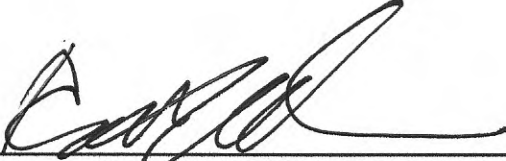
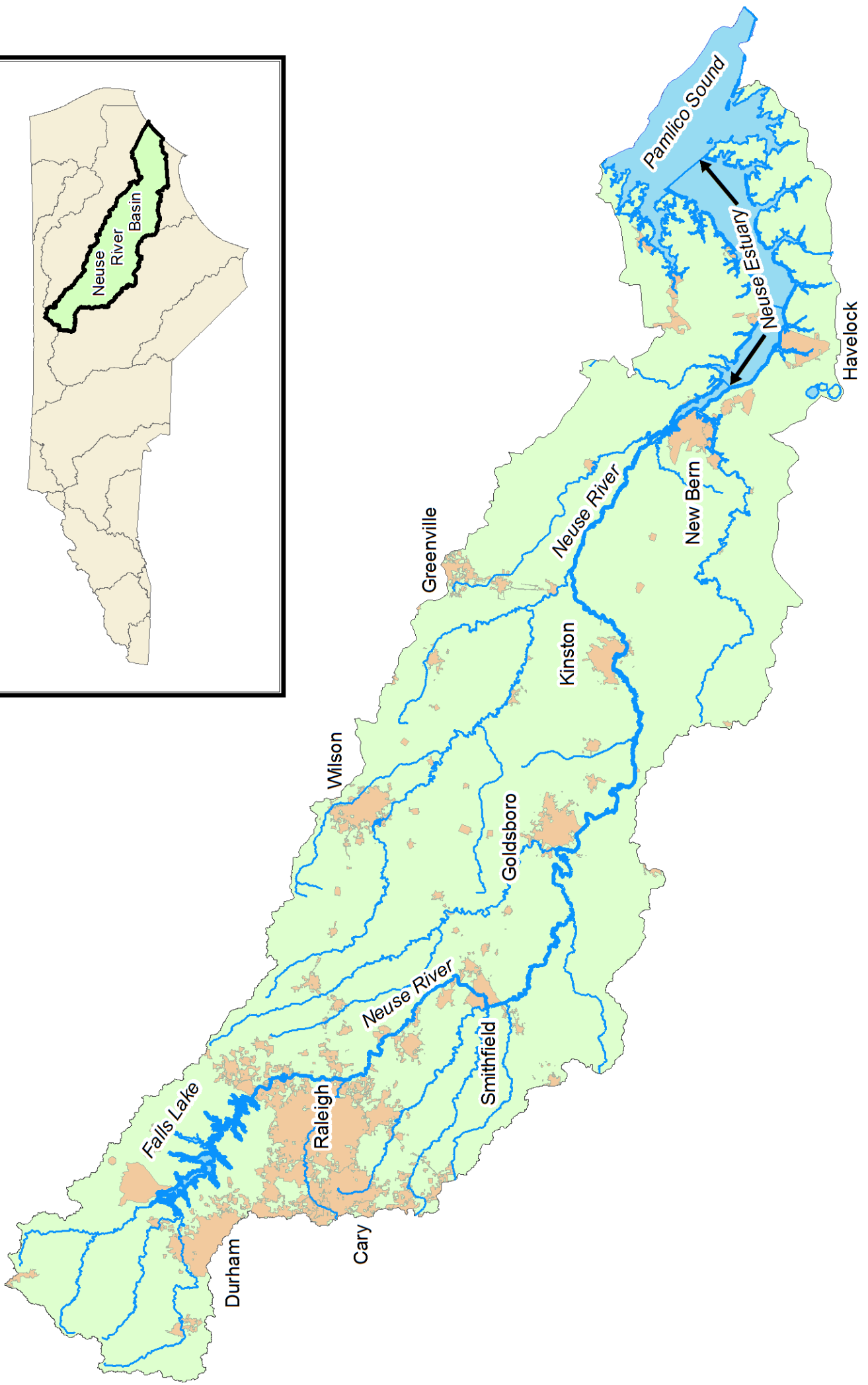
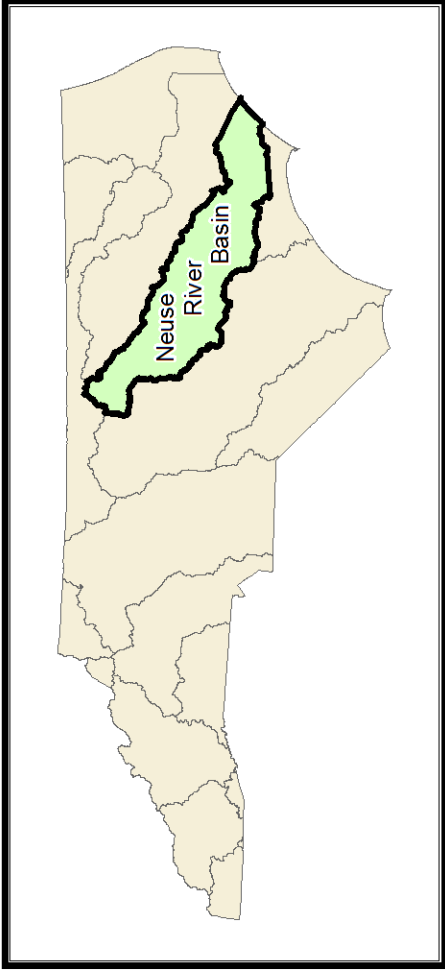


**Lower Neuse Basin Association
P.O. Box 1410
Clayton, North Carolina 27528-1410**

**Annual Monitoring Report
2016**

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

April 20, 2016

Members and Contact Information

A complete list of LNBA delegates for 2016 follows in Section I. There were no changes in membership in 2016.

Monitoring Stations for 2016

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 2016. The Division of Water Resources (DWR) visited several stations and that report is contained in Section III.

Monitoring at station **J4050000**, Neuse River @ Auburn Knightdale Road, was returned to service after completion of the bridge replacement. Monitoring station **J3530000**, Neuse River @ Poole Road (upstream of J4050000), was discontinued upon completion of the bridge work.

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 2016.

Environment I reported it completed and passed proficiency testing for its satellite lab (field testing equipment) in 2016.

NCDEQ- DWQ did not conduct a field review and inspection in 2016 due to personnel changes.

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 2016.

Environment I's contact information and sampling methods/protocols are listed in Section III with the sampling errors and omissions for 2016.

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 2017-2018 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 2016

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

Member	Contact	Address	Phone	Fax	Email	Mobile Phone
Town of Farmville	David Hodgkins	3672 N. Main St. Farmville, NC 27828-0086	252.753.6700	252.753.2963	dhodgkins@farmville-nc.com	
Town of Fuquay-Varina	Chris Grimes Jay Meyers	401 Old Honeycutt Rd. Fuquay-Varina, NC 27526	919.753.1013	919.552.7481	cgrimes@fuquay-varina.org jmeyers@fuquay-varina.org	919.625.3524
Town of Kenly	Greg Dunham Ken Thompson	PO Box 519 Kenly, NC 27542	919.284.2116 919.284.2975	919.284.5229	greg.dunham@townofkenly.com ken.thompson@townofkenly.com	919.796.7292
Town of La Grange	James Sutton John Craft	PO Box 368 La Grange, NC 28551	252.566.3186	252.566.2201	jwsutton@lagrangenc.com jpcraft@lagrangenc.com	252.560.9914
Town of Apex	Marty Stone John Cratch	PO Box 250 Apex, NC 27502	919.249.3353 919.249.3360		Marty.Stone@apexnc.org john.cratch@apexnc.org	919.669.4041
Town of Clayton	James Warren Tim Simpson	PO Box 879 Clayton, NC 27520	919.553.1536 919.553.1530	919.553.1918 919.553.1541	jowarren@townofclayton.org tsimpson@townofclaytonnc.org	919.669.4889 919.291.9480
Associated Parties						
Executive Director	Haywood Phthisic	PO Box 1410 Clayton, N.C. 27528-1410	919.796.8049	919.550.1911	exec.director@lnba.net	919.796.8049
Association Attorney	Glenn Dunn	P.O. Box 1801 Raleigh, NC 27602-1801	919.783.2842	919.783.1075	hgdunn@poynerspruill.com	
Environment 1, Inc.	Mark Oliveira	PO Box 7085, 114 Oakmont Greenville, NC 27835-7085	252.756.6208 252.756.6208	252.756.0633 252.756.0633	moliveira@environment1inc.com	252.531.8085

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	Tim W. Woody 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	Tim W. Woody 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	Tim W. Woody 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

<i>Station</i>	<i>Location</i>	<i>County</i>	<i>Latitude</i>	<i>Longitude</i>	<i>Class</i>	<i>Sub-Basin</i>
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
J3530000	Neuse River at SR 1007, Poole Road, near Raleigh	Wake	35.754	-78.532	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

<i>Station</i>	<i>Location</i>	<i>County</i>	<i>Latitude</i>	<i>Longitude</i>	<i>Class</i>	<i>Sub-Basin</i>
J4980000	Middle Creek @ SR 1006 (Old Stage Road) near Willow Springs	Wake	35.6091	-78.6866	C NSW	03020201
J5002000	Middle Creek @ SR 1517 (Old Sanders Hse) near Edmonson	Johnston	35.5626	-78.5756	C NSW	03020201
J5010000	Middle Creek @ NC 210 near Smithfield	Johnston	35.5075	-78.4013	C NSW	03020201
J5170000	Black Creek @ SR 1162 (Black Creek Road) near Four Oaks	Johnston	35.46925	-78.45681	C NSW	03020201
J5250000	Neuse River @ SR 1201 (Richardson Bridge Road) near Cox Mill	Johnston	35.3741	-78.1962	WS-IV NSW	03020201
J5390000	Hannah Creek @ SR 1158 (Allens Crossroads Drive) near Benson	Johnston	35.3868	-78.511	C NSW	03020201
J5390800	Hannah Creek @ SR 1227 (Ivey Road) near Benson	Johnston	35.4025	-78.4952	C NSW	03020201
J5410000	Mill Creek @ SR 1200 (Richardson Bridge Road) near Cox Mill	Johnston	35.342	-78.2162	C NSW	03020201
J5500000	Falling Creek @ SR 1219 (Old Grantham Road) near Grantham	Wayne	35.3224	-78.1282	WS-IV NSW	03020201
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

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

Section III

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

Contract Laboratory Providing All Sampling and Analysis

Environment I, Inc.

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 2016

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



PAT MCCRORY

Governor

DONALD R. VAN DER VAART

Secretary

S. JAY ZIMMERMAN

Director

January 12, 2016

Dan McLawhorn
Chairman
Lower Neuse Basin Association
dan.mclawhorn@ci.raleigh.nc.us

RE: Amendment #1 to the Lower Neuse Basin Association (LNBA) Memorandum of Agreement (MOA)

Dear Mr. McLawhorn:

Each coalition is required to submit an annual report by April 30th for each year their MOA is in effect. Since the last LNBA MOA renewal, several changes to the annual report have been approved; namely the option to submit electronically and the removal of the data CD and statistical summaries. Below is an updated explanation of requirements for this document.

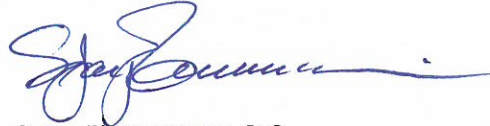
The annual report document can be submitted either as one hard-copy or electronically. The annual report will summarize all data collection activities in the past calendar year and contain at least the elements listed below.

- Monitoring Station List to include station number, station description, county, accurate coordinates (in decimal degrees to 4 decimal places), stream classification, and 8 digit hydrologic unit code (HUC).
- List of all certified laboratories that conducted work for the coalition in the past year, identify time frames for all laboratories and analysis methods used during the year and summarize any laboratory certification issues for individual parameters.
- A list of active LNBA members with authorized representative updates, contact names, email addresses and phone numbers. Identify the facility name and permit number.
- A list of members whom became inactive during the year and their permit number.
- A list of changes in members' names, ownerships, and discharge locations.
- A summary of all quality assurance and quality control issues and any field audits conducted.
- A summary of any significant issues, special studies, or projects.
- Description of any required data collection that was missed with an explanation.
- Suggested changes to the monitoring program and/or MOA modifications.
- The LNBA's website address.

Effective immediately, all annual reports submitted by the Coalitions, can meet either the requirements outlined in each Coalition's effective MOA, or the requirements outlined above.

If you have any questions, please feel free to contact Carrie Ruhlman at (919)743-8411, or via email at carrie.ruhlman@ncdenr.gov.

Sincerely,

A handwritten signature in blue ink, appearing to read "S. Jay Zimmerman", with a long horizontal flourish extending to the right.

S. Jay Zimmerman, P.G.
Director
Division of Water Resources, NCDEQ

cc: Haywood Phthisic (exec.director@lnba.net)

LNBA Sample Errors/Omissions for 2016

Date: 4/18/17

October, 2016

J7850000

10/27/2016 Unable to access sampling site due to road closure from Hurricane Matthew.

Section IV

Statistical Analysis of Sampling Data

2016 LNBA Monitoring Report

Station J2230000

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

County: Wake

Sub-Basin: 03020201

Latitude: 35.9182

Longitude: -78.5348

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
<i>Temperature (C)</i>	17	N/A	N/A	N/A	4.1	26.1	17.2
<i>DO (mg/l)</i>	17	N/A	4	0	6.4	10.9	8.0
<i>*** pH (SU)</i>	17	N/A	6 to 9	0	6.7	7.1	N/A
<i>Conductivity (umhos/cm)</i>	17	0	N/A	N/A	92	171	134
<i>** Fecal Coliform (/100 mls)</i>	12	N/A	400	6	49	1,900	345
<i>Suspended Residue (mg/l)</i>	12	1	N/A	N/A	2.9	24.0	10.4
<i>Turbidity (NTU)</i>	12	N/A	50	0	2.1	34.0	14.8
<i>Chlorophyll-a (ug/l)</i>	0	0	40	0			
<i>NH3_N (mg/l)</i>	12	0	N/A	N/A	0.05	0.16	0.09
<i>TKN_N (mg/l)</i>	12	0	N/A	N/A	0.21	0.47	0.34
<i>NO2_NO3_N (mg/l)</i>	12	0	N/A	N/A	0.56	1.13	0.78
<i>TP (mg/l)</i>	12	2	N/A	N/A	0.02	0.18	0.08
<i>Cadmium (ug/l)</i>	0	0	2	0			
<i>Chromium (ug/l)</i>	0	0	50	0			
<i>Copper (ug/l)</i>	0	0	7	0			
<i>Nickel (ug/l)</i>	0	0	88	0			
<i>Lead (ug/l)</i>	0	0	25	0			
<i>Zinc (ug/l)</i>	0	0	50	0			
<i>****Aluminum (ug/l)</i>	0	0	87	0			
<i>Iron (ug/l)</i>	0	0	1,000	0			
<i>Manganese (ug/l)</i>	0	0	N/A	N/A			
<i>Arsenic (ug/l)</i>	0	0	10	0			
<i>Mercury (ug/l)</i>	0	0	0.012	N/A			

Notes: * Results below the laboratory reporting limit (<RL) are included in the calculation as if they were at the reporting level.

** The Fecal Coliform average is a geometric mean.

*** Tidal salt waters classified as swamp waters may have a pH as low as 4.3 if it is the result of natural conditions

**** The aluminum reference level (Ref) is from the EPA's national recommended water quality criteria.

2016 LNBA Monitoring Report

Station J2330000

Neuse River at SR 2215 (Buffalo Road) near Neuse

Stream Class: C NSW

County: Wake

Sub-Basin: 03020201

Latitude: 35.8479

Longitude: -78.5302

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
<i>Temperature (C)</i>	17	N/A	N/A	N/A	5.1	28.0	18.6
<i>DO (mg/l)</i>	17	N/A	4	0	6.5	11.1	8.2
<i>*** pH (SU)</i>	17	N/A	6 to 9	0	6.8	7.3	N/A
<i>Conductivity (umhos/cm)</i>	17	0	N/A	N/A	102	139	127
<i>** Fecal Coliform (/100 mls)</i>	12	N/A	400	1	10	609	93
<i>Suspended Residue (mg/l)</i>	12	0	N/A	N/A	3.9	22.0	12.9
<i>Turbidity (NTU)</i>	12	N/A	50	0	3.8	22.0	13.0
<i>Chlorophyll-a (ug/l)</i>	0	0	40	0			
<i>NH3_N (mg/l)</i>	12	0	N/A	N/A	0.05	0.15	0.09
<i>TKN_N (mg/l)</i>	12	0	N/A	N/A	0.42	0.71	0.52
<i>NO2_NO3_N (mg/l)</i>	12	0	N/A	N/A	0.07	0.42	0.24
<i>TP (mg/l)</i>	12	1	N/A	N/A	0.02	0.24	0.07
<i>Cadmium (ug/l)</i>	0	0	2	0			
<i>Chromium (ug/l)</i>	0	0	50	0			
<i>Copper (ug/l)</i>	0	0	7	0			
<i>Nickel (ug/l)</i>	0	0	88	0			
<i>Lead (ug/l)</i>	0	0	25	0			
<i>Zinc (ug/l)</i>	0	0	50	0			
<i>***Aluminum (ug/l)</i>	0	0	87	0			
<i>Iron (ug/l)</i>	0	0	1,000	0			
<i>Manganese (ug/l)</i>	0	0	N/A	N/A			
<i>Arsenic (ug/l)</i>	0	0	10	0			
<i>Mercury (ug/l)</i>	0	0	0.012	N/A			

*Notes: * Results below the laboratory reporting limit (<RL) are included in the calculation as if they were at the reporting level.*

*** The Fecal Coliform average is a geometric mean.*

**** Tidal salt waters classified as swamp waters may have a pH as low as 4.3 if it is the result of natural conditions*

***** The aluminum reference level (Ref) is from the EPA's national recommended water quality criteria.*

2016 LNBA Monitoring Report

Station J3290000

Crabtree Creek @ Capital Blvd. in Raleigh

Stream Class: C NSW

County: Wake

Sub-Basin: 03020201

Latitude: 35.8108

Longitude: -78.6117

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
<i>Temperature (C)</i>	17	N/A	N/A	N/A	4.0	27.7	18.0
<i>DO (mg/l)</i>	17	N/A	4	0	6.6	11.1	8.2
<i>*** pH (SU)</i>	17	N/A	6 to 9	0	6.8	7.4	N/A
<i>Conductivity (umhos/cm)</i>	17	0	N/A	N/A	97	233	151
<i>** Fecal Coliform (/100 mls)</i>	12	N/A	400	7	76	1,700	341
<i>Suspended Residue (mg/l)</i>	12	2	N/A	N/A	2.8	43.0	14.5
<i>Turbidity (NTU)</i>	12	N/A	50	1	2.4	62.0	22.1
<i>Chlorophyll-a (ug/l)</i>	0	0	40	0			
<i>NH3_N (mg/l)</i>	12	0	N/A	N/A	0.03	0.22	0.12
<i>TKN_N (mg/l)</i>	12	0	N/A	N/A	0.37	0.97	0.58
<i>NO2_NO3_N (mg/l)</i>	12	0	N/A	N/A	0.16	0.56	0.34
<i>TP (mg/l)</i>	12	1	N/A	N/A	0.02	0.36	0.11
<i>Cadmium (ug/l)</i>	0	0	2	0			
<i>Chromium (ug/l)</i>	0	0	50	0			
<i>Copper (ug/l)</i>	0	0	7	0			
<i>Nickel (ug/l)</i>	0	0	88	0			
<i>Lead (ug/l)</i>	0	0	25	0			
<i>Zinc (ug/l)</i>	0	0	50	0			
<i>***Aluminum (ug/l)</i>	0	0	87	0			
<i>Iron (ug/l)</i>	0	0	1,000	0			
<i>Manganese (ug/l)</i>	0	0	N/A	N/A			
<i>Arsenic (ug/l)</i>	0	0	10	0			
<i>Mercury (ug/l)</i>	0	0	0.012	N/A			

*Notes: * Results below the laboratory reporting limit (<RL) are included in the calculation as if they were at the reporting level.*

*** The Fecal Coliform average is a geometric mean.*

**** Tidal salt waters classified as swamp waters may have a pH as low as 4.3 if it is the result of natural conditions*

***** The aluminum reference level (Ref) is from the EPA's national recommended water quality criteria.*

2016 LNBA Monitoring Report

Station J3970000

Walnut Creek at SR 2551 (Barwell Road) near Raleigh

Stream Class: C NSW

County: Wake

Sub-Basin: 03020201

Latitude: 35.7493

Longitude: -78.5345

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
<i>Temperature (C)</i>	17	N/A	N/A	N/A	4.6	26.1	17.6
<i>DO (mg/l)</i>	17	N/A	4	0	6.2	10.3	7.8
<i>*** pH (SU)</i>	17	N/A	6 to 9	0	6.7	6.9	N/A
<i>Conductivity (umhos/cm)</i>	17	0	N/A	N/A	108	161	141
<i>** Fecal Coliform (/100 mls)</i>	12	N/A	400	4	48	845	233
<i>Suspended Residue (mg/l)</i>	12	4	N/A	N/A	2.8	21.0	9.0
<i>Turbidity (NTU)</i>	12	N/A	50	0	4.4	34.0	13.4
<i>Chlorophyll-a (ug/l)</i>	0	0	40	0			
<i>NH3_N (mg/l)</i>	12	1	N/A	N/A	0.02	0.17	0.09
<i>TKN_N (mg/l)</i>	12	0	N/A	N/A	0.25	0.49	0.35
<i>NO2_NO3_N (mg/l)</i>	12	0	N/A	N/A	0.24	0.87	0.47
<i>TP (mg/l)</i>	12	2	N/A	N/A	0.02	0.14	0.06
<i>Cadmium (ug/l)</i>	0	0	2	0			
<i>Chromium (ug/l)</i>	0	0	50	0			
<i>Copper (ug/l)</i>	0	0	7	0			
<i>Nickel (ug/l)</i>	0	0	88	0			
<i>Lead (ug/l)</i>	0	0	25	0			
<i>Zinc (ug/l)</i>	0	0	50	0			
<i>***Aluminum (ug/l)</i>	0	0	87	0			
<i>Iron (ug/l)</i>	0	0	1,000	0			
<i>Manganese (ug/l)</i>	0	0	N/A	N/A			
<i>Arsenic (ug/l)</i>	0	0	10	0			
<i>Mercury (ug/l)</i>	0	0	0.012	N/A			

Notes: * Results below the laboratory reporting limit (<RL) are included in the calculation as if they were at the reporting level.

** The Fecal Coliform average is a geometric mean.

*** Tidal salt waters classified as swamp waters may have a pH as low as 4.3 if it is the result of natural conditions

**** The aluminum reference level (Ref) is from the EPA's national recommended water quality criteria.

2016 LNBA Monitoring Report

Station J4050000

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

County: Wake

Sub-Basin: 03020201

Latitude: 35.7266

Longitude: -78.5139

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
<i>Temperature (C)</i>	17	N/A	N/A	N/A	5.2	28.1	18.8
<i>DO (mg/l)</i>	17	N/A	4	0	6.4	10.5	8.1
<i>*** pH (SU)</i>	17	N/A	6 to 9	0	6.8	7.2	N/A
<i>Conductivity (umhos/cm)</i>	17	0	N/A	N/A	104	169	146
<i>** Fecal Coliform (/100 mls)</i>	12	N/A	400	2	28	700	129
<i>Suspended Residue (mg/l)</i>	12	1	N/A	N/A	2.9	34.0	16.4
<i>Turbidity (NTU)</i>	12	N/A	50	0	3.1	45.0	17.9
<i>Chlorophyll-a (ug/l)</i>	0	0	40	0			
<i>NH3_N (mg/l)</i>	12	0	N/A	N/A	0.03	0.22	0.09
<i>TKN_N (mg/l)</i>	12	0	N/A	N/A	0.41	0.76	0.55
<i>NO2_NO3_N (mg/l)</i>	12	0	N/A	N/A	0.10	0.46	0.29
<i>TP (mg/l)</i>	12	1	N/A	N/A	0.02	0.18	0.07
<i>Cadmium (ug/l)</i>	0	0	2	0			
<i>Chromium (ug/l)</i>	0	0	50	0			
<i>Copper (ug/l)</i>	0	0	7	0			
<i>Nickel (ug/l)</i>	0	0	88	0			
<i>Lead (ug/l)</i>	0	0	25	0			
<i>Zinc (ug/l)</i>	0	0	50	0			
<i>***Aluminum (ug/l)</i>	0	0	87	0			
<i>Iron (ug/l)</i>	0	0	1,000	0			
<i>Manganese (ug/l)</i>	0	0	N/A	N/A			
<i>Arsenic (ug/l)</i>	0	0	10	0			
<i>Mercury (ug/l)</i>	0	0	0.012	N/A			

Notes: * Results below the laboratory reporting limit (<RL) are included in the calculation as if they were at the reporting level.

** The Fecal Coliform average is a geometric mean.

*** Tidal salt waters classified as swamp waters may have a pH as low as 4.3 if it is the result of natural conditions

**** The aluminum reference level (Ref) is from the EPA's national recommended water quality criteria.

2016 LNBA Monitoring Report

Station J4080000

Poplar Creek @ SR 2049 (Bethlehem Road) near Knightdale

Stream Class: C NSW

County: Wake

Sub-Basin: 03020201

Latitude: 35.7309

Longitude: -78.4776

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
<i>Temperature (C)</i>	17	N/A	N/A	N/A	4.6	25.5	16.9
<i>DO (mg/l)</i>	17	N/A	4	0	6.6	10.9	8.4
<i>*** pH (SU)</i>	17	N/A	6 to 9	0	6.9	7.3	N/A
<i>Conductivity (umhos/cm)</i>	17	0	N/A	N/A	89	147	107
<i>** Fecal Coliform (/100 mls)</i>	12	N/A	400	4	133	982	332
<i>Suspended Residue (mg/l)</i>	12	2	N/A	N/A	2.9	18.0	7.9
<i>Turbidity (NTU)</i>	12	N/A	50	0	2.2	24.0	9.4
<i>Chlorophyll-a (ug/l)</i>	0	0	40	0			
<i>NH3_N (mg/l)</i>	12	0	N/A	N/A	0.03	0.17	0.08
<i>TKN_N (mg/l)</i>	12	0	N/A	N/A	0.22	0.62	0.36
<i>NO2_NO3_N (mg/l)</i>	12	0	N/A	N/A	1.30	2.92	2.15
<i>TP (mg/l)</i>	12	0	N/A	N/A	0.09	0.51	0.25
<i>Cadmium (ug/l)</i>	0	0	2	0			
<i>Chromium (ug/l)</i>	0	0	50	0			
<i>Copper (ug/l)</i>	0	0	7	0			
<i>Nickel (ug/l)</i>	0	0	88	0			
<i>Lead (ug/l)</i>	0	0	25	0			
<i>Zinc (ug/l)</i>	0	0	50	0			
<i>****Aluminum (ug/l)</i>	0	0	87	0			
<i>Iron (ug/l)</i>	0	0	1,000	0			
<i>Manganese (ug/l)</i>	0	0	N/A	N/A			
<i>Arsenic (ug/l)</i>	0	0	10	0			
<i>Mercury (ug/l)</i>	0	0	0.012	N/A			

Notes: * Results below the laboratory reporting limit (<RL) are included in the calculation as if they were at the reporting level.

** The Fecal Coliform average is a geometric mean.

*** Tidal salt waters classified as swamp waters may have a pH as low as 4.3 if it is the result of natural conditions

**** The aluminum reference level (Ref) is from the EPA's national recommended water quality criteria.

2016 LNBA Monitoring Report

Station J4110000

Marks Creek @ SR 1714 (Pitchard Road) near Archer's Lodge

Stream Class: C NSW

County: Johnston

Sub-Basin: 03020201

Latitude: 35.7062

Longitude: -78.4312

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
<i>Temperature (C)</i>	17	N/A	N/A	N/A	4.9	26.2	17.5
<i>DO (mg/l)</i>	17	N/A	4	0	6.6	10.6	8.0
<i>*** pH (SU)</i>	17	N/A	6 to 9	0	6.9	7.0	N/A
<i>Conductivity (umhos/cm)</i>	17	0	N/A	N/A	81	145	120
<i>** Fecal Coliform (/100 mls)</i>	12	N/A	400	0	52	290	141
<i>Suspended Residue (mg/l)</i>	12	0	N/A	N/A	3.5	21.0	8.3
<i>Turbidity (NTU)</i>	12	N/A	50	0	4.1	29.0	10.2
<i>Chlorophyll-a (ug/l)</i>	0	0	40	0			
<i>NH3_N (mg/l)</i>	12	1	N/A	N/A	0.02	0.10	0.06
<i>TKN_N (mg/l)</i>	12	0	N/A	N/A	0.25	0.60	0.38
<i>NO2_NO3_N (mg/l)</i>	12	0	N/A	N/A	0.11	0.58	0.27
<i>TP (mg/l)</i>	12	1	N/A	N/A	0.02	0.18	0.07
<i>Cadmium (ug/l)</i>	0	0	2	0			
<i>Chromium (ug/l)</i>	0	0	50	0			
<i>Copper (ug/l)</i>	0	0	7	0			
<i>Nickel (ug/l)</i>	0	0	88	0			
<i>Lead (ug/l)</i>	0	0	25	0			
<i>Zinc (ug/l)</i>	0	0	50	0			
<i>****Aluminum (ug/l)</i>	0	0	87	0			
<i>Iron (ug/l)</i>	0	0	1,000	0			
<i>Manganese (ug/l)</i>	0	0	N/A	N/A			
<i>Arsenic (ug/l)</i>	0	0	10	0			
<i>Mercury (ug/l)</i>	0	0	0.012	N/A			

Notes: * Results below the laboratory reporting limit (<RL) are included in the calculation as if they were at the reporting level.

** The Fecal Coliform average is a geometric mean.

*** Tidal salt waters classified as swamp waters may have a pH as low as 4.3 if it is the result of natural conditions

**** The aluminum reference level (Ref) is from the EPA's national recommended water quality criteria.

2016 LNBA Monitoring Report

Station J4130000

Neuse River @ SR 1700 (Covered Bridge Road) near Archer's Lodge

Stream Class: WS-V NSW

County: Johnston

Sub-Basin: 03020201

Latitude: 35.6749

Longitude: -78.4364

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
<i>Temperature (C)</i>	17	N/A	N/A	N/A	5.6	28.2	18.9
<i>DO (mg/l)</i>	17	N/A	4	0	6.4	10.3	8.0
<i>*** pH (SU)</i>	17	N/A	6 to 9	0	6.9	7.2	N/A
<i>Conductivity (umhos/cm)</i>	17	0	N/A	N/A	142	203	169
<i>** Fecal Coliform (/100 mls)</i>	12	N/A	400	2	26	590	136
<i>Suspended Residue (mg/l)</i>	12	0	N/A	N/A	3.8	42.0	18.3
<i>Turbidity (NTU)</i>	12	N/A	50	0	2.8	41.0	17.8
<i>Chlorophyll-a (ug/l)</i>	0	0	40	0			
<i>NH3_N (mg/l)</i>	12	0	N/A	N/A	0.04	0.20	0.10
<i>TKN_N (mg/l)</i>	12	0	N/A	N/A	0.38	0.78	0.61
<i>NO2_NO3_N (mg/l)</i>	12	0	10	0	0.19	1.02	0.52
<i>TP (mg/l)</i>	12	0	N/A	N/A	0.02	0.45	0.18
<i>Cadmium (ug/l)</i>	0	0	2	0			
<i>Chromium (ug/l)</i>	0	0	50	0			
<i>Copper (ug/l)</i>	0	0	7	0			
<i>Nickel (ug/l)</i>	0	0	25	0			
<i>Lead (ug/l)</i>	0	0	25	0			
<i>Zinc (ug/l)</i>	0	0	50	0			
<i>****Aluminum (ug/l)</i>	0	0	87	0			
<i>Iron (ug/l)</i>	0	0	1,000	0			
<i>Manganese (ug/l)</i>	0	0	200	0			
<i>Arsenic (ug/l)</i>	0	0	10	0			
<i>Mercury (ug/l)</i>	0	0	0.012	N/A			

Notes: * Results below the laboratory reporting limit (<RL) are included in the calculation as if they were at the reporting level.

** The Fecal Coliform average is a geometric mean.

*** Tidal salt waters classified as swamp waters may have a pH as low as 4.3 if it is the result of natural conditions

**** The aluminum reference level (Ref) is from the EPA's national recommended water quality criteria.

2016 LNBA Monitoring Report

Station J4170000

Neuse River @ at NC 42E of Clayton

Stream Class: WS-IV NSW

County: Johnston

Sub-Basin: 03020201

Latitude: 35.6473

Longitude: -78.4056

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
<i>Temperature (C)</i>	17	N/A	N/A	N/A	5.9	28.2	19.0
<i>DO (mg/l)</i>	17	N/A	4	0	6.3	10.2	7.9
<i>*** pH (SU)</i>	17	N/A	6 to 9	0	6.9	7.2	N/A
<i>Conductivity (umhos/cm)</i>	17	0	N/A	N/A	158	199	179
<i>** Fecal Coliform (/100 mls)</i>	12	N/A	400	2	35	550	126
<i>Suspended Residue (mg/l)</i>	12	1	N/A	N/A	2.8	43.0	19.0
<i>Turbidity (NTU)</i>	12	N/A	50	0	2.8	44.0	17.4
<i>Chlorophyll-a (ug/l)</i>	0	0	40	0			
<i>NH3_N (mg/l)</i>	12	0	N/A	N/A	0.04	0.15	0.08
<i>TKN_N (mg/l)</i>	12	0	N/A	N/A	0.39	0.74	0.56
<i>NO2_NO3_N (mg/l)</i>	12	0	10	0	0.20	0.86	0.48
<i>TP (mg/l)</i>	12	1	N/A	N/A	0.02	0.45	0.18
<i>Cadmium (ug/l)</i>	0	0	2	0			
<i>Chromium (ug/l)</i>	0	0	50	0			
<i>Copper (ug/l)</i>	0	0	7	0			
<i>Nickel (ug/l)</i>	0	0	25	0			
<i>Lead (ug/l)</i>	0	0	25	0			
<i>Zinc (ug/l)</i>	0	0	50	0			
<i>****Aluminum (ug/l)</i>	0	0	87	0			
<i>Iron (ug/l)</i>	0	0	1,000	0			
<i>Manganese (ug/l)</i>	0	0	200	0			
<i>Arsenic (ug/l)</i>	0	0	10	0			
<i>Mercury (ug/l)</i>	0	0	0.012	N/A			

*Notes: * Results below the laboratory reporting limit (<RL) are included in the calculation as if they were at the reporting level.*

*** The Fecal Coliform average is a geometric mean.*

**** Tidal salt waters classified as swamp waters may have a pH as low as 4.3 if it is the result of natural conditions*

***** The aluminum reference level (Ref) is from the EPA's national recommended water quality criteria.*

2016 LNBA Monitoring Report

Station J4370000

Neuse River at US 70 Business @ Smithfield

Stream Class: WS-IV NSW

County: Johnston

Sub-Basin: 03020201

Latitude: 35.5128

Longitude: -78.3498

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
<i>Temperature (C)</i>	17	N/A	N/A	N/A	7.1	29.3	20.6
<i>DO (mg/l)</i>	17	N/A	4	0	5.7	10.7	8.0
<i>*** pH (SU)</i>	17	N/A	6 to 9	0	6.5	7.4	N/A
<i>Conductivity (umhos/cm)</i>	17	0	N/A	N/A	68	271	142
<i>** Fecal Coliform (/100 mls)</i>	12	N/A	400	2	18	450	139
<i>Suspended Residue (mg/l)</i>	12	0	N/A	N/A	4.3	57.0	24.4
<i>Turbidity (NTU)</i>	12	N/A	50	0	5.0	50.0	21.1
<i>Chlorophyll-a (ug/l)</i>	0	0	40	0			
<i>NH3_N (mg/l)</i>	12	0	N/A	N/A	0.04	0.22	0.11
<i>TKN_N (mg/l)</i>	12	0	N/A	N/A	0.45	0.80	0.59
<i>NO2_NO3_N (mg/l)</i>	12	0	10	0	0.25	0.74	0.48
<i>TP (mg/l)</i>	12	0	N/A	N/A	0.03	0.61	0.22
<i>Cadmium (ug/l)</i>	0	0	2	0			
<i>Chromium (ug/l)</i>	0	0	50	0			
<i>Copper (ug/l)</i>	0	0	7	0			
<i>Nickel (ug/l)</i>	0	0	25	0			
<i>Lead (ug/l)</i>	0	0	25	0			
<i>Zinc (ug/l)</i>	0	0	50	0			
<i>****Aluminum (ug/l)</i>	0	0	87	0			
<i>Iron (ug/l)</i>	0	0	1,000	0			
<i>Manganese (ug/l)</i>	0	0	200	0			
<i>Arsenic (ug/l)</i>	0	0	10	0			
<i>Mercury (ug/l)</i>	0	0	0.012	N/A			

Notes: * Results below the laboratory reporting limit (<RL) are included in the calculation as if they were at the reporting level.

** The Fecal Coliform average is a geometric mean.

*** Tidal salt waters classified as swamp waters may have a pH as low as 4.3 if it is the result of natural conditions

**** The aluminum reference level (Ref) is from the EPA's national recommended water quality criteria.

2016 LNBA Monitoring Report

Station J4414000

Swift Creek @ SR 1152 (Holly Springs Road) near Macedonia

Stream Class: WS-III NSW

County: Wake

Sub-Basin: 03020201

Latitude: 35.7187

Longitude: -78.7527

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
<i>Temperature (C)</i>	17	N/A	N/A	N/A	4.9	26.5	19.1
<i>DO (mg/l)</i>	17	N/A	4	1	2.5	10.2	6.8
<i>*** pH (SU)</i>	17	N/A	6 to 9	0	6.7	7.2	N/A
<i>Conductivity (umhos/cm)</i>	17	0	N/A	N/A	93	169	131
<i>** Fecal Coliform (/100 mls)</i>	12	N/A	400	3	86	6,000	332
<i>Suspended Residue (mg/l)</i>	12	0	N/A	N/A	3.5	28.0	7.7
<i>Turbidity (NTU)</i>	12	N/A	50	0	7.3	31.0	13.5
<i>Chlorophyll-a (ug/l)</i>	0	0	40	0			
<i>NH3_N (mg/l)</i>	12	0	N/A	N/A	0.03	0.31	0.11
<i>TKN_N (mg/l)</i>	12	0	N/A	N/A	0.29	0.77	0.50
<i>NO2_NO3_N (mg/l)</i>	12	1	10	0	0.02	0.32	0.15
<i>TP (mg/l)</i>	12	0	N/A	N/A	0.04	0.10	0.07
<i>Cadmium (ug/l)</i>	0	0	2	0			
<i>Chromium (ug/l)</i>	0	0	50	0			
<i>Copper (ug/l)</i>	0	0	7	0			
<i>Nickel (ug/l)</i>	0	0	25	0			
<i>Lead (ug/l)</i>	0	0	25	0			
<i>Zinc (ug/l)</i>	0	0	50	0			
<i>****Aluminum (ug/l)</i>	0	0	87	0			
<i>Iron (ug/l)</i>	0	0	1,000	0			
<i>Manganese (ug/l)</i>	0	0	200	0			
<i>Arsenic (ug/l)</i>	0	0	10	0			
<i>Mercury (ug/l)</i>	0	0	0.012	N/A			

Notes: * Results below the laboratory reporting limit (<RL) are included in the calculation as if they were at the reporting level.

** The Fecal Coliform average is a geometric mean.

*** Tidal salt waters classified as swamp waters may have a pH as low as 4.3 if it is the result of natural conditions

**** The aluminum reference level (Ref) is from the EPA's national recommended water quality criteria.

2016 LNBA Monitoring Report

Station J4500000

Swift Creek @ Indian Creek former discharge location near
Garner, N.C.

Stream Class: C NSW

County: Wake

Sub-Basin: 03020201

Latitude: 35.6476

Longitude: -78.6041

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
<i>Temperature (C)</i>	17	N/A	N/A	N/A	5.2	27.4	20.0
<i>DO (mg/l)</i>	17	N/A	4	3	2.9	11.2	7.1
<i>*** pH (SU)</i>	17	N/A	6 to 9	0	6.8	7.5	N/A
<i>Conductivity (umhos/cm)</i>	17	0	N/A	N/A	86	154	123
<i>** Fecal Coliform (/100 mls)</i>	12	N/A	400	1	68	5,300	235
<i>Suspended Residue (mg/l)</i>	12	0	N/A	N/A	5.9	57.0	17.4
<i>Turbidity (NTU)</i>	12	N/A	50	1	6.9	60.0	18.2
<i>Chlorophyll-a (ug/l)</i>	0	0	40	0			
<i>NH3_N (mg/l)</i>	12	0	N/A	N/A	0.05	0.42	0.12
<i>TKN_N (mg/l)</i>	12	0	N/A	N/A	0.35	1.19	0.66
<i>NO2_NO3_N (mg/l)</i>	12	0	N/A	N/A	0.33	2.01	0.77
<i>TP (mg/l)</i>	12	0	N/A	N/A	0.06	0.58	0.27
<i>Cadmium (ug/l)</i>	0	0	2	0			
<i>Chromium (ug/l)</i>	0	0	50	0			
<i>Copper (ug/l)</i>	0	0	7	0			
<i>Nickel (ug/l)</i>	0	0	88	0			
<i>Lead (ug/l)</i>	0	0	25	0			
<i>Zinc (ug/l)</i>	0	0	50	0			
<i>****Aluminum (ug/l)</i>	0	0	87	0			
<i>Iron (ug/l)</i>	0	0	1,000	0			
<i>Manganese (ug/l)</i>	0	0	N/A	N/A			
<i>Arsenic (ug/l)</i>	0	0	10	0			
<i>Mercury (ug/l)</i>	0	0	0.012	N/A			

Notes: * Results below the laboratory reporting limit (<RL) are included in the calculation as if they were at the reporting level.

** The Fecal Coliform average is a geometric mean.

*** Tidal salt waters classified as swamp waters may have a pH as low as 4.3 if it is the result of natural conditions

**** The aluminum reference level (Ref) is from the EPA's national recommended water quality criteria.

2016 LNBA Monitoring Report

Station J4510500

Swift Creek at SR 1525, Cornwallis Road near Clayton

Stream Class: C NSW

County: Johnston

Sub-Basin: 03020201

Latitude: 35.5999

Longitude: -78.5356

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
<i>Temperature (C)</i>	17	N/A	N/A	N/A	4.2	27.6	18.9
<i>DO (mg/l)</i>	17	N/A	4	0	5.4	12.0	7.9
<i>*** pH (SU)</i>	17	N/A	6 to 9	0	6.6	7.4	N/A
<i>Conductivity (umhos/cm)</i>	17	0	N/A	N/A	85	132	108
<i>** Fecal Coliform (/100 mls)</i>	12	N/A	400	1	44	500	128
<i>Suspended Residue (mg/l)</i>	12	2	N/A	N/A	2.8	17.0	6.6
<i>Turbidity (NTU)</i>	12	N/A	50	0	6.7	22.0	11.3
<i>Chlorophyll-a (ug/l)</i>	0	0	40	0			
<i>NH3_N (mg/l)</i>	12	0	N/A	N/A	0.04	0.17	0.09
<i>TKN_N (mg/l)</i>	12	2	N/A	N/A	0.20	0.88	0.44
<i>NO2_NO3_N (mg/l)</i>	12	0	N/A	N/A	0.08	0.42	0.28
<i>TP (mg/l)</i>	12	0	N/A	N/A	0.03	2.81	0.33
<i>Cadmium (ug/l)</i>	0	0	2	0			
<i>Chromium (ug/l)</i>	0	0	50	0			
<i>Copper (ug/l)</i>	0	0	7	0			
<i>Nickel (ug/l)</i>	0	0	88	0			
<i>Lead (ug/l)</i>	0	0	25	0			
<i>Zinc (ug/l)</i>	0	0	50	0			
<i>****Aluminum (ug/l)</i>	0	0	87	0			
<i>Iron (ug/l)</i>	0	0	1,000	0			
<i>Manganese (ug/l)</i>	0	0	N/A	N/A			
<i>Arsenic (ug/l)</i>	0	0	10	0			
<i>Mercury (ug/l)</i>	0	0	0.012	N/A			

Notes: * Results below the laboratory reporting limit (<RL) are included in the calculation as if they were at the reporting level.

** The Fecal Coliform average is a geometric mean.

*** Tidal salt waters classified as swamp waters may have a pH as low as 4.3 if it is the result of natural conditions

**** The aluminum reference level (Ref) is from the EPA's national recommended water quality criteria.

2016 LNBA Monitoring Report

Station J4511000

White Oak Creek @ N.C. 42 Hwy near Clayton, N.C.

Stream Class: C NSW

County: Johnston

Sub-Basin: 03020201

Latitude: 35.6176

Longitude: -78.5281

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
<i>Temperature (C)</i>	17	N/A	N/A	N/A	4.6	31.2	19.9
<i>DO (mg/l)</i>	17	N/A	4	2	3.3	10.7	7.2
<i>*** pH (SU)</i>	17	N/A	6 to 9	0	6.8	7.3	N/A
<i>Conductivity (umhos/cm)</i>	17	1	N/A	N/A	50	162	120
<i>** Fecal Coliform (/100 mls)</i>	12	N/A	400	1	5	727	34
<i>Suspended Residue (mg/l)</i>	12	0	N/A	N/A	3.7	39.0	9.6
<i>Turbidity (NTU)</i>	12	N/A	50	0	6.1	29.0	12.3
<i>Chlorophyll-a (ug/l)</i>	0	0	40	0			
<i>NH3_N (mg/l)</i>	12	0	N/A	N/A	0.02	0.20	0.08
<i>TKN_N (mg/l)</i>	12	0	N/A	N/A	0.25	1.11	0.53
<i>NO2_NO3_N (mg/l)</i>	12	1	N/A	N/A	0.02	0.41	0.13
<i>TP (mg/l)</i>	12	0	N/A	N/A	0.03	0.50	0.14
<i>Cadmium (ug/l)</i>	0	0	2	0			
<i>Chromium (ug/l)</i>	0	0	50	0			
<i>Copper (ug/l)</i>	0	0	7	0			
<i>Nickel (ug/l)</i>	0	0	88	0			
<i>Lead (ug/l)</i>	0	0	25	0			
<i>Zinc (ug/l)</i>	0	0	50	0			
<i>****Aluminum (ug/l)</i>	0	0	87	0			
<i>Iron (ug/l)</i>	0	0	1,000	0			
<i>Manganese (ug/l)</i>	0	0	N/A	N/A			
<i>Arsenic (ug/l)</i>	0	0	10	0			
<i>Mercury (ug/l)</i>	0	0	0.012	N/A			

Notes: * Results below the laboratory reporting limit (<RL) are included in the calculation as if they were at the reporting level.

** The Fecal Coliform average is a geometric mean.

*** Tidal salt waters classified as swamp waters may have a pH as low as 4.3 if it is the result of natural conditions

**** The aluminum reference level (Ref) is from the EPA's national recommended water quality criteria.

2016 LNBA Monitoring Report

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

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

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
<i>Temperature (C)</i>	17	N/A	N/A	N/A	4.3	27.5	19.0
<i>DO (mg/l)</i>	17	N/A	4	0	5.9	10.7	7.7
<i>*** pH (SU)</i>	17	N/A	6 to 9	0	6.0	7.2	N/A
<i>Conductivity (umhos/cm)</i>	17	0	N/A	N/A	83	167	118
<i>** Fecal Coliform (/100 mls)</i>	12	N/A	400	1	40	1,400	141
<i>Suspended Residue (mg/l)</i>	12	6	N/A	N/A	2.8	21.0	6.3
<i>Turbidity (NTU)</i>	12	N/A	50	0	4.2	26.0	11.2
<i>Chlorophyll-a (ug/l)</i>	0	0	40	0			
<i>NH3_N (mg/l)</i>	12	1	N/A	N/A	0.02	0.13	0.07
<i>TKN_N (mg/l)</i>	12	1	N/A	N/A	0.20	0.58	0.40
<i>NO2_NO3_N (mg/l)</i>	12	0	N/A	N/A	0.19	0.44	0.31
<i>TP (mg/l)</i>	12	0	N/A	N/A	0.03	0.34	0.08
<i>Cadmium (ug/l)</i>	0	0	2	0			
<i>Chromium (ug/l)</i>	0	0	50	0			
<i>Copper (ug/l)</i>	0	0	7	0			
<i>Nickel (ug/l)</i>	0	0	88	0			
<i>Lead (ug/l)</i>	0	0	25	0			
<i>Zinc (ug/l)</i>	0	0	50	0			
<i>****Aluminum (ug/l)</i>	0	0	87	0			
<i>Iron (ug/l)</i>	0	0	1,000	0			
<i>Manganese (ug/l)</i>	0	0	N/A	N/A			
<i>Arsenic (ug/l)</i>	0	0	10	0			
<i>Mercury (ug/l)</i>	0	0	0.012	N/A			

Notes: * Results below the laboratory reporting limit (<RL) are included in the calculation as if they were at the reporting level.

** The Fecal Coliform average is a geometric mean.

*** Tidal salt waters classified as swamp waters may have a pH as low as 4.3 if it is the result of natural conditions

**** The aluminum reference level (Ref) is from the EPA's national recommended water quality criteria.

2016 LNBA Monitoring Report

Station J4580000

Swift Creek @ SR 1501 (Swift Creek Road) near the Johnston
County Airport

Stream Class: C NSW

County: Johnston

Sub-Basin: 03020201

Latitude: 35.5442

Longitude: -78.397

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
<i>Temperature (C)</i>	17	N/A	N/A	N/A	6.6	27.1	19.3
<i>DO (mg/l)</i>	17	N/A	4	0	5.9	10.7	7.9
<i>*** pH (SU)</i>	17	N/A	6 to 9	0	6.4	7.2	N/A
<i>Conductivity (umhos/cm)</i>	17	0	N/A	N/A	64	129	105
<i>** Fecal Coliform (/100 mls)</i>	12	N/A	400	2	76	2,600	214
<i>Suspended Residue (mg/l)</i>	12	5	N/A	N/A	2.8	52.0	10.8
<i>Turbidity (NTU)</i>	12	N/A	50	1	3.8	55.0	14.9
<i>Chlorophyll-a (ug/l)</i>	0	0	40	0			
<i>NH3_N (mg/l)</i>	12	1	N/A	N/A	0.02	0.13	0.08
<i>TKN_N (mg/l)</i>	12	1	N/A	N/A	0.20	0.81	0.46
<i>NO2_NO3_N (mg/l)</i>	12	0	N/A	N/A	0.21	0.49	0.34
<i>TP (mg/l)</i>	12	1	N/A	N/A	0.02	0.14	0.07
<i>Cadmium (ug/l)</i>	0	0	2	0			
<i>Chromium (ug/l)</i>	0	0	50	0			
<i>Copper (ug/l)</i>	0	0	7	0			
<i>Nickel (ug/l)</i>	0	0	88	0			
<i>Lead (ug/l)</i>	0	0	25	0			
<i>Zinc (ug/l)</i>	0	0	50	0			
<i>***Aluminum (ug/l)</i>	0	0	87	0			
<i>Iron (ug/l)</i>	0	0	1,000	0			
<i>Manganese (ug/l)</i>	0	0	N/A	N/A			
<i>Arsenic (ug/l)</i>	0	0	10	0			
<i>Mercury (ug/l)</i>	0	0	0.012	N/A			

Notes: * Results below the laboratory reporting limit (<RL) are included in the calculation as if they were at the reporting level.

** The Fecal Coliform average is a geometric mean.

*** Tidal salt waters classified as swamp waters may have a pH as low as 4.3 if it is the result of natural conditions

**** The aluminum reference level (Ref) is from the EPA's national recommended water quality criteria.

2016 LNBA Monitoring Report

Station J4690000

Middle Creek @ SR 1152 (Holly Springs Road) near Holly Springs

Stream Class: C NSW

County: Wake

Sub-Basin: 03020201

Latitude: 35.6609

Longitude: -78.8042

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
<i>Temperature (C)</i>	17	N/A	N/A	N/A	5.1	26.4	19.1
<i>DO (mg/l)</i>	17	N/A	4	0	6.1	10.5	7.7
<i>*** pH (SU)</i>	17	N/A	6 to 9	0	6.7	7.3	N/A
<i>Conductivity (umhos/cm)</i>	17	0	N/A	N/A	184	374	237
<i>** Fecal Coliform (/100 mls)</i>	12	N/A	400	7	156	6,000	634
<i>Suspended Residue (mg/l)</i>	12	0	N/A	N/A	2.9	169.0	20.5
<i>Turbidity (NTU)</i>	12	N/A	50	1	5.9	180.0	29.0
<i>Chlorophyll-a (ug/l)</i>	0	0	40	0			
<i>NH3_N (mg/l)</i>	12	0	N/A	N/A	0.02	0.65	0.15
<i>TKN_N (mg/l)</i>	12	0	N/A	N/A	0.49	0.90	0.66
<i>NO2_NO3_N (mg/l)</i>	12	0	N/A	N/A	0.44	1.61	0.93
<i>TP (mg/l)</i>	12	0	N/A	N/A	0.17	0.76	0.32
<i>Cadmium (ug/l)</i>	0	0	2	0			
<i>Chromium (ug/l)</i>	0	0	50	0			
<i>Copper (ug/l)</i>	0	0	7	0			
<i>Nickel (ug/l)</i>	0	0	88	0			
<i>Lead (ug/l)</i>	0	0	25	0			
<i>Zinc (ug/l)</i>	0	0	50	0			
<i>***Aluminum (ug/l)</i>	0	0	87	0			
<i>Iron (ug/l)</i>	0	0	1,000	0			
<i>Manganese (ug/l)</i>	0	0	N/A	N/A			
<i>Arsenic (ug/l)</i>	0	0	10	0			
<i>Mercury (ug/l)</i>	0	0	0.012	N/A			

Notes: * Results below the laboratory reporting limit (<RL) are included in the calculation as if they were at the reporting level.

** The Fecal Coliform average is a geometric mean.

*** Tidal salt waters classified as swamp waters may have a pH as low as 4.3 if it is the result of natural conditions

**** The aluminum reference level (Ref) is from the EPA's national recommended water quality criteria.

2016 LNBA Monitoring Report

Station J4868000

Middle Creek @ SR 1375 (Lake Wheeler Road) near Banks

Stream Class: C NSW

County: Wake

Sub-Basin: 03020201

Latitude: 35.6356

Longitude: -78.7279

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
<i>Temperature (C)</i>	17	N/A	N/A	N/A	5.0	27.6	19.7
<i>DO (mg/l)</i>	17	N/A	4	0	5.1	10.7	7.4
<i>*** pH (SU)</i>	17	N/A	6 to 9	0	6.9	7.2	N/A
<i>Conductivity (umhos/cm)</i>	17	0	N/A	N/A	121	382	184
<i>** Fecal Coliform (/100 mls)</i>	12	N/A	400	2	72	6,100	295
<i>Suspended Residue (mg/l)</i>	12	0	N/A	N/A	4.4	69.0	18.6
<i>Turbidity (NTU)</i>	12	N/A	50	1	4.7	55.0	16.7
<i>Chlorophyll-a (ug/l)</i>	0	0	40	0			
<i>NH3_N (mg/l)</i>	12	0	N/A	N/A	0.04	0.39	0.11
<i>TKN_N (mg/l)</i>	12	0	N/A	N/A	0.39	1.24	0.68
<i>NO2_NO3_N (mg/l)</i>	12	0	N/A	N/A	0.56	1.38	0.75
<i>TP (mg/l)</i>	12	0	N/A	N/A	0.08	0.85	0.26
<i>Cadmium (ug/l)</i>	0	0	2	0			
<i>Chromium (ug/l)</i>	0	0	50	0			
<i>Copper (ug/l)</i>	0	0	7	0			
<i>Nickel (ug/l)</i>	0	0	88	0			
<i>Lead (ug/l)</i>	0	0	25	0			
<i>Zinc (ug/l)</i>	0	0	50	0			
<i>****Aluminum (ug/l)</i>	0	0	87	0			
<i>Iron (ug/l)</i>	0	0	1,000	0			
<i>Manganese (ug/l)</i>	0	0	N/A	N/A			
<i>Arsenic (ug/l)</i>	0	0	10	0			
<i>Mercury (ug/l)</i>	0	0	0.012	N/A			

Notes: * Results below the laboratory reporting limit (<RL) are included in the calculation as if they were at the reporting level.

** The Fecal Coliform average is a geometric mean.

*** Tidal salt waters classified as swamp waters may have a pH as low as 4.3 if it is the result of natural conditions

**** The aluminum reference level (Ref) is from the EPA's national recommended water quality criteria.

2016 LNBA Monitoring Report

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

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

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
<i>Temperature (C)</i>	17	N/A	N/A	N/A	4.7	27.5	19.4
<i>DO (mg/l)</i>	17	N/A	4	0	5.7	10.6	7.7
<i>*** pH (SU)</i>	17	N/A	6 to 9	0	6.7	7.2	N/A
<i>Conductivity (umhos/cm)</i>	17	0	N/A	N/A	77	385	186
<i>** Fecal Coliform (/100 mls)</i>	12	N/A	400	1	42	2,500	201
<i>Suspended Residue (mg/l)</i>	12	0	N/A	N/A	6.3	46.0	15.2
<i>Turbidity (NTU)</i>	12	N/A	50	1	7.4	65.0	18.3
<i>Chlorophyll-a (ug/l)</i>	0	0	40	0			
<i>NH3_N (mg/l)</i>	12	0	N/A	N/A	0.05	0.33	0.13
<i>TKN_N (mg/l)</i>	12	0	N/A	N/A	0.41	1.04	0.66
<i>NO2_NO3_N (mg/l)</i>	12	0	N/A	N/A	0.58	2.59	0.87
<i>TP (mg/l)</i>	12	0	N/A	N/A	0.04	0.35	0.18
<i>Cadmium (ug/l)</i>	0	0	2	0			
<i>Chromium (ug/l)</i>	0	0	50	0			
<i>Copper (ug/l)</i>	0	0	7	0			
<i>Nickel (ug/l)</i>	0	0	88	0			
<i>Lead (ug/l)</i>	0	0	25	0			
<i>Zinc (ug/l)</i>	0	0	50	0			
<i>****Aluminum (ug/l)</i>	0	0	87	0			
<i>Iron (ug/l)</i>	0	0	1,000	0			
<i>Manganese (ug/l)</i>	0	0	N/A	N/A			
<i>Arsenic (ug/l)</i>	0	0	10	0			
<i>Mercury (ug/l)</i>	0	0	0.012	N/A			

*Notes: * Results below the laboratory reporting limit (<RL) are included in the calculation as if they were at the reporting level.*

*** The Fecal Coliform average is a geometric mean.*

**** Tidal salt waters classified as swamp waters may have a pH as low as 4.3 if it is the result of natural conditions*

***** The aluminum reference level (Ref) is from the EPA's national recommended water quality criteria.*

2016 LNBA Monitoring Report

Station J5002000

Middle Creek @ SR 1517 (Old Sanders Hse) near Edmonson

Stream Class: C NSW

County: Johnston

Sub-Basin: 03020201

Latitude: 35.5626

Longitude: -78.5756

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
<i>Temperature (C)</i>	17	N/A	N/A	N/A	4.3	27.6	19.3
<i>DO (mg/l)</i>	17	N/A	4	0	6.2	11.4	7.9
<i>*** pH (SU)</i>	17	N/A	6 to 9	0	6.5	7.4	N/A
<i>Conductivity (umhos/cm)</i>	17	0	N/A	N/A	107	290	142
<i>** Fecal Coliform (/100 mls)</i>	12	N/A	400	0	28	260	102
<i>Suspended Residue (mg/l)</i>	12	0	N/A	N/A	3.6	26.0	10.6
<i>Turbidity (NTU)</i>	12	N/A	50	0	6.0	26.0	13.6
<i>Chlorophyll-a (ug/l)</i>	0	0	40	0			
<i>NH3_N (mg/l)</i>	12	0	N/A	N/A	0.04	0.16	0.08
<i>TKN_N (mg/l)</i>	12	0	N/A	N/A	0.22	0.84	0.48
<i>NO2_NO3_N (mg/l)</i>	12	0	N/A	N/A	0.36	0.78	0.60
<i>TP (mg/l)</i>	12	0	N/A	N/A	0.05	0.60	0.15
<i>Cadmium (ug/l)</i>	0	0	2	0			
<i>Chromium (ug/l)</i>	0	0	50	0			
<i>Copper (ug/l)</i>	0	0	7	0			
<i>Nickel (ug/l)</i>	0	0	88	0			
<i>Lead (ug/l)</i>	0	0	25	0			
<i>Zinc (ug/l)</i>	0	0	50	0			
<i>****Aluminum (ug/l)</i>	0	0	87	0			
<i>Iron (ug/l)</i>	0	0	1,000	0			
<i>Manganese (ug/l)</i>	0	0	N/A	N/A			
<i>Arsenic (ug/l)</i>	0	0	10	0			
<i>Mercury (ug/l)</i>	0	0	0.012	N/A			

Notes: * Results below the laboratory reporting limit (<RL) are included in the calculation as if they were at the reporting level.

** The Fecal Coliform average is a geometric mean.

*** Tidal salt waters classified as swamp waters may have a pH as low as 4.3 if it is the result of natural conditions

**** The aluminum reference level (Ref) is from the EPA's national recommended water quality criteria.

2016 LNBA Monitoring Report

Station J5010000

Middle Creek @ NC 210 near Smithfield

Stream Class: C NSW

County: Johnston

Sub-Basin: 03020201

Latitude: 35.5075

Longitude: -78.4013

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
<i>Temperature (C)</i>	17	N/A	N/A	N/A	6.3	27.1	19.6
<i>DO (mg/l)</i>	17	N/A	4	0	6.2	10.8	7.8
<i>*** pH (SU)</i>	17	N/A	6 to 9	0	6.5	7.2	N/A
<i>Conductivity (umhos/cm)</i>	17	0	N/A	N/A	103	177	135
<i>** Fecal Coliform (/100 mls)</i>	12	N/A	400	0	13	260	73
<i>Suspended Residue (mg/l)</i>	12	3	N/A	N/A	2.8	13.0	7.2
<i>Turbidity (NTU)</i>	12	N/A	50	0	4.8	26.0	13.2
<i>Chlorophyll-a (ug/l)</i>	0	0	40	0			
<i>NH3_N (mg/l)</i>	12	0	N/A	N/A	0.02	0.19	0.07
<i>TKN_N (mg/l)</i>	12	0	N/A	N/A	0.26	1.02	0.57
<i>NO2_NO3_N (mg/l)</i>	12	0	N/A	N/A	0.36	0.83	0.54
<i>TP (mg/l)</i>	12	1	N/A	N/A	0.02	0.32	0.11
<i>Cadmium (ug/l)</i>	0	0	2	0			
<i>Chromium (ug/l)</i>	0	0	50	0			
<i>Copper (ug/l)</i>	0	0	7	0			
<i>Nickel (ug/l)</i>	0	0	88	0			
<i>Lead (ug/l)</i>	0	0	25	0			
<i>Zinc (ug/l)</i>	0	0	50	0			
<i>****Aluminum (ug/l)</i>	0	0	87	0			
<i>Iron (ug/l)</i>	0	0	1,000	0			
<i>Manganese (ug/l)</i>	0	0	N/A	N/A			
<i>Arsenic (ug/l)</i>	0	0	10	0			
<i>Mercury (ug/l)</i>	0	0	0.012	N/A			

Notes: * Results below the laboratory reporting limit (<RL) are included in the calculation as if they were at the reporting level.

** The Fecal Coliform average is a geometric mean.

*** Tidal salt waters classified as swamp waters may have a pH as low as 4.3 if it is the result of natural conditions

**** The aluminum reference level (Ref) is from the EPA's national recommended water quality criteria.

2016 LNBA Monitoring Report

Station J5170000

Black Creek @ SR 1162 (Black Creek Road) near Four Oaks

Stream Class: C NSW

County: Johnston

Sub-Basin: 03020201

Latitude: 35.46925

Longitude: -78.45681

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
<i>Temperature (C)</i>	17	N/A	N/A	N/A	5.9	27.0	19.0
<i>DO (mg/l)</i>	17	N/A	4	1	2.6	9.9	6.8
<i>*** pH (SU)</i>	17	N/A	6 to 9	0	6.4	7.1	N/A
<i>Conductivity (umhos/cm)</i>	17	0	N/A	N/A	65	136	107
<i>** Fecal Coliform (/100 mls)</i>	12	N/A	400	0	12	240	79
<i>Suspended Residue (mg/l)</i>	12	3	N/A	N/A	2.8	6.1	3.8
<i>Turbidity (NTU)</i>	12	N/A	50	0	4.8	13.0	8.8
<i>Chlorophyll-a (ug/l)</i>	0	0	40	0			
<i>NH3_N (mg/l)</i>	12	1	N/A	N/A	0.02	0.25	0.09
<i>TKN_N (mg/l)</i>	12	0	N/A	N/A	0.33	1.08	0.71
<i>NO2_NO3_N (mg/l)</i>	12	0	N/A	N/A	0.03	0.41	0.14
<i>TP (mg/l)</i>	12	0	N/A	N/A	0.03	0.24	0.09
<i>Cadmium (ug/l)</i>	0	0	2	0			
<i>Chromium (ug/l)</i>	0	0	50	0			
<i>Copper (ug/l)</i>	0	0	7	0			
<i>Nickel (ug/l)</i>	0	0	88	0			
<i>Lead (ug/l)</i>	0	0	25	0			
<i>Zinc (ug/l)</i>	0	0	50	0			
<i>****Aluminum (ug/l)</i>	0	0	87	0			
<i>Iron (ug/l)</i>	0	0	1,000	0			
<i>Manganese (ug/l)</i>	0	0	N/A	N/A			
<i>Arsenic (ug/l)</i>	0	0	10	0			
<i>Mercury (ug/l)</i>	0	0	0.012	N/A			

Notes: * Results below the laboratory reporting limit (<RL) are included in the calculation as if they were at the reporting level.

** The Fecal Coliform average is a geometric mean.

*** Tidal salt waters classified as swamp waters may have a pH as low as 4.3 if it is the result of natural conditions

**** The aluminum reference level (Ref) is from the EPA's national recommended water quality criteria.

2016 LNBA Monitoring Report

Station J5250000

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

County: Johnston

Sub-Basin: 03020201

Latitude: 35.3741

Longitude: -78.1962

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
<i>Temperature (C)</i>	17	N/A	N/A	N/A	7.3	29.9	20.8
<i>DO (mg/l)</i>	17	N/A	4	0	5.0	10.2	7.7
<i>*** pH (SU)</i>	17	N/A	6 to 9	0	6.3	7.4	N/A
<i>Conductivity (umhos/cm)</i>	17	0	N/A	N/A	92	237	153
<i>** Fecal Coliform (/100 mls)</i>	12	N/A	400	2	25	618	154
<i>Suspended Residue (mg/l)</i>	12	0	N/A	N/A	6.6	62.0	27.9
<i>Turbidity (NTU)</i>	12	N/A	50	0	6.1	45.0	24.9
<i>Chlorophyll-a (ug/l)</i>	0	0	40	0			
<i>NH3_N (mg/l)</i>	12	0	N/A	N/A	0.03	0.17	0.07
<i>TKN_N (mg/l)</i>	12	0	N/A	N/A	0.45	0.81	0.65
<i>NO2_NO3_N (mg/l)</i>	12	0	10	0	0.18	0.66	0.43
<i>TP (mg/l)</i>	12	0	N/A	N/A	0.04	0.55	0.21
<i>Cadmium (ug/l)</i>	0	0	2	0			
<i>Chromium (ug/l)</i>	0	0	50	0			
<i>Copper (ug/l)</i>	0	0	7	0			
<i>Nickel (ug/l)</i>	0	0	25	0			
<i>Lead (ug/l)</i>	0	0	25	0			
<i>Zinc (ug/l)</i>	0	0	50	0			
<i>****Aluminum (ug/l)</i>	0	0	87	0			
<i>Iron (ug/l)</i>	0	0	1,000	0			
<i>Manganese (ug/l)</i>	0	0	200	0			
<i>Arsenic (ug/l)</i>	0	0	10	0			
<i>Mercury (ug/l)</i>	0	0	0.012	N/A			

Notes: * Results below the laboratory reporting limit (<RL) are included in the calculation as if they were at the reporting level.

** The Fecal Coliform average is a geometric mean.

*** Tidal salt waters classified as swamp waters may have a pH as low as 4.3 if it is the result of natural conditions

**** The aluminum reference level (Ref) is from the EPA's national recommended water quality criteria.

2016 LNBA Monitoring Report

Station J5390000

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

Stream Class: C NSW

County: Johnston

Sub-Basin: 03020201

Latitude: 35.3868

Longitude: -78.511

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
<i>Temperature (C)</i>	17	N/A	N/A	N/A	5.4	26.6	18.7
<i>DO (mg/l)</i>	17	N/A	4	2	3.0	10.4	6.6
<i>*** pH (SU)</i>	17	N/A	6 to 9	1	5.9	7.5	N/A
<i>Conductivity (umhos/cm)</i>	17	0	N/A	N/A	71	167	111
<i>** Fecal Coliform (/100 mls)</i>	12	N/A	400	3	32	664	215
<i>Suspended Residue (mg/l)</i>	12	3	N/A	N/A	2.8	6.1	3.8
<i>Turbidity (NTU)</i>	12	N/A	50	0	2.9	9.6	6.6
<i>Chlorophyll-a (ug/l)</i>	0	0	40	0			
<i>NH3_N (mg/l)</i>	12	0	N/A	N/A	0.04	0.62	0.15
<i>TKN_N (mg/l)</i>	12	0	N/A	N/A	0.24	1.17	0.50
<i>NO2_NO3_N (mg/l)</i>	12	0	N/A	N/A	0.26	3.51	1.25
<i>TP (mg/l)</i>	12	1	N/A	N/A	0.02	0.43	0.08
<i>Cadmium (ug/l)</i>	0	0	2	0			
<i>Chromium (ug/l)</i>	0	0	50	0			
<i>Copper (ug/l)</i>	0	0	7	0			
<i>Nickel (ug/l)</i>	0	0	88	0			
<i>Lead (ug/l)</i>	0	0	25	0			
<i>Zinc (ug/l)</i>	0	0	50	0			
<i>****Aluminum (ug/l)</i>	0	0	87	0			
<i>Iron (ug/l)</i>	0	0	1,000	0			
<i>Manganese (ug/l)</i>	0	0	N/A	N/A			
<i>Arsenic (ug/l)</i>	0	0	10	0			
<i>Mercury (ug/l)</i>	0	0	0.012	N/A			

Notes: * Results below the laboratory reporting limit (<RL) are included in the calculation as if they were at the reporting level.

** The Fecal Coliform average is a geometric mean.

*** Tidal salt waters classified as swamp waters may have a pH as low as 4.3 if it is the result of natural conditions

**** The aluminum reference level (Ref) is from the EPA's national recommended water quality criteria.

2016 LNBA Monitoring Report

Station J5390800

Hannah Creek @ SR 1227 (Ivey Road) near Benson

Stream Class: C NSW

County: Johnston

Sub-Basin: 03020201

Latitude: 35.4025

Longitude: -78.4952

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
<i>Temperature (C)</i>	17	N/A	N/A	N/A	5.2	27.9	18.9
<i>DO (mg/l)</i>	17	N/A	4	5	1.0	8.7	5.6
<i>*** pH (SU)</i>	17	N/A	6 to 9	1	5.9	7.6	N/A
<i>Conductivity (umhos/cm)</i>	17	0	N/A	N/A	85	304	145
<i>** Fecal Coliform (/100 mls)</i>	12	N/A	400	1	7	560	52
<i>Suspended Residue (mg/l)</i>	12	6	N/A	N/A	2.8	5.2	3.5
<i>Turbidity (NTU)</i>	12	N/A	50	0	4.3	12.0	7.8
<i>Chlorophyll-a (ug/l)</i>	0	0	40	0			
<i>NH3_N (mg/l)</i>	12	0	N/A	N/A	0.05	0.42	0.14
<i>TKN_N (mg/l)</i>	12	0	N/A	N/A	0.35	0.93	0.64
<i>NO2_NO3_N (mg/l)</i>	12	0	N/A	N/A	0.02	0.90	0.37
<i>TP (mg/l)</i>	12	0	N/A	N/A	0.03	1.01	0.26
<i>Cadmium (ug/l)</i>	0	0	2	0			
<i>Chromium (ug/l)</i>	0	0	50	0			
<i>Copper (ug/l)</i>	0	0	7	0			
<i>Nickel (ug/l)</i>	0	0	88	0			
<i>Lead (ug/l)</i>	0	0	25	0			
<i>Zinc (ug/l)</i>	0	0	50	0			
<i>****Aluminum (ug/l)</i>	0	0	87	0			
<i>Iron (ug/l)</i>	0	0	1,000	0			
<i>Manganese (ug/l)</i>	0	0	N/A	N/A			
<i>Arsenic (ug/l)</i>	0	0	10	0			
<i>Mercury (ug/l)</i>	0	0	0.012	N/A			

Notes: * Results below the laboratory reporting limit (<RL) are included in the calculation as if they were at the reporting level.

** The Fecal Coliform average is a geometric mean.

*** Tidal salt waters classified as swamp waters may have a pH as low as 4.3 if it is the result of natural conditions

**** The aluminum reference level (Ref) is from the EPA's national recommended water quality criteria.

2016 LNBA Monitoring Report

Station J5410000

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

Stream Class: C NSW

County: Johnston

Sub-Basin: 03020201

Latitude: 35.342

Longitude: -78.2162

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
<i>Temperature (C)</i>	17	N/A	N/A	N/A	5.8	27.5	19.1
<i>DO (mg/l)</i>	17	N/A	4	1	3.6	10.2	6.5
<i>*** pH (SU)</i>	17	N/A	6 to 9	0	6.2	7.3	N/A
<i>Conductivity (umhos/cm)</i>	17	0	N/A	N/A	73	164	109
<i>** Fecal Coliform (/100 mls)</i>	12	N/A	400	0	40	380	137
<i>Suspended Residue (mg/l)</i>	12	4	N/A	N/A	2.5	6.7	4.0
<i>Turbidity (NTU)</i>	12	N/A	50	0	3.8	21.0	9.2
<i>Chlorophyll-a (ug/l)</i>	0	0	40	0			
<i>NH3_N (mg/l)</i>	12	0	N/A	N/A	0.03	0.25	0.09
<i>TKN_N (mg/l)</i>	12	0	N/A	N/A	0.36	0.95	0.64
<i>NO2_NO3_N (mg/l)</i>	12	0	N/A	N/A	0.02	0.75	0.30
<i>TP (mg/l)</i>	12	1	N/A	N/A	0.02	0.16	0.07
<i>Cadmium (ug/l)</i>	0	0	2	0			
<i>Chromium (ug/l)</i>	0	0	50	0			
<i>Copper (ug/l)</i>	0	0	7	0			
<i>Nickel (ug/l)</i>	0	0	88	0			
<i>Lead (ug/l)</i>	0	0	25	0			
<i>Zinc (ug/l)</i>	0	0	50	0			
<i>****Aluminum (ug/l)</i>	0	0	87	0			
<i>Iron (ug/l)</i>	0	0	1,000	0			
<i>Manganese (ug/l)</i>	0	0	N/A	N/A			
<i>Arsenic (ug/l)</i>	0	0	10	0			
<i>Mercury (ug/l)</i>	0	0	0.012	N/A			

Notes: * Results below the laboratory reporting limit (<RL) are included in the calculation as if they were at the reporting level.

** The Fecal Coliform average is a geometric mean.

*** Tidal salt waters classified as swamp waters may have a pH as low as 4.3 if it is the result of natural conditions

**** The aluminum reference level (Ref) is from the EPA's national recommended water quality criteria.

2016 LNBA Monitoring Report

Station J5500000

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

Stream Class: WS-IV NSW

County: Wayne

Sub-Basin: 03020201

Latitude: 35.3224

Longitude: -78.1282

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
<i>Temperature (C)</i>	17	N/A	N/A	N/A	6.0	26.1	19.0
<i>DO (mg/l)</i>	17	N/A	4	2	1.4	9.5	6.3
<i>*** pH (SU)</i>	17	N/A	6 to 9	1	5.8	7.1	N/A
<i>Conductivity (umhos/cm)</i>	17	0	N/A	N/A	92	159	120
<i>** Fecal Coliform (/100 mls)</i>	12	N/A	400	2	54	4,800	209
<i>Suspended Residue (mg/l)</i>	12	6	N/A	N/A	2.8	7.7	3.9
<i>Turbidity (NTU)</i>	12	N/A	50	0	2.0	21.0	6.9
<i>Chlorophyll-a (ug/l)</i>	0	0	40	0			
<i>NH3_N (mg/l)</i>	12	0	N/A	N/A	0.02	0.26	0.09
<i>TKN_N (mg/l)</i>	12	0	N/A	N/A	0.43	1.09	0.76
<i>NO2_NO3_N (mg/l)</i>	12	0	10	0	0.13	1.91	0.70
<i>TP (mg/l)</i>	12	0	N/A	N/A	0.04	0.24	0.11
<i>Cadmium (ug/l)</i>	0	0	2	0			
<i>Chromium (ug/l)</i>	0	0	50	0			
<i>Copper (ug/l)</i>	0	0	7	0			
<i>Nickel (ug/l)</i>	0	0	25	0			
<i>Lead (ug/l)</i>	0	0	25	0			
<i>Zinc (ug/l)</i>	0	0	50	0			
<i>****Aluminum (ug/l)</i>	0	0	87	0			
<i>Iron (ug/l)</i>	0	0	1,000	0			
<i>Manganese (ug/l)</i>	0	0	200	0			
<i>Arsenic (ug/l)</i>	0	0	10	0			
<i>Mercury (ug/l)</i>	0	0	0.012	N/A			

Notes: * Results below the laboratory reporting limit (<RL) are included in the calculation as if they were at the reporting level.

** The Fecal Coliform average is a geometric mean.

*** Tidal salt waters classified as swamp waters may have a pH as low as 4.3 if it is the result of natural conditions

**** The aluminum reference level (Ref) is from the EPA's national recommended water quality criteria.

2016 LNBA Monitoring Report

Station J5620000

Little River @ SR 2333 (Smithfield Road) near Zebulon

Stream Class: WS-II HQW

County: Wake

Sub-Basin: 03020201

Latitude: 35.8577

Longitude: -78.3665

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
<i>Temperature (C)</i>	17	N/A	N/A	N/A	5.2	27.3	18.3
<i>DO (mg/l)</i>	17	N/A	4	11	0.9	6.6	3.7
<i>*** pH (SU)</i>	17	N/A	6 to 9	0	6.4	6.7	N/A
<i>Conductivity (umhos/cm)</i>	17	0	N/A	N/A	58	99	78
<i>** Fecal Coliform (/100 mls)</i>	12	N/A	400	3	12	682	72
<i>Suspended Residue (mg/l)</i>	12	4	N/A	N/A	2.8	19.0	6.7
<i>Turbidity (NTU)</i>	12	N/A	50	0	3.0	36.0	7.9
<i>Chlorophyll-a (ug/l)</i>	0	0	40	0			
<i>NH3_N (mg/l)</i>	12	2	N/A	N/A	0.02	0.12	0.04
<i>TKN_N (mg/l)</i>	12	0	N/A	N/A	0.23	0.88	0.49
<i>NO2_NO3_N (mg/l)</i>	12	6	10	0	0.02	0.28	0.06
<i>TP (mg/l)</i>	12	0	N/A	N/A	0.02	0.19	0.09
<i>Cadmium (ug/l)</i>	0	0	2	0			
<i>Chromium (ug/l)</i>	0	0	50	0			
<i>Copper (ug/l)</i>	0	0	7	0			
<i>Nickel (ug/l)</i>	0	0	25	0			
<i>Lead (ug/l)</i>	0	0	25	0			
<i>Zinc (ug/l)</i>	0	0	50	0			
<i>****Aluminum (ug/l)</i>	0	0	87	0			
<i>Iron (ug/l)</i>	0	0	1,000	0			
<i>Manganese (ug/l)</i>	0	0	200	0			
<i>Arsenic (ug/l)</i>	0	0	10	0			
<i>Mercury (ug/l)</i>	0	0	0.012	N/A			

Notes: * Results below the laboratory reporting limit (<RL) are included in the calculation as if they were at the reporting level.

** The Fecal Coliform average is a geometric mean.

*** Tidal salt waters classified as swamp waters may have a pH as low as 4.3 if it is the result of natural conditions

**** The aluminum reference level (Ref) is from the EPA's national recommended water quality criteria.

2016 LNBA Monitoring Report

Station J5685000

Little River at Weaver Road near Bagley

Stream Class: WS-V NSW

County: Johnston

Sub-Basin: 03020201

Latitude: 35.5791

Longitude: -78.1723

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
<i>Temperature (C)</i>	17	N/A	N/A	N/A	5.5	26.6	17.9
<i>DO (mg/l)</i>	17	N/A	4	0	6.3	10.0	7.7
<i>*** pH (SU)</i>	17	N/A	6 to 9	0	6.7	7.0	N/A
<i>Conductivity (umhos/cm)</i>	17	0	N/A	N/A	88	163	122
<i>** Fecal Coliform (/100 mls)</i>	12	N/A	400	0	28	270	80
<i>Suspended Residue (mg/l)</i>	12	2	N/A	N/A	2.9	16.0	6.7
<i>Turbidity (NTU)</i>	12	N/A	50	0	3.7	25.0	9.4
<i>Chlorophyll-a (ug/l)</i>	0	0	40	0			
<i>NH3_N (mg/l)</i>	12	1	N/A	N/A	0.02	0.13	0.06
<i>TKN_N (mg/l)</i>	12	0	N/A	N/A	0.29	0.63	0.48
<i>NO2_NO3_N (mg/l)</i>	12	0	10	0	0.11	0.43	0.24
<i>TP (mg/l)</i>	12	1	N/A	N/A	0.02	0.24	0.09
<i>Cadmium (ug/l)</i>	0	0	2	0			
<i>Chromium (ug/l)</i>	0	0	50	0			
<i>Copper (ug/l)</i>	0	0	7	0			
<i>Nickel (ug/l)</i>	0	0	25	0			
<i>Lead (ug/l)</i>	0	0	25	0			
<i>Zinc (ug/l)</i>	0	0	50	0			
<i>****Aluminum (ug/l)</i>	0	0	87	0			
<i>Iron (ug/l)</i>	0	0	1,000	0			
<i>Manganese (ug/l)</i>	0	0	200	0			
<i>Arsenic (ug/l)</i>	0	0	10	0			
<i>Mercury (ug/l)</i>	0	0	0.012	N/A			

Notes: * Results below the laboratory reporting limit (<RL) are included in the calculation as if they were at the reporting level.

** The Fecal Coliform average is a geometric mean.

*** Tidal salt waters classified as swamp waters may have a pH as low as 4.3 if it is the result of natural conditions

**** The aluminum reference level (Ref) is from the EPA's national recommended water quality criteria.

2016 LNBA Monitoring Report

Station J5750000

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

Stream Class: WS-V NSW

County: Johnston

Sub-Basin: 03020201

Latitude: 35.5613

Longitude: -78.1594

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
<i>Temperature (C)</i>	17	N/A	N/A	N/A	5.8	26.8	18.1
<i>DO (mg/l)</i>	17	N/A	4	0	6.6	10.6	8.1
<i>*** pH (SU)</i>	17	N/A	6 to 9	0	6.8	7.2	N/A
<i>Conductivity (umhos/cm)</i>	17	0	N/A	N/A	86	138	114
<i>** Fecal Coliform (/100 mls)</i>	12	N/A	400	1	30	420	98
<i>Suspended Residue (mg/l)</i>	12	5	N/A	N/A	2.9	15.0	5.5
<i>Turbidity (NTU)</i>	12	N/A	50	0	3.6	25.0	8.8
<i>Chlorophyll-a (ug/l)</i>	0	0	40	0			
<i>NH3_N (mg/l)</i>	12	0	N/A	N/A	0.03	0.13	0.07
<i>TKN_N (mg/l)</i>	12	0	N/A	N/A	0.37	0.66	0.49
<i>NO2_NO3_N (mg/l)</i>	12	0	10	0	0.19	0.52	0.30
<i>TP (mg/l)</i>	12	1	N/A	N/A	0.02	0.16	0.09
<i>Cadmium (ug/l)</i>	0	0	2	0			
<i>Chromium (ug/l)</i>	0	0	50	0			
<i>Copper (ug/l)</i>	0	0	7	0			
<i>Nickel (ug/l)</i>	0	0	25	0			
<i>Lead (ug/l)</i>	0	0	25	0			
<i>Zinc (ug/l)</i>	0	0	50	0			
<i>****Aluminum (ug/l)</i>	0	0	87	0			
<i>Iron (ug/l)</i>	0	0	1,000	0			
<i>Manganese (ug/l)</i>	0	0	200	0			
<i>Arsenic (ug/l)</i>	0	0	10	0			
<i>Mercury (ug/l)</i>	0	0	0.012	N/A			

Notes: * Results below the laboratory reporting limit (<RL) are included in the calculation as if they were at the reporting level.

** The Fecal Coliform average is a geometric mean.

*** Tidal salt waters classified as swamp waters may have a pH as low as 4.3 if it is the result of natural conditions

**** The aluminum reference level (Ref) is from the EPA's national recommended water quality criteria.

2016 LNBA Monitoring Report

Station J5790000

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

County: Wake

Sub-Basin: 03020201

Latitude: 35.7697

Longitude: -78.7697

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
<i>Temperature (C)</i>	17	N/A	N/A	N/A	5.7	28.4	18.9
<i>DO (mg/l)</i>	17	N/A	4	0	4.9	10.7	7.2
<i>*** pH (SU)</i>	17	N/A	6 to 9	0	6.4	7.4	N/A
<i>Conductivity (umhos/cm)</i>	17	0	N/A	N/A	58	106	82
<i>** Fecal Coliform (/100 mls)</i>	12	N/A	400	4	18	5,600	178
<i>Suspended Residue (mg/l)</i>	12	5	N/A	N/A	2.8	92.0	13.7
<i>Turbidity (NTU)</i>	12	N/A	50	1	4.0	75.0	12.9
<i>Chlorophyll-a (ug/l)</i>	0	0	40	0			
<i>NH3_N (mg/l)</i>	12	0	N/A	N/A	0.03	0.37	0.10
<i>TKN_N (mg/l)</i>	12	0	N/A	N/A	0.28	1.99	0.72
<i>NO2_NO3_N (mg/l)</i>	12	0	N/A	N/A	0.06	1.25	0.23
<i>TP (mg/l)</i>	12	1	N/A	N/A	0.02	0.23	0.10
<i>Cadmium (ug/l)</i>	0	0	2	0			
<i>Chromium (ug/l)</i>	0	0	50	0			
<i>Copper (ug/l)</i>	0	0	7	0			
<i>Nickel (ug/l)</i>	0	0	88	0			
<i>Lead (ug/l)</i>	0	0	25	0			
<i>Zinc (ug/l)</i>	0	0	50	0			
<i>****Aluminum (ug/l)</i>	0	0	87	0			
<i>Iron (ug/l)</i>	0	0	1,000	0			
<i>Manganese (ug/l)</i>	0	0	N/A	N/A			
<i>Arsenic (ug/l)</i>	0	0	10	0			
<i>Mercury (ug/l)</i>	0	0	0.012	N/A			

Notes: * Results below the laboratory reporting limit (<RL) are included in the calculation as if they were at the reporting level.

** The Fecal Coliform average is a geometric mean.

*** Tidal salt waters classified as swamp waters may have a pH as low as 4.3 if it is the result of natural conditions

**** The aluminum reference level (Ref) is from the EPA's national recommended water quality criteria.

2016 LNBA Monitoring Report

Station J5930000

Little River @ US 581 near Cherry Hospital

Stream Class: C NSW

County: Wayne

Sub-Basin: 03020201

Latitude: 35.393

Longitude: -78.0258

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
<i>Temperature (C)</i>	17	N/A	N/A	N/A	7.0	28.3	20.2
<i>DO (mg/l)</i>	17	N/A	4	0	5.5	10.3	7.4
<i>*** pH (SU)</i>	17	N/A	6 to 9	0	6.6	7.3	N/A
<i>Conductivity (umhos/cm)</i>	17	0	N/A	N/A	52	169	126
<i>** Fecal Coliform (/100 mls)</i>	12	N/A	400	2	50	4,400	174
<i>Suspended Residue (mg/l)</i>	12	1	N/A	N/A	2.9	22.0	6.8
<i>Turbidity (NTU)</i>	12	N/A	50	0	4.8	22.0	11.0
<i>Chlorophyll-a (ug/l)</i>	0	0	40	0			
<i>NH3_N (mg/l)</i>	12	1	N/A	N/A	0.02	0.36	0.11
<i>TKN_N (mg/l)</i>	12	0	N/A	N/A	0.36	1.05	0.62
<i>NO2_NO3_N (mg/l)</i>	12	0	N/A	N/A	0.26	0.87	0.52
<i>TP (mg/l)</i>	12	1	N/A	N/A	0.02	0.31	0.11
<i>Cadmium (ug/l)</i>	0	0	2	0			
<i>Chromium (ug/l)</i>	0	0	50	0			
<i>Copper (ug/l)</i>	0	0	7	0			
<i>Nickel (ug/l)</i>	0	0	88	0			
<i>Lead (ug/l)</i>	0	0	25	0			
<i>Zinc (ug/l)</i>	0	0	50	0			
<i>****Aluminum (ug/l)</i>	0	0	87	0			
<i>Iron (ug/l)</i>	0	0	1,000	0			
<i>Manganese (ug/l)</i>	0	0	N/A	N/A			
<i>Arsenic (ug/l)</i>	0	0	10	0			
<i>Mercury (ug/l)</i>	0	0	0.012	N/A			

Notes: * Results below the laboratory reporting limit (<RL) are included in the calculation as if they were at the reporting level.

** The Fecal Coliform average is a geometric mean.

*** Tidal salt waters classified as swamp waters may have a pH as low as 4.3 if it is the result of natural conditions

**** The aluminum reference level (Ref) is from the EPA's national recommended water quality criteria.

2016 LNBA Monitoring Report

Station J6010950

Walnut Creek @ SR 1730 (Saint Johns Church Road) near
Walnut Creek

Stream Class: C NSW

County: Wayne

Sub-Basin: 03020202

Latitude: 35.2817

Longitude: -77.8686

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
<i>Temperature (C)</i>	17	N/A	N/A	N/A	5.5	26.0	18.6
<i>DO (mg/l)</i>	17	N/A	4	0	5.9	10.0	7.3
<i>*** pH (SU)</i>	17	N/A	6 to 9	0	6.7	7.0	N/A
<i>Conductivity (umhos/cm)</i>	17	0	N/A	N/A	88	153	120
<i>** Fecal Coliform (/100 mls)</i>	12	N/A	400	0	13	300	53
<i>Suspended Residue (mg/l)</i>	12	2	N/A	N/A	2.8	9.5	5.3
<i>Turbidity (NTU)</i>	12	N/A	50	0	2.0	9.2	5.1
<i>Chlorophyll-a (ug/l)</i>	0	0	40	0			
<i>NH3_N (mg/l)</i>	12	0	N/A	N/A	0.05	0.20	0.12
<i>TKN_N (mg/l)</i>	12	0	N/A	N/A	0.27	0.86	0.57
<i>NO2_NO3_N (mg/l)</i>	12	0	N/A	N/A	0.19	2.82	1.43
<i>TP (mg/l)</i>	12	0	N/A	N/A	0.02	0.35	0.09
<i>Cadmium (ug/l)</i>	0	0	2	0			
<i>Chromium (ug/l)</i>	0	0	50	0			
<i>Copper (ug/l)</i>	0	0	7	0			
<i>Nickel (ug/l)</i>	0	0	88	0			
<i>Lead (ug/l)</i>	0	0	25	0			
<i>Zinc (ug/l)</i>	0	0	50	0			
<i>****Aluminum (ug/l)</i>	0	0	87	0			
<i>Iron (ug/l)</i>	0	0	1,000	0			
<i>Manganese (ug/l)</i>	0	0	N/A	N/A			
<i>Arsenic (ug/l)</i>	0	0	10	0			
<i>Mercury (ug/l)</i>	0	0	0.012	N/A			

Notes: * Results below the laboratory reporting limit (<RL) are included in the calculation as if they were at the reporting level.

** The Fecal Coliform average is a geometric mean.

*** Tidal salt waters classified as swamp waters may have a pH as low as 4.3 if it is the result of natural conditions

**** The aluminum reference level (Ref) is from the EPA's national recommended water quality criteria.

2016 LNBA Monitoring Report

Station J6024000

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

County: Wayne

Sub-Basin: 03020202

Latitude: 35.229

Longitude: -77.846

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
<i>Temperature (C)</i>	17	N/A	N/A	N/A	6.4	28.9	20.1
<i>DO (mg/l)</i>	17	N/A	4	0	6.4	10.6	7.8
<i>*** pH (SU)</i>	17	N/A	6 to 9	0	6.8	7.3	N/A
<i>Conductivity (umhos/cm)</i>	17	0	N/A	N/A	112	167	133
<i>** Fecal Coliform (/100 mls)</i>	12	N/A	400	1	18	550	79
<i>Suspended Residue (mg/l)</i>	12	0	N/A	N/A	4.7	41.0	17.3
<i>Turbidity (NTU)</i>	12	N/A	50	0	5.8	28.0	17.6
<i>Chlorophyll-a (ug/l)</i>	0	0	40	0			
<i>NH3_N (mg/l)</i>	12	0	N/A	N/A	0.05	0.14	0.08
<i>TKN_N (mg/l)</i>	12	0	N/A	N/A	0.36	0.84	0.60
<i>NO2_NO3_N (mg/l)</i>	12	0	N/A	N/A	0.23	0.78	0.56
<i>TP (mg/l)</i>	12	0	N/A	N/A	0.05	0.22	0.12
<i>Cadmium (ug/l)</i>	0	0	2	0			
<i>Chromium (ug/l)</i>	0	0	50	0			
<i>Copper (ug/l)</i>	0	0	7	0			
<i>Nickel (ug/l)</i>	0	0	88	0			
<i>Lead (ug/l)</i>	0	0	25	0			
<i>Zinc (ug/l)</i>	0	0	50	0			
<i>****Aluminum (ug/l)</i>	0	0	87	0			
<i>Iron (ug/l)</i>	0	0	1,000	0			
<i>Manganese (ug/l)</i>	0	0	N/A	N/A			
<i>Arsenic (ug/l)</i>	0	0	10	0			
<i>Mercury (ug/l)</i>	0	0	0.012	N/A			

Notes: * Results below the laboratory reporting limit (<RL) are included in the calculation as if they were at the reporting level.

** The Fecal Coliform average is a geometric mean.

*** Tidal salt waters classified as swamp waters may have a pH as low as 4.3 if it is the result of natural conditions

**** The aluminum reference level (Ref) is from the EPA's national recommended water quality criteria.

2016 LNBA Monitoring Report

Station J6044400

Bear Creek at SR 1603, Washington Street near LaGrange

Stream Class: C Sw NSW

County: Lenoir

Sub-Basin: 03020202

Latitude: 35.3137

Longitude: -77.8153

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
<i>Temperature (C)</i>	17	N/A	N/A	N/A	5.9	28.1	19.0
<i>DO (mg/l)</i>	17	N/A	4	0	6.3	10.1	7.5
<i>*** pH (SU)</i>	17	N/A	6 to 9	0	6.6	7.3	N/A
<i>Conductivity (umhos/cm)</i>	17	0	N/A	N/A	108	171	138
<i>** Fecal Coliform (/100 mls)</i>	12	N/A	400	3	40	900	155
<i>Suspended Residue (mg/l)</i>	12	0	N/A	N/A	3.1	32.0	10.8
<i>Turbidity (NTU)</i>	12	N/A	50	0	3.7	26.0	11.7
<i>Chlorophyll-a (ug/l)</i>	0	0	40	0			
<i>NH3_N (mg/l)</i>	12	0	N/A	N/A	0.05	0.32	0.15
<i>TKN_N (mg/l)</i>	12	1	N/A	N/A	0.20	1.14	0.71
<i>NO2_NO3_N (mg/l)</i>	12	0	N/A	N/A	0.99	3.72	2.39
<i>TP (mg/l)</i>	12	0	N/A	N/A	0.07	0.40	0.19
<i>Cadmium (ug/l)</i>	0	0	2	0			
<i>Chromium (ug/l)</i>	0	0	50	0			
<i>Copper (ug/l)</i>	0	0	7	0			
<i>Nickel (ug/l)</i>	0	0	88	0			
<i>Lead (ug/l)</i>	0	0	25	0			
<i>Zinc (ug/l)</i>	0	0	50	0			
<i>****Aluminum (ug/l)</i>	0	0	87	0			
<i>Iron (ug/l)</i>	0	0	1,000	0			
<i>Manganese (ug/l)</i>	0	0	N/A	N/A			
<i>Arsenic (ug/l)</i>	0	0	10	0			
<i>Mercury (ug/l)</i>	0	0	0.012	N/A			

Notes: * Results below the laboratory reporting limit (<RL) are included in the calculation as if they were at the reporting level.

** The Fecal Coliform average is a geometric mean.

*** Tidal salt waters classified as swamp waters may have a pH as low as 4.3 if it is the result of natural conditions

**** The aluminum reference level (Ref) is from the EPA's national recommended water quality criteria.

2016 LNBA Monitoring Report

Station J6044500

Bear Creek @ SR 1311 (Bear Creek Road) near Kinston

Stream Class: WS-IV Sw N

County: Lenoir

Sub-Basin: 03020202

Latitude: 35.2489

Longitude: -77.7843

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
<i>Temperature (C)</i>	17	N/A	N/A	N/A	5.0	25.7	18.3
<i>DO (mg/l)</i>	17	N/A	4	0	6.6	11.1	8.1
<i>*** pH (SU)</i>	17	N/A	6 to 9	0	6.9	7.2	N/A
<i>Conductivity (umhos/cm)</i>	17	0	N/A	N/A	92	116	101
<i>** Fecal Coliform (/100 mls)</i>	12	N/A	400	3	40	3,300	198
<i>Suspended Residue (mg/l)</i>	12	0	N/A	N/A	3.4	27.0	9.1
<i>Turbidity (NTU)</i>	12	N/A	50	0	3.9	27.0	10.2
<i>Chlorophyll-a (ug/l)</i>	0	0	40	0			
<i>NH3_N (mg/l)</i>	12	0	N/A	N/A	0.04	0.23	0.13
<i>TKN_N (mg/l)</i>	12	0	N/A	N/A	0.24	1.25	0.67
<i>NO2_NO3_N (mg/l)</i>	12	0	10	0	1.05	3.45	2.18
<i>TP (mg/l)</i>	12	0	N/A	N/A	0.06	0.45	0.18
<i>Cadmium (ug/l)</i>	0	0	2	0			
<i>Chromium (ug/l)</i>	0	0	50	0			
<i>Copper (ug/l)</i>	0	0	7	0			
<i>Nickel (ug/l)</i>	0	0	25	0			
<i>Lead (ug/l)</i>	0	0	25	0			
<i>Zinc (ug/l)</i>	0	0	50	0			
<i>****Aluminum (ug/l)</i>	0	0	87	0			
<i>Iron (ug/l)</i>	0	0	1,000	0			
<i>Manganese (ug/l)</i>	0	0	200	0			
<i>Arsenic (ug/l)</i>	0	0	10	0			
<i>Mercury (ug/l)</i>	0	0	0.012	N/A			

Notes: * Results below the laboratory reporting limit (<RL) are included in the calculation as if they were at the reporting level.

** The Fecal Coliform average is a geometric mean.

*** Tidal salt waters classified as swamp waters may have a pH as low as 4.3 if it is the result of natural conditions

**** The aluminum reference level (Ref) is from the EPA's national recommended water quality criteria.

2016 LNBA Monitoring Report

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

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

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
<i>Temperature (C)</i>	17	N/A	N/A	N/A	5.5	25.8	18.5
<i>DO (mg/l)</i>	17	N/A	4	0	6.5	10.7	7.8
<i>*** pH (SU)</i>	17	N/A	6 to 9	0	6.8	7.4	N/A
<i>Conductivity (umhos/cm)</i>	17	0	N/A	N/A	84	124	111
<i>** Fecal Coliform (/100 mls)</i>	12	N/A	400	6	62	845	315
<i>Suspended Residue (mg/l)</i>	12	2	N/A	N/A	2.8	11.0	4.6
<i>Turbidity (NTU)</i>	12	N/A	50	0	2.6	14.0	5.8
<i>Chlorophyll-a (ug/l)</i>	0	0	40	0			
<i>NH3_N (mg/l)</i>	12	0	N/A	N/A	0.03	0.30	0.13
<i>TKN_N (mg/l)</i>	12	0	N/A	N/A	0.42	0.85	0.64
<i>NO2_NO3_N (mg/l)</i>	12	0	N/A	N/A	1.55	4.42	2.96
<i>TP (mg/l)</i>	12	0	N/A	N/A	0.05	0.48	0.16
<i>Cadmium (ug/l)</i>	0	0	2	0			
<i>Chromium (ug/l)</i>	0	0	50	0			
<i>Copper (ug/l)</i>	0	0	7	0			
<i>Nickel (ug/l)</i>	0	0	88	0			
<i>Lead (ug/l)</i>	0	0	25	0			
<i>Zinc (ug/l)</i>	0	0	50	0			
<i>****Aluminum (ug/l)</i>	0	0	87	0			
<i>Iron (ug/l)</i>	0	0	1,000	0			
<i>Manganese (ug/l)</i>	0	0	N/A	N/A			
<i>Arsenic (ug/l)</i>	0	0	10	0			
<i>Mercury (ug/l)</i>	0	0	0.012	N/A			

Notes: * Results below the laboratory reporting limit (<RL) are included in the calculation as if they were at the reporting level.

** The Fecal Coliform average is a geometric mean.

*** Tidal salt waters classified as swamp waters may have a pH as low as 4.3 if it is the result of natural conditions

**** The aluminum reference level (Ref) is from the EPA's national recommended water quality criteria.

2016 LNBA Monitoring Report

Station J6150000

Neuse River @ NC 11 Bypass at Kinston

Stream Class: C NSW

County: Lenoir

Sub-Basin: 03020202

Latitude: 35.2587

Longitude: -77.5835

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
<i>Temperature (C)</i>	17	N/A	N/A	N/A	6.0	28.7	20.0
<i>DO (mg/l)</i>	17	N/A	4	0	6.3	10.7	7.8
<i>*** pH (SU)</i>	17	N/A	6 to 9	0	6.8	7.2	N/A
<i>Conductivity (umhos/cm)</i>	17	0	N/A	N/A	109	159	136
<i>** Fecal Coliform (/100 mls)</i>	12	N/A	400	2	25	600	87
<i>Suspended Residue (mg/l)</i>	12	0	N/A	N/A	5.5	29.0	16.0
<i>Turbidity (NTU)</i>	12	N/A	50	0	7.5	28.0	17.1
<i>Chlorophyll-a (ug/l)</i>	0	0	40	0			
<i>NH3_N (mg/l)</i>	12	0	N/A	N/A	0.04	0.16	0.08
<i>TKN_N (mg/l)</i>	12	0	N/A	N/A	0.27	0.67	0.53
<i>NO2_NO3_N (mg/l)</i>	12	0	N/A	N/A	0.24	1.01	0.66
<i>TP (mg/l)</i>	12	0	N/A	N/A	0.05	0.16	0.11
<i>Cadmium (ug/l)</i>	0	0	2	0			
<i>Chromium (ug/l)</i>	0	0	50	0			
<i>Copper (ug/l)</i>	0	0	7	0			
<i>Nickel (ug/l)</i>	0	0	88	0			
<i>Lead (ug/l)</i>	0	0	25	0			
<i>Zinc (ug/l)</i>	0	0	50	0			
<i>****Aluminum (ug/l)</i>	0	0	87	0			
<i>Iron (ug/l)</i>	0	0	1,000	0			
<i>Manganese (ug/l)</i>	0	0	N/A	N/A			
<i>Arsenic (ug/l)</i>	0	0	10	0			
<i>Mercury (ug/l)</i>	0	0	0.012	N/A			

Notes: * Results below the laboratory reporting limit (<RL) are included in the calculation as if they were at the reporting level.

** The Fecal Coliform average is a geometric mean.

*** Tidal salt waters classified as swamp waters may have a pH as low as 4.3 if it is the result of natural conditions

**** The aluminum reference level (Ref) is from the EPA's national recommended water quality criteria.

2016 LNBA Monitoring Report

Station J6250000

Neuse River @ NC 55 near Graingers

Stream Class: C NSW

County: Lenoir

Sub-Basin: 03020202

Latitude: 35.2957

Longitude: -77.4962

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
<i>Temperature (C)</i>	17	N/A	N/A	N/A	5.7	28.6	19.9
<i>DO (mg/l)</i>	17	N/A	4	0	6.4	11.3	7.8
<i>*** pH (SU)</i>	17	N/A	6 to 9	0	6.8	7.4	N/A
<i>Conductivity (umhos/cm)</i>	17	0	N/A	N/A	113	163	137
<i>** Fecal Coliform (/100 mls)</i>	12	N/A	400	1	30	570	90
<i>Suspended Residue (mg/l)</i>	12	1	N/A	N/A	2.8	26.0	14.3
<i>Turbidity (NTU)</i>	12	N/A	50	0	7.1	26.0	16.8
<i>Chlorophyll-a (ug/l)</i>	0	0	40	0			
<i>NH3_N (mg/l)</i>	12	0	N/A	N/A	0.03	0.23	0.09
<i>TKN_N (mg/l)</i>	12	0	N/A	N/A	0.39	0.77	0.59
<i>NO2_NO3_N (mg/l)</i>	12	0	N/A	N/A	0.24	0.97	0.61
<i>TP (mg/l)</i>	12	0	N/A	N/A	0.05	0.19	0.12
<i>Cadmium (ug/l)</i>	0	0	2	0			
<i>Chromium (ug/l)</i>	0	0	50	0			
<i>Copper (ug/l)</i>	0	0	7	0			
<i>Nickel (ug/l)</i>	0	0	88	0			
<i>Lead (ug/l)</i>	0	0	25	0			
<i>Zinc (ug/l)</i>	0	0	50	0			
<i>****Aluminum (ug/l)</i>	0	0	87	0			
<i>Iron (ug/l)</i>	0	0	1,000	0			
<i>Manganese (ug/l)</i>	0	0	N/A	N/A			
<i>Arsenic (ug/l)</i>	0	0	10	0			
<i>Mercury (ug/l)</i>	0	0	0.012	N/A			

Notes: * Results below the laboratory reporting limit (<RL) are included in the calculation as if they were at the reporting level.

** The Fecal Coliform average is a geometric mean.

*** Tidal salt waters classified as swamp waters may have a pH as low as 4.3 if it is the result of natural conditions

**** The aluminum reference level (Ref) is from the EPA's national recommended water quality criteria.

2016 LNBA Monitoring Report

Station J6410000

Little Creek @ NC 97 near Zebulon

Stream Class: C NSW

County: Wake

Sub-Basin: 03020203

Latitude: 35.8279

Longitude: -78.3025

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
<i>Temperature (C)</i>	17	N/A	N/A	N/A	5.5	25.9	18.3
<i>DO (mg/l)</i>	17	N/A	4	0	5.1	10.8	7.6
<i>*** pH (SU)</i>	17	N/A	6 to 9	0	6.5	7.3	N/A
<i>Conductivity (umhos/cm)</i>	17	0	N/A	N/A	71	143	115
<i>** Fecal Coliform (/100 mls)</i>	12	N/A	400	4	70	8,700	398
<i>Suspended Residue (mg/l)</i>	12	3	N/A	N/A	2.8	35.0	6.7
<i>Turbidity (NTU)</i>	12	N/A	50	0	1.0	14.0	6.9
<i>Chlorophyll-a (ug/l)</i>	0	0	40	0			
<i>NH3_N (mg/l)</i>	12	0	N/A	N/A	0.03	0.15	0.07
<i>TKN_N (mg/l)</i>	12	0	N/A	N/A	0.26	0.69	0.42
<i>NO2_NO3_N (mg/l)</i>	12	0	N/A	N/A	0.28	0.67	0.42
<i>TP (mg/l)</i>	12	0	N/A	N/A	0.03	0.14	0.07
<i>Cadmium (ug/l)</i>	0	0	2	0			
<i>Chromium (ug/l)</i>	0	0	50	0			
<i>Copper (ug/l)</i>	0	0	7	0			
<i>Nickel (ug/l)</i>	0	0	88	0			
<i>Lead (ug/l)</i>	0	0	25	0			
<i>Zinc (ug/l)</i>	0	0	50	0			
<i>****Aluminum (ug/l)</i>	0	0	87	0			
<i>Iron (ug/l)</i>	0	0	1,000	0			
<i>Manganese (ug/l)</i>	0	0	N/A	N/A			
<i>Arsenic (ug/l)</i>	0	0	10	0			
<i>Mercury (ug/l)</i>	0	0	0.012	N/A			

Notes: * Results below the laboratory reporting limit (<RL) are included in the calculation as if they were at the reporting level.

** The Fecal Coliform average is a geometric mean.

*** Tidal salt waters classified as swamp waters may have a pH as low as 4.3 if it is the result of natural conditions

**** The aluminum reference level (Ref) is from the EPA's national recommended water quality criteria.

2016 LNBA Monitoring Report

Station J6450000

Little Creek @ NC 39 near Zebulon

Stream Class: C NSW

County: Wake

Sub-Basin: 03020203

Latitude: 35.8125

Longitude: -78.2681

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
<i>Temperature (C)</i>	17	N/A	N/A	N/A	6.1	26.2	18.9
<i>DO (mg/l)</i>	17	N/A	4	0	6.1	10.2	7.6
<i>*** pH (SU)</i>	17	N/A	6 to 9	0	6.5	7.1	N/A
<i>Conductivity (umhos/cm)</i>	17	0	N/A	N/A	124	408	200
<i>** Fecal Coliform (/100 mls)</i>	12	N/A	400	4	40	6,000	180
<i>Suspended Residue (mg/l)</i>	12	6	N/A	N/A	2.8	316.0	30.7
<i>Turbidity (NTU)</i>	12	N/A	50	1	2.8	260.0	29.1
<i>Chlorophyll-a (ug/l)</i>	0	0	40	0			
<i>NH3_N (mg/l)</i>	12	0	N/A	N/A	0.04	0.23	0.08
<i>TKN_N (mg/l)</i>	12	0	N/A	N/A	0.30	1.66	0.61
<i>NO2_NO3_N (mg/l)</i>	12	0	N/A	N/A	0.31	1.33	0.63
<i>TP (mg/l)</i>	12	0	N/A	N/A	0.06	0.47	0.22
<i>Cadmium (ug/l)</i>	0	0	2	0			
<i>Chromium (ug/l)</i>	0	0	50	0			
<i>Copper (ug/l)</i>	0	0	7	0			
<i>Nickel (ug/l)</i>	0	0	88	0			
<i>Lead (ug/l)</i>	0	0	25	0			
<i>Zinc (ug/l)</i>	0	0	50	0			
<i>****Aluminum (ug/l)</i>	0	0	87	0			
<i>Iron (ug/l)</i>	0	0	1,000	0			
<i>Manganese (ug/l)</i>	0	0	N/A	N/A			
<i>Arsenic (ug/l)</i>	0	0	10	0			
<i>Mercury (ug/l)</i>	0	0	0.012	N/A			

Notes: * Results below the laboratory reporting limit (<RL) are included in the calculation as if they were at the reporting level.

** The Fecal Coliform average is a geometric mean.

*** Tidal salt waters classified as swamp waters may have a pH as low as 4.3 if it is the result of natural conditions

**** The aluminum reference level (Ref) is from the EPA's national recommended water quality criteria.

2016 LNBA Monitoring Report

Station J6500000

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

County: Wilson

Sub-Basin: 03020203

Latitude: 35.7301

Longitude: -78.1895

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
<i>Temperature (C)</i>	17	N/A	N/A	N/A	5.8	26.2	18.8
<i>DO (mg/l)</i>	17	N/A	4	0	5.5	10.2	7.4
<i>*** pH (SU)</i>	17	N/A	6 to 9	0	6.5	7.2	N/A
<i>Conductivity (umhos/cm)</i>	17	0	N/A	N/A	56	145	109
<i>** Fecal Coliform (/100 mls)</i>	12	N/A	400	2	54	609	169
<i>Suspended Residue (mg/l)</i>	12	3	N/A	N/A	2.8	16.0	5.3
<i>Turbidity (NTU)</i>	12	N/A	50	0	4.7	26.0	9.5
<i>Chlorophyll-a (ug/l)</i>	0	0	40	0			
<i>NH3_N (mg/l)</i>	12	0	N/A	N/A	0.02	0.18	0.08
<i>TKN_N (mg/l)</i>	12	0	N/A	N/A	0.36	0.84	0.52
<i>NO2_NO3_N (mg/l)</i>	12	0	N/A	N/A	0.07	0.25	0.16
<i>TP (mg/l)</i>	12	0	N/A	N/A	0.03	0.14	0.08
<i>Cadmium (ug/l)</i>	0	0	2	0			
<i>Chromium (ug/l)</i>	0	0	50	0			
<i>Copper (ug/l)</i>	0	0	7	0			
<i>Nickel (ug/l)</i>	0	0	88	0			
<i>Lead (ug/l)</i>	0	0	25	0			
<i>Zinc (ug/l)</i>	0	0	50	0			
<i>****Aluminum (ug/l)</i>	0	0	87	0			
<i>Iron (ug/l)</i>	0	0	1,000	0			
<i>Manganese (ug/l)</i>	0	0	N/A	N/A			
<i>Arsenic (ug/l)</i>	0	0	10	0			
<i>Mercury (ug/l)</i>	0	0	0.012	N/A			

Notes: * Results below the laboratory reporting limit (<RL) are included in the calculation as if they were at the reporting level.

** The Fecal Coliform average is a geometric mean.

*** Tidal salt waters classified as swamp waters may have a pH as low as 4.3 if it is the result of natural conditions

**** The aluminum reference level (Ref) is from the EPA's national recommended water quality criteria.

2016 LNBA Monitoring Report

Station J6680000

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

County: Nash

Sub-Basin: 03020203

Latitude: 35.7519

Longitude: -78.1597

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
<i>Temperature (C)</i>	17	N/A	N/A	N/A	5.3	27.4	18.9
<i>DO (mg/l)</i>	17	N/A	4	4	1.5	9.6	6.1
<i>*** pH (SU)</i>	17	N/A	6 to 9	0	6.3	7.1	N/A
<i>Conductivity (umhos/cm)</i>	17	0	N/A	N/A	56	157	111
<i>** Fecal Coliform (/100 mls)</i>	12	N/A	400	1	32	1,800	134
<i>Suspended Residue (mg/l)</i>	12	2	N/A	N/A	2.9	17.0	6.0
<i>Turbidity (NTU)</i>	12	N/A	50	1	5.7	55.0	13.7
<i>Chlorophyll-a (ug/l)</i>	0	0	40	0			
<i>NH3_N (mg/l)</i>	12	0	N/A	N/A	0.03	0.22	0.09
<i>TKN_N (mg/l)</i>	12	0	N/A	N/A	0.36	1.01	0.66
<i>NO2_NO3_N (mg/l)</i>	12	0	N/A	N/A	0.02	0.32	0.10
<i>TP (mg/l)</i>	12	1	N/A	N/A	0.02	0.15	0.08
<i>Cadmium (ug/l)</i>	0	0	2	0			
<i>Chromium (ug/l)</i>	0	0	50	0			
<i>Copper (ug/l)</i>	0	0	7	0			
<i>Nickel (ug/l)</i>	0	0	88	0			
<i>Lead (ug/l)</i>	0	0	25	0			
<i>Zinc (ug/l)</i>	0	0	50	0			
<i>***Aluminum (ug/l)</i>	0	0	87	0			
<i>Iron (ug/l)</i>	0	0	1,000	0			
<i>Manganese (ug/l)</i>	0	0	N/A	N/A			
<i>Arsenic (ug/l)</i>	0	0	10	0			
<i>Mercury (ug/l)</i>	0	0	0.012	N/A			

Notes: * Results below the laboratory reporting limit (<RL) are included in the calculation as if they were at the reporting level.

** The Fecal Coliform average is a geometric mean.

*** Tidal salt waters classified as swamp waters may have a pH as low as 4.3 if it is the result of natural conditions

**** The aluminum reference level (Ref) is from the EPA's national recommended water quality criteria.

2016 LNBA Monitoring Report

Station J6765000

Contentnea Creek at Willow Springs drive near Dixie

Stream Class: C Sw NSW

County: Wilson

Sub-Basin: 03020203

Latitude: 35.6838

Longitude: -77.941

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
<i>Temperature (C)</i>	17	N/A	N/A	N/A	6.5	28.7	20.3
<i>DO (mg/l)</i>	17	N/A	4	1	3.2	10.5	7.6
<i>*** pH (SU)</i>	17	N/A	6 to 9	0	6.4	7.3	N/A
<i>Conductivity (umhos/cm)</i>	17	0	N/A	N/A	58	153	113
<i>** Fecal Coliform (/100 mls)</i>	12	N/A	400	2	38	9,000	200
<i>Suspended Residue (mg/l)</i>	12	1	N/A	N/A	2.9	24.0	7.9
<i>Turbidity (NTU)</i>	12	N/A	50	1	5.5	55.0	16.2
<i>Chlorophyll-a (ug/l)</i>	0	0	40	0			
<i>NH3_N (mg/l)</i>	12	0	N/A	N/A	0.05	0.17	0.10
<i>TKN_N (mg/l)</i>	12	0	N/A	N/A	0.50	0.96	0.69
<i>NO2_NO3_N (mg/l)</i>	12	0	N/A	N/A	0.06	0.50	0.30
<i>TP (mg/l)</i>	12	0	N/A	N/A	0.03	0.13	0.09
<i>Cadmium (ug/l)</i>	0	0	2	0			
<i>Chromium (ug/l)</i>	0	0	50	0			
<i>Copper (ug/l)</i>	0	0	7	0			
<i>Nickel (ug/l)</i>	0	0	88	0			
<i>Lead (ug/l)</i>	0	0	25	0			
<i>Zinc (ug/l)</i>	0	0	50	0			
<i>****Aluminum (ug/l)</i>	0	0	87	0			
<i>Iron (ug/l)</i>	0	0	1,000	0			
<i>Manganese (ug/l)</i>	0	0	N/A	N/A			
<i>Arsenic (ug/l)</i>	0	0	10	0			
<i>Mercury (ug/l)</i>	0	0	0.012	N/A			

*Notes: * Results below the laboratory reporting limit (<RL) are included in the calculation as if they were at the reporting level.*

*** The Fecal Coliform average is a geometric mean.*

**** Tidal salt waters classified as swamp waters may have a pH as low as 4.3 if it is the result of natural conditions*

***** The aluminum reference level (Ref) is from the EPA's national recommended water quality criteria.*

2016 LNBA Monitoring Report

Station J6890000

Contentnea Creek @ SR 1622 (Evansdale Road) near Wilson

Stream Class: C Sw NSW

County: Wilson

Sub-Basin: 03020203

Latitude: 35.6429

Longitude: -77.8902

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
<i>Temperature (C)</i>	17	N/A	N/A	N/A	7.0	28.1	20.2
<i>DO (mg/l)</i>	17	N/A	4	0	4.1	9.9	7.2
<i>*** pH (SU)</i>	17	N/A	6 to 9	0	6.2	7.3	N/A
<i>Conductivity (umhos/cm)</i>	17	0	N/A	N/A	68	184	145
<i>** Fecal Coliform (/100 mls)</i>	12	N/A	400	2	35	6,000	165
<i>Suspended Residue (mg/l)</i>	12	1	N/A	N/A	2.8	36.0	10.2
<i>Turbidity (NTU)</i>	12	N/A	50	0	4.7	37.0	14.2
<i>Chlorophyll-a (ug/l)</i>	0	0	40	0			
<i>NH3_N (mg/l)</i>	12	0	N/A	N/A	0.05	0.24	0.14
<i>TKN_N (mg/l)</i>	12	0	N/A	N/A	0.43	1.05	0.69
<i>NO2_NO3_N (mg/l)</i>	12	0	N/A	N/A	0.13	0.97	0.55
<i>TP (mg/l)</i>	12	0	N/A	N/A	0.03	0.21	0.11
<i>Cadmium (ug/l)</i>	0	0	2	0			
<i>Chromium (ug/l)</i>	0	0	50	0			
<i>Copper (ug/l)</i>	0	0	7	0			
<i>Nickel (ug/l)</i>	0	0	88	0			
<i>Lead (ug/l)</i>	0	0	25	0			
<i>Zinc (ug/l)</i>	0	0	50	0			
<i>****Aluminum (ug/l)</i>	0	0	87	0			
<i>Iron (ug/l)</i>	0	0	1,000	0			
<i>Manganese (ug/l)</i>	0	0	N/A	N/A			
<i>Arsenic (ug/l)</i>	0	0	10	0			
<i>Mercury (ug/l)</i>	0	0	0.012	N/A			

Notes: * Results below the laboratory reporting limit (<RL) are included in the calculation as if they were at the reporting level.

** The Fecal Coliform average is a geometric mean.

*** Tidal salt waters classified as swamp waters may have a pH as low as 4.3 if it is the result of natural conditions

**** The aluminum reference level (Ref) is from the EPA's national recommended water quality criteria.

2016 LNBA Monitoring Report

Station J7210000

Contentnea Creek @ NC 58 near Stantonburg

Stream Class: C Sw NSW

County: Wilson

Sub-Basin: 03020203

Latitude: 35.5861

Longitude: -77.8111

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
<i>Temperature (C)</i>	17	N/A	N/A	N/A	7.1	27.6	20.1
<i>DO (mg/l)</i>	17	N/A	4	0	5.0	10.6	7.2
<i>*** pH (SU)</i>	17	N/A	6 to 9	1	5.4	7.3	N/A
<i>Conductivity (umhos/cm)</i>	17	0	N/A	N/A	59	173	130
<i>** Fecal Coliform (/100 mls)</i>	12	N/A	400	3	40	2,100	152
<i>Suspended Residue (mg/l)</i>	12	3	N/A	N/A	2.8	15.0	5.5
<i>Turbidity (NTU)</i>	12	N/A	50	0	5.6	25.0	10.1
<i>Chlorophyll-a (ug/l)</i>	0	0	40	0			
<i>NH3_N (mg/l)</i>	12	0	N/A	N/A	0.06	0.16	0.11
<i>TKN_N (mg/l)</i>	12	0	N/A	N/A	0.40	0.82	0.65
<i>NO2_NO3_N (mg/l)</i>	12	0	N/A	N/A	0.13	0.75	0.47
<i>TP (mg/l)</i>	12	0	N/A	N/A	0.05	0.18	0.11
<i>Cadmium (ug/l)</i>	0	0	2	0			
<i>Chromium (ug/l)</i>	0	0	50	0			
<i>Copper (ug/l)</i>	0	0	7	0			
<i>Nickel (ug/l)</i>	0	0	88	0			
<i>Lead (ug/l)</i>	0	0	25	0			
<i>Zinc (ug/l)</i>	0	0	50	0			
<i>***Aluminum (ug/l)</i>	0	0	87	0			
<i>Iron (ug/l)</i>	0	0	1,000	0			
<i>Manganese (ug/l)</i>	0	0	N/A	N/A			
<i>Arsenic (ug/l)</i>	0	0	10	0			
<i>Mercury (ug/l)</i>	0	0	0.012	N/A			

Notes: * Results below the laboratory reporting limit (<RL) are included in the calculation as if they were at the reporting level.

** The Fecal Coliform average is a geometric mean.

*** Tidal salt waters classified as swamp waters may have a pH as low as 4.3 if it is the result of natural conditions

**** The aluminum reference level (Ref) is from the EPA's national recommended water quality criteria.

2016 LNBA Monitoring Report

Station J7240000

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

Stream Class: C Sw NSW

County: Wilson

Sub-Basin: 03020203

Latitude: 35.5976

Longitude: -77.7947

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
<i>Temperature (C)</i>	17	N/A	N/A	N/A	6.4	26.2	18.8
<i>DO (mg/l)</i>	17	N/A	4	0	4.3	10.3	7.1
<i>*** pH (SU)</i>	17	N/A	6 to 9	0	6.0	7.2	N/A
<i>Conductivity (umhos/cm)</i>	17	0	N/A	N/A	74	133	104
<i>** Fecal Coliform (/100 mls)</i>	12	N/A	400	3	35	6,000	168
<i>Suspended Residue (mg/l)</i>	12	3	N/A	N/A	2.9	57.0	12.5
<i>Turbidity (NTU)</i>	12	N/A	50	1	4.7	60.0	17.4
<i>Chlorophyll-a (ug/l)</i>	0	0	40	0			
<i>NH3_N (mg/l)</i>	12	0	N/A	N/A	0.06	0.15	0.10
<i>TKN_N (mg/l)</i>	12	0	N/A	N/A	0.31	1.19	0.75
<i>NO2_NO3_N (mg/l)</i>	12	0	N/A	N/A	0.09	0.77	0.28
<i>TP (mg/l)</i>	12	0	N/A	N/A	0.05	0.21	0.13
<i>Cadmium (ug/l)</i>	0	0	2	0			
<i>Chromium (ug/l)</i>	0	0	50	0			
<i>Copper (ug/l)</i>	0	0	7	0			
<i>Nickel (ug/l)</i>	0	0	88	0			
<i>Lead (ug/l)</i>	0	0	25	0			
<i>Zinc (ug/l)</i>	0	0	50	0			
<i>***Aluminum (ug/l)</i>	0	0	87	0			
<i>Iron (ug/l)</i>	0	0	1,000	0			
<i>Manganese (ug/l)</i>	0	0	N/A	N/A			
<i>Arsenic (ug/l)</i>	0	0	10	0			
<i>Mercury (ug/l)</i>	0	0	0.012	N/A			

Notes: * Results below the laboratory reporting limit (<RL) are included in the calculation as if they were at the reporting level.

** The Fecal Coliform average is a geometric mean.

*** Tidal salt waters classified as swamp waters may have a pH as low as 4.3 if it is the result of natural conditions

**** The aluminum reference level (Ref) is from the EPA's national recommended water quality criteria.

2016 LNBA Monitoring Report

Station J7325000

Nahunta Swamp @ NC 58 near Contentnea

Stream Class: C Sw NSW

County: Greene

Sub-Basin: 03020203

Latitude: 35.5081

Longitude: -77.7455

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
<i>Temperature (C)</i>	17	N/A	N/A	N/A	7.0	26.8	19.0
<i>DO (mg/l)</i>	17	N/A	4	0	6.4	10.8	7.9
<i>*** pH (SU)</i>	17	N/A	6 to 9	1	5.9	7.4	N/A
<i>Conductivity (umhos/cm)</i>	17	0	N/A	N/A	58	129	107
<i>** Fecal Coliform (/100 mls)</i>	12	N/A	400	3	38	6,000	208
<i>Suspended Residue (mg/l)</i>	12	1	N/A	N/A	2.7	23.0	9.0
<i>Turbidity (NTU)</i>	12	N/A	50	0	3.6	40.0	13.4
<i>Chlorophyll-a (ug/l)</i>	0	0	40	0			
<i>NH3_N (mg/l)</i>	12	0	N/A	N/A	0.06	0.18	0.12
<i>TKN_N (mg/l)</i>	12	0	N/A	N/A	0.44	0.86	0.67
<i>NO2_NO3_N (mg/l)</i>	12	0	N/A	N/A	0.20	1.76	0.75
<i>TP (mg/l)</i>	12	0	N/A	N/A	0.05	0.31	0.12
<i>Cadmium (ug/l)</i>	0	0	2	0			
<i>Chromium (ug/l)</i>	0	0	50	0			
<i>Copper (ug/l)</i>	0	0	7	0			
<i>Nickel (ug/l)</i>	0	0	88	0			
<i>Lead (ug/l)</i>	0	0	25	0			
<i>Zinc (ug/l)</i>	0	0	50	0			
<i>***Aluminum (ug/l)</i>	0	0	87	0			
<i>Iron (ug/l)</i>	0	0	1,000	0			
<i>Manganese (ug/l)</i>	0	0	N/A	N/A			
<i>Arsenic (ug/l)</i>	0	0	10	0			
<i>Mercury (ug/l)</i>	0	0	0.012	N/A			

*Notes: * Results below the laboratory reporting limit (<RL) are included in the calculation as if they were at the reporting level.*

*** The Fecal Coliform average is a geometric mean.*

**** Tidal salt waters classified as swamp waters may have a pH as low as 4.3 if it is the result of natural conditions*

***** The aluminum reference level (Ref) is from the EPA's national recommended water quality criteria.*

2016 LNBA Monitoring Report

Station J7330000

Contentnea Creek @ US 13 near Snow Hill

Stream Class: C Sw NSW

County: Greene

Sub-Basin: 03020203

Latitude: 35.4585

Longitude: -77.6753

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
<i>Temperature (C)</i>	17	N/A	N/A	N/A	7.1	27.6	19.8
<i>DO (mg/l)</i>	17	N/A	4	0	5.1	10.0	7.3
<i>*** pH (SU)</i>	17	N/A	6 to 9	1	5.9	7.1	N/A
<i>Conductivity (umhos/cm)</i>	17	0	N/A	N/A	70	169	118
<i>** Fecal Coliform (/100 mls)</i>	12	N/A	400	4	20	873	141
<i>Suspended Residue (mg/l)</i>	12	3	N/A	N/A	2.6	13.0	6.8
<i>Turbidity (NTU)</i>	12	N/A	50	0	5.3	25.0	11.2
<i>Chlorophyll-a (ug/l)</i>	0	0	40	0			
<i>NH3_N (mg/l)</i>	12	0	N/A	N/A	0.06	0.75	0.16
<i>TKN_N (mg/l)</i>	12	0	N/A	N/A	0.40	1.11	0.71
<i>NO2_NO3_N (mg/l)</i>	12	0	N/A	N/A	0.26	1.28	0.82
<i>TP (mg/l)</i>	12	0	N/A	N/A	0.05	0.18	0.11
<i>Cadmium (ug/l)</i>	0	0	2	0			
<i>Chromium (ug/l)</i>	0	0	50	0			
<i>Copper (ug/l)</i>	0	0	7	0			
<i>Nickel (ug/l)</i>	0	0	88	0			
<i>Lead (ug/l)</i>	0	0	25	0			
<i>Zinc (ug/l)</i>	0	0	50	0			
<i>****Aluminum (ug/l)</i>	0	0	87	0			
<i>Iron (ug/l)</i>	0	0	1,000	0			
<i>Manganese (ug/l)</i>	0	0	N/A	N/A			
<i>Arsenic (ug/l)</i>	0	0	10	0			
<i>Mercury (ug/l)</i>	0	0	0.012	N/A			

Notes: * Results below the laboratory reporting limit (<RL) are included in the calculation as if they were at the reporting level.

** The Fecal Coliform average is a geometric mean.

*** Tidal salt waters classified as swamp waters may have a pH as low as 4.3 if it is the result of natural conditions

**** The aluminum reference level (Ref) is from the EPA's national recommended water quality criteria.

2016 LNBA Monitoring Report

Station J7690000

Little Contentnea Creek @ SR 1218 (Chinquapin Road) near Farmville

Stream Class: C Sw NSW

County: Pitt

Sub-Basin: 03020203

Latitude: 35.5881

Longitude: -77.5416

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
<i>Temperature (C)</i>	17	N/A	N/A	N/A	6.7	27.4	19.0
<i>DO (mg/l)</i>	17	N/A	4	2	2.6	9.6	6.5
<i>*** pH (SU)</i>	17	N/A	6 to 9	0	6.0	7.1	N/A
<i>Conductivity (umhos/cm)</i>	17	0	N/A	N/A	74	146	115
<i>** Fecal Coliform (/100 mls)</i>	12	N/A	400	5	40	4,800	246
<i>Suspended Residue (mg/l)</i>	12	0	N/A	N/A	2.9	29.0	9.1
<i>Turbidity (NTU)</i>	12	N/A	50	0	4.9	38.0	13.8
<i>Chlorophyll-a (ug/l)</i>	0	0	40	0			
<i>NH3_N (mg/l)</i>	12	0	N/A	N/A	0.10	0.88	0.29
<i>TKN_N (mg/l)</i>	12	0	N/A	N/A	0.65	1.88	1.08
<i>NO2_NO3_N (mg/l)</i>	12	0	N/A	N/A	0.08	0.77	0.36
<i>TP (mg/l)</i>	12	0	N/A	N/A	0.09	0.43	0.25
<i>Cadmium (ug/l)</i>	0	0	2	0			
<i>Chromium (ug/l)</i>	0	0	50	0			
<i>Copper (ug/l)</i>	0	0	7	0			
<i>Nickel (ug/l)</i>	0	0	88	0			
<i>Lead (ug/l)</i>	0	0	25	0			
<i>Zinc (ug/l)</i>	0	0	50	0			
<i>****Aluminum (ug/l)</i>	0	0	87	0			
<i>Iron (ug/l)</i>	0	0	1,000	0			
<i>Manganese (ug/l)</i>	0	0	N/A	N/A			
<i>Arsenic (ug/l)</i>	0	0	10	0			
<i>Mercury (ug/l)</i>	0	0	0.012	N/A			

Notes: * Results below the laboratory reporting limit (<RL) are included in the calculation as if they were at the reporting level.

** The Fecal Coliform average is a geometric mean.

*** Tidal salt waters classified as swamp waters may have a pH as low as 4.3 if it is the result of natural conditions

**** The aluminum reference level (Ref) is from the EPA's national recommended water quality criteria.

2016 LNBA Monitoring Report

Station J7740000

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

County: Pitt

Sub-Basin: 03020203

Latitude: 35.4567

Longitude: -77.4854

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
<i>Temperature (C)</i>	17	N/A	N/A	N/A	7.2	27.8	19.6
<i>DO (mg/l)</i>	17	N/A	4	0	4.4	9.8	6.9
<i>*** pH (SU)</i>	17	N/A	6 to 9	0	6.0	6.9	N/A
<i>Conductivity (umhos/cm)</i>	17	0	N/A	N/A	87	172	135
<i>** Fecal Coliform (/100 mls)</i>	12	N/A	400	3	46	982	192
<i>Suspended Residue (mg/l)</i>	12	4	N/A	N/A	2.8	62.0	10.6
<i>Turbidity (NTU)</i>	12	N/A	50	1	5.3	75.0	17.6
<i>Chlorophyll-a (ug/l)</i>	0	0	40	0			
<i>NH3_N (mg/l)</i>	12	0	N/A	N/A	0.05	0.30	0.13
<i>TKN_N (mg/l)</i>	12	0	N/A	N/A	0.59	1.24	0.77
<i>NO2_NO3_N (mg/l)</i>	12	0	N/A	N/A	0.23	0.98	0.57
<i>TP (mg/l)</i>	12	0	N/A	N/A	0.09	0.37	0.25
<i>Cadmium (ug/l)</i>	0	0	2	0			
<i>Chromium (ug/l)</i>	0	0	50	0			
<i>Copper (ug/l)</i>	0	0	7	0			
<i>Nickel (ug/l)</i>	0	0	88	0			
<i>Lead (ug/l)</i>	0	0	25	0			
<i>Zinc (ug/l)</i>	0	0	50	0			
<i>****Aluminum (ug/l)</i>	0	0	87	0			
<i>Iron (ug/l)</i>	0	0	1,000	0			
<i>Manganese (ug/l)</i>	0	0	N/A	N/A			
<i>Arsenic (ug/l)</i>	0	0	10	0			
<i>Mercury (ug/l)</i>	0	0	0.012	N/A			

Notes: * Results below the laboratory reporting limit (<RL) are included in the calculation as if they were at the reporting level.

** The Fecal Coliform average is a geometric mean.

*** Tidal salt waters classified as swamp waters may have a pH as low as 4.3 if it is the result of natural conditions

**** The aluminum reference level (Ref) is from the EPA's national recommended water quality criteria.

2016 LNBA Monitoring Report

Station J7850000

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

County: Craven

Sub-Basin: 03020202

Latitude: 35.31368

Longitude: -77.30287

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
<i>Temperature (C)</i>	16	N/A	N/A	N/A	5.3	28.4	19.8
<i>DO (mg/l)</i>	16	N/A	4	0	6.4	11.8	7.9
<i>*** pH (SU)</i>	16	N/A	6 to 9	0	6.9	7.4	N/A
<i>Conductivity (umhos/cm)</i>	16	0	N/A	N/A	93	157	124
<i>** Fecal Coliform (/100 mls)</i>	11	N/A	400	1	12	430	52
<i>Suspended Residue (mg/l)</i>	11	1	N/A	N/A	2.8	24.0	10.3
<i>Turbidity (NTU)</i>	11	N/A	50	0	6.0	21.0	14.0
<i>Chlorophyll-a (ug/l)</i>	11	0	40	0	1.21	31.58	6.45
<i>NH3_N (mg/l)</i>	11	0	N/A	N/A	0.03	0.18	0.08
<i>TKN_N (mg/l)</i>	11	0	N/A	N/A	0.34	0.72	0.57
<i>NO2_NO3_N (mg/l)</i>	11	0	N/A	N/A	0.23	0.94	0.62
<i>TP (mg/l)</i>	11	0	N/A	N/A	0.06	0.16	0.12
<i>Cadmium (ug/l)</i>	0	0	2	0			
<i>Chromium (ug/l)</i>	0	0	50	0			
<i>Copper (ug/l)</i>	0	0	7	0			
<i>Nickel (ug/l)</i>	0	0	88	0			
<i>Lead (ug/l)</i>	0	0	25	0			
<i>Zinc (ug/l)</i>	0	0	50	0			
<i>***Aluminum (ug/l)</i>	0	0	87	0			
<i>Iron (ug/l)</i>	0	0	1,000	0			
<i>Manganese (ug/l)</i>	0	0	N/A	N/A			
<i>Arsenic (ug/l)</i>	0	0	10	0			
<i>Mercury (ug/l)</i>	0	0	0.012	N/A			

Notes: * Results below the laboratory reporting limit (<RL) are included in the calculation as if they were at the reporting level.

** The Fecal Coliform average is a geometric mean.

*** Tidal salt waters classified as swamp waters may have a pH as low as 4.3 if it is the result of natural conditions

**** The aluminum reference level (Ref) is from the EPA's national recommended water quality criteria.

2016 LNBA Monitoring Report

Station J8870000

Trent River @ the Alfred Cunningham Drawbridge on E. Front Street, New Bern

Stream Class: SB Sw NSW

County: Craven

Sub-Basin: 03020204

Latitude: 35.10159

Longitude: -77.03708

	N	N<RL	Ref	N >Ref or N< Ref	Minimum	Maximum	* Average
<i>Temperature (C)</i>	17	N/A	N/A	N/A	6.2	28.7	20.0
<i>DO (mg/l)</i>	17	N/A	5	0	5.9	11.0	7.7
<i>*** pH (SU)</i>	17	N/A	6.8 to 8.5	1	6.7	7.5	N/A
<i>Conductivity (umhos/cm)</i>	17	0	N/A	N/A	193	8,214	1,299
<i>** Fecal Coliform (/100 mls)</i>	12	N/A	400	0	7	210	47
<i>Suspended Residue (mg/l)</i>	12	6	N/A	N/A	2.8	13.0	4.2
<i>Turbidity (NTU)</i>	12	N/A	25	1	2.9	60.0	11.4
<i>Chlorophyll-a (ug/l)</i>	12	1	40	0	1.00	12.73	4.64
<i>NH3_N (mg/l)</i>	12	0	N/A	N/A	0.04	0.27	0.10
<i>TKN_N (mg/l)</i>	12	0	N/A	N/A	0.51	0.87	0.64
<i>NO2_NO3_N (mg/l)</i>	12	0	10	0	0.17	0.75	0.43
<i>TP (mg/l)</i>	12	0	N/A	N/A	0.05	0.25	0.13
<i>Cadmium (ug/l)</i>	0	0	5	0			
<i>Chromium (ug/l)</i>	0	0	20	0			
<i>Copper (ug/l)</i>	0	0	3	0			
<i>Nickel (ug/l)</i>	0	0	8	0			
<i>Lead (ug/l)</i>	0	0	25	0			
<i>Zinc (ug/l)</i>	0	0	86	0			
<i>****Aluminum (ug/l)</i>	0	0	87	0			
<i>Iron (ug/l)</i>	0	0	1,000	0			
<i>Manganese (ug/l)</i>	0	0	200	0			
<i>Arsenic (ug/l)</i>	0	0	10	0			
<i>Mercury (ug/l)</i>	0	0	0.025	N/A			

Notes: * Results below the laboratory reporting limit (<RL) are included in the calculation as if they were at the reporting level.

** The Fecal Coliform average is a geometric mean.

*** Tidal salt waters classified as swamp waters may have a pH as low as 4.3 if it is the result of natural conditions

**** The aluminum reference level (Ref) is from the EPA's national recommended water quality criteria.