STATE OF NORTH CAROLINA
DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES

REPORT OF PROCEEDINGS ON THE PROPOSED RECLASSIFICATION OF A PORTION OF BILL MOORE CREEK, INCLUDING ENKA LAKE, IN BUNCOMBE COUNTY (FRENCH BROAD RIVER BASIN) FROM CLASS C TO CLASS B

PUBLIC HEARING
AUGUST 8, 2018
BILTMORE LAKE, NORTH CAROLINA

Table of Contents

SUMMARY AND RECOMMENDATION

SUMMARY

Biltmore Lake Association, the homeowners' association for the Biltmore Lake community, requested that Enka Lake, which is a portion of Bill Moore Creek in Buncombe County (French Broad River Basin), be reclassified from Class C to Class B (request package attached as pages a-2 through a-66). The purpose of this rule change is to protect the existing waters' primary recreation uses. The request states that "Enka Lake is used for organized full body-contact activities so Class B is the appropriate classification to protect those uses." In addition, the request states that there is a swimming area used by the community that "…includes a swim beach, swim dock, and buoys farther out from the swim beach that are used for longer distance swimming" and "…the swim season normally…" starts on "…Memorial Day and runs through the end of September…"

The most common and basic classification for all freshwaters is Class C. Class C waters are protected for aquatic life propagation and maintenance of biological integrity (including fishing and fish), wildlife, secondary recreation, agriculture and any other usages except for primary recreation or as a source of water supply for drinking, culinary or food processing purposes. Secondary recreation includes wading, boating, other uses not involving human body contact with water, and activities involving human body contact with water where such activities take place on an infrequent, unorganized, or incidental basis. All waters of the state are at least protected for Class C uses.

Class B waters are protected for primary recreation as well as for all Class C purposes. Primary recreation includes swimming, skin diving, water skiing, and similar uses involving human body contact with water where such activities take place in an organized or on a frequent basis. The criteria and standards that must be met before waters can be classified to B are outlined in Rule 15A NCAC 2B .0106, Considerations/Assigning Classifications for Primary Recreation, and 15A NCAC .0219, Fresh Surface Water Quality Standards for Class B waters (rules attached as pages a-67 through a-68). These criteria include water supply standards for allowable numbers of fecal coliform that must be met in proposed Class B waters as well as the requirement that primary recreation exist in proposed Class B waters. Water quality studies conducted during the summer of last year show that the waters proposed to be reclassified meet Class B standards (studies attached as pages a-69 through a-72).

The creek segment requested for reclassification consists of the entire lake, which represents the main stem of Bill Moore Creek from a point 860 feet downstream of SR 3437 (Case Cove Road) to the Enka Lake dam (map of area to be affected by the proposed reclassification shown on page s-2 as Figure 1, and recommended amendment to the French Broad River Basin Schedule of Classifications, which lists the existing and recommended classifications of the waters proposed for reclassification, featured on page s-3 as Table 1).

Figure 1. Proposed B Reclassification Area of Enka Lake

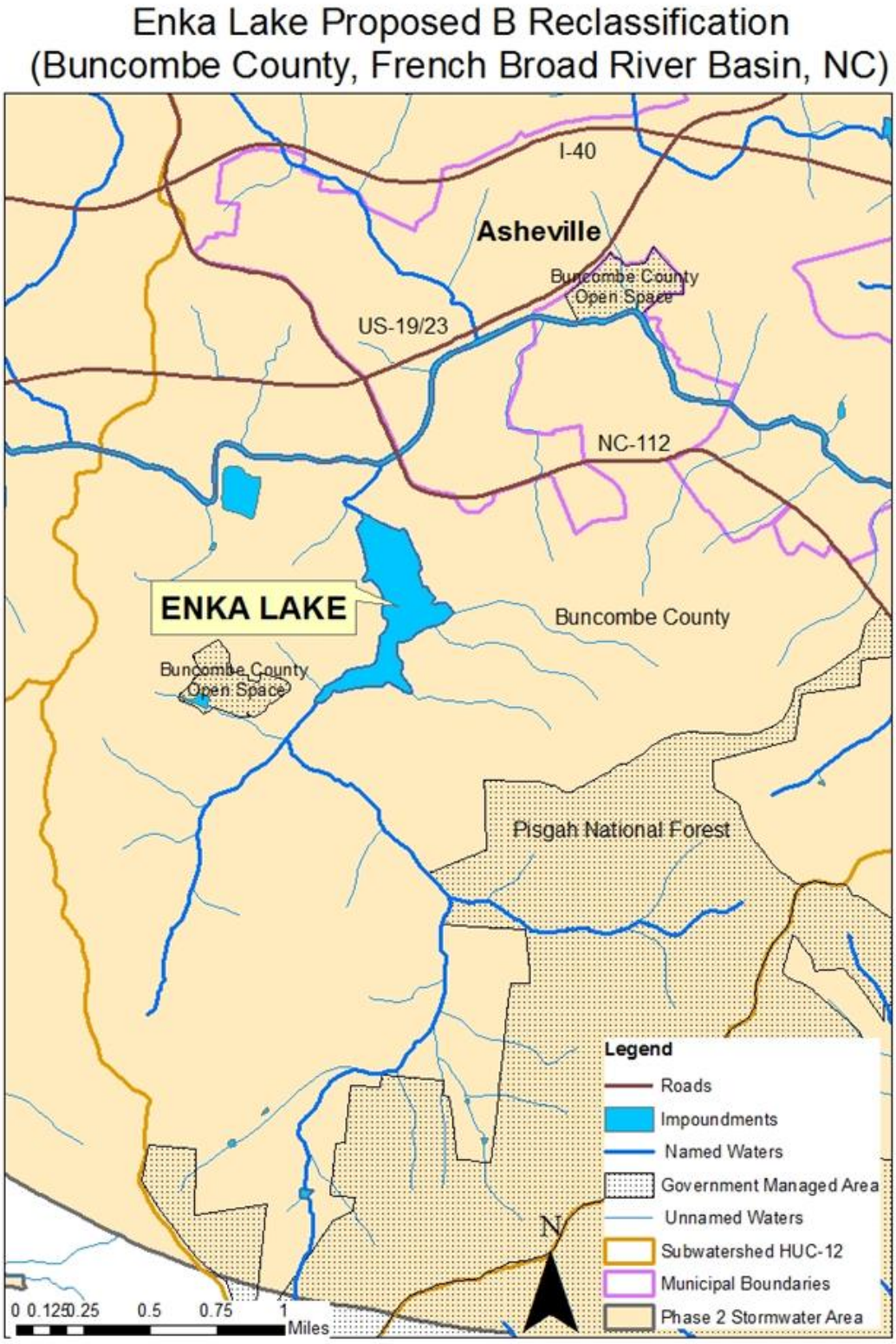


TABLE 1. PROPOSED AMENDMENT TO THE FRENCH BROD RIVER BASIN SCHEDULE OF CLASSIFICATIONS AS REFERENCED IN TITLE 15A NORTH CAROLINA ADMINISTRATIVE CODE 02B .0304				
Name of Stream	Description	Existing Class	Description of Recommended Segment	Recommended Class
Bill Moore Creek	From source to Hominy Creek	C	From source to a point 860 feet downstream of SR 3437 (Case Cove Road)	C
			From a point 860 feet downstream of SR 3437 (Case Cove Road) to Enka Lake Dam (Enka Lake)	B
			From Enka Lake Dam to Hominy Creek	C

Anchor QEA, a consultant for the Biltmore Lake Association, provided the following information about the lake:

- Enka Lake is a 62-acre man-made lake built in 1933 that is recharged by Bill Moore Creek and multiple small tributaries. Until 2001, the lake was used…for a nearby manufacturing facility. In 2001, the lake and approximately 1,000 acres of surrounding forest land were sold to the Biltmore Farms Company, which developed the Biltmore Lake residential community. Enka Lake is the center piece of the Biltmore Lake community. "

The land around the lake is predominantly residentially developed in the form of subdivisions accompanied by forested land and a school. The remainder of the watershed draining to the lake is comprised mainly of forested lands and rural development along with limited forestry and agricultural lands, including a portion of the Pisgah National Forest and Buncombe County Open Space. The lake and its watershed exist solely within the jurisdiction of Buncombe County.

If reclassified, new NPDES wastewater discharges to these waters that contain fecal coliform will be required to have a coliform limit. There are no permitted or planned NPDES wastewater discharges to these waters that would be impacted by the proposal, according to Asheville Regional Office staff. Thus, the regulatory impact analysis for this proposal, which was approved by the NC Office of State Budget and Management (OSBM) and is attached with the proposed rule as pages a-74 through a-80, shows no cost due this proposed rule amendment.

The estimated effective date of this reclassification is January 1, 2019.

Implications of the Proposed Reclassification

Class B protective management strategies are outlined in the following rules (pages a-67 through a-68):

- 15A NCAC 2B .0106, Considerations/Assigning Classifications for Primary Recreation
- 15A NCAC 2B .0219, Fresh Surface Water Quality Standards for Class B waters

Rule 15A NCAC 2B .0106, Considerations/Assigning Classifications for Primary Recreation, requires all facilities deemed permitted to discharge treated wastewater to waters (explanation of NPDES, or National Pollutant Discharge Elimination System, permitted facilities/dischargers shown below on this page), where a primary recreational use is determined by the Director to be attainable, to meet water quality standards and reliability requirements to protect this use concurrently with reclassification efforts.

Rule 15A NCAC 2B .0219, Fresh Surface Water Quality Standards for Class B Waters, requires that fecal coliforms not exceed the geometric mean of 200/100 ml based on at least five consecutive samples examined during any 30-day period and not exceed 400/100 ml in more than 20 percent of the samples examined during such a period. A fecal limit would be placed in permits for all discharges (new, existing, and expanding) with fecal coliform in their waste stream to ensure that these standards are met. NPDES permitted facilities often use disinfection to get their fecal coliform containing wastewater discharges to meet a fecal limit. It is important to note that sources of water pollution that preclude any uses affiliated with a B classification shall be considered to be violating a water quality standard, and discharges in the immediate vicinity of bathing areas may not be allowed if the Director determines that the waste cannot be reliably treated to ensure the protection of primary recreation.

It is important to note that NPDES permitted facilities include those facilities that have been issued a permit to discharge, or remove from their facility, their treated wastewater into surface waters; most of these facilities achieve this removal by piping the treated wastewater from their facilities into surface waters. NPDES wastewater facilities do not include, and therefore, the proposed reclassification does not impact, the following: forestry activities (silvicultural/logging operations), non-livestock agricultural and farming activities (crops, nurseries), and dams and water resource projects. In addition, the reclassification does not impact transportation activities, mining, or development activities.

As mentioned above, if reclassified, new NPDES wastewater discharges to these waters that contain fecal coliform will be required to have a coliform limit. There are no permitted or planned NPDES wastewater discharges to these waters that would be impacted by the proposal, according to Asheville Regional Office staff.

Public Hearing Process and Comments Received

In accordance with North Carolina General Statutes, a public hearing was held on August 8th, 2018, in Biltmore Lake, North Carolina (Buncombe County). Notice of the proposal and hearing, including the proposed rule amendment, was published in the June 15th, 2018, *North Carolina Register* (Volume 32, Issue 24) (proposed rule amendment within regulatory impact analysis attached as pages a-73 through a-80).

Announcements of the public hearing (announcement attached as pages a-81 and a-82) were sent to the Water Quality Rule-Making Announcements mailing list, the Division of Water Resources Rules e-mail list, staff (including library staff) of the local government with jurisdiction over land adjacent to the waters proposed to be reclassified (Buncombe County), Pisgah National

Forest staff, and other persons potentially interested in the proposed reclassification, including staff of local interest groups and environmental organizations such as Mountain True, Mills River Partnership and Riverlink, and legislators and state agencies within North Carolina. A press release was sent to media statewide about the proposed reclassification and public hearing on August 1st, 2018 (press release attached as page a-83).

Corey Basinger, Regional Supervisor of the Division of Water Resources' Mooresville Regional Office, served as hearing officer (hearing officer designation letter attached as page a-84). 23 people registered at the public hearing (list of attendees attached as page a-85**)**. Of those 23 people, 15 provided the organization they were representing: Biltmore Lake homeowner, BLA Board, Biltmore/Enka Lake, First Service Residential, resident, self, and community member.

Opening comments and slides were presented by DWR staff to provide a brief overview of the DWR classification program and detailed information about the proposed reclassification. Then public comments on the proposed reclassification were taken.

Four individuals registered to make comments at the hearing. Four additional persons who had not registered to speak decided later to provide input. The speakers represented themselves or provided no affiliation, and provided comments supporting the reclassification and/or asked questions. No comments against the reclassification were verbalized, and staff addressed the questions that arose.

Written comments were accepted for this proposed reclassification from June 15th, 2018 through August 14th, 2018. 13 letters and emails were received, and all of those comments were in support of the reclassification (letters attached as pages a-86 through a-100).

RECOMMENDATION

It is the recommendation of the Hearing Officer that the reclassification of the segment of Bill Moore Creek known as Enka Lake, as proposed herein, be approved by the Environmental Management Commission. In making this recommendation, the Hearing Officer has considered the requirements of General Statutes 150B-21.2, 143-214.1, 143-215, and 143-215.3(a)(1), and Rules 15A NCAC 2B .0100 (Procedures for Assignment of Water Quality Standards), especially 15A NCAC 2B .0106 (Considerations/Assigning Classifications for Primary Recreation)] and 15A NCAC 2B .0219 (Fresh Surface Water Quality Standards for Class B Waters). In addition, the verbal and written comments received were considered along with the studies which revealed that the waters meet Class B criteria**.**

In taking this action, Rule 15A NCAC 2B .0304, which references the Schedule of Classifications for the French Broad River Basin, will show that the Environmental Management Commission has revised the schedule for Enka Lake, which is a portion of the Bill Moore Creek (Index No. 6-76-7), from Class C to Class B.

The proposed effective date of this reclassification is January 1, 2019.

APPENDICES

APPLICATION TO REQUEST
RECLASSIFICATION OF NC SURFACE WATER

(Please feel free to attach additional pages of information to this application if necessary)

1. Date of Request: November 18, 2016

2. Requested by (include full contact information):
Biltmore Lake Association, Inc. Contact: Bill McMannis P.O. Box 10 Enka, NC 28728
Phone: 828-670-8293 x107 Email: bill.mcmannis@fsresidential.com

3. River Basin/s: French Broad
County/ies: Buncombe

4. List Waterbody(ies) Requested for Reclassification:
(*see reverse side of this form for assistance)

Waterbody Name	*Waterbody Index #*	*Current Class*	*Request Class*
Bill Moore Creek (Enka Lake)*	6-76-7	C	B

*Enka Lake portion of Bill Moore Creek only

5. ATTACHMENTS:
For All Classes: USGS 7.5 minute topographic map outlining the subject waters/land area
For Class B: Information regarding primary recreation use, i.e. frequency (on a daily and monthly basis), photos, etc.
For Class ORW: Outstanding resource value/s information
For Class WS:
-Resolution from each local government with land use jurisdiction within the boundaries of the proposed water supply watershed
- Longitude and latitude for the proposed intake site location
- Has an EA/EIS been submitted? ____ If so, please provide the status of EA/EIS.

6. For Non-WS Reclassifications: Why do you think the waterbody characteristics of interest to you aren't being or won't be adequately protected (as currently classified)?
Enka Lake is used for organized full body-contact activities so Class B is the appropriate classification to protect those uses. See Attachment 2 for more details.

7. Reason for Request (please view basin plan for further assistance):
To make classification consistent with current uses per item 6.

8. Would you be willing to assist DWR in identifying potentially affected and interested parties? Yes

9. Who will be the local champion/s for the proposed reclassification? See Attachment 3

Additional information on the reverse side of the application.

*Guidance for completing #4 on the first page of this application form:
Classifications of surface waters is also available online at:
http://ncdenr.maps.arcgis.com/apps/webappviewer/index.html?id=6e125ad7628f494694e259c80dd64265

The North Carolina Administrative Code Rules pertinent to Water Quality Classifications (15A NCAC 2B .0100 and .0200) may be found on the internet at:
http://deq.nc.gov/about/divisions/water-resources/planning/classification-standards/rules

The homepage for the NC Division of Water Resources is:
http://deq.nc.gov/about/divisions/water-resources/

If you need additional information or would like to request an electronic or paper copy of this application form, please submit such a request to the Division of Water Resources to: Elizabeth.Kountis@ncdenr.gov or by calling Elizabeth Kountis at (919) 807-6418, or, a letter may be submitted to the address below.

Send this completed application form and attachments to:

Jeff Manning, Chief, Classification and Standards/Rules Review Branch
North Carolina Department of Environmental Quality
Division of Water Resources - Planning Section
1611 Mail Service Center
Raleigh, NC 27699-1611

Attachments

The following attachments are included in support of this reclassification application:

Attachment 1 – Enka Lake Topographic Map

Attachment 2 – Enka Lake Primary Recreation Use

- Attachment 2A – Enka Lake Swimming Photos
- Attachment 2B – Enka Lake Swimming Area Location and Lake Depths

Attachment 3 – Local Champions for Enka Lake Reclassification

Attachment 4 – Fecal coliform data

- Attachment 4A – 2016 swim area fecal coliform data
- Attachment 4B – 2015 swim area fecal coliform data
- Attachment 4C – Other fecal coliform data

Attachment 1 - Enka Lake Topographic Map

SCALE 1:24 000

1 0.5 0 KILOMETERS 1 2
1000 500 0 METERS 1000 2000
1 0.5 0 1
MILES
1000 0 1000 2000 3000 4000 5000 6000 7000 8000 9000 10000
FEET

CONTOUR INTERVAL 20 FEET
NORTH AMERICAN VERTICAL DATUM OF 1988

This map was produced to conform with the
National Geospatial Program US Topo Product Standard, 2011.
A metadata file associated with this product is draft version 0.6.19

NORTH CAROLINA

QUADRANGLE LOCATION

1	2	3
4		5
6	7	8

1 Sandymush
2 Leicester
3 Weaverville
4 Canton
5 Asheville
6 Cruso
7 Dunsmore Mountain
8 Skyland

ADJOINING QUADRANGLES

ROAD CLASSIFICATION

Expressway — Local Connector
Secondary Hwy — Local Road
Ramp — 4WD
Interstate Route — US Route — State Route
FS Primary Route — FS Passenger Route — FS High Clearance Route

Check with local Forest Service unit
for current travel conditions and restrictions.

ENKA, NC
2016

Attachment 2 – Enka Lake Primary Recreation Use

Enka Lake is owned by the Biltmore Lake Association which is the homeowners association (HOA) for the Biltmore Lake community. The lake is used for kayaking, canoeing, paddle boarding, fishing and swimming. There are currently 676 households with access to the lake with 6 more scheduled to join by the end of 2016.

The swim season normally begins on Memorial Day and runs through September, although it was extended this year due to warm weather. The swimming area includes a swim beach, swim dock, and buoys farther out from the swim beach that are used for longer distance swimming.

Our HOA periodically surveys the community and one was completed in September 2016 that included questions on households' frequency oi use of community resources including the swimming area. A total of 443 households responded and 206 (47.3%) indicated that they have used the swim beach/dock "frequently" or "sometimes" within the last 12 months.

The lake is also used by a women's swim group consisting of approximately 10 participants who swim once or twice a week from late May through September.

The Enka Triathlon is held at the lake each year in June and includes a 750-meter swim. In 2016 more than 180 individuals participated in the event.

Photographs of Enka Lake swimming activities are included in Attachment 2A.

Attachment 2B shows the location of the swimming area as well as the approximate depths of Enka Lake.

Attachment 2A – Enka Lake Swimming Photos

Enka Lake Swim Beach – August 13, 2016

Enka Lake Swim Area – June 25, 2014

Attachment 2A – Enka Lake Swimming Photos (cont.)

Enka Lake Swim Dock – August 15, 2015

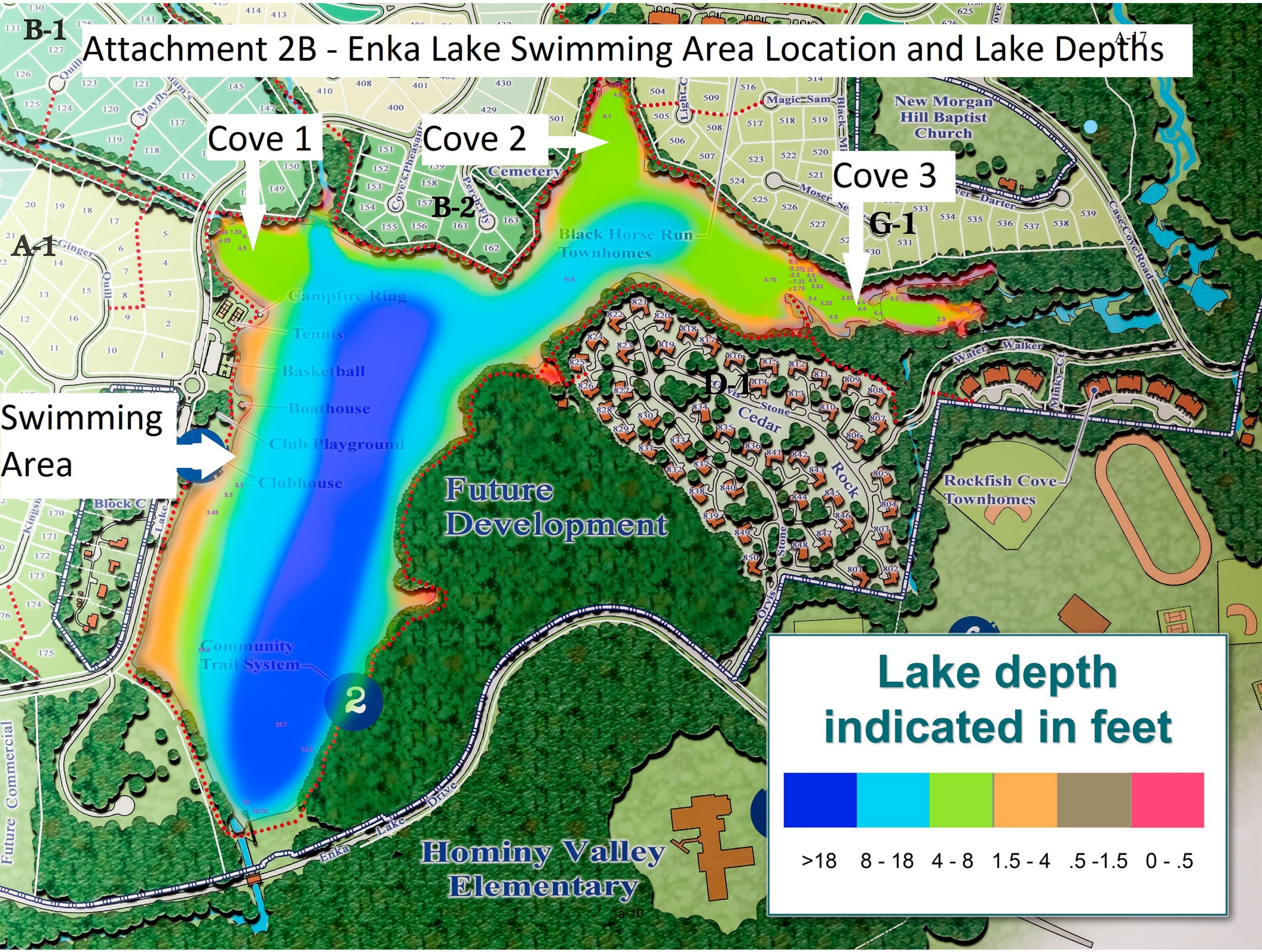
Enka Lake Swim Beach – August 28, 2016

Attachment 2A – Enka Lake Swimming Photos (cont.)

Enka Lake Triathlon – June 18, 2016

Enka Lake Triathlon – June 18, 2016

Attachment 2B - Enka Lake Swimming Area Location and Lake Depths



Attachment 3

Local Champions for Enka Lake Reclassification

The local champions for the Enka Lake reclassification are the Lake Subcommittee of the Biltmore Lake Association consisting of the following members:

- George Glackin
- Bob Ware
- Clyde McClung
- Bill Miller
- Phil Murphy
- Ed Prestemon

Attachment 4 – Fecal Coliform Data

Fecal coliform bacteria testing is performed during the swimming season in accordance with NC water quality standards. All testing is performed by NC certified laboratories in accordance with Standard Methods. Samples are taken just off the beach near the swim dock. Attachment 4A summarizes testing results for 2016 and Attachment 4B includes testing results for 2015.

Some additional fecal coliform testing was performed at other locations in the lake and this data is summarized in Attachment 4C.

Attachment 4A – 2016 Swim Area Fecal Coliform Testing Results

The Environmental Quality Institute
75 Fairview Road, Suite B
Asheville, NC 28803
Phone: (828) 333-0392

Fecal Coliform: limit geometric mean of 200

***reporting limit**

site number	site description	month	day	year	Fecal Coliform *CFU/100mL* 1*	rainfall conditions	24-hr rainfall *(in)*	volunteer comments
1	Enka Lake beach	5	31	2016	10	dry	trace	
1	Enka Lake beach	6	8	2016	>3,152	dry	0	
1	Enka Lake beach	6	13	2016	52	dry	0	began using extension pole to collect sample
1	Enka Lake beach	6	14	2016	274	dry	0	
1	Enka Lake beach	6	21	2016	18	dry	0	beach aerators in operation
1	Enka Lake beach	6	28	2016	41		~0.5	
1	Enka Lake beach	7	5	2016	53	dry	0	
1	Enka Lake beach	7	12	2016	90	dry	~0.25	
1	Enka Lake beach	7	19	2016	8	medium	0.25	
1	Enka Lake beach	7	26	2016	8			
1	Enka Lake beach	8	2	2016	26	light	0.14	
1	Enka Lake beach	8	9	2016	72	medium	0.10-0.25	light rain 15 minutes prior to sampling
1	Enka Lake beach	8	16	2016	10	light	0.14	
1	Enka Lake beach	8	23	2016	10	dry	0.00	
1	Enka Lake beach	8	30	2016	3	dry	0.00	
1	Enka Lake beach	9	6	2016	6	dry	0.00	
1	Enka Lake beach	9	13	2016	63	dry	0.00	
1	Enka Lake beach	9	20	2016	3	dry	0.00	
1	Enka Lake beach	9	27	2016	38	dry	0.57	

Attachment 4B – 2016 Swim Area Fecal Coliform Testing Results

James & James Environmental Management
3801 Asheville Hwy., Hendersonville , NC 28791
OFFICE: (828) 697-0063 FAX: (828) 697-0065

NC Certified Laboratory NC wastewater #482 NC Drinking Water #37763

April 14, 2015

First Service Residential
Karen Foley
80 Lake Drive
Biltmore Lake, N. C. 28715

Ms. Foley,

Enclosed are the results of the analysis performed by our staff on your samples. The analysis performed conform to Standard Methods 18th Edition.

Sample	Analysis	Result	Units	MDL	Units	Date run	Analyst
Biltmore Lake	FECAL	260.0	c/100mL	<1	c/100mL	4-13-15	DJ

The running geometric mean average is 260.0 which is above the allowable geometric mean limit of 200 but below the daily max of 400. If you have any questions regarding these results please feel free to contact me at the lab.

Thank you,

Juanita James
Laboratory Manager
James & James Env. Mgt., Inc.
jjemi@bellsouth.net
828-697-0063

JJEM AQUEOUS SAMPLE COLLECTION/LAB REPORT FORM (NC CERT 482)

Regulated by NCDENR/DWQ-Groundwater section

To assign test, label shaded area with sample type (C=composite; G=grab)

CHAIN OF CUSTODY

LOCATION	Biltmore						SPECIAL INFORMATION
	COUNTY						
ID NO.							
INITIAL TEMP °C	16.9						pH-8.5
GRAB sample time	0835						
COMP start sample time							
COMP end date/ time							

COOLER #1	COOLER #2
TEMP @RECEIPT: 5.0 °C NOTE: THE ABOVE TEMP INDICATES THE TEMP. FOR ALL CONTAINER(S) WITHIN.	TEMP @RECEIPT: _____ °C NOTE: THE ABOVE TEMP INDICATES THE TEMP. FOR ALL CONTAINER(S) WITHIN.

AMMONIA SAMPLES PRESERVED WITH H_2SO_4, pH=<2.0 _____ YES NO

AMMONIA SAMPLES NEUTRALIZED WITH Na_2SO_3, Cl=< 0.1 _____ YES NO

FECAL SAMPLES PRESERVED WITH Na_2SO_3, Cl=< 0.1 _____ YES NO

COLLECTED BY: G. Hensley

SAMPLES COLLECTED AND PRESERVED AT TIME OF COLLECTION IN PLASTIC CONTAINERS UNLESS NOTED OTHERWISE BY:

RELINQUISHED BY	DATE / TIME	RECEIVED BY	SPLIT SAMPLE(S) INFO
G. Hensley	4-13-15 / 0950	KR	
	/		

ANALYSES	RESULTS	DATE	INIT'L
F. COLI cfu/100ml	260.0	4/13/15	DJ
BOD ppm			
TSS ppm			
NH_3 ppm			
COND umho			
TURB ntu			
MLSS ppm			
MLVSS ppm			
ALKALINITY ppm			

By the above signature I certify that all information is accurate to the best of my knowledge.

COMMENTS

James & James Environmental Management
3801 Asheville Hwy., Hendersonville , NC 28791
OFFICE: (828) 697-0063 FAX: (828) 697-0065

NC Certified Laboratory NC wastewater #482 NC Drinking Water #37763

April 22, 2015

First Service Residential
Karen Foley
80 Lake Drive
Biltmore Lake, N. C. 28715

Ms. Foley,

Enclosed are the results of the analysis performed by our staff on your samples. The analysis performed conform to Standard Methods 18th Edition.

Sample	Analysis	Result	Units	MDL	Units	Date run	Analyst
Biltmore Lake	FECAL	260.0	c/100mL	<1	c/100mL	4-13-15	DJ
Biltmore Lake	FECAL	191.0	c/100mL	<	c/100mL	4-21-15	DJ

The running geometric mean average is 222.8 which is above the allowable geometric mean limit of 200 but below the daily max of 400. The high numbers are probably due to the heavy rains we have had. If you have any questions regarding these results please feel free to contact me at the lab.

Thank you,

Juanita James
Laboratory Manager
James & James Env. Mgt., Inc.
jjemi@bellsouth.net
828-697-0063

JJEM AQUEOUS SAMPLE COLLECTION/LAB REPORT FORM (NC CERT 482)

Regulated by NCDENR/DWQ-Groundwater section

To assign test, label shaded area with sample type (C=composite; G=grab)

CHAIN OF CUSTODY

LOCATION	BILTMORE LAKE		COUNTY				SPECIAL INFORMATION(S)
	LAKE						PH: 7.2 Weekly
ID NO.	BLT 2115						
INITIAL TEMP °C	14.2						
GRAB sample time	0810						
COMP start sample time							
COMP end date/ time							

COOLER #1	COOLER #2
TEMP @RECEIPT: 4.0 °C NOTE: THE ABOVE TEMP INDICATES THE TEMP. FOR ALL CONTAINER(S) WITHIN.	TEMP @RECEIPT: _____ °C NOTE: THE ABOVE TEMP INDICATES THE TEMP. FOR ALL CONTAINER(S) WITHIN.

AMMONIA SAMPLES PRESERVED WITH H_2SO_4, pH=<2.0 ____YES NO____

AMMONIA SAMPLES NEUTRALIZED WITH Na_2SO_3, Cl=< 0.1 ____YES NO____

FECAL SAMPLES PRESERVED WITH Na_2SO_3, Cl=< 0.1 ____YES NO____

COLLECTED BY: G. Hensley

ALL SAMPLES COLLECTED AND PRESERVED AT TIME OF COLLECTION IN PLASTIC CONTAINERS UNLESS NOTED OTHERWISE BY:

RELINQUISHED BY	DATE / TIME	RECEIVED BY	SPLIT SAMPLE(S) INFO
G. Hensley	4-21-15 / 0930	KR	
	/		

ANALYSES	RESULT LAKE						DATE	INIT'L
F. COLI cfu/100ml	G 191.0						4/21/15	DS
BOD ppm								
TSS ppm								
NH_3 ppm								
COND umho								
TURB ntu								
MLSS ppm								
MLVSS ppm								
ALAKALINITY ppm								

By the above signature I certify that all information is accurate to the best of my knowledge.

COMMENTS (E) means QC not met.

222.8

James & James Environmental Management
3801 Asheville Hwy., Hendersonville , NC 28791
OFFICE: (828) 697-0063 FAX: (828) 697-0065

NC Certified Laboratory NC wastewater #482 NC Drinking Water #37763

May 7, 2015

First Service Residential
Karen Foley
80 Lake Drive
Biltmore Lake, N. C. 28715

Ms. Foley,

Enclosed are the results of the analysis performed by our staff on your samples. The analysis performed conform to Standard Methods 18th Edition.

Sample	Analysis	Result	Units	MDL	Units	Date run	Analyst
Biltmore Lake	FECAL	260.0	c/100mL	<1	c/100mL	4-13-15	DJ
Biltmore Lake	FECAL	191.0	c/100mL	<1	c/100mL	4-21-15	DJ
Biltmore Lake	FECAL	10.0	c/100mL	<1	c/100mL	4-27-15	DJ
Biltmore Lake	FECAL	9.0	c/100mL	<1	c/100mL	5-5-15	DJ

The running geometric mean average is 46.0 which is below the allowable geometric mean limit of 200 and below the daily max of 400. If you have any questions regarding these results please feel free to contact me at the lab.

Thank you,

Juanita James
Laboratory Manager
James & James Env. Mgt., Inc.
jjemi@bellsouth.net
828-697-0063

JJEM AQUEOUS SAMPLE COLLECTION/LAB REPORT FORM (NC CERT 482)

Regulated by NCDENR/DWQ-Groundwater section

To assign test, label shaded area with sample type (C=composite; G=grab)

CHAIN OF CUSTODY

LOCATION	Biltmore Lake			COUNTY Buncombe			SPECIAL INFORMATION
ID NO.	BLE0515						
INITIAL TEMP °C	13.3						
GRAB sample time	0740						
COMP start sample time							
COMP end date/ time							

COOLER #1	COOLER #2
TEMP @RECEIPT: 6.0 °C NOTE: THE ABOVE TEMP INDICATES THE TEMP. FOR ALL CONTAINER(S) WITHIN.	TEMP @RECEIPT: _____ °C NOTE: THE ABOVE TEMP INDICATES THE TEMP. FOR ALL CONTAINER(S) WITHIN.

AMMONIA SAMPLES PRESERVED WITH H_2SO_4, pH=<2.0 _____ YES NO____

AMMONIA SAMPLES NEUTRALIZED WITH Na_2SO_3, Cl=< 0.1 _____ YES NO____

FECAL SAMPLES PRESERVED WITH Na_2SO_3, Cl=< 0.1 _____ YES NO ✓

COLLECTED BY: D James

SAMPLES COLLECTED AND PRESERVED AT TIME OF COLLECTION IN PLASTIC CONTAINERS UNLESS NOTED OTHERWISE BY:

RELINQUISHED BY	DATE / TIME	RECEIVED BY		SPLIT SAMPLE(S) INFO	
D James	5/5/15 / 0830	[illegible]			
	/			DATE	INIT'L
ANALYSES	RESULTS				
F. COLI cfu/100ml	9.0			5/5/15	DS
BOD ppm					
TSS ppm					
NH_3 ppm					
COND umho					
TURB ntu					
MLSS ppm					
MLVSS ppm					
ALKALINITY ppm					

By the above signature I certify that all information is accurate to the best of my knowledge.

COMMENTS

46.0

James & James Environmental Management
3801 Asheville Hwy., Hendersonville , NC 28791
OFFICE: (828) 697-0063 FAX: (828) 697-0065

NC Certified Laboratory NC wastewater #482 NC Drinking Water #37763

May 13, 2015

First Service Residential
Karen Foley
80 Lake Drive
Biltmore Lake, N. C. 28715

Ms. Foley,

Enclosed are the results of the analysis performed by our staff on your samples. The analysis performed conform to Standard Methods 18th Edition.

Sample	Analysis	Result	Units	MDL	Units	Date run	Analyst
Biltmore Lake	FECAL	260.0	c/100mL	<1	c/100mL	4-13-15	DJ
Biltmore Lake	FECAL	191.0	c/100mL	<1	c/100mL	4-21-15	DJ
Biltmore Lake	FECAL	10.0	c/100mL	<1	c/100mL	4-27-15	DJ
Biltmore Lake	FECAL	9.0	c/100mL	<1	c/100mL	5-5-15	DJ
Biltmore Lake	FECAL	100.0	c/100mL	<1	c/100mL	5-11-15	DJ

The running geometric mean average is 53.7 which is below the allowable geometric mean limit of 200 and below the daily max of 400. If you have any questions regarding these results please feel free to contact me at the lab.

Thank you,

Juanita James
Laboratory Manager
James & James Env. Mgt., Inc.
jjemi@bellsouth.net
828-697-0063

JJEM AQUEOUS SAMPLE COLLECTION/LAB REPORT FORM (NC CERT 482)

Regulated by NCDENR/DWQ-Groundwater section

To assign test, label shaded area with sample type (C=composite; G=grab)

CHAIN OF CUSTODY

LOCATION	BILTMORE LAKE		COUNTY				SPECIAL INFORMATION(S)
	LAKE						
ID NO.	BLT E1115						
INITIAL TEMP °C	20.9						Weekly
GRAB sample time	0820						
COMP start sample time							
COMP end date/ time							

COOLER #1	COOLER #2
TEMP @RECEIPT: 3.7 °C NOTE: THE ABOVE TEMP INDICATES THE TEMP. FOR ALL CONTAINER(S) WITHIN.	TEMP @RECEIPT: _____ °C NOTE: THE ABOVE TEMP INDICATES THE TEMP. FOR ALL CONTAINER(S) WITHIN.

AMMONIA SAMPLES PRESERVED WITH H_2SO_4, pH=<2.0 ____YES NO____

AMMONIA SAMPLES NEUTRALIZED WITH Na_2SO_3, Cl=< 0.1 ____YES NO____

FECAL SAMPLES PRESERVED WITH Na_2SO_3, Cl=< 0.1 ____YES NO____

COLLECTED BY: G. Hensley

ALL SAMPLES COLLECTED AND PRESERVED AT TIME OF COLLECTION IN PLASTIC CONTAINERS UNLESS NOTED OTHERWISE BY:

RELINQUISHED BY	DATE / TIME	RECEIVED BY	SPLIT SAMPLE(S) INFO
G. Hensley	5-11-15 / 1035	JR	
	/		

ANALYSES	RESULT LAKE						DATE	INIT'L
F. COLI cfu/100ml	G 100.0						5/11/15	DJ
BOD ppm								
TSS ppm								
NH_3 ppm								
COND umho								
TURB ntu								
MLSS ppm								
MLVSS ppm								
ALAKALINITY ppm								

By the above signature I certify that all information is accurate to the best of my knowledge.

COMMENTS (F) means QC not met.

53.7

James & James Environmental Management
3801 Asheville Hwy., Hendersonville , NC 28791
OFFICE: (828) 697-0063 FAX: (828) 697-0065

NC Certified Laboratory **NC wastewater #482** **NC Drinking Water #37763**

May 19, 2015

First Service Residential
Karen Foley
80 Lake Drive
Biltmore Lake, N. C. 28715

Ms. Foley,

Enclosed are the results of the analysis performed by our staff on your samples. The analysis performed conform to Standard Methods 18th Edition.

Sample	Analysis	Result	Units	MDL	Units	Date run	Analyst
Biltmore Lake	FECAL	191.0	c/100mL	<1	c/100mL	4-21-15	DJ
Biltmore Lake	FECAL	10.0	c/100mL	<1	c/100mL	4-27-15	DJ
Biltmore Lake	FECAL	9.0	c/100mL	<1	c/100mL	5-5-15	DJ
Biltmore Lake	FECAL	100.0	c/100mL	<1	c/100mL	5-11-15	DJ
Biltmore Lake	FECAL	167.0	c/100mL	<1	c/100mL	5-19-15	DJ

The running geometric mean average is 49.2 which is below the allowable geometric mean limit of 200 and below the daily max of 400. If you have any questions regarding these results please feel free to contact me at the lab.

Thank you,

Juanita James
Laboratory Manager
James & James Env. Mgt., Inc.
jjemi@bellsouth.net
828-697-0063

JJEM AQUEOUS SAMPLE COLLECTION/LAB REPORT FORM (NC CERT 482)

Regulated by NCDENR/DWQ-Groundwater section

To assign test, label shaded area with sample type (C=composite; G=grab)

CHAIN OF CUSTODY

LOCATION	BILTMORE LAKE			COUNTY			SPECIAL INFORMATION(S)
	LAKE						
ID NO.	BLT E1815						
INITIAL TEMP °C	21.6						Weekly 7.4
GRAB sample time	0830						
COMP start sample time							
COMP end date/ time							

COOLER #1	COOLER #2
TEMP @RECEIPT: 41.2 °C NOTE: THE ABOVE TEMP INDICATES THE TEMP. FOR ALL CONTAINER(S) WITHIN.	TEMP @RECEIPT: _____ °C NOTE: THE ABOVE TEMP INDICATES THE TEMP. FOR ALL CONTAINER(S) WITHIN.

AMMONIA SAMPLES PRESERVED WITH H_2SO_4, pH=<2.0 ____YES NO____

AMMONIA SAMPLES NEUTRALIZED WITH Na_2SO_3, Cl=< 0.1 ____YES NO____

FECAL SAMPLES PRESERVED WITH Na_2SO_3, Cl=< 0.1 ____YES NO____

COLLECTED BY: G. Hensley

ALL SAMPLES COLLECTED AND PRESERVED AT TIME OF COLLECTION IN PLASTIC CONTAINERS UNLESS NOTED OTHERWISE BY:

RELINQUISHED BY	DATE / TIME	RECEIVED BY	SPLIT SAMPLE(S) INFO
G. Hensley	5-18-15 / 1020 AM	KR	
	/		

ANALYSES	RESULT LAKE						DATE	INIT'L
F. COLI cfu/100ml	G 167.0						5/18/15	JJS
BOD ppm								
TSS ppm								
NH_3 ppm								
COND umho								
TURB ntu								
MLSS ppm								
MLVSS ppm								
ALAKALINITY ppm								

By the above signature I certify that all information is accurate to the best of my knowledge.

COMMENTS (F) means QC not met.

49.2

James & James Environmental Management
3801 Asheville Hwy., Hendersonville , NC 28791
OFFICE: (828) 697-0063 FAX: (828) 697-0065

NC Certified Laboratory **NC wastewater #482** **NC Drinking Water #37763**

May 27, 2015

First Service Residential
Karen Foley
80 Lake Drive
Biltmore Lake, N. C. 28715

Ms. Foley,

Enclosed are the results of the analysis performed by our staff on your samples. The analysis performed conform to Standard Methods 18th Edition.

Sample	Analysis	Result	Units	MDL	Units	Date run	Analyst
Biltmore Lake	FECAL	10.0	c/100mL	<1	c/100mL	4-27-15	DJ
Biltmore Lake	FECAL	9.0	c/100mL	<1	c/100mL	5-5-15	DJ
Biltmore Lake	FECAL	100.0	c/100mL	<1	c/100mL	5-11-15	DJ
Biltmore Lake	FECAL	167.0	c/100mL	<1	c/100mL	5-19-15	DJ
Biltmore Lake	FECAL	164.0	c/100mL	<1	c/100mL	5-26-15	DJ

The running geometric mean average is 47.7 which is below the allowable geometric mean limit of 200 and below the daily max of 400. If you have any questions regarding these results please feel free to contact me at the lab.

Thank you,
Jerry Storey
for

Juanita James
Laboratory Manager
James & James Env. Mgt., Inc.
jjemi@bellsouth.net
828-697-0063

JJEM AQUEOUS SAMPLE COLLECTION/LAB REPORT FORM (NC CERT 482)

Regulated by NCDENR/DWQ-Groundwater section

To assign test, label shaded area with sample type (C=composite; G=grab)

CHAIN OF CUSTODY

LOCATION	BILTMORE LAKE			COUNTY			SPECIAL INFORMATION(S)
	LAKE						
ID NO.	BLT E2615						Weekly
INITIAL TEMP °C	22.5						7.5
GRAB sample time	0820						
COMP start sample time							
COMP end date/ time							

COOLER #1	COOLER #2
TEMP @RECEIPT: 41.0 °C NOTE: THE ABOVE TEMP INDICATES THE TEMP. FOR ALL CONTAINER(S) WITHIN.	TEMP @RECEIPT: _____ °C NOTE: THE ABOVE TEMP INDICATES THE TEMP. FOR ALL CONTAINER(S) WITHIN.

AMMONIA SAMPLES PRESERVED WITH H_2SO_4, pH=<2.0 ____YES NO____

AMMONIA SAMPLES NEUTRALIZED WITH Na_2SO_3, Cl=< 0.1 ____YES NO____

FECAL SAMPLES PRESERVED WITH Na_2SO_3, Cl=< 0.1 ____YES NO____

COLLECTED BY: G. Hensley

ALL SAMPLES COLLECTED AND PRESERVED AT TIME OF COLLECTION IN PLASTIC CONTAINERS UNLESS NOTED OTHERWISE BY:

RELINQUISHED BY	DATE / TIME	RECEIVED BY	SPLIT SAMPLE(S) INFO
G. Hensley	5-26-15 / 0950		
	/		

ANALYSES	RESULT LAKE						DATE	INIT'L
F. COLI cfu/100ml	G 1640						5/26/15	
BOD ppm								
TSS ppm								
NH_3 ppm								
COND umho								
TURB ntu								
MLSS ppm								
MLVSS ppm								
ALAKALINITY ppm								

By the above signature I certify that all information is accurate to the best of my knowledge.

COMMENTS (F) means QC not met.

47.7

Invoice

JAMES & JAMES ENV. MGT., INC
3801 ASHEVILLE HWY
HENDERSOVILLE, NC 28791
828-697-0063

Date	Invoice #
5/27/2015	3715

Bill To

Biltmore Lake Association
Karen Foley
80 Lake Drive
Biltmore Lake, NC 28715

Quantity	Description	Rate	Amount
4	Fecal/Collection For May 2015	50.00	200.00

Thank you for your business.

Total $200.00

James & James Environmental Management
3801 Asheville Hwy., Hendersonville , NC 28791
OFFICE: (828) 697-0063 FAX: (828) 697-0065

NC Certified Laboratory NC wastewater #482 NC Drinking Water #37763

June 2, 2015

First Service Residential
Karen Foley
80 Lake Drive
Biltmore Lake, N. C. 28715

Ms. Foley,

Enclosed are the results of the analysis performed by our staff on your samples. The analysis performed conform to Standard Methods 18th Edition.

Sample	Analysis	Result	Units	MDL	Units	Date run	Analyst
Biltmore Lake	FECAL	9.0	c/100mL	<1	c/100mL	5-5-15	DJ
Biltmore Lake	FECAL	100.0	c/100mL	<1	c/100mL	5-11-15	DJ
Biltmore Lake	FECAL	167.0	c/100mL	<1	c/100mL	5-19-15	DJ
Biltmore Lake	FECAL	164.0	c/100mL	<1	c/100mL	5-26-15	DJ
Biltmore Lake	FECAL	70.0	c/100mL	<1	c/100mL	6-1-15	DJ

The running geometric mean average is 70.4 which is below the allowable geometric mean limit of 200 and below the daily max of 400. If you have any questions regarding these results please feel free to contact me at the lab.

Thank you,

Juanita James
Laboratory Manager
James & James Env. Mgt., Inc.
jjemi@bellsouth.net
828-697-0063

JJEM AQUEOUS SAMPLE COLLECTION/LAB REPORT FORM (NC CERT 482)

Regulated by NCDENR/DWQ-Groundwater section

A-37

To assign test, label shaded area with sample type (C=composite; G=grab)

CHAIN OF CUSTODY

LOCATION	BILTMORE LAKE		COUNTY				SPECIAL INFORMATION(S)
	LAKE						
ID NO.	BLT						
INITIAL TEMP °C	23.5						Weekly
GRAB sample time	0940						PH: 8.1
COMP start sample time							
COMP end date/ time							

COOLER #1	COOLER #2
TEMP @RECEIPT: 6.0 °C NOTE: THE ABOVE TEMP INDICATES THE TEMP. FOR ALL CONTAINER(S) WITHIN.	TEMP @RECEIPT: _____ °C NOTE: THE ABOVE TEMP INDICATES THE TEMP. FOR ALL CONTAINER(S) WITHIN.

AMMONIA SAMPLES PRESERVED WITH H_2SO_4, pH=<2.0 ____YES NO____

AMMONIA SAMPLES NEUTRALIZED WITH Na_2SO_3, Cl=< 0.1 ____YES NO____

FECAL SAMPLES PRESERVED WITH Na_2SO_3, Cl=< 0.1 ____YES NO____

COLLECTED BY: G. Hensley

ALL SAMPLES COLLECTED AND PRESERVED AT TIME OF COLLECTION IN PLASTIC CONTAINERS UNLESS NOTED OTHERWISE BY:

RELINQUISHED BY	DATE / TIME	RECEIVED BY	SPLIT SAMPLE(S) INFO
G. Hensley	6-1-15 / 11:15	KR	
	/		

ANALYSES	RESULT LAKE						DATE	INIT'L
F. COLI cfu/100ml	G 70.0						6/1/15	DJ/LS
BOD ppm								
TSS ppm								
NH_3 ppm								
COND umho								
TURB ntu								
MLSS ppm								
MLVSS ppm								
ALAKALINITY ppm								

By the above signature I certify that all information is accurate to the best of my knowledge.

COMMENTS (F) means QC not met.

70.4

James & James Environmental Management
3801 Asheville Hwy., Hendersonville , NC 28791
OFFICE: (828) 697-0063 FAX: (828) 697-0065

NC Certified Laboratory NC wastewater #482 NC Drinking Water #37763

June 9, 2015

First Service Residential
Karen Foley
80 Lake Drive
Biltmore Lake, N. C. 28715

Ms. Foley,

Enclosed are the results of the analysis performed by our staff on your samples. The analysis performed conform to Standard Methods 18th Edition.

Sample	Analysis	Result	Units	MDL	Units	Date run	Analyst
Biltmore Lake	FECAL	100.0	c/100mL	<1	c/100mL	5-11-15	DJ
Biltmore Lake	FECAL	167.0	c/100mL	<1	c/100mL	5-19-15	DJ
Biltmore Lake	FECAL	164.0	c/100mL	<1	c/100mL	5-26-15	DJ
Biltmore Lake	FECAL	70.0	c/100mL	<1	c/100mL	6-1-15	DJ
Biltmore Lake	FECAL	410.0	c/100mL	<1	c/100mL	6-8-15	DJ

The running geometric mean average is 151.0 which is below the allowable geometric mean limit of 200 but above the daily max of 400. If you have any questions regarding these results please feel free to contact me at the lab.

Thank you,

Juanita James
Laboratory Manager
James & James Env. Mgt., Inc.
jjemi@bellsouth.net
828-697-0063

JJEM AQUEOUS SAMPLE COLLECTION/LAB REPORT FORM (NC CERT 482)

Regulated by NCDENR/DWQ-Groundwater section

To assign test, label shaded area with sample type (C=composite; G=grab)

CHAIN OF CUSTODY

LOCATION	BILTMORE LAKE		COUNTY				SPECIAL INFORMATION(S)
	LAKE						
ID NO.	BLT E0815						
INITIAL TEMP °C	24.4						Weekly pH= 8.4
GRAB sample time	0940						
COMP start sample time							
COMP end date/ time							

COOLER #1	COOLER #2
TEMP @RECEIPT: 6.2 °C NOTE: THE ABOVE TEMP INDICATES THE TEMP. FOR ALL CONTAINER(S) WITHIN.	TEMP @RECEIPT: _____ °C NOTE: THE ABOVE TEMP INDICATES THE TEMP. FOR ALL CONTAINER(S) WITHIN.

AMMONIA SAMPLES PRESERVED WITH H_2SO_4, pH=<2.0 ____YES NO____

AMMONIA SAMPLES NEUTRALIZED WITH Na_2SO_3, Cl=< 0.1 ____YES NO____

FECAL SAMPLES PRESERVED WITH Na_2SO_3, Cl=< 0.1 ____YES NO____

COLLECTED BY: G. Hensley

ALL SAMPLES COLLECTED AND PRESERVED AT TIME OF COLLECTION IN PLASTIC CONTAINERS UNLESS NOTED OTHERWISE BY:

RELINQUISHED BY	DATE / TIME	RECEIVED BY	SPLIT SAMPLE(S) INFO
G. Hensley	6-8-15 / 1115	KR	
	/		

ANALYSES	RESULT LAKE						DATE	INIT'L
F. COLI cfu/100ml	G 410.0						6/8/15	DJ
BOD ppm								
TSS ppm								
NH_3 ppm								
COND umho								
TURB ntu								
MLSS ppm								
MLVSS ppm								
ALAKALINITY ppm								

By the above signature I certify that all information is accurate to the best of my knowledge.

COMMENTS (F) means QC not met.

151.0

James & James Environmental Management
3801 Asheville Hwy., Hendersonville , NC 28791
OFFICE: (828) 697-0063 FAX: (828) 697-0065

NC Certified Laboratory NC wastewater #482 NC Drinking Water #37763

June 15, 2015

First Service Residential
Karen Foley
80 Lake Drive
Biltmore Lake, N. C. 28715

Ms. Foley,

Enclosed are the results of the analysis performed by our staff on your samples. The analysis performed conform to Standard Methods 18th Edition.

Sample	Analysis	Result	Units	MDL	Units	Date run	Analyst
Biltmore Lake	FECAL	100.0	c/100mL	<1	c/100mL	5-11-15	DJ
Biltmore Lake	FECAL	167.0	c/100mL	<1	c/100mL	5-19-15	DJ
Biltmore Lake	FECAL	164.0	c/100mL	<1	c/100mL	5-26-15	DJ
Biltmore Lake	FECAL	70.0	c/100mL	<1	c/100mL	6-1-15	DJ
Biltmore Lake	FECAL	410.0	c/100mL	<1	c/100mL	6-8-15	DJ
Biltmore Lake	FECAL	43.0	c/100mL	<1	c/100mL	6-10-15	DJ

The running geometric mean average is 122.5 which is below the allowable geometric mean limit of 200 and below the daily max of 400. If you have any questions regarding these results please feel free to contact me at the lab.

Thank you,

Juanita James
Laboratory Manager
James & James Env. Mgt., Inc.
jjemi@bellsouth.net
828-697-0063

JJEM AQUEOUS SAMPLE COLLECTION/LAB REPORT FORM (NC CERT 482)

Regulated by NCDENR/DWQ-Groundwater section

To assign test, label shaded area with sample type (C=composite; G=grab)

Biltmore lake **CHAIN OF CUSTODY**

LOCATION	COUNTY							SPECIAL INFORMATION
								PH: 7.7
ID NO.								
INITIAL TEMP °C	23.1							
GRAB sample time	0815							
COMP start sample time								
COMP end date/ time								

COOLER #1	COOLER #2
TEMP @RECEIPT: 6.0 °C NOTE: THE ABOVE TEMP INDICATES THE TEMP. FOR ALL CONTAINER(S) WITHIN.	TEMP @RECEIPT: _____ °C NOTE: THE ABOVE TEMP INDICATES THE TEMP. FOR ALL CONTAINER(S) WITHIN.

AMMONIA SAMPLES PRESERVED WITH H_2SO_4, pH=<2.0 _____ YES NO____

AMMONIA SAMPLES NEUTRALIZED WITH Na_2SO_3, Cl=< 0.1 _____ YES NO____

FECAL SAMPLES PRESERVED WITH Na_2SO_3, Cl=< 0.1 _____ YES NO____

COLLECTED BY: G. Hensley

ALL SAMPLES COLLECTED AND PRESERVED AT TIME OF COLLECTION IN PLASTIC CONTAINERS UNLESS NOTED OTHERWISE BY:

RELINQUISHED BY	DATE / TIME	RECEIVED BY		SPLIT SAMPLE(S) INFO
G. Hensley	6-10-15 / 1000	KR		

ANALYSES	RESULTS							DATE	INIT'L
F. COLI cfu/100ml	G 43.0							6/10/15	DJ/LS
BOD ppm									
TSS ppm									
NH_3 ppm									
COND umho									
TURB ntu									
MLSS ppm									
MLVSS ppm									
ALKALINITY ppm									

By the above signature I certify that all information is accurate to the best of my knowledge.

COMMENTS

129.5

James & James Environmental Management
3801 Asheville Hwy., Hendersonville , NC 28791
OFFICE: (828) 697-0063 FAX: (828) 697-0065

NC Certified Laboratory NC wastewater #482 NC Drinking Water #37763

June 16, 2015

First Service Residential
Karen Foley
80 Lake Drive
Biltmore Lake, N. C. 28715

Ms. Foley,

Enclosed are the results of the analysis performed by our staff on your samples. The analysis performed conform to Standard Methods 18th Edition.

Sample	Analysis	Result	Units	MDL	Units	Date run	Analyst
Biltmore Lake	FECAL	167.0	c/100mL	<1	c/100mL	5-19-15	DJ
Biltmore Lake	FECAL	164.0	c/100mL	<1	c/100mL	5-26-15	DJ
Biltmore Lake	FECAL	70.0	c/100mL	<1	c/100mL	6-1-15	DJ
Biltmore Lake	FECAL	410.0	c/100mL	<1	c/100mL	6-8-15	DJ
Biltmore Lake	FECAL	43.0	c/100mL	<1	c/100mL	6-10-15	DJ
Biltmore Lake	FECAL	36.0	c/100mL	<1	c/100mL	6-15-15	DJ

The running geometric mean average is 103.3 which is below the allowable geometric mean limit of 200 and below the daily max of 400. If you have any questions regarding these results please feel free to contact me at the lab.

Thank you,

Juanita James
Laboratory Manager
James & James Env. Mgt., Inc.
jjemi@bellsouth.net
828-697-0063

JJEM AQUEOUS SAMPLE COLLECTION/LAB REPORT FORM (NC CERT 482)

Regulated by NCDENR/DWQ-Groundwater section

To assign test, label shaded area with sample type (C=composite; G=grab)

CHAIN OF CUSTODY

LOCATION	Biltmore lake			COUNTY				SPECIAL INFORMATION
ID NO.	BLFISS							PH: 8.3
INITIAL TEMP °C	23.7							
GRAB sample time	0820							
COMP start sample time								
COMP end date/ time								

COOLER #1	COOLER #2
TEMP @RECEIPT: 5.7 °C NOTE: THE ABOVE TEMP INDICATES THE TEMP. FOR ALL CONTAINER(S) WITHIN.	TEMP @RECEIPT: _____ °C NOTE: THE ABOVE TEMP INDICATES THE TEMP. FOR ALL CONTAINER(S) WITHIN.

AMMONIA SAMPLES PRESERVED WITH H_2SO_4, pH=<2.0 _____ YES NO____

AMMONIA SAMPLES NEUTRALIZED WITH Na_2SO_3, Cl=< 0.1 _____ YES NO____

FECAL SAMPLES PRESERVED WITH Na_2SO_3, Cl=< 0.1 _____ YES NO____

COLLECTED BY: G. Hensley

ALL SAMPLES COLLECTED AND PRESERVED AT TIME OF COLLECTION IN PLASTIC CONTAINERS UNLESS NOTED OTHERWISE BY:

RELINQUISHED BY	DATE / TIME	RECEIVED BY		SPLIT SAMPLE(S) INFO
G. Hensley	6-15-15 1100	KR		

ANALYSES	RESULTS	DATE	INIT'L
F. COLI cfu/100ml	G 360	6/15/15	DJ
BOD ppm			
TSS ppm			
NH_3 ppm			
COND umho			
TURB ntu			
MLSS ppm			
MLVSS ppm			
ALAKALINITY ppm			

By the above signature I certify that all information is accurate to the best of my knowledge.

COMMENTS

103.3

James & James Environmental Management
3801 Asheville Hwy., Hendersonville , NC 28791
OFFICE: (828) 697-0063 FAX: (828) 697-0065

NC Certified Laboratory NC wastewater #482 NC Drinking Water #37763

June 24, 2015

First Service Residential
Karen Foley
80 Lake Drive
Biltmore Lake, N. C. 28715

Ms. Foley,

Enclosed are the results of the analysis performed by our staff on your samples. The analysis performed conform to Standard Methods 18th Edition.

Sample	Analysis	Result	Units	MDL	Units	Date run	Analyst
Biltmore Lake	FECAL	164.0	c/100mL	<1	c/100mL	5-26-15	DJ
Biltmore Lake	FECAL	70.0	c/100mL	<1	c/100mL	6-1-15	DJ
Biltmore Lake	FECAL	410.0	c/100mL	<1	c/100mL	6-8-15	DJ
Biltmore Lake	FECAL	43.0	c/100mL	<1	c/100mL	6-10-15	DJ
Biltmore Lake	FECAL	36.0	c/100mL	<1	c/100mL	6-15-15	DJ
Biltmore Lake	FECAL	29.0	c/100mL	<1	c/100mL	6-22-15	DJ

The running geometric mean average is 77.2 which is below the allowable geometric mean limit of 200 and below the daily max of 400. If you have any questions regarding these results please feel free to contact me at the lab.

Thank you,

Juanita James
Laboratory Manager
James & James Env. Mgt., Inc.
jjemi@bellsouth.net
828-697-0063

JJEM AQUEOUS SAMPLE COLLECTION/LAB REPORT FORM (NC CERT 482)

Regulated by NCDENR/DWQ-Groundwater section

To assign test, label shaded area with sample type (C=composite; G=grab)

Biltmore lake **CHAIN OF CUSTODY**

LOCATION	COUNTY						SPECIAL INFORMATION
	Beach						
ID NO.	BLUFF2						PH: 8.9
INITIAL TEMP °C	24.9						
GRAB sample time	0805						
COMP start sample time							
COMP end date/ time							

COOLER #1	COOLER #2
TEMP @RECEIPT: 5.0 °C NOTE: THE ABOVE TEMP INDICATES THE TEMP. FOR ALL CONTAINER(S) WITHIN.	TEMP @RECEIPT: _____ °C NOTE: THE ABOVE TEMP INDICATES THE TEMP. FOR ALL CONTAINER(S) WITHIN.

AMMONIA SAMPLES PRESERVED WITH H_2SO_4, pH=<2.0 _____ YES NO

AMMONIA SAMPLES NEUTRALIZED WITH Na_2SO_3, Cl=< 0.1 _____ YES NO

FECAL SAMPLES PRESERVED WITH Na_2SO_3, Cl=< 0.1 _____ YES NO

LLECTED BY: G. Hensley

L SAMPLES COLLECTED AND PRESERVED AT TIME OF COLLECTION IN PLASTIC CONTAINERS UNLESS NOTED OTHERWISE BY:

RELINQUISHED BY	DATE / TIME	RECEIVED BY		SPLIT SAMPLE(S) INFO
G. Hensley	6-22-15 / 11:50	KR		

ANALYSES	RESULTS							DATE	INIT'L
F. COLI cfu/100ml	G 29.0							6/22/15	JJ
BOD ppm									
TSS ppm									
NH_3 ppm									
COND umho									
TURB ntu									
MLSS ppm									
MLVSS ppm									
ALKALINITY ppm									

By the above signature I certify that all information is accurate to the best of my knowledge.

COMMENTS

77.2

James & James Environmental Management
3801 Asheville Hwy., Hendersonville , NC 28791
OFFICE: (828) 697-0063 FAX: (828) 697-0065

NC Certified Laboratory **NC wastewater #482** **NC Drinking Water #37763**

June 30, 2015

First Service Residential
Karen Foley
80 Lake Drive
Biltmore Lake, N. C. 28715

Ms. Foley,

Enclosed are the results of the analysis performed by our staff on your samples. The analysis performed conform to Standard Methods 18th Edition.

Sample	Analysis	Result	Units	MDL	Units	Date run	Analyst
Biltmore Lake	FECAL	70.0	c/100mL	<1	c/100mL	6-1-15	DJ
Biltmore Lake	FECAL	410.0	c/100mL	<1	c/100mL	6-8-15	DJ
Biltmore Lake	FECAL	43.0	c/100mL	<1	c/100mL	6-10-15	DJ
Biltmore Lake	FECAL	36.0	c/100mL	<1	c/100mL	6-15-15	DJ
Biltmore Lake	FECAL	29.0	c/100mL	<1	c/100mL	6-22-15	DJ
Biltmore Lake	FECAL	45.0	c/100mL	<1	c/100mL	6-29-15	DJ

The running geometric mean average is 62.2 which is below the allowable geometric mean limit of 200 and below the daily max of 400. If you have any questions regarding these results please feel free to contact me at the lab.

Thank you,

Juanita James
Laboratory Manager
James & James Env. Mgt., Inc.
jjemi@bellsouth.net
828-697-0063

JJEM AQUEOUS SAMPLE COLLECTION/LAB REPORT FORM (NC CERT 482)

Regulated by NCDENR/DWQ-Groundwater section

To assign test, label shaded area with sample type (C=composite; G=grab)

Biltmore lake **CHAIN OF CUSTODY**

LOCATION	COUNTY						SPECIAL INFORMATION
	Beach						PH:
ID NO.	~~BGF915~~	BGF915					8.6
INITIAL TEMP °C	23.3						
GRAB sample time	0815						
COMP start sample time							
COMP end date/ time							

COOLER #1	COOLER #2
TEMP @RECEIPT: 7.0 °C NOTE: THE ABOVE TEMP INDICATES THE TEMP. FOR ALL CONTAINER(S) WITHIN.	TEMP @RECEIPT: _____ °C NOTE: THE ABOVE TEMP INDICATES THE TEMP. FOR ALL CONTAINER(S) WITHIN.

AMMONIA SAMPLES PRESERVED WITH H_2SO_4, pH=<2.0 _____ YES NO____

AMMONIA SAMPLES NEUTRALIZED WITH Na_2SO_3, Cl=< 0.1 _____ YES NO____

FECAL SAMPLES PRESERVED WITH Na_2SO_3, Cl=< 0.1 _____ YES NO____

COLLECTED BY: G. Hensley

ALL SAMPLES COLLECTED AND PRESERVED AT TIME OF COLLECTION IN PLASTIC CONTAINERS UNLESS NOTED OTHERWISE BY:

RELINQUISHED BY	DATE / TIME	RECEIVED BY		SPLIT SAMPLE(S) INFO
G. Hensley	6-29-15 / 0940	[signature]		
	/			

ANALYSES	RESULTS							DATE	INIT'L
F. COLI cfu/100ml		G450						6/29/15	DS
BOD ppm									
TSS ppm									
NH_3 ppm									
COND umho									
TURB ntu									
MLSS ppm									
MLVSS ppm									
ALKALINITY ppm									

By the above signature I certify that all information is accurate to the best of my knowledge.

COMMENTS

62.2

James & James Environmental Management
3801 Asheville Hwy., Hendersonville , NC 28791
OFFICE: (828) 697-0063 FAX: (828) 697-0065

NC Certified Laboratory NC wastewater #482 NC Drinking Water #37763

July 7, 2015

First Service Residential
Karen Foley
80 Lake Drive
Biltmore Lake, N. C. 28715

Ms. Foley,

Enclosed are the results of the analysis performed by our staff on your samples. The analysis performed conform to Standard Methods 18th Edition.

Sample	Analysis	Result	Units	MDL	Units	Date run	Analyst
Biltmore Lake	FECAL	43.0	c/100mL	<1	c/100mL	6-10-15	DJ
Biltmore Lake	FECAL	36.0	c/100mL	<1	c/100mL	6-15-15	DJ
Biltmore Lake	FECAL	29.0	c/100mL	<1	c/100mL	6-22-15	DJ
Biltmore Lake	FECAL	45.0	c/100mL	<1	c/100mL	6-29-15	DJ
Biltmore Lake	FECAL	5.0	c/100mL	<1	c/100mL	7-6-15	LS

The running geometric mean average is 27.7 which is below the allowable geometric mean limit of 200 and below the daily max of 400. If you have any questions regarding these results please feel free to contact me at the lab.

Thank you,

Juanita James
Laboratory Manager
James & James Env. Mgt., Inc.
jjemi@bellsouth.net
828-697-0063

JJEM AQUEOUS SAMPLE COLLECTION/LAB REPORT FORM (NC CERT 482)

Regulated by NCDENR/DWQ-Groundwater section

To assign test, label shaded area with sample type (C=composite; G=grab)

Biltmore lake **CHAIN OF CUSTODY**

LOCATION	COUNTY							SPECIAL INFORMATION
	Beach							PH: 7.6
ID NO.								
INITIAL TEMP °C	20.6							
GRAB sample time	0745							
COMP start sample time								
COMP end date/ time								

COOLER #1	COOLER #2
TEMP @RECEIPT: 6.0 °C NOTE: THE ABOVE TEMP INDICATES THE TEMP. FOR ALL CONTAINER(S) WITHIN.	TEMP @RECEIPT: _____ °C NOTE: THE ABOVE TEMP INDICATES THE TEMP. FOR ALL CONTAINER(S) WITHIN.

AMMONIA SAMPLES PRESERVED WITH H_2SO_4, pH=<2.0 _____ YES NO

AMMONIA SAMPLES NEUTRALIZED WITH Na_2SO_3, Cl=< 0.1 _____ YES NO

FECAL SAMPLES PRESERVED WITH Na_2SO_3, Cl=< 0.1 _____ YES NO

COLLECTED BY: G. Hensley

ALL SAMPLES COLLECTED AND PRESERVED AT TIME OF COLLECTION IN PLASTIC CONTAINERS UNLESS NOTED OTHERWISE BY:

RELINQUISHED BY	DATE / TIME	RECEIVED BY		SPLIT SAMPLE(S) INFO
G. Hensley	7-6-15 / 1010	LS		
	/			

ANALYSES	RESULTS							DATE	INIT'L
F. COLI cfu/100ml	G 5.0							7/6/15	LS
BOD ppm									
TSS ppm									
NH_3 ppm									
COND umho									
TURB ntu									
MLSS ppm									
MLVSS ppm									
ALKALINITY ppm									

By the above signature I certify that all information is accurate to the best of my knowledge.

COMMENTS

27.7

James & James Environmental Management
3801 Asheville Hwy., Hendersonville , NC 28791
OFFICE: (828) 697-0063 FAX: (828) 697-0065

NC Certified Laboratory NC wastewater #482 NC Drinking Water #37763

July 14, 2015

First Service Residential
Karen Foley
80 Lake Drive
Biltmore Lake, N. C. 28715

Ms. Foley,

Enclosed are the results of the analysis performed by our staff on your samples. The analysis performed conform to Standard Methods 18th Edition.

Sample	Analysis	Result	Units	MDL	Units	Date run	Analyst
Biltmore Lake	FECAL	36.0	c/100mL	<1	c/100mL	6-15-15	DJ
Biltmore Lake	FECAL	29.0	c/100mL	<1	c/100mL	6-22-15	DJ
Biltmore Lake	FECAL	45.0	c/100mL	<1	c/100mL	6-29-15	DJ
Biltmore Lake	FECAL	5.0	c/100mL	<1	c/100mL	7-6-15	LS
Biltmore Lake	FECAL	109.0	c/100mL	<1	c/100mL	7-13-15	LS

The running geometric mean average is 32.4 which is below the allowable geometric mean limit of 200 and below the daily max of 400. If you have any questions regarding these results please feel free to contact me at the lab.

Thank you,
Terry Storey for
Juanita James
Laboratory Manager
James & James Env. Mgt., Inc.
jjemi@bellsouth.net
828-697-0063

JJEM AQUEOUS SAMPLE COLLECTION/LAB REPORT FORM (NC CERT 482)

Regulated by NCDENR/DWQ-Groundwater section

To assign test, label shaded area with sample type (C=composite; G=grab)

Biltmore lake **CHAIN OF CUSTODY**

LOCATION	COUNTY							SPECIAL INFORMATION
	Beach							
ID NO.								
INITIAL TEMP °C	25.9							PH: 8.2
GRAB sample time	0835							
COMP start sample time								
COMP end date/ time								

COOLER #1	COOLER #2
TEMP @RECEIPT: 6.5 °C NOTE: THE ABOVE TEMP INDICATES THE TEMP. FOR ALL CONTAINER(S) WITHIN.	TEMP @RECEIPT: _____ °C NOTE: THE ABOVE TEMP INDICATES THE TEMP. FOR ALL CONTAINER(S) WITHIN.

AMMONIA SAMPLES PRESERVED WITH H_2SO_4, pH=<2.0 _____ YES NO____

AMMONIA SAMPLES NEUTRALIZED WITH Na_2SO_3, Cl=< 0.1 _____ YES NO____

FECAL SAMPLES PRESERVED WITH Na_2SO_3, Cl=< 0.1 _____ YES NO____

COLLECTED BY: G. Hensley

ALL SAMPLES COLLECTED AND PRESERVED AT TIME OF COLLECTION IN PLASTIC CONTAINERS UNLESS NOTED OTHERWISE BY:

RELINQUISHED BY	DATE / TIME	RECEIVED BY		SPLIT SAMPLE(S) INFO
G. Hensley	7-13-15 / 1045 / /	LS		

ANALYSES	RESULTS							DATE	INIT'L
F. COLI cfu/100ml	109.0							7/13/15	LS
BOD ppm									
TSS ppm									
NH_3 ppm									
COND umho									
TURB ntu									
MLSS ppm									
MLVSS ppm									
ALKALINITY ppm									

By the above signature I certify that all information is accurate to the best of my knowledge.

COMMENTS

32.4

James & James Environmental Management
3801 Asheville Hwy., Hendersonville , NC 28791
OFFICE: (828) 697-0063 FAX: (828) 697-0065

NC Certified Laboratory NC wastewater #482 NC Drinking Water #37763

July 21, 2015

First Service Residential
Karen Foley
80 Lake Drive
Biltmore Lake, N. C. 28715

Ms. Foley,

Enclosed are the results of the analysis performed by our staff on your samples. The analysis performed conform to Standard Methods 18th Edition.

Sample	Analysis	Result	Units	MDL	Units	Date run	Analyst
Biltmore Lake	FECAL	29.0	c/100mL	<1	c/100mL	6-22-15	DJ
Biltmore Lake	FECAL	45.0	c/100mL	<1	c/100mL	6-29-15	DJ
Biltmore Lake	FECAL	5.0	c/100mL	<1	c/100mL	7-6-15	LS
Biltmore Lake	FECAL	109.0	c/100mL	<1	c/100mL	7-13-15	LS
Biltmore Lake	FECAL	91.0	c/100mL	<1	c/100mL	7-20-15	LS

The running geometric mean average is 36.5 which is below the allowable geometric mean limit of 200 and below the daily max of 400. If you have any questions regarding these results please feel free to contact me at the lab.

Thank you,

Juanita James
Laboratory Manager
James & James Env. Mgt., Inc.
jjemi@bellsouth.net
828-697-0063

JJEM AQUEOUS SAMPLE COLLECTION/LAB REPORT FORM (NC CERT 482)

Regulated by NCDENR/DWQ-Groundwater section

To assign test, label shaded area with sample type (C=composite; G=grab)

Biltmore Lake **CHAIN OF CUSTODY**

LOCATION	COUNTY							SPECIAL INFORMATION
		Beach						
ID NO.								
INITIAL TEMP °C		25.8						PH: 8.0
GRAB sample time		0835						
COMP start sample time								
COMP end date/ time								

COOLER #1	COOLER #2
TEMP @RECEIPT: 6.6 °C NOTE: THE ABOVE TEMP INDICATES THE TEMP. FOR ALL CONTAINER(S) WITHIN.	TEMP @RECEIPT: _____ °C NOTE: THE ABOVE TEMP INDICATES THE TEMP. FOR ALL CONTAINER(S) WITHIN.

AMMONIA SAMPLES PRESERVED WITH H_2SO_4, pH=<2.0 _____ YES NO____

AMMONIA SAMPLES NEUTRALIZED WITH Na_2SO_3, Cl=< 0.1 _____ YES NO____

FECAL SAMPLES PRESERVED WITH Na_2SO_3, Cl=< 0.1 _____ YES NO____

COLLECTED BY: G. Hensley

ALL SAMPLES COLLECTED AND PRESERVED AT TIME OF COLLECTION IN PLASTIC CONTAINERS UNLESS NOTED OTHERWISE BY:

RELINQUISHED BY	DATE / TIME	RECEIVED BY		SPLIT SAMPLE(S) INFO
G. Hensley	7-20-15 / 1010	KR		
	/			

ANALYSES								DATE	INIT'L
F. COLI cfu/100ml		691.0						7/20/15	LS
BOD ppm									
TSS ppm									
NH_3 ppm									
COND umho									
TURB ntu									
MLSS ppm									
MLVSS ppm									
ALKALINITY ppm									

By the above signature I certify that all information is accurate to the best of my knowledge.

COMMENTS

36.5

James & James Environmental Management
3801 Asheville Hwy., Hendersonville , NC 28791
OFFICE: (828) 697-0063 FAX: (828) 697-0065

NC Certified Laboratory NC wastewater #482 NC Drinking Water #37763

July 29, 2015

First Service Residential
Karen Foley
80 Lake Drive
Biltmore Lake, N. C. 28715

Ms. Foley,

Enclosed are the results of the analysis performed by our staff on your samples. The analysis performed conform to Standard Methods 18th Edition.

Sample	Analysis	Result	Units	MDL	Units	Date run	Analyst
Biltmore Lake	FECAL	45.0	c/100mL	<1	c/100mL	6-29-15	DJ
Biltmore Lake	FECAL	5.0	c/100mL	<1	c/100mL	7-6-15	LS
Biltmore Lake	FECAL	109.0	c/100mL	<1	c/100mL	7-13-15	LS
Biltmore Lake	FECAL	91.0	c/100mL	<1	c/100mL	7-20-15	LS
Biltmore Lake	FECAL	118.0	c/100mL	<1	c/100mL	7-28-15	LS

The running geometric mean average is 48.3 which is below the allowable geometric mean limit of 200 and below the daily max of 400. If you have any questions regarding these results please feel free to contact me at the lab.

Thank you,

Juanita James
Laboratory Manager
James & James Env. Mgt., Inc.
jjemi@bellsouth.net
828-697-0063

JJEM AQUEOUS SAMPLE COLLECTION/LAB REPORT FORM (NC CERT 482)

Regulated by NCDENR/DWQ-Groundwater section

To assign test, label shaded area with sample type (C=composite; G=grab)

Biltmore lake **CHAIN OF CUSTODY**

LOCATION	COUNTY							SPECIAL INFORMATION
	Beach							
ID NO.								
INITIAL TEMP °C	26.1							pH: 8.4
GRAB sample time	0845							
COMP start sample time								
COMP end date/ time								

COOLER #1	COOLER #2
TEMP @RECEIPT: 5.7 °C NOTE: THE ABOVE TEMP INDICATES THE TEMP. FOR ALL CONTAINER(S) WITHIN.	TEMP @RECEIPT: _____ °C NOTE: THE ABOVE TEMP INDICATES THE TEMP. FOR ALL CONTAINER(S) WITHIN.

AMMONIA SAMPLES PRESERVED WITH H_2SO_4, pH=<2.0 _____ YES NO

AMMONIA SAMPLES NEUTRALIZED WITH Na_2SO_3, Cl=< 0.1 _____ YES NO

FECAL SAMPLES PRESERVED WITH Na_2SO_3, Cl=< 0.1 _____ YES NO

COLLECTED BY: G. Hensley

ALL SAMPLES COLLECTED AND PRESERVED AT TIME OF COLLECTION IN PLASTIC CONTAINERS UNLESS NOTED OTHERWISE BY:

RELINQUISHED BY	DATE / TIME	RECEIVED BY		SPLIT SAMPLE(S) INFO
G. Hensley	7-28-15 / 11:05			
	/			

ANALYSES								DATE	INIT'L
F. COLI cfu/100ml	G ~~1180~~	118.0	LS 7/29/15					7/28/15	LS
BOD ppm									
TSS ppm									
NH_3 ppm									
COND umho									
TURB ntu									
MLSS ppm									
MLVSS ppm									
ALKALINITY ppm									

By the above signature I certify that all information is accurate to the best of my knowledge.

COMMENTS

48.3

James & James Environmental Management
3801 Asheville Hwy., Hendersonville , NC 28791
OFFICE: (828) 697-0063 FAX: (828) 697-0065

NC Certified Laboratory NC wastewater #482 NC Drinking Water #37763

August 3, 2015

First Service Residential
Karen Foley
80 Lake Drive
Biltmore Lake, N. C. 28715

Ms. Foley,

Enclosed are the results of the analysis performed by our staff on your samples. The analysis performed conform to Standard Methods 18th Edition.

Sample	Analysis	Result	Units	MDL	Units	Date run	Analyst
Biltmore Lake	FECAL	5.0	c/100mL	<1	c/100mL	7-6-15	LS
Biltmore Lake	FECAL	109.0	c/100mL	<1	c/100mL	7-13-15	LS
Biltmore Lake	FECAL	91.0	c/100mL	<1	c/100mL	7-20-15	LS
Biltmore Lake	FECAL	118.0	c/100mL	<1	c/100mL	7-28-15	LS
Biltmore Lake	FECAL	<10.0	c/100mL	<1	c/100mL	8-3-15	LS

The running geometric mean average is 35.8 which is below the allowable geometric mean limit of 200 and below the daily max of 400. If you have any questions regarding these results please feel free to contact me at the lab.

Thank you,

Juanita James
Laboratory Manager
James & James Env. Mgt., Inc.
jjemi@bellsouth.net
828-697-0063

JJEM AQUEOUS SAMPLE COLLECTION/LAB REPORT FORM (NC CERT 482)

Regulated by NCDENR/DWQ-Groundwater section

To assign test, label shaded area with sample type (C=composite; G=grab)

Biltmore lake **CHAIN OF CUSTODY**

LOCATION	COUNTY							SPECIAL INFORMATION
ID NO.								
INITIAL TEMP °C	25.5							PH: 8.3
GRAB sample time	0805							
COMP start sample time								
COMP end date/ time								

COOLER #1	COOLER #2
TEMP @RECEIPT: 6.0 °C NOTE: THE ABOVE TEMP INDICATES THE TEMP. FOR ALL CONTAINER(S) WITHIN.	TEMP @RECEIPT: _____ °C NOTE: THE ABOVE TEMP INDICATES THE TEMP. FOR ALL CONTAINER(S) WITHIN.

AMMONIA SAMPLES PRESERVED WITH H_2SO_4, pH=<2.0 _____ YES NO

AMMONIA SAMPLES NEUTRALIZED WITH Na_2SO_3, Cl=< 0.1 _____ YES NO

FECAL SAMPLES PRESERVED WITH Na_2SO_3, Cl=< 0.1 _____ YES NO

COLLECTED BY: G. Hensley

ALL SAMPLES COLLECTED AND PRESERVED AT TIME OF COLLECTION IN PLASTIC CONTAINERS UNLESS NOTED OTHERWISE BY:

RELINQUISHED BY	DATE / TIME	RECEIVED BY	SPLIT SAMPLE(S) INFO
G. Hensley	8-3-15 / 1120	KR	
	/		

ANALYSES	RESULTS	DATE	INIT'L
F. COLI cfu/100ml	<10.0	8/3/15	TB
BOD ppm			
TSS ppm			
NH_3 ppm			
COND umho			
TURB ntu			
MLSS ppm			
MLVSS ppm			
ALAKALINITY ppm			

By the above signature I certify that all information is accurate to the best of my knowledge.

COMMENTS

35.8

James & James Environmental Management
3801 Asheville Hwy., Hendersonville , NC 28791
OFFICE: (828) 697-0063 FAX: (828) 697-0065

NC Certified Laboratory NC wastewater #482 NC Drinking Water #37763

August 12, 2015

First Service Residential
Karen Foley
80 Lake Drive
Biltmore Lake, N. C. 28715

Ms. Foley,

Enclosed are the results of the analysis performed by our staff on your samples. The analysis performed conform to Standard Methods 18th Edition.

Sample	Analysis	Result	Units	MDL	Units	Date run	Analyst
Biltmore Lake	FECAL	109.0	c/100mL	<1	c/100mL	7-13-15	LS
Biltmore Lake	FECAL	91.0	c/100mL	<1	c/100mL	7-20-15	LS
Biltmore Lake	FECAL	118.0	c/100mL	<1	c/100mL	7-28-15	LS
Biltmore Lake	FECAL	<10.0	c/100mL	<1	c/100mL	8-3-15	LS
Biltmore Lake	FECAL	62.0	c/100mL	<1	c/100mL	8-11-15	LS

The running geometric mean average is 59.2 which is below the allowable geometric mean limit of 200 and below the daily max of 400. If you have any questions regarding these results please feel free to contact me at the lab.

Thank you,

Juanita James
Laboratory Manager
James & James Env. Mgt., Inc.
jjemi@bellsouth.net
828-697-0063

JJEM AQUEOUS SAMPLE COLLECTION/LAB REPORT FORM (NC CERT 482)

Regulated by NCDENR/DWQ-Groundwater section

To assign test, label shaded area with sample type (C=composite; G=grab)

Biltmore lake **CHAIN OF CUSTODY**

LOCATION	COUNTY							SPECIAL INFORMATION
	Beach							
ID NO.								
INITIAL TEMP °C	25.5							PH: 8.5
GRAB sample time	0820							
COMP start sample time								
COMP end date/ time								

COOLER #1	COOLER #2
TEMP @RECEIPT: 7.2 °C NOTE: THE ABOVE TEMP INDICATES THE TEMP. FOR ALL CONTAINER(S) WITHIN.	TEMP @RECEIPT: _____ °C NOTE: THE ABOVE TEMP INDICATES THE TEMP. FOR ALL CONTAINER(S) WITHIN.

AMMONIA SAMPLES PRESERVED WITH H_2SO_4, pH=<2.0 _____ YES NO

AMMONIA SAMPLES NEUTRALIZED WITH Na_2SO_3, Cl=< 0.1 _____ YES NO

FECAL SAMPLES PRESERVED WITH Na_2SO_3, Cl=< 0.1 _____ YES NO

COLLECTED BY: G. Hensley

ALL SAMPLES COLLECTED AND PRESERVED AT TIME OF COLLECTION IN PLASTIC CONTAINERS UNLESS NOTED OTHERWISE BY:

RELINQUISHED BY	DATE / TIME	RECEIVED BY		SPLIT SAMPLE(S) INFO
G. Hensley	8-11-15 / 0955	KR		
	/			

ANALYSES	RESULTS							DATE	INIT'L
F. COLI cfu/100ml	G 62.0							8/11/15	LS
BOD ppm									
TSS ppm									
NH_3 ppm									
COND umho									
TURB ntu									
MLSS ppm									
MLVSS ppm									
ALKALINITY ppm									

By the above signature I certify that all information is accurate to the best of my knowledge.

COMMENTS

59.2

James & James Environmental Management
3801 Asheville Hwy., Hendersonville , NC 28791
OFFICE: (828) 697-0063 FAX: (828) 697-0065

NC Certified Laboratory NC wastewater #482 NC Drinking Water #37763

August 18, 2015

First Service Residential
Karen Foley
80 Lake Drive
Biltmore Lake, N. C. 28715

Ms. Foley,

Enclosed are the results of the analysis performed by our staff on your samples. The analysis performed conform to Standard Methods 18th Edition.

Sample	Analysis	Result	Units	MDL	Units	Date run	Analyst
Biltmore Lake	FECAL	91.0	c/100mL	<1	c/100mL	7-20-15	LS
Biltmore Lake	FECAL	118.0	c/100mL	<1	c/100mL	7-28-15	LS
Biltmore Lake	FECAL	<10.0	c/100mL	<1	c/100mL	8-3-15	LS
Biltmore Lake	FECAL	62.0	c/100mL	<1	c/100mL	8-11-15	LS
Biltmore Lake	FECAL	152.0	c/100mL	<1	c/100mL	8-17-15	LS

The running geometric mean average is 63.2 which is below the allowable geometric mean limit of 200 and below the daily max of 400. If you have any questions regarding these results please feel free to contact me at the lab.

Thank you,
Jerry Storey for
Juanita James
Laboratory Manager
James & James Env. Mgt., Inc.
jjemi@bellsouth.net
828-697-0063

JJEM AQUEOUS SAMPLE COLLECTION/LAB REPORT FORM (NC CERT 482)

Regulated by NCDENR/DWQ-Groundwater section

To assign test, label shaded area with sample type (C=composite; G=grab)

Biltmore lake

CHAIN OF CUSTODY

LOCATION	COUNTY							SPECIAL INFORMATION
	Beach							
ID NO.	#1715							
INITIAL TEMP °C	24.7							PH: 8.9
GRAB sample time	0815							
COMP start sample time								
COMP end date/ time								

COOLER #1	COOLER #2
TEMP @RECEIPT: 5.0 °C NOTE: THE ABOVE TEMP INDICATES THE TEMP. FOR ALL CONTAINER(S) WITHIN.	TEMP @RECEIPT: _____ °C NOTE: THE ABOVE TEMP INDICATES THE TEMP. FOR ALL CONTAINER(S) WITHIN.

AMMONIA SAMPLES PRESERVED WITH H_2SO_4, pH=<2.0 _____ YES NO____

AMMONIA SAMPLES NEUTRALIZED WITH Na_2SO_3, Cl=< 0.1 _____ YES NO____

FECAL SAMPLES PRESERVED WITH Na_2SO_3, Cl=< 0.1 _____ YES NO____

COLLECTED BY: G. Hensley

ALL SAMPLES COLLECTED AND PRESERVED AT TIME OF COLLECTION IN PLASTIC CONTAINERS UNLESS NOTED OTHERWISE BY:

RELINQUISHED BY	DATE / TIME	RECEIVED BY		SPLIT SAMPLE(S) INFO
G. Hensley	8-17-15 / 0925	LS		
	/			

ANALYSES	RESULTS							DATE	INIT'L
F. COLI cfu/100ml	G 152.0							8/17/15	LS
BOD ppm									
TSS ppm									
NH_3 ppm									
COND umho									
TURB ntu									
MLSS ppm									
MLVSS ppm									
ALKALINITY ppm									

By the above signature I certify that all information is accurate to the best of my knowledge.

COMMENTS

63.2

James & James Environmental Management
3801 Asheville Hwy., Hendersonville , NC 28791
OFFICE: (828) 697-0063 FAX: (828) 697-0065

NC Certified Laboratory NC wastewater #482 NC Drinking Water #37763

August 25, 2015

First Service Residential
Karen Foley
80 Lake Drive
Biltmore Lake, N. C. 28715

Ms. Foley,

Enclosed are the results of the analysis performed by our staff on your samples. The analysis performed conform to Standard Methods 18th Edition.

Sample	Analysis	Result	Units	MDL	Units	Date run	Analyst
Biltmore Lake	FECAL	118.0	c/100mL	<1	c/100mL	7-28-15	LS
Biltmore Lake	FECAL	<10.0	c/100mL	<1	c/100mL	8-3-15	LS
Biltmore Lake	FECAL	62.0	c/100mL	<1	c/100mL	8-11-15	LS
Biltmore Lake	FECAL	152.0	c/100mL	<1	c/100mL	8-17-15	LS
Biltmore Lake	FECAL	<10.0	c/100mL	<1	c/100mL	8-24-15	LS

The running geometric mean average is 40.7 which is below the allowable geometric mean limit of 200 and below the daily max of 400. If you have any questions regarding these results please feel free to contact me at the lab.

Thank you,

Juanita James
Laboratory Manager
James & James Env. Mgt., Inc.
jjemi@bellsouth.net
828-697-0063

JJEM AQUEOUS SAMPLE COLLECTION/LAB REPORT FORM (NC CERT 482)

Regulated by NCDENR/DWQ-Groundwater section

To assign test, label shaded area with sample type (C=composite; G=grab)

Biltmore lake **CHAIN OF CUSTODY**

LOCATION	COUNTY							SPECIAL INFORMATION
	Beach							
ID NO.								
INITIAL TEMP °C	24.7							PH: 8.4
GRAB sample time	0750							
COMP start sample time								
COMP end date/ time								

COOLER #1	COOLER #2
TEMP @RECEIPT: 6-8 °C NOTE: THE ABOVE TEMP INDICATES THE TEMP. FOR ALL CONTAINER(S) WITHIN.	TEMP @RECEIPT: _____ °C NOTE: THE ABOVE TEMP INDICATES THE TEMP. FOR ALL CONTAINER(S) WITHIN.

AMMONIA SAMPLES PRESERVED WITH H_2SO_4, pH=<2.0 _____ YES NO

AMMONIA SAMPLES NEUTRALIZED WITH Na_2SO_3, Cl=< 0.1 _____ YES NO

FECAL SAMPLES PRESERVED WITH Na_2SO_3, Cl=< 0.1 _____ YES NO

OLLECTED BY: G. Hensley

L SAMPLES COLLECTED AND PRESERVED AT TIME OF COLLECTION IN PLASTIC CONTAINERS UNLESS NOTED OTHERWISE BY:

RELINQUISHED BY	DATE / TIME	RECEIVED BY		SPLIT SAMPLE(S) INFO
G. Hensley	8-24-15 / 0915			

ANALYSES	RESULTS	DATE	INIT'L
F. COLI cfu/100ml	G <10.0	8/24/15	LS
BOD ppm			
TSS ppm			
NH_3 ppm			
COND umho			
TURB ntu			
MLSS ppm			
MLVSS ppm			
ALKALINITY ppm			

By the above signature I certify that all information is accurate to the best of my knowledge.

COMMENTS

40.7

James & James Environmental Management
3801 Asheville Hwy., Hendersonville , NC 28791
OFFICE: (828) 697-0063 FAX: (828) 697-0065

NC Certified Laboratory **NC wastewater #482** **NC Drinking Water #37763**

September 10, 2015

First Service Residential
Karen Foley
80 Lake Drive
Biltmore Lake, N. C. 28715

Ms. Foley,

Enclosed are the results of the analysis performed by our staff on your samples. The analysis performed conform to Standard Methods 18th Edition.

Sample	Analysis	Result	Units	MDL	Units	Date run	Analyst
Biltmore Lake	FECAL	62.0	c/100mL	<1	c/100mL	8-11-15	LS
Biltmore Lake	FECAL	152.0	c/100mL	<1	c/100mL	8-17-15	LS
Biltmore Lake	FECAL	<10.0	c/100mL	<1	c/100mL	8-24-15	LS
Biltmore Lake	FECAL	<10.0	c/100mL	<1	c/100mL	8-31-15	LS
Biltmore Lake	FECAL	24.0	c/100mL	<1	c/100mL	9-08-15	LS

The running geometric mean average is 29.6 which is below the allowable geometric mean limit of 200 and below the daily max of 400. If you have any questions regarding these results please feel free to contact me at the lab.

Thank you,

Juanita James
Laboratory Manager
James & James Env. Mgt., Inc.
jjemi@bellsouth.net

JJEM AQUEOUS SAMPLE COLLECTION/LAB REPORT FORM (NC CERT 482)

Regulated by NCDENR/DWQ-Groundwater section

To assign test, label shaded area with sample type (C=composite; G=grab)

Biltmore lake **CHAIN OF CUSTODY**

LOCATION	COUNTY							SPECIAL INFORMATION
	Beach							
ID NO.								PH: 9.4
INITIAL TEMP °C	23.4							
GRAB sample time	0805							
COMP start sample time								
COMP end date/ time								

COOLER #1	COOLER #2
TEMP @RECEIPT: 7.0 °C NOTE: THE ABOVE TEMP INDICATES THE TEMP. FOR ALL CONTAINER(S) WITHIN.	TEMP @RECEIPT: _____ °C NOTE: THE ABOVE TEMP INDICATES THE TEMP. FOR ALL CONTAINER(S) WITHIN.

AMMONIA SAMPLES PRESERVED WITH H_2SO_4, pH=<2.0 _____ YES NO

AMMONIA SAMPLES NEUTRALIZED WITH Na_2SO_3, Cl=< 0.1 _____ YES NO

FECAL SAMPLES PRESERVED WITH Na_2SO_3, Cl=< 0.1 _____ YES NO

COLLECTED BY: G. Hensley

L SAMPLES COLLECTED AND PRESERVED AT TIME OF COLLECTION IN PLASTIC CONTAINERS UNLESS NOTED OTHERWISE BY:

RELINQUISHED BY	DATE / TIME	RECEIVED BY		SPLIT SAMPLE(S) INFO
G. Hensley	9-8-15 / 1015	LS		
	/			

ANALYSES	RESULTS							DATE	INIT'L
F. COLI cfu/100ml	G 24.0							9/8/15	LS
BOD ppm									
TSS ppm									
NH_3 ppm									
COND umho									
TURB ntu									
MLSS ppm									
MLVSS ppm									
ALKALINITY ppm									

By the above signature I certify that all information is accurate to the best of my knowledge.

COMMENTS 29.6

James & James Environmental Management
3801 Asheville Hwy., Hendersonville , NC 28791
OFFICE: (828) 697-0063 FAX: (828) 697-0065

NC Certified Laboratory NC wastewater #482 NC Drinking Water #37763

September 15, 2015

First Service Residential
Karen Foley
80 Lake Drive
Biltmore Lake, N. C. 28715

Ms. Foley,

Enclosed are the results of the analysis performed by our staff on your samples. The analysis performed conform to Standard Methods 18th Edition.

Sample	Analysis	Result	Units	MDL	Units	Date run	Analyst
Biltmore Lake	FECAL	152.0	c/100mL	<1	c/100mL	8-17-15	LS
Biltmore Lake	FECAL	<10.0	c/100mL	<1	c/100mL	8-24-15	LS
Biltmore Lake	FECAL	<10.0	c/100mL	<1	c/100mL	8-31-15	LS
Biltmore Lake	FECAL	24.0	c/100mL	<1	c/100mL	9-08-15	LS
Biltmore Lake	FECAL	14.0	c/100mL	<1	c/100mL	9-14-15	LS

The running geometric mean average is 22.0 which is below the allowable geometric mean limit of 200 and below the daily max of 400. If you have any questions regarding these results please feel free to contact me at the lab.

Thank you,

Juanita James
Laboratory Manager
James & James Env. Mgt., Inc.
jjemi@bellsouth.net
828-697-0063

JJEM AQUEOUS SAMPLE COLLECTION/LAB REPORT FORM (NC CERT 482)

Regulated by NCDENR/DWQ-Groundwater section

To assign test, label shaded area with sample type (C=composite; G=grab)

Biltmore lake **CHAIN OF CUSTODY**

LOCATION	COUNTY							SPECIAL INFORMATION
	Beach							
ID NO.								
INITIAL TEMP °C	20.6							PH: 8.7
GRAB sample time	0815							
COMP start sample time								
COMP end date/ time								

COOLER #1	COOLER #2
TEMP @RECEIPT: 7.3 °C NOTE: THE ABOVE TEMP INDICATES THE TEMP. FOR ALL CONTAINER(S) WITHIN.	TEMP @RECEIPT: _____ °C NOTE: THE ABOVE TEMP INDICATES THE TEMP. FOR ALL CONTAINER(S) WITHIN.

AMMONIA SAMPLES PRESERVED WITH H_2SO_4, pH=<2.0 _____ YES NO____

AMMONIA SAMPLES NEUTRALIZED WITH Na_2SO_3, Cl=< 0.1 _____ YES NO____

FECAL SAMPLES PRESERVED WITH Na_2SO_3, Cl=< 0.1 _____ YES NO____

COLLECTED BY: G. Hensley

ALL SAMPLES COLLECTED AND PRESERVED AT TIME OF COLLECTION IN PLASTIC CONTAINERS UNLESS NOTED OTHERWISE BY:

RELINQUISHED BY	DATE / TIME	RECEIVED BY		SPLIT SAMPLE(S) INFO
G. Hensley	9-14-15 / 0935	LS		
	/			

ANALYSES	RESULTS	DATE	INIT'L
F. COLI cfu/100ml	G 14.0	9/14/15	LS
BOD ppm			
TSS ppm			
NH_3 ppm			
COND umho			
TURB ntu			
MLSS ppm			
MLVSS ppm			
ALKALINITY ppm			

By the above signature I certify that all information is accurate to the best of my knowledge.

COMMENTS MMO 22.0
TB 9-15-15

James & James Environmental Management
3801 Asheville Hwy., Hendersonville , NC 28791
OFFICE: (828) 697-0063 FAX: (828) 697-0065

NC Certified Laboratory NC wastewater #482 NC Drinking Water #37763

September 24, 2015

First Service Residential
Karen Foley
80 Lake Drive
Biltmore Lake, N. C. 28715

Ms. Foley,

Enclosed are the results of the analysis performed by our staff on your samples. The analysis performed conform to Standard Methods 18th Edition.

Sample	Analysis	Result	Units	MDL	Units	Date run	Analyst
Biltmore Lake	FECAL	<10.0	c/100mL	<1	c/100mL	8-24-15	LS
Biltmore Lake	FECAL	<10.0	c/100mL	<1	c/100mL	8-31-15	LS
Biltmore Lake	FECAL	24.0	c/100mL	<1	c/100mL	9-08-15	LS
Biltmore Lake	FECAL	14.0	c/100mL	<1	c/100mL	9-14-15	LS
Biltmore Lake	FECAL	133.0	c/100mL	<1	c/100mL	9-22-15	LS

The running geometric mean average is 21.4 which is below the allowable geometric mean limit of 200 and below the daily max of 400. If you have any questions regarding these results please feel free to contact me at the lab.

Thank you,

Juanita James
Laboratory Manager
James & James Env. Mgt., Inc.
jjemi@bellsouth.net

James & James Environmental Management
3801 Asheville Hwy., Hendersonville , NC 28791
OFFICE: (828) 697-0063 FAX: (828) 697-0065

NC Certified Laboratory NC wastewater #482 NC Drinking Water #37763

October 2, 2015

First Service Residential
Karen Foley
80 Lake Drive
Biltmore Lake, N. C. 28715

Ms. Foley,

Enclosed are the results of the analysis performed by our staff on your samples. The analysis performed conform to Standard Methods 18th Edition.

Sample	Analysis	Result	Units	MDL	Units	Date run	Analyst
Biltmore Lake	FECAL	<10.0	c/100mL	<1	c/100mL	8-31-15	LS
Biltmore Lake	FECAL	24.0	c/100mL	<1	c/100mL	9-08-15	LS
Biltmore Lake	FECAL	14.0	c/100mL	<1	c/100mL	9-14-15	LS
Biltmore Lake	FECAL	133.0	c/100mL	<1	c/100mL	9-22-15	LS
Biltmore Lake	FECAL	4400.0	c/100mL	<1	c/100mL	10-01-15	LS

The running geometric mean average is 72.2 which is below the allowable geometric mean limit of 200 and below the daily max of 400. If you have any questions regarding these results please feel free to contact me at the lab.

Thank you,

Juanita James
Laboratory Manager
James & James Env. Mgt., Inc.
jjemi@bellsouth.net
828-697-0063

James & James Environmental Management
3801 Asheville Hwy., Hendersonville , NC 28791
OFFICE: (828) 697-0063 FAX: (828) 697-0065

NC Certified Laboratory **NC wastewater #482** **NC Drinking Water #37763**

October 6, 2015

First Service Residential
Karen Foley
80 Lake Drive
Biltmore Lake, N. C. 28715

Ms. Foley,

Enclosed are the results of the analysis performed by our staff on your samples. The analysis performed conform to Standard Methods 18th Edition.

Sample	Analysis	Result	Units	MDL	Units	Date run	Analyst
Biltmore Lake	FECAL	24.0	c/100mL	<1	c/100mL	9-08-15	LS
Biltmore Lake	FECAL	14.0	c/100mL	<1	c/100mL	9-14-15	LS
Biltmore Lake	FECAL	133.0	c/100mL	<1	c/100mL	9-22-15	LS
Biltmore Lake	FECAL	4400.0	c/100mL	<1	c/100mL	10-01-15	LS
Biltmore Lake	FECAL	4900.0	c/100mL	<1	c/100mL	10-05-15	LS

The running geometric mean average is 249.3 which is below the allowable geometric mean limit of 200 and below the daily max of 400. If you have any questions regarding these results please feel free to contact me at the lab.

Thank you,

Juanita James
Laboratory Manager
James & James Env. Mgt., Inc.
jjemi@bellsouth.net

James & James Environmental Management
3801 Asheville Hwy., Hendersonville , NC 28791
OFFICE: (828) 697-0063 FAX: (828) 697-0065

NC Certified Laboratory NC wastewater #482 NC Drinking Water #37763

October 8, 2015

First Service Residential
Karen Foley
80 Lake Drive
Biltmore Lake, N. C. 28715

Ms. Foley,

Enclosed are the results of the analysis performed by our staff on your samples. The analysis performed conform to Standard Methods 18th Edition.

Sample	Analysis	Result	Units	MDL	Units	Date run	Analyst
Biltmore Lake	FECAL	24.0	c/100mL	<1	c/100mL	9-08-15	LS
Biltmore Lake	FECAL	14.0	c/100mL	<1	c/100mL	9-14-15	LS
Biltmore Lake	FECAL	133.0	c/100mL	<1	c/100mL	9-22-15	LS
Biltmore Lake	FECAL	4400.0	c/100mL	<1	c/100mL	10-01-15	LS
Biltmore Lake	FECAL	4900.0	c/100mL	<1	c/100mL	10-05-15	LS
Biltmore Lake	FECAL	2500.0	c/100mL	<1	c/100mL	10-07-15	LS

The running geometric mean average is 631.4 which is more than the allowable geometric mean limit of 200 and over the daily max of 400. If you have any questions regarding these results please feel free to contact me at the lab.

Thank you,

Juanita James

James & James Environmental Management
3801 Asheville Hwy., Hendersonville , NC 28791
OFFICE: (828) 697-0063 FAX: (828) 697-0065

NC Certified Laboratory NC wastewater #482 NC Drinking Water #37763

October 13, 2015

First Service Residential
Karen Foley
80 Lake Drive
Biltmore Lake, N. C. 28715

Ms. Foley,

Enclosed are the results of the analysis performed by our staff on your samples. The analysis performed conform to Standard Methods 18th Edition.

Sample	Analysis	Result	Units	MDL	Units	Date run	Analyst
Biltmore Lake	FECAL	133.0	c/100mL	<1	c/100mL	9-22-15	LS
Biltmore Lake	FECAL	4400.0	c/100mL	<1	c/100mL	10-01-15	LS
Biltmore Lake	FECAL	4900.0	c/100mL	<1	c/100mL	10-05-15	LS
Biltmore Lake	FECAL	2500.0	c/100mL	<1	c/100mL	10-07-15	LS
Biltmore Lake	FECAL	390.0	c/100mL	<1	c/100mL	10-12-15	LS

The running geometric mean average is 1228.3 which is more than the allowable geometric mean limit of 200 and over the daily max of 400. If you have any questions regarding these results please feel free to contact me at the lab.

Thank you,

Juanita James
Laboratory Manager
James & James Env. Mgt., Inc.
jjemi@bellsouth.net
828-697-0063

Attachment 4C - Other fecal coliform data

	4/14/2015	2/17/2016	8/1/2016			
	Lake Sample Location[3]	**Lake Sample Location[3]**	**Lake Sample Location[3]**			
	Near swim dock (7’ deep)	Near swim dock (7’ deep)	Cove 1 (2-3’ deep)	Cove 2 (2-3' deep)	Cove 3 (2-3' deep)	South end of swim dock
Fecal Coliform Bacteria, CFU/100 ml	5	54[1] , 96[2]	80	31	42	27

Notes:

Samples taken at surface unless noted otherwise

[1]sample at surface

[2]sample at bottom

[3]see Attachment 2B for sample locations

15A NCAC 02B .0106 CONSIDERATIONS/ASSIGNING CLASSIFICATIONS FOR PRIMARY RECREATION

In assigning the B or SB classification to waters intended for primary recreation, the Commission will take into consideration the relative proximity of sources of water pollution and will recognize the potential hazards involved in locating swimming areas close to sources of water pollution and will not assign this classification to waters in which such water pollution could result in a hazard to public health. Discharges to waters classified as B or SB will meet the reliability requirements specified in 15A NCAC 2H .0124. Discharges to waters where a primary recreational use is determined by the Director to be attainable will be required to meet water quality standards and reliability requirements to protect this use concurrently with reclassification efforts.

History Note: *Authority G.S. 143-214.1; 143-215.3(a)(1);*
Eff. February 1, 1976;
Amended Eff. October 1, 1989; January 1, 1985; September 9, 1979.

15A NCAC 02B .0219 FRESH SURFACE WATER QUALITY STANDARDS FOR CLASS B WATERS

The following water quality standards apply to surface waters that are for primary recreation, including frequent or organized swimming and are classified as Class B waters. Water quality standards applicable to Class C waters as described in Rule .0211 of this Section also apply to Class B waters.

(1) Best Usage of Waters. Primary recreation and any other best usage specified by the "C" classification;

(2) Conditions Related to Best Usage. The waters shall meet accepted standards of water quality for outdoor bathing places as specified in Item (3) of this Rule and shall be of sufficient size and depth for primary recreation purposes. Sources of water pollution which preclude any of these uses on either a short-term or long-term basis shall be considered to be violating a water quality standard;

(3) Quality standards applicable to Class B waters:

(a) Sewage, industrial wastes, or other wastes: none which are not effectively treated to the satisfaction of the Commission; in determining the degree of treatment required for such waste when discharged into waters to be used for bathing, the Commission shall consider the quality and quantity of the sewage and wastes involved and the proximity of such discharges to waters in this class; discharges in the immediate vicinity of bathing areas may not be allowed if the Director determines that the waste can not be reliably treated to ensure the protection of primary recreation;

(b) Organisms of coliform group: fecal coliforms not to exceed geometric mean of 200/100 ml (MF count) based on at least five consecutive samples examined during any 30-day period and not to exceed 400/100 ml in more than 20 percent of the samples examined during such period.

History Note: *Authority G.S. 143-214.1; 143-215.3(a)(1);*
Eff. January 1, 1990;
Amended Eff. October 1, 1995.

SAMPLE PLAN for ENKA (Biltmore) LAKE

RECLASSIFICATION to "B" WATERS

Fecal Coliform Sampling:

Five (5) sampling events within a 30-day period with no rainfall within 24 hours is needed to determine compliance with the WQ Standard.

Samples shall be obtained by 9/1/2017. Start date was 8/2/2017.

Samples shall meet the 6-hour laboratory hold time. Staff shall coordinate sampling events with the ARO lab. COC is not required for these samples.

Below describe the sample locations and where to sample. Pictures of each site are in G:\WR\WQ\Buncombe\Surface Water Projects\Enka (Biltmore) Lake Reclass to assist you if needed.

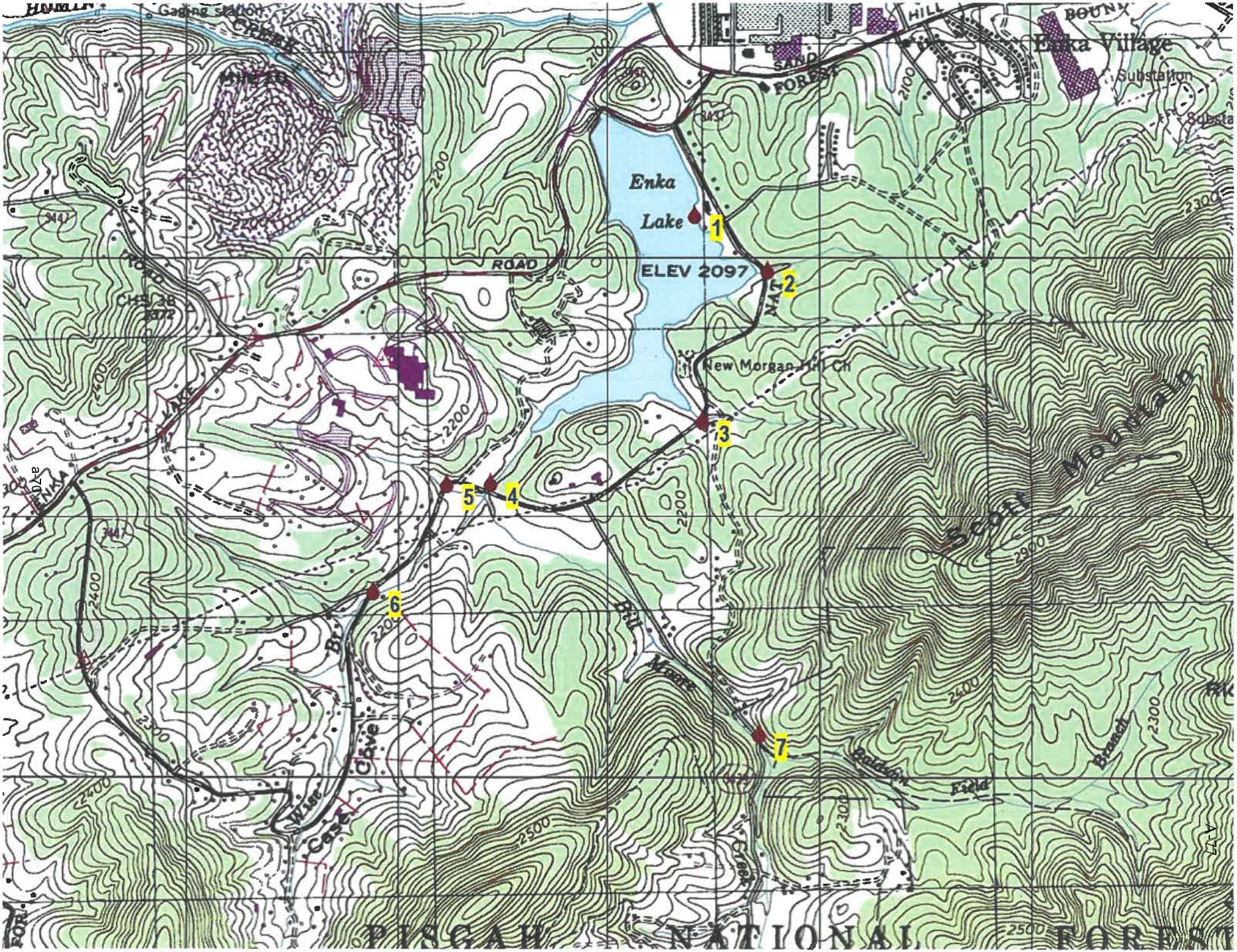
Sample Locations: **Lake Drive** (not Enka Lake Rd) is off Sandhill Rd. I suggest doing the sampling in the order presented below.

1. Swimming area of Lake – Behind Clubhouse. Clubhouse (80 Lake Dr.) is on the right just before the circle. Wade into water or use pole sampler to get sample ~10' from water's edge.
2. East Unnamed Tributary – By #105 Lake Dr. at crosswalk sign. Sample downstream of foot bridge.
3. South East Unnamed Tributary – After Ponderosa Dr. on the right pull into MSD Pump Station. Walk down to the right to footbridge for sample.
4. Lake Head – Just past Lake Hill Church construction pull off on right by the guard rails. Sample on downstream side of concrete culvert. Pole sampler or rope with sampler is needed here.
5. West Unnamed Tributary – Short distance to next curve at #418/420, pull over on right. Sample downstream side.
6. Wise Br. – At Shuler Rd. Sample downstream side.
7. Bill Moore Crk. – Go to Reeves Cove Rd, travel ~ .6 mile to Creek crossing. Pull off for Forest Service Rd. #5096. Best access to sample appeared to be across the road on downstream side by wing wall.

Biltmore Lakes Contacts:

Bill Miller: millerwj@charter.net, (603) 860-5842, Bill has been to these locations and can assist you.

Bill McMannis: bill.mcmannis@fsresidential.com, (828) 670-8293 x107.


Enka Village
Substation
Enka Lake
ELEV 2097
1
2
3
4
5
6
7
ROAD
New Morgan Hill Ch
Pisgah
NATIONAL
FOREST


Enka Lake Sample Sites
1. Swim Area
2. East UT
3. South East UT
4. Lake Head
5. West UT
6. Wise Br
7. Bill Moore Crk
Enka Village
Lake Dr
Vista Lake Dr
3435
3535
3533
Ingsrill Ct
Hillcrest
Fennel Run Ct
Sparkleberry Ct
Enka Lake
Green Rd
Overstyl Ln
3446
Enka Lake Rd
Stone Ct
Caddis Ct
Murrough Dr
Lake
Ponderosa Dr
Silver Darter Ln
Enka Lake Rd
Ridgeview Acres
Old Spring Dr
Overlook Dr
Valley Dr
3437
a-71
Shuler Rd
Shadow Brook
Atwood Ln
Misty Ln
Castle Stone Ln
Reeves Cove Rd
Mo's Way
3440
3449
Google earth
©2017 Google
A-78
N

DATE	1-Swim	2-East UT	3-South East UT	4-Bill Moore Crk (Lake Head)	5-West UT	6-Wise Br	7-Bill Moore Crk @ Reeves Cove Rd
8/2/2017	12	130	170	200	320	390	270
8/15/2017	21	92	310	270	210	500	290
8/18/2017	17	110	230	170	180	310	270
8/29/2017	2	290	150	330	100	340	84
8/30/2017	8	140	160	280	120	220	92
Geo. Mean	**9**	**140**	**196**	**243**	**171**	**340**	**175**

8/15/2017 Cove 2 37 Cove 3 46

Regulatory Impact Analysis

RULE CITATION NUMBER: 15A NCAC 02B .0304

Rule Topic: Proposed Reclassification of Enka Lake at Buncombe County (French Broad River Basin) from Class C to Class B. Item w.

DEQ Division: Division of Water Resources (DWR)

Staff Contact: Jucilene Hoffmann: Economist II, (DWR)
jucilene.hoffmann@ncdenr.gov
(919) 707-9016

Elizabeth Kountis, Environmental Senior Specialist, (DWR)
elizabeth.kountis@ncdenr.gov
(919) 807-6418

Impact Summary:

State government:	No
Local government:	No
Private entities:	No
Substantial Impact:	No
Federal government:	No

Authorizing: G.S.143-214.1 & 214.5 and 143B-279.2 & 282; 15A NCAC 02B .0101 & .0106

Necessity: To protect the existing waters' primary recreation uses; thus, this proposal serves the public interest per Executive Order #70 and complies with G.S. 150B, the Administrative Procedures Act (APA).

1. Background

The Division of Water Resources (DWR) is requesting that the Environmental Management Commission (EMC) grant staff permission to proceed to public notice with the proposed reclassification of Enka Lake, which is a portion of Bill Moore Creek in Buncombe County (French Broad River Basin). Biltmore Lake Association, the homeowners' association for the Biltmore Lake community, has requested that Enka Lake in Enka, North Carolina, be reclassified from Class C to Class B. Anchor QEA, a consultant for the Biltmore Lake Association, provided the following information about the lake: Enka Lake is a 62-acre man-made lake built in 1933 that is recharged by Bill Moore Creek and multiple small tributaries. Until 2001, the lake was used…for a nearby manufacturing facility. In 2001, the lake and approximately 1,000 acres of surrounding forest land were sold to the Biltmore Farms Company, which developed the Biltmore Lake residential community. Enka Lake is the center piece of the Biltmore Lake community.

The land around the lake is predominantly residentially developed in the form of subdivisions accompanied by forested land and a school. The remainder of the watershed draining to the lake is comprised mainly of forested lands and rural development along with limited forestry and

agricultural lands, including a portion of the Pisgah National Forest and Buncombe County Open Space. The lake and its watershed exist solely within the jurisdiction of Buncombe County.

As a reminder, primary freshwater classifications assigned to North Carolina surface waters include Class C and Class B. Class C waters are protected for aquatic life propagation and maintenance of biological integrity (including fishing and fish), wildlife, secondary recreation, agriculture and any other usages except for primary recreation or as a source of water supply for drinking, culinary or food processing purposes. Secondary recreation includes wading, boating, other uses not involving human body contact with water, and activities involving human body contact with water where such activities take place on an infrequent, unorganized, or incidental basis. All waters of the state are at least protected for Class C uses.

Class B waters are protected for primary recreation as well as for all Class C purposes. Primary recreation includes swimming, skin diving, water skiing, and similar uses involving human body contact with water where such activities take place in an organized or on a frequent basis.

2. Summary

The purpose of this rule change is to protect the existing waters' primary recreation uses; thus, this proposal serves the public interest per Executive Order #70 and complies with G.S. 150B, the Administrative Procedures Act (APA). The request states that "Enka Lake is used for organized full body-contact activities so Class B is the appropriate classification to protect those uses." Water quality studies were conducted at the lake during this past summer, and show that the waters meet Class B standards.

If reclassified, new NPDES wastewater discharges to these waters that contain fecal coliform will be required to have a coliform limit. There are no permitted or planned NPDES wastewater discharges to these waters that would be impacted by the proposal, according to Asheville Regional Office staff. Thus, this Regulatory Impact Analysis (RIA) for the proposal, shows no cost due this proposed rule amendment.

3. Economic Impact Analysis

3.1 Costs

a) New and Existing Wastewater Discharges

If reclassified, new NPDES wastewater discharges to these waters that contain fecal coliform will be required to have a coliform limit. There are no permitted or planned NPDES wastewater discharges to these waters that would be impacted by the proposal, according to Asheville Regional Office staff.

b) State and Local Governments

The proposed rulemaking will have no cost to the State implementing agency (DWR) or to local governments. This reclassification will not require DWR or local governments to revise their existing procedures nor will they require them to procure additional staff. Therefore, this proposed reclassification will have no economic impact to the State or local governments.

3.2 Benefits

a) Community

The request states that "Enka Lake is used for organized full body-contact activities so Class B is the appropriate classification to protect those uses." In addition, the request states that there is a swimming area used by the community that "…includes a swim beach, swim dock, and buoys farther out from the swim beach that are used for longer distance swimming" and the request states that "…the swim season normally…" starts on "…Memorial Day and runs through the end of September…" The 750-meter swim portion of the annual Enka Triathlon is held at the lake, and last year 180 individuals participated in the event. Water quality studies were conducted at the lake during this past summer, and show that the waters meet Class B standards. Enka Triathlon athletes and the community that have full body-contact activities would be the primary beneficiaries of this reclassification, but there are also indirect benefits, such as enhanced property values and tourism.

b) Environment/Ecosystem

Class B waters are protected for primary recreation as well as for all Class C purposes. Primary recreation includes swimming, skin diving, water skiing, and similar uses involving human body contact with water where such activities take place in an organized or on a frequent basis. The reclassification would help to mitigate potential impacts and reduce risk from potential future discharges, and thus could benefit fish and wildlife and their habitats.

3.3 Total Economic Impact

As measured from the baseline conditions, there are no economic costs associated with this proposed reclassification. While it could have a positive economic impact to the community and environment, those impacts are not monetarily quantifiable.

15A NCAC 02B .0304 is proposed for amendment as follows:

15A NCAC 02B .0304 FRENCH BROAD RIVER BASIN

(a) Effective February 1, 1976, the adopted classifications assigned to the waters within the French Broad River Basin are set forth in the French Broad River Basin Schedule of Classifications and Water Quality Standards, which may be inspected at the following places:

(1) the Internet at ~~http://h2o.enr.state.nc.us/csu/;~~ https://deq.nc.gov/river-basin-classification-schedule ; and

(2) the North Carolina Department of ~~Environment and Natural Resources:~~ Environmental Quality:

(A) Asheville Regional Office
2090 US Highway 70
Swannanoa, North ~~Carolina~~Carolina; and

(B) Division of Water ~~Quality~~Resources
Central Office
512 North Salisbury Street
Raleigh, North Carolina.

(b) Unnamed Streams. Such streams entering Tennessee are classified "B."

(c) The French Broad River Basin Schedule of Classifications and Water Quality Standards was amended effective:

(1) September 22, 1976;
(2) March 1, 1977;
(3) August 12, 1979;
(4) April 1, 1983;
(5) August 1, 1984;
(6) August 1, 1985;
(7) February 1, 1986;
(8) May 1, 1987;
(9) August 1, 1990.

(d) The Schedule of Classifications and Water Quality Standards for the French Broad River Basin was amended effective March 1, 1989 as follows:

(1) Cataloochee Creek (Index No. 5-41) and all tributary waters were reclassified from Class C-trout and Class C to Class C-trout ORW and Class C ORW.
(2) South Fork Mills River (Index No. 6-54-3) down to Queen Creek and all tributaries were reclassified from Class WS-I and Class WS-III-trout to Class WS-I ORW and Class WS-III-trout ORW.

(e) The Schedule of Classifications and Water Quality Standards for the French Broad River Basin was amended effective October 1, 1989 as follows: Cane River (Index No. 7-3) from source to Bowlens Creek and all tributaries were reclassified from Class C trout and Class C to Class WS-III trout and Class WS-III.

(f) The Schedule of Classifications and Water Quality Standards for the French Broad River Basin was amended effective January 1, 1990 as follows: North Toe River (Index No. 7-2) from source to Cathis Creek (Christ Branch) and all tributaries were reclassified from Class C trout and Class C to Class WS-III trout and Class WS-III.

(g) The Schedule of Classifications and Water Quality Standards for the French Broad River Basin was amended effective August 3, 1992 with the reclassification of all water supply waters (waters with a primary classification of WS-I, WS-II or WS-III). These waters were reclassified to WS-I, WS-II, WS-III, WS-IV or WS-V as defined in the revised water supply protection rules, (15A NCAC 02B .0100,-.0200 and .0300) which became effective on August 3, 1992. In some cases, streams with primary classifications other than WS were reclassified to a WS classification due to their proximity and linkage to water supply waters. In other cases, waters were reclassified from a WS classification to an alternate appropriate primary classification after being identified as downstream of a water supply intake or identified as not being used for water supply purposes.

(h) The Schedule of Classifications and Water Quality Standards for the French Broad River Basin was amended effective October 1, 1993 as follows: Reasonover Creek [Index No. 6-38-14-(1)] from source to Reasonover Lake Dam and all tributaries were reclassified from Class B Trout to Class WS-V and B Trout, and Reasonover Creek [Index No. 6-38-14-(4)] from Reasonover Lake Dam to Lake Julia Dam and all tributaries were reclassified from Class C Trout to Class WS-V Trout.

(i) The Schedule of Classifications and Water Quality Standards for the French Broad River Basin was amended effective July 1, 1995 with the reclassification of Cane Creek [Index Nos. 6-57-(1) and 6-57-(9)] from its source to the French Broad River from Classes WS-IV and WS-IV Tr to Classes WS-V, WS-V Tr and WS-IV.

(j) The Schedule of Classifications and Water Quality Standards for the French Broad River Basin was amended effective November 1, 1995 as follows: North Toe River [Index Numbers 7-2-(0.5) and 7-2-(37.5)] from source to a point 0.2 miles downstream of Banjo Branch, including

tributaries, has been reclassified from Class WS-III, WS-III Trout and WS-III Trout CA (critical area) to Class WS-IV Trout, WS-IV, WS-IV Trout CA, and C Trout.

(k) The Schedule of Classifications and Water Quality Standards for the French Broad River Basin was amended effective January 1, 1996 as follows: Stokely Hollow [Index Numbers 6-121.5-(1) and 6-121.5-(2)] from source to mouth of French Broad River has been reclassified from Class WS-II and Class WS-II CA to Class C.

(l) The Schedule of Classifications and Water Quality Standards for the French Broad River Basin was amended April 1, 1996 with the reclassification of the French Broad River [Index No. 6-(1)] from a point 0.5 miles downstream of Little River to Mill Pond Creek to Class WS-IV; French Broad River [Index No. 6-(51.5)] from a point 0.6 miles upstream of Mills River to Mills River to Class WS-IV CA (Critical Area), from Mills River to a point 0.1 miles upstream of Boring Mill Branch to Class C; and the Mills River [Index No. 6-54-(5)] was reclassified from City of Hendersonville water supply intake to a point 0.7 miles upstream of mouth of Mills River to Class WS-III, and from a point 0.7 miles upstream of mouth of Mills River to French Broad River to Class WS-III CA (Critical Area).

(m) The Schedule of Classifications and Water Quality Standards for the French Broad River Basin was amended August 1, 1998 with the revision to the primary classification for portions of the French Broad River [Index No. 6-(38.5)] and the North Toe River 7-2-(10.5) from Class IV to Class C.

(n) The Schedule of Classifications and Water Quality Standards for the French Broad River Basin was amended August 1, 1998 with the reclassification of Clear Creek [Index No. 6-55-(1)] from its source to Lewis Creek from Class C Tr to Class B Tr.

(o) The Schedule of Classifications and Water Quality Standards for the French Broad River Basin was amended August 1, 2000 with the reclassification of Rough Creek [Index No. 5-8-4-(1)], including all tributaries, from its source to the Canton Reservoir from Class WS-I to Class WS-I Tr ORW.

(p) The Schedule of Classifications and Water Quality Standards for the French Broad River Basin was amended August 1, 2002 with the revision to the primary classification for the French Broad River [Index No. 6-(1), 6-(27), 6-(47.5), 6-(52.5), and 6-(54.5)] including its four headwater forks' mainstems, watershed of tributary Davidson River, and watershed of tributary Bent Creek below

Powhatan Dam, and the Nolichucky River [Index No. 7] including a lower portion of the North Toe River from Class C and Class WS-IV to Class B.

(q) The Schedule of Classifications and Water Quality Standards for the French Broad River Basin was amended August 1, 2002 with the reclassification of the North Toe River [Index No. 7-2-(0.5)], including all tributaries, from source to a point 0.2 mile upstream of Pyatt Creek, from Class C Tr to Class WS-V Tr.

(r) The Schedule of Classifications and Water Quality Standards for the French Broad River Basin was amended September 1, 2004 with the reclassification of a portion of Richland Creek [Index No. 5-16(1)], from source to a point approximately 11.2 miles from source (Boyd Avenue), from Class B to Class B Tr, and all tributaries to the portion of the creek referenced in this Paragraph from C, C HQW, and WS-I HQW, and WS-I HQW to C Tr, C HQW Tr, and WS-I HQW Tr, respectively, except Hyatt Creek [Index No. 5-16-6], Farmer Branch [Index No. 5-16-11], and tributaries already classified as Tr.

(s) The Schedule of Classifications and Water Quality Standards for the French Broad River Basin was amended effective November 1, 2007 with the reclassification of McClure's Bog near Gash Creek [Index No. 6-47] to Class WL ~~UWL as defined in 15A NCAC 02B .0101.Rule .0202 of this Subchapter~~ UWL. The North Carolina Division of Water ~~Quality~~Resources maintains a Geographic Information Systems data layer of the UWL.

(t) The Schedule of Classifications and Water Quality Standards for the French Broad River Basin was amended effective September 1, 2009 with the reclassification of the entire watershed of Big Laurel Creek (Index No. 6-112) from source to the French Broad River from Class C Tr to Class C ORW Tr.

(u) The Schedule of Classifications and Water Quality Standards for the French Broad River Basin was amended effective September 1, 2009 with the reclassification of the entire watershed of Spring Creek [Index No. 6-118-(1) and 6-118-(27)] from source to the French Broad River from Class C Tr and Class C to Class C ORW Tr and Class C ORW.

(v) The Schedule of Classifications and Water Quality Standards for the French Broad River Basin is amended December 1, 2011 with the reclassification of a portion of the French Broad River [Index No. 6-(54.5)] from the confluence of the Mills River to a point 0.2 miles downstream of the confluence of the Mills River from Class B to Class WS-IV&B CA.

(w) The Schedule of Classifications and Water Quality Standards for the French Broad River Basin was amended January 1, 2019 with the reclassification of Enka Lake, which is a portion of the Bill Moore Creek (Index No. 6-76-7), from Class C to Class B.

History Note: *Authority G.S. 143-214.1; 143-215.1; 143-215.3(a)(1);*
Eff. February 1, 1976;
Amended Eff. January 1, 2019; December 1, 2011; September 1, 2009; November 1, 2007; September 1, 2004; August 1, 2002; August 1, 2000; August 1, 1998; April 1, 1996; January 1, 1996; November 1, 1995; July 1, 1995.

PROPOSED CLASS B RECLASSIFICATION OF ENKA LAKE: AUGUST 2018 HEARING

Biltmore Lake Association has requested that Enka Lake, which is a portion of Bill Moore Creek in Buncombe County (French Broad River Basin), be reclassified from Class C to Class B. The purpose of this rule change is to protect the existing waters' primary recreation uses. A public hearing is going to be conducted to receive public comments on the proposed reclassification and associated regulatory impact analysis.

PROPOSED CLASSIFICATION REQUIREMENTS

If these waters are reclassified, new NPDES wastewater discharges to these waters that contain fecal coliform will be required to have a coliform limit. Forestry and farming practices will not be affected. There are no permitted or planned NPDES wastewater discharges to these waters that would be impacted by the proposed reclassification. Thus, the regulatory impact analysis for this proposal shows no cost due to this proposed rule amendment. Class B requirements are located on the internet at https://deq.nc.gov/about/divisions/water-resources/planning/classification-standards/rules.

TRIENNIAL REVIEW REQUIREMENTS

The public hearing and comment period are to be held in accordance with the federal Clean Water Act that requires States, at least every three years, to review and revise water quality standards. These standards are provided in existing rules NCAC 15A 02B .0100 and .0201 through .0228. The process is called the Triennial Review and includes an assessment and revision of the designated uses of waters (classifications) and the water quality criteria (standards), which are based on the designated uses. More specifically, this public hearing and comment period are to address the potential assignment of a Class B classification to Enka Lake, and this proposal will result in changing the water quality standards for the lake.

HOW TO SUBMIT COMMENTS

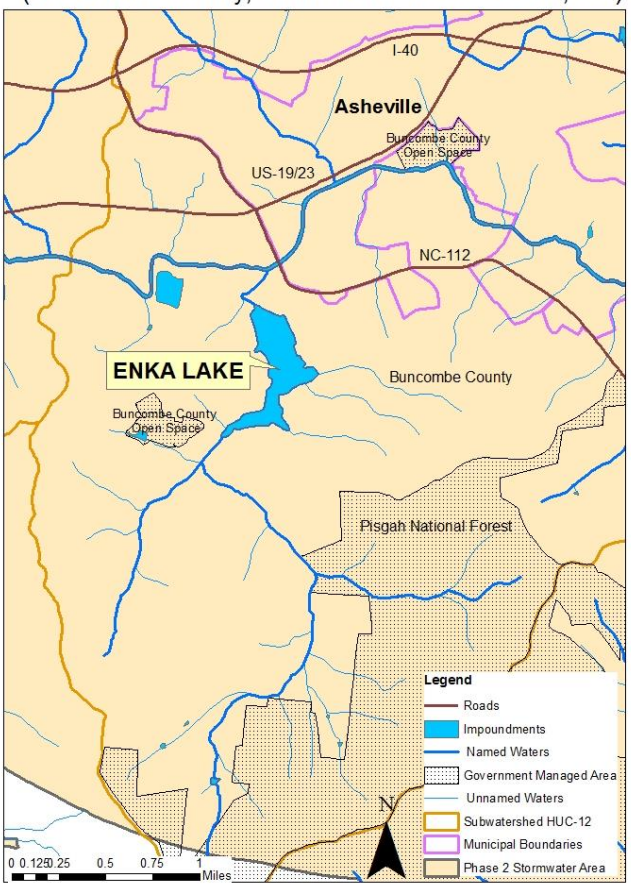
You may attend the public hearing and provide verbal comments that specifically address the proposed reclassification and its regulatory impact analysis for the lake. The Hearing Officer may limit the length of time that you may speak at the public hearing, if necessary, so that all those who wish to speak may have an opportunity to do so. In addition, written comments addressing the proposed reclassification and regulatory impact analysis for the lake will be accepted until August 14, 2018.

PUBLIC HEARING

Location:
Biltmore Lake Clubhouse
80 Lake Drive
Biltmore Lake, NC 28715

Time & Date:
11:00 a.m., Wednesday, August 8, 2018

Enka Lake Proposed B Reclassification
(Buncombe County, French Broad River Basin, NC)



All persons interested and potentially affected by the proposal are encouraged to read this announcement and make comments on the proposal. The EMC may not adopt a rule that differs substantially from the text of the proposed rule published in the North Carolina Register unless the EMC publishes the text of the proposed different rule and accepts comments on the new text. The proposed effective date for this proposed reclassification is January 1, 2019. Written comments on the proposed reclassification and regulatory impact analysis for Enka Lake may be submitted to Elizabeth Kountis of the Division of Water Resources Planning Section at the postal address or e-mail address provided.

FOR ADDITIONAL INFORMATION

This announcement and a map of the waters proposed to be reclassified are located on the internet via https://deq.nc.gov/news/events/public-notices-hearings (look under "08/08/2018"). In the case of inclement weather on the day of the scheduled public hearing, please contact the telephone number below for a recorded message regarding any changes to the location, date, or time of the hearing. Further explanations and details on reclassifications may be obtained by writing or calling:

Elizabeth Kountis, DEQ-Division of Water Resources, Planning Section
1611 Mail Service Center, Raleigh, NC 27699-1611
phone (919) 807-6418, e-mail elizabeth.kountis@ncdenr.gov

To learn more about how the Division of Water Resources protects water quality in North Carolina, go to http://deq.nc.gov/about/divisions/water-resources.

Release: IMMEDIATE
Date: August 1, 2018

Contact: Christy Simmons
Phone: 919-707-3645

State seeks public feedback on proposed Enka Lake reclassification in Buncombe County

RALEIGH, NC – The N.C. Division of Water Resources is seeking public feedback on a proposed reclassification of Enka Lake, a portion of Bill Moore Creek in Buncombe County (French Broad River Basin). The Biltmore Lake Association has requested that Enka Lake be reclassified from Class C to Class B.

As part of the public comment period, the state will host a public hearing on the proposed reclassification at 11 a.m. Wednesday, Aug. 8 at Biltmore Lake Clubhouse, 80 Lake Drive, Biltmore Lake, N.C. Speaker registration will begin at 10:30 a.m.

The Class C classification is assigned to all North Carolina freshwater bodies. Class C waters are protected for aquatic life propagation and maintenance of biological integrity (including fishing and fish), wildlife, secondary recreation, agriculture and any other usages except for primary recreation or as a source of water supply for drinking, culinary or food processing purposes. Secondary recreation includes wading, boating, other uses not involving human body contact with water, and activities involving human body contact with water where such activities take place on an infrequent, unorganized, or incidental basis. All waters of the state are at least protected for Class C uses.

Class B waters are protected for primary recreation as well as for all Class C purposes. Primary recreation includes swimming, skin diving, water skiing, and similar uses involving human body contact with water where such activities take place in an organized or on a frequent basis.

The draft proposed rule change and related documents are available online at:
https://deq.nc.gov/news/events/public-hearing-proposed-class-b-reclassification-enka-lake.

Written comments may be submitted by email to elizabeth.kountis@ncdenr.gov. Written comments may also be submitted by mail to Elizabeth Kountis at DEQ/DWR Planning Section, 1611 Mail Service Center, Raleigh, N.C., 27699-1611. All comments received by Aug. 14 will be considered in the agency's final determination regarding the proposed reclassification.

###

May 24, 2018

MEMORANDUM

TO: Corey Basinger

FROM: Linda Culpeper

SUBJECT: Hearing Officer Designation

I hereby designate you as the Hearing Officer for the public hearing to be held on the proposed reclassification of Enka Lake in Buncombe County (French Broad River Basin) from Class C to Class B. The date and time of the hearing is Wednesday, August 8, 2018 at 11:00 am, and the location of the public hearing is the Biltmore Lake Clubhouse at 80 Lake Drive in Biltmore Lake, North Carolina.

The purpose of the hearing is to receive public comments on the proposed reclassification. You are requested to hold the hearing and receive all relevant comments. Following the close of the hearing record, staff will work with you in developing findings and recommendations to be considered by the EMC. If reclassified, the effective date of the rule is expected to be January 1, 2019.

A copy of the public announcement for this hearing will be forwarded to you. I appreciate your willingness to be a part of this rule-making process. If you have any questions, please contact Elizabeth Kountis (919-807-6418).

cc: Elizabeth Kountis

LIST OF ATTENDEES

PROPOSED RECLASSIFICATION OF ENKA LAKE
PUBLIC HEARING: AUGUST 8, 2018, BILTMORE LAKE, NC

Hearing Officer

Basinger	Corey	Surface Water Protection Supervisor, Mooresville Regional Office

Div. of Water Resources (CSRRB=Classifications & Standards/Rules Review Branch)

Kountis	Elizabeth	Senior Environmental Specialist, CSRRB, Planning Section
Manning	Jeff	Chief, CSRRB, Planning Section
Johnston	Peter	Environmental Technician, CSRRB, Planning Section
Davidson	Landon	Regional Supervisor, Asheville Regional Office
Wiggs	Linda	Senior Environmental Specialist, Asheville Regional Office
Fox	Tim	Environmental Specialist, Asheville Regional Office

Citizens in Attendance (*=made verbal comments)

Last Name	First Name	Entity Representing	City	County	State
Horsewood	Susan	Biltmore Lake Homeowner	Biltmore Lake	Buncombe	NC
Marshall	Susan	Biltmore/Enka Lake	Biltmore Lake	Buncombe	NC
Gilenboth	Jeff	BLA Board	Enka	Buncombe	NC
Driscoll	Mary	First Service Residential	Asheville	Buncombe	NC
Miller	Bill	NA	Biltmore Lake	Buncombe	NC*
Murphy	Phil	NA	Biltmore Lake	Buncombe	NC
McKee	Tim	NA	Biltmore Lake	Buncombe	NC
Olson	Brad	NA	Biltmore Lake	Buncombe	NC
Clung	Clyde	NA	Biltmore Lake	Buncombe	NC
Pohl	Linda	NA	Biltmore Lake	Buncombe	NC
Williams	Karen	NA	Candler	Buncombe	NC
Kennedy	Jane	NA	NA	NA	NA
Stark	Karen	Resident	Biltmore Lake	Buncombe	NC
Foley	Mark	Self	Biltmore Lake	Buncombe	NC*
Ware	Robert	Self	Biltmore Lake	Buncombe	NC*
Kutzevco	Laurel	Self	Biltmore Lake	Buncombe	NC*
Matiatos	Irene	Self	Biltmore Lake	Buncombe	NC
Walker	Sam	Self	Biltmore Lake	Buncombe	NC
Russu	John	Self	Biltmore Lake	Buncombe	NC
Kennedy	John	Self	Biltmore Lake	Buncombe	NC
Zaidberg	Edward	Self / Community Member	Biltmore Lake	Buncombe	NC*
Lief	Christina	Self / Homeowner	Biltmore Lake	Buncombe	NC
Pritchard	Michael	Self and wife	Biltmore Lake	Buncombe	NC*

Kountis, Elizabeth

From: Clyde McClung <cvmcclung2@gmail.com>
Sent: Sunday, August 12, 2018 11:02 AM
To: Kountis, Elizabeth
Subject: [External] Enka Lake Reclassification

Hello Ms Kountis
My name is Clyde McClung, a resident of Biltmore Lake, and I would like to express my support for the Enka Lake reclassification.
I spent my career in the manufacturing environmental and safety field and strongly believe that the B classification is the proper designation for Enka Lake. Clearly there is organized swimming and wading by both adults and very young children and having the correct regulatory standards protecting the lake is the "right thing to do".
We very much appreciate your work and effort to facilitate this change.
Thank you.

Clyde McClung
11 LaRue Court
Biltmore Lake, NC
cvmcclung2@gmail.com
440-714-5033 (cell)

Kountis, Elizabeth

From: Maurice Frank <mauricefrank@gmail.com>
Sent: Saturday, August 11, 2018 9:24 AM
To: Kountis, Elizabeth
Subject: [External] I Support Reclassifying Enka Lake to Class B

Dear Ms. Kountis,

I am writing to express my strong support for reclassifying Enka Lake to Class B instead of the current Class C status.

As a Biltmore Lake resident I frequently enjoy seeing children swimming in the lake for extended periods of time, and fully immersed in the lake water. The safety of these vulnerable children is extremely important, and the strong classification will help NC DEQ maintain the cleanliness of waters flowing into the lake.

I am very grateful to you and NC DEQ for holding the public hearing (which I was unable to attend because of a previous commitment), and for all you have done to make this essential reclassification possible.

Please know that I support the reclassification wholeheartedly, and I very much hope NC DEQ will implement this change.

Thank you for your consideration,

Maurice Frank
14 Estatoe Gap Rd
Biltmore Lake, NC 28715
Mobile: 28715

Kountis, Elizabeth

From: Mark Foley <outlook_C3D216FE2EC8486B@outlook.com> on behalf of Mark Foley <Mfoley359@aol.com>
Sent: Friday, August 10, 2018 10:22 AM
To: Kountis, Elizabeth
Subject: [External] Reclassification of Enka Lake
Attachments: Enka Lake Reclassification Statement.docx

I am a resident of Biltmore Lake in Buncombe County, NC and I support the reclassification of Enka Lake as a Class B body of water. My statement is attached.

Mark Foley

Statement

Change in the State Water Quality Classification of Enka Lake from Class C to Class B

NCDEQ-Division of Water Resources, Planning Section
1611 Mail Service Center, Raleigh, NC 27699-1611

Good morning. My name is Mark Foley, and I serve as the Chairperson of the Biltmore Lake Association Lake SubCommittee. Just the fact that our community has an organized group devoted entirely to the care and preservation of Enka Lake should tell you that we care deeply about the Lake. In fact, we spend thousands of dollars of our own funds each year maintaining and caring for the Lake and the environment surrounding it. And very recently we spent more than $300,000 to drain, dredge and restore the Lake to its present excellent condition. It should be clear that we care deeply about this Lake.

Most waters with human contact in the region, such as Lake Junaluska, Lake Lure, Lake Powhatan, and the French Broad River, are Class B, while Enka Lake is currently Class C. Class C waters are protected for fishing, aquatic life, wildlife, and secondary recreation which includes wading, boating, and occasional unorganized human contact with water. Class B waters are protected for all Class C uses plus swimming and similar uses involving human body contact with water where such activities take place in an organized manner or on a frequent basis.

Even though Enka Lake is classified as Class C, it can be used for swimming if it meets the water quality standards specified by the State for safe swimming. This is why we currently perform routine testing for fecal coliforms during the swimming season to make sure we are meeting the required standards. The results of the last several years of our water quality tests can be seen on our Association website.

Based on these definitions, it is clear that Enka Lake should be classified as a Class B water. As a result, our Board of Directors has requested this reclassification. The primary benefit of this classification change would be that Enka Lake would meet standards that help ensure that the lake water quality is suitable for swimming and other water contact activities. As a result, the new classification would provide assurance to current and future homeowners that the lake will continue to be safe and healthy.

We ask NCDEQ to approve our request, and the Lake SubCommittee of the Biltmore Lake Association encourages all Biltmore Lake residents to support the requested change.

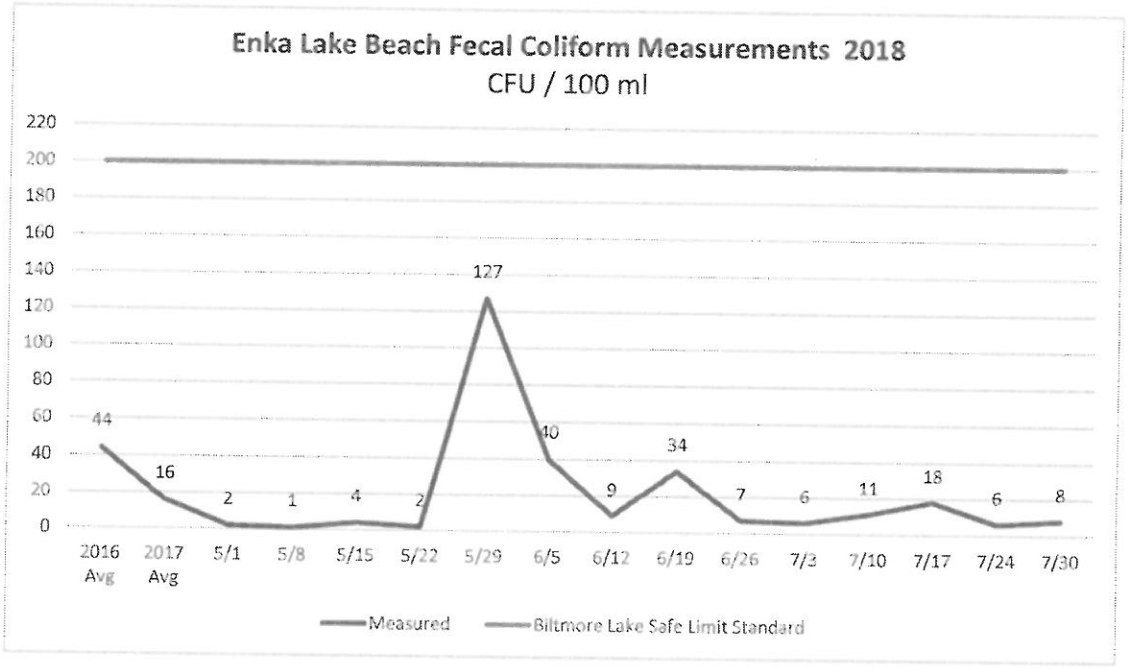
Submitted by: Mark Foley
110 Greenwells Glory Drive
Biltmore Lake, NC 28715

Enka Lake Beach Fecal Coliform Measurements 2018
Testing and data by Environmental Quality Institute

Fecal coliform bacteria measurements are taken at the swim beach weekly during the swimming season and after heavy rainfall events.
The NC limit per sample for safe swimming conditions is 400 CFU per 100ml of water.

Beach Fecal Coliform CFU/100ml

Date	Measured	Biltmore Lake Safe Limit Standard
2016 Avg	44	200
2017 Avg	16	200
5/1	2	200
5/8	1	200
5/15	4	200
5/22	2	200
5/29	127	200
6/5	40	200
6/12	9	200
6/19	34	200
6/26	7	200
7/3	6	200
7/10	11	200
7/17	18	200
7/24	6	200
7/30	8	200



Kountis, Elizabeth

From: Timothy Mckee <tmckee2@me.com>
Sent: Friday, August 10, 2018 9:34 AM
To: Kountis, Elizabeth
Subject: [External] Enka Lake Reclassification

CAUTION: External email. Do not click links or open attachments unless verified. Send all suspicious email as an attachment to Report Spam.<mailto:report.spam@nc.gov>

Hello Ms. Kountis,

I live in Biltmore Lake. My grandkids enjoy swimming in our Lake. I attended your very informative public hearing this week. I very much support the reclassification of Enka Lake to Class B.

Thanks you.
Tim McKee

Kountis, Elizabeth

From: JERRY SNOW <jerrysnow@fastmail.com>
Sent: Thursday, August 09, 2018 9:44 PM
To: Kountis, Elizabeth
Cc: Jackie Snow; Bill McMannis
Subject: [External] Classification of Enka Lake from Class C to Class B

Elizabeth,
NCDEQ-Division of Water Resources, Planning Section,

We were unable to attend the August 8, 2018 meeting on this matter but we do want to let you know that we support this reclassification request for Enka Lake from Class C to Class B.

We have been residents of the area since late 2009, and we would like to see the beauty of the area and the lake enhanced as much as possible.

Jerry and Jackie Snow
20 Orvis Stone Circle
Biltmore Lake, NC 28175

Kountis, Elizabeth

From: john kennedy <jtkennedy360@charter.net>
Sent: Thursday, August 09, 2018 4:43 PM
To: Kountis, Elizabeth
Subject: [External] Reclassification of Enka lake

Please help protect Enka Lake by approving our request for the proposed reclassification of the lake.

Thank you

John Kennedy
10 Moser Sedge Ct
Biltmore Lake NC 28715

Kountis, Elizabeth

From: Philip Kutzenco <philip@kutzenco.com>
Sent: Wednesday, August 08, 2018 5:05 PM
To: Kountis, Elizabeth
Cc: gbglackin@gmail.com; bob_ware@mac.com; millerwj@charter.net
Subject: [External] Comment on Proposed Class B Reclassification of Enka Lake

Dear Ms. Kountis,

My name is Philip Kutzenco. I reside at 326 Fennel Dun Circle, Biltmore Lake, NC. As I was unable to attend the August 8, 2018 Hearing on the Proposed Class B Reclassification of Enka Lake, I would like to submit my comments to you via this email.

My wife and I have owned the property at 326 Fennel Dun Circle since 2013 and moved here permanently about eight months ago. I fully support the proposed reclassification for the following reasons:

1. Enka Lake is a key resource for residents of the Biltmore Lake community.
2. It is used daily from Memorial Day through September, when weather permits, for swimming and wading from the swim beach area as well as swimming from the swim dock by Biltmore Lake residents and their guests. In addition, longer swims are made to the buoys set further out in the lake.
3. It is crucial to the continued availability of Enka Lake for swimming and recreation that the quality of the lake water be maintained and not allowed to deteriorate by activities that would discharge wastewater to it containing fecal coliform above a set limit.
4. I understand that there are no pending requests for wastewater discharges to Enka Lake that would be impacted by reclassifying Enka Lake. So, there is no cost at this time to reclassifying the lake.
5. The availability of Enka Lake as a resource for swimming and wading to residents of Biltmore Lake and their guests is important to maintaining property values for Biltmore Lake homeowners.

Thank you for the opportunity to comment on this proposal. I am confident the DEQ will agree to the reclassification given Enka Lake's use and current level of cleanliness which conform to Class B standards.

Please feel free to contact me if you have any questions about my comments.

Best,
Philip Kutzenco, Ph.D.

Kountis, Elizabeth

From: Bill Miller <millerwj@charter.net>
Sent: Tuesday, August 07, 2018 11:43 AM
To: Kountis, Elizabeth
Subject: [External] Enka Lake Reclassification to Class B water

Hello Elizabeth,

It may be appropriate to recuse myself from this, due to my involvement over the past two years. Not sure.

But did want to add my comments.

With the continuing development in Bill Moore Creek watershed, this Class B classification will give us more leverage in maintaining and improving the overall water quality of Enka Lake and it's wetland.

Going through the NCDEQ approval process has been a great learning experience on many levels, and allowed an opportunity for our Biltmore Lake, Lake Subcommittee to work more closely with area non-profits on overall water quality.

Enka Lake will benefit from The Class B waters for many years to come!

Best regards

Bill Miller
Biltmore Lake
Lake Subcommittee Member

Sent from Mail for Windows 10

Kountis, Elizabeth

From: Calvin B. Marshall <cmarshall@pmlpathology.com>
Sent: Monday, August 06, 2018 12:37 PM
To: Kountis, Elizabeth
Subject: [External] Enka Lake Reclassification

Follow Up Flag: Follow up
Flag Status: Flagged

Ms. Kountis,

My wife and I support the reclassification of Enka Lake from Class C to Class B. We frequently swim in the lake for recreation and fitness, and invite friends, as well. Please help us to insure the quality of our lake waters. Thank you.

Calvin & Susan Marshall
505 Welsh Partridge Circle
Biltmore Lake, NC 28715

Sent from Mail for Windows 10

Kountis, Elizabeth

From: Phil Murphy <phil@proxyhomewatch.com>
Sent: Thursday, August 02, 2018 7:06 PM
To: Kountis, Elizabeth
Subject: [External] Enka Lake Reclassification

Hi Elizabeth,

I would like to endorse the effort to re-classify Enka Lake from C to B stutus. I studied this issue as a member of the Lake Committee at Biltmore Lake for over a year and we unanimously agreed it made sense from various angles. The committees consisted of 4 experienced engineers from various disciplines, including myself, a marine engineer. I plan to attend the meeting Wednesday, but please let me know if I can help with this effort in any way. Thanks.

Phil Murphy
828.633.0480
ProxyHomeWatch.com

Kountis, Elizabeth

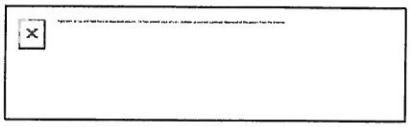
From: George Glackin <gbglackin@gmail.com>
Sent: Thursday, August 02, 2018 9:00 PM
To: Phil Murphy
Cc: Mark Foley; Kountis, Elizabeth
Subject: [External] Re: Enka Lake Reclassification

Phil, thanks for sharing your note. Elizabeth, I was the Chair of the Committee during the study period and the decision to pursue a Class B designation. It makes great sense to make the Class B change as it more closely represents the high personal use, especially with families and children enjoying the lake for swimming. Thanks for your support! George Glackin

On Thu, Aug 2, 2018 at 19:07 Phil Murphy <phil@proxyhomewatch.com> wrote:
Hi Elizabeth,

I would like to endorse the effort to re-classify Enka Lake from C to B stutus. I studied this issue as a member of the Lake Committee at Biltmore Lake for over a year and we unanimously agreed it made sense from various angles. The committees consisted of 4 experienced engineers from various disciplines, including myself, a marine engineer. I plan to attend the meeting Wednesday, but please let me know if I can help with this effort in any way. Thanks.

Phil Murphy
828.633.0480
ProxyHomeWatch.com



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George Glackin
cell 513-780-6620
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LinkedIn www.linkedin.com/in/gbglackin

Kountis, Elizabeth

From: garybien@charter.net
Sent: Wednesday, August 01, 2018 8:01 PM
To: Kountis, Elizabeth
Subject: [External] Reclassification of Enka Lake at Biltmore Lake Association
Attachments: Gary J_ Bien.vcf

My wife and I are residents of Biltmore Lake. We moved in our home on December 26, 2009. We fully support the reclassification of Enka Lake to a Class B lake. Thank you.

Gary J. Bien
22 S. Kaufmann Stone Way
Biltmore Lake, NC 28715
(828) 458-9300 | Cell
garybien@charter.net

Kountis, Elizabeth

From: Karen Gunderson <karengunders@gmail.com>
Sent: Wednesday, August 01, 2018 4:13 PM
To: Kountis, Elizabeth
Cc: Karen Gunderson
Subject: [External] Enka Lake Reclassification to Class B

Hi, I am writing to support the reclassification of Enka Lake to Class B. The lake is the center of our community activity and is used widely on a daily basis by community members. It is extremely important that the water quality be adequate for swimming, paddleboarding, fishing and boating. In addition, we sponsor events that are open to the general public, such as the triathlon that involves a swimming event.

Please support the reclassification of our lake to Class B.

Thank you,
Karen Gunderson
104 Greenwells Glory Drive
Biltmore Lake, NC 28715