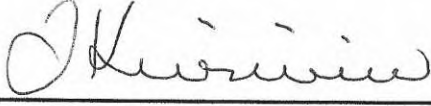


**Lower Neuse Basin Association
P.O. Box 1410
Clayton, North Carolina 27528-1410**

**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 -

John Kiviniemi
City of Raleigh
P.O. Box 590
Raleigh, N.C. 27602
919.996.6623
John.Kiviniemi@raleighnc.gov

Vice Chairman -

Charles Smithwick
Contentnea MSD
P. O. Box 477
Grifton, N. C.
252.413.8898
cmsd100@embargo.com

Treasurer -

Donald Smith
Town of Cary
P.O. Box 8005
Cary, N.C. 27512 - 8005
919.469.4095
donald.smith@townofcary.org

Secretary -

Kenneth Stevens
City of Kinston
2101 Becton Farm Road
Kinston, N.C. 28501
252.939.3375
Kenneth.Stevens@ci.kinston.nc.us

Associates:**Executive Director -**

Haywood M. Phthisic, III
P.O. Box 1410
Clayton, N.C. 27528-1410
919.796.8049
exec.director@lnba.net

Association Counsel -

Daniel F. McLawhorn
1706 St. Mary's Street
Raleigh, N.C. 27608
919.612.4520
hgdunn@poynerspruill.com

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

Lower Neuse Basin Members and Contact Information for 2022

Member	Contact	Address	Phone	Mobile Phone	Email
Duke Energy Progress	Mike Graham	1677 Old Smithfield Rd. Goldsboro, NC	919.580.3983		Mike.Graham2@duke-energy.com
City of Goldsboro	Robert Sherman Bobby Edwards	PO Drawer A Goldsboro, NC 27533	919.735.6075 919.735.3320		RSherman@goldsboronc.gov bedwards@goldsboronc.gov
City of Havelock	Rick Day	PO Drawer 368 Havelock, NC 28532	252.444.6409		rday@havelocknc.us
City of Kinston	Kenneth Stevens	PO Box 339 Kinston, NC 28501	252.939.3275	252.560.0252	kenneth.stevens@ci.kinston.nc.us
City of New Bern	Jordan Hughes Tony Hawkins	PO Box 1129 New Bern, NC 28563	252.639.7527 252.639.7555	252.341.5448 252.521.7687	hughesj@newbern-nc.org hawkinst@newbern-nc.org
City of Raleigh	John Kiviniemi Kathy Cooper	PO Box 590 Raleigh, NC 27602	919.996.6623 919.996.6574	919.810.0368	John.Kiviniemi@raleighnc.gov kathryn.cooper@raleighnc.gov
City of Wilson	Barry Parks Jimmy Pridgen	PO Box 10 Wilson, NC 27894	252.399.2374	252.205.2516 252.399.2519	bparks@wilsonnc.org jpridgen@wilsonnc.org
Contentnea MSD	Chuck Smithwick Renee Smith	PO Box 477 Grifton, NC 28530	252.524.5584	252.413.8898	cmsd100@embarqmail.com
Johnston County	Chandra Farmer Dan Wall	PO Box 2263 Smithfield, NC 27577	919.209.8333 919.209.8333	919.795.6138 919.795.1889	chandra_farmer@johnstonnc.com dan.wall@johnstonnc.com
CovationBio, Inc.	Shelby Arellano David Suggs	4693 Highway 11 North Grifton, NC 28530	252.643.7124 252.643.7002	252.521.6726	Shelby.Arellano@covationbio.com david.suggs@covationbio.com
Town of Benson	Kim Pickett Brian Leavitt	PO Box 69 Benson, NC 27504	919.894.3553 919.894.2373	919.902.9599	kpickett@townofbenson.com bleavitt@townofbenson.com
Town of Cary	Donald Smith Jamie Revels	PO Box 8005 Cary, NC 27512-8005	919.469.4305	919.609.7306	donald.smith@townofcary.org jamie.revels@townofcary.org

Member	Contact	Address	Phone	Mobile Phone	Email
Town of Farmville	David Hodgkins	3672 N. Main St.	252.753.6700		dhodgkins@farmville-nc.com
	James Shoulders	Farmville, NC 27828-0086	252.814.6348		James.shoulders@suez.com
Town of Fuquay-Varina	Mike Wagner	401 Old Honeycutt Rd.	919.753.1013	919.625.3524	mwagner@fuquay-varina.org
	Chris Grimes	Fuquay-Varina, NC 27526			cgrimes@fuquay-varina.org
Town of Kenly	Tony Sears	PO Box 519	919.284.2116		
	Phillip Smith	Kenly, NC 27542		252.955.2423	phillip.smith@townofkenly.com
Town of La Grange	James Sutton	PO Box 368	252.566.3186		jwsutton@lagrangenc.com
	John Craft	La Grange, NC 28551		252.560.9914	jpcraft@lagrangenc.com
Town of Apex	Lori Avent	PO Box 250	919.387.7055	919.753.8486	lori.avent@apexnc.org
	Michael Deaton	Apex, NC 27502	919.249.3413		Michael.Deaton@apexnc.org
Town of Clayton	Bill Simpson	PO Box 879	919.553.1536	919.594.0417	wsimpson@townofclaytonnc.org
	Rich Cappola	Clayton, NC 27520	919.553.1530	919.291.7608	rcappola@townofclaytonnc.org
Town of Snow Hill	Todd Whaley	908 SE 2nd Street	252.747.3414		manager@snowhillnc.com
	Drake Robart	Snow Hill, N.C. 28580		252.939.5213	wwtp_orc@snowhillnc.com
Associated Parties					
Executive Director	Haywood Phthisic	PO Box 1410	919.796.8049	919.796.8049	exec.director@lnba.net
		Clayton, N.C. 27528-1410			
Association Counsel	Dan McLawhorn	1706 St. Mary's Street	919.621.8195	919.621.8195	dan@dfm-lawyer.com
		Raleigh, NC 27608			
Waypoint Analytical	Mark Oliveira	PO Box 7085, 114 Oakmont C	252.756.6208	252.531.8085	moliveira@environment1inc.com
		Greenville, NC 27835-7085	252.756.6208		

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 Facility 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	Latitude	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

<i>Station</i>	<i>Location</i>	<i>County</i>	<i>Latitude</i>	<i>Longitude</i>	<i>Class</i>	<i>Sub-Basin</i>
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

<i>Station</i>	<i>Location</i>	<i>County</i>	<i>Latitude</i>	<i>Longitude</i>	<i>Class</i>	<i>Sub-Basin</i>
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 Stantonburg	Wilson	35.5861	-77.8111	C Sw NSW	03020203
J7240000	Toisnot Swamp @ SR 1539 (Sand Pit Road) near Stantonburg	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

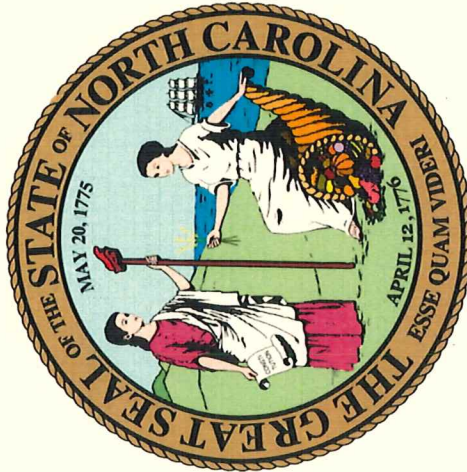
moliveira@environment1inc.com

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

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

A handwritten signature in black ink, reading '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 4500 F ⁻ C-2011 (Aqueous)
	HARDNESS TOTAL - WET CHEM
	SM 2340 C-2011 (Aqueous)
BACTERIA - COLIFORM FECAL	NITROGEN, AMMONIA
SM 9221 E-2014 (MPN) (Aqueous)	EPA 350.1, Rev. 2.0, 1993 (Aqueous)
SM 9221 E-2014 (MPN) (Biosolids)	NITROGEN, NITRATE
SM 9222 D-2015 (MF) (Aqueous)	(NO ₃ + NO ₂ EPA 353.2, Rev. 2.0, 1993) - (NO ₂ EPA 353.2, Rev. 2.0, 1993) (Aqueous)
BACTERIA - COLIFORM TOTAL	NITROGEN, NITRITE
SM 9222 B-2015 (MF) (Aqueous)	EPA 353.2, Rev. 2.0, 1993 (Aqueous)
SM 9221 B-2014 (MPN) (Aqueous)	NITROGEN, NO ₃ + NO ₂
BACTERIA - ENTEROCOCCI	EPA 353.2, Rev. 2.0, 1993 (Aqueous)
IDEXX Enterolert® (MPN) (Aqueous)	NITROGEN, TOTAL KJELDAHL
BOD	EPA 351.2, Rev. 2.0, 1993 (Aqueous)
SM 5210 B-2016 (Aqueous)	OIL & GREASE
CBOD	EPA 1664 Rev. B (Aqueous)
SM 5210 B-2016 (Aqueous)	ORGANIC CARBON, DISSOLVED
CHLORIDE	SM 5310 C-2014 (UV Oxidation) (Aqueous)
SM 4500 Cl ⁻ B-2011 (Aqueous)	ORGANIC CARBON, TOTAL
CHLOROPHYLL a	SM 5310 C-2014 (UV Oxidation) (Aqueous)
EPA 445.0, Rev. 1.2 (Fluorometric) (Aqueous)	pH
COD	SM 4500 H+B-2011 (Aqueous)
Hach 8000 (Aqueous)	PHOSPHATE, ORTHO
COLOR, ADMI	SM 4500 P E-2011 (Aqueous)
SM 2120 F-2011 (ADMI) (Aqueous)	PHOSPHORUS, TOTAL
COLOR, PC	EPA 365.4, 1974 (Aqueous)
SM 2120 B-2011 (PtCo) (Aqueous)	RESIDUE, DISSOLVED 180 C
CONDUCTIVITY	SM 2540 C-2015 (Aqueous)
SM 2510 B-2011 (Aqueous)	ASTM D5907-13 (Aqueous)
CYANIDE	RESIDUE, SETTLEABLE
SM 4500 CN ⁻ E-2016 (Total) (Aqueous)	SM 2540 F-2015 (Aqueous)
SM 4500 CN ⁻ E-2016 (Total) (Non-Aqueous)	RESIDUE, SUSPENDED
DISSOLVED OXYGEN	SM 2540 D-2015 (Aqueous)
SM 4500 O G-2016 (Aqueous)	RESIDUE, TOTAL
FLUORIDE	SM 2540 B-2015 (Aqueous)

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

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

EPA 200.7, Rev. 4.4, 1994 (Aqueous)	SM 3113 B-2010 (Non-Aqueous)
EPA 200.8, Rev. 5.4, 1994 (Aqueous)	EPA 200.8, Rev. 5.4, 1994 (Aqueous)
SW-846 6020 B (Aqueous)	SW-846 6020 B (Aqueous)
MAGNESIUM	SILVER
SM 3111 B-2011 (Aqueous)	SM 3113 B-2010 (Aqueous)
EPA 200.7, Rev. 4.4, 1994 (Aqueous)	EPA 200.7, Rev. 4.4, 1994 (Aqueous)
EPA 200.7, Rev. 4.4, 1994 (Non-Aqueous)	EPA 200.7, Rev. 4.4, 1994 (Non-Aqueous)
EPA 200.8, Rev. 5.4, 1994 (Aqueous)	EPA 200.8, Rev. 5.4, 1994 (Aqueous)
MANGANESE	SW-846 6020 B (Aqueous)
SM 3111 B-2011 (Aqueous)	SODIUM
EPA 200.7, Rev. 4.4, 1994 (Aqueous)	SM 3111 B-2011 (Aqueous)
EPA 200.7, Rev. 4.4, 1994 (Non-Aqueous)	SM 3111 B-2011 (Non-Aqueous)
EPA 200.8, Rev. 5.4, 1994 (Aqueous)	EPA 200.7, Rev. 4.4, 1994 (Aqueous)
MERCURY	EPA 200.7, Rev. 4.4, 1994 (Non-Aqueous)
EPA 245.1, Rev. 3.0, 1994 (Aqueous)	EPA 200.8, Rev. 5.4, 1994 (Aqueous)
SW-846 7471 B (Non-Aqueous)	THALLIUM
EPA 1631 E (Aqueous)	EPA 279.2, 1978 (Aqueous)
MOLYBDENUM	EPA 200.8, Rev. 5.4, 1994 (Aqueous)
EPA 200.7, Rev. 4.4, 1994 (Aqueous)	SW-846 6020 B (Aqueous)
EPA 200.7, Rev. 4.4, 1994 (Non-Aqueous)	TIN
EPA 200.8, Rev. 5.4, 1994 (Aqueous)	EPA 200.7, Rev. 4.4, 1994 (Aqueous)
SW-846 6020 B (Aqueous)	EPA 200.8, Rev. 5.4, 1994 (Aqueous)
NICKEL	SW-846 6020 B (Aqueous)
EPA 200.7, Rev. 4.4, 1994 (Aqueous)	VANADIUM
EPA 200.7, Rev. 4.4, 1994 (Non-Aqueous)	EPA 200.7, Rev. 4.4, 1994 (Aqueous)
EPA 200.8, Rev. 5.4, 1994 (Aqueous)	EPA 200.8, Rev. 5.4, 1994 (Aqueous)
SW-846 6020 B (Aqueous)	SW-846 6020 B (Aqueous)
POTASSIUM	ZINC
SM 3111 B-2011 (Aqueous)	SM 3111 B-2011 (Aqueous)
EPA 200.7, Rev. 4.4, 1994 (Aqueous)	EPA 200.7, Rev. 4.4, 1994 (Aqueous)
EPA 200.7, Rev. 4.4, 1994 (Non-Aqueous)	EPA 200.7, Rev. 4.4, 1994 (Non-Aqueous)
EPA 200.8, Rev. 5.4, 1994 (Aqueous)	EPA 200.8, Rev. 5.4, 1994 (Aqueous)
SELENIUM	SW-846 6020 B (Aqueous)
SM 3113 B-2010 (Aqueous)	ORGANIC

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

- 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)

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
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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

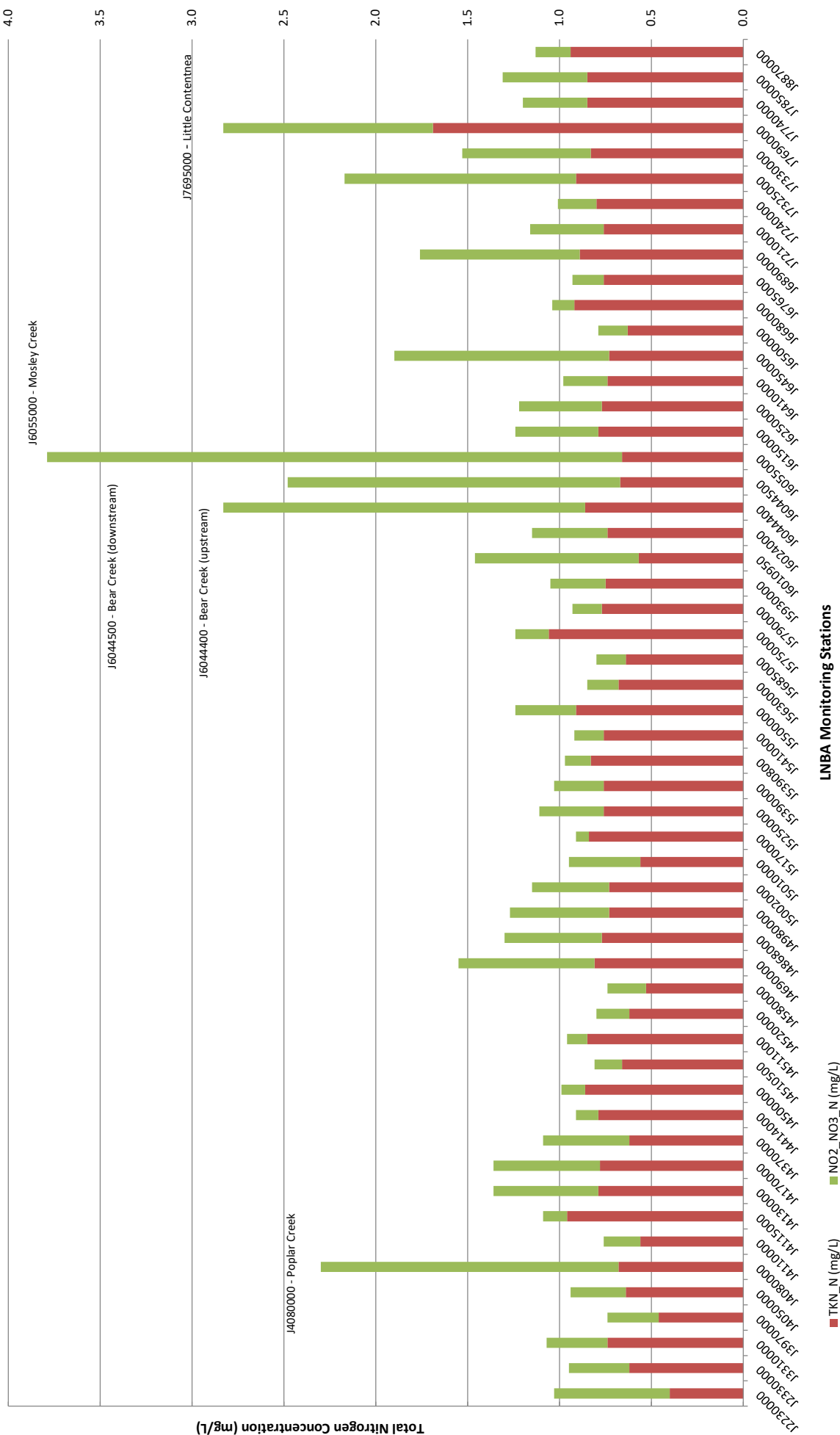
December, 2022

J4080000	12/20/2022	Unable to access- stream nearly dry
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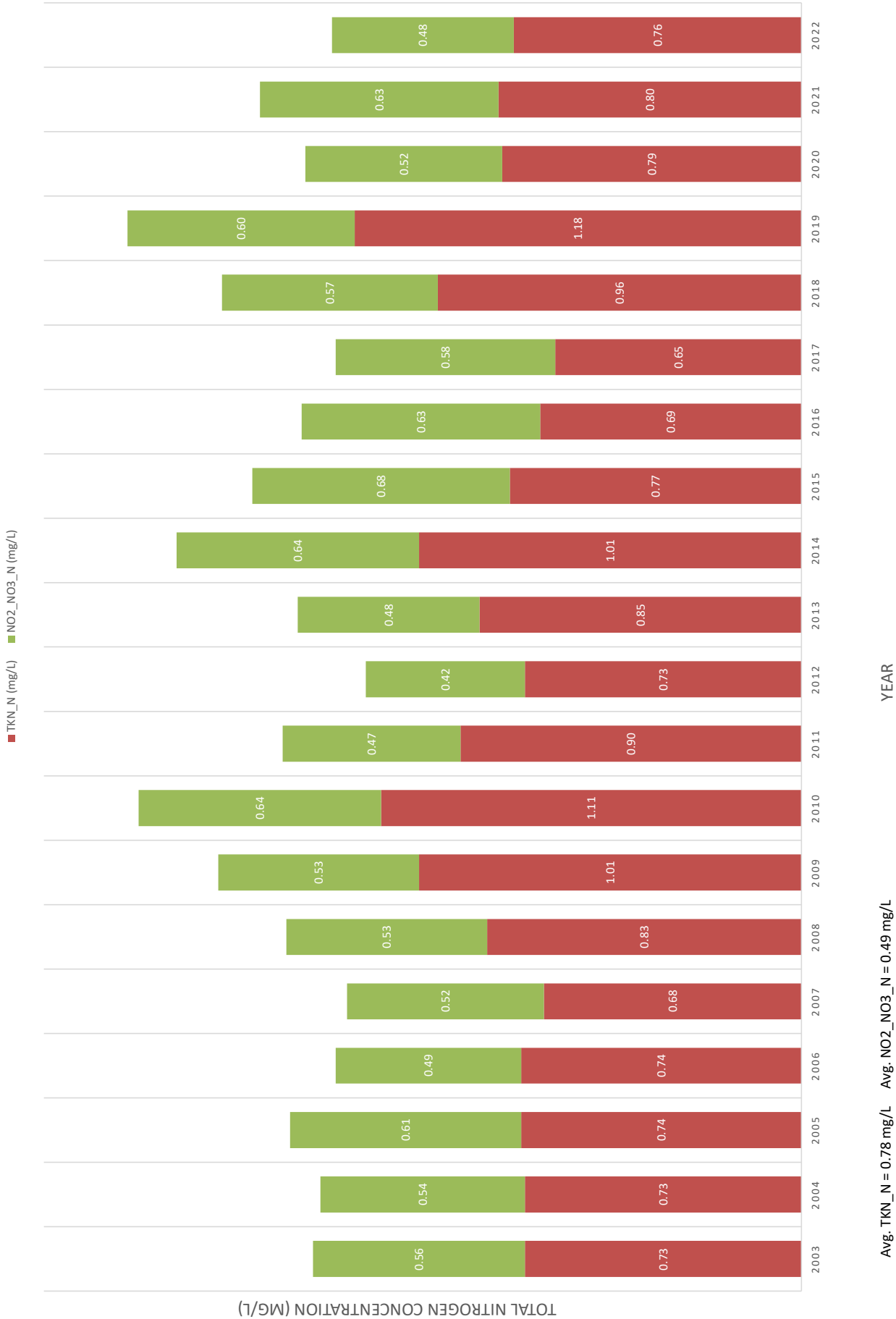
Section IV

Statistical Analysis of Sampling Data

2022 LNBA Monitoring Stations Total Nitrogen Annual Average Concentrations



2003-2022 AVERAGE TOTAL NITROGEN CONCENTRATIONS FOR LNBA SAMPLING SITES



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

Latitude: 35.9182

Longitude: -78.5348

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

Latitude: 35.8479

Longitude: -78.5302

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

Latitude: 35.8041

Longitude: -78.6081

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

Latitude: 35.7493

Longitude: -78.5345

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

Latitude: 35.7266

Longitude: -78.5139

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

Latitude: 35.7309

Longitude: -78.4776

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

Latitude: 35.7062

Longitude: -78.4312

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

Latitude: 35.693264 **Longitude:** -78.43869

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

Latitude: 35.6749

Longitude: -78.4364

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

Latitude: 35.6473

Longitude: -78.4056

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

Latitude: 35.5128

Longitude: -78.3498

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

Latitude: 35.7187

Longitude: -78.7527

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

Latitude: 35.6476

Longitude: -78.6041

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

Latitude: 35.5999

Longitude: -78.5356

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

Latitude: 35.6176

Longitude: -78.5281

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

Latitude: 35.5515

Longitude: -78.46

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

Latitude: 35.5442

Longitude: -78.397

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

Latitude: 35.6609

Longitude: -78.8042

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

Latitude: 35.6356

Longitude: -78.7279

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

Latitude: 35.6091

Longitude: -78.6866

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

Latitude: 35.5626

Longitude: -78.5756

	N > Ref or N < RL				Minimum	Maximum	* Average
	N	N < RL	Ref	N < Ref			
<i>Temperature (C)</i>	17	N/A	N/A	N/A	5.3	26.5	18.9
<i>DO (mg/l)</i>	17	N/A	4	0	6.2	12.1	8.4
<i>*** pH (SU)</i>	17	N/A	6 to 9	0	6.7	7.6	N/A
<i>Conductivity (umhos/cm)</i>	17	0	N/A	N/A	107	368	200
<i>** Fecal Coliform (/100 mls)</i>	12	N/A	400	2	28	2,200	193
<i>Suspended Residue (mg/l)</i>	12	0	N/A	N/A	4.9	53.0	16.3
<i>Turbidity (NTU)</i>	12	N/A	50	1	4.8	70.0	20.1
<i>Chlorophyll-a (ug/l)</i>	0	0	40	0			
<i>NH3_N (mg/l)</i>	12	1	N/A	N/A	0.02	0.14	0.08
<i>TKN_N (mg/l)</i>	12	0	N/A	N/A	0.39	1.16	0.73
<i>NO2_NO3_N (mg/l)</i>	12	0	N/A	N/A	0.15	0.72	0.42
<i>TP (mg/l)</i>	12	0	N/A	N/A	0.06	0.21	0.11
<i>Cadmium (ug/l)</i>	0	0	2	0			
<i>Chromium (ug/l)</i>	0	0	50	0			
<i>Copper (ug/l)</i>	0	0	7	0			
<i>Nickel (ug/l)</i>	0	0	88	0			
<i>Lead (ug/l)</i>	0	0	25	0			
<i>Zinc (ug/l)</i>	0	0	50	0			
<i>*** Aluminum (ug/l)</i>	0	0	87	0			
<i>Iron (ug/l)</i>	0	0	1,000	0			
<i>Manganese (ug/l)</i>	0	0	N/A	N/A			
<i>Arsenic (ug/l)</i>	0	0	10	0			
<i>Mercury (ug/l)</i>	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 J5010000

Middle Creek @ NC 210 near Smithfield

Stream Class: C NSW

County: Johnston

Sub-Basin: 03020201

Latitude: 35.5075

Longitude: -78.4013

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

Latitude: 35.46925

Longitude: -78.45681

	N > Ref or N < Ref				Minimum	Maximum	* Average
	N	N < RL	Ref	N < Ref			
<i>Temperature (C)</i>	17	N/A	N/A	N/A	5.8	27.1	18.7
<i>DO (mg/l)</i>	17	N/A	4	5	1.4	11.4	6.2
<i>*** pH (SU)</i>	17	N/A	6 to 9	0	6.0	7.1	N/A
<i>Conductivity (umhos/cm)</i>	17	0	N/A	N/A	67	99	83
<i>** Fecal Coliform (/100 mls)</i>	12	N/A	400	0	8	390	79
<i>Suspended Residue (mg/l)</i>	12	0	N/A	N/A	2.9	12.0	5.5
<i>Turbidity (NTU)</i>	12	N/A	50	0	7.0	17.0	11.4
<i>Chlorophyll-a (ug/l)</i>	0	0	40	0			
<i>NH3_N (mg/l)</i>	12	0	N/A	N/A	0.03	0.42	0.13
<i>TKN_N (mg/l)</i>	12	0	N/A	N/A	0.42	1.53	0.84
<i>NO2_NO3_N (mg/l)</i>	12	2	N/A	N/A	0.02	0.22	0.07
<i>TP (mg/l)</i>	12	3	N/A	N/A	0.02	0.11	0.06
<i>Cadmium (ug/l)</i>	0	0	2	0			
<i>Chromium (ug/l)</i>	0	0	50	0			
<i>Copper (ug/l)</i>	0	0	7	0			
<i>Nickel (ug/l)</i>	0	0	88	0			
<i>Lead (ug/l)</i>	0	0	25	0			
<i>Zinc (ug/l)</i>	0	0	50	0			
<i>*** Aluminum (ug/l)</i>	0	0	87	0			
<i>Iron (ug/l)</i>	0	0	1,000	0			
<i>Manganese (ug/l)</i>	0	0	N/A	N/A			
<i>Arsenic (ug/l)</i>	0	0	10	0			
<i>Mercury (ug/l)</i>	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 J5250000

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

County: Johnston

Sub-Basin: 03020201

Latitude: 35.3741

Longitude: -78.1962

	N > Ref or N < Ref				Minimum	Maximum	* Average
	N	N < RL	Ref	N < Ref			
<i>Temperature (C)</i>	17	N/A	N/A	N/A	5.7	29.4	20.5
<i>DO (mg/l)</i>	17	N/A	4	0	5.6	11.5	7.9
<i>*** pH (SU)</i>	17	N/A	6 to 9	0	6.3	7.4	N/A
<i>Conductivity (umhos/cm)</i>	17	0	N/A	N/A	122	282	189
<i>** Fecal Coliform (/100 mls)</i>	12	N/A	400	1	42	655	149
<i>Suspended Residue (mg/l)</i>	12	0	N/A	N/A	13.0	62.0	31.0
<i>Turbidity (NTU)</i>	12	N/A	50	0	6.5	45.0	26.3
<i>Chlorophyll-a (ug/l)</i>	0	0	40	0			
<i>NH3_N (mg/l)</i>	12	0	N/A	N/A	0.02	0.10	0.06
<i>TKN_N (mg/l)</i>	12	0	N/A	N/A	0.47	1.29	0.76
<i>NO2_NO3_N (mg/l)</i>	12	0	10	0	0.10	0.45	0.35
<i>TP (mg/l)</i>	12	0	N/A	N/A	0.06	0.47	0.20
<i>Cadmium (ug/l)</i>	0	0	2	0			
<i>Chromium (ug/l)</i>	0	0	50	0			
<i>Copper (ug/l)</i>	0	0	7	0			
<i>Nickel (ug/l)</i>	0	0	25	0			
<i>Lead (ug/l)</i>	0	0	25	0			
<i>Zinc (ug/l)</i>	0	0	50	0			
<i>*** Aluminum (ug/l)</i>	0	0	87	0			
<i>Iron (ug/l)</i>	0	0	1,000	0			
<i>Manganese (ug/l)</i>	0	0	200	0			
<i>Arsenic (ug/l)</i>	0	0	10	0			
<i>Mercury (ug/l)</i>	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 J5390000

Hannah Creek @ SR 1158 (Allens Crossroads Drive) near Benson

Stream Class: C NSW

County: Johnston

Sub-Basin: 03020201

Latitude: 35.3868

Longitude: -78.511

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
<i>Temperature (C)</i>	16	N/A	N/A	N/A	6.3	25.3	17.6
<i>DO (mg/l)</i>	16	N/A	4	7	0.6	11.1	5.4
<i>*** pH (SU)</i>	16	N/A	6 to 9	8	4.9	7.1	N/A
<i>Conductivity (umhos/cm)</i>	16	0	N/A	N/A	81	146	113
<i>** Fecal Coliform (/100 mls)</i>	12	N/A	400	1	2	430	70
<i>Suspended Residue (mg/l)</i>	12	2	N/A	N/A	2.5	26.0	8.6
<i>Turbidity (NTU)</i>	12	N/A	50	0	5.9	35.0	15.2
<i>Chlorophyll-a (ug/l)</i>	0	0	40	0			
<i>NH3_N (mg/l)</i>	12	0	N/A	N/A	0.08	1.18	0.25
<i>TKN_N (mg/l)</i>	12	0	N/A	N/A	0.30	1.87	0.76
<i>NO2_NO3_N (mg/l)</i>	12	3	N/A	N/A	0.02	1.34	0.27
<i>TP (mg/l)</i>	12	1	N/A	N/A	0.02	0.17	0.05
<i>Cadmium (ug/l)</i>	0	0	2	0			
<i>Chromium (ug/l)</i>	0	0	50	0			
<i>Copper (ug/l)</i>	0	0	7	0			
<i>Nickel (ug/l)</i>	0	0	88	0			
<i>Lead (ug/l)</i>	0	0	25	0			
<i>Zinc (ug/l)</i>	0	0	50	0			
<i>****Aluminum (ug/l)</i>	0	0	87	0			
<i>Iron (ug/l)</i>	0	0	1,000	0			
<i>Manganese (ug/l)</i>	0	0	N/A	N/A			
<i>Arsenic (ug/l)</i>	0	0	10	0			
<i>Mercury (ug/l)</i>	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 J5390800

Hannah Creek @ SR 1227 (Ivey Road) near Benson

Stream Class: C NSW

County: Johnston

Sub-Basin: 03020201

Latitude: 35.4025

Longitude: -78.4952

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
<i>Temperature (C)</i>	17	N/A	N/A	N/A	6.2	25.5	18.4
<i>DO (mg/l)</i>	17	N/A	4	9	1.0	11.0	4.9
<i>*** pH (SU)</i>	17	N/A	6 to 9	1	5.9	7.2	N/A
<i>Conductivity (umhos/cm)</i>	17	0	N/A	N/A	120	258	164
<i>** Fecal Coliform (/100 mls)</i>	12	N/A	400	0	36	310	84
<i>Suspended Residue (mg/l)</i>	12	0	N/A	N/A	3.0	16.0	7.6
<i>Turbidity (NTU)</i>	12	N/A	50	0	8.2	24.0	13.8
<i>Chlorophyll-a (ug/l)</i>	0	0	40	0			
<i>NH3_N (mg/l)</i>	12	1	N/A	N/A	0.02	0.15	0.10
<i>TKN_N (mg/l)</i>	12	0	N/A	N/A	0.52	1.35	0.83
<i>NO2_NO3_N (mg/l)</i>	12	4	N/A	N/A	0.02	0.55	0.14
<i>TP (mg/l)</i>	12	0	N/A	N/A	0.07	0.62	0.26
<i>Cadmium (ug/l)</i>	0	0	2	0			
<i>Chromium (ug/l)</i>	0	0	50	0			
<i>Copper (ug/l)</i>	0	0	7	0			
<i>Nickel (ug/l)</i>	0	0	88	0			
<i>Lead (ug/l)</i>	0	0	25	0			
<i>Zinc (ug/l)</i>	0	0	50	0			
<i>*** Aluminum (ug/l)</i>	0	0	87	0			
<i>Iron (ug/l)</i>	0	0	1,000	0			
<i>Manganese (ug/l)</i>	0	0	N/A	N/A			
<i>Arsenic (ug/l)</i>	0	0	10	0			
<i>Mercury (ug/l)</i>	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 J5410000

Mill Creek @ SR 1200 (Richardson Bridge Road) near Cox Mill

Stream Class: C NSW

County: Johnston

Sub-Basin: 03020201

Latitude: 35.342

Longitude: -78.2162

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
<i>Temperature (C)</i>	17	N/A	N/A	N/A	5.7	27.3	19.2
<i>DO (mg/l)</i>	17	N/A	4	0	4.4	11.4	6.7
<i>*** pH (SU)</i>	17	N/A	6 to 9	1	5.5	7.3	N/A
<i>Conductivity (umhos/cm)</i>	17	0	N/A	N/A	99	209	116
<i>** Fecal Coliform (/100 mls)</i>	12	N/A	400	0	34	340	146
<i>Suspended Residue (mg/l)</i>	12	5	N/A	N/A	2.5	11.0	4.7
<i>Turbidity (NTU)</i>	12	N/A	50	0	3.6	23.0	9.2
<i>Chlorophyll-a (ug/l)</i>	0	0	40	0			
<i>NH3_N (mg/l)</i>	12	1	N/A	N/A	0.02	0.24	0.09
<i>TKN_N (mg/l)</i>	12	0	N/A	N/A	0.39	1.12	0.76
<i>NO2_NO3_N (mg/l)</i>	12	1	N/A	N/A	0.02	0.47	0.16
<i>TP (mg/l)</i>	12	2	N/A	N/A	0.02	0.06	0.04
<i>Cadmium (ug/l)</i>	0	0	2	0			
<i>Chromium (ug/l)</i>	0	0	50	0			
<i>Copper (ug/l)</i>	0	0	7	0			
<i>Nickel (ug/l)</i>	0	0	88	0			
<i>Lead (ug/l)</i>	0	0	25	0			
<i>Zinc (ug/l)</i>	0	0	50	0			
<i>*** Aluminum (ug/l)</i>	0	0	87	0			
<i>Iron (ug/l)</i>	0	0	1,000	0			
<i>Manganese (ug/l)</i>	0	0	N/A	N/A			
<i>Arsenic (ug/l)</i>	0	0	10	0			
<i>Mercury (ug/l)</i>	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 J5500000

Falling Creek @ SR 1219 (Old Grantham Road) near Grantham

Stream Class: WS-IV NSW

County: Wayne

Sub-Basin: 03020201

Latitude: 35.3224

Longitude: -78.1282

	N > Ref or N < RL				Minimum	Maximum	* Average
	N	N < RL	Ref	N < Ref			
<i>Temperature (C)</i>	17	N/A	N/A	N/A	6.3	26.2	18.6
<i>DO (mg/l)</i>	17	N/A	4	2	2.7	10.5	6.3
<i>*** pH (SU)</i>	17	N/A	6 to 9	3	5.7	6.9	N/A
<i>Conductivity (umhos/cm)</i>	17	0	N/A	N/A	104	309	165
<i>** Fecal Coliform (/100 mls)</i>	12	N/A	400	1	46	420	133
<i>Suspended Residue (mg/l)</i>	12	5	N/A	N/A	2.5	15.0	4.8
<i>Turbidity (NTU)</i>	12	N/A	50	0	3.3	33.0	9.1
<i>Chlorophyll-a (ug/l)</i>	0	0	40	0			
<i>NH3_N (mg/l)</i>	12	0	N/A	N/A	0.03	0.49	0.16
<i>TKN_N (mg/l)</i>	12	0	N/A	N/A	0.40	1.58	0.91
<i>NO2_NO3_N (mg/l)</i>	12	1	10	0	0.02	1.49	0.33
<i>TP (mg/l)</i>	12	0	N/A	N/A	0.02	0.19	0.08
<i>Cadmium (ug/l)</i>	0	0	2	0			
<i>Chromium (ug/l)</i>	0	0	50	0			
<i>Copper (ug/l)</i>	0	0	7	0			
<i>Nickel (ug/l)</i>	0	0	25	0			
<i>Lead (ug/l)</i>	0	0	25	0			
<i>Zinc (ug/l)</i>	0	0	50	0			
<i>*** Aluminum (ug/l)</i>	0	0	87	0			
<i>Iron (ug/l)</i>	0	0	1,000	0			
<i>Manganese (ug/l)</i>	0	0	200	0			
<i>Arsenic (ug/l)</i>	0	0	10	0			
<i>Mercury (ug/l)</i>	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 J5630000

Little River @ SR 2320, Riley Road near Zebulon

Stream Class: HQW NSW

County: Wake

Sub-Basin: 03020201

Latitude: 35.8375

Longitude: -78.3599

	N > Ref or N < RL				Minimum	Maximum	* Average
	N	N < RL	Ref	N < Ref			
<i>Temperature (C)</i>	17	N/A	N/A	N/A	2.6	27.9	17.2
<i>DO (mg/l)</i>	17	N/A	4	1	3.2	12.3	7.1
<i>*** pH (SU)</i>	17	N/A	6 to 9	0	6.1	7.2	N/A
<i>Conductivity (umhos/cm)</i>	17	0	N/A	N/A	65	90	77
<i>** Fecal Coliform (/100 mls)</i>	12	N/A	400	1	25	450	90
<i>Suspended Residue (mg/l)</i>	12	1	N/A	N/A	2.5	7.1	4.1
<i>Turbidity (NTU)</i>	12	N/A	50	0	3.5	14.0	8.1
<i>Chlorophyll-a (ug/l)</i>	0	0	40	0			
<i>NH3_N (mg/l)</i>	12	1	N/A	N/A	0.02	0.15	0.09
<i>TKN_N (mg/l)</i>	12	0	N/A	N/A	0.29	1.42	0.68
<i>NO2_NO3_N (mg/l)</i>	12	0	10	0	0.02	0.34	0.17
<i>TP (mg/l)</i>	12	3	N/A	N/A	0.02	0.09	0.05
<i>Cadmium (ug/l)</i>	0	0	2	0			
<i>Chromium (ug/l)</i>	0	0	50	0			
<i>Copper (ug/l)</i>	0	0	7	0			
<i>Nickel (ug/l)</i>	0	0	25	0			
<i>Lead (ug/l)</i>	0	0	25	0			
<i>Zinc (ug/l)</i>	0	0	50	0			
<i>*** Aluminum (ug/l)</i>	0	0	87	0			
<i>Iron (ug/l)</i>	0	0	1,000	0			
<i>Manganese (ug/l)</i>	0	0	200	0			
<i>Arsenic (ug/l)</i>	0	0	10	0			
<i>Mercury (ug/l)</i>	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 J5685000

Little River at Weaver Road near Bagley

Stream Class: WS-V NSW

County: Johnston

Sub-Basin: 03020201

Latitude: 35.5791

Longitude: -78.1723

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
<i>Temperature (C)</i>	17	N/A	N/A	N/A	3.6	26.8	17.9
<i>DO (mg/l)</i>	17	N/A	4	0	4.1	12.4	8.1
<i>*** pH (SU)</i>	17	N/A	6 to 9	0	6.7	7.7	N/A
<i>Conductivity (umhos/cm)</i>	17	0	N/A	N/A	66	129	86
<i>** Fecal Coliform (/100 mls)</i>	12	N/A	400	0	26	320	85
<i>Suspended Residue (mg/l)</i>	12	2	N/A	N/A	2.5	15.0	5.5
<i>Turbidity (NTU)</i>	12	N/A	50	0	4.7	22.0	12.2
<i>Chlorophyll-a (ug/l)</i>	0	0	40	0			
<i>NH3_N (mg/l)</i>	12	1	N/A	N/A	0.02	0.39	0.10
<i>TKN_N (mg/l)</i>	12	0	N/A	N/A	0.23	1.00	0.64
<i>NO2_NO3_N (mg/l)</i>	12	0	10	0	0.03	0.34	0.16
<i>TP (mg/l)</i>	12	0	N/A	N/A	0.04	0.27	0.08
<i>Cadmium (ug/l)</i>	0	0	2	0			
<i>Chromium (ug/l)</i>	0	0	50	0			
<i>Copper (ug/l)</i>	0	0	7	0			
<i>Nickel (ug/l)</i>	0	0	25	0			
<i>Lead (ug/l)</i>	0	0	25	0			
<i>Zinc (ug/l)</i>	0	0	50	0			
<i>*** Aluminum (ug/l)</i>	0	0	87	0			
<i>Iron (ug/l)</i>	0	0	1,000	0			
<i>Manganese (ug/l)</i>	0	0	200	0			
<i>Arsenic (ug/l)</i>	0	0	10	0			
<i>Mercury (ug/l)</i>	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 J5750000

Little River at SR 2339 (Bagley Road) near Lowell Mill

Stream Class: WS-V NSW

County: Johnston

Sub-Basin: 03020201

Latitude: 35.5613

Longitude: -78.1594

	N > Ref or N < Ref				Minimum	Maximum	* Average
	N	N < RL	Ref	N < Ref			
<i>Temperature (C)</i>	17	N/A	N/A	N/A	3.7	27.5	18.1
<i>DO (mg/l)</i>	17	N/A	4	1	2.8	12.3	7.8
<i>*** pH (SU)</i>	17	N/A	6 to 9	0	6.6	8.3	N/A
<i>Conductivity (umhos/cm)</i>	17	0	N/A	N/A	69	196	100
<i>** Fecal Coliform (/100 mls)</i>	12	N/A	400	0	34	240	90
<i>Suspended Residue (mg/l)</i>	12	4	N/A	N/A	2.5	12.0	5.0
<i>Turbidity (NTU)</i>	12	N/A	50	0	4.5	19.0	11.1
<i>Chlorophyll-a (ug/l)</i>	0	0	40	0			
<i>NH3_N (mg/l)</i>	12	1	N/A	N/A	0.02	0.13	0.07
<i>TKN_N (mg/l)</i>	12	0	N/A	N/A	0.26	5.88	1.06
<i>NO2_NO3_N (mg/l)</i>	12	0	10	0	0.06	0.33	0.18
<i>TP (mg/l)</i>	12	0	N/A	N/A	0.04	0.15	0.09
<i>Cadmium (ug/l)</i>	0	0	2	0			
<i>Chromium (ug/l)</i>	0	0	50	0			
<i>Copper (ug/l)</i>	0	0	7	0			
<i>Nickel (ug/l)</i>	0	0	25	0			
<i>Lead (ug/l)</i>	0	0	25	0			
<i>Zinc (ug/l)</i>	0	0	50	0			
<i>*** Aluminum (ug/l)</i>	0	0	87	0			
<i>Iron (ug/l)</i>	0	0	1,000	0			
<i>Manganese (ug/l)</i>	0	0	200	0			
<i>Arsenic (ug/l)</i>	0	0	10	0			
<i>Mercury (ug/l)</i>	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 J5790000

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

County: Wake

Sub-Basin: 03020201

Latitude: 35.7697

Longitude: -78.7697

	N > Ref or N < RL				Minimum	Maximum	* Average
	N	N < RL	Ref	N < Ref			
<i>Temperature (C)</i>	18	N/A	N/A	N/A	3.2	26.3	16.7
<i>DO (mg/l)</i>	18	N/A	4	0	4.1	12.2	7.4
<i>*** pH (SU)</i>	18	N/A	6 to 9	1	5.8	7.2	N/A
<i>Conductivity (umhos/cm)</i>	18	0	N/A	N/A	52	96	73
<i>** Fecal Coliform (/100 mls)</i>	12	N/A	400	3	23	4,100	269
<i>Suspended Residue (mg/l)</i>	12	2	N/A	N/A	2.5	27.0	6.3
<i>Turbidity (NTU)</i>	12	N/A	50	0	4.4	29.0	12.9
<i>Chlorophyll-a (ug/l)</i>	0	0	40	0			
<i>NH3_N (mg/l)</i>	12	3	N/A	N/A	0.02	0.15	0.08
<i>TKN_N (mg/l)</i>	12	0	N/A	N/A	0.34	1.77	0.77
<i>NO2_NO3_N (mg/l)</i>	12	1	N/A	N/A	0.02	0.39	0.16
<i>TP (mg/l)</i>	12	0	N/A	N/A	0.02	0.14	0.07
<i>Cadmium (ug/l)</i>	0	0	2	0			
<i>Chromium (ug/l)</i>	0	0	50	0			
<i>Copper (ug/l)</i>	0	0	7	0			
<i>Nickel (ug/l)</i>	0	0	88	0			
<i>Lead (ug/l)</i>	0	0	25	0			
<i>Zinc (ug/l)</i>	0	0	50	0			
<i>*** Aluminum (ug/l)</i>	0	0	87	0			
<i>Iron (ug/l)</i>	0	0	1,000	0			
<i>Manganese (ug/l)</i>	0	0	N/A	N/A			
<i>Arsenic (ug/l)</i>	0	0	10	0			
<i>Mercury (ug/l)</i>	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 J5930000

Little River @ US 581 near Cherry Hospital

Stream Class: C NSW

County: Wayne

Sub-Basin: 03020201

Latitude: 35.393

Longitude: -78.0258

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

Latitude: 35.2817

Longitude: -77.8686

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
<i>Temperature (C)</i>	17	N/A	N/A	N/A	6.1	25.9	18.9
<i>DO (mg/l)</i>	17	N/A	4	0	4.1	11.4	6.8
<i>*** pH (SU)</i>	17	N/A	6 to 9	9	5.3	7.3	N/A
<i>Conductivity (umhos/cm)</i>	17	0	N/A	N/A	72	136	97
<i>** Fecal Coliform (/100 mls)</i>	12	N/A	400	1	2	530	16
<i>Suspended Residue (mg/l)</i>	12	6	N/A	N/A	2.5	5.8	3.1
<i>Turbidity (NTU)</i>	12	N/A	50	0	2.3	5.6	3.8
<i>Chlorophyll-a (ug/l)</i>	0	0	40	0			
<i>NH3_N (mg/l)</i>	12	0	N/A	N/A	0.06	0.22	0.13
<i>TKN_N (mg/l)</i>	12	0	N/A	N/A	0.28	1.01	0.57
<i>NO2_NO3_N (mg/l)</i>	12	0	N/A	N/A	0.42	1.74	0.89
<i>TP (mg/l)</i>	12	4	N/A	N/A	0.02	0.11	0.04
<i>Cadmium (ug/l)</i>	0	0	2	0			
<i>Chromium (ug/l)</i>	0	0	50	0			
<i>Copper (ug/l)</i>	0	0	7	0			
<i>Nickel (ug/l)</i>	0	0	88	0			
<i>Lead (ug/l)</i>	0	0	25	0			
<i>Zinc (ug/l)</i>	0	0	50	0			
<i>****Aluminum (ug/l)</i>	0	0	87	0			
<i>Iron (ug/l)</i>	0	0	1,000	0			
<i>Manganese (ug/l)</i>	0	0	N/A	N/A			
<i>Arsenic (ug/l)</i>	0	0	10	0			
<i>Mercury (ug/l)</i>	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 J6024000

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

County: Wayne

Sub-Basin: 03020202

Latitude: 35.229

Longitude: -77.846

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

Latitude: 35.3137

Longitude: -77.8153

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

Latitude: 35.2489

Longitude: -77.7843

	N > Ref or N < RL				Minimum	Maximum	* Average
	N	N < RL	Ref	N < Ref			
<i>Temperature (C)</i>	17	N/A	N/A	N/A	6.5	24.7	18.1
<i>DO (mg/l)</i>	17	N/A	4	0	6.7	11.4	8.6
<i>*** pH (SU)</i>	17	N/A	6 to 9	1	5.8	7.5	N/A
<i>Conductivity (umhos/cm)</i>	17	0	N/A	N/A	100	125	114
<i>** Fecal Coliform (/100 mls)</i>	12	N/A	400	1	26	450	103
<i>Suspended Residue (mg/l)</i>	12	3	N/A	N/A	2.5	12.0	5.1
<i>Turbidity (NTU)</i>	12	N/A	50	0	2.7	11.0	6.8
<i>Chlorophyll-a (ug/l)</i>	0	0	40	0			
<i>NH3_N (mg/l)</i>	12	0	N/A	N/A	0.06	0.29	0.12
<i>TKN_N (mg/l)</i>	12	0	N/A	N/A	0.38	0.90	0.67
<i>NO2_NO3_N (mg/l)</i>	12	0	10	0	0.85	3.70	1.81
<i>TP (mg/l)</i>	12	0	N/A	N/A	0.03	0.28	0.12
<i>Cadmium (ug/l)</i>	0	0	2	0			
<i>Chromium (ug/l)</i>	0	0	50	0			
<i>Copper (ug/l)</i>	0	0	7	0			
<i>Nickel (ug/l)</i>	0	0	25	0			
<i>Lead (ug/l)</i>	0	0	25	0			
<i>Zinc (ug/l)</i>	0	0	50	0			
<i>*** Aluminum (ug/l)</i>	0	0	87	0			
<i>Iron (ug/l)</i>	0	0	1,000	0			
<i>Manganese (ug/l)</i>	0	0	200	0			
<i>Arsenic (ug/l)</i>	0	0	10	0			
<i>Mercury (ug/l)</i>	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 J6055000

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

County: Lenoir

Sub-Basin: 03020202

Latitude: 35.3119

Longitude: -77.7313

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

Latitude: 35.2587

Longitude: -77.5835

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

Latitude: 35.2957

Longitude: -77.4962

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
<i>Temperature (C)</i>	17	N/A	N/A	N/A	4.5	30.1	20.4
<i>DO (mg/l)</i>	17	N/A	4	0	5.5	11.9	8.3
<i>*** pH (SU)</i>	17	N/A	6 to 9	0	6.8	7.8	N/A
<i>Conductivity (umhos/cm)</i>	17	0	N/A	N/A	80	280	163
<i>** Fecal Coliform (/100 mls)</i>	12	N/A	400	1	16	900	92
<i>Suspended Residue (mg/l)</i>	12	0	N/A	N/A	5.5	67.0	27.5
<i>Turbidity (NTU)</i>	12	N/A	50	2	7.1	70.0	28.7
<i>Chlorophyll-a (ug/l)</i>	0	0	40	0			
<i>NH3_N (mg/l)</i>	12	0	N/A	N/A	0.02	0.21	0.08
<i>TKN_N (mg/l)</i>	12	0	N/A	N/A	0.37	1.22	0.77
<i>NO2_NO3_N (mg/l)</i>	12	0	N/A	N/A	0.12	0.74	0.45
<i>TP (mg/l)</i>	12	0	N/A	N/A	0.04	0.31	0.13
<i>Cadmium (ug/l)</i>	0	0	2	0			
<i>Chromium (ug/l)</i>	0	0	50	0			
<i>Copper (ug/l)</i>	0	0	7	0			
<i>Nickel (ug/l)</i>	0	0	88	0			
<i>Lead (ug/l)</i>	0	0	25	0			
<i>Zinc (ug/l)</i>	0	0	50	0			
<i>*** Aluminum (ug/l)</i>	0	0	87	0			
<i>Iron (ug/l)</i>	0	0	1,000	0			
<i>Manganese (ug/l)</i>	0	0	N/A	N/A			
<i>Arsenic (ug/l)</i>	0	0	10	0			
<i>Mercury (ug/l)</i>	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 J6410000

Little Creek @ NC 97 near Zebulon

Stream Class: C NSW

County: Wake

Sub-Basin: 03020203

Latitude: 35.8279

Longitude: -78.3025

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
<i>Temperature (C)</i>	17	N/A	N/A	N/A	3.0	24.3	15.6
<i>DO (mg/l)</i>	17	N/A	4	2	3.5	11.3	6.8
<i>*** pH (SU)</i>	17	N/A	6 to 9	1	5.9	7.0	N/A
<i>Conductivity (umhos/cm)</i>	17	0	N/A	N/A	58	152	94
<i>** Fecal Coliform (/100 mls)</i>	12	N/A	400	6	46	9,000	486
<i>Suspended Residue (mg/l)</i>	12	2	N/A	N/A	2.5	94.0	12.7
<i>Turbidity (NTU)</i>	12	N/A	50	1	6.2	80.0	17.2
<i>Chlorophyll-a (ug/l)</i>	0	0	40	0			
<i>NH3_N (mg/l)</i>	12	0	N/A	N/A	0.03	0.23	0.12
<i>TKN_N (mg/l)</i>	12	0	N/A	N/A	0.38	1.73	0.74
<i>NO2_NO3_N (mg/l)</i>	12	0	N/A	N/A	0.06	0.45	0.24
<i>TP (mg/l)</i>	12	1	N/A	N/A	0.02	3.98	0.44
<i>Cadmium (ug/l)</i>	0	0	2	0			
<i>Chromium (ug/l)</i>	0	0	50	0			
<i>Copper (ug/l)</i>	0	0	7	0			
<i>Nickel (ug/l)</i>	0	0	88	0			
<i>Lead (ug/l)</i>	0	0	25	0			
<i>Zinc (ug/l)</i>	0	0	50	0			
<i>*** Aluminum (ug/l)</i>	0	0	87	0			
<i>Iron (ug/l)</i>	0	0	1,000	0			
<i>Manganese (ug/l)</i>	0	0	N/A	N/A			
<i>Arsenic (ug/l)</i>	0	0	10	0			
<i>Mercury (ug/l)</i>	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 J6450000

Little Creek @ NC 39 near Zebulon

Stream Class: C NSW

County: Wake

Sub-Basin: 03020203

Latitude: 35.8125

Longitude: -78.2681

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
<i>Temperature (C)</i>	17	N/A	N/A	N/A	4.0	26.0	17.7
<i>DO (mg/l)</i>	17	N/A	4	0	6.2	11.4	8.2
<i>*** pH (SU)</i>	17	N/A	6 to 9	0	6.6	7.4	N/A
<i>Conductivity (umhos/cm)</i>	17	0	N/A	N/A	102	559	314
<i>** Fecal Coliform (/100 mls)</i>	12	N/A	400	3	38	3,000	190
<i>Suspended Residue (mg/l)</i>	12	2	N/A	N/A	2.5	78.0	11.9
<i>Turbidity (NTU)</i>	12	N/A	50	1	3.9	100.0	21.3
<i>Chlorophyll-a (ug/l)</i>	0	0	40	0			
<i>NH3_N (mg/l)</i>	12	0	N/A	N/A	0.03	0.15	0.07
<i>TKN_N (mg/l)</i>	12	0	N/A	N/A	0.47	1.85	0.73
<i>NO2_NO3_N (mg/l)</i>	12	0	N/A	N/A	0.57	2.45	1.17
<i>TP (mg/l)</i>	12	0	N/A	N/A	0.02	0.35	0.14
<i>Cadmium (ug/l)</i>	0	0	2	0			
<i>Chromium (ug/l)</i>	0	0	50	0			
<i>Copper (ug/l)</i>	0	0	7	0			
<i>Nickel (ug/l)</i>	0	0	88	0			
<i>Lead (ug/l)</i>	0	0	25	0			
<i>Zinc (ug/l)</i>	0	0	50	0			
<i>*** Aluminum (ug/l)</i>	0	0	87	0			
<i>Iron (ug/l)</i>	0	0	1,000	0			
<i>Manganese (ug/l)</i>	0	0	N/A	N/A			
<i>Arsenic (ug/l)</i>	0	0	10	0			
<i>Mercury (ug/l)</i>	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 J6500000

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

County: Wilson

Sub-Basin: 03020203

Latitude: 35.7301

Longitude: -78.1895

	N > Ref or N < Ref				Minimum	Maximum	* Average
	N	N < RL	Ref	N < Ref			
<i>Temperature (C)</i>	17	N/A	N/A	N/A	3.5	26.9	16.8
<i>DO (mg/l)</i>	17	N/A	4	3	3.5	11.4	7.2
<i>*** pH (SU)</i>	17	N/A	6 to 9	0	6.5	7.4	N/A
<i>Conductivity (umhos/cm)</i>	17	0	N/A	N/A	72	148	107
<i>** Fecal Coliform (/100 mls)</i>	12	N/A	400	1	38	550	132
<i>Suspended Residue (mg/l)</i>	12	1	N/A	N/A	2.6	7.9	4.9
<i>Turbidity (NTU)</i>	12	N/A	50	0	5.2	22.0	12.5
<i>Chlorophyll-a (ug/l)</i>	0	0	40	0			
<i>NH3_N (mg/l)</i>	12	1	N/A	N/A	0.02	0.42	0.12
<i>TKN_N (mg/l)</i>	12	0	N/A	N/A	0.39	0.93	0.63
<i>NO2_NO3_N (mg/l)</i>	12	0	N/A	N/A	0.02	0.63	0.16
<i>TP (mg/l)</i>	12	0	N/A	N/A	0.04	0.21	0.10
<i>Cadmium (ug/l)</i>	0	0	2	0			
<i>Chromium (ug/l)</i>	0	0	50	0			
<i>Copper (ug/l)</i>	0	0	7	0			
<i>Nickel (ug/l)</i>	0	0	88	0			
<i>Lead (ug/l)</i>	0	0	25	0			
<i>Zinc (ug/l)</i>	0	0	50	0			
<i>*** Aluminum (ug/l)</i>	0	0	87	0			
<i>Iron (ug/l)</i>	0	0	1,000	0			
<i>Manganese (ug/l)</i>	0	0	N/A	N/A			
<i>Arsenic (ug/l)</i>	0	0	10	0			
<i>Mercury (ug/l)</i>	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 J6680000

Turkey Creek @ SR 1101 (Claude Lewis Rodd) near Middlesex

Stream Class: C NSW

County: Nash

Sub-Basin: 03020203

Latitude: 35.7519

Longitude: -78.1597

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
<i>Temperature (C)</i>	17	N/A	N/A	N/A	3.0	27.9	17.4
<i>DO (mg/l)</i>	17	N/A	4	5	2.5	11.5	6.1
<i>*** pH (SU)</i>	17	N/A	6 to 9	1	5.9	7.1	N/A
<i>Conductivity (umhos/cm)</i>	17	0	N/A	N/A	57	96	76
<i>** Fecal Coliform (/100 mls)</i>	12	N/A	400	0	25	116	63
<i>Suspended Residue (mg/l)</i>	12	1	N/A	N/A	2.5	15.0	5.5
<i>Turbidity (NTU)</i>	12	N/A	50	0	7.2	24.0	15.6
<i>Chlorophyll-a (ug/l)</i>	0	0	40	0			
<i>NH3_N (mg/l)</i>	12	1	N/A	N/A	0.02	0.20	0.08
<i>TKN_N (mg/l)</i>	12	0	N/A	N/A	0.33	1.79	0.92
<i>NO2_NO3_N (mg/l)</i>	12	1	N/A	N/A	0.02	0.33	0.12
<i>TP (mg/l)</i>	12	1	N/A	N/A	0.02	0.15	0.07
<i>Cadmium (ug/l)</i>	0	0	2	0			
<i>Chromium (ug/l)</i>	0	0	50	0			
<i>Copper (ug/l)</i>	0	0	7	0			
<i>Nickel (ug/l)</i>	0	0	88	0			
<i>Lead (ug/l)</i>	0	0	25	0			
<i>Zinc (ug/l)</i>	0	0	50	0			
<i>*** Aluminum (ug/l)</i>	0	0	87	0			
<i>Iron (ug/l)</i>	0	0	1,000	0			
<i>Manganese (ug/l)</i>	0	0	N/A	N/A			
<i>Arsenic (ug/l)</i>	0	0	10	0			
<i>Mercury (ug/l)</i>	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 J6765000

Contentnea Creek at Willow Springs drive near Dixie

Stream Class: C Sw NSW

County: Wilson

Sub-Basin: 03020203

Latitude: 35.6838

Longitude: -77.941

	N > Ref or N < Ref				Minimum	Maximum	* Average
	N	N < RL	Ref	N < Ref			
<i>Temperature (C)</i>	17	N/A	N/A	N/A	3.2	29.9	19.6
<i>DO (mg/l)</i>	17	N/A	4	2	3.0	12.4	7.1
<i>*** pH (SU)</i>	17	N/A	6 to 9	0	6.4	7.2	N/A
<i>Conductivity (umhos/cm)</i>	17	0	N/A	N/A	62	93	82
<i>** Fecal Coliform (/100 mls)</i>	12	N/A	400	0	10	370	90
<i>Suspended Residue (mg/l)</i>	12	1	N/A	N/A	2.5	7.7	4.8
<i>Turbidity (NTU)</i>	12	N/A	50	0	3.8	25.0	9.9
<i>Chlorophyll-a (ug/l)</i>	0	0	40	0			
<i>NH3_N (mg/l)</i>	12	0	N/A	N/A	0.03	0.28	0.10
<i>TKN_N (mg/l)</i>	12	0	N/A	N/A	0.44	1.29	0.76
<i>NO2_NO3_N (mg/l)</i>	12	2	N/A	N/A	0.02	0.51	0.17
<i>TP (mg/l)</i>	12	1	N/A	N/A	0.02	0.13	0.06
<i>Cadmium (ug/l)</i>	0	0	2	0			
<i>Chromium (ug/l)</i>	0	0	50	0			
<i>Copper (ug/l)</i>	0	0	7	0			
<i>Nickel (ug/l)</i>	0	0	88	0			
<i>Lead (ug/l)</i>	0	0	25	0			
<i>Zinc (ug/l)</i>	0	0	50	0			
<i>*** Aluminum (ug/l)</i>	0	0	87	0			
<i>Iron (ug/l)</i>	0	0	1,000	0			
<i>Manganese (ug/l)</i>	0	0	N/A	N/A			
<i>Arsenic (ug/l)</i>	0	0	10	0			
<i>Mercury (ug/l)</i>	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 J6890000

Contentnea Creek @ SR 1622 (Evansdale Road) near Wilson

Stream Class: C Sw NSW

County: Wilson

Sub-Basin: 03020203

Latitude: 35.6429

Longitude: -77.8902

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
<i>Temperature (C)</i>	17	N/A	N/A	N/A	3.1	29.2	19.4
<i>DO (mg/l)</i>	17	N/A	4	0	4.6	12.1	7.9
<i>*** pH (SU)</i>	17	N/A	6 to 9	0	6.0	7.4	N/A
<i>Conductivity (umhos/cm)</i>	17	0	N/A	N/A	88	265	187
<i>** Fecal Coliform (/100 mls)</i>	12	N/A	400	1	26	6,000	164
<i>Suspended Residue (mg/l)</i>	12	0	N/A	N/A	3.3	7.8	5.2
<i>Turbidity (NTU)</i>	12	N/A	50	0	4.6	16.0	8.9
<i>Chlorophyll-a (ug/l)</i>	0	0	40	0			
<i>NH3_N (mg/l)</i>	12	0	N/A	N/A	0.04	0.67	0.23
<i>TKN_N (mg/l)</i>	12	0	N/A	N/A	0.54	1.49	0.89
<i>NO2_NO3_N (mg/l)</i>	12	0	N/A	N/A	0.27	1.28	0.87
<i>TP (mg/l)</i>	12	1	N/A	N/A	0.02	0.33	0.12
<i>Cadmium (ug/l)</i>	0	0	2	0			
<i>Chromium (ug/l)</i>	0	0	50	0			
<i>Copper (ug/l)</i>	0	0	7	0			
<i>Nickel (ug/l)</i>	0	0	88	0			
<i>Lead (ug/l)</i>	0	0	25	0			
<i>Zinc (ug/l)</i>	0	0	50	0			
<i>*** Aluminum (ug/l)</i>	0	0	87	0			
<i>Iron (ug/l)</i>	0	0	1,000	0			
<i>Manganese (ug/l)</i>	0	0	N/A	N/A			
<i>Arsenic (ug/l)</i>	0	0	10	0			
<i>Mercury (ug/l)</i>	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 J7210000

Contentnea Creek @ NC 58 near Stantonburg

Stream Class: C Sw NSW

County: Wilson

Sub-Basin: 03020203

Latitude: 35.5861

Longitude: -77.8111

	N > Ref or N < Ref				Minimum	Maximum	* Average
	N	N < RL	Ref	N < Ref			
<i>Temperature (C)</i>	17	N/A	N/A	N/A	4.2	30.3	19.4
<i>DO (mg/l)</i>	17	N/A	4	0	4.3	12.7	7.5
<i>*** pH (SU)</i>	17	N/A	6 to 9	0	6.2	7.3	N/A
<i>Conductivity (umhos/cm)</i>	17	0	N/A	N/A	74	261	162
<i>** Fecal Coliform (/100 mls)</i>	12	N/A	400	0	28	290	109
<i>Suspended Residue (mg/l)</i>	12	0	N/A	N/A	3.2	7.1	5.0
<i>Turbidity (NTU)</i>	12	N/A	50	0	4.7	21.0	10.5
<i>Chlorophyll-a (ug/l)</i>	0	0	40	0			
<i>NH3_N (mg/l)</i>	12	0	N/A	N/A	0.06	0.78	0.16
<i>TKN_N (mg/l)</i>	12	0	N/A	N/A	0.56	0.99	0.76
<i>NO2_NO3_N (mg/l)</i>	12	0	N/A	N/A	0.27	0.59	0.40
<i>TP (mg/l)</i>	12	1	N/A	N/A	0.02	0.17	0.09
<i>Cadmium (ug/l)</i>	0	0	2	0			
<i>Chromium (ug/l)</i>	0	0	50	0			
<i>Copper (ug/l)</i>	0	0	7	0			
<i>Nickel (ug/l)</i>	0	0	88	0			
<i>Lead (ug/l)</i>	0	0	25	0			
<i>Zinc (ug/l)</i>	0	0	50	0			
<i>*** Aluminum (ug/l)</i>	0	0	87	0			
<i>Iron (ug/l)</i>	0	0	1,000	0			
<i>Manganese (ug/l)</i>	0	0	N/A	N/A			
<i>Arsenic (ug/l)</i>	0	0	10	0			
<i>Mercury (ug/l)</i>	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 J7240000

Toisnot Swamp @ SR 1539 (Sand Pit Road) near Stantonsburg

Stream Class: C Sw NSW

County: Wilson

Sub-Basin: 03020203

Latitude: 35.5976

Longitude: -77.7947

	N > Ref or N < Ref				Minimum	Maximum	* Average
	N	N < RL	Ref	N < Ref			
<i>Temperature (C)</i>	17	N/A	N/A	N/A	3.9	26.8	17.2
<i>DO (mg/l)</i>	17	N/A	4	8	1.5	12.5	5.9
<i>*** pH (SU)</i>	17	N/A	6 to 9	0	6.2	7.1	N/A
<i>Conductivity (umhos/cm)</i>	17	0	N/A	N/A	67	152	104
<i>** Fecal Coliform (/100 mls)</i>	12	N/A	400	1	33	540	92
<i>Suspended Residue (mg/l)</i>	12	3	N/A	N/A	2.5	20.0	5.0
<i>Turbidity (NTU)</i>	12	N/A	50	0	7.5	23.0	12.6
<i>Chlorophyll-a (ug/l)</i>	0	0	40	0			
<i>NH3_N (mg/l)</i>	12	0	N/A	N/A	0.05	0.17	0.12
<i>TKN_N (mg/l)</i>	12	0	N/A	N/A	0.44	1.09	0.80
<i>NO2_NO3_N (mg/l)</i>	12	1	N/A	N/A	0.02	0.65	0.21
<i>TP (mg/l)</i>	12	1	N/A	N/A	0.02	0.17	0.11
<i>Cadmium (ug/l)</i>	0	0	2	0			
<i>Chromium (ug/l)</i>	0	0	50	0			
<i>Copper (ug/l)</i>	0	0	7	0			
<i>Nickel (ug/l)</i>	0	0	88	0			
<i>Lead (ug/l)</i>	0	0	25	0			
<i>Zinc (ug/l)</i>	0	0	50	0			
<i>*** Aluminum (ug/l)</i>	0	0	87	0			
<i>Iron (ug/l)</i>	0	0	1,000	0			
<i>Manganese (ug/l)</i>	0	0	N/A	N/A			
<i>Arsenic (ug/l)</i>	0	0	10	0			
<i>Mercury (ug/l)</i>	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 J7325000

Nahunta Swamp @ NC 58 near Contentnea

Stream Class: C Sw NSW

County: Greene

Sub-Basin: 03020203

Latitude: 35.5081

Longitude: -77.7455

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
<i>Temperature (C)</i>	17	N/A	N/A	N/A	5.2	26.3	17.4
<i>DO (mg/l)</i>	17	N/A	4	0	5.1	12.4	8.1
<i>*** pH (SU)</i>	17	N/A	6 to 9	0	6.1	7.2	N/A
<i>Conductivity (umhos/cm)</i>	17	0	N/A	N/A	71	131	111
<i>** Fecal Coliform (/100 mls)</i>	12	N/A	400	3	39	3,700	285
<i>Suspended Residue (mg/l)</i>	12	2	N/A	N/A	2.5	27.0	6.1
<i>Turbidity (NTU)</i>	12	N/A	50	0	4.8	50.0	12.1
<i>Chlorophyll-a (ug/l)</i>	0	0	40	0			
<i>NH3_N (mg/l)</i>	12	0	N/A	N/A	0.09	1.17	0.26
<i>TKN_N (mg/l)</i>	12	0	N/A	N/A	0.40	2.02	0.91
<i>NO2_NO3_N (mg/l)</i>	12	0	N/A	N/A	0.85	2.12	1.26
<i>TP (mg/l)</i>	12	1	N/A	N/A	0.02	0.29	0.12
<i>Cadmium (ug/l)</i>	0	0	2	0			
<i>Chromium (ug/l)</i>	0	0	50	0			
<i>Copper (ug/l)</i>	0	0	7	0			
<i>Nickel (ug/l)</i>	0	0	88	0			
<i>Lead (ug/l)</i>	0	0	25	0			
<i>Zinc (ug/l)</i>	0	0	50	0			
<i>*** Aluminum (ug/l)</i>	0	0	87	0			
<i>Iron (ug/l)</i>	0	0	1,000	0			
<i>Manganese (ug/l)</i>	0	0	N/A	N/A			
<i>Arsenic (ug/l)</i>	0	0	10	0			
<i>Mercury (ug/l)</i>	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 J7330000

Contentnea Creek @ US 13 near Snow Hill

Stream Class: C Sw NSW

County: Greene

Sub-Basin: 03020203

Latitude: 35.4585

Longitude: -77.6753

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

Latitude: 35.5881

Longitude: -77.5416

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

Latitude: 35.4567

Longitude: -77.4854

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

Latitude: 35.31368

Longitude: -77.30287

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

Latitude: 35.10159

Longitude: -77.03708

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