream nearly dry
J4690000	11/7/2022	Unable to access- road closed
December, 2022		
J4080000	12/20/2022	Unable to access- stream nearly dry

Section IV

Statistical Analysis of Sampling Data


2022 LNBA Monitoring Stations Total Nitrogen Annual Average Concentrations
Total Nitrogen Concentration (mg/L)
4.0
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
J6055000 - Mosley Creek
J6044500 - Bear Creek (downstream)
J7695000 - Little Contentnea
J6044400 - Bear Creek (upstream)
J4080000 - Poplar Creek
J2230000
J2330000
J3310000
J3970000
J4050000
J4080000
J4110000
J4115000
J4130000
J4170000
J4370000
J4414000
J4500000
J4510500
J4511000
J4520000
J4558000
J4690000
J4868000
J4980000
J5002000
J5010000
J5170000
J5250000
J5390000
J5390800
J5410000
J5500000
J5630000
J5685000
J5750000
J5790000
J5930000
J6010950
J6024000
J6044400
J6044500
J6055000
J6150000
J6250000
J6410000
J6450000
J6500000
J6680000
J6765000
J6890000
J7210000
J7240000
J7325000
J7330000
J7690000
J7740000
J7850000
J8870000
LNBA Monitoring Stations
TKN_N (mg/L)
NO2_NO3_N (mg/L)



Avg. TKN_N = 0.76 mg/L Avg. NO2_NO3_N = 0.51 mg/L

2022 LNBA Monitoring Report

Station **J2230000** Smith Creek @ SR 2045 (Burlington Mill Road) near Wake Forest ***Stream Class:*** C NSW

County: Wake ***Sub-Basin:*** 03020201 ***Lattitude:*** 35.9182 ***Longitude:*** -78.5348

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
Temperature (C)	14	N/A	N/A	N/A	5.3	27.1	17.2
DO (mg/l)	14	N/A	4	0	6.9	12.1	9.2
****** pH (SU)***	14	N/A	6 to 9	0	6.9	7.4	N/A
Conductivity (umhos/cm)	14	0	N/A	N/A	88	149	114
***** Fecal Coliform (/100 mls)***	11	N/A	400	5	23	1,200	324
Suspended Residue (mg/l)	11	1	N/A	N/A	2.5	27.0	9.3
Turbidity (NTU)	11	N/A	50	0	4.7	45.0	20.6
Chlorophyll-a (ug/l)	0	0	40	0			
NH3_N (mg/l)	11	1	N/A	N/A	0.02	0.24	0.09
TKN_N (mg/l)	11	0	N/A	N/A	0.22	0.75	0.40
NO2_NO3_N (mg/l)	11	0	N/A	N/A	0.28	0.98	0.63
TP (mg/l)	11	0	N/A	N/A	0.03	0.20	0.08
Cadmium (ug/l)	0	0	2	0			
Chromium (ug/l)	0	0	50	0			
Copper (ug/l)	0	0	7	0			
Nickel (ug/l)	0	0	88	0			
Lead (ug/l)	0	0	25	0			
Zinc (ug/l)	0	0	50	0			
*******Aluminum (ug/l)***	0	0	87	0			
Iron (ug/l)	0	0	1,000	0			
Manganese (ug/l)	0	0	N/A	N/A			
Arsenic (ug/l)	0	0	10	0			
Mercury (ug/l)	0	0	0.012	N/A			

Notes: * Results below the laboratory reporting limit (<RL) are included in the calculation as if they were at the reporting level.
***** The Fecal Coliform average is a geometric mean.***
****** Tidal salt waters classified as swamp waters may have a pH as low as 4.3 if it is the result of natural conditions***
******* The aluminum reference level (Ref) is from the EPA's national recommended water quality criteria.***

2022 LNBA Monitoring Report

Station **J2330000** Neuse River at SR 2215 (Buffalo Road) near Neuse ***Stream Class:*** C NSW

County: Wake ***Sub-Basin:*** 03020201 ***Lattitude:*** 35.8479 ***Longitude:*** -78.5302

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
Temperature (C)	17	N/A	N/A	N/A	5.6	29.4	19.8
DO (mg/l)	17	N/A	4	0	5.4	11.7	8.4
****** pH (SU)***	17	N/A	6 to 9	0	6.4	7.6	N/A
Conductivity (umhos/cm)	17	0	N/A	N/A	85	128	114
***** Fecal Coliform (/100 mls)***	12	N/A	400	1	16	846	103
Suspended Residue (mg/l)	12	1	N/A	N/A	2.8	34.0	10.8
Turbidity (NTU)	12	N/A	50	1	5.2	55.0	16.3
Chlorophyll-a (ug/l)	0	0	40	0			
NH3_N (mg/l)	12	0	N/A	N/A	0.05	0.38	0.14
TKN_N (mg/l)	12	0	N/A	N/A	0.28	0.90	0.62
NO2_NO3_N (mg/l)	12	0	N/A	N/A	0.18	0.55	0.33
TP (mg/l)	12	1	N/A	N/A	0.02	0.23	0.08
Cadmium (ug/l)	0	0	2	0			
Chromium (ug/l)	0	0	50	0			
Copper (ug/l)	0	0	7	0			
Nickel (ug/l)	0	0	88	0			
Lead (ug/l)	0	0	25	0			
Zinc (ug/l)	0	0	50	0			
*******Aluminum (ug/l)***	0	0	87	0			
Iron (ug/l)	0	0	1,000	0			
Manganese (ug/l)	0	0	N/A	N/A			
Arsenic (ug/l)	0	0	10	0			
Mercury (ug/l)	0	0	0.012	N/A			

Notes: * Results below the laboratory reporting limit (<RL) are included in the calculation as if they were at the reporting level.
***** The Fecal Coliform average is a geometric mean.***
****** Tidal salt waters classified as swamp waters may have a pH as low as 4.3 if it is the result of natural conditions***
******* The aluminum reference level (Ref) is from the EPA's national recommended water quality criteria.***

2022 LNBA Monitoring Report

Station **J3310000** Crabtree Creek @ SR 2921, North Raleigh Blvd, Raleigh ***Stream Class:*** C NSW

County: Wake ***Sub-Basin:*** 03020201 ***Lattitude:*** 35.8041 ***Longitude:*** -78.6081

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
Temperature (C)	17	N/A	N/A	N/A	5.4	28.5	19.1
DO (mg/l)	17	N/A	4	0	5.5	11.8	8.4
**** pH (SU)*	17	N/A	6 to 9	0	6.9	7.5	N/A
Conductivity (umhos/cm)	17	0	N/A	N/A	99	327	203
*** Fecal Coliform (/100 mls)*	12	N/A	400	7	62	2,100	370
Suspended Residue (mg/l)	12	2	N/A	N/A	2.5	81.0	12.1
Turbidity (NTU)	12	N/A	50	1	3.9	60.0	17.8
Chlorophyll-a (ug/l)	0	0	40	0			
NH3_N (mg/l)	12	0	N/A	N/A	0.04	0.14	0.10
TKN_N (mg/l)	12	0	N/A	N/A	0.32	1.20	0.74
NO2_NO3_N (mg/l)	12	0	N/A	N/A	0.08	0.54	0.33
TP (mg/l)	12	1	N/A	N/A	0.02	0.22	0.08
Cadmium (ug/l)	0	0	2	0			
Chromium (ug/l)	0	0	50	0			
Copper (ug/l)	0	0	7	0			
Nickel (ug/l)	0	0	88	0			
Lead (ug/l)	0	0	25	0			
Zinc (ug/l)	0	0	50	0			
*****Aluminum (ug/l)*	0	0	87	0			
Iron (ug/l)	0	0	1,000	0			
Manganese (ug/l)	0	0	N/A	N/A			
Arsenic (ug/l)	0	0	10	0			
Mercury (ug/l)	0	0	0.012	N/A			

*Notes: * Results below the laboratory reporting limit (<RL) are included in the calculation as if they were at the reporting level.*
*** The Fecal Coliform average is a geometric mean.*
**** Tidal salt waters classified as swamp waters may have a pH as low as 4.3 if it is the result of natural conditions*
***** The aluminum reference level (Ref) is from the EPA's national recommended water quality criteria.*

2022 LNBA Monitoring Report

Station **J3970000** Walnut Creek at SR 2551 (Barwell Road) near Raleigh ***Stream Class:*** C NSW

County: Wake ***Sub-Basin:*** 03020201 ***Lattitude:*** 35.7493 ***Longitude:*** -78.5345

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
Temperature (C)	17	N/A	N/A	N/A	4.8	26.9	18.3
DO (mg/l)	17	N/A	4	0	6.3	11.9	8.8
****** pH (SU)***	17	N/A	6 to 9	0	6.6	7.4	N/A
Conductivity (umhos/cm)	17	0	N/A	N/A	89	175	140
***** Fecal Coliform (/100 mls)***	12	N/A	400	5	26	3,700	290
Suspended Residue (mg/l)	12	1	N/A	N/A	2.6	18.0	6.5
Turbidity (NTU)	12	N/A	50	0	5.5	37.0	15.8
Chlorophyll-a (ug/l)	0	0	40	0			
NH3_N (mg/l)	12	1	N/A	N/A	0.02	0.11	0.07
TKN_N (mg/l)	12	1	N/A	N/A	0.20	0.72	0.46
NO2_NO3_N (mg/l)	12	0	N/A	N/A	0.16	0.60	0.28
TP (mg/l)	12	2	N/A	N/A	0.02	0.11	0.06
Cadmium (ug/l)	0	0	2	0			
Chromium (ug/l)	0	0	50	0			
Copper (ug/l)	0	0	7	0			
Nickel (ug/l)	0	0	88	0			
Lead (ug/l)	0	0	25	0			
Zinc (ug/l)	0	0	50	0			
*******Aluminum (ug/l)***	0	0	87	0			
Iron (ug/l)	0	0	1,000	0			
Manganese (ug/l)	0	0	N/A	N/A			
Arsenic (ug/l)	0	0	10	0			
Mercury (ug/l)	0	0	0.012	N/A			

Notes: * Results below the laboratory reporting limit (<RL) are included in the calculation as if they were at the reporting level.
***** The Fecal Coliform average is a geometric mean.***
****** Tidal salt waters classified as swamp waters may have a pH as low as 4.3 if it is the result of natural conditions***
******* The aluminum reference level (Ref) is from the EPA's national recommended water quality criteria.***

2022 LNBA Monitoring Report

Station **J4050000** Neuse River @ SR 2555 (Auburn Knightdale Road) near Raleigh ***Stream Class:*** C NSW

County: Wake ***Sub-Basin:*** 03020201 ***Lattitude:*** 35.7266 ***Longitude:*** -78.5139

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
Temperature (C)	17	N/A	N/A	N/A	4.6	28.7	19.3
DO (mg/l)	17	N/A	4	0	6.2	12.1	8.5
****** pH (SU)***	17	N/A	6 to 9	0	7.0	7.4	N/A
Conductivity (umhos/cm)	17	0	N/A	N/A	98	166	128
***** Fecal Coliform (/100 mls)***	12	N/A	400	3	44	1,800	165
Suspended Residue (mg/l)	12	0	N/A	N/A	2.6	76.0	16.7
Turbidity (NTU)	12	N/A	50	1	4.8	80.0	20.0
Chlorophyll-a (ug/l)	0	0	40	0			
NH3_N (mg/l)	12	1	N/A	N/A	0.02	0.16	0.08
TKN_N (mg/l)	12	0	N/A	N/A	0.21	1.29	0.64
NO2_NO3_N (mg/l)	12	0	N/A	N/A	0.19	0.46	0.30
TP (mg/l)	12	3	N/A	N/A	0.02	0.33	0.08
Cadmium (ug/l)	0	0	2	0			
Chromium (ug/l)	0	0	50	0			
Copper (ug/l)	0	0	7	0			
Nickel (ug/l)	0	0	88	0			
Lead (ug/l)	0	0	25	0			
Zinc (ug/l)	0	0	50	0			
*******Aluminum (ug/l)***	0	0	87	0			
Iron (ug/l)	0	0	1,000	0			
Manganese (ug/l)	0	0	N/A	N/A			
Arsenic (ug/l)	0	0	10	0			
Mercury (ug/l)	0	0	0.012	N/A			

Notes: * Results below the laboratory reporting limit (<RL) are included in the calculation as if they were at the reporting level.
***** The Fecal Coliform average is a geometric mean.***
****** Tidal salt waters classified as swamp waters may have a pH as low as 4.3 if it is the result of natural conditions***
******* The aluminum reference level (Ref) is from the EPA's national recommended water quality criteria.***

2022 LNBA Monitoring Report

Station **J4080000** Poplar Creek @ SR 2049 (Bethlehem Road) near Knightdale ***Stream Class:*** C NSW

County: Wake ***Sub-Basin:*** 03020201 ***Lattitude:*** 35.7309 ***Longitude:*** -78.4776

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
Temperature (C)	13	N/A	N/A	N/A	6.4	24.0	17.5
DO (mg/l)	13	N/A	4	0	7.1	11.1	9.1
****** pH (SU)***	13	N/A	6 to 9	0	6.9	7.2	N/A
Conductivity (umhos/cm)	13	0	N/A	N/A	107	204	150
***** Fecal Coliform (/100 mls)***	7	N/A	400	3	190	800	403
Suspended Residue (mg/l)	6	0	N/A	N/A	2.8	14.0	9.7
Turbidity (NTU)	6	N/A	50	0	3.7	18.0	11.0
Chlorophyll-a (ug/l)	0	0	40	0			
NH3_N (mg/l)	6	1	N/A	N/A	0.02	0.28	0.15
TKN_N (mg/l)	6	0	N/A	N/A	0.37	1.51	0.68
NO2_NO3_N (mg/l)	6	0	N/A	N/A	0.86	2.43	1.62
TP (mg/l)	6	0	N/A	N/A	0.12	0.42	0.23
Cadmium (ug/l)	0	0	2	0			
Chromium (ug/l)	0	0	50	0			
Copper (ug/l)	0	0	7	0			
Nickel (ug/l)	0	0	88	0			
Lead (ug/l)	0	0	25	0			
Zinc (ug/l)	0	0	50	0			
*******Aluminum (ug/l)***	0	0	87	0			
Iron (ug/l)	0	0	1,000	0			
Manganese (ug/l)	0	0	N/A	N/A			
Arsenic (ug/l)	0	0	10	0			
Mercury (ug/l)	0	0	0.012	N/A			

Notes: * Results below the laboratory reporting limit (<RL) are included in the calculation as if they were at the reporting level.
***** The Fecal Coliform average is a geometric mean.***
****** Tidal salt waters classified as swamp waters may have a pH as low as 4.3 if it is the result of natural conditions***
******* The aluminum reference level (Ref) is from the EPA's national recommended water quality criteria.***

2022 LNBA Monitoring Report

Station **J4110000** Marks Creek @ SR 1714 (Pitchard Road) near Archer's Lodge ***Stream Class:*** C NSW

County: Johnston ***Sub-Basin:*** 03020201 ***Lattitude:*** 35.7062 ***Longitude:*** -78.4312

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
Temperature (C)	14	N/A	N/A	N/A	4.4	27.4	18.6
DO (mg/l)	14	N/A	4	0	6.0	12.3	8.5
****** pH (SU)***	14	N/A	6 to 9	0	6.8	7.3	N/A
Conductivity (umhos/cm)	14	0	N/A	N/A	76	129	88
***** Fecal Coliform (/100 mls)***	10	N/A	400	5	56	964	372
Suspended Residue (mg/l)	10	1	N/A	N/A	2.5	21.0	8.4
Turbidity (NTU)	10	N/A	50	0	5.6	35.0	15.5
Chlorophyll-a (ug/l)	0	0	40	0			
NH3_N (mg/l)	10	0	N/A	N/A	0.03	0.10	0.07
TKN_N (mg/l)	10	1	N/A	N/A	0.20	0.85	0.56
NO2_NO3_N (mg/l)	10	1	N/A	N/A	0.02	0.35	0.20
TP (mg/l)	10	0	N/A	N/A	0.03	0.08	0.05
Cadmium (ug/l)	0	0	2	0			
Chromium (ug/l)	0	0	50	0			
Copper (ug/l)	0	0	7	0			
Nickel (ug/l)	0	0	88	0			
Lead (ug/l)	0	0	25	0			
Zinc (ug/l)	0	0	50	0			
*******Aluminum (ug/l)***	0	0	87	0			
Iron (ug/l)	0	0	1,000	0			
Manganese (ug/l)	0	0	N/A	N/A			
Arsenic (ug/l)	0	0	10	0			
Mercury (ug/l)	0	0	0.012	N/A			

Notes: * Results below the laboratory reporting limit (<RL) are included in the calculation as if they were at the reporting level.
***** The Fecal Coliform average is a geometric mean.***
****** Tidal salt waters classified as swamp waters may have a pH as low as 4.3 if it is the result of natural conditions***
******* The aluminum reference level (Ref) is from the EPA's national recommended water quality criteria.***

2022 LNBA Monitoring Report

Station **J4115000** Marks Creek @ Neuse River Trail near Archers Lodge ***Stream Class:*** C NSW

County: Johnston ***Sub-Basin:*** 03020201 ***Lattitude:*** 35.693264 ***Longitude:*** -78.43869

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
Temperature (C)	2	N/A	N/A	N/A	4.1	10.5	7.3
DO (mg/l)	2	N/A	4	0	10.6	12.5	11.6
****** pH (SU)***	2	N/A	6 to 9	0	7.1	7.2	N/A
Conductivity (umhos/cm)	2	0	N/A	N/A	85	92	89
***** Fecal Coliform (/100 mls)***	2	N/A	400	0	210	370	279
Suspended Residue (mg/l)	2	0	N/A	N/A	10.0	10.0	10.0
Turbidity (NTU)	2	N/A	50	0	13.0	14.0	13.5
Chlorophyll-a (ug/l)	0	0	40	0			
NH3_N (mg/l)	2	0	N/A	N/A	0.09	0.11	0.10
TKN_N (mg/l)	2	0	N/A	N/A	0.81	1.10	0.96
NO2_NO3_N (mg/l)	2	0	N/A	N/A	0.09	0.17	0.13
TP (mg/l)	2	0	N/A	N/A	0.08	0.09	0.09
Cadmium (ug/l)	0	0	2	0			
Chromium (ug/l)	0	0	50	0			
Copper (ug/l)	0	0	7	0			
Nickel (ug/l)	0	0	88	0			
Lead (ug/l)	0	0	25	0			
Zinc (ug/l)	0	0	50	0			
*******Aluminum (ug/l)***	0	0	87	0			
Iron (ug/l)	0	0	1,000	0			
Manganese (ug/l)	0	0	N/A	N/A			
Arsenic (ug/l)	0	0	10	0			
Mercury (ug/l)	0	0	0.012	N/A			

Notes: * Results below the laboratory reporting limit (<RL) are included in the calculation as if they were at the reporting level.
***** The Fecal Coliform average is a geometric mean.***
****** Tidal salt waters classified as swamp waters may have a pH as low as 4.3 if it is the result of natural conditions***
******* The aluminum reference level (Ref) is from the EPA's national recommended water quality criteria.***

2022 LNBA Monitoring Report

Station **J4130000** Neuse River @ SR 1700 (Covered Bridge Road) near Archer's Lodge ***Stream Class:*** WS-V NSW

County: Johnston ***Sub-Basin:*** 03020201 ***Lattitude:*** 35.6749 ***Longitude:*** -78.4364

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
Temperature (C)	17	N/A	N/A	N/A	5.9	27.9	19.5
DO (mg/l)	17	N/A	4	1	1.5	11.2	7.9
****** pH (SU)***	17	N/A	6 to 9	0	6.8	7.3	N/A
Conductivity (umhos/cm)	17	0	N/A	N/A	102	279	208
***** Fecal Coliform (/100 mls)***	12	N/A	400	2	38	2,200	156
Suspended Residue (mg/l)	12	1	N/A	N/A	2.5	65.0	18.0
Turbidity (NTU)	12	N/A	50	1	3.9	90.0	22.1
Chlorophyll-a (ug/l)	0	0	40	0			
NH3_N (mg/l)	12	0	N/A	N/A	0.04	0.43	0.12
TKN_N (mg/l)	12	0	N/A	N/A	0.30	1.07	0.70
NO2_NO3_N (mg/l)	12	0	10	0	0.30	0.79	0.57
TP (mg/l)	12	0	N/A	N/A	0.07	0.83	0.31
Cadmium (ug/l)	0	0	2	0			
Chromium (ug/l)	0	0	50	0			
Copper (ug/l)	0	0	7	0			
Nickel (ug/l)	0	0	25	0			
Lead (ug/l)	0	0	25	0			
Zinc (ug/l)	0	0	50	0			
*******Aluminum (ug/l)***	0	0	87	0			
Iron (ug/l)	0	0	1,000	0			
Manganese (ug/l)	0	0	200	0			
Arsenic (ug/l)	0	0	10	0			
Mercury (ug/l)	0	0	0.012	N/A			

Notes: * Results below the laboratory reporting limit (<RL) are included in the calculation as if they were at the reporting level.
***** The Fecal Coliform average is a geometric mean.***
****** Tidal salt waters classified as swamp waters may have a pH as low as 4.3 if it is the result of natural conditions***
******* The aluminum reference level (Ref) is from the EPA's national recommended water quality criteria.***

2022 LNBA Monitoring Report

Station **J4170000** Neuse River @ at NC 42E of Clayton ***Stream Class:*** WS-IV NSW

County: Johnston ***Sub-Basin:*** 03020201 ***Lattitude:*** 35.6473 ***Longitude:*** -78.4056

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
Temperature (C)	17	N/A	N/A	N/A	5.9	28.3	19.4
DO (mg/l)	17	N/A	4	0	6.0	11.4	8.0
****** pH (SU)***	17	N/A	6 to 9	0	6.8	7.4	N/A
Conductivity (umhos/cm)	17	0	N/A	N/A	102	281	214
***** Fecal Coliform (/100 mls)***	12	N/A	400	2	58	2,500	208
Suspended Residue (mg/l)	12	1	N/A	N/A	2.5	98.0	18.0
Turbidity (NTU)	12	N/A	50	1	3.4	90.0	23.0
Chlorophyll-a (ug/l)	0	0	40	0			
NH3_N (mg/l)	12	0	N/A	N/A	0.03	0.12	0.08
TKN_N (mg/l)	12	0	N/A	N/A	0.26	1.40	0.78
NO2_NO3_N (mg/l)	12	0	10	0	0.33	0.83	0.58
TP (mg/l)	12	0	N/A	N/A	0.07	0.81	0.26
Cadmium (ug/l)	0	0	2	0			
Chromium (ug/l)	0	0	50	0			
Copper (ug/l)	0	0	7	0			
Nickel (ug/l)	0	0	25	0			
Lead (ug/l)	0	0	25	0			
Zinc (ug/l)	0	0	50	0			
*******Aluminum (ug/l)***	0	0	87	0			
Iron (ug/l)	0	0	1,000	0			
Manganese (ug/l)	0	0	200	0			
Arsenic (ug/l)	0	0	10	0			
Mercury (ug/l)	0	0	0.012	N/A			

Notes: * Results below the laboratory reporting limit (<RL) are included in the calculation as if they were at the reporting level.
***** The Fecal Coliform average is a geometric mean.***
****** Tidal salt waters classified as swamp waters may have a pH as low as 4.3 if it is the result of natural conditions***
******* The aluminum reference level (Ref) is from the EPA's national recommended water quality criteria.***

2022 LNBA Monitoring Report

Station **J4370000** Neuse River at US 70 Business @ Smithfield ***Stream Class:*** WS-IV NSW

County: Johnston ***Sub-Basin:*** 03020201 ***Lattitude:*** 35.5128 ***Longitude:*** -78.3498

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
Temperature (C)	17	N/A	N/A	N/A	6.7	28.4	20.4
DO (mg/l)	17	N/A	4	0	5.5	11.2	8.0
****** pH (SU)***	17	N/A	6 to 9	0	6.7	7.5	N/A
Conductivity (umhos/cm)	17	0	N/A	N/A	121	276	206
***** Fecal Coliform (/100 mls)***	12	N/A	400	2	43	530	177
Suspended Residue (mg/l)	12	0	N/A	N/A	6.0	57.0	20.0
Turbidity (NTU)	12	N/A	50	0	6.7	50.0	21.0
Chlorophyll-a (ug/l)	0	0	40	0			
NH3_N (mg/l)	12	0	N/A	N/A	0.03	0.14	0.07
TKN_N (mg/l)	12	0	N/A	N/A	0.43	0.88	0.62
NO2_NO3_N (mg/l)	12	0	10	0	0.10	0.68	0.47
TP (mg/l)	12	0	N/A	N/A	0.03	0.70	0.20
Cadmium (ug/l)	0	0	2	0			
Chromium (ug/l)	0	0	50	0			
Copper (ug/l)	0	0	7	0			
Nickel (ug/l)	0	0	25	0			
Lead (ug/l)	0	0	25	0			
Zinc (ug/l)	0	0	50	0			
*******Aluminum (ug/l)***	0	0	87	0			
Iron (ug/l)	0	0	1,000	0			
Manganese (ug/l)	0	0	200	0			
Arsenic (ug/l)	0	0	10	0			
Mercury (ug/l)	0	0	0.012	N/A			

Notes: * Results below the laboratory reporting limit (<RL) are included in the calculation as if they were at the reporting level.
***** The Fecal Coliform average is a geometric mean.***
****** Tidal salt waters classified as swamp waters may have a pH as low as 4.3 if it is the result of natural conditions***
******* The aluminum reference level (Ref) is from the EPA's national recommended water quality criteria.***

2022 LNBA Monitoring Report

Station **J4414000** Swift Creek @ SR 1152 (Holly Springs Road) near Macedonia ***Stream Class:*** WS-III NSW

County: Wake ***Sub-Basin:*** 03020201 ***Lattitude:*** 35.7187 ***Longitude:*** -78.7527

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
Temperature (C)	17	N/A	N/A	N/A	5.7	27.3	18.5
DO (mg/l)	17	N/A	4	1	3.3	12.2	7.5
****** pH (SU)***	17	N/A	6 to 9	1	6.0	9.3	N/A
Conductivity (umhos/cm)	17	0	N/A	N/A	75	194	118
***** Fecal Coliform (/100 mls)***	12	N/A	400	4	58	1,000	236
Suspended Residue (mg/l)	12	1	N/A	N/A	2.5	18.0	6.1
Turbidity (NTU)	12	N/A	50	0	5.1	40.0	12.5
Chlorophyll-a (ug/l)	0	0	40	0			
NH3_N (mg/l)	12	0	N/A	N/A	0.02	0.16	0.08
TKN_N (mg/l)	12	0	N/A	N/A	0.36	1.20	0.79
NO2_NO3_N (mg/l)	12	2	10	0	0.02	0.26	0.12
TP (mg/l)	12	1	N/A	N/A	0.02	0.21	0.08
Cadmium (ug/l)	0	0	2	0			
Chromium (ug/l)	0	0	50	0			
Copper (ug/l)	0	0	7	0			
Nickel (ug/l)	0	0	25	0			
Lead (ug/l)	0	0	25	0			
Zinc (ug/l)	0	0	50	0			
*******Aluminum (ug/l)***	0	0	87	0			
Iron (ug/l)	0	0	1,000	0			
Manganese (ug/l)	0	0	200	0			
Arsenic (ug/l)	0	0	10	0			
Mercury (ug/l)	0	0	0.012	N/A			

Notes: * Results below the laboratory reporting limit (<RL) are included in the calculation as if they were at the reporting level.
***** The Fecal Coliform average is a geometric mean.***
****** Tidal salt waters classified as swamp waters may have a pH as low as 4.3 if it is the result of natural conditions***
******* The aluminum reference level (Ref) is from the EPA's national recommended water quality criteria.***

2022 LNBA Monitoring Report

Station **J4500000** Swift Creek @ Indian Creek former discharge location near Garner, N.C. ***Stream Class:*** C NSW

County: Wake ***Sub-Basin:*** 03020201 ***Lattitude:*** 35.6476 ***Longitude:*** -78.6041

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
Temperature (C)	17	N/A	N/A	N/A	7.0	27.3	19.5
DO (mg/l)	17	N/A	4	2	1.0	11.8	6.3
**** pH (SU)*	17	N/A	6 to 9	2	5.1	7.5	N/A
Conductivity (umhos/cm)	17	0	N/A	N/A	69	149	94
*** Fecal Coliform (/100 mls)*	12	N/A	400	3	40	1,400	160
Suspended Residue (mg/l)	12	0	N/A	N/A	6.5	123.0	35.5
Turbidity (NTU)	12	N/A	50	0	11.0	50.0	26.8
Chlorophyll-a (ug/l)	0	0	40	0			
NH3_N (mg/l)	12	0	N/A	N/A	0.03	0.16	0.10
TKN_N (mg/l)	12	0	N/A	N/A	0.55	1.55	0.86
NO2_NO3_N (mg/l)	12	0	N/A	N/A	0.04	0.24	0.13
TP (mg/l)	12	0	N/A	N/A	0.04	0.09	0.07
Cadmium (ug/l)	0	0	2	0			
Chromium (ug/l)	0	0	50	0			
Copper (ug/l)	0	0	7	0			
Nickel (ug/l)	0	0	88	0			
Lead (ug/l)	0	0	25	0			
Zinc (ug/l)	0	0	50	0			
*****Aluminum (ug/l)*	0	0	87	0			
Iron (ug/l)	0	0	1,000	0			
Manganese (ug/l)	0	0	N/A	N/A			
Arsenic (ug/l)	0	0	10	0			
Mercury (ug/l)	0	0	0.012	N/A			

*Notes: * Results below the laboratory reporting limit (<RL) are included in the calculation as if they were at the reporting level.*
*** The Fecal Coliform average is a geometric mean.*
**** Tidal salt waters classified as swamp waters may have a pH as low as 4.3 if it is the result of natural conditions*
***** The aluminum reference level (Ref) is from the EPA's national recommended water quality criteria.*

2022 LNBA Monitoring Report

Station **J4510500** Swift Creek at SR 1525, Cornwallis Road near Clayton ***Stream Class:*** C NSW

County: Johnston ***Sub-Basin:*** 03020201 ***Lattitude:*** 35.5999 ***Longitude:*** -78.5356

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
Temperature (C)	17	N/A	N/A	N/A	5.8	26.6	19.2
DO (mg/l)	17	N/A	4	0	6.0	12.1	8.0
****** pH (SU)***	17	N/A	6 to 9	0	6.7	7.6	N/A
Conductivity (umhos/cm)	17	0	N/A	N/A	61	108	92
***** Fecal Coliform (/100 mls)***	12	N/A	400	1	10	709	117
Suspended Residue (mg/l)	12	1	N/A	N/A	2.5	21.0	9.1
Turbidity (NTU)	12	N/A	50	0	8.5	50.0	17.2
Chlorophyll-a (ug/l)	0	0	40	0			
NH3_N (mg/l)	12	1	N/A	N/A	0.02	0.13	0.08
TKN_N (mg/l)	12	0	N/A	N/A	0.43	0.88	0.66
NO2_NO3_N (mg/l)	12	0	N/A	N/A	0.03	0.27	0.15
TP (mg/l)	12	1	N/A	N/A	0.02	0.08	0.05
Cadmium (ug/l)	0	0	2	0			
Chromium (ug/l)	0	0	50	0			
Copper (ug/l)	0	0	7	0			
Nickel (ug/l)	0	0	88	0			
Lead (ug/l)	0	0	25	0			
Zinc (ug/l)	0	0	50	0			
*******Aluminum (ug/l)***	0	0	87	0			
Iron (ug/l)	0	0	1,000	0			
Manganese (ug/l)	0	0	N/A	N/A			
Arsenic (ug/l)	0	0	10	0			
Mercury (ug/l)	0	0	0.012	N/A			

Notes: * Results below the laboratory reporting limit (<RL) are included in the calculation as if they were at the reporting level.
***** The Fecal Coliform average is a geometric mean.***
****** Tidal salt waters classified as swamp waters may have a pH as low as 4.3 if it is the result of natural conditions***
******* The aluminum reference level (Ref) is from the EPA's national recommended water quality criteria.***

2022 LNBA Monitoring Report

Station **J4511000** White Oak Creek @ N.C. 42 Hwy near Clayton, N.C. ***Stream Class:*** C NSW

County: Johnston ***Sub-Basin:*** 03020201 ***Lattitude:*** 35.6176 ***Longitude:*** -78.5281

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
Temperature (C)	17	N/A	N/A	N/A	6.4	29.0	20.7
DO (mg/l)	17	N/A	4	2	2.2	11.1	6.9
****** pH (SU)***	17	N/A	6 to 9	0	6.4	7.6	N/A
Conductivity (umhos/cm)	17	1	N/A	N/A	50	102	76
***** Fecal Coliform (/100 mls)***	12	N/A	400	2	5	2,500	68
Suspended Residue (mg/l)	12	0	N/A	N/A	3.7	31.0	10.7
Turbidity (NTU)	12	N/A	50	1	7.3	65.0	21.1
Chlorophyll-a (ug/l)	0	0	40	0			
NH3_N (mg/l)	12	1	N/A	N/A	0.02	0.16	0.09
TKN_N (mg/l)	12	0	N/A	N/A	0.34	1.41	0.85
NO2_NO3_N (mg/l)	12	0	N/A	N/A	0.02	0.29	0.11
TP (mg/l)	12	0	N/A	N/A	0.04	0.15	0.07
Cadmium (ug/l)	0	0	2	0			
Chromium (ug/l)	0	0	50	0			
Copper (ug/l)	0	0	7	0			
Nickel (ug/l)	0	0	88	0			
Lead (ug/l)	0	0	25	0			
Zinc (ug/l)	0	0	50	0			
*******Aluminum (ug/l)***	0	0	87	0			
Iron (ug/l)	0	0	1,000	0			
Manganese (ug/l)	0	0	N/A	N/A			
Arsenic (ug/l)	0	0	10	0			
Mercury (ug/l)	0	0	0.012	N/A			

Notes: * Results below the laboratory reporting limit (<RL) are included in the calculation as if they were at the reporting level.
***** The Fecal Coliform average is a geometric mean.***
****** Tidal salt waters classified as swamp waters may have a pH as low as 4.3 if it is the result of natural conditions***
******* The aluminum reference level (Ref) is from the EPA's national recommended water quality criteria.***

2022 LNBA Monitoring Report

Station **J4520000** Swift Creek @ SR 1562 (Steel Bridge Road) near Smithfield, N.C. ***Stream Class:*** C NSW

County: Johnston ***Sub-Basin:*** 03020201 ***Lattitude:*** 35.5515 ***Longitude:*** -78.46

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
Temperature (C)	17	N/A	N/A	N/A	5.1	26.3	18.8
DO (mg/l)	17	N/A	4	0	5.3	11.4	8.1
****** pH (SU)***	17	N/A	6 to 9	0	6.7	8.1	N/A
Conductivity (umhos/cm)	17	0	N/A	N/A	57	120	91
***** Fecal Coliform (/100 mls)***	12	N/A	400	2	20	2,500	155
Suspended Residue (mg/l)	12	3	N/A	N/A	2.5	40.0	8.9
Turbidity (NTU)	12	N/A	50	1	5.7	70.0	17.2
Chlorophyll-a (ug/l)	0	0	40	0			
NH3_N (mg/l)	12	1	N/A	N/A	0.02	0.12	0.07
TKN_N (mg/l)	12	0	N/A	N/A	0.44	0.92	0.62
NO2_NO3_N (mg/l)	12	0	N/A	N/A	0.02	0.36	0.18
TP (mg/l)	12	1	N/A	N/A	0.02	0.11	0.06
Cadmium (ug/l)	0	0	2	0			
Chromium (ug/l)	0	0	50	0			
Copper (ug/l)	0	0	7	0			
Nickel (ug/l)	0	0	88	0			
Lead (ug/l)	0	0	25	0			
Zinc (ug/l)	0	0	50	0			
*******Aluminum (ug/l)***	0	0	87	0			
Iron (ug/l)	0	0	1,000	0			
Manganese (ug/l)	0	0	N/A	N/A			
Arsenic (ug/l)	0	0	10	0			
Mercury (ug/l)	0	0	0.012	N/A			

Notes: * Results below the laboratory reporting limit (<RL) are included in the calculation as if they were at the reporting level.
***** The Fecal Coliform average is a geometric mean.***
****** Tidal salt waters classified as swamp waters may have a pH as low as 4.3 if it is the result of natural conditions***
******* The aluminum reference level (Ref) is from the EPA's national recommended water quality criteria.***

2022 LNBA Monitoring Report

Station **J4580000** Swift Creek @ SR 1501 (Swift Creek Road) near the Johnston County Airport ***Stream Class:*** C NSW

County: Johnston ***Sub-Basin:*** 03020201 ***Lattitude:*** 35.5442 ***Longitude:*** -78.397

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
Temperature (C)	17	N/A	N/A	N/A	5.6	26.6	18.6
DO (mg/l)	17	N/A	4	0	5.6	12.4	8.2
****** pH (SU)***	17	N/A	6 to 9	0	6.7	7.3	N/A
Conductivity (umhos/cm)	17	0	N/A	N/A	60	230	100
***** Fecal Coliform (/100 mls)***	12	N/A	400	0	50	350	161
Suspended Residue (mg/l)	12	4	N/A	N/A	2.5	24.0	5.9
Turbidity (NTU)	12	N/A	50	0	5.2	35.0	11.7
Chlorophyll-a (ug/l)	0	0	40	0			
NH3_N (mg/l)	12	1	N/A	N/A	0.02	0.11	0.07
TKN_N (mg/l)	12	0	N/A	N/A	0.22	0.79	0.53
NO2_NO3_N (mg/l)	12	1	N/A	N/A	0.02	0.34	0.21
TP (mg/l)	12	3	N/A	N/A	0.02	0.35	0.06
Cadmium (ug/l)	0	0	2	0			
Chromium (ug/l)	0	0	50	0			
Copper (ug/l)	0	0	7	0			
Nickel (ug/l)	0	0	88	0			
Lead (ug/l)	0	0	25	0			
Zinc (ug/l)	0	0	50	0			
*******Aluminum (ug/l)***	0	0	87	0			
Iron (ug/l)	0	0	1,000	0			
Manganese (ug/l)	0	0	N/A	N/A			
Arsenic (ug/l)	0	0	10	0			
Mercury (ug/l)	0	0	0.012	N/A			

Notes: * Results below the laboratory reporting limit (<RL) are included in the calculation as if they were at the reporting level.
***** The Fecal Coliform average is a geometric mean.***
****** Tidal salt waters classified as swamp waters may have a pH as low as 4.3 if it is the result of natural conditions***
******* The aluminum reference level (Ref) is from the EPA's national recommended water quality criteria.***

2022 LNBA Monitoring Report

Station **J4690000** Middle Creek @ SR 1152 (Holly Springs Road) near Holly Springs ***Stream Class:*** C NSW

County: Wake ***Sub-Basin:*** 03020201 ***Lattitude:*** 35.6609 ***Longitude:*** -78.8042

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
Temperature (C)	12	N/A	N/A	N/A	6.1	25.7	17.2
DO (mg/l)	12	N/A	4	0	7.3	12.1	9.2
****** pH (SU)***	12	N/A	6 to 9	0	6.3	7.9	N/A
Conductivity (umhos/cm)	12	0	N/A	N/A	149	321	231
***** Fecal Coliform (/100 mls)***	9	N/A	400	3	56	3,200	332
Suspended Residue (mg/l)	9	0	N/A	N/A	3.1	11.0	6.3
Turbidity (NTU)	9	N/A	50	0	5.7	28.0	14.8
Chlorophyll-a (ug/l)	0	0	40	0			
NH3_N (mg/l)	9	1	N/A	N/A	0.02	0.30	0.11
TKN_N (mg/l)	9	0	N/A	N/A	0.56	1.30	0.81
NO2_NO3_N (mg/l)	9	0	N/A	N/A	0.43	1.08	0.74
TP (mg/l)	9	0	N/A	N/A	0.14	1.09	0.30
Cadmium (ug/l)	0	0	2	0			
Chromium (ug/l)	0	0	50	0			
Copper (ug/l)	0	0	7	0			
Nickel (ug/l)	0	0	88	0			
Lead (ug/l)	0	0	25	0			
Zinc (ug/l)	0	0	50	0			
*******Aluminum (ug/l)***	0	0	87	0			
Iron (ug/l)	0	0	1,000	0			
Manganese (ug/l)	0	0	N/A	N/A			
Arsenic (ug/l)	0	0	10	0			
Mercury (ug/l)	0	0	0.012	N/A			

Notes: * Results below the laboratory reporting limit (<RL) are included in the calculation as if they were at the reporting level.
***** The Fecal Coliform average is a geometric mean.***
****** Tidal salt waters classified as swamp waters may have a pH as low as 4.3 if it is the result of natural conditions***
******* The aluminum reference level (Ref) is from the EPA's national recommended water quality criteria.***

2022 LNBA Monitoring Report

Station **J4868000** Middle Creek @ SR 1375 (Lake Wheeler Road) near Banks ***Stream Class:*** C NSW

County: Wake ***Sub-Basin:*** 03020201 ***Lattitude:*** 35.6356 ***Longitude:*** -78.7279

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
Temperature (C)	17	N/A	N/A	N/A	7.8	27.2	19.9
DO (mg/l)	17	N/A	4	0	6.0	11.3	7.7
****** pH (SU)***	17	N/A	6 to 9	1	5.9	7.7	N/A
Conductivity (umhos/cm)	17	0	N/A	N/A	133	423	251
***** Fecal Coliform (/100 mls)***	12	N/A	400	4	52	3,600	279
Suspended Residue (mg/l)	12	0	N/A	N/A	4.5	30.0	11.8
Turbidity (NTU)	12	N/A	50	0	5.9	37.0	16.5
Chlorophyll-a (ug/l)	0	0	40	0			
NH3_N (mg/l)	12	0	N/A	N/A	0.02	0.16	0.09
TKN_N (mg/l)	12	0	N/A	N/A	0.51	1.18	0.77
NO2_NO3_N (mg/l)	12	0	N/A	N/A	0.22	0.90	0.53
TP (mg/l)	12	1	N/A	N/A	0.02	0.56	0.13
Cadmium (ug/l)	0	0	2	0			
Chromium (ug/l)	0	0	50	0			
Copper (ug/l)	0	0	7	0			
Nickel (ug/l)	0	0	88	0			
Lead (ug/l)	0	0	25	0			
Zinc (ug/l)	0	0	50	0			
*******Aluminum (ug/l)***	0	0	87	0			
Iron (ug/l)	0	0	1,000	0			
Manganese (ug/l)	0	0	N/A	N/A			
Arsenic (ug/l)	0	0	10	0			
Mercury (ug/l)	0	0	0.012	N/A			

Notes: * Results below the laboratory reporting limit (<RL) are included in the calculation as if they were at the reporting level.
***** The Fecal Coliform average is a geometric mean.***
****** Tidal salt waters classified as swamp waters may have a pH as low as 4.3 if it is the result of natural conditions***
******* The aluminum reference level (Ref) is from the EPA's national recommended water quality criteria.***

2022 LNBA Monitoring Report

Station **J4980000** Middle Creek @ SR 1006 (Old Stage Road) near Willow Springs ***Stream Class:*** C NSW

County: Wake ***Sub-Basin:*** 03020201 ***Lattitude:*** 35.6091 ***Longitude:*** -78.6866

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
Temperature (C)	17	N/A	N/A	N/A	7.2	26.6	19.2
DO (mg/l)	17	N/A	4	0	7.1	12.0	8.3
****** pH (SU)***	17	N/A	6 to 9	1	5.5	8.0	N/A
Conductivity (umhos/cm)	17	0	N/A	N/A	164	432	250
***** Fecal Coliform (/100 mls)***	12	N/A	400	5	62	2,700	336
Suspended Residue (mg/l)	12	0	N/A	N/A	8.0	39.0	17.8
Turbidity (NTU)	12	N/A	50	1	7.4	55.0	21.5
Chlorophyll-a (ug/l)	0	0	40	0			
NH3_N (mg/l)	12	0	N/A	N/A	0.02	0.14	0.08
TKN_N (mg/l)	12	0	N/A	N/A	0.44	1.25	0.73
NO2_NO3_N (mg/l)	12	0	N/A	N/A	0.35	0.84	0.54
TP (mg/l)	12	0	N/A	N/A	0.04	0.53	0.16
Cadmium (ug/l)	0	0	2	0			
Chromium (ug/l)	0	0	50	0			
Copper (ug/l)	0	0	7	0			
Nickel (ug/l)	0	0	88	0			
Lead (ug/l)	0	0	25	0			
Zinc (ug/l)	0	0	50	0			
*******Aluminum (ug/l)***	0	0	87	0			
Iron (ug/l)	0	0	1,000	0			
Manganese (ug/l)	0	0	N/A	N/A			
Arsenic (ug/l)	0	0	10	0			
Mercury (ug/l)	0	0	0.012	N/A			

Notes: * Results below the laboratory reporting limit (<RL) are included in the calculation as if they were at the reporting level.
***** The Fecal Coliform average is a geometric mean.***
****** Tidal salt waters classified as swamp waters may have a pH as low as 4.3 if it is the result of natural conditions***
******* The aluminum reference level (Ref) is from the EPA's national recommended water quality criteria.***

2022 LNBA Monitoring Report

Station **J5002000** Middle Creek @ SR 1517 (Old Sanders Hse) near Edmonson ***Stream Class:*** C NSW

County: Johnston ***Sub-Basin:*** 03020201 ***Lattitude:*** 35.5626 ***Longitude:*** -78.5756

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
Temperature (C)	17	N/A	N/A	N/A	5.3	26.5	18.9
DO (mg/l)	17	N/A	4	0	6.2	12.1	8.4
****** pH (SU)***	17	N/A	6 to 9	0	6.7	7.6	N/A
Conductivity (umhos/cm)	17	0	N/A	N/A	107	368	200
***** Fecal Coliform (/100 mls)***	12	N/A	400	2	28	2,200	193
Suspended Residue (mg/l)	12	0	N/A	N/A	4.9	53.0	16.3
Turbidity (NTU)	12	N/A	50	1	4.8	70.0	20.1
Chlorophyll-a (ug/l)	0	0	40	0			
NH3_N (mg/l)	12	1	N/A	N/A	0.02	0.14	0.08
TKN_N (mg/l)	12	0	N/A	N/A	0.39	1.16	0.73
NO2_NO3_N (mg/l)	12	0	N/A	N/A	0.15	0.72	0.42
TP (mg/l)	12	0	N/A	N/A	0.06	0.21	0.11
Cadmium (ug/l)	0	0	2	0			
Chromium (ug/l)	0	0	50	0			
Copper (ug/l)	0	0	7	0			
Nickel (ug/l)	0	0	88	0			
Lead (ug/l)	0	0	25	0			
Zinc (ug/l)	0	0	50	0			
*******Aluminum (ug/l)***	0	0	87	0			
Iron (ug/l)	0	0	1,000	0			
Manganese (ug/l)	0	0	N/A	N/A			
Arsenic (ug/l)	0	0	10	0			
Mercury (ug/l)	0	0	0.012	N/A			

Notes: * Results below the laboratory reporting limit (<RL) are included in the calculation as if they were at the reporting level.
***** The Fecal Coliform average is a geometric mean.***
****** Tidal salt waters classified as swamp waters may have a pH as low as 4.3 if it is the result of natural conditions***
******* The aluminum reference level (Ref) is from the EPA's national recommended water quality criteria.***

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Station **J5010000** Middle Creek @ NC 210 near Smithfield ***Stream Class:*** C NSW

County: Johnston ***Sub-Basin:*** 03020201 ***Lattitude:*** 35.5075 ***Longitude:*** -78.4013

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
Temperature (C)	17	N/A	N/A	N/A	5.5	25.8	18.3
DO (mg/l)	17	N/A	4	0	5.2	12.1	8.3
**** pH (SU)*	17	N/A	6 to 9	0	6.3	7.3	N/A
Conductivity (umhos/cm)	17	0	N/A	N/A	82	334	182
*** Fecal Coliform (/100 mls)*	12	N/A	400	1	66	746	193
Suspended Residue (mg/l)	12	1	N/A	N/A	2.5	22.0	9.2
Turbidity (NTU)	12	N/A	50	0	6.3	38.0	16.3
Chlorophyll-a (ug/l)	0	0	40	0			
NH3_N (mg/l)	12	0	N/A	N/A	0.04	0.17	0.09
TKN_N (mg/l)	12	0	N/A	N/A	0.25	0.75	0.56
NO2_NO3_N (mg/l)	12	0	N/A	N/A	0.12	0.57	0.39
TP (mg/l)	12	2	N/A	N/A	0.02	0.45	0.13
Cadmium (ug/l)	0	0	2	0			
Chromium (ug/l)	0	0	50	0			
Copper (ug/l)	0	0	7	0			
Nickel (ug/l)	0	0	88	0			
Lead (ug/l)	0	0	25	0			
Zinc (ug/l)	0	0	50	0			
*****Aluminum (ug/l)*	0	0	87	0			
Iron (ug/l)	0	0	1,000	0			
Manganese (ug/l)	0	0	N/A	N/A			
Arsenic (ug/l)	0	0	10	0			
Mercury (ug/l)	0	0	0.012	N/A			

*Notes: * Results below the laboratory reporting limit (<RL) are included in the calculation as if they were at the reporting level.*
*** The Fecal Coliform average is a geometric mean.*
**** Tidal salt waters classified as swamp waters may have a pH as low as 4.3 if it is the result of natural conditions*
***** The aluminum reference level (Ref) is from the EPA's national recommended water quality criteria.*

2022 LNBA Monitoring Report

Station **J5170000** Black Creek @ SR 1162 (Black Creek Road) near Four Oaks ***Stream Class:*** C NSW

County: Johnston ***Sub-Basin:*** 03020201 ***Lattitude:*** 35.46925 ***Longitude:*** -78.45681

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
Temperature (C)	17	N/A	N/A	N/A	5.8	27.1	18.7
DO (mg/l)	17	N/A	4	5	1.4	11.4	6.2
****** pH (SU)***	17	N/A	6 to 9	0	6.0	7.1	N/A
Conductivity (umhos/cm)	17	0	N/A	N/A	67	99	83
***** Fecal Coliform (/100 mls)***	12	N/A	400	0	8	390	79
Suspended Residue (mg/l)	12	0	N/A	N/A	2.9	12.0	5.5
Turbidity (NTU)	12	N/A	50	0	7.0	17.0	11.4
Chlorophyll-a (ug/l)	0	0	40	0			
NH3_N (mg/l)	12	0	N/A	N/A	0.03	0.42	0.13
TKN_N (mg/l)	12	0	N/A	N/A	0.42	1.53	0.84
NO2_NO3_N (mg/l)	12	2	N/A	N/A	0.02	0.22	0.07
TP (mg/l)	12	3	N/A	N/A	0.02	0.11	0.06
Cadmium (ug/l)	0	0	2	0			
Chromium (ug/l)	0	0	50	0			
Copper (ug/l)	0	0	7	0			
Nickel (ug/l)	0	0	88	0			
Lead (ug/l)	0	0	25	0			
Zinc (ug/l)	0	0	50	0			
*******Aluminum (ug/l)***	0	0	87	0			
Iron (ug/l)	0	0	1,000	0			
Manganese (ug/l)	0	0	N/A	N/A			
Arsenic (ug/l)	0	0	10	0			
Mercury (ug/l)	0	0	0.012	N/A			

Notes: * Results below the laboratory reporting limit (<RL) are included in the calculation as if they were at the reporting level.
***** The Fecal Coliform average is a geometric mean.***
****** Tidal salt waters classified as swamp waters may have a pH as low as 4.3 if it is the result of natural conditions***
******* The aluminum reference level (Ref) is from the EPA's national recommended water quality criteria.***

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Station **J5250000** Neuse River @ SR 1201 (Richardson Bridge Road) near Cox Mill ***Stream Class:*** WS-IV NSW

County: Johnston ***Sub-Basin:*** 03020201 ***Lattitude:*** 35.3741 ***Longitude:*** -78.1962

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
Temperature (C)	17	N/A	N/A	N/A	5.7	29.4	20.5
DO (mg/l)	17	N/A	4	0	5.6	11.5	7.9
****** pH (SU)***	17	N/A	6 to 9	0	6.3	7.4	N/A
Conductivity (umhos/cm)	17	0	N/A	N/A	122	282	189
***** Fecal Coliform (/100 mls)***	12	N/A	400	1	42	655	149
Suspended Residue (mg/l)	12	0	N/A	N/A	13.0	62.0	31.0
Turbidity (NTU)	12	N/A	50	0	6.5	45.0	26.3
Chlorophyll-a (ug/l)	0	0	40	0			
NH3_N (mg/l)	12	0	N/A	N/A	0.02	0.10	0.06
TKN_N (mg/l)	12	0	N/A	N/A	0.47	1.29	0.76
NO2_NO3_N (mg/l)	12	0	10	0	0.10	0.45	0.35
TP (mg/l)	12	0	N/A	N/A	0.06	0.47	0.20
Cadmium (ug/l)	0	0	2	0			
Chromium (ug/l)	0	0	50	0			
Copper (ug/l)	0	0	7	0			
Nickel (ug/l)	0	0	25	0			
Lead (ug/l)	0	0	25	0			
Zinc (ug/l)	0	0	50	0			
*******Aluminum (ug/l)***	0	0	87	0			
Iron (ug/l)	0	0	1,000	0			
Manganese (ug/l)	0	0	200	0			
Arsenic (ug/l)	0	0	10	0			
Mercury (ug/l)	0	0	0.012	N/A			

Notes: * Results below the laboratory reporting limit (<RL) are included in the calculation as if they were at the reporting level.
***** The Fecal Coliform average is a geometric mean.***
****** Tidal salt waters classified as swamp waters may have a pH as low as 4.3 if it is the result of natural conditions***
******* The aluminum reference level (Ref) is from the EPA's national recommended water quality criteria.***

Station **J5390000** Hannah Creek @ SR 1158 (Allens Crossroads Drive) near Benson ***Stream Class:*** C NSW

County: Johnston ***Sub-Basin:*** 03020201 ***Lattitude:*** 35.3868 ***Longitude:*** -78.511

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
Temperature (C)	16	N/A	N/A	N/A	6.3	25.3	17.6
DO (mg/l)	16	N/A	4	7	0.6	11.1	5.4
**** pH (SU)*	16	N/A	6 to 9	8	4.9	7.1	N/A
Conductivity (umhos/cm)	16	0	N/A	N/A	81	146	113
*** Fecal Coliform (/100 mls)*	12	N/A	400	1	2	430	70
Suspended Residue (mg/l)	12	2	N/A	N/A	2.5	26.0	8.6
Turbidity (NTU)	12	N/A	50	0	5.9	35.0	15.2
Chlorophyll-a (ug/l)	0	0	40	0			
NH3_N (mg/l)	12	0	N/A	N/A	0.08	1.18	0.25
TKN_N (mg/l)	12	0	N/A	N/A	0.30	1.87	0.76
NO2_NO3_N (mg/l)	12	3	N/A	N/A	0.02	1.34	0.27
TP (mg/l)	12	1	N/A	N/A	0.02	0.17	0.05
Cadmium (ug/l)	0	0	2	0			
Chromium (ug/l)	0	0	50	0			
Copper (ug/l)	0	0	7	0			
Nickel (ug/l)	0	0	88	0			
Lead (ug/l)	0	0	25	0			
Zinc (ug/l)	0	0	50	0			
*****Aluminum (ug/l)*	0	0	87	0			
Iron (ug/l)	0	0	1,000	0			
Manganese (ug/l)	0	0	N/A	N/A			
Arsenic (ug/l)	0	0	10	0			
Mercury (ug/l)	0	0	0.012	N/A			

*Notes: * Results below the laboratory reporting limit (<RL) are included in the calculation as if they were at the reporting level.*
*** The Fecal Coliform average is a geometric mean.*
**** Tidal salt waters classified as swamp waters may have a pH as low as 4.3 if it is the result of natural conditions*
***** The aluminum reference level (Ref) is from the EPA's national recommended water quality criteria.*

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Station **J5390800** Hannah Creek @ SR 1227 (Ivey Road) near Benson ***Stream Class:*** C NSW

County: Johnston ***Sub-Basin:*** 03020201 ***Lattitude:*** 35.4025 ***Longitude:*** -78.4952

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
Temperature (C)	17	N/A	N/A	N/A	6.2	25.5	18.4
DO (mg/l)	17	N/A	4	9	1.0	11.0	4.9
****** pH (SU)***	17	N/A	6 to 9	1	5.9	7.2	N/A
Conductivity (umhos/cm)	17	0	N/A	N/A	120	258	164
***** Fecal Coliform (/100 mls)***	12	N/A	400	0	36	310	84
Suspended Residue (mg/l)	12	0	N/A	N/A	3.0	16.0	7.6
Turbidity (NTU)	12	N/A	50	0	8.2	24.0	13.8
Chlorophyll-a (ug/l)	0	0	40	0			
NH3_N (mg/l)	12	1	N/A	N/A	0.02	0.15	0.10
TKN_N (mg/l)	12	0	N/A	N/A	0.52	1.35	0.83
NO2_NO3_N (mg/l)	12	4	N/A	N/A	0.02	0.55	0.14
TP (mg/l)	12	0	N/A	N/A	0.07	0.62	0.26
Cadmium (ug/l)	0	0	2	0			
Chromium (ug/l)	0	0	50	0			
Copper (ug/l)	0	0	7	0			
Nickel (ug/l)	0	0	88	0			
Lead (ug/l)	0	0	25	0			
Zinc (ug/l)	0	0	50	0			
*******Aluminum (ug/l)***	0	0	87	0			
Iron (ug/l)	0	0	1,000	0			
Manganese (ug/l)	0	0	N/A	N/A			
Arsenic (ug/l)	0	0	10	0			
Mercury (ug/l)	0	0	0.012	N/A			

Notes: * Results below the laboratory reporting limit (<RL) are included in the calculation as if they were at the reporting level.
***** The Fecal Coliform average is a geometric mean.***
****** Tidal salt waters classified as swamp waters may have a pH as low as 4.3 if it is the result of natural conditions***
******* The aluminum reference level (Ref) is from the EPA's national recommended water quality criteria.***

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Station **J5410000** Mill Creek @ SR 1200 (Richardson Bridge Road) near Cox Mill ***Stream Class:*** C NSW

County: Johnston ***Sub-Basin:*** 03020201 ***Lattitude:*** 35.342 ***Longitude:*** -78.2162

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
Temperature (C)	17	N/A	N/A	N/A	5.7	27.3	19.2
DO (mg/l)	17	N/A	4	0	4.4	11.4	6.7
****** pH (SU)***	17	N/A	6 to 9	1	5.5	7.3	N/A
Conductivity (umhos/cm)	17	0	N/A	N/A	99	209	116
***** Fecal Coliform (/100 mls)***	12	N/A	400	0	34	340	146
Suspended Residue (mg/l)	12	5	N/A	N/A	2.5	11.0	4.7
Turbidity (NTU)	12	N/A	50	0	3.6	23.0	9.2
Chlorophyll-a (ug/l)	0	0	40	0			
NH3_N (mg/l)	12	1	N/A	N/A	0.02	0.24	0.09
TKN_N (mg/l)	12	0	N/A	N/A	0.39	1.12	0.76
NO2_NO3_N (mg/l)	12	1	N/A	N/A	0.02	0.47	0.16
TP (mg/l)	12	2	N/A	N/A	0.02	0.06	0.04
Cadmium (ug/l)	0	0	2	0			
Chromium (ug/l)	0	0	50	0			
Copper (ug/l)	0	0	7	0			
Nickel (ug/l)	0	0	88	0			
Lead (ug/l)	0	0	25	0			
Zinc (ug/l)	0	0	50	0			
*******Aluminum (ug/l)***	0	0	87	0			
Iron (ug/l)	0	0	1,000	0			
Manganese (ug/l)	0	0	N/A	N/A			
Arsenic (ug/l)	0	0	10	0			
Mercury (ug/l)	0	0	0.012	N/A			

Notes: * Results below the laboratory reporting limit (<RL) are included in the calculation as if they were at the reporting level.
***** The Fecal Coliform average is a geometric mean.***
****** Tidal salt waters classified as swamp waters may have a pH as low as 4.3 if it is the result of natural conditions***
******* The aluminum reference level (Ref) is from the EPA's national recommended water quality criteria.***

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Station **J5500000** Falling Creek @ SR 1219 (Old Grantham Road) near Grantham ***Stream Class:*** WS-IV NSW

County: Wayne ***Sub-Basin:*** 03020201 ***Lattitude:*** 35.3224 ***Longitude:*** -78.1282

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
Temperature (C)	17	N/A	N/A	N/A	6.3	26.2	18.6
DO (mg/l)	17	N/A	4	2	2.7	10.5	6.3
****** pH (SU)***	17	N/A	6 to 9	3	5.7	6.9	N/A
Conductivity (umhos/cm)	17	0	N/A	N/A	104	309	165
***** Fecal Coliform (/100 mls)***	12	N/A	400	1	46	420	133
Suspended Residue (mg/l)	12	5	N/A	N/A	2.5	15.0	4.8
Turbidity (NTU)	12	N/A	50	0	3.3	33.0	9.1
Chlorophyll-a (ug/l)	0	0	40	0			
NH3_N (mg/l)	12	0	N/A	N/A	0.03	0.49	0.16
TKN_N (mg/l)	12	0	N/A	N/A	0.40	1.58	0.91
NO2_NO3_N (mg/l)	12	1	10	0	0.02	1.49	0.33
TP (mg/l)	12	0	N/A	N/A	0.02	0.19	0.08
Cadmium (ug/l)	0	0	2	0			
Chromium (ug/l)	0	0	50	0			
Copper (ug/l)	0	0	7	0			
Nickel (ug/l)	0	0	25	0			
Lead (ug/l)	0	0	25	0			
Zinc (ug/l)	0	0	50	0			
*******Aluminum (ug/l)***	0	0	87	0			
Iron (ug/l)	0	0	1,000	0			
Manganese (ug/l)	0	0	200	0			
Arsenic (ug/l)	0	0	10	0			
Mercury (ug/l)	0	0	0.012	N/A			

Notes: * Results below the laboratory reporting limit (<RL) are included in the calculation as if they were at the reporting level.
***** The Fecal Coliform average is a geometric mean.***
****** Tidal salt waters classified as swamp waters may have a pH as low as 4.3 if it is the result of natural conditions***
******* The aluminum reference level (Ref) is from the EPA's national recommended water quality criteria.***

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Station **J5630000** Little River @ SR 2320, Riley Road near Zebulon ***Stream Class:*** HQW NSW

County: Wake ***Sub-Basin:*** 03020201 ***Lattitude:*** 35.8375 ***Longitude:*** -78.3599

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
Temperature (C)	17	N/A	N/A	N/A	2.6	27.9	17.2
DO (mg/l)	17	N/A	4	1	3.2	12.3	7.1
****** pH (SU)***	17	N/A	6 to 9	0	6.1	7.2	N/A
Conductivity (umhos/cm)	17	0	N/A	N/A	65	90	77
***** Fecal Coliform (/100 mls)***	12	N/A	400	1	25	450	90
Suspended Residue (mg/l)	12	1	N/A	N/A	2.5	7.1	4.1
Turbidity (NTU)	12	N/A	50	0	3.5	14.0	8.1
Chlorophyll-a (ug/l)	0	0	40	0			
NH3_N (mg/l)	12	1	N/A	N/A	0.02	0.15	0.09
TKN_N (mg/l)	12	0	N/A	N/A	0.29	1.42	0.68
NO2_NO3_N (mg/l)	12	0	10	0	0.02	0.34	0.17
TP (mg/l)	12	3	N/A	N/A	0.02	0.09	0.05
Cadmium (ug/l)	0	0	2	0			
Chromium (ug/l)	0	0	50	0			
Copper (ug/l)	0	0	7	0			
Nickel (ug/l)	0	0	25	0			
Lead (ug/l)	0	0	25	0			
Zinc (ug/l)	0	0	50	0			
*******Aluminum (ug/l)***	0	0	87	0			
Iron (ug/l)	0	0	1,000	0			
Manganese (ug/l)	0	0	200	0			
Arsenic (ug/l)	0	0	10	0			
Mercury (ug/l)	0	0	0.012	N/A			

Notes: * Results below the laboratory reporting limit (<RL) are included in the calculation as if they were at the reporting level.
***** The Fecal Coliform average is a geometric mean.***
****** Tidal salt waters classified as swamp waters may have a pH as low as 4.3 if it is the result of natural conditions***
******* The aluminum reference level (Ref) is from the EPA's national recommended water quality criteria.***

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Station **J5685000** Little River at Weaver Road near Bagley ***Stream Class:*** WS-V NSW

County: Johnston ***Sub-Basin:*** 03020201 ***Lattitude:*** 35.5791 ***Longitude:*** -78.1723

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
Temperature (C)	17	N/A	N/A	N/A	3.6	26.8	17.9
DO (mg/l)	17	N/A	4	0	4.1	12.4	8.1
****** pH (SU)***	17	N/A	6 to 9	0	6.7	7.7	N/A
Conductivity (umhos/cm)	17	0	N/A	N/A	66	129	86
***** Fecal Coliform (/100 mls)***	12	N/A	400	0	26	320	85
Suspended Residue (mg/l)	12	2	N/A	N/A	2.5	15.0	5.5
Turbidity (NTU)	12	N/A	50	0	4.7	22.0	12.2
Chlorophyll-a (ug/l)	0	0	40	0			
NH3_N (mg/l)	12	1	N/A	N/A	0.02	0.39	0.10
TKN_N (mg/l)	12	0	N/A	N/A	0.23	1.00	0.64
NO2_NO3_N (mg/l)	12	0	10	0	0.03	0.34	0.16
TP (mg/l)	12	0	N/A	N/A	0.04	0.27	0.08
Cadmium (ug/l)	0	0	2	0			
Chromium (ug/l)	0	0	50	0			
Copper (ug/l)	0	0	7	0			
Nickel (ug/l)	0	0	25	0			
Lead (ug/l)	0	0	25	0			
Zinc (ug/l)	0	0	50	0			
*******Aluminum (ug/l)***	0	0	87	0			
Iron (ug/l)	0	0	1,000	0			
Manganese (ug/l)	0	0	200	0			
Arsenic (ug/l)	0	0	10	0			
Mercury (ug/l)	0	0	0.012	N/A			

Notes: * Results below the laboratory reporting limit (<RL) are included in the calculation as if they were at the reporting level.
***** The Fecal Coliform average is a geometric mean.***
****** Tidal salt waters classified as swamp waters may have a pH as low as 4.3 if it is the result of natural conditions***
******* The aluminum reference level (Ref) is from the EPA's national recommended water quality criteria.***

Station **J5750000** Little River at SR 2339 (Bagley Road) near Lowell Mill ***Stream Class:*** WS-V NSW

County: Johnston ***Sub-Basin:*** 03020201 ***Lattitude:*** 35.5613 ***Longitude:*** -78.1594

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
Temperature (C)	17	N/A	N/A	N/A	3.7	27.5	18.1
DO (mg/l)	17	N/A	4	1	2.8	12.3	7.8
****** pH (SU)***	17	N/A	6 to 9	0	6.6	8.3	N/A
Conductivity (umhos/cm)	17	0	N/A	N/A	69	196	100
***** Fecal Coliform (/100 mls)***	12	N/A	400	0	34	240	90
Suspended Residue (mg/l)	12	4	N/A	N/A	2.5	12.0	5.0
Turbidity (NTU)	12	N/A	50	0	4.5	19.0	11.1
Chlorophyll-a (ug/l)	0	0	40	0			
NH3_N (mg/l)	12	1	N/A	N/A	0.02	0.13	0.07
TKN_N (mg/l)	12	0	N/A	N/A	0.26	5.88	1.06
NO2_NO3_N (mg/l)	12	0	10	0	0.06	0.33	0.18
TP (mg/l)	12	0	N/A	N/A	0.04	0.15	0.09
Cadmium (ug/l)	0	0	2	0			
Chromium (ug/l)	0	0	50	0			
Copper (ug/l)	0	0	7	0			
Nickel (ug/l)	0	0	25	0			
Lead (ug/l)	0	0	25	0			
Zinc (ug/l)	0	0	50	0			
*******Aluminum (ug/l)***	0	0	87	0			
Iron (ug/l)	0	0	1,000	0			
Manganese (ug/l)	0	0	200	0			
Arsenic (ug/l)	0	0	10	0			
Mercury (ug/l)	0	0	0.012	N/A			

Notes: * Results below the laboratory reporting limit (<RL) are included in the calculation as if they were at the reporting level.
***** The Fecal Coliform average is a geometric mean.***
****** Tidal salt waters classified as swamp waters may have a pH as low as 4.3 if it is the result of natural conditions***
******* The aluminum reference level (Ref) is from the EPA's national recommended water quality criteria.***

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Station **J5790000** Buffalo Creek @ SR 2358 (Lake Glad Road) near Webdell, N.C. ***Stream Class:*** C NSW

County: Wake ***Sub-Basin:*** 03020201 ***Lattitude:*** 35.7697 ***Longitude:*** -78.7697

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
Temperature (C)	18	N/A	N/A	N/A	3.2	26.3	16.7
DO (mg/l)	18	N/A	4	0	4.1	12.2	7.4
****** pH (SU)***	18	N/A	6 to 9	1	5.8	7.2	N/A
Conductivity (umhos/cm)	18	0	N/A	N/A	52	96	73
***** Fecal Coliform (/100 mls)***	12	N/A	400	3	23	4,100	269
Suspended Residue (mg/l)	12	2	N/A	N/A	2.5	27.0	6.3
Turbidity (NTU)	12	N/A	50	0	4.4	29.0	12.9
Chlorophyll-a (ug/l)	0	0	40	0			
NH3_N (mg/l)	12	3	N/A	N/A	0.02	0.15	0.08
TKN_N (mg/l)	12	0	N/A	N/A	0.34	1.77	0.77
NO2_NO3_N (mg/l)	12	1	N/A	N/A	0.02	0.39	0.16
TP (mg/l)	12	0	N/A	N/A	0.02	0.14	0.07
Cadmium (ug/l)	0	0	2	0			
Chromium (ug/l)	0	0	50	0			
Copper (ug/l)	0	0	7	0			
Nickel (ug/l)	0	0	88	0			
Lead (ug/l)	0	0	25	0			
Zinc (ug/l)	0	0	50	0			
*******Aluminum (ug/l)***	0	0	87	0			
Iron (ug/l)	0	0	1,000	0			
Manganese (ug/l)	0	0	N/A	N/A			
Arsenic (ug/l)	0	0	10	0			
Mercury (ug/l)	0	0	0.012	N/A			

Notes: * Results below the laboratory reporting limit (<RL) are included in the calculation as if they were at the reporting level.
***** The Fecal Coliform average is a geometric mean.***
****** Tidal salt waters classified as swamp waters may have a pH as low as 4.3 if it is the result of natural conditions***
******* The aluminum reference level (Ref) is from the EPA's national recommended water quality criteria.***

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Station **J5930000** Little River @ US 581 near Cherry Hospital ***Stream Class:*** C NSW

County: Wayne ***Sub-Basin:*** 03020201 ***Lattitude:*** 35.393 ***Longitude:*** -78.0258

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
Temperature (C)	17	N/A	N/A	N/A	5.5	28.3	19.9
DO (mg/l)	17	N/A	4	0	5.0	11.6	7.6
****** pH (SU)***	17	N/A	6 to 9	0	6.4	7.0	N/A
Conductivity (umhos/cm)	17	0	N/A	N/A	67	176	108
***** Fecal Coliform (/100 mls)***	12	N/A	400	0	72	380	137
Suspended Residue (mg/l)	12	2	N/A	N/A	2.5	35.0	9.8
Turbidity (NTU)	12	N/A	50	0	5.6	33.0	15.7
Chlorophyll-a (ug/l)	0	0	40	0			
NH3_N (mg/l)	12	0	N/A	N/A	0.03	0.16	0.10
TKN_N (mg/l)	12	0	N/A	N/A	0.37	1.36	0.75
NO2_NO3_N (mg/l)	12	0	N/A	N/A	0.09	0.46	0.30
TP (mg/l)	12	0	N/A	N/A	0.03	0.15	0.09
Cadmium (ug/l)	0	0	2	0			
Chromium (ug/l)	0	0	50	0			
Copper (ug/l)	0	0	7	0			
Nickel (ug/l)	0	0	88	0			
Lead (ug/l)	0	0	25	0			
Zinc (ug/l)	0	0	50	0			
*******Aluminum (ug/l)***	0	0	87	0			
Iron (ug/l)	0	0	1,000	0			
Manganese (ug/l)	0	0	N/A	N/A			
Arsenic (ug/l)	0	0	10	0			
Mercury (ug/l)	0	0	0.012	N/A			

Notes: * Results below the laboratory reporting limit (<RL) are included in the calculation as if they were at the reporting level.
***** The Fecal Coliform average is a geometric mean.***
****** Tidal salt waters classified as swamp waters may have a pH as low as 4.3 if it is the result of natural conditions***
******* The aluminum reference level (Ref) is from the EPA's national recommended water quality criteria.***

2022 LNBA Monitoring Report

Station **J6010950** Walnut Creek @ SR 1730 (Saint Johns Church Road) near Walnut Creek ***Stream Class:*** C NSW

County: Wayne ***Sub-Basin:*** 03020202 ***Lattitude:*** 35.2817 ***Longitude:*** -77.8686

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
Temperature (C)	17	N/A	N/A	N/A	6.1	25.9	18.9
DO (mg/l)	17	N/A	4	0	4.1	11.4	6.8
****** pH (SU)***	17	N/A	6 to 9	9	5.3	7.3	N/A
Conductivity (umhos/cm)	17	0	N/A	N/A	72	136	97
***** Fecal Coliform (/100 mls)***	12	N/A	400	1	2	530	16
Suspended Residue (mg/l)	12	6	N/A	N/A	2.5	5.8	3.1
Turbidity (NTU)	12	N/A	50	0	2.3	5.6	3.8
Chlorophyll-a (ug/l)	0	0	40	0			
NH3_N (mg/l)	12	0	N/A	N/A	0.06	0.22	0.13
TKN_N (mg/l)	12	0	N/A	N/A	0.28	1.01	0.57
NO2_NO3_N (mg/l)	12	0	N/A	N/A	0.42	1.74	0.89
TP (mg/l)	12	4	N/A	N/A	0.02	0.11	0.04
Cadmium (ug/l)	0	0	2	0			
Chromium (ug/l)	0	0	50	0			
Copper (ug/l)	0	0	7	0			
Nickel (ug/l)	0	0	88	0			
Lead (ug/l)	0	0	25	0			
Zinc (ug/l)	0	0	50	0			
*******Aluminum (ug/l)***	0	0	87	0			
Iron (ug/l)	0	0	1,000	0			
Manganese (ug/l)	0	0	N/A	N/A			
Arsenic (ug/l)	0	0	10	0			
Mercury (ug/l)	0	0	0.012	N/A			

Notes: * Results below the laboratory reporting limit (<RL) are included in the calculation as if they were at the reporting level.
***** The Fecal Coliform average is a geometric mean.***
****** Tidal salt waters classified as swamp waters may have a pH as low as 4.3 if it is the result of natural conditions***
******* The aluminum reference level (Ref) is from the EPA's national recommended water quality criteria.***

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Station **J6024000** Neuse River @ SR 1731 (Piney Grove Road) near Seven Springs ***Stream Class:*** C NSW

County: Wayne ***Sub-Basin:*** 03020202 ***Lattitude:*** 35.229 ***Longitude:*** -77.846

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
Temperature (C)	17	N/A	N/A	N/A	4.9	30.3	20.4
DO (mg/l)	17	N/A	4	0	5.3	12.5	8.3
****** pH (SU)***	17	N/A	6 to 9	0	6.4	7.5	N/A
Conductivity (umhos/cm)	17	0	N/A	N/A	81	252	154
***** Fecal Coliform (/100 mls)***	12	N/A	400	2	25	927	101
Suspended Residue (mg/l)	12	0	N/A	N/A	3.4	69.0	24.0
Turbidity (NTU)	12	N/A	50	3	6.6	80.0	29.0
Chlorophyll-a (ug/l)	0	0	40	0			
NH3_N (mg/l)	12	0	N/A	N/A	0.03	0.48	0.10
TKN_N (mg/l)	12	0	N/A	N/A	0.38	1.12	0.74
NO2_NO3_N (mg/l)	12	0	N/A	N/A	0.26	0.63	0.41
TP (mg/l)	12	0	N/A	N/A	0.04	0.35	0.13
Cadmium (ug/l)	0	0	2	0			
Chromium (ug/l)	0	0	50	0			
Copper (ug/l)	0	0	7	0			
Nickel (ug/l)	0	0	88	0			
Lead (ug/l)	0	0	25	0			
Zinc (ug/l)	0	0	50	0			
*******Aluminum (ug/l)***	0	0	87	0			
Iron (ug/l)	0	0	1,000	0			
Manganese (ug/l)	0	0	N/A	N/A			
Arsenic (ug/l)	0	0	10	0			
Mercury (ug/l)	0	0	0.012	N/A			

Notes: * Results below the laboratory reporting limit (<RL) are included in the calculation as if they were at the reporting level.
***** The Fecal Coliform average is a geometric mean.***
****** Tidal salt waters classified as swamp waters may have a pH as low as 4.3 if it is the result of natural conditions***
******* The aluminum reference level (Ref) is from the EPA's national recommended water quality criteria.***

2022 LNBA Monitoring Report

Station **J6044400** Bear Creek at SR 1603, Washington Street near LaGrange ***Stream Class:*** C Sw NSW

County: Lenoir ***Sub-Basin:*** 03020202 ***Lattitude:*** 35.3137 ***Longitude:*** -77.8153

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
Temperature (C)	17	N/A	N/A	N/A	6.4	26.4	17.6
DO (mg/l)	17	N/A	4	0	5.9	11.2	8.3
****** pH (SU)***	17	N/A	6 to 9	2	5.7	6.9	N/A
Conductivity (umhos/cm)	17	0	N/A	N/A	94	137	121
***** Fecal Coliform (/100 mls)***	12	N/A	400	2	11	5,000	98
Suspended Residue (mg/l)	12	1	N/A	N/A	2.5	40.0	9.8
Turbidity (NTU)	12	N/A	50	0	3.4	50.0	12.0
Chlorophyll-a (ug/l)	0	0	40	0			
NH3_N (mg/l)	12	0	N/A	N/A	0.04	1.04	0.20
TKN_N (mg/l)	12	0	N/A	N/A	0.64	1.42	0.86
NO2_NO3_N (mg/l)	12	0	N/A	N/A	1.11	2.97	1.97
TP (mg/l)	12	0	N/A	N/A	0.04	0.31	0.12
Cadmium (ug/l)	0	0	2	0			
Chromium (ug/l)	0	0	50	0			
Copper (ug/l)	0	0	7	0			
Nickel (ug/l)	0	0	88	0			
Lead (ug/l)	0	0	25	0			
Zinc (ug/l)	0	0	50	0			
*******Aluminum (ug/l)***	0	0	87	0			
Iron (ug/l)	0	0	1,000	0			
Manganese (ug/l)	0	0	N/A	N/A			
Arsenic (ug/l)	0	0	10	0			
Mercury (ug/l)	0	0	0.012	N/A			

Notes: * Results below the laboratory reporting limit (<RL) are included in the calculation as if they were at the reporting level.
***** The Fecal Coliform average is a geometric mean.***
****** Tidal salt waters classified as swamp waters may have a pH as low as 4.3 if it is the result of natural conditions***
******* The aluminum reference level (Ref) is from the EPA's national recommended water quality criteria.***

2022 LNBA Monitoring Report

Station **J6044500** Bear Creek @ SR 1311 (Bear Creek Road) near Kinston ***Stream Class:*** WS-IV Sw N

County: Lenoir ***Sub-Basin:*** 03020202 ***Lattitude:*** 35.2489 ***Longitude:*** -77.7843

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
Temperature (C)	17	N/A	N/A	N/A	6.5	24.7	18.1
DO (mg/l)	17	N/A	4	0	6.7	11.4	8.6
****** pH (SU)***	17	N/A	6 to 9	1	5.8	7.5	N/A
Conductivity (umhos/cm)	17	0	N/A	N/A	100	125	114
***** Fecal Coliform (/100 mls)***	12	N/A	400	1	26	450	103
Suspended Residue (mg/l)	12	3	N/A	N/A	2.5	12.0	5.1
Turbidity (NTU)	12	N/A	50	0	2.7	11.0	6.8
Chlorophyll-a (ug/l)	0	0	40	0			
NH3_N (mg/l)	12	0	N/A	N/A	0.06	0.29	0.12
TKN_N (mg/l)	12	0	N/A	N/A	0.38	0.90	0.67
NO2_NO3_N (mg/l)	12	0	10	0	0.85	3.70	1.81
TP (mg/l)	12	0	N/A	N/A	0.03	0.28	0.12
Cadmium (ug/l)	0	0	2	0			
Chromium (ug/l)	0	0	50	0			
Copper (ug/l)	0	0	7	0			
Nickel (ug/l)	0	0	25	0			
Lead (ug/l)	0	0	25	0			
Zinc (ug/l)	0	0	50	0			
*******Aluminum (ug/l)***	0	0	87	0			
Iron (ug/l)	0	0	1,000	0			
Manganese (ug/l)	0	0	200	0			
Arsenic (ug/l)	0	0	10	0			
Mercury (ug/l)	0	0	0.012	N/A			

Notes: * Results below the laboratory reporting limit (<RL) are included in the calculation as if they were at the reporting level.
***** The Fecal Coliform average is a geometric mean.***
****** Tidal salt waters classified as swamp waters may have a pH as low as 4.3 if it is the result of natural conditions***
******* The aluminum reference level (Ref) is from the EPA's national recommended water quality criteria.***

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Station **J6055000** Mosley Creek @ SR 1327 (Willey Measley Road) near LaGrange ***Stream Class:*** C Sw NSW

County: Lenoir ***Sub-Basin:*** 03020202 ***Lattitude:*** 35.3119 ***Longitude:*** -77.7313

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
Temperature (C)	16	N/A	N/A	N/A	6.8	24.9	17.6
DO (mg/l)	16	N/A	4	0	6.7	11.3	8.7
****** pH (SU)***	16	N/A	6 to 9	1	5.1	7.8	N/A
Conductivity (umhos/cm)	16	0	N/A	N/A	73	136	114
***** Fecal Coliform (/100 mls)***	11	N/A	400	4	80	700	271
Suspended Residue (mg/l)	11	3	N/A	N/A	2.5	20.0	5.5
Turbidity (NTU)	11	N/A	50	0	2.7	13.0	6.2
Chlorophyll-a (ug/l)	0	0	40	0			
NH3_N (mg/l)	11	0	N/A	N/A	0.06	0.15	0.09
TKN_N (mg/l)	11	0	N/A	N/A	0.27	0.94	0.66
NO2_NO3_N (mg/l)	11	0	N/A	N/A	1.92	3.83	3.13
TP (mg/l)	11	1	N/A	N/A	0.02	0.15	0.08
Cadmium (ug/l)	0	0	2	0			
Chromium (ug/l)	0	0	50	0			
Copper (ug/l)	0	0	7	0			
Nickel (ug/l)	0	0	88	0			
Lead (ug/l)	0	0	25	0			
Zinc (ug/l)	0	0	50	0			
*******Aluminum (ug/l)***	0	0	87	0			
Iron (ug/l)	0	0	1,000	0			
Manganese (ug/l)	0	0	N/A	N/A			
Arsenic (ug/l)	0	0	10	0			
Mercury (ug/l)	0	0	0.012	N/A			

Notes: * Results below the laboratory reporting limit (<RL) are included in the calculation as if they were at the reporting level.
***** The Fecal Coliform average is a geometric mean.***
****** Tidal salt waters classified as swamp waters may have a pH as low as 4.3 if it is the result of natural conditions***
******* The aluminum reference level (Ref) is from the EPA's national recommended water quality criteria.***

2022 LNBA Monitoring Report

Station **J6150000** Neuse River @ NC 11 Bypass at Kinston ***Stream Class:*** C NSW

County: Lenoir ***Sub-Basin:*** 03020202 ***Lattitude:*** 35.2587 ***Longitude:*** -77.5835

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
Temperature (C)	17	N/A	N/A	N/A	4.5	30.0	20.5
DO (mg/l)	17	N/A	4	0	5.4	11.9	8.4
**** pH (SU)*	17	N/A	6 to 9	0	6.6	7.9	N/A
Conductivity (umhos/cm)	17	0	N/A	N/A	79	239	154
*** Fecal Coliform (/100 mls)*	12	N/A	400	1	28	1,100	102
Suspended Residue (mg/l)	12	0	N/A	N/A	3.9	78.0	26.5
Turbidity (NTU)	12	N/A	50	1	6.2	80.0	30.4
Chlorophyll-a (ug/l)	0	0	40	0			
NH3_N (mg/l)	12	0	N/A	N/A	0.03	0.15	0.08
TKN_N (mg/l)	12	0	N/A	N/A	0.39	1.43	0.79
NO2_NO3_N (mg/l)	12	0	N/A	N/A	0.21	0.69	0.45
TP (mg/l)	12	0	N/A	N/A	0.05	0.23	0.12
Cadmium (ug/l)	0	0	2	0			
Chromium (ug/l)	0	0	50	0			
Copper (ug/l)	0	0	7	0			
Nickel (ug/l)	0	0	88	0			
Lead (ug/l)	0	0	25	0			
Zinc (ug/l)	0	0	50	0			
*****Aluminum (ug/l)*	0	0	87	0			
Iron (ug/l)	0	0	1,000	0			
Manganese (ug/l)	0	0	N/A	N/A			
Arsenic (ug/l)	0	0	10	0			
Mercury (ug/l)	0	0	0.012	N/A			

*Notes: * Results below the laboratory reporting limit (<RL) are included in the calculation as if they were at the reporting level.*
*** The Fecal Coliform average is a geometric mean.*
**** Tidal salt waters classified as swamp waters may have a pH as low as 4.3 if it is the result of natural conditions*
***** The aluminum reference level (Ref) is from the EPA's national recommended water quality criteria.*

2022 LNBA Monitoring Report

Station **J6250000** Neuse River @ NC 55 near Graingers ***Stream Class:*** C NSW

County: Lenoir ***Sub-Basin:*** 03020202 ***Lattitude:*** 35.2957 ***Longitude:*** -77.4962

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
Temperature (C)	17	N/A	N/A	N/A	4.5	30.1	20.4
DO (mg/l)	17	N/A	4	0	5.5	11.9	8.3
****** pH (SU)***	17	N/A	6 to 9	0	6.8	7.8	N/A
Conductivity (umhos/cm)	17	0	N/A	N/A	80	280	163
***** Fecal Coliform (/100 mls)***	12	N/A	400	1	16	900	92
Suspended Residue (mg/l)	12	0	N/A	N/A	5.5	67.0	27.5
Turbidity (NTU)	12	N/A	50	2	7.1	70.0	28.7
Chlorophyll-a (ug/l)	0	0	40	0			
NH3_N (mg/l)	12	0	N/A	N/A	0.02	0.21	0.08
TKN_N (mg/l)	12	0	N/A	N/A	0.37	1.22	0.77
NO2_NO3_N (mg/l)	12	0	N/A	N/A	0.12	0.74	0.45
TP (mg/l)	12	0	N/A	N/A	0.04	0.31	0.13
Cadmium (ug/l)	0	0	2	0			
Chromium (ug/l)	0	0	50	0			
Copper (ug/l)	0	0	7	0			
Nickel (ug/l)	0	0	88	0			
Lead (ug/l)	0	0	25	0			
Zinc (ug/l)	0	0	50	0			
*******Aluminum (ug/l)***	0	0	87	0			
Iron (ug/l)	0	0	1,000	0			
Manganese (ug/l)	0	0	N/A	N/A			
Arsenic (ug/l)	0	0	10	0			
Mercury (ug/l)	0	0	0.012	N/A			

Notes: * Results below the laboratory reporting limit (<RL) are included in the calculation as if they were at the reporting level.
***** The Fecal Coliform average is a geometric mean.***
****** Tidal salt waters classified as swamp waters may have a pH as low as 4.3 if it is the result of natural conditions***
******* The aluminum reference level (Ref) is from the EPA's national recommended water quality criteria.***

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Station **J6410000** Little Creek @ NC 97 near Zebulon ***Stream Class:*** C NSW

County: Wake ***Sub-Basin:*** 03020203 ***Lattitude:*** 35.8279 ***Longitude:*** -78.3025

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
Temperature (C)	17	N/A	N/A	N/A	3.0	24.3	15.6
DO (mg/l)	17	N/A	4	2	3.5	11.3	6.8
****** pH (SU)***	17	N/A	6 to 9	1	5.9	7.0	N/A
Conductivity (umhos/cm)	17	0	N/A	N/A	58	152	94
***** Fecal Coliform (/100 mls)***	12	N/A	400	6	46	9,000	486
Suspended Residue (mg/l)	12	2	N/A	N/A	2.5	94.0	12.7
Turbidity (NTU)	12	N/A	50	1	6.2	80.0	17.2
Chlorophyll-a (ug/l)	0	0	40	0			
NH3_N (mg/l)	12	0	N/A	N/A	0.03	0.23	0.12
TKN_N (mg/l)	12	0	N/A	N/A	0.38	1.73	0.74
NO2_NO3_N (mg/l)	12	0	N/A	N/A	0.06	0.45	0.24
TP (mg/l)	12	1	N/A	N/A	0.02	3.98	0.44
Cadmium (ug/l)	0	0	2	0			
Chromium (ug/l)	0	0	50	0			
Copper (ug/l)	0	0	7	0			
Nickel (ug/l)	0	0	88	0			
Lead (ug/l)	0	0	25	0			
Zinc (ug/l)	0	0	50	0			
*******Aluminum (ug/l)***	0	0	87	0			
Iron (ug/l)	0	0	1,000	0			
Manganese (ug/l)	0	0	N/A	N/A			
Arsenic (ug/l)	0	0	10	0			
Mercury (ug/l)	0	0	0.012	N/A			

Notes: * Results below the laboratory reporting limit (<RL) are included in the calculation as if they were at the reporting level.
***** The Fecal Coliform average is a geometric mean.***
****** Tidal salt waters classified as swamp waters may have a pH as low as 4.3 if it is the result of natural conditions***
******* The aluminum reference level (Ref) is from the EPA's national recommended water quality criteria.***

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Station **J6450000** Little Creek @ NC 39 near Zebulon ***Stream Class:*** C NSW

County: Wake ***Sub-Basin:*** 03020203 ***Lattitude:*** 35.8125 ***Longitude:*** -78.2681

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
Temperature (C)	17	N/A	N/A	N/A	4.0	26.0	17.7
DO (mg/l)	17	N/A	4	0	6.2	11.4	8.2
****** pH (SU)***	17	N/A	6 to 9	0	6.6	7.4	N/A
Conductivity (umhos/cm)	17	0	N/A	N/A	102	559	314
***** Fecal Coliform (/100 mls)***	12	N/A	400	3	38	3,000	190
Suspended Residue (mg/l)	12	2	N/A	N/A	2.5	78.0	11.9
Turbidity (NTU)	12	N/A	50	1	3.9	100.0	21.3
Chlorophyll-a (ug/l)	0	0	40	0			
NH3_N (mg/l)	12	0	N/A	N/A	0.03	0.15	0.07
TKN_N (mg/l)	12	0	N/A	N/A	0.47	1.85	0.73
NO2_NO3_N (mg/l)	12	0	N/A	N/A	0.57	2.45	1.17
TP (mg/l)	12	0	N/A	N/A	0.02	0.35	0.14
Cadmium (ug/l)	0	0	2	0			
Chromium (ug/l)	0	0	50	0			
Copper (ug/l)	0	0	7	0			
Nickel (ug/l)	0	0	88	0			
Lead (ug/l)	0	0	25	0			
Zinc (ug/l)	0	0	50	0			
*******Aluminum (ug/l)***	0	0	87	0			
Iron (ug/l)	0	0	1,000	0			
Manganese (ug/l)	0	0	N/A	N/A			
Arsenic (ug/l)	0	0	10	0			
Mercury (ug/l)	0	0	0.012	N/A			

Notes: * Results below the laboratory reporting limit (<RL) are included in the calculation as if they were at the reporting level.
***** The Fecal Coliform average is a geometric mean.***
****** Tidal salt waters classified as swamp waters may have a pH as low as 4.3 if it is the result of natural conditions***
******* The aluminum reference level (Ref) is from the EPA's national recommended water quality criteria.***

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Station **J6500000** Moccasin Creek @ SR 1131 (Antioch Church Road) near Conner ***Stream Class:*** C NSW

County: Wilson ***Sub-Basin:*** 03020203 ***Lattitude:*** 35.7301 ***Longitude:*** -78.1895

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
Temperature (C)	17	N/A	N/A	N/A	3.5	26.9	16.8
DO (mg/l)	17	N/A	4	3	3.5	11.4	7.2
****** pH (SU)***	17	N/A	6 to 9	0	6.5	7.4	N/A
Conductivity (umhos/cm)	17	0	N/A	N/A	72	148	107
***** Fecal Coliform (/100 mls)***	12	N/A	400	1	38	550	132
Suspended Residue (mg/l)	12	1	N/A	N/A	2.6	7.9	4.9
Turbidity (NTU)	12	N/A	50	0	5.2	22.0	12.5
Chlorophyll-a (ug/l)	0	0	40	0			
NH3_N (mg/l)	12	1	N/A	N/A	0.02	0.42	0.12
TKN_N (mg/l)	12	0	N/A	N/A	0.39	0.93	0.63
NO2_NO3_N (mg/l)	12	0	N/A	N/A	0.02	0.63	0.16
TP (mg/l)	12	0	N/A	N/A	0.04	0.21	0.10
Cadmium (ug/l)	0	0	2	0			
Chromium (ug/l)	0	0	50	0			
Copper (ug/l)	0	0	7	0			
Nickel (ug/l)	0	0	88	0			
Lead (ug/l)	0	0	25	0			
Zinc (ug/l)	0	0	50	0			
*******Aluminum (ug/l)***	0	0	87	0			
Iron (ug/l)	0	0	1,000	0			
Manganese (ug/l)	0	0	N/A	N/A			
Arsenic (ug/l)	0	0	10	0			
Mercury (ug/l)	0	0	0.012	N/A			

Notes: * Results below the laboratory reporting limit (<RL) are included in the calculation as if they were at the reporting level.
***** The Fecal Coliform average is a geometric mean.***
****** Tidal salt waters classified as swamp waters may have a pH as low as 4.3 if it is the result of natural conditions***
******* The aluminum reference level (Ref) is from the EPA's national recommended water quality criteria.***

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Station **J6680000** Turkey Creek @ SR 1101 (Claude Lewis Rodd) near Middlesex ***Stream Class:*** C NSW

County: Nash ***Sub-Basin:*** 03020203 ***Lattitude:*** 35.7519 ***Longitude:*** -78.1597

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
Temperature (C)	17	N/A	N/A	N/A	3.0	27.9	17.4
DO (mg/l)	17	N/A	4	5	2.5	11.5	6.1
****** pH (SU)***	17	N/A	6 to 9	1	5.9	7.1	N/A
Conductivity (umhos/cm)	17	0	N/A	N/A	57	96	76
***** Fecal Coliform (/100 mls)***	12	N/A	400	0	25	116	63
Suspended Residue (mg/l)	12	1	N/A	N/A	2.5	15.0	5.5
Turbidity (NTU)	12	N/A	50	0	7.2	24.0	15.6
Chlorophyll-a (ug/l)	0	0	40	0			
NH3_N (mg/l)	12	1	N/A	N/A	0.02	0.20	0.08
TKN_N (mg/l)	12	0	N/A	N/A	0.33	1.79	0.92
NO2_NO3_N (mg/l)	12	1	N/A	N/A	0.02	0.33	0.12
TP (mg/l)	12	1	N/A	N/A	0.02	0.15	0.07
Cadmium (ug/l)	0	0	2	0			
Chromium (ug/l)	0	0	50	0			
Copper (ug/l)	0	0	7	0			
Nickel (ug/l)	0	0	88	0			
Lead (ug/l)	0	0	25	0			
Zinc (ug/l)	0	0	50	0			
*******Aluminum (ug/l)***	0	0	87	0			
Iron (ug/l)	0	0	1,000	0			
Manganese (ug/l)	0	0	N/A	N/A			
Arsenic (ug/l)	0	0	10	0			
Mercury (ug/l)	0	0	0.012	N/A			

Notes: * Results below the laboratory reporting limit (<RL) are included in the calculation as if they were at the reporting level.
***** The Fecal Coliform average is a geometric mean.***
****** Tidal salt waters classified as swamp waters may have a pH as low as 4.3 if it is the result of natural conditions***
******* The aluminum reference level (Ref) is from the EPA's national recommended water quality criteria.***

Station **J6765000** Contentnea Creek at Willow Springs drive near Dixie ***Stream Class:*** C Sw NSW

County: Wilson ***Sub-Basin:*** 03020203 ***Lattitude:*** 35.6838 ***Longitude:*** -77.941

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
Temperature (C)	17	N/A	N/A	N/A	3.2	29.9	19.6
DO (mg/l)	17	N/A	4	2	3.0	12.4	7.1
****** pH (SU)***	17	N/A	6 to 9	0	6.4	7.2	N/A
Conductivity (umhos/cm)	17	0	N/A	N/A	62	93	82
***** Fecal Coliform (/100 mls)***	12	N/A	400	0	10	370	90
Suspended Residue (mg/l)	12	1	N/A	N/A	2.5	7.7	4.8
Turbidity (NTU)	12	N/A	50	0	3.8	25.0	9.9
Chlorophyll-a (ug/l)	0	0	40	0			
NH3_N (mg/l)	12	0	N/A	N/A	0.03	0.28	0.10
TKN_N (mg/l)	12	0	N/A	N/A	0.44	1.29	0.76
NO2_NO3_N (mg/l)	12	2	N/A	N/A	0.02	0.51	0.17
TP (mg/l)	12	1	N/A	N/A	0.02	0.13	0.06
Cadmium (ug/l)	0	0	2	0			
Chromium (ug/l)	0	0	50	0			
Copper (ug/l)	0	0	7	0			
Nickel (ug/l)	0	0	88	0			
Lead (ug/l)	0	0	25	0			
Zinc (ug/l)	0	0	50	0			
*******Aluminum (ug/l)***	0	0	87	0			
Iron (ug/l)	0	0	1,000	0			
Manganese (ug/l)	0	0	N/A	N/A			
Arsenic (ug/l)	0	0	10	0			
Mercury (ug/l)	0	0	0.012	N/A			

Notes: * Results below the laboratory reporting limit (<RL) are included in the calculation as if they were at the reporting level.
***** The Fecal Coliform average is a geometric mean.***
****** Tidal salt waters classified as swamp waters may have a pH as low as 4.3 if it is the result of natural conditions***
******* The aluminum reference level (Ref) is from the EPA's national recommended water quality criteria.***

Station **J6890000** Contentnea Creek @ SR 1622 (Evansdale Road) near Wilson ***Stream Class:*** C Sw NSW

County: Wilson ***Sub-Basin:*** 03020203 ***Lattitude:*** 35.6429 ***Longitude:*** -77.8902

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
Temperature (C)	17	N/A	N/A	N/A	3.1	29.2	19.4
DO (mg/l)	17	N/A	4	0	4.6	12.1	7.9
**** pH (SU)*	17	N/A	6 to 9	0	6.0	7.4	N/A
Conductivity (umhos/cm)	17	0	N/A	N/A	88	265	187
*** Fecal Coliform (/100 mls)*	12	N/A	400	1	26	6,000	164
Suspended Residue (mg/l)	12	0	N/A	N/A	3.3	7.8	5.2
Turbidity (NTU)	12	N/A	50	0	4.6	16.0	8.9
Chlorophyll-a (ug/l)	0	0	40	0			
NH3_N (mg/l)	12	0	N/A	N/A	0.04	0.67	0.23
TKN_N (mg/l)	12	0	N/A	N/A	0.54	1.49	0.89
NO2_NO3_N (mg/l)	12	0	N/A	N/A	0.27	1.28	0.87
TP (mg/l)	12	1	N/A	N/A	0.02	0.33	0.12
Cadmium (ug/l)	0	0	2	0			
Chromium (ug/l)	0	0	50	0			
Copper (ug/l)	0	0	7	0			
Nickel (ug/l)	0	0	88	0			
Lead (ug/l)	0	0	25	0			
Zinc (ug/l)	0	0	50	0			
*****Aluminum (ug/l)*	0	0	87	0			
Iron (ug/l)	0	0	1,000	0			
Manganese (ug/l)	0	0	N/A	N/A			
Arsenic (ug/l)	0	0	10	0			
Mercury (ug/l)	0	0	0.012	N/A			

*Notes: * Results below the laboratory reporting limit (<RL) are included in the calculation as if they were at the reporting level.*
*** The Fecal Coliform average is a geometric mean.*
**** Tidal salt waters classified as swamp waters may have a pH as low as 4.3 if it is the result of natural conditions*
***** The aluminum reference level (Ref) is from the EPA's national recommended water quality criteria.*

Station **J7210000** Contentnea Creek @ NC 58 near Stantonsburg ***Stream Class:*** C Sw NSW

County: Wilson ***Sub-Basin:*** 03020203 ***Lattitude:*** 35.5861 ***Longitude:*** -77.8111

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
Temperature (C)	17	N/A	N/A	N/A	4.2	30.3	19.4
DO (mg/l)	17	N/A	4	0	4.3	12.7	7.5
**** pH (SU)*	17	N/A	6 to 9	0	6.2	7.3	N/A
Conductivity (umhos/cm)	17	0	N/A	N/A	74	261	162
*** Fecal Coliform (/100 mls)*	12	N/A	400	0	28	290	109
Suspended Residue (mg/l)	12	0	N/A	N/A	3.2	7.1	5.0
Turbidity (NTU)	12	N/A	50	0	4.7	21.0	10.5
Chlorophyll-a (ug/l)	0	0	40	0			
NH3_N (mg/l)	12	0	N/A	N/A	0.06	0.78	0.16
TKN_N (mg/l)	12	0	N/A	N/A	0.56	0.99	0.76
NO2_NO3_N (mg/l)	12	0	N/A	N/A	0.27	0.59	0.40
TP (mg/l)	12	1	N/A	N/A	0.02	0.17	0.09
Cadmium (ug/l)	0	0	2	0			
Chromium (ug/l)	0	0	50	0			
Copper (ug/l)	0	0	7	0			
Nickel (ug/l)	0	0	88	0			
Lead (ug/l)	0	0	25	0			
Zinc (ug/l)	0	0	50	0			
*****Aluminum (ug/l)*	0	0	87	0			
Iron (ug/l)	0	0	1,000	0			
Manganese (ug/l)	0	0	N/A	N/A			
Arsenic (ug/l)	0	0	10	0			
Mercury (ug/l)	0	0	0.012	N/A			

*Notes: * Results below the laboratory reporting limit (<RL) are included in the calculation as if they were at the reporting level.*
*** The Fecal Coliform average is a geometric mean.*
**** Tidal salt waters classified as swamp waters may have a pH as low as 4.3 if it is the result of natural conditions*
***** The aluminum reference level (Ref) is from the EPA's national recommended water quality criteria.*

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Station **J7240000** Toisnot Swamp @ SR 1539 (Sand Pit Road) near Stantonsburg ***Stream Class:*** C Sw NSW

County: Wilson ***Sub-Basin:*** 03020203 ***Lattitude:*** 35.5976 ***Longitude:*** -77.7947

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
Temperature (C)	17	N/A	N/A	N/A	3.9	26.8	17.2
DO (mg/l)	17	N/A	4	8	1.5	12.5	5.9
****** pH (SU)***	17	N/A	6 to 9	0	6.2	7.1	N/A
Conductivity (umhos/cm)	17	0	N/A	N/A	67	152	104
***** Fecal Coliform (/100 mls)***	12	N/A	400	1	33	540	92
Suspended Residue (mg/l)	12	3	N/A	N/A	2.5	20.0	5.0
Turbidity (NTU)	12	N/A	50	0	7.5	23.0	12.6
Chlorophyll-a (ug/l)	0	0	40	0			
NH3_N (mg/l)	12	0	N/A	N/A	0.05	0.17	0.12
TKN_N (mg/l)	12	0	N/A	N/A	0.44	1.09	0.80
NO2_NO3_N (mg/l)	12	1	N/A	N/A	0.02	0.65	0.21
TP (mg/l)	12	1	N/A	N/A	0.02	0.17	0.11
Cadmium (ug/l)	0	0	2	0			
Chromium (ug/l)	0	0	50	0			
Copper (ug/l)	0	0	7	0			
Nickel (ug/l)	0	0	88	0			
Lead (ug/l)	0	0	25	0			
Zinc (ug/l)	0	0	50	0			
*******Aluminum (ug/l)***	0	0	87	0			
Iron (ug/l)	0	0	1,000	0			
Manganese (ug/l)	0	0	N/A	N/A			
Arsenic (ug/l)	0	0	10	0			
Mercury (ug/l)	0	0	0.012	N/A			

Notes: * Results below the laboratory reporting limit (<RL) are included in the calculation as if they were at the reporting level.
***** The Fecal Coliform average is a geometric mean.***
****** Tidal salt waters classified as swamp waters may have a pH as low as 4.3 if it is the result of natural conditions***
******* The aluminum reference level (Ref) is from the EPA's national recommended water quality criteria.***

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Station **J7325000** Nahunta Swamp @ NC 58 near Contentnea ***Stream Class:*** C Sw NSW

County: Greene ***Sub-Basin:*** 03020203 ***Lattitude:*** 35.5081 ***Longitude:*** -77.7455

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
Temperature (C)	17	N/A	N/A	N/A	5.2	26.3	17.4
DO (mg/l)	17	N/A	4	0	5.1	12.4	8.1
**** pH (SU)*	17	N/A	6 to 9	0	6.1	7.2	N/A
Conductivity (umhos/cm)	17	0	N/A	N/A	71	131	111
*** Fecal Coliform (/100 mls)*	12	N/A	400	3	39	3,700	285
Suspended Residue (mg/l)	12	2	N/A	N/A	2.5	27.0	6.1
Turbidity (NTU)	12	N/A	50	0	4.8	50.0	12.1
Chlorophyll-a (ug/l)	0	0	40	0			
NH3_N (mg/l)	12	0	N/A	N/A	0.09	1.17	0.26
TKN_N (mg/l)	12	0	N/A	N/A	0.40	2.02	0.91
NO2_NO3_N (mg/l)	12	0	N/A	N/A	0.85	2.12	1.26
TP (mg/l)	12	1	N/A	N/A	0.02	0.29	0.12
Cadmium (ug/l)	0	0	2	0			
Chromium (ug/l)	0	0	50	0			
Copper (ug/l)	0	0	7	0			
Nickel (ug/l)	0	0	88	0			
Lead (ug/l)	0	0	25	0			
Zinc (ug/l)	0	0	50	0			
*****Aluminum (ug/l)*	0	0	87	0			
Iron (ug/l)	0	0	1,000	0			
Manganese (ug/l)	0	0	N/A	N/A			
Arsenic (ug/l)	0	0	10	0			
Mercury (ug/l)	0	0	0.012	N/A			

*Notes: * Results below the laboratory reporting limit (<RL) are included in the calculation as if they were at the reporting level.*
*** The Fecal Coliform average is a geometric mean.*
**** Tidal salt waters classified as swamp waters may have a pH as low as 4.3 if it is the result of natural conditions*
***** The aluminum reference level (Ref) is from the EPA's national recommended water quality criteria.*

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Station **J7330000** Contentnea Creek @ US 13 near Snow Hill ***Stream Class:*** C Sw NSW

County: Greene ***Sub-Basin:*** 03020203 ***Lattitude:*** 35.4585 ***Longitude:*** -77.6753

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
Temperature (C)	17	N/A	N/A	N/A	4.8	29.3	19.2
DO (mg/l)	17	N/A	4	0	5.1	12.5	7.8
**** pH (SU)*	17	N/A	6 to 9	0	6.1	7.1	N/A
Conductivity (umhos/cm)	17	0	N/A	N/A	89	179	133
*** Fecal Coliform (/100 mls)*	12	N/A	400	1	42	610	87
Suspended Residue (mg/l)	12	3	N/A	N/A	2.5	12.0	5.7
Turbidity (NTU)	12	N/A	50	0	4.5	21.0	10.7
Chlorophyll-a (ug/l)	0	0	40	0			
NH3_N (mg/l)	12	0	N/A	N/A	0.04	0.65	0.16
TKN_N (mg/l)	12	0	N/A	N/A	0.59	1.29	0.83
NO2_NO3_N (mg/l)	12	0	N/A	N/A	0.46	0.96	0.70
TP (mg/l)	12	1	N/A	N/A	0.02	0.16	0.10
Cadmium (ug/l)	0	0	2	0			
Chromium (ug/l)	0	0	50	0			
Copper (ug/l)	0	0	7	0			
Nickel (ug/l)	0	0	88	0			
Lead (ug/l)	0	0	25	0			
Zinc (ug/l)	0	0	50	0			
*****Aluminum (ug/l)*	0	0	87	0			
Iron (ug/l)	0	0	1,000	0			
Manganese (ug/l)	0	0	N/A	N/A			
Arsenic (ug/l)	0	0	10	0			
Mercury (ug/l)	0	0	0.012	N/A			

*Notes: * Results below the laboratory reporting limit (<RL) are included in the calculation as if they were at the reporting level.*
*** The Fecal Coliform average is a geometric mean.*
**** Tidal salt waters classified as swamp waters may have a pH as low as 4.3 if it is the result of natural conditions*
***** The aluminum reference level (Ref) is from the EPA's national recommended water quality criteria.*

2022 LNBA Monitoring Report

Station **J7690000** Little Contentnea Creek @ SR 1218 (Chinquapin Road) near Farmville ***Stream Class:*** C Sw NSW

County: Pitt ***Sub-Basin:*** 03020203 ***Lattitude:*** 35.5881 ***Longitude:*** -77.5416

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
Temperature (C)	17	N/A	N/A	N/A	3.0	27.4	17.8
DO (mg/l)	17	N/A	4	8	1.1	11.5	4.9
****** pH (SU)***	17	N/A	6 to 9	1	5.9	7.2	N/A
Conductivity (umhos/cm)	17	0	N/A	N/A	71	498	202
***** Fecal Coliform (/100 mls)***	12	N/A	400	2	55	2,000	165
Suspended Residue (mg/l)	12	1	N/A	N/A	2.5	7.8	4.5
Turbidity (NTU)	12	N/A	50	0	4.5	20.0	9.6
Chlorophyll-a (ug/l)	0	0	40	0			
NH3_N (mg/l)	12	0	N/A	N/A	0.10	0.74	0.37
TKN_N (mg/l)	12	0	N/A	N/A	0.53	6.79	1.69
NO2_NO3_N (mg/l)	12	0	N/A	N/A	0.11	9.12	1.14
TP (mg/l)	12	0	N/A	N/A	0.05	0.96	0.41
Cadmium (ug/l)	0	0	2	0			
Chromium (ug/l)	0	0	50	0			
Copper (ug/l)	0	0	7	0			
Nickel (ug/l)	0	0	88	0			
Lead (ug/l)	0	0	25	0			
Zinc (ug/l)	0	0	50	0			
*******Aluminum (ug/l)***	0	0	87	0			
Iron (ug/l)	0	0	1,000	0			
Manganese (ug/l)	0	0	N/A	N/A			
Arsenic (ug/l)	0	0	10	0			
Mercury (ug/l)	0	0	0.012	N/A			

Notes: * Results below the laboratory reporting limit (<RL) are included in the calculation as if they were at the reporting level.
***** The Fecal Coliform average is a geometric mean.***
****** Tidal salt waters classified as swamp waters may have a pH as low as 4.3 if it is the result of natural conditions***
******* The aluminum reference level (Ref) is from the EPA's national recommended water quality criteria.***

2022 LNBA Monitoring Report

Station **J7740000** Little Contentnea Creek @ SR 1110 (HWY 903) near Scuffleton ***Stream Class:*** C Sw NSW

County: Pitt ***Sub-Basin:*** 03020203 ***Lattitude:*** 35.4567 ***Longitude:*** -77.4854

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
Temperature (C)	17	N/A	N/A	N/A	4.0	27.9	18.4
DO (mg/l)	17	N/A	4	0	4.0	12.2	7.1
****** pH (SU)***	17	N/A	6 to 9	1	5.5	7.7	N/A
Conductivity (umhos/cm)	17	0	N/A	N/A	89	229	165
***** Fecal Coliform (/100 mls)***	12	N/A	400	1	34	550	139
Suspended Residue (mg/l)	12	7	N/A	N/A	2.5	4.9	2.8
Turbidity (NTU)	12	N/A	50	0	4.4	14.0	8.3
Chlorophyll-a (ug/l)	0	0	40	0			
NH3_N (mg/l)	12	0	N/A	N/A	0.06	0.35	0.14
TKN_N (mg/l)	12	0	N/A	N/A	0.50	1.44	0.85
NO2_NO3_N (mg/l)	12	0	N/A	N/A	0.04	1.11	0.35
TP (mg/l)	12	0	N/A	N/A	0.03	0.53	0.24
Cadmium (ug/l)	0	0	2	0			
Chromium (ug/l)	0	0	50	0			
Copper (ug/l)	0	0	7	0			
Nickel (ug/l)	0	0	88	0			
Lead (ug/l)	0	0	25	0			
Zinc (ug/l)	0	0	50	0			
*******Aluminum (ug/l)***	0	0	87	0			
Iron (ug/l)	0	0	1,000	0			
Manganese (ug/l)	0	0	N/A	N/A			
Arsenic (ug/l)	0	0	10	0			
Mercury (ug/l)	0	0	0.012	N/A			

Notes: * Results below the laboratory reporting limit (<RL) are included in the calculation as if they were at the reporting level.
***** The Fecal Coliform average is a geometric mean.***
****** Tidal salt waters classified as swamp waters may have a pH as low as 4.3 if it is the result of natural conditions***
******* The aluminum reference level (Ref) is from the EPA's national recommended water quality criteria.***

2022 LNBA Monitoring Report

Station **J7850000** Neuse River @ SR 1470 (Maple Cypress Road) at the boat ramp dock upstream of the bridge. ***Stream Class:*** C Sw NSW

County: Craven ***Sub-Basin:*** 03020202 ***Lattitude:*** 35.31368 ***Longitude:*** -77.30287

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
Temperature (C)	16	N/A	N/A	N/A	4.2	30.0	20.0
DO (mg/l)	16	N/A	4	0	5.6	11.8	8.2
**** pH (SU)*	16	N/A	6 to 9	0	6.3	8.2	N/A
Conductivity (umhos/cm)	16	0	N/A	N/A	88	247	161
*** Fecal Coliform (/100 mls)*	11	N/A	400	1	11	490	55
Suspended Residue (mg/l)	11	0	N/A	N/A	4.9	39.0	15.5
Turbidity (NTU)	11	N/A	50	0	7.5	30.0	16.4
Chlorophyll-a (ug/l)	11	1	40	0	1.00	17.70	6.37
NH3_N (mg/l)	11	0	N/A	N/A	0.03	0.25	0.10
TKN_N (mg/l)	11	0	N/A	N/A	0.50	1.43	0.85
NO2_NO3_N (mg/l)	11	0	N/A	N/A	0.18	0.71	0.46
TP (mg/l)	11	0	N/A	N/A	0.03	0.32	0.12
Cadmium (ug/l)	0	0	2	0			
Chromium (ug/l)	0	0	50	0			
Copper (ug/l)	0	0	7	0			
Nickel (ug/l)	0	0	88	0			
Lead (ug/l)	0	0	25	0			
Zinc (ug/l)	0	0	50	0			
*****Aluminum (ug/l)*	0	0	87	0			
Iron (ug/l)	0	0	1,000	0			
Manganese (ug/l)	0	0	N/A	N/A			
Arsenic (ug/l)	0	0	10	0			
Mercury (ug/l)	0	0	0.012	N/A			

*Notes: * Results below the laboratory reporting limit (<RL) are included in the calculation as if they were at the reporting level.*
*** The Fecal Coliform average is a geometric mean.*
**** Tidal salt waters classified as swamp waters may have a pH as low as 4.3 if it is the result of natural conditions*
***** The aluminum reference level (Ref) is from the EPA's national recommended water quality criteria.*

2022 LNBA Monitoring Report

Station **J8870000** Trent River @ the Alfred Cunningham Drawbridge on E. Front Street, New Bern ***Stream Class:*** SB Sw NSW

County: Craven ***Sub-Basin:*** 03020204 ***Lattitude:*** 35.10159 ***Longitude:*** -77.03708

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
Temperature (C)	17	N/A	N/A	N/A	4.5	30.7	20.5
DO (mg/l)	17	N/A	5	1	3.7	10.9	7.2
****** pH (SU)***	17	N/A	6.8 to 8.5	1	6.7	7.9	N/A
Conductivity (umhos/cm)	17	0	N/A	N/A	139	18,211	8,781
***** Fecal Coliform (/100 mls)***	12	N/A	400	1	2	590	35
Suspended Residue (mg/l)	12	1	N/A	N/A	2.5	28.0	11.5
Turbidity (NTU)	12	N/A	25	5	4.1	45.0	21.9
Chlorophyll-a (ug/l)	12	0	40	0	5.72	29.58	16.13
NH3_N (mg/l)	12	0	N/A	N/A	0.03	0.23	0.10
TKN_N (mg/l)	12	0	N/A	N/A	0.39	2.14	0.94
NO2_NO3_N (mg/l)	12	1	10	0	0.02	0.59	0.19
TP (mg/l)	12	0	N/A	N/A	0.04	0.28	0.13
Cadmium (ug/l)	0	0	5	0			
Chromium (ug/l)	0	0	20	0			
Copper (ug/l)	0	0	3	0			
Nickel (ug/l)	0	0	8	0			
Lead (ug/l)	0	0	25	0			
Zinc (ug/l)	0	0	86	0			
*******Aluminum (ug/l)***	0	0	87	0			
Iron (ug/l)	0	0	1,000	0			
Manganese (ug/l)	0	0	200	0			
Arsenic (ug/l)	0	0	10	0			
Mercury (ug/l)	0	0	0.025	N/A			

Notes: * Results below the laboratory reporting limit (<RL) are included in the calculation as if they were at the reporting level.
***** The Fecal Coliform average is a geometric mean.***
****** Tidal salt waters classified as swamp waters may have a pH as low as 4.3 if it is the result of natural conditions***
******* The aluminum reference level (Ref) is from the EPA's national recommended water quality criteria.***