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

Annual Monitoring Report
2017

Submitted By: _____, **Chairman**
Daniel F. McLawhorn

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

Lower Neuse Basin Association
Contact Information

Officers of the Lower Neuse Basin Association

Chairman -
Daniel F. McLawhorn
City of Raleigh
PO Box 590
Raleigh, N.C. 27602
919.996.6623
dan.mclawhorn@raleighnc.gov

Vice Chairman -
Barry Parks
City of Wilson
P.O. Box 10
Wilson, N.C. 27894
252.399.2461
bparks@wilsonnc.org

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

Secretary -
James Warren
Town of Clayton
P.O. Box 879
Clayton, N.C. 27528
919.553.1536
jowarren@townofclaytonnc.org

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

Association Counsel -
H. Glenn Dunn, Poyner & Spruill
P.O. Box 1801
Raleigh, N.C. 27602-1801
919.783.2842
hgdunn@poynerspruill.com

Coalition Web Site Address - https://www.lnba.net

Lower Neuse Basin Association

March 26, 2017

Members and Contact Information

A complete list of LNBA delegates for 2017 follows in Section I. There were no changes in membership in 2017.

Monitoring Stations for 2017

A complete list of the monitoring stations with station numbers, descriptions, coordinates, county, sub basin and stream classification follows in Section II. The LNBA staff visited each station during 2017.

Monitoring at station **J5410000**, Mill Creek @ Richardson Bridge Road near cox Mill in Johnston was removed from service due to the bridge being replaced. Station **J4520000**, Mill Creek @ Williford Road (downstream of J5410000) near Cox Mill, was assigned to temporarily the above station until the bridge construction is completed.

Memorandum of Agreement (MOA) – The Agreement between the LNBA and the Division of Water Resources was renewed in 2014. The effective date was August 1, 2014 through July 31, 2019. 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 2017.

Environment I reported it completed and passed proficiency testing for its satellite lab (field testing equipment) in 2017.

NCDEQ- DWQ did not conduct a field review and inspection in 2017.

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 suspension continued through 2017.

Environment I's contact information and sampling methods/protocols are listed in Section III with the sampling errors and omissions for 2017.

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

Paerl 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 and have extended this support through the 2018-2019 fiscal year.

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 2017

Member	Contact	Address	Phone	Fax	Email	Mobile Phone
Duke Energy Progress	Ricky Miller	1677 Old Smithfield Rd.	919.580.3983		ricky.miller@pgnmail.com	919.920.3414
		Goldsboro, NC				
City of Goldsboro	Mike Wagner	PO Drawer A	919.735.6075	919.735.8907	MWagner@goldsboronc.gov	
	Michelle Daw	Goldsboro, NC 27533	919.735.3320		mdaw@goldsboronc.gov	
City of Havelock	Raymond Burgos	PO Drawer 368	252.444.6411	252.447.0126	RBurgos@havelocknc.us	252.259.2378
		Havelock, NC 28532				
City of Kinston	Kenneth Stevens	PO Box 339	252.939.3275	252.939.7741	kenneth.stevens@ci.kinston.nc.us	252.560.0252
	Emily Elmore	Kinston, NC 28501	252.939.3733	252.939.7741	Emily.Elmore@ci.kinston.nc.us	
City of New Bern	Jordan Hughes	PO Box 1129	252.639.7527		hughesj@newbern-nc.org	252.341.5448
	Tony Hawkins	New Bern, NC 28563	252.639.7555		hawkinst@newbern-nc.org	252.521.7687
City of Raleigh	Dan McLawhorn	PO Box 590	919.996.6623	919.857.4453	dan.mclawhorn@raleighnc.gov	919.810.0368
	T. J. Lynch	Raleigh, NC 27602	919.996.2316		tj.lynch@raleighnc.gov	919.500.9740
	John Kiviniemi				John.Kiviniemi@raleighnc.gov	
City of Wilson	Barry Parks	PO Box 10	252.399.2461	252.399.2453	bparks@wilsonnc.org	252.205.2516
	Jimmy Pridgen	Wilson, NC 27894	252.399.2491		jpridgen@wilsonnc.org	252.399.2519
Contentnea MSD	Chuck Smithwick	PO Box 477	252.524.5584	252.524.3491	cmsd100@embarqmail.com	252.413.8898
	Renee Smith	Grifton, NC 28530				
Johnston County	Chandra Farmer	PO Box 2263	919.209.8333	919.934.7174	chandra.farmer@johnstonnc.com	919.795.6138
	Dan Wall	Smithfield, NC 27577	919.209.8333	919.934.7174	dan.wall@johnstonnc.com	919.795.1889
Dupont-Kinston, Inc.	Jeff White	4693 Highway 11 North	252.758.5774	252.522.6236	jeff.white@usa.dupont.com	252.939.0661
		Grifton, NC 28530				
Town of Benson	Matt Zapp	PO Box 69	919.894.4953	919.894.1283	mzapp@townofbenson.com	
	Paul Allen	Benson, NC 27504	919.894.2373	919.894.5808	pallen@townofbenson.com	
Town of Cary	Donald Smith	PO Box 8005	919.469.4305	919.469.4304	donald.smith@townofcary.org	919.609.7306
	Jamie Revels	Cary, NC 27512-8005			jamie.revels@townofcary.org	

Member	Contact	Address	Phone	Fax	Email	Mobile Phone
Town of Farmville	David Hodgkins	3672 N. Main St.	252.753.6700	252.753.2963	dhodgkins@farmville-nc.com	
		Farmville, NC 27828-0086				
Town of Fuquay-Varina	Chris Grimes	401 Old Honeycutt Rd.	919.753.1013	919.552.7481	cgrimes@fuquay-varina.org	919.625.3524
	Jay Meyers	Fuquay-Varina, NC 27526			jmeyers@fuquay-varina.org	
Town of Kenly	Bonnie Wilson	PO Box 519	919.284.2116	919.284.5229		
	(Mayor)	Kenly, NC 27542				
Town of La Grange	James Sutton	PO Box 368	252.566.3186	252.566.2201	jwsutton@lagrangenc.com	
	John Craft	La Grange, NC 28551			jpcraft@lagrangenc.com	252.560.9914
Town of Apex	Marty Stone	PO Box 250	919.249.3353		Marty.Stone@apexnc.org	
	John Cratch	Apex, NC 27502	919.249.3360		john.cratch@apexnc.org	919.669.4041
Town of Clayton	James Warren	PO Box 879	919.553.1536	919.553.1918	jowarren@townofclayton.org	919.669.4889
	Tim Simpson	Clayton, NC 27520	919.553.1530	919.553.1541	tsimpson@townofclaytonnc.org	919.291.9480
Associated Parties						
Executive Director	Haywood Phthisic	PO Box 1410	919.796.8049	919.550.1911	exec.director@lnba.net	919.796.8049
		Clayton, N.C. 27528-1410				
Association Attorney	Glenn Dunn	P.O. Box 1801	919.783.2842	919.783.1075	hgdunn@poynerspruill.com	
		Raleigh, NC 27602-1801				
Environment 1, Inc.	Mark Oliveira	PO Box 7085, 114 Oakmont D	252.756.6208	252.756.0633	moliveira@environment1inc.com	252.531.8085
		Greenville, NC 27835-7085	252.756.6208	252.756.0633		

NPDES Permit #	LNBA Permittees Ownership and Facility	Authorized Representative and Title	County	Region	HUC (8 Digit)
NC0003417	Duke Energy Progress Lee Steam Plant	Ricky Miller Plant Manager	Wayne	WaRO	3020201
NC0003760	E.I. DuPont - Kinston Plant	George Xenakis Plant Manager	Lenoir	WaRO	3020202
NC0020389	Town of Benson - Benson WWTP	Matt Zapp Town Manager	Johnston	RRO	3020201
NC0021253	City of Havelock - Havelock WWTP	Frank Bottorff 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	Scott Stevens City Manager	Wayne	WaRO	3020202
NC0024236	City of Kinston - Kinston Regional WWTF	Brian Lucas Utility Director	Lenoir	WaRO	3020202
NC0025348	City of New Bern - New Bern WWTP	Mark Stevens City Manager	Craven	WaRO	3020204
NC0025453	Town of Clayton - Little Creek WWTP	Adam Lindsay Town Manager	Johnston	RRO	3020201
NC0029033	City of Raleigh - Neuse River WWTP	John Kiviniemi Resource Recovery Director	Wake	RRO	3020201

NPDES Permit #	LNBA Permittees Ownership and Facility	Authorized Representative and Title	County	Region	HUC (8 Digit)
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 Resource Recovery 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	Jamie Revels Utility Director	Wake	RRO	3020201
NC0064050	Town of Apex - Apex WRF	Drew Havens Town Manager	Wake	RRO	3020201
NC0064891	Town of Kenly - Kenly Regional WWTP	Greg Dunham Town Manager	Johnston	RRO	3020201
NC0065102	Town of Cary - South WWTP	Jamie Revels Utility Director	Wake	RRO	3020201
NC0066516	Town of Fuquay Varina Terrible Creek WWTP	Adam Mitchell Town Manager	Wake	RRO	3020201
NC0079316	City of Raleigh - Little Creek WWTP	John Kiviniemi Resource Recovery Director	Wake	RRO	3020203
NC0084735	Johnston County Johnston County WTP	Rick J. Hester County Manager	Johnston	RRO	3020201

Section II

Monitoring Station Information

List Of Monitoring Stations

Station	Location	County	Lattitude	Longitude	Class	Sub-Basin
J2230000	Smith Creek @ SR 2045 (Burlington Mill Road) near Wake Forest	Wake	35.9182	-78.5348	C NSW	03020201
J2330000	Neuse River at SR 2215 (Buffalo Road) near Neuse	Wake	35.8479	-78.5302	C NSW	03020201
J3290000	Crabtree Creek @ Capital Blvd. in Raleigh	Wake	35.8108	-78.6117	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
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
J4980000	Middle Creek @ SR 1006 (Old Stage Road) near Willow Springs	Wake	35.6091	-78.6866	C NSW	03020201

Station	Location	County	Lattitude	Longitude	Class	Sub-Basin
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
J5420000	Mill Creek @ Williford Road near Cox Mill, Johnston County, N.C.	Johnston	35.345058	-78.184094	C NSW	03020201
J5500000	Falling Creek @ SR 1219 (Old Grantham Road) near Grantham	Wayne	35.3224	-78.1282	WS-IV NSW	03020201
J5620000	Little River @ SR 2333 (Smithfield Road) near Zebulon	Wake	35.8577	-78.3665	WS-II HQW NSW	03020201
J5685000	Little River at Weaver Road near Bagley	Johnston	35.5791	-78.1723	WS-V NSW	03020201
J5750000	Little River at SR 2339 (Bagley Road) near Lowell Mill	Johnston	35.5613	-78.1594	WS-V NSW	03020201
J5790000	Buffalo Creek @ SR 2358 (Lake Glad Road) near Webdell, N.C.	Wake	35.7697	-78.7697	C NSW	03020201
J5930000	Little River @ US 581 near Cherry Hospital	Wayne	35.393	-78.0258	C NSW	03020201
J6010950	Walnut Creek @ SR 1730 (Saint Johns Church Road) near Walnut Creek	Wayne	35.2817	-77.8686	C NSW	03020202
J6024000	Neuse River @ SR 1731 (Piney Grove Road) near Seven Springs	Wayne	35.229	-77.846	C NSW	03020202
J6044400	Bear Creek at SR 1603, Washington Street near LaGrange	Lenoir	35.3137	-77.8153	C Sw NSW	03020202
J6044500	Bear Creek @ SR 1311 (Bear Creek Road) near Kinston	Lenoir	35.2489	-77.7843	WS-IV Sw NSW	03020202
J6055000	Mosley Creek @ SR 1327 (Willey Measley Road) near LaGrange	Lenoir	35.3119	-77.7313	C Sw NSW	03020202
J6150000	Neuse River @ NC 11 Bypass at Kinston	Lenoir	35.2587	-77.5835	C NSW	03020202
J6250000	Neuse River @ NC 55 near Graingers	Lenoir	35.2957	-77.4962	C NSW	03020202

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

Section III

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

Contract Laboratory Providing All Sampling and Analysis

Environment I, Inc.

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 2017

Parameter	EPA / SM code	Rev./ date
Temp (˚ C)	SM 2550B	2000
DO (mg/l)	SM 4500 OG	2001
pH (su)	SM 4500 HB	2000
Conductivity (umhos/cm)	SM 2510 B	1997
Fecal Coliform	SM 9222 D	1997
Suspended Residue, (mg/l)	SM 2540 D	1997
Turbidity (NTU)	SM 2130 B	2001
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

LNBA Sample Errors/Omissions for 2017

Date: 3/26/18

May, 2017

J5250000	5/17/2017	Unable to access sampling site due to road closure from flooding
J5410000	5/1/2017	Unable to access sampling site due to road closure from flooding
J5500000	5/1/2017	Unable to access sampling site due to road closure from flooding

August, 2017

J5410000	8/13/2017	Unable to access sampling site due to bridge construction.
J5410000	8/29/2017	Unable to access sampling site due to bridge construction.

September, 2017

J2230000	9/14/2017	Unable to access sampling site due to road construction.
J5410000	9/10/2017	Unable to access sampling site due to bridge construction.

November, 2017

J6404500	11/15/2017	Unable to access sampling site due to bridge construction.

Water Resources
ENVIRONMENTAL QUALITY

ROY COOPER
Governor

MICHAEL S. REGAN
Secretary

S. JAY ZIMMERMAN
Director

October 1, 2017

Daniel F. McLawhorn
Chairman
Lower Neuse Basin Association
dan.mclawhorn@raleighnc.gov

RE: Amendment #2 to the Lower Neuse Basin Association Memorandum of Agreement

Dear Mr. McLawhorn:

Attached please find signed Amendment #2 to the Lower Neuse Basin Association Memorandum of Agreement (MOA). With this Amendment, monitoring station J5410000 has been temporarily deactivated due to bridge construction. A new monitoring station, J5420000, has been established to replace it. Upon completion of construction, monitoring station J5410000 will be reactivated.

If you have any questions, please feel free to contact Mark Vander Borgh at (919) 743-8473 or via email at mark.vanderborgh@ncdenr.gov

Sincerely,

Cyndi Karoly

Cyndi Karoly, Chief
Water Sciences Section
Division of Water Resources, NCDENR

cc: Barry Parks (bparks@wilsonnc.org)
James Warren (jowarren@townofclaytonnc.org)
Haywood Phthisic, III (exec.director@lnba.net)

AMENDMENT TO THE MEMORANDUM OF AGREEMENT BETWEEN THE NORTH CAROLINA DIVISION OF WATER RESOURCES AND THE LOWER NEUSE RIVER BASIN ASSOCIATION

WHEREAS, the NORTH CAROLINA DIVISION OF WATER RESOURCES (DWR) and the LOWER NEUSE BASIN ASSOCIATION (LNBA) have entered into a MEMORANDUM OF AGREEMENT (MOA) dated August 1, 2014;

WHEREAS, said MOA provided for the modification by written consent of the DWR and the LNBA; and

NOW THEREFORE, the MOA is hereby amended as follows:

1. Due to bridge construction at monitoring station J5410000, monitoring at this station will be temporarily deactivated. Monitoring station J5420000 will be temporarily activated as a replacement (see attached map). All parameters with their assigned frequencies monitored at J5410000 will be monitored at J5420000. Upon completion of the bridge construction, monitoring will be reactivated at J5410000.

IN WITNESS WHEREOF, the parties have executed this instrument by authority duly given, to be effective as of the date executed by the DWR.

LOWER NEUSE BASIN ASSOCIATION

By: _____
Daniel F. McLawhorn, Chairman
Lower Neuse Basin Association

Date: 10/11/17

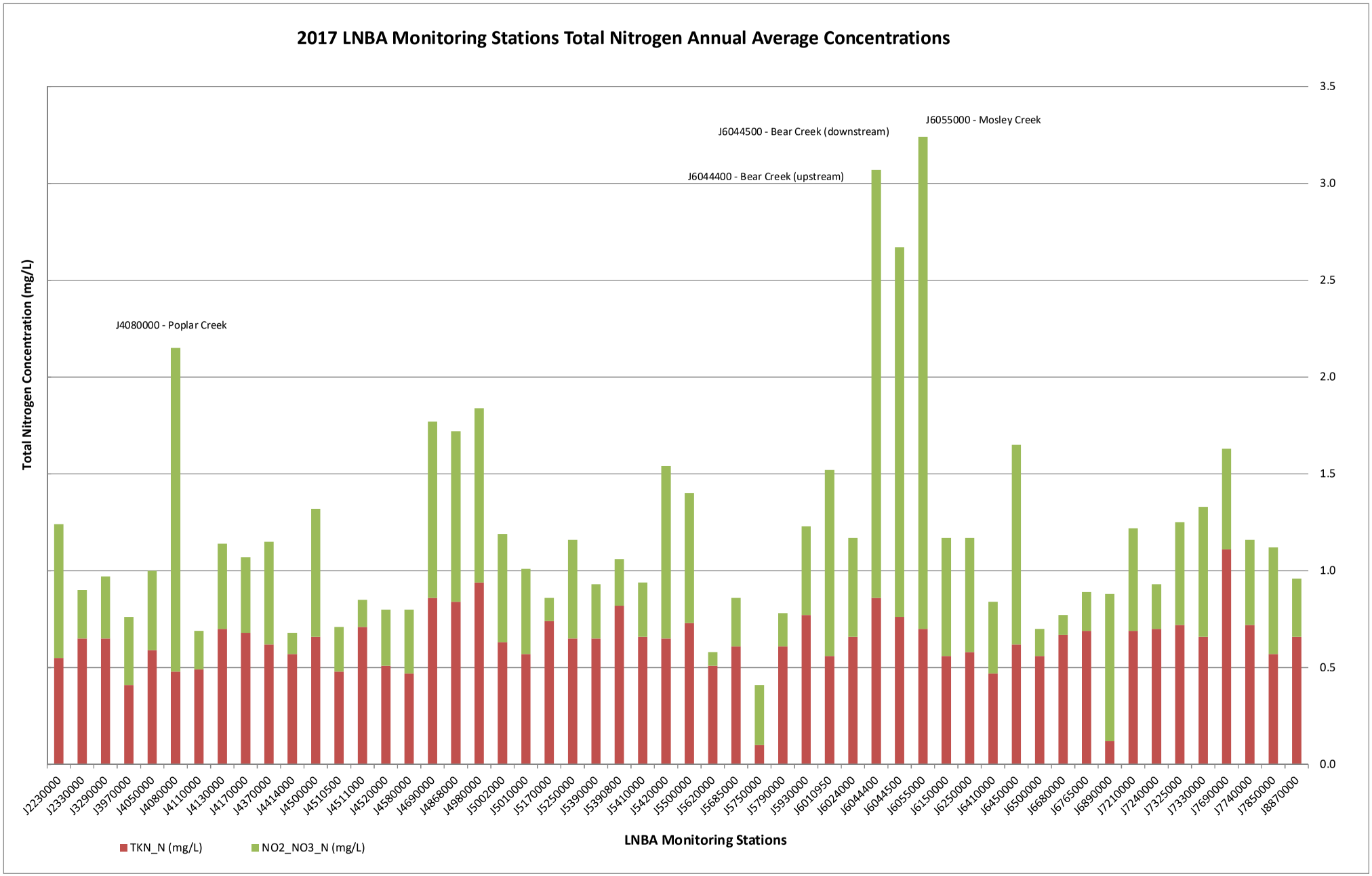
NC DIVISION OF WATER RESOURCES

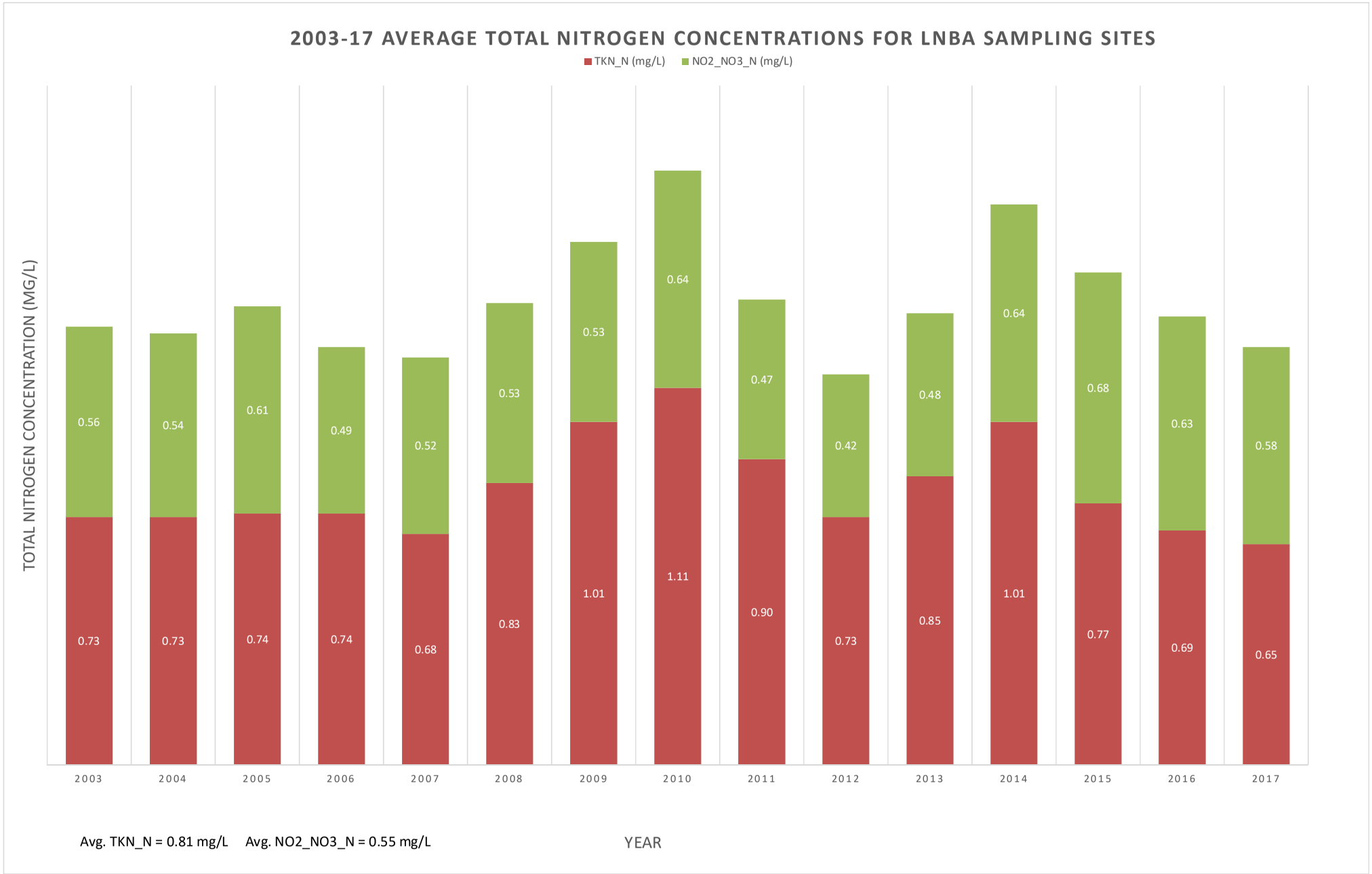
By: _____
S. Jay Zimmerman, P.G., Director
NC Division of Water Resources

Date: 10/16/2017

Section IV

Statistical Analysis of Sampling Data


2017 LNBA Monitoring Stations Total Nitrogen Annual Average Concentrations
Total Nitrogen Concentration (mg/L)
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
J4080000 - Poplar Creek
J6044400 - Bear Creek (upstream)
J6044500 - Bear Creek (downstream)
J6055000 - Mosley Creek
J2230000
J2330000
J3290000
J3970000
J4050000
J4080000
J4110000
J4130000
J4170000
J4370000
J4414000
J4500000
J4510500
J4511000
J4520000
J4580000
J4690000
J4868000
J4980000
J5002000
J5010000
J5170000
J5250000
J5390000
J5390800
J5410000
J5420000
J5500000
J5620000
J5685000
J5750000
J5790000
J5930000
J6010950
J6024000
J6044400
J6044500
J6055000
J6150000
J6250000
J6410000
J6450000
J6500000
J6680000
J6765000
J6890000
J7210000
J7240000
J7325000
J7330000
J7690000
J7740000
J7850000
J8870000
LNBA Monitoring Stations
TKN_N (mg/L)
NO2_NO3_N (mg/L)



Avg. TKN_N = 0.81 mg/L Avg. NO2_NO3_N = 0.55 mg/L

2017 LNBA Monitoring Report

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

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

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
Temperature (C)	18	N/A	N/A	N/A	4.2	27.0	19.1
DO (mg/l)	18	N/A	4	0	6.0	10.0	7.2
****** pH (SU)***	18	N/A	6 to 9	0	6.7	6.9	N/A
Conductivity (umhos/cm)	18	0	N/A	N/A	108	169	143
***** Fecal Coliform (/100 mls)***	13	N/A	400	7	104	6,000	648
Suspended Residue (mg/l)	13	1	N/A	N/A	2.6	53.0	14.9
Turbidity (NTU)	13	N/A	50	2	3.0	100.0	25.9
Chlorophyll-a (ug/l)	0	0	40	0			
NH3_N (mg/l)	13	0	N/A	N/A	0.04	0.13	0.08
TKN_N (mg/l)	13	1	N/A	N/A	0.20	2.16	0.55
NO2_NO3_N (mg/l)	13	0	N/A	N/A	0.46	1.01	0.69
TP (mg/l)	13	1	N/A	N/A	0.02	0.17	0.09
Cadmium (ug/l)	0	0	2	0			
Chromium (ug/l)	0	0	50	0			
Copper (ug/l)	0	0	7	0			
Nickel (ug/l)	0	0	88	0			
Lead (ug/l)	0	0	25	0			
Zinc (ug/l)	0	0	50	0			
*******Aluminum (ug/l)***	0	0	87	0			
Iron (ug/l)	0	0	1,000	0			
Manganese (ug/l)	0	0	N/A	N/A			
Arsenic (ug/l)	0	0	10	0			
Mercury (ug/l)	0	0	0.012	N/A			

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

2017 LNBA Monitoring Report

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

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

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
Temperature (C)	19	N/A	N/A	N/A	5.3	28.9	20.9
DO (mg/l)	19	N/A	4	0	5.9	10.8	7.5
****** pH (SU)***	19	N/A	6 to 9	0	6.9	7.3	N/A
Conductivity (umhos/cm)	19	0	N/A	N/A	122	188	154
***** Fecal Coliform (/100 mls)***	13	N/A	400	4	66	6,000	276
Suspended Residue (mg/l)	13	1	N/A	N/A	3.7	79.0	22.6
Turbidity (NTU)	13	N/A	50	2	7.1	120.0	28.8
Chlorophyll-a (ug/l)	0	0	40	0			
NH3_N (mg/l)	13	0	N/A	N/A	0.05	0.39	0.13
TKN_N (mg/l)	13	1	N/A	N/A	0.20	0.91	0.65
NO2_NO3_N (mg/l)	13	0	N/A	N/A	0.03	0.45	0.25
TP (mg/l)	13	0	N/A	N/A	0.03	0.26	0.11
Cadmium (ug/l)	0	0	2	0			
Chromium (ug/l)	0	0	50	0			
Copper (ug/l)	0	0	7	0			
Nickel (ug/l)	0	0	88	0			
Lead (ug/l)	0	0	25	0			
Zinc (ug/l)	0	0	50	0			
*******Aluminum (ug/l)***	0	0	87	0			
Iron (ug/l)	0	0	1,000	0			
Manganese (ug/l)	0	0	N/A	N/A			
Arsenic (ug/l)	0	0	10	0			
Mercury (ug/l)	0	0	0.012	N/A			

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

2017 LNBA Monitoring Report

Station **J3290000** Crabtree Creek @ Capital Blvd. in Raleigh ***Stream Class:*** C NSW

County: Wake ***Sub-Basin:*** 03020201 ***Lattitude:*** 35.8108 ***Longitude:*** -78.6117

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
Temperature (C)	19	N/A	N/A	N/A	4.5	28.2	20.0
DO (mg/l)	19	N/A	4	0	6.2	10.2	7.4
****** pH (SU)***	19	N/A	6 to 9	0	6.8	7.2	N/A
Conductivity (umhos/cm)	19	0	N/A	N/A	117	177	138
***** Fecal Coliform (/100 mls)***	13	N/A	400	5	94	3,300	414
Suspended Residue (mg/l)	13	0	N/A	N/A	3.3	19.0	8.9
Turbidity (NTU)	13	N/A	50	0	5.7	30.0	13.6
Chlorophyll-a (ug/l)	0	0	40	0			
NH3_N (mg/l)	13	0	N/A	N/A	0.02	0.15	0.10
TKN_N (mg/l)	13	0	N/A	N/A	0.37	0.81	0.65
NO2_NO3_N (mg/l)	13	0	N/A	N/A	0.13	0.53	0.32
TP (mg/l)	13	0	N/A	N/A	0.05	0.22	0.11
Cadmium (ug/l)	0	0	2	0			
Chromium (ug/l)	0	0	50	0			
Copper (ug/l)	0	0	7	0			
Nickel (ug/l)	0	0	88	0			
Lead (ug/l)	0	0	25	0			
Zinc (ug/l)	0	0	50	0			
*******Aluminum (ug/l)***	0	0	87	0			
Iron (ug/l)	0	0	1,000	0			
Manganese (ug/l)	0	0	N/A	N/A			
Arsenic (ug/l)	0	0	10	0			
Mercury (ug/l)	0	0	0.012	N/A			

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

2017 LNBA Monitoring Report

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

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

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
Temperature (C)	19	N/A	N/A	N/A	4.2	27.4	19.4
DO (mg/l)	19	N/A	4	0	6.2	10.0	7.3
****** pH (SU)***	19	N/A	6 to 9	0	6.8	6.9	N/A
Conductivity (umhos/cm)	19	0	N/A	N/A	112	172	127
***** Fecal Coliform (/100 mls)***	13	N/A	400	2	58	2,500	208
Suspended Residue (mg/l)	13	4	N/A	N/A	2.8	14.0	6.0
Turbidity (NTU)	13	N/A	50	0	4.6	21.0	10.0
Chlorophyll-a (ug/l)	0	0	40	0			
NH3_N (mg/l)	13	0	N/A	N/A	0.07	0.15	0.10
TKN_N (mg/l)	13	1	N/A	N/A	0.20	0.59	0.41
NO2_NO3_N (mg/l)	13	0	N/A	N/A	0.24	0.60	0.35
TP (mg/l)	13	0	N/A	N/A	0.02	0.54	0.10
Cadmium (ug/l)	0	0	2	0			
Chromium (ug/l)	0	0	50	0			
Copper (ug/l)	0	0	7	0			
Nickel (ug/l)	0	0	88	0			
Lead (ug/l)	0	0	25	0			
Zinc (ug/l)	0	0	50	0			
*******Aluminum (ug/l)***	0	0	87	0			
Iron (ug/l)	0	0	1,000	0			
Manganese (ug/l)	0	0	N/A	N/A			
Arsenic (ug/l)	0	0	10	0			
Mercury (ug/l)	0	0	0.012	N/A			

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

2017 LNBA Monitoring Report

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

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

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
Temperature (C)	19	N/A	N/A	N/A	5.2	28.7	20.7
DO (mg/l)	19	N/A	4	0	6.2	10.3	7.4
****** pH (SU)***	19	N/A	6 to 9	0	6.9	7.2	N/A
Conductivity (umhos/cm)	19	0	N/A	N/A	138	207	161
***** Fecal Coliform (/100 mls)***	13	N/A	400	3	16	2,300	202
Suspended Residue (mg/l)	13	0	N/A	N/A	6.7	54.0	16.7
Turbidity (NTU)	13	N/A	50	0	6.1	29.0	14.3
Chlorophyll-a (ug/l)	0	0	40	0			
NH3_N (mg/l)	13	0	N/A	N/A	0.03	0.17	0.10
TKN_N (mg/l)	13	0	N/A	N/A	0.26	0.87	0.59
NO2_NO3_N (mg/l)	13	0	N/A	N/A	0.07	2.57	0.41
TP (mg/l)	13	0	N/A	N/A	0.04	0.58	0.13
Cadmium (ug/l)	0	0	2	0			
Chromium (ug/l)	0	0	50	0			
Copper (ug/l)	0	0	7	0			
Nickel (ug/l)	0	0	88	0			
Lead (ug/l)	0	0	25	0			
Zinc (ug/l)	0	0	50	0			
*******Aluminum (ug/l)***	0	0	87	0			
Iron (ug/l)	0	0	1,000	0			
Manganese (ug/l)	0	0	N/A	N/A			
Arsenic (ug/l)	0	0	10	0			
Mercury (ug/l)	0	0	0.012	N/A			

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

2017 LNBA Monitoring Report

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

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

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
Temperature (C)	19	N/A	N/A	N/A	4.3	26.3	18.7
DO (mg/l)	19	N/A	4	0	6.5	10.7	7.7
****** pH (SU)***	19	N/A	6 to 9	0	6.9	7.2	N/A
Conductivity (umhos/cm)	19	0	N/A	N/A	90	143	103
***** Fecal Coliform (/100 mls)***	13	N/A	400	4	184	1,600	383
Suspended Residue (mg/l)	13	0	N/A	N/A	3.4	47.0	10.3
Turbidity (NTU)	13	N/A	50	0	5.0	19.0	9.9
Chlorophyll-a (ug/l)	0	0	40	0			
NH3_N (mg/l)	13	0	N/A	N/A	0.05	0.25	0.09
TKN_N (mg/l)	13	0	N/A	N/A	0.34	0.67	0.48
NO2_NO3_N (mg/l)	13	0	N/A	N/A	0.58	2.40	1.67
TP (mg/l)	13	0	N/A	N/A	0.15	0.72	0.35
Cadmium (ug/l)	0	0	2	0			
Chromium (ug/l)	0	0	50	0			
Copper (ug/l)	0	0	7	0			
Nickel (ug/l)	0	0	88	0			
Lead (ug/l)	0	0	25	0			
Zinc (ug/l)	0	0	50	0			
*******Aluminum (ug/l)***	0	0	87	0			
Iron (ug/l)	0	0	1,000	0			
Manganese (ug/l)	0	0	N/A	N/A			
Arsenic (ug/l)	0	0	10	0			
Mercury (ug/l)	0	0	0.012	N/A			

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

2017 LNBA Monitoring Report

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

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

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
Temperature (C)	19	N/A	N/A	N/A	4.4	26.6	18.9
DO (mg/l)	19	N/A	4	0	6.4	10.3	7.5
****** pH (SU)***	19	N/A	6 to 9	0	6.9	7.1	N/A
Conductivity (umhos/cm)	19	0	N/A	N/A	105	146	123
***** Fecal Coliform (/100 mls)***	13	N/A	400	3	70	1,900	244
Suspended Residue (mg/l)	13	0	N/A	N/A	5.2	26.0	12.1
Turbidity (NTU)	13	N/A	50	0	5.8	15.0	11.5
Chlorophyll-a (ug/l)	0	0	40	0			
NH3_N (mg/l)	13	0	N/A	N/A	0.03	0.16	0.08
TKN_N (mg/l)	13	0	N/A	N/A	0.32	0.74	0.49
NO2_NO3_N (mg/l)	13	0	N/A	N/A	0.03	0.45	0.20
TP (mg/l)	13	0	N/A	N/A	0.04	0.09	0.07
Cadmium (ug/l)	0	0	2	0			
Chromium (ug/l)	0	0	50	0			
Copper (ug/l)	0	0	7	0			
Nickel (ug/l)	0	0	88	0			
Lead (ug/l)	0	0	25	0			
Zinc (ug/l)	0	0	50	0			
*******Aluminum (ug/l)***	0	0	87	0			
Iron (ug/l)	0	0	1,000	0			
Manganese (ug/l)	0	0	N/A	N/A			
Arsenic (ug/l)	0	0	10	0			
Mercury (ug/l)	0	0	0.012	N/A			

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

2017 LNBA Monitoring Report

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

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

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
Temperature (C)	19	N/A	N/A	N/A	5.6	28.7	20.8
DO (mg/l)	19	N/A	4	0	6.1	10.3	7.5
**** pH (SU)*	19	N/A	6 to 9	0	6.8	7.1	N/A
Conductivity (umhos/cm)	19	0	N/A	N/A	142	248	172
*** Fecal Coliform (/100 mls)*	13	N/A	400	3	54	2,400	196
Suspended Residue (mg/l)	13	0	N/A	N/A	6.3	95.0	19.5
Turbidity (NTU)	13	N/A	50	0	5.0	38.0	15.5
Chlorophyll-a (ug/l)	0	0	40	0			
NH3_N (mg/l)	13	0	N/A	N/A	0.04	0.15	0.09
TKN_N (mg/l)	13	0	N/A	N/A	0.59	0.83	0.70
NO2_NO3_N (mg/l)	13	0	10	0	0.10	0.99	0.44
TP (mg/l)	13	0	N/A	N/A	0.07	0.70	0.28
Cadmium (ug/l)	0	0	2	0			
Chromium (ug/l)	0	0	50	0			
Copper (ug/l)	0	0	7	0			
Nickel (ug/l)	0	0	25	0			
Lead (ug/l)	0	0	25	0			
Zinc (ug/l)	0	0	50	0			
*****Aluminum (ug/l)*	0	0	87	0			
Iron (ug/l)	0	0	1,000	0			
Manganese (ug/l)	0	0	200	0			
Arsenic (ug/l)	0	0	10	0			
Mercury (ug/l)	0	0	0.012	N/A			

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

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

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

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
Temperature (C)	19	N/A	N/A	N/A	5.7	28.6	20.7
DO (mg/l)	19	N/A	4	0	5.8	10.2	7.4
****** pH (SU)***	19	N/A	6 to 9	0	6.7	7.0	N/A
Conductivity (umhos/cm)	19	0	N/A	N/A	133	232	168
***** Fecal Coliform (/100 mls)***	13	N/A	400	2	52	600	135
Suspended Residue (mg/l)	13	0	N/A	N/A	5.4	73.0	20.9
Turbidity (NTU)	13	N/A	50	0	5.2	50.0	18.0
Chlorophyll-a (ug/l)	0	0	40	0			
NH3_N (mg/l)	13	0	N/A	N/A	0.04	0.20	0.10
TKN_N (mg/l)	13	0	N/A	N/A	0.48	0.84	0.68
NO2_NO3_N (mg/l)	13	0	10	0	0.13	0.79	0.39
TP (mg/l)	13	0	N/A	N/A	0.13	0.71	0.32
Cadmium (ug/l)	0	0	2	0			
Chromium (ug/l)	0	0	50	0			
Copper (ug/l)	0	0	7	0			
Nickel (ug/l)	0	0	25	0			
Lead (ug/l)	0	0	25	0			
Zinc (ug/l)	0	0	50	0			
*******Aluminum (ug/l)***	0	0	87	0			
Iron (ug/l)	0	0	1,000	0			
Manganese (ug/l)	0	0	200	0			
Arsenic (ug/l)	0	0	10	0			
Mercury (ug/l)	0	0	0.012	N/A			

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

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

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

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
Temperature (C)	19	N/A	N/A	N/A	8.3	28.1	21.5
DO (mg/l)	19	N/A	4	0	5.6	10.4	7.5
****** pH (SU)***	19	N/A	6 to 9	0	6.7	7.3	N/A
Conductivity (umhos/cm)	19	0	N/A	N/A	95	258	151
***** Fecal Coliform (/100 mls)***	13	N/A	400	1	46	1,200	117
Suspended Residue (mg/l)	13	1	N/A	N/A	2.9	65.0	20.1
Turbidity (NTU)	13	N/A	50	1	3.4	55.0	15.7
Chlorophyll-a (ug/l)	0	0	40	0			
NH3_N (mg/l)	13	1	N/A	N/A	0.02	0.08	0.06
TKN_N (mg/l)	13	0	N/A	N/A	0.42	1.05	0.62
NO2_NO3_N (mg/l)	13	0	10	0	0.22	1.14	0.53
TP (mg/l)	13	0	N/A	N/A	0.10	0.57	0.36
Cadmium (ug/l)	0	0	2	0			
Chromium (ug/l)	0	0	50	0			
Copper (ug/l)	0	0	7	0			
Nickel (ug/l)	0	0	25	0			
Lead (ug/l)	0	0	25	0			
Zinc (ug/l)	0	0	50	0			
*******Aluminum (ug/l)***	0	0	87	0			
Iron (ug/l)	0	0	1,000	0			
Manganese (ug/l)	0	0	200	0			
Arsenic (ug/l)	0	0	10	0			
Mercury (ug/l)	0	0	0.012	N/A			

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

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

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

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
Temperature (C)	19	N/A	N/A	N/A	3.6	27.3	18.9
DO (mg/l)	19	N/A	4	0	5.0	9.6	6.8
****** pH (SU)***	19	N/A	6 to 9	0	6.7	7.2	N/A
Conductivity (umhos/cm)	19	0	N/A	N/A	69	185	121
***** Fecal Coliform (/100 mls)***	13	N/A	400	3	26	2,500	193
Suspended Residue (mg/l)	13	2	N/A	N/A	2.9	13.0	6.8
Turbidity (NTU)	13	N/A	50	0	4.9	15.0	10.4
Chlorophyll-a (ug/l)	0	0	40	0			
NH3_N (mg/l)	13	2	N/A	N/A	0.02	0.17	0.08
TKN_N (mg/l)	13	0	N/A	N/A	0.37	0.83	0.57
NO2_NO3_N (mg/l)	13	1	10	0	0.02	0.23	0.11
TP (mg/l)	13	0	N/A	N/A	0.03	0.08	0.06
Cadmium (ug/l)	0	0	2	0			
Chromium (ug/l)	0	0	50	0			
Copper (ug/l)	0	0	7	0			
Nickel (ug/l)	0	0	25	0			
Lead (ug/l)	0	0	25	0			
Zinc (ug/l)	0	0	50	0			
*******Aluminum (ug/l)***	0	0	87	0			
Iron (ug/l)	0	0	1,000	0			
Manganese (ug/l)	0	0	200	0			
Arsenic (ug/l)	0	0	10	0			
Mercury (ug/l)	0	0	0.012	N/A			

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

2017 LNBA Monitoring Report

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

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

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
Temperature (C)	19	N/A	N/A	N/A	4.7	28.7	20.0
DO (mg/l)	19	N/A	4	2	0.3	10.6	6.6
**** pH (SU)*	19	N/A	6 to 9	0	6.6	7.3	N/A
Conductivity (umhos/cm)	19	0	N/A	N/A	69	156	119
*** Fecal Coliform (/100 mls)*	13	N/A	400	1	42	773	157
Suspended Residue (mg/l)	13	1	N/A	N/A	2.9	24.0	11.2
Turbidity (NTU)	13	N/A	50	0	5.5	31.0	12.4
Chlorophyll-a (ug/l)	0	0	40	0			
NH3_N (mg/l)	13	1	N/A	N/A	0.02	0.16	0.08
TKN_N (mg/l)	13	1	N/A	N/A	0.20	0.95	0.66
NO2_NO3_N (mg/l)	13	0	N/A	N/A	0.10	1.04	0.66
TP (mg/l)	13	0	N/A	N/A	0.05	0.48	0.19
Cadmium (ug/l)	0	0	2	0			
Chromium (ug/l)	0	0	50	0			
Copper (ug/l)	0	0	7	0			
Nickel (ug/l)	0	0	88	0			
Lead (ug/l)	0	0	25	0			
Zinc (ug/l)	0	0	50	0			
*****Aluminum (ug/l)*	0	0	87	0			
Iron (ug/l)	0	0	1,000	0			
Manganese (ug/l)	0	0	N/A	N/A			
Arsenic (ug/l)	0	0	10	0			
Mercury (ug/l)	0	0	0.012	N/A			

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

2017 LNBA Monitoring Report

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

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

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
Temperature (C)	19	N/A	N/A	N/A	3.3	27.1	18.5
DO (mg/l)	19	N/A	4	0	4.5	10.4	7.5
****** pH (SU)***	19	N/A	6 to 9	0	6.6	7.2	N/A
Conductivity (umhos/cm)	19	0	N/A	N/A	77	138	98
***** Fecal Coliform (/100 mls)***	13	N/A	400	1	52	845	156
Suspended Residue (mg/l)	13	1	N/A	N/A	2.6	29.0	8.0
Turbidity (NTU)	13	N/A	50	0	6.5	29.0	12.6
Chlorophyll-a (ug/l)	0	0	40	0			
NH3_N (mg/l)	13	1	N/A	N/A	0.02	0.10	0.07
TKN_N (mg/l)	13	1	N/A	N/A	0.20	0.83	0.48
NO2_NO3_N (mg/l)	13	0	N/A	N/A	0.12	0.41	0.23
TP (mg/l)	13	0	N/A	N/A	0.03	1.90	0.22
Cadmium (ug/l)	0	0	2	0			
Chromium (ug/l)	0	0	50	0			
Copper (ug/l)	0	0	7	0			
Nickel (ug/l)	0	0	88	0			
Lead (ug/l)	0	0	25	0			
Zinc (ug/l)	0	0	50	0			
*******Aluminum (ug/l)***	0	0	87	0			
Iron (ug/l)	0	0	1,000	0			
Manganese (ug/l)	0	0	N/A	N/A			
Arsenic (ug/l)	0	0	10	0			
Mercury (ug/l)	0	0	0.012	N/A			

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

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

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

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
Temperature (C)	19	N/A	N/A	N/A	3.6	29.2	19.9
DO (mg/l)	19	N/A	4	2	2.3	10.2	7.1
**** pH (SU)*	19	N/A	6 to 9	0	6.6	7.3	N/A
Conductivity (umhos/cm)	19	1	N/A	N/A	50	186	111
*** Fecal Coliform (/100 mls)*	13	N/A	400	1	3	745	30
Suspended Residue (mg/l)	13	0	N/A	N/A	4.2	20.0	8.4
Turbidity (NTU)	13	N/A	50	0	6.3	40.0	13.7
Chlorophyll-a (ug/l)	0	0	40	0			
NH3_N (mg/l)	13	2	N/A	N/A	0.02	0.22	0.09
TKN_N (mg/l)	13	0	N/A	N/A	0.48	1.06	0.71
NO2_NO3_N (mg/l)	13	2	N/A	N/A	0.02	0.62	0.14
TP (mg/l)	13	0	N/A	N/A	0.03	0.36	0.12
Cadmium (ug/l)	0	0	2	0			
Chromium (ug/l)	0	0	50	0			
Copper (ug/l)	0	0	7	0			
Nickel (ug/l)	0	0	88	0			
Lead (ug/l)	0	0	25	0			
Zinc (ug/l)	0	0	50	0			
*****Aluminum (ug/l)*	0	0	87	0			
Iron (ug/l)	0	0	1,000	0			
Manganese (ug/l)	0	0	N/A	N/A			
Arsenic (ug/l)	0	0	10	0			
Mercury (ug/l)	0	0	0.012	N/A			

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

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

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

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
Temperature (C)	19	N/A	N/A	N/A	3.3	25.7	18.6
DO (mg/l)	19	N/A	4	0	5.6	10.4	7.7
****** pH (SU)***	19	N/A	6 to 9	0	6.3	7.2	N/A
Conductivity (umhos/cm)	19	0	N/A	N/A	69	159	102
***** Fecal Coliform (/100 mls)***	13	N/A	400	1	42	855	124
Suspended Residue (mg/l)	13	5	N/A	N/A	2.8	28.0	5.9
Turbidity (NTU)	13	N/A	50	0	4.5	33.0	10.3
Chlorophyll-a (ug/l)	0	0	40	0			
NH3_N (mg/l)	13	1	N/A	N/A	0.02	0.09	0.05
TKN_N (mg/l)	13	0	N/A	N/A	0.33	0.79	0.51
NO2_NO3_N (mg/l)	13	0	N/A	N/A	0.14	0.38	0.29
TP (mg/l)	13	0	N/A	N/A	0.03	0.16	0.08
Cadmium (ug/l)	0	0	2	0			
Chromium (ug/l)	0	0	50	0			
Copper (ug/l)	0	0	7	0			
Nickel (ug/l)	0	0	88	0			
Lead (ug/l)	0	0	25	0			
Zinc (ug/l)	0	0	50	0			
*******Aluminum (ug/l)***	0	0	87	0			
Iron (ug/l)	0	0	1,000	0			
Manganese (ug/l)	0	0	N/A	N/A			
Arsenic (ug/l)	0	0	10	0			
Mercury (ug/l)	0	0	0.012	N/A			

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

2017 LNBA Monitoring Report

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

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

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
Temperature (C)	19	N/A	N/A	N/A	7.1	26.2	19.7
DO (mg/l)	19	N/A	4	0	5.5	10.7	7.5
****** pH (SU)***	19	N/A	6 to 9	0	6.4	7.3	N/A
Conductivity (umhos/cm)	19	0	N/A	N/A	73	114	101
***** Fecal Coliform (/100 mls)***	13	N/A	400	2	42	2,900	163
Suspended Residue (mg/l)	13	8	N/A	N/A	2.9	39.0	8.2
Turbidity (NTU)	13	N/A	50	0	3.8	35.0	11.2
Chlorophyll-a (ug/l)	0	0	40	0			
NH3_N (mg/l)	13	0	N/A	N/A	0.02	0.09	0.06
TKN_N (mg/l)	13	1	N/A	N/A	0.20	0.85	0.47
NO2_NO3_N (mg/l)	13	0	N/A	N/A	0.23	0.52	0.33
TP (mg/l)	13	0	N/A	N/A	0.03	1.26	0.26
Cadmium (ug/l)	0	0	2	0			
Chromium (ug/l)	0	0	50	0			
Copper (ug/l)	0	0	7	0			
Nickel (ug/l)	0	0	88	0			
Lead (ug/l)	0	0	25	0			
Zinc (ug/l)	0	0	50	0			
*******Aluminum (ug/l)***	0	0	87	0			
Iron (ug/l)	0	0	1,000	0			
Manganese (ug/l)	0	0	N/A	N/A			
Arsenic (ug/l)	0	0	10	0			
Mercury (ug/l)	0	0	0.012	N/A			

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

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

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

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
Temperature (C)	19	N/A	N/A	N/A	4.1	26.5	18.9
DO (mg/l)	19	N/A	4	0	6.1	10.1	7.5
****** pH (SU)***	19	N/A	6 to 9	0	6.8	7.4	N/A
Conductivity (umhos/cm)	19	0	N/A	N/A	80	336	199
***** Fecal Coliform (/100 mls)***	13	N/A	400	6	42	6,000	384
Suspended Residue (mg/l)	13	7	N/A	N/A	2.5	34.0	8.4
Turbidity (NTU)	13	N/A	50	1	2.8	60.0	14.6
Chlorophyll-a (ug/l)	0	0	40	0			
NH3_N (mg/l)	13	1	N/A	N/A	0.02	0.11	0.06
TKN_N (mg/l)	13	1	N/A	N/A	0.20	3.09	0.86
NO2_NO3_N (mg/l)	13	0	N/A	N/A	0.34	1.80	0.91
TP (mg/l)	13	0	N/A	N/A	0.10	0.70	0.28
Cadmium (ug/l)	0	0	2	0			
Chromium (ug/l)	0	0	50	0			
Copper (ug/l)	0	0	7	0			
Nickel (ug/l)	0	0	88	0			
Lead (ug/l)	0	0	25	0			
Zinc (ug/l)	0	0	50	0			
*******Aluminum (ug/l)***	0	0	87	0			
Iron (ug/l)	0	0	1,000	0			
Manganese (ug/l)	0	0	N/A	N/A			
Arsenic (ug/l)	0	0	10	0			
Mercury (ug/l)	0	0	0.012	N/A			

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

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

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

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
Temperature (C)	19	N/A	N/A	N/A	4.1	26.7	19.6
DO (mg/l)	19	N/A	4	0	5.0	10.4	7.3
****** pH (SU)***	19	N/A	6 to 9	0	6.6	7.3	N/A
Conductivity (umhos/cm)	19	0	N/A	N/A	102	487	189
***** Fecal Coliform (/100 mls)***	13	N/A	400	3	42	1,100	209
Suspended Residue (mg/l)	13	2	N/A	N/A	2.9	26.0	10.1
Turbidity (NTU)	13	N/A	50	0	3.2	28.0	11.8
Chlorophyll-a (ug/l)	0	0	40	0			
NH3_N (mg/l)	13	1	N/A	N/A	0.02	0.24	0.09
TKN_N (mg/l)	13	0	N/A	N/A	0.49	1.34	0.84
NO2_NO3_N (mg/l)	13	0	N/A	N/A	0.46	1.48	0.88
TP (mg/l)	13	0	N/A	N/A	0.11	1.03	0.31
Cadmium (ug/l)	0	0	2	0			
Chromium (ug/l)	0	0	50	0			
Copper (ug/l)	0	0	7	0			
Nickel (ug/l)	0	0	88	0			
Lead (ug/l)	0	0	25	0			
Zinc (ug/l)	0	0	50	0			
*******Aluminum (ug/l)***	0	0	87	0			
Iron (ug/l)	0	0	1,000	0			
Manganese (ug/l)	0	0	N/A	N/A			
Arsenic (ug/l)	0	0	10	0			
Mercury (ug/l)	0	0	0.012	N/A			

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

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

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

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
Temperature (C)	19	N/A	N/A	N/A	4.0	26.4	19.2
DO (mg/l)	19	N/A	4	0	5.5	10.3	7.5
****** pH (SU)***	19	N/A	6 to 9	0	6.4	7.1	N/A
Conductivity (umhos/cm)	19	0	N/A	N/A	76	437	187
***** Fecal Coliform (/100 mls)***	13	N/A	400	3	64	809	197
Suspended Residue (mg/l)	13	0	N/A	N/A	4.6	28.0	13.8
Turbidity (NTU)	13	N/A	50	0	5.3	29.0	13.5
Chlorophyll-a (ug/l)	0	0	40	0			
NH3_N (mg/l)	13	0	N/A	N/A	0.02	0.14	0.08
TKN_N (mg/l)	13	0	N/A	N/A	0.32	3.20	0.94
NO2_NO3_N (mg/l)	13	0	N/A	N/A	0.42	1.47	0.90
TP (mg/l)	13	0	N/A	N/A	0.09	0.58	0.24
Cadmium (ug/l)	0	0	2	0			
Chromium (ug/l)	0	0	50	0			
Copper (ug/l)	0	0	7	0			
Nickel (ug/l)	0	0	88	0			
Lead (ug/l)	0	0	25	0			
Zinc (ug/l)	0	0	50	0			
*******Aluminum (ug/l)***	0	0	87	0			
Iron (ug/l)	0	0	1,000	0			
Manganese (ug/l)	0	0	N/A	N/A			
Arsenic (ug/l)	0	0	10	0			
Mercury (ug/l)	0	0	0.012	N/A			

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

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

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

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
Temperature (C)	19	N/A	N/A	N/A	3.8	26.2	19.2
DO (mg/l)	19	N/A	4	0	5.4	10.3	7.5
****** pH (SU)***	19	N/A	6 to 9	0	6.9	7.3	N/A
Conductivity (umhos/cm)	19	0	N/A	N/A	107	321	160
***** Fecal Coliform (/100 mls)***	13	N/A	400	1	54	618	136
Suspended Residue (mg/l)	13	1	N/A	N/A	2.6	26.0	8.8
Turbidity (NTU)	13	N/A	50	0	4.5	33.0	11.6
Chlorophyll-a (ug/l)	0	0	40	0			
NH3_N (mg/l)	13	1	N/A	N/A	0.02	0.24	0.09
TKN_N (mg/l)	13	0	N/A	N/A	0.38	0.92	0.63
NO2_NO3_N (mg/l)	13	0	N/A	N/A	0.33	0.73	0.56
TP (mg/l)	13	0	N/A	N/A	0.09	0.32	0.17
Cadmium (ug/l)	0	0	2	0			
Chromium (ug/l)	0	0	50	0			
Copper (ug/l)	0	0	7	0			
Nickel (ug/l)	0	0	88	0			
Lead (ug/l)	0	0	25	0			
Zinc (ug/l)	0	0	50	0			
*******Aluminum (ug/l)***	0	0	87	0			
Iron (ug/l)	0	0	1,000	0			
Manganese (ug/l)	0	0	N/A	N/A			
Arsenic (ug/l)	0	0	10	0			
Mercury (ug/l)	0	0	0.012	N/A			

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

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

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

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
Temperature (C)	17	N/A	N/A	N/A	7.3	25.9	19.4
DO (mg/l)	17	N/A	4	0	6.0	10.5	7.6
****** pH (SU)***	17	N/A	6 to 9	0	6.6	7.3	N/A
Conductivity (umhos/cm)	17	0	N/A	N/A	93	213	140
***** Fecal Coliform (/100 mls)***	12	N/A	400	1	42	1,700	101
Suspended Residue (mg/l)	12	6	N/A	N/A	2.9	28.0	6.6
Turbidity (NTU)	12	N/A	50	0	2.9	45.0	10.6
Chlorophyll-a (ug/l)	0	0	40	0			
NH3_N (mg/l)	12	1	N/A	N/A	0.02	0.11	0.06
TKN_N (mg/l)	12	0	N/A	N/A	0.34	0.78	0.57
NO2_NO3_N (mg/l)	12	0	N/A	N/A	0.24	0.64	0.44
TP (mg/l)	12	0	N/A	N/A	0.06	0.26	0.11
Cadmium (ug/l)	0	0	2	0			
Chromium (ug/l)	0	0	50	0			
Copper (ug/l)	0	0	7	0			
Nickel (ug/l)	0	0	88	0			
Lead (ug/l)	0	0	25	0			
Zinc (ug/l)	0	0	50	0			
*******Aluminum (ug/l)***	0	0	87	0			
Iron (ug/l)	0	0	1,000	0			
Manganese (ug/l)	0	0	N/A	N/A			
Arsenic (ug/l)	0	0	10	0			
Mercury (ug/l)	0	0	0.012	N/A			

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

2017 LNBA Monitoring Report

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

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

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
Temperature (C)	17	N/A	N/A	N/A	7.0	26.1	19.0
DO (mg/l)	17	N/A	4	1	3.2	9.0	6.6
****** pH (SU)***	17	N/A	6 to 9	0	6.1	6.9	N/A
Conductivity (umhos/cm)	17	0	N/A	N/A	65	134	104
***** Fecal Coliform (/100 mls)***	12	N/A	400	2	4	955	107
Suspended Residue (mg/l)	12	4	N/A	N/A	2.8	8.5	4.2
Turbidity (NTU)	12	N/A	50	0	4.3	14.0	7.2
Chlorophyll-a (ug/l)	0	0	40	0			
NH3_N (mg/l)	12	0	N/A	N/A	0.02	0.17	0.07
TKN_N (mg/l)	12	0	N/A	N/A	0.43	0.98	0.74
NO2_NO3_N (mg/l)	12	1	N/A	N/A	0.02	0.27	0.12
TP (mg/l)	12	0	N/A	N/A	0.04	0.24	0.09
Cadmium (ug/l)	0	0	2	0			
Chromium (ug/l)	0	0	50	0			
Copper (ug/l)	0	0	7	0			
Nickel (ug/l)	0	0	88	0			
Lead (ug/l)	0	0	25	0			
Zinc (ug/l)	0	0	50	0			
*******Aluminum (ug/l)***	0	0	87	0			
Iron (ug/l)	0	0	1,000	0			
Manganese (ug/l)	0	0	N/A	N/A			
Arsenic (ug/l)	0	0	10	0			
Mercury (ug/l)	0	0	0.012	N/A			

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

2017 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 ***Lattitude:*** 35.3741 ***Longitude:*** -78.1962

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
Temperature (C)	16	N/A	N/A	N/A	8.2	28.7	20.7
DO (mg/l)	16	N/A	4	0	5.6	10.1	7.3
****** pH (SU)***	16	N/A	6 to 9	1	5.6	7.0	N/A
Conductivity (umhos/cm)	16	0	N/A	N/A	98	229	152
***** Fecal Coliform (/100 mls)***	12	N/A	400	1	18	1,900	87
Suspended Residue (mg/l)	12	0	N/A	N/A	4.0	68.0	24.4
Turbidity (NTU)	12	N/A	50	1	5.2	55.0	19.4
Chlorophyll-a (ug/l)	0	0	40	0			
NH3_N (mg/l)	12	0	N/A	N/A	0.02	0.08	0.05
TKN_N (mg/l)	12	0	N/A	N/A	0.54	0.87	0.65
NO2_NO3_N (mg/l)	12	0	10	0	0.12	1.08	0.51
TP (mg/l)	12	0	N/A	N/A	0.13	0.51	0.31
Cadmium (ug/l)	0	0	2	0			
Chromium (ug/l)	0	0	50	0			
Copper (ug/l)	0	0	7	0			
Nickel (ug/l)	0	0	25	0			
Lead (ug/l)	0	0	25	0			
Zinc (ug/l)	0	0	50	0			
*******Aluminum (ug/l)***	0	0	87	0			
Iron (ug/l)	0	0	1,000	0			
Manganese (ug/l)	0	0	200	0			
Arsenic (ug/l)	0	0	10	0			
Mercury (ug/l)	0	0	0.012	N/A			

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

2017 LNBA Monitoring Report

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

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

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
Temperature (C)	17	N/A	N/A	N/A	6.6	25.5	18.8
DO (mg/l)	17	N/A	4	2	1.2	9.1	5.8
****** pH (SU)***	17	N/A	6 to 9	0	6.0	6.9	N/A
Conductivity (umhos/cm)	17	0	N/A	N/A	84	128	107
***** Fecal Coliform (/100 mls)***	12	N/A	400	1	52	636	106
Suspended Residue (mg/l)	12	1	N/A	N/A	2.9	13.0	6.3
Turbidity (NTU)	12	N/A	50	0	5.0	21.0	9.7
Chlorophyll-a (ug/l)	0	0	40	0			
NH3_N (mg/l)	12	0	N/A	N/A	0.04	0.28	0.13
TKN_N (mg/l)	12	0	N/A	N/A	0.31	1.34	0.65
NO2_NO3_N (mg/l)	12	1	N/A	N/A	0.02	0.45	0.28
TP (mg/l)	12	1	N/A	N/A	0.02	0.22	0.06
Cadmium (ug/l)	0	0	2	0			
Chromium (ug/l)	0	0	50	0			
Copper (ug/l)	0	0	7	0			
Nickel (ug/l)	0	0	88	0			
Lead (ug/l)	0	0	25	0			
Zinc (ug/l)	0	0	50	0			
*******Aluminum (ug/l)***	0	0	87	0			
Iron (ug/l)	0	0	1,000	0			
Manganese (ug/l)	0	0	N/A	N/A			
Arsenic (ug/l)	0	0	10	0			
Mercury (ug/l)	0	0	0.012	N/A			

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

2017 LNBA Monitoring Report

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

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

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
Temperature (C)	17	N/A	N/A	N/A	6.4	26.4	19.1
DO (mg/l)	17	N/A	4	5	1.2	7.8	5.4
****** pH (SU)***	17	N/A	6 to 9	0	6.4	6.9	N/A
Conductivity (umhos/cm)	17	0	N/A	N/A	109	326	148
***** Fecal Coliform (/100 mls)***	12	N/A	400	0	5	210	39
Suspended Residue (mg/l)	12	3	N/A	N/A	2.8	15.0	5.1
Turbidity (NTU)	12	N/A	50	0	4.1	26.0	8.0
Chlorophyll-a (ug/l)	0	0	40	0			
NH3_N (mg/l)	12	0	N/A	N/A	0.03	0.24	0.11
TKN_N (mg/l)	12	0	N/A	N/A	0.50	1.47	0.82
NO2_NO3_N (mg/l)	12	0	N/A	N/A	0.02	1.07	0.24
TP (mg/l)	12	0	N/A	N/A	0.06	0.36	0.23
Cadmium (ug/l)	0	0	2	0			
Chromium (ug/l)	0	0	50	0			
Copper (ug/l)	0	0	7	0			
Nickel (ug/l)	0	0	88	0			
Lead (ug/l)	0	0	25	0			
Zinc (ug/l)	0	0	50	0			
*******Aluminum (ug/l)***	0	0	87	0			
Iron (ug/l)	0	0	1,000	0			
Manganese (ug/l)	0	0	N/A	N/A			
Arsenic (ug/l)	0	0	10	0			
Mercury (ug/l)	0	0	0.012	N/A			

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

2017 LNBA Monitoring Report

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

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

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
Temperature (C)	9	N/A	N/A	N/A	6.7	26.7	19.1
DO (mg/l)	9	N/A	4	1	3.7	7.5	6.0
****** pH (SU)***	9	N/A	6 to 9	1	5.8	6.8	N/A
Conductivity (umhos/cm)	9	0	N/A	N/A	88	136	104
***** Fecal Coliform (/100 mls)***	7	N/A	400	1	34	655	92
Suspended Residue (mg/l)	7	4	N/A	N/A	2.8	7.6	4.3
Turbidity (NTU)	7	N/A	50	0	3.9	11.0	7.3
Chlorophyll-a (ug/l)	0	0	40	0			
NH3_N (mg/l)	7	0	N/A	N/A	0.03	0.05	0.04
TKN_N (mg/l)	7	0	N/A	N/A	0.44	0.78	0.66
NO2_NO3_N (mg/l)	7	0	N/A	N/A	0.09	0.48	0.28
TP (mg/l)	7	0	N/A	N/A	0.02	0.39	0.11
Cadmium (ug/l)	0	0	2	0			
Chromium (ug/l)	0	0	50	0			
Copper (ug/l)	0	0	7	0			
Nickel (ug/l)	0	0	88	0			
Lead (ug/l)	0	0	25	0			
Zinc (ug/l)	0	0	50	0			
*******Aluminum (ug/l)***	0	0	87	0			
Iron (ug/l)	0	0	1,000	0			
Manganese (ug/l)	0	0	N/A	N/A			
Arsenic (ug/l)	0	0	10	0			
Mercury (ug/l)	0	0	0.012	N/A			

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

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Station **J5420000** Mill Creek @ Williford Road near Cox Mill, Johnston County, N.C. ***Stream Class:*** C NSW

County: Johnston ***Sub-Basin:*** 03020201 ***Lattitude:*** 35.345058 ***Longitude:*** -78.18409

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
Temperature (C)	4	N/A	N/A	N/A	8.8	21.1	15.6
DO (mg/l)	4	N/A	4	0	6.5	9.0	7.8
****** pH (SU)***	4	N/A	6 to 9	0	6.9	6.9	N/A
Conductivity (umhos/cm)	4	0	N/A	N/A	109	128	121
***** Fecal Coliform (/100 mls)***	4	N/A	400	0	92	230	120
Suspended Residue (mg/l)	4	4	N/A	N/A	2.9	3.1	3.0
Turbidity (NTU)	4	N/A	50	0	2.2	3.0	2.7
Chlorophyll-a (ug/l)	0	0	40	0			
NH3_N (mg/l)	4	0	N/A	N/A	0.04	0.05	0.04
TKN_N (mg/l)	4	0	N/A	N/A	0.58	0.68	0.65
NO2_NO3_N (mg/l)	4	0	N/A	N/A	0.49	1.30	0.89
TP (mg/l)	4	0	N/A	N/A	0.03	0.10	0.06
Cadmium (ug/l)	0	0	2	0			
Chromium (ug/l)	0	0	50	0			
Copper (ug/l)	0	0	7	0			
Nickel (ug/l)	0	0	88	0			
Lead (ug/l)	0	0	25	0			
Zinc (ug/l)	0	0	50	0			
*******Aluminum (ug/l)***	0	0	87	0			
Iron (ug/l)	0	0	1,000	0			
Manganese (ug/l)	0	0	N/A	N/A			
Arsenic (ug/l)	0	0	10	0			
Mercury (ug/l)	0	0	0.012	N/A			

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

2017 LNBA Monitoring Report

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

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

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
Temperature (C)	16	N/A	N/A	N/A	6.9	25.9	18.7
DO (mg/l)	16	N/A	4	1	1.7	8.0	6.0
****** pH (SU)***	16	N/A	6 to 9	1	5.6	6.9	N/A
Conductivity (umhos/cm)	16	0	N/A	N/A	99	141	117
***** Fecal Coliform (/100 mls)***	12	N/A	400	2	42	636	123
Suspended Residue (mg/l)	12	4	N/A	N/A	2.9	5.7	3.5
Turbidity (NTU)	12	N/A	50	0	3.0	13.0	6.4
Chlorophyll-a (ug/l)	0	0	40	0			
NH3_N (mg/l)	12	0	N/A	N/A	0.03	1.52	0.19
TKN_N (mg/l)	12	0	N/A	N/A	0.27	0.93	0.73
NO2_NO3_N (mg/l)	12	0	10	0	0.22	1.42	0.67
TP (mg/l)	12	0	N/A	N/A	0.06	0.47	0.15
Cadmium (ug/l)	0	0	2	0			
Chromium (ug/l)	0	0	50	0			
Copper (ug/l)	0	0	7	0			
Nickel (ug/l)	0	0	25	0			
Lead (ug/l)	0	0	25	0			
Zinc (ug/l)	0	0	50	0			
*******Aluminum (ug/l)***	0	0	87	0			
Iron (ug/l)	0	0	1,000	0			
Manganese (ug/l)	0	0	200	0			
Arsenic (ug/l)	0	0	10	0			
Mercury (ug/l)	0	0	0.012	N/A			

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

2017 LNBA Monitoring Report

Station **J5620000** Little River @ SR 2333 (Smithfield Road) near Zebulon ***Stream Class:*** WS-II HQW

County: Wake ***Sub-Basin:*** 03020201 ***Lattitude:*** 35.8577 ***Longitude:*** -78.3665

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
Temperature (C)	17	N/A	N/A	N/A	1.1	27.7	17.3
DO (mg/l)	17	N/A	4	16	1.1	7.2	2.9
**** pH (SU)*	17	N/A	6 to 9	0	6.2	7.0	N/A
Conductivity (umhos/cm)	17	0	N/A	N/A	68	97	85
*** Fecal Coliform (/100 mls)*	12	N/A	400	1	15	745	121
Suspended Residue (mg/l)	12	5	N/A	N/A	2.6	11.0	4.9
Turbidity (NTU)	12	N/A	50	0	1.9	9.4	4.8
Chlorophyll-a (ug/l)	0	0	40	0			
NH3_N (mg/l)	12	2	N/A	N/A	0.02	0.22	0.05
TKN_N (mg/l)	12	1	N/A	N/A	0.20	0.80	0.51
NO2_NO3_N (mg/l)	12	6	10	0	0.02	0.25	0.07
TP (mg/l)	12	0	N/A	N/A	0.03	0.58	0.14
Cadmium (ug/l)	0	0	2	0			
Chromium (ug/l)	0	0	50	0			
Copper (ug/l)	0	0	7	0			
Nickel (ug/l)	0	0	25	0			
Lead (ug/l)	0	0	25	0			
Zinc (ug/l)	0	0	50	0			
*****Aluminum (ug/l)*	0	0	87	0			
Iron (ug/l)	0	0	1,000	0			
Manganese (ug/l)	0	0	200	0			
Arsenic (ug/l)	0	0	10	0			
Mercury (ug/l)	0	0	0.012	N/A			

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

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

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

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
Temperature (C)	17	N/A	N/A	N/A	4.7	26.9	18.1
DO (mg/l)	17	N/A	4	0	6.3	10.8	7.7
****** pH (SU)***	17	N/A	6 to 9	0	6.9	7.1	N/A
Conductivity (umhos/cm)	17	0	N/A	N/A	90	153	104
***** Fecal Coliform (/100 mls)***	12	N/A	400	0	30	400	94
Suspended Residue (mg/l)	12	2	N/A	N/A	2.9	14.0	7.2
Turbidity (NTU)	12	N/A	50	0	3.7	16.0	9.4
Chlorophyll-a (ug/l)	0	0	40	0			
NH3_N (mg/l)	12	1	N/A	N/A	0.02	0.18	0.08
TKN_N (mg/l)	12	0	N/A	N/A	0.38	1.04	0.61
NO2_NO3_N (mg/l)	12	0	10	0	0.16	0.38	0.25
TP (mg/l)	12	0	N/A	N/A	0.05	0.47	0.13
Cadmium (ug/l)	0	0	2	0			
Chromium (ug/l)	0	0	50	0			
Copper (ug/l)	0	0	7	0			
Nickel (ug/l)	0	0	25	0			
Lead (ug/l)	0	0	25	0			
Zinc (ug/l)	0	0	50	0			
*******Aluminum (ug/l)***	0	0	87	0			
Iron (ug/l)	0	0	1,000	0			
Manganese (ug/l)	0	0	200	0			
Arsenic (ug/l)	0	0	10	0			
Mercury (ug/l)	0	0	0.012	N/A			

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

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

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

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
Temperature (C)	17	N/A	N/A	N/A	4.9	26.8	18.1
DO (mg/l)	17	N/A	4	0	6.6	11.1	8.0
****** pH (SU)***	17	N/A	6 to 9	0	7.0	7.2	N/A
Conductivity (umhos/cm)	17	0	N/A	N/A	95	122	109
***** Fecal Coliform (/100 mls)***	12	N/A	400	0	40	320	99
Suspended Residue (mg/l)	12	1	N/A	N/A	2.9	16.0	7.3
Turbidity (NTU)	12	N/A	50	0	3.9	16.0	9.7
Chlorophyll-a (ug/l)	0	0	40	0			
NH3_N (mg/l)	12	0	N/A	N/A	0.03	0.17	0.10
TKN_N (mg/l)	12	0	N/A	N/A	0.36	1.10	0.68
NO2_NO3_N (mg/l)	12	0	10	0	0.17	0.61	0.31
TP (mg/l)	12	0	N/A	N/A	0.05	0.17	0.11
Cadmium (ug/l)	0	0	2	0			
Chromium (ug/l)	0	0	50	0			
Copper (ug/l)	0	0	7	0			
Nickel (ug/l)	0	0	25	0			
Lead (ug/l)	0	0	25	0			
Zinc (ug/l)	0	0	50	0			
*******Aluminum (ug/l)***	0	0	87	0			
Iron (ug/l)	0	0	1,000	0			
Manganese (ug/l)	0	0	200	0			
Arsenic (ug/l)	0	0	10	0			
Mercury (ug/l)	0	0	0.012	N/A			

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

2017 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 ***Lattitude:*** 35.7697 ***Longitude:*** -78.7697

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
Temperature (C)	17	N/A	N/A	N/A	2.4	28.6	17.9
DO (mg/l)	17	N/A	4	0	5.2	11.2	7.1
****** pH (SU)***	17	N/A	6 to 9	0	6.2	7.2	N/A
Conductivity (umhos/cm)	17	0	N/A	N/A	68	109	90
***** Fecal Coliform (/100 mls)***	12	N/A	400	2	25	530	131
Suspended Residue (mg/l)	12	5	N/A	N/A	2.9	19.0	5.0
Turbidity (NTU)	12	N/A	50	0	3.7	13.0	7.2
Chlorophyll-a (ug/l)	0	0	40	0			
NH3_N (mg/l)	12	1	N/A	N/A	0.02	0.21	0.08
TKN_N (mg/l)	12	0	N/A	N/A	0.38	0.84	0.61
NO2_NO3_N (mg/l)	12	0	N/A	N/A	0.06	0.30	0.17
TP (mg/l)	12	0	N/A	N/A	0.03	0.15	0.10
Cadmium (ug/l)	0	0	2	0			
Chromium (ug/l)	0	0	50	0			
Copper (ug/l)	0	0	7	0			
Nickel (ug/l)	0	0	88	0			
Lead (ug/l)	0	0	25	0			
Zinc (ug/l)	0	0	50	0			
*******Aluminum (ug/l)***	0	0	87	0			
Iron (ug/l)	0	0	1,000	0			
Manganese (ug/l)	0	0	N/A	N/A			
Arsenic (ug/l)	0	0	10	0			
Mercury (ug/l)	0	0	0.012	N/A			

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

2017 LNBA Monitoring Report

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

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

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
Temperature (C)	17	N/A	N/A	N/A	8.2	27.8	20.2
DO (mg/l)	17	N/A	4	0	4.9	9.4	7.1
****** pH (SU)***	17	N/A	6 to 9	0	6.1	7.0	N/A
Conductivity (umhos/cm)	17	0	N/A	N/A	69	154	122
***** Fecal Coliform (/100 mls)***	12	N/A	400	1	44	718	93
Suspended Residue (mg/l)	12	4	N/A	N/A	2.9	22.0	6.3
Turbidity (NTU)	12	N/A	50	0	3.8	21.0	7.9
Chlorophyll-a (ug/l)	0	0	40	0			
NH3_N (mg/l)	12	1	N/A	N/A	0.02	0.82	0.13
TKN_N (mg/l)	12	0	N/A	N/A	0.49	1.33	0.77
NO2_NO3_N (mg/l)	12	0	N/A	N/A	0.17	0.78	0.46
TP (mg/l)	12	0	N/A	N/A	0.06	0.31	0.12
Cadmium (ug/l)	0	0	2	0			
Chromium (ug/l)	0	0	50	0			
Copper (ug/l)	0	0	7	0			
Nickel (ug/l)	0	0	88	0			
Lead (ug/l)	0	0	25	0			
Zinc (ug/l)	0	0	50	0			
*******Aluminum (ug/l)***	0	0	87	0			
Iron (ug/l)	0	0	1,000	0			
Manganese (ug/l)	0	0	N/A	N/A			
Arsenic (ug/l)	0	0	10	0			
Mercury (ug/l)	0	0	0.012	N/A			

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

2017 LNBA Monitoring Report

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

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

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
Temperature (C)	17	N/A	N/A	N/A	7.5	27.0	19.4
DO (mg/l)	17	N/A	4	0	5.6	8.9	6.7
****** pH (SU)***	17	N/A	6 to 9	0	6.7	6.9	N/A
Conductivity (umhos/cm)	17	0	N/A	N/A	103	129	113
***** Fecal Coliform (/100 mls)***	12	N/A	400	0	13	230	40
Suspended Residue (mg/l)	12	5	N/A	N/A	2.5	9.6	4.3
Turbidity (NTU)	12	N/A	50	0	1.8	5.4	3.2
Chlorophyll-a (ug/l)	0	0	40	0			
NH3_N (mg/l)	12	1	N/A	N/A	0.02	0.20	0.09
TKN_N (mg/l)	12	0	N/A	N/A	0.26	0.88	0.56
NO2_NO3_N (mg/l)	12	0	N/A	N/A	0.10	1.94	0.96
TP (mg/l)	12	2	N/A	N/A	0.02	0.11	0.05
Cadmium (ug/l)	0	0	2	0			
Chromium (ug/l)	0	0	50	0			
Copper (ug/l)	0	0	7	0			
Nickel (ug/l)	0	0	88	0			
Lead (ug/l)	0	0	25	0			
Zinc (ug/l)	0	0	50	0			
*******Aluminum (ug/l)***	0	0	87	0			
Iron (ug/l)	0	0	1,000	0			
Manganese (ug/l)	0	0	N/A	N/A			
Arsenic (ug/l)	0	0	10	0			
Mercury (ug/l)	0	0	0.012	N/A			

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

2017 LNBA Monitoring Report

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

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

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
Temperature (C)	17	N/A	N/A	N/A	8.3	29.2	21.2
DO (mg/l)	17	N/A	4	0	6.0	10.1	7.4
****** pH (SU)***	17	N/A	6 to 9	0	6.9	7.2	N/A
Conductivity (umhos/cm)	17	0	N/A	N/A	112	168	131
***** Fecal Coliform (/100 mls)***	12	N/A	400	1	25	782	76
Suspended Residue (mg/l)	12	0	N/A	N/A	4.9	36.0	16.8
Turbidity (NTU)	12	N/A	50	0	6.7	31.0	15.5
Chlorophyll-a (ug/l)	0	0	40	0			
NH3_N (mg/l)	12	1	N/A	N/A	0.02	0.14	0.07
TKN_N (mg/l)	12	0	N/A	N/A	0.40	1.07	0.66
NO2_NO3_N (mg/l)	12	0	N/A	N/A	0.27	0.81	0.51
TP (mg/l)	12	0	N/A	N/A	0.09	0.19	0.15
Cadmium (ug/l)	0	0	2	0			
Chromium (ug/l)	0	0	50	0			
Copper (ug/l)	0	0	7	0			
Nickel (ug/l)	0	0	88	0			
Lead (ug/l)	0	0	25	0			
Zinc (ug/l)	0	0	50	0			
*******Aluminum (ug/l)***	0	0	87	0			
Iron (ug/l)	0	0	1,000	0			
Manganese (ug/l)	0	0	N/A	N/A			
Arsenic (ug/l)	0	0	10	0			
Mercury (ug/l)	0	0	0.012	N/A			

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

2017 LNBA Monitoring Report

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

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

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
Temperature (C)	17	N/A	N/A	N/A	7.8	27.9	20.2
DO (mg/l)	17	N/A	4	0	6.1	9.3	7.2
****** pH (SU)***	17	N/A	6 to 9	0	6.9	7.0	N/A
Conductivity (umhos/cm)	17	0	N/A	N/A	107	168	134
***** Fecal Coliform (/100 mls)***	12	N/A	400	5	46	2,900	317
Suspended Residue (mg/l)	12	2	N/A	N/A	2.9	32.0	10.9
Turbidity (NTU)	12	N/A	50	0	3.7	25.0	10.4
Chlorophyll-a (ug/l)	0	0	40	0			
NH3_N (mg/l)	12	0	N/A	N/A	0.05	1.99	0.28
TKN_N (mg/l)	12	0	N/A	N/A	0.22	2.98	0.86
NO2_NO3_N (mg/l)	12	0	N/A	N/A	1.37	3.06	2.21
TP (mg/l)	12	0	N/A	N/A	0.10	0.37	0.20
Cadmium (ug/l)	0	0	2	0			
Chromium (ug/l)	0	0	50	0			
Copper (ug/l)	0	0	7	0			
Nickel (ug/l)	0	0	88	0			
Lead (ug/l)	0	0	25	0			
Zinc (ug/l)	0	0	50	0			
*******Aluminum (ug/l)***	0	0	87	0			
Iron (ug/l)	0	0	1,000	0			
Manganese (ug/l)	0	0	N/A	N/A			
Arsenic (ug/l)	0	0	10	0			
Mercury (ug/l)	0	0	0.012	N/A			

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

2017 LNBA Monitoring Report

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

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

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
Temperature (C)	16	N/A	N/A	N/A	7.5	26.9	19.7
DO (mg/l)	16	N/A	4	0	6.4	10.4	7.6
****** pH (SU)***	16	N/A	6 to 9	0	7.0	7.2	N/A
Conductivity (umhos/cm)	16	0	N/A	N/A	92	119	101
***** Fecal Coliform (/100 mls)***	11	N/A	400	4	40	5,000	238
Suspended Residue (mg/l)	11	1	N/A	N/A	2.9	25.0	9.7
Turbidity (NTU)	11	N/A	50	0	3.8	22.0	9.8
Chlorophyll-a (ug/l)	0	0	40	0			
NH3_N (mg/l)	11	0	N/A	N/A	0.06	0.18	0.10
TKN_N (mg/l)	11	0	N/A	N/A	0.52	1.23	0.76
NO2_NO3_N (mg/l)	11	0	10	0	1.18	3.03	1.91
TP (mg/l)	11	0	N/A	N/A	0.07	0.39	0.18
Cadmium (ug/l)	0	0	2	0			
Chromium (ug/l)	0	0	50	0			
Copper (ug/l)	0	0	7	0			
Nickel (ug/l)	0	0	25	0			
Lead (ug/l)	0	0	25	0			
Zinc (ug/l)	0	0	50	0			
*******Aluminum (ug/l)***	0	0	87	0			
Iron (ug/l)	0	0	1,000	0			
Manganese (ug/l)	0	0	200	0			
Arsenic (ug/l)	0	0	10	0			
Mercury (ug/l)	0	0	0.012	N/A			

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

2017 LNBA Monitoring Report

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

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

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
Temperature (C)	17	N/A	N/A	N/A	7.4	27.0	19.5
DO (mg/l)	17	N/A	4	0	6.3	9.7	7.5
****** pH (SU)***	17	N/A	6 to 9	0	6.8	7.1	N/A
Conductivity (umhos/cm)	17	0	N/A	N/A	94	138	114
***** Fecal Coliform (/100 mls)***	12	N/A	400	5	74	4,100	334
Suspended Residue (mg/l)	12	7	N/A	N/A	2.8	9.5	4.3
Turbidity (NTU)	12	N/A	50	0	2.5	10.0	5.3
Chlorophyll-a (ug/l)	0	0	40	0			
NH3_N (mg/l)	12	0	N/A	N/A	0.03	0.14	0.08
TKN_N (mg/l)	12	0	N/A	N/A	0.45	1.02	0.70
NO2_NO3_N (mg/l)	12	0	N/A	N/A	0.52	3.89	2.54
TP (mg/l)	12	0	N/A	N/A	0.06	0.27	0.16
Cadmium (ug/l)	0	0	2	0			
Chromium (ug/l)	0	0	50	0			
Copper (ug/l)	0	0	7	0			
Nickel (ug/l)	0	0	88	0			
Lead (ug/l)	0	0	25	0			
Zinc (ug/l)	0	0	50	0			
*******Aluminum (ug/l)***	0	0	87	0			
Iron (ug/l)	0	0	1,000	0			
Manganese (ug/l)	0	0	N/A	N/A			
Arsenic (ug/l)	0	0	10	0			
Mercury (ug/l)	0	0	0.012	N/A			

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

2017 LNBA Monitoring Report

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

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

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
Temperature (C)	17	N/A	N/A	N/A	8.0	29.1	21.0
DO (mg/l)	17	N/A	4	0	6.1	10.0	7.3
****** pH (SU)***	17	N/A	6 to 9	0	6.9	7.1	N/A
Conductivity (umhos/cm)	17	0	N/A	N/A	108	167	136
***** Fecal Coliform (/100 mls)***	12	N/A	400	1	15	800	112
Suspended Residue (mg/l)	12	0	N/A	N/A	8.6	31.0	18.8
Turbidity (NTU)	12	N/A	50	0	8.3	31.0	17.0
Chlorophyll-a (ug/l)	0	0	40	0			
NH3_N (mg/l)	12	1	N/A	N/A	0.02	0.20	0.07
TKN_N (mg/l)	12	0	N/A	N/A	0.12	0.82	0.56
NO2_NO3_N (mg/l)	12	0	N/A	N/A	0.34	1.00	0.61
TP (mg/l)	12	0	N/A	N/A	0.08	0.20	0.15
Cadmium (ug/l)	0	0	2	0			
Chromium (ug/l)	0	0	50	0			
Copper (ug/l)	0	0	7	0			
Nickel (ug/l)	0	0	88	0			
Lead (ug/l)	0	0	25	0			
Zinc (ug/l)	0	0	50	0			
*******Aluminum (ug/l)***	0	0	87	0			
Iron (ug/l)	0	0	1,000	0			
Manganese (ug/l)	0	0	N/A	N/A			
Arsenic (ug/l)	0	0	10	0			
Mercury (ug/l)	0	0	0.012	N/A			

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

2017 LNBA Monitoring Report

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

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

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
Temperature (C)	17	N/A	N/A	N/A	8.1	29.3	21.1
DO (mg/l)	17	N/A	4	0	6.2	10.3	7.3
****** pH (SU)***	17	N/A	6 to 9	0	6.9	7.1	N/A
Conductivity (umhos/cm)	17	0	N/A	N/A	105	164	138
***** Fecal Coliform (/100 mls)***	12	N/A	400	2	5	6,000	118
Suspended Residue (mg/l)	12	0	N/A	N/A	6.7	22.0	13.9
Turbidity (NTU)	12	N/A	50	0	8.7	24.0	14.8
Chlorophyll-a (ug/l)	0	0	40	0			
NH3_N (mg/l)	12	1	N/A	N/A	0.02	0.17	0.07
TKN_N (mg/l)	12	1	N/A	N/A	0.20	0.74	0.58
NO2_NO3_N (mg/l)	12	0	N/A	N/A	0.32	1.01	0.59
TP (mg/l)	12	0	N/A	N/A	0.07	0.20	0.15
Cadmium (ug/l)	0	0	2	0			
Chromium (ug/l)	0	0	50	0			
Copper (ug/l)	0	0	7	0			
Nickel (ug/l)	0	0	88	0			
Lead (ug/l)	0	0	25	0			
Zinc (ug/l)	0	0	50	0			
*******Aluminum (ug/l)***	0	0	87	0			
Iron (ug/l)	0	0	1,000	0			
Manganese (ug/l)	0	0	N/A	N/A			
Arsenic (ug/l)	0	0	10	0			
Mercury (ug/l)	0	0	0.012	N/A			

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

2017 LNBA Monitoring Report

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

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

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
Temperature (C)	17	N/A	N/A	N/A	2.6	25.0	17.1
DO (mg/l)	17	N/A	4	0	5.4	11.4	7.3
****** pH (SU)***	17	N/A	6 to 9	0	6.2	7.2	N/A
Conductivity (umhos/cm)	17	0	N/A	N/A	81	140	114
***** Fecal Coliform (/100 mls)***	12	N/A	400	5	38	4,100	341
Suspended Residue (mg/l)	12	4	N/A	N/A	2.8	20.0	5.9
Turbidity (NTU)	12	N/A	50	0	3.3	28.0	10.0
Chlorophyll-a (ug/l)	0	0	40	0			
NH3_N (mg/l)	12	1	N/A	N/A	0.02	0.38	0.09
TKN_N (mg/l)	12	0	N/A	N/A	0.28	0.73	0.47
NO2_NO3_N (mg/l)	12	0	N/A	N/A	0.03	0.67	0.37
TP (mg/l)	12	0	N/A	N/A	0.03	0.15	0.09
Cadmium (ug/l)	0	0	2	0			
Chromium (ug/l)	0	0	50	0			
Copper (ug/l)	0	0	7	0			
Nickel (ug/l)	0	0	88	0			
Lead (ug/l)	0	0	25	0			
Zinc (ug/l)	0	0	50	0			
*******Aluminum (ug/l)***	0	0	87	0			
Iron (ug/l)	0	0	1,000	0			
Manganese (ug/l)	0	0	N/A	N/A			
Arsenic (ug/l)	0	0	10	0			
Mercury (ug/l)	0	0	0.012	N/A			

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

2017 LNBA Monitoring Report

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

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

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
Temperature (C)	17	N/A	N/A	N/A	2.6	25.8	17.9
DO (mg/l)	17	N/A	4	0	6.3	10.8	7.4
****** pH (SU)***	17	N/A	6 to 9	0	6.4	7.3	N/A
Conductivity (umhos/cm)	17	0	N/A	N/A	110	445	207
***** Fecal Coliform (/100 mls)***	12	N/A	400	2	22	2,000	135
Suspended Residue (mg/l)	12	4	N/A	N/A	2.8	73.0	10.6
Turbidity (NTU)	12	N/A	50	1	3.3	60.0	11.6
Chlorophyll-a (ug/l)	0	0	40	0			
NH3_N (mg/l)	12	0	N/A	N/A	0.02	0.18	0.08
TKN_N (mg/l)	12	0	N/A	N/A	0.39	1.03	0.62
NO2_NO3_N (mg/l)	12	0	N/A	N/A	0.53	4.13	1.03
TP (mg/l)	12	0	N/A	N/A	0.07	0.49	0.22
Cadmium (ug/l)	0	0	2	0			
Chromium (ug/l)	0	0	50	0			
Copper (ug/l)	0	0	7	0			
Nickel (ug/l)	0	0	88	0			
Lead (ug/l)	0	0	25	0			
Zinc (ug/l)	0	0	50	0			
*******Aluminum (ug/l)***	0	0	87	0			
Iron (ug/l)	0	0	1,000	0			
Manganese (ug/l)	0	0	N/A	N/A			
Arsenic (ug/l)	0	0	10	0			
Mercury (ug/l)	0	0	0.012	N/A			

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

2017 LNBA Monitoring Report

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

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

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
Temperature (C)	17	N/A	N/A	N/A	2.5	27.9	17.9
DO (mg/l)	17	N/A	4	0	5.0	11.0	7.1
****** pH (SU)***	17	N/A	6 to 9	0	6.3	7.0	N/A
Conductivity (umhos/cm)	17	0	N/A	N/A	77	141	109
***** Fecal Coliform (/100 mls)***	12	N/A	400	2	30	3,000	150
Suspended Residue (mg/l)	12	4	N/A	N/A	2.8	41.0	7.8
Turbidity (NTU)	12	N/A	50	0	4.1	45.0	12.3
Chlorophyll-a (ug/l)	0	0	40	0			
NH3_N (mg/l)	12	0	N/A	N/A	0.03	0.12	0.06
TKN_N (mg/l)	12	0	N/A	N/A	0.27	0.89	0.56
NO2_NO3_N (mg/l)	12	1	N/A	N/A	0.02	0.33	0.14
TP (mg/l)	12	0	N/A	N/A	0.05	0.56	0.14
Cadmium (ug/l)	0	0	2	0			
Chromium (ug/l)	0	0	50	0			
Copper (ug/l)	0	0	7	0			
Nickel (ug/l)	0	0	88	0			
Lead (ug/l)	0	0	25	0			
Zinc (ug/l)	0	0	50	0			
*******Aluminum (ug/l)***	0	0	87	0			
Iron (ug/l)	0	0	1,000	0			
Manganese (ug/l)	0	0	N/A	N/A			
Arsenic (ug/l)	0	0	10	0			
Mercury (ug/l)	0	0	0.012	N/A			

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

2017 LNBA Monitoring Report

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

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

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
Temperature (C)	17	N/A	N/A	N/A	2.3	26.7	18.0
DO (mg/l)	17	N/A	4	5	1.8	9.9	5.9
**** pH (SU)*	17	N/A	6 to 9	1	5.8	6.9	N/A
Conductivity (umhos/cm)	17	0	N/A	N/A	56	153	106
*** Fecal Coliform (/100 mls)*	12	N/A	400	0	30	350	129
Suspended Residue (mg/l)	12	0	N/A	N/A	3.2	9.8	5.5
Turbidity (NTU)	12	N/A	50	0	6.6	21.0	11.4
Chlorophyll-a (ug/l)	0	0	40	0			
NH3_N (mg/l)	12	0	N/A	N/A	0.02	0.16	0.07
TKN_N (mg/l)	12	0	N/A	N/A	0.44	0.81	0.67
NO2_NO3_N (mg/l)	12	1	N/A	N/A	0.02	0.28	0.10
TP (mg/l)	12	0	N/A	N/A	0.04	0.26	0.10
Cadmium (ug/l)	0	0	2	0			
Chromium (ug/l)	0	0	50	0			
Copper (ug/l)	0	0	7	0			
Nickel (ug/l)	0	0	88	0			
Lead (ug/l)	0	0	25	0			
Zinc (ug/l)	0	0	50	0			
*****Aluminum (ug/l)*	0	0	87	0			
Iron (ug/l)	0	0	1,000	0			
Manganese (ug/l)	0	0	N/A	N/A			
Arsenic (ug/l)	0	0	10	0			
Mercury (ug/l)	0	0	0.012	N/A			

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

2017 LNBA Monitoring Report

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

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

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
Temperature (C)	17	N/A	N/A	N/A	4.6	29.4	20.0
DO (mg/l)	17	N/A	4	1	3.8	10.8	7.1
****** pH (SU)***	17	N/A	6 to 9	0	6.3	7.3	N/A
Conductivity (umhos/cm)	17	0	N/A	N/A	54	153	108
***** Fecal Coliform (/100 mls)***	12	N/A	400	1	12	900	66
Suspended Residue (mg/l)	12	2	N/A	N/A	2.8	52.0	10.8
Turbidity (NTU)	12	N/A	50	0	3.9	22.0	10.5
Chlorophyll-a (ug/l)	0	0	40	0			
NH3_N (mg/l)	12	0	N/A	N/A	0.02	0.15	0.08
TKN_N (mg/l)	12	0	N/A	N/A	0.53	0.83	0.69
NO2_NO3_N (mg/l)	12	0	N/A	N/A	0.07	0.40	0.20
TP (mg/l)	12	0	N/A	N/A	0.05	0.16	0.08
Cadmium (ug/l)	0	0	2	0			
Chromium (ug/l)	0	0	50	0			
Copper (ug/l)	0	0	7	0			
Nickel (ug/l)	0	0	88	0			
Lead (ug/l)	0	0	25	0			
Zinc (ug/l)	0	0	50	0			
*******Aluminum (ug/l)***	0	0	87	0			
Iron (ug/l)	0	0	1,000	0			
Manganese (ug/l)	0	0	N/A	N/A			
Arsenic (ug/l)	0	0	10	0			
Mercury (ug/l)	0	0	0.012	N/A			

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

2017 LNBA Monitoring Report

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

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

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
Temperature (C)	17	N/A	N/A	N/A	4.0	29.5	19.7
DO (mg/l)	17	N/A	4	0	4.6	10.1	7.0
****** pH (SU)***	17	N/A	6 to 9	0	6.4	7.2	N/A
Conductivity (umhos/cm)	17	0	N/A	N/A	131	229	159
***** Fecal Coliform (/100 mls)***	12	N/A	400	4	17	4,000	211
Suspended Residue (mg/l)	12	1	N/A	N/A	2.9	72.0	13.3
Turbidity (NTU)	12	N/A	50	0	2.7	40.0	13.9
Chlorophyll-a (ug/l)	0	0	40	0			
NH3_N (mg/l)	12	0	N/A	N/A	0.05	0.33	0.12
TKN_N (mg/l)	12	0	N/A	N/A	0.40	1.08	0.72
NO2_NO3_N (mg/l)	12	0	N/A	N/A	0.19	1.86	0.76
TP (mg/l)	12	0	N/A	N/A	0.06	0.65	0.18
Cadmium (ug/l)	0	0	2	0			
Chromium (ug/l)	0	0	50	0			
Copper (ug/l)	0	0	7	0			
Nickel (ug/l)	0	0	88	0			
Lead (ug/l)	0	0	25	0			
Zinc (ug/l)	0	0	50	0			
*******Aluminum (ug/l)***	0	0	87	0			
Iron (ug/l)	0	0	1,000	0			
Manganese (ug/l)	0	0	N/A	N/A			
Arsenic (ug/l)	0	0	10	0			
Mercury (ug/l)	0	0	0.012	N/A			

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

2017 LNBA Monitoring Report

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

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

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
Temperature (C)	17	N/A	N/A	N/A	3.9	29.1	19.5
DO (mg/l)	17	N/A	4	0	4.5	10.3	7.0
****** pH (SU)***	17	N/A	6 to 9	0	6.4	7.1	N/A
Conductivity (umhos/cm)	17	0	N/A	N/A	100	160	137
***** Fecal Coliform (/100 mls)***	12	N/A	400	2	26	1,200	109
Suspended Residue (mg/l)	12	1	N/A	N/A	2.9	10.0	6.2
Turbidity (NTU)	12	N/A	50	0	3.6	20.0	9.8
Chlorophyll-a (ug/l)	0	0	40	0			
NH3_N (mg/l)	12	0	N/A	N/A	0.05	0.31	0.13
TKN_N (mg/l)	12	0	N/A	N/A	0.26	1.02	0.69
NO2_NO3_N (mg/l)	12	0	N/A	N/A	0.16	1.06	0.53
TP (mg/l)	12	0	N/A	N/A	0.06	0.69	0.17
Cadmium (ug/l)	0	0	2	0			
Chromium (ug/l)	0	0	50	0			
Copper (ug/l)	0	0	7	0			
Nickel (ug/l)	0	0	88	0			
Lead (ug/l)	0	0	25	0			
Zinc (ug/l)	0	0	50	0			
*******Aluminum (ug/l)***	0	0	87	0			
Iron (ug/l)	0	0	1,000	0			
Manganese (ug/l)	0	0	N/A	N/A			
Arsenic (ug/l)	0	0	10	0			
Mercury (ug/l)	0	0	0.012	N/A			

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

2017 LNBA Monitoring Report

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

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

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
Temperature (C)	17	N/A	N/A	N/A	2.8	27.6	18.1
DO (mg/l)	17	N/A	4	0	4.4	10.6	7.0
****** pH (SU)***	17	N/A	6 to 9	0	6.3	7.0	N/A
Conductivity (umhos/cm)	17	0	N/A	N/A	84	130	103
***** Fecal Coliform (/100 mls)***	12	N/A	400	0	30	300	83
Suspended Residue (mg/l)	12	2	N/A	N/A	2.6	14.0	5.3
Turbidity (NTU)	12	N/A	50	0	3.8	21.0	10.0
Chlorophyll-a (ug/l)	0	0	40	0			
NH3_N (mg/l)	12	0	N/A	N/A	0.03	0.17	0.09
TKN_N (mg/l)	12	0	N/A	N/A	0.26	1.00	0.70
NO2_NO3_N (mg/l)	12	0	N/A	N/A	0.06	0.52	0.23
TP (mg/l)	12	0	N/A	N/A	0.07	0.77	0.19
Cadmium (ug/l)	0	0	2	0			
Chromium (ug/l)	0	0	50	0			
Copper (ug/l)	0	0	7	0			
Nickel (ug/l)	0	0	88	0			
Lead (ug/l)	0	0	25	0			
Zinc (ug/l)	0	0	50	0			
*******Aluminum (ug/l)***	0	0	87	0			
Iron (ug/l)	0	0	1,000	0			
Manganese (ug/l)	0	0	N/A	N/A			
Arsenic (ug/l)	0	0	10	0			
Mercury (ug/l)	0	0	0.012	N/A			

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

2017 LNBA Monitoring Report

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

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

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
Temperature (C)	17	N/A	N/A	N/A	3.5	26.8	18.5
DO (mg/l)	17	N/A	4	0	5.8	10.6	7.6
****** pH (SU)***	17	N/A	6 to 9	0	6.4	7.2	N/A
Conductivity (umhos/cm)	17	0	N/A	N/A	98	127	111
***** Fecal Coliform (/100 mls)***	12	N/A	400	2	20	1,200	114
Suspended Residue (mg/l)	12	2	N/A	N/A	2.8	39.0	9.7
Turbidity (NTU)	12	N/A	50	0	3.5	27.0	11.8
Chlorophyll-a (ug/l)	0	0	40	0			
NH3_N (mg/l)	12	0	N/A	N/A	0.03	0.20	0.10
TKN_N (mg/l)	12	0	N/A	N/A	0.35	1.03	0.72
NO2_NO3_N (mg/l)	12	0	N/A	N/A	0.15	1.17	0.53
TP (mg/l)	12	0	N/A	N/A	0.06	0.80	0.19
Cadmium (ug/l)	0	0	2	0			
Chromium (ug/l)	0	0	50	0			
Copper (ug/l)	0	0	7	0			
Nickel (ug/l)	0	0	88	0			
Lead (ug/l)	0	0	25	0			
Zinc (ug/l)	0	0	50	0			
*******Aluminum (ug/l)***	0	0	87	0			
Iron (ug/l)	0	0	1,000	0			
Manganese (ug/l)	0	0	N/A	N/A			
Arsenic (ug/l)	0	0	10	0			
Mercury (ug/l)	0	0	0.012	N/A			

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

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

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

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
Temperature (C)	17	N/A	N/A	N/A	3.6	28.9	19.2
DO (mg/l)	17	N/A	4	0	5.0	10.3	7.2
**** pH (SU)*	17	N/A	6 to 9	0	6.4	7.1	N/A
Conductivity (umhos/cm)	17	0	N/A	N/A	95	148	122
*** Fecal Coliform (/100 mls)*	12	N/A	400	1	25	470	85
Suspended Residue (mg/l)	12	2	N/A	N/A	2.9	15.0	5.8
Turbidity (NTU)	12	N/A	50	0	3.4	30.0	10.3
Chlorophyll-a (ug/l)	0	0	40	0			
NH3_N (mg/l)	12	0	N/A	N/A	0.06	0.18	0.10
TKN_N (mg/l)	12	1	N/A	N/A	0.20	0.87	0.66
NO2_NO3_N (mg/l)	12	0	N/A	N/A	0.28	0.96	0.67
TP (mg/l)	12	0	N/A	N/A	0.07	0.57	0.21
Cadmium (ug/l)	0	0	2	0			
Chromium (ug/l)	0	0	50	0			
Copper (ug/l)	0	0	7	0			
Nickel (ug/l)	0	0	88	0			
Lead (ug/l)	0	0	25	0			
Zinc (ug/l)	0	0	50	0			
*****Aluminum (ug/l)*	0	0	87	0			
Iron (ug/l)	0	0	1,000	0			
Manganese (ug/l)	0	0	N/A	N/A			
Arsenic (ug/l)	0	0	10	0			
Mercury (ug/l)	0	0	0.012	N/A			

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

2017 LNBA Monitoring Report

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

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

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
Temperature (C)	17	N/A	N/A	N/A	2.9	27.0	18.3
DO (mg/l)	17	N/A	4	5	1.5	9.1	5.8
****** pH (SU)***	17	N/A	6 to 9	0	6.0	6.9	N/A
Conductivity (umhos/cm)	17	0	N/A	N/A	99	156	125
***** Fecal Coliform (/100 mls)***	12	N/A	400	2	28	460	105
Suspended Residue (mg/l)	12	2	N/A	N/A	2.9	17.0	6.2
Turbidity (NTU)	12	N/A	50	0	4.5	15.0	8.5
Chlorophyll-a (ug/l)	0	0	40	0			
NH3_N (mg/l)	12	0	N/A	N/A	0.10	0.91	0.36
TKN_N (mg/l)	12	0	N/A	N/A	0.58	1.80	1.11
NO2_NO3_N (mg/l)	12	0	N/A	N/A	0.03	2.08	0.52
TP (mg/l)	12	0	N/A	N/A	0.08	1.09	0.38
Cadmium (ug/l)	0	0	2	0			
Chromium (ug/l)	0	0	50	0			
Copper (ug/l)	0	0	7	0			
Nickel (ug/l)	0	0	88	0			
Lead (ug/l)	0	0	25	0			
Zinc (ug/l)	0	0	50	0			
*******Aluminum (ug/l)***	0	0	87	0			
Iron (ug/l)	0	0	1,000	0			
Manganese (ug/l)	0	0	N/A	N/A			
Arsenic (ug/l)	0	0	10	0			
Mercury (ug/l)	0	0	0.012	N/A			

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

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

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

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
Temperature (C)	17	N/A	N/A	N/A	3.4	27.2	18.9
DO (mg/l)	17	N/A	4	0	4.6	9.7	6.7
****** pH (SU)***	17	N/A	6 to 9	0	6.5	7.1	N/A
Conductivity (umhos/cm)	17	0	N/A	N/A	118	184	146
***** Fecal Coliform (/100 mls)***	12	N/A	400	1	40	1,900	162
Suspended Residue (mg/l)	12	4	N/A	N/A	2.8	9.3	4.7
Turbidity (NTU)	12	N/A	50	0	5.0	18.0	9.3
Chlorophyll-a (ug/l)	0	0	40	0			
NH3_N (mg/l)	12	0	N/A	N/A	0.05	0.56	0.13
TKN_N (mg/l)	12	0	N/A	N/A	0.48	1.08	0.72
NO2_NO3_N (mg/l)	12	0	N/A	N/A	0.14	0.92	0.44
TP (mg/l)	12	0	N/A	N/A	0.13	0.39	0.26
Cadmium (ug/l)	0	0	2	0			
Chromium (ug/l)	0	0	50	0			
Copper (ug/l)	0	0	7	0			
Nickel (ug/l)	0	0	88	0			
Lead (ug/l)	0	0	25	0			
Zinc (ug/l)	0	0	50	0			
*******Aluminum (ug/l)***	0	0	87	0			
Iron (ug/l)	0	0	1,000	0			
Manganese (ug/l)	0	0	N/A	N/A			
Arsenic (ug/l)	0	0	10	0			
Mercury (ug/l)	0	0	0.012	N/A			

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

2017 LNBA Monitoring Report

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

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

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
Temperature (C)	17	N/A	N/A	N/A	7.8	29.0	20.8
DO (mg/l)	17	N/A	4	0	6.3	10.4	7.5
**** pH (SU)*	17	N/A	6 to 9	0	6.9	7.3	N/A
Conductivity (umhos/cm)	17	0	N/A	N/A	95	155	120
*** Fecal Coliform (/100 mls)*	12	N/A	400	1	11	430	53
Suspended Residue (mg/l)	12	0	N/A	N/A	5.1	23.0	12.8
Turbidity (NTU)	12	N/A	50	0	7.6	21.0	13.5
Chlorophyll-a (ug/l)	12	1	40	0	1.00	15.23	5.42
NH3_N (mg/l)	12	1	N/A	N/A	0.02	0.14	0.07
TKN_N (mg/l)	12	0	N/A	N/A	0.23	0.86	0.57
NO2_NO3_N (mg/l)	12	0	N/A	N/A	0.16	0.87	0.55
TP (mg/l)	12	0	N/A	N/A	0.08	0.22	0.15
Cadmium (ug/l)	0	0	2	0			
Chromium (ug/l)	0	0	50	0			
Copper (ug/l)	0	0	7	0			
Nickel (ug/l)	0	0	88	0			
Lead (ug/l)	0	0	25	0			
Zinc (ug/l)	0	0	50	0			
*****Aluminum (ug/l)*	0	0	87	0			
Iron (ug/l)	0	0	1,000	0			
Manganese (ug/l)	0	0	N/A	N/A			
Arsenic (ug/l)	0	0	10	0			
Mercury (ug/l)	0	0	0.012	N/A			

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

2017 LNBA Monitoring Report

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

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

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
Temperature (C)	17	N/A	N/A	N/A	7.9	29.6	21.1
DO (mg/l)	17	N/A	5	0	5.9	10.2	7.2
****** pH (SU)***	17	N/A	6.8 to 8.5	0	6.8	7.3	N/A
Conductivity (umhos/cm)	17	0	N/A	N/A	173	7,042	1,780
***** Fecal Coliform (/100 mls)***	12	N/A	400	0	2	380	55
Suspended Residue (mg/l)	12	3	N/A	N/A	2.8	20.0	6.8
Turbidity (NTU)	12	N/A	25	0	1.6	15.0	5.5
Chlorophyll-a (ug/l)	12	0	40	1	1.10	42.65	9.71
NH3_N (mg/l)	12	0	N/A	N/A	0.06	0.22	0.12
TKN_N (mg/l)	12	0	N/A	N/A	0.38	0.98	0.66
NO2_NO3_N (mg/l)	12	1	10	0	0.02	0.56	0.30
TP (mg/l)	12	0	N/A	N/A	0.10	0.21	0.15
Cadmium (ug/l)	0	0	5	0			
Chromium (ug/l)	0	0	20	0			
Copper (ug/l)	0	0	3	0			
Nickel (ug/l)	0	0	8	0			
Lead (ug/l)	0	0	25	0			
Zinc (ug/l)	0	0	86	0			
*******Aluminum (ug/l)***	0	0	87	0			
Iron (ug/l)	0	0	1,000	0			
Manganese (ug/l)	0	0	200	0			
Arsenic (ug/l)	0	0	10	0			
Mercury (ug/l)	0	0	0.025	N/A			

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