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

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## SUMMARY AND RECOMMENDATION

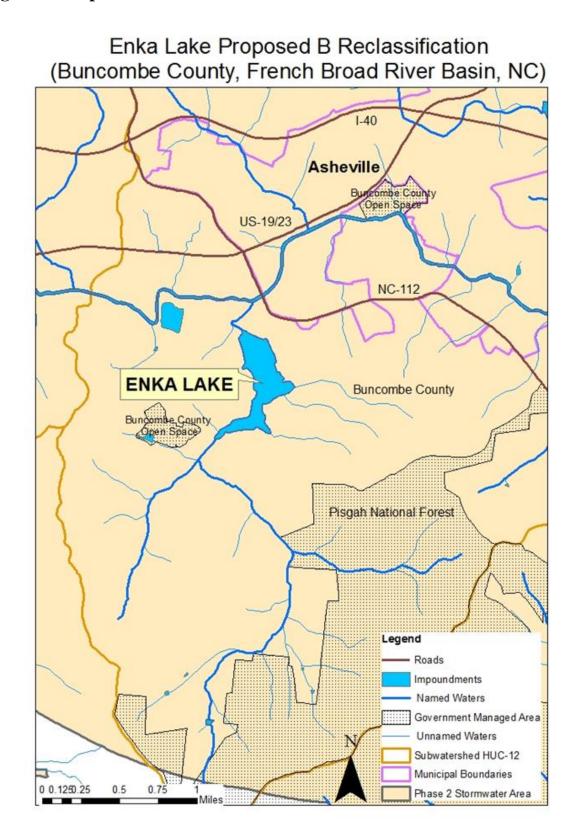
#### SUMMARY

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. PRO	OPOSED AMENDM	ENT TO TH	E FRENCH BROD RIVER BASIN SCHEDULE OF C	CLASSIFICATIONS
_ <u>A</u>	S REFERENCED IN T	TLE 15A N	IORTH CAROLINA ADMINISTRATIVE CODE 02E	<u>3 .0304</u>
Name of	<b>Description</b>	<b>Existing</b>	Description of Recommended Segment	Recommended
<u>Stream</u>		<u>Class</u>		<u>Class</u>
Bill Moore	From source to	С	From source to a point 860 feet	С
Creek	Hominy Creek		downstream of SR 3437 (Case Cove Road)	
			From a point 860 feet downstream of SR 3437 (Case Cove Road) to Enka Lake Dam (Enka Lake)	В
			From Enka Lake Dam to Hominy Creek	С

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

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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.

A-6

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 15<sup>th</sup>, 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.	Biltmore Lake Asso	ude full contact information, Inc. Contact: Bi 23 x107 Email: bill.mcmation	<u>II McMannis P.O. Bo</u>	
3.	River Basin/s: County/ies:	French Broad Buncombe		
4.	•	) Requested for Reclass e reverse side of this for		
Water	body Name	Waterbody Index #	Current Class	<u>Request Class</u>
_ Bill N	Moore Creek (Enka Lak	e)* 6-76-7	С	В
*E	nka Lake portion of Bill	Moore Creek only		

#### 5. ATTACHMENTS:

<u>For All Classes:</u> USGS 7.5 minute topographic map outlining the subject waters/land area <u>For Class B</u>: 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)? <u>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.</u>
- 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? <u>Yes</u>
- 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: <u>http://ncdenr.maps.arcgis.com/apps/webappviewer/index.html?id=6e125ad7628f494694e259c80</u> dd64265

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: <u>http://deq.nc.gov/about/divisions/water-resources/</u>

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	
<b>Division of Water Resources - Planning Section</b>	
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

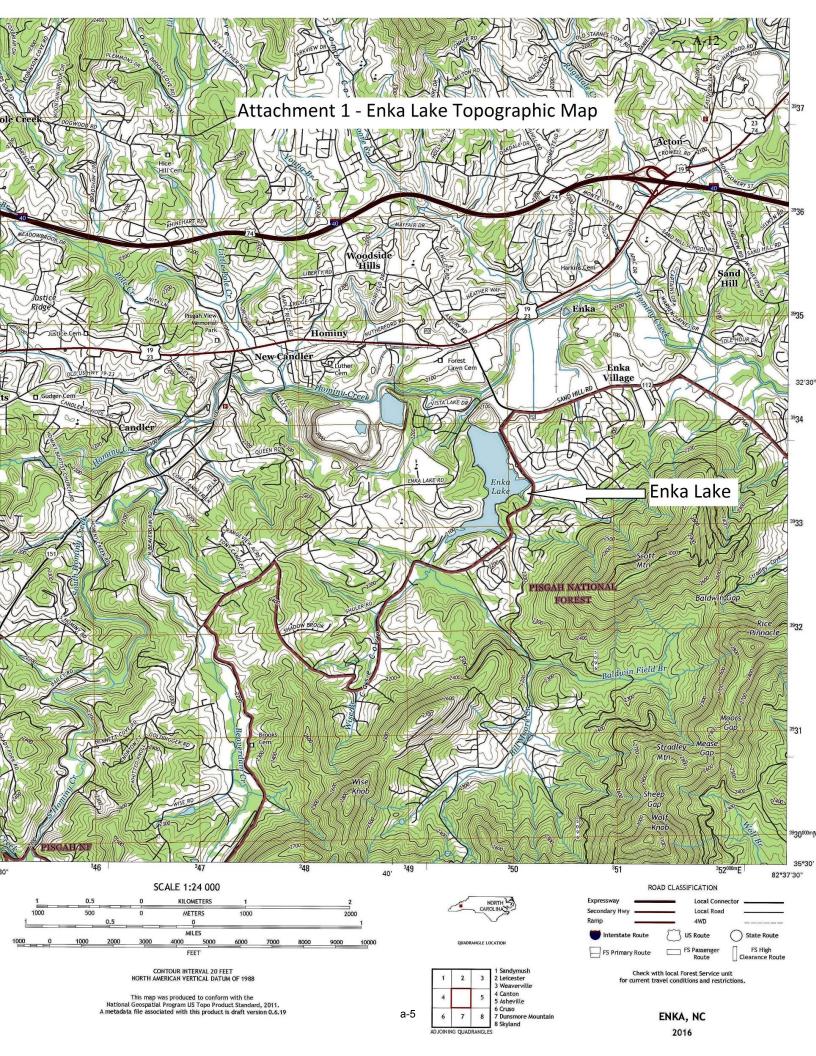
Attachment 3 – Local Champions for Enka Lake Reclassification

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 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.

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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

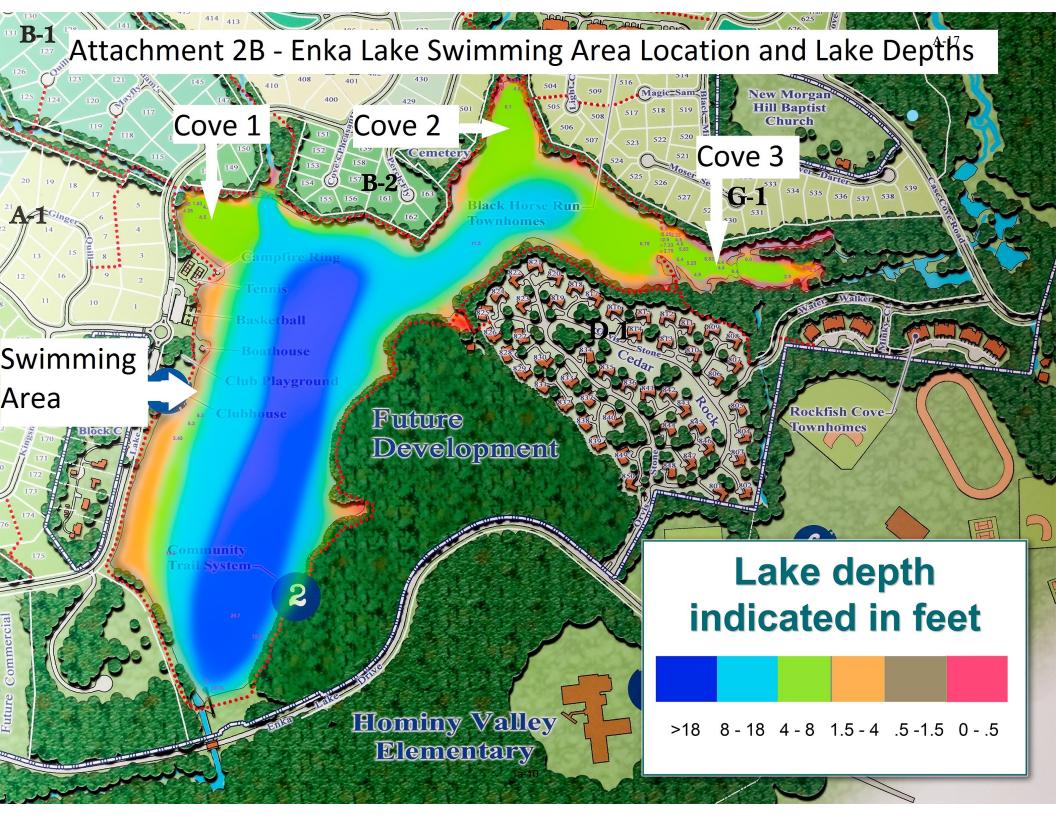


Attachment 2A – Enka Lake Swimming Photos (cont.)

Enka Lake Triathlon – June 18, 2016



Enka Lake Triathlon – June 18, 2016



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## 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

sit	te numbe	r site description	month	day	year	Fecal Coliform CFU/100mL 1*	rainfall conditions		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	a-14 0.57	



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 18<sup>th</sup> Edition.

SampleAnalysisResultUnitsMDLUnitsDate runAnalystBiltmoreLakeFECAL260.0c/100mL<1</td>c/100mL4-13-15DJ

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. <u>jjemi@bellsouth.net</u> 828-697-0063 JJEM AQUEOUS SAMPLE COLLECTION/LAB REPORT FORM (NC CERT 482) A-24

Regulated by NCDENR/DWQ-Groundwater section

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

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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
	THE REAL PROPERTY AND ADDRESS OF THE PARTY	

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 18<sup>th</sup> Edition.

Sample	Analysis	Resu	lt_Units_]	MDL	Units	Date run A	nalyst
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. <u>jjemi@bellsouth.net</u> 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)

A-26

ID NO. BLT INITIAL TEMP °C GRAB sample time COMP start sample time COMP end date/ time COMP end COMP end date/ time COMP end COMP end C	S PRESERV	_°C CATES THE T CATES THE T WITHIN.	₂SO₄, pH=< Na₂SO₃, CI=	2.0	COOI EMP @RECEIF NOTE: THE A	BOVE TEMP IND		<b>1.2</b> MP.
INITIAL TEMP C GRAB sample time COMP start sample time COMP end date/ time COMP end date/ time CO TEMP @RECEIPT: NOTE: THE ABOV FOR ALL C AMMONIA SAMPLE AMMONIA SAMPLE FECAL SAMPLES P	DEIIS 14.2 2810 OLER #1 4.0 7E TEMP INDI CONTAINER(S S PRESERV S NEUTRAL	CATES THE T WITHIN. YED WITH H IZED WITH H	₂SO₄, pH=< Na₂SO₃, CI=	2.0	MP @RECEIF NOTE: THE A	PT: BOVE TEMP IND ALL CONTAINER(	Weekly Weekly OC DICATES THE TE/ S) WITHIN.	MP.
INITIAL TEMP C GRAB sample time COMP start sample time COMP end date/ time COMP end date/ time CO TEMP @RECEIPT: NOTE: THE ABOV FOR ALL C AMMONIA SAMPLE AMMONIA SAMPLE FECAL SAMPLES P	OLER #1 98/0 OLER #1 4.0 7E TEMP INDI CONTAINER(S S PRESERV S NEUTRAL	CATES THE T WITHIN. YED WITH H IZED WITH H	₂SO₄, pH=< Na₂SO₃, CI=	2.0	MP @RECEIF NOTE: THE A	PT: BOVE TEMP IND ALL CONTAINER(	Weekly Weekly OC DICATES THE TE/ S) WITHIN.	MP.
<sup>®</sup> C       GRAB         Sample time       C         COMP start       Sample time         COMP end       date/         date/ time       CO         TEMP @RECEIPT:       NOTE: THE ABOV         NOTE: THE ABOV       FOR ALL C         AMMONIA SAMPLE       FECAL SAMPLES P	OLER #1 4.0 TE TEMP INDI CONTAINER (S S PRESERV S NEUTRAL	CATES THE T WITHIN. YED WITH H IZED WITH H	₂SO₄, pH=< Na₂SO₃, CI=	2.0	MP @RECEIF NOTE: THE A	PT: BOVE TEMP IND ALL CONTAINER(	°C DICATES THE TE/ S) WITHIN.	
Sample time COMP start Sample time COMP end date/ time CO TEMP @RECEIPT: NOTE: THE ABOV FOR ALL C AMMONIA SAMPLE AMMONIA SAMPLE FECAL SAMPLES P	OLER #1 4.0 7E TEMP INDI CONTAINER(S S PRESERV S NEUTRAL	CATES THE T WITHIN. YED WITH H IZED WITH H	₂SO₄, pH=< Na₂SO₃, CI=	2.0	MP @RECEIF NOTE: THE A	PT: BOVE TEMP IND ALL CONTAINER(	S) WITHIN.	
COMP start sample time COMP end date/ time CO TEMP @RECEIPT: NOTE: THE ABOV FOR ALL C AMMONIA SAMPLE AMMONIA SAMPLE FECAL SAMPLES P	OLER #1 4.0 7E TEMP INDI CONTAINER(S S PRESERV S NEUTRAL	CATES THE T WITHIN. YED WITH H IZED WITH H	₂SO₄, pH=< Na₂SO₃, CI=	2.0	MP @RECEIF NOTE: THE A	PT: BOVE TEMP IND ALL CONTAINER(	S) WITHIN.	
COMP end date/ time CO TEMP @RECEIPT: NOTE: THE ABOV FOR ALL C AMMONIA SAMPLE AMMONIA SAMPLE FECAL SAMPLES P	Y.Ô 'E TEMP INDI :ONTAINER(S S PRESERV S NEUTRAL	CATES THE T WITHIN. YED WITH H IZED WITH H	₂SO₄, pH=< Na₂SO₃, CI=	2.0	MP @RECEIF NOTE: THE A	PT: BOVE TEMP IND ALL CONTAINER(	S) WITHIN.	
date/ time <u>CO</u> TEMP @RECEIPT: NOTE: THE ABOV FOR ALL C AMMONIA SAMPLE AMMONIA SAMPLE FECAL SAMPLES P	Y.Ô 'E TEMP INDI :ONTAINER(S S PRESERV S NEUTRAL	CATES THE T WITHIN. YED WITH H IZED WITH H	₂SO₄, pH=< Na₂SO₃, CI=	2.0	MP @RECEIF NOTE: THE A	PT: BOVE TEMP IND ALL CONTAINER(	S) WITHIN.	
CO TEMP @RECEIPT: NOTE: THE ABOV FOR ALL C AMMONIA SAMPLE AMMONIA SAMPLE FECAL SAMPLES P	Y.Ô 'E TEMP INDI :ONTAINER(S S PRESERV S NEUTRAL	CATES THE T WITHIN. YED WITH H IZED WITH H	₂SO₄, pH=< Na₂SO₃, CI=	2.0	MP @RECEIF NOTE: THE A	PT: BOVE TEMP IND ALL CONTAINER(	S) WITHIN.	
TEMP @RECEIPT: NOTE: THE ABOV FOR ALL C AMMONIA SAMPLE AMMONIA SAMPLE FECAL SAMPLES P	Y.Ô 'E TEMP INDI :ONTAINER(S S PRESERV S NEUTRAL	CATES THE T WITHIN. YED WITH H IZED WITH H	₂SO₄, pH=< Na₂SO₃, CI=	2.0	MP @RECEIF NOTE: THE A	PT: BOVE TEMP IND ALL CONTAINER(	S) WITHIN.	
NOTE: THE ABOV FOR ALL C AMMONIA SAMPLE AMMONIA SAMPLE FECAL SAMPLES P	E TEMP INDI ONTAINER(S S PRESERV S NEUTRAL	CATES THE T WITHIN. YED WITH H IZED WITH H	₂SO₄, pH=< Na₂SO₃, CI=	2.0	NOTE: THE A	BOVE TEMP IND	S) WITHIN.	
FOR ALL C AMMONIA SAMPLE AMMONIA SAMPLE FECAL SAMPLES P	S PRESERV	) WITHIN. (ED WITH H <u>i</u> IZED WITH I	₂SO₄, pH=< Na₂SO₃, CI=			ALL CONTAINER(	S) WITHIN.	
AMMONIA SAMPLE AMMONIA SAMPLE FECAL SAMPLES P	S PRESERV S NEUTRAL		Na2SO3, Cla		FOR A		YES NO	
AMMONIA SAMPLE FECAL SAMPLES P	S NEUTRAL	IZED WITH	Na2SO3, Cla					
COLLECTED BY: ALL SAMPLES COLLECTE RELINQUISHED	BY	VED TIME OF	F COLLECTION I	N PLASTIC CONTA			SPLIT SAMP	LE(S) INF
	SULT LAKE					1	DATE	INIT'L
F. COLI cfu/100ml G	191.0						4/21/15	DI
BOD ppm							1	
TSS ppm								
NH <sub>3</sub> ppm								
COND umho								
TURB ntu								
MLSS ppm								
MLVSS ppm								
ALAKALINITY								
ppm		1						
By the above signatu	ire I certify	that all infor	rmation is acc	curate to the b	est of my kn	owledge.		
	means QC n	not met						
	ineans QU I	iot met.						

222.8



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

**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	Resu	lt_Units_M	IDL_	Units Da	ate run An	alyst
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, Jerry

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)

	()		OF CUSTO		rombe	SPECIAL INF	ORMATIO
OCATION	Billme	re Lave		Dury	( OXYLOGA		
NO.	BAEDENS						
TIAL TEMP							
	13.3						
RAB mple time	0740					_	
OMP start							
OMP end							
ate/ time		and a state of the state of the		$\sim -F(1)$			
	COOLER #1			COOLE	R#2		
	01	°C	TE	AP @RECEIPT	r:°c		
EMP @RECEI	BOVE TEMP INDI	CATES THE TEMP.		NOTE: THE AE	BOVE TEMP INDICA	TES THE TEMP.	
FOR /	LL CONTAINER (S	WITHIN.		FOR AL	LL CONTAINER(S) W	ATHIN.	
	Concept of the second						
and the second second						YES NO_	
MMONIA SAM		FD WITH HaSOA PH	=<2.0 CI=< 0.1			YES NO-	
MANAONIIA CAN	APLES PRESERV	ED WITH H <sub>2</sub> SO <sub>4</sub> , pH=	0.1		=		
MANAONIIA CAN	APLES PRESERV	FD WITH HaSOA PH	0.1			YES NO-	
MMONIA SAN ECAL SAMPI	MPLES PRESERV MPLES NEUTRAL ES PRESERVED	$P(ED WITH H_2SO_4, pH=$ $P(IZED WITH Na_2SO_3, 0)$ $P(V) WITH Na_2SO_3, CI=<$	0.1			YES NO - YES NO -	
MMONIA SAN ECAL SAMPI	MPLES PRESERV MPLES NEUTRAL ES PRESERVED	$P(ED WITH H_2SO_4, pH=$ $P(IZED WITH Na_2SO_3, 0)$ $P(V) WITH Na_2SO_3, CI=<$	0.1	INERS UNLESS	NOTED OTHERWISE BY:	YES NO - YES NO	L
COLLECTED	APLES PRESERV APLES NEUTRAL LES PRESERVED BY: LECTED AND PRESER	/ED WITH H <sub>2</sub> SO <sub>4</sub> , pH= IZED WITH Na <sub>2</sub> SO <sub>3</sub> , ( WITH Na <sub>2</sub> SO <sub>3</sub> , Cl=<	0.1	INERS UNLESS		YES NO - YES NO -	L
MMONIA SAN ECAL SAMPI	APLES PRESERV APLES NEUTRAL LES PRESERVED BY: LECTED AND PRESER CHED BY	VED WITH H <sub>2</sub> SO <sub>4</sub> , pH= IZED WITH Na <sub>2</sub> SO <sub>3</sub> , O WITH Na <sub>2</sub> SO <sub>3</sub> , CI=< WITH Na <sub>2</sub> SO <sub>3</sub> , CI=< RVED AT TIME OF COLLECTION DATE /	0.1	INERS UNLESS	NOTED OTHERWISE BY:	YES NO- YES NO	L
CAL SAMPL	APLES PRESERVED APLES NEUTRAL LES PRESERVED BY: LECTED AND PRESER SHED BY	VED WITH H <sub>2</sub> SO <sub>4</sub> , pH= IZED WITH Na <sub>2</sub> SO <sub>3</sub> , O WITH Na <sub>2</sub> SO <sub>3</sub> , CI=< WITH Na <sub>2</sub> SO <sub>3</sub> , CI=< RVED AT TIME OF COLLECTION DATE /	0.1	INERS UNLESS	NOTED OTHERWISE BY:	YES NO- YES NO	L
AMMONIA SAM ECAL SAMPI SAMPLES COL RELINQUIS ANALYSES	APLES PRESERV APLES NEUTRAL LES PRESERVED BY: LECTED AND PRESER CHED BY	VED WITH H <sub>2</sub> SO <sub>4</sub> , pH= IZED WITH Na <sub>2</sub> SO <sub>3</sub> , O WITH Na <sub>2</sub> SO <sub>3</sub> , CI=< WITH Na <sub>2</sub> SO <sub>3</sub> , CI=< RVED AT TIME OF COLLECTION DATE /	0.1	INERS UNLESS	NOTED OTHERWISE BY:	YES NO- YES NO- YES NO- SPLIT SAM	IPLE(S) IN
AMMONIA SAN ECAL SAMPI SAMPLES CON RELINQUIS ANALYSES F. COLI	APLES PRESERVED APLES NEUTRAL LES PRESERVED BY: LECTED AND PRESER SHED BY	VED WITH H <sub>2</sub> SO <sub>4</sub> , pH= IZED WITH Na <sub>2</sub> SO <sub>3</sub> , O WITH Na <sub>2</sub> SO <sub>3</sub> , CI=< WITH Na <sub>2</sub> SO <sub>3</sub> , CI=< RVED AT TIME OF COLLECTION DATE /	0.1	INERS UNLESS	NOTED OTHERWISE BY:	YES NO- YES NO- YES NO-	IPLE(S) IN
AMMONIA SAN ECAL SAMPI SAMPLES CON RELINQUIS ANALYSES F. COLI cfu/100ml	APLES PRESERV APLES NEUTRAL LES PRESERVED BY: LECTED AND PRESER CHED BY ANACON RESULTS	VED WITH H <sub>2</sub> SO <sub>4</sub> , pH= IZED WITH Na <sub>2</sub> SO <sub>3</sub> , O WITH Na <sub>2</sub> SO <sub>3</sub> , CI=< WITH Na <sub>2</sub> SO <sub>3</sub> , CI=< RVED AT TIME OF COLLECTION DATE /	0.1	INERS UNLESS	NOTED OTHERWISE BY:	YES NO- YES NO- YES NO- SPLIT SAM	IPLE(S) IN
AMMONIA SAN ECAL SAMPI SAMPLES CON RELINQUIS ANALYSES F. COLI cfu/100ml BOD ppm	APLES PRESERV APLES NEUTRAL LES PRESERVED BY: LECTED AND PRESER CHED BY ANACON RESULTS	VED WITH H <sub>2</sub> SO <sub>4</sub> , pH= IZED WITH Na <sub>2</sub> SO <sub>3</sub> , O WITH Na <sub>2</sub> SO <sub>3</sub> , CI=< WITH Na <sub>2</sub> SO <sub>3</sub> , CI=< RVED AT TIME OF COLLECTION DATE /	0.1	INERS UNLESS	NOTED OTHERWISE BY:	YES NO- YES NO- YES NO- SPLIT SAM	IPLE(S) IN
AMMONIA SAN ECAL SAMPI SAMPLES COL RELINQUIS ANALYSES F. COLI cfu/100ml BOD ppm	APLES PRESERV APLES NEUTRAL LES PRESERVED BY: LECTED AND PRESER CHED BY ANACON RESULTS	VED WITH H <sub>2</sub> SO <sub>4</sub> , pH= IZED WITH Na <sub>2</sub> SO <sub>3</sub> , O WITH Na <sub>2</sub> SO <sub>3</sub> , CI=< WITH Na <sub>2</sub> SO <sub>3</sub> , CI=< RVED AT TIME OF COLLECTION DATE /	0.1	INERS UNLESS	NOTED OTHERWISE BY:	YES NO- YES NO- YES NO- SPLIT SAM	IPLE(S) IN
AMMONIA SAN ECAL SAMPI SAMPLES CON RELINQUIS ANALYSES F. COLI cfu/100ml BOD ppm TSS ppm	APLES PRESERV APLES NEUTRAL LES PRESERVED BY: LECTED AND PRESER CHED BY ANACON RESULTS	VED WITH H <sub>2</sub> SO <sub>4</sub> , pH= IZED WITH Na <sub>2</sub> SO <sub>3</sub> , O WITH Na <sub>2</sub> SO <sub>3</sub> , CI=< WITH Na <sub>2</sub> SO <sub>3</sub> , CI=< RVED AT TIME OF COLLECTION DATE /	0.1	INERS UNLESS	NOTED OTHERWISE BY:	YES NO- YES NO- YES NO- SPLIT SAM	IPLE(S) IN
AMMONIA SAN ECAL SAMPI SAMPLES CON RELINQUIS F. COLI cfu/100ml BOD ppm TSS ppm NH <sub>3</sub> ppm	APLES PRESERV APLES NEUTRAL LES PRESERVED BY: LECTED AND PRESER CHED BY ANACON RESULTS	VED WITH H <sub>2</sub> SO <sub>4</sub> , pH= IZED WITH Na <sub>2</sub> SO <sub>3</sub> , O WITH Na <sub>2</sub> SO <sub>3</sub> , CI=< WITH Na <sub>2</sub> SO <sub>3</sub> , CI=< RVED AT TIME OF COLLECTION DATE /	0.1	INERS UNLESS	NOTED OTHERWISE BY:	YES NO- YES NO- YES NO- SPLIT SAM	IPLE(S) IN
AMMONIA SAN ECAL SAMPI SAMPLES CON RELINQUIS ANALYSES F. COLI cfu/100ml BOD ppm TSS ppm NH <sub>3</sub> ppm COND umho	APLES PRESERV APLES NEUTRAL LES PRESERVED BY: LECTED AND PRESER CHED BY ANACON RESULTS	VED WITH H <sub>2</sub> SO <sub>4</sub> , pH= IZED WITH Na <sub>2</sub> SO <sub>3</sub> , O WITH Na <sub>2</sub> SO <sub>3</sub> , CI=< WITH Na <sub>2</sub> SO <sub>3</sub> , CI=< RVED AT TIME OF COLLECTION DATE /	0.1	INERS UNLESS	NOTED OTHERWISE BY:	YES NO- YES NO- YES NO- SPLIT SAM	IPLE(S) IN
AMMONIA SAN ECAL SAMPI SAMPLES CON RELINQUIS ANALYSES F. COLI cfu/100ml BOD ppm TSS ppm NH <sub>3</sub> ppm COND umho TURB ntu	APLES PRESERVED APLES NEUTRAL LES PRESERVED BY: CANAD RESULTS RESULTS	VED WITH H <sub>2</sub> SO <sub>4</sub> , pH= IZED WITH Na <sub>2</sub> SO <sub>3</sub> , O WITH Na <sub>2</sub> SO <sub>3</sub> , CI=< WITH Na <sub>2</sub> SO <sub>3</sub> , CI=< RVED AT TIME OF COLLECTION DATE /	0.1	INERS UNLESS	NOTED OTHERWISE BY:	YES NO- YES NO- YES NO- SPLIT SAM	IPLE(S) IN

A-28



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
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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  $18^{th}$  Edition.

Sample	Analysis	Resu	lt_Units_M	IDL_	Units D	ate run Ar	nalyst
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	<b>c</b> /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 vo

Juanita James Laboratory Manager James & James Env. Mgt., Inc. <u>jjemi@bellsouth.net</u> 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)

A-30

LOCATION       BLTIMORE LAKE       COUNTY       SPECIAL INFOR         LAKE       LAKE       Image: Special Inform       Image: Special Inform       Image: Special Inform         INITIAL TEMP       2.0.9       Image: Special Inform       Image: Special Inform       Image: Special Inform         INITIAL TEMP       2.0.9       Image: Special Inform       Image: Special Inform       Image: Special Inform         Sample time       0.82.0       Image: Special Inform       Image: Special Inform       Image: Special Inform         COOLER #1       COOLER #1       COOLER #2       Image: Special Inform       Image: Special Inform         COMP and Image: Special Inform       Image: Special Inform       Image: Special Inform       Image: Special Inform         COOLER #1       COOLER #1       COOLER #2       Image: Special Inform       Image: Special Inform         COOLER #1       COOLER #1       COOLER #2       Image: Special Inform       Image: Special Inform       Image: Special Inform         COLLECTED BY:       Show Inform       Special Inform       Image: Special Inform       Image: Special Inform       Image: Special Inform         GLI Samples PRESERVED WITH Na <sub>2</sub> SO <sub>3</sub> , Cl=< 0.1       Image: Special Inform       Image: Special Inform       Image: Special Inform       Image: Special Inform       Image: Special Infor       Image				CHAIN	OF CUSTO	and a second			
ID NO.       BLT E(1)[5       Imitial rEMP       20.9       Weekly         Weekly       GRAB       S820       Imitial rEMP       Imitial removes the imitial remo	LOCATION	A THE R AND A REAL PROPERTY OF A DESCRIPTION OF A DESCRIP	LAKE	-	COUNTY			SPECIAL INFO	RMATION(S
INITIAL TEMP       20.9       Weekly         GRAB       0820				_				-	
Constraint       Constraint <td></td> <td>BLT EIIIS</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>-</td> <td></td>		BLT EIIIS						-	
GRAB       O 82.0       O         COMP start       aample time       O         COMP end       I       I         date/ time       I       I         COOLER #1       COOLER #2         TEMP @RECEIPT:       3.7       °C         NOTE: THE ABOVE TEMP INDICATES THE TEMP. FOR ALL CONTAINER(S) WITHIN.       ITEMP @RECEIPT:       °C         AMMONIA SAMPLES PRESERVED WITH H2SO4, pH=<2.0		20.9						Weekly	
COUNT Start       Count         sample time       COOLER #1         COOMP end       COOLER #2         TEMP @RECEIPT:       J. ]         NOTE: THE ABOVE TEMP INDICATES THE TEMP. FOR ALL CONTAINER(S) WITHIN.       TEMP @RECEIPT:      OC         NOTE: THE ABOVE TEMP INDICATES THE TEMP. FOR ALL CONTAINER(S) WITHIN.       OC       NOTE: THE ABOVE TEMP INDICATES THE TEMP. FOR ALL CONTAINER(S) WITHIN.         AMMONIA SAMPLES PRESERVED WITH H2SO4, PH=<2.0	GRAB	0820							
sample time       COULER #1       COULER #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.       ONTE: THE ABOVE TEMP INDICATES THE TEMP. FOR ALL CONTAINER(S) WITHIN.       °C         AMMONIA SAMPLES PRESERVED WITH Na <sub>2</sub> SO <sub>3</sub> , CI=< 0.1	comple time	0000			-			-	
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         AMMONIA SAMPLES PRESERVED WITH H2SO4, PH=<2.0	sample 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         AMMONIA SAMPLES PRESERVED WITH H2SO4.       pH=<2.0									
TEMP @RECEIPT:       3.7       °C         NOTE: THE ABOVE TEMP INDICATES THE TEMP. FOR ALL CONTAINER(S) WITHIN.       TEMP @RECEIPT:       °C         AMMONIA SAMPLES PRESERVED WITH H2SO4.       pH=<2.0									
NOTE: THE ABOVE TEMP INDICATES THE TEMP. FOR ALL CONTAINER(S) WITHIN.       NOTE: THE ABOVE TEMP INDICATES THE TEMP. FOR ALL CONTAINER(S) WITHIN.         AMMONIA SAMPLES PRESERVED WITH H2SO4. PH=<2.0		COOLER #1				COOLER #2			
NOTE: THE ABOVE TEMP INDICATES THE TEMP. FOR ALL CONTAINER(S) WITHIN.       NOTE: THE ABOVE TEMP INDICATES THE TEMP. FOR ALL CONTAINER(S) WITHIN.         AMMONIA SAMPLES PRESERVED WITH H2SO4. PH=<2.0	TEMP @RECEIP	T: 3.7	_°C		TEM	P @RECEIPT:		°C	
FOR ALL CONTAINER(S) WITHIN.         FOR ALL CONTAINER(S) WITHIN.         FOR ALL CONTAINER(S) WITHIN.         AMMONIA SAMPLES PRESERVED WITH Na <sub>2</sub> SO <sub>3</sub> , CI=< 0.1         YES NO         OULLECTED BY:         C.1. Yes NO         YES NO         OULLECTED BY:         C.1. Yes NO         COLLECTED AND PRESERVED WITH Na <sub>2</sub> SO <sub>3</sub> , CI=< 0.1         COLLECTED BY:         C.1. Yes NO         COLLECTED BY         DATE / TIME         RECIVED BY         SPLIT LAKE         COLI			CATES THE T	EMP.				ICATES THE T	EMP.
AMMONIA SAMPLES PRESERVED WITH H <sub>2</sub> SO <sub>4</sub> , pH=<2.0YES NOYES NOYES NO AMMONIA SAMPLES NEUTRALIZED WITH Na <sub>2</sub> SO <sub>3</sub> , CI=< 0.1YES NO FECAL SAMPLES PRESERVED WITH Na <sub>2</sub> SO <sub>3</sub> , CI=< 0.1YES NO COLLECTED BY: <u>G. Marsky</u> Net samples collected and preserved at time of collection in plastic containers unless noted otherwise BY: RELINQUISHED BY DATE / TIME RECEIVED BY SPLIT SAMPL <u>G. Marsky</u> <u>S-11-(S / 10.35</u> / ANALYSES RESULT LAKE DATE COLL <u>G 100.0</u> <u>J 10.15</u> BOD ppmI TSS ppmI NH <sub>3</sub> ppmI COND umho TURB ntu MLVSS ppmI MLVSS ppmI AAKALINITYI by the above signature I certify that all information is accurate to the best of my knowledge.	FOR A	LL CONTAINER (S	) WITHIN.						
COLLECTED BY:       Cr. Heasky         NUL SAMPLES COLLECTED AND PRESERVED AT TIME OF COLLECTION IN PLASTIC CONTAINERS UNLESS NOTED OTHERWISE BY:         RELINQUISHED BY       DATE / TIME       RECEIVED BY       SPLIT SAMPL         G. Heasley       5-11-15 / 10.35       Heasley       DATE         ANALYSES       RESULT LAKE       DATE       DATE         F. COLI       G 100.0       51.015       J         ANALYSES       RESULT LAKE       DATE         F. COLI       G 100.0       51.015         Jult Sample       J       J         SoD ppm       I       I         TSS ppm       I       I         VH <sub>3</sub> ppm       I       I         COND umho       I       I         TURB ntu       I       I         MLSS ppm       I       I         ALAKALINITY       I       I         pm       I       I         By the above signature I certify that all information is accurate to the best of my knowledge.	AMMONIA SAM	IPLES NEUTRAL	IZED WITH	Na2SO3, CI=			-	YES NO-	_
BALL SAMPLES COLLECTED AND PRESERVED AT TIME OF COLLECTION IN PLASTIC CONTAINERS UNLESS NOTED OTHERWISE BY:         RELINQUISHED BY       DATE / TIME       RECEIVED BY       SPLIT SAMPL         G_HEASLEY       5-11-(5 / 10.35       JATE       DATE       DATE         ANALYSES       RESULT LAKE       DATE       DATE       DATE         F. COLI       G_100.0       S111/15       DATE       S111/15         SOD ppm       S111/15       S111/15       S111/15         BOD ppm       S100       S111/15       S111/15         COND umho       S111/15       S111/15       S111/15         COND umho       S111/15       S111/15       S111/15         MLSS ppm       S111/15       S111/15       S111/15         MLVSS ppm       S111/15       S111/15       S111/15         S2       S2       S2       S2       S2         S4       S2       S2       S2       S2       S2         S4       S2       S2       S2       S2       S2         S4       S2       S2       S2       S2       S2         S5       S2       S2       S2       S2       S2         S4       S5       S2	ECAL SAMPLE	ES PRESERVED	WITH Na <sub>2</sub> S	O <sub>3</sub> , CI=< 0.1			-	YES NO_	
ALL SAMPLES COLLECTED AND PRESERVED AT TIME OF COLLECTION IN PLASTIC CONTAINERS UNLESS NOTED OTHERWISE BY:         RELINQUISHED BY       DATE / TIME       RECEIVED BY       SPLIT SAMPL         G_HEASLEY       5-11-(5 / 10.35       7       7         ANALYSES       RESULT LAKE       DATE       DATE         F. COLI       G 100.0       51.11.15       7         Gamma       6       10.35       7         ANALYSES       RESULT LAKE       DATE         F. COLI       G 100.0       51.11.15         Gody       51.11.15       51.11.15         BOD ppm       1       1         TSS ppm       1       1         NH3 ppm       1       1         COND umho       1       1         TURB ntu       1       1         MLSS ppm       1       1         MLVSS ppm       1       1         ALAKALINITY       1       1         ppm       1       1       1         By the above signature I certify that all information is accurate to the best of my knowledge.       COMMENTS									
RELINQUISHED BY       DATE / TIME       RECEIVED BY       SPLIT SAMPL         G_HEASIEF       S-11-(S / 10.35       MR       DATE         ANALYSES       RESULT LAKE       DATE       DATE         F. COLI       G 100.0       S1(15       DATE         Schultspan       S1(15       DATE         BOD ppm       S1(15       S1(15         NH3 ppm       S1(15       S1(15         COND umho       S1(15       S1(15         TURB ntu       S1(15       S1(15         MLSS ppm       S1(15       S1(15         MLVSS ppm       S1(15       S1(15         BOD photom       S1(15       S1(15         COND umho       S1(15       S1(15         TURB ntu       S1(15       S1(15         MLVSS ppm       S1(15       S1(15         System       S1(15       S1(15         System       S1(15       S1(15         System       S1(15       S1(15         GOMMENTS       S1(15       S1(15						RS UNI ESS NOTED O	THERWISE	RV.	
G. Hensley       5-11-15       1 0.35       MR         ANALYSES       RESULT LAKE       DATE         F. COLI       G       D0.0       S[11]15         GDD ppm       S[10]15       S[10]15         BOD ppm       S[10]15       S[10]15         NH <sub>3</sub> ppm       S[10]15       S[10]15         COND umho       S[10]15       S[10]15         TURB ntu       S[10]15       S[10]15         MLSS ppm       S[10]15       S[10]15         ALAKALINITY       S[10]15       S[10]15         DATE       S[10]15       S[10]15         By the above signature I certify that all information is accurate to the best of my knowledge.       S[10]15									PLE(S) INF
ANALYSES     RESULT LAKE     DATE       F. COLI     G     JOD.O     Slinlis       GDD ppm     Image: Slinlis     Slinlis       BOD ppm     Image: Slinlis     Slinlis       TSS ppm     Image: Slinlis     Slinlis       NH <sub>3</sub> ppm     Image: Slinlis     Image: Slinlis       COND umho     Image: Slinlis     Image: Slinlis       TURB ntu     Image: Slinlis     Image: Slinlis       MLSS ppm     Image: Slinlis     Image: Slinlis       MLVSS ppm     Image: Slinlis     Image: Slinlis       BULVSS ppm     Image: Slinlis     Image: Slinlis       BULVS     Image:			5-11-1			ď	0		.,
F. COLI       G 100.0       51.11.5         BOD ppm       Image: Statute in the state in t	CI- HE/BI	9	1	1	<i></i>		1		
Stu/100ml     G \00.0     Stu/15       BOD ppm     Image: Sturtus     Sturtus       TSS ppm     Image: Sturtus     Image: Sturtus       NH <sub>3</sub> ppm     Image: Sturtus     Image: Sturtus       COND umho     Image: Sturtus     Image: Sturtus       TURB ntu     Image: Sturtus     Image: Sturtus       MLSS ppm     Image: Sturtus     Image: Sturtus       MLVSS ppm     Image: Sturtus     Image: Sturtus       Sturtus     Image: Sturtus     Image: Sturtus       Stur <td< th=""><th></th><th>RESULT LAKE</th><th></th><th></th><th></th><th></th><th></th><th></th><th>INIT'L</th></td<>		RESULT LAKE							INIT'L
BOD ppm       Image: Constraint of the set of my knowledge.         TSS ppm       Image: Constraint of the set of my knowledge.         TURB ntu       Image: Constraint of the set of my knowledge.		G 100.0						5/11/15	DJ
TSS ppm       Image: Constraint of the set of my knowledge.         NH <sub>3</sub> ppm       Image: Constraint of the set of my knowledge.         COND umho       Image: Constraint of the set of my knowledge.         CONMENTS       Image: Constraint of the set of my knowledge.									
NH <sub>3</sub> ppm			-						
COND umho       Image: Cond text of tex of tex of tex of text of text of tex of text of text o									
TURB ntu     MLSS ppm       MLSS ppm     MLVSS ppm       MLVSS ppm     MLVSS ppm       ALAKALINITY     ML       opm     ML       Bay the above signature I certify that all information is accurate to the best of my knowledge.							-		
MLSS ppm MLVSS ppm ALAKALINITY ppm By the above signature I certify that all information is accurate to the best of my knowledge. COMMENTS									
MLVSS ppm ALAKALINITY ppm By the above signature I certify that all information is accurate to the best of my knowledge.				-					
ALAKALINITY opm By the above signature I certify that all information is accurate to the best of my knowledge.									
By the above signature I certify that all information is accurate to the best of my knowledge.									
COMMENTS									
COMMENTS E means QC not met.			that all infor	mation is accu	irate to the best	t of my knowledge.			
- means wo not met.	COMMENTS (	E massa or -	ot met						
		- means QC n	iot 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 #57705
NG Contife d Laboratore	NC masternator #492	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 18<sup>th</sup> Edition.

Sample	Analysis	Resul	t <u>Units</u> M	DL 1	<u>Units Da</u>	te run An	<u>alyst</u>
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. <u>jjemi@bellsouth.net</u> 828-697-0063

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

Regulated by NCDENR/DWQ-Groundwater section

A-32

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

			CHAIN	OF CUSTO	DDY		
LOCATION		LAKE		COUNTY	Y	SPECIAL INFO	ORMATION(S)
	LAKE						
ID NO.	BLTE1815				-		
INITIAL TEMP °C	21.6					Weekly	
GRAB sample time COMP start	0830					7.	4
sample time COMP end			_	_		_	
date/ time							A substantian and
	COOLER #1				COOLER #2		
TENAD ODECEN	PT: 41-2	°C	and and an an an and an an an an an		MP @RECEIPT:	°C	
	ABOVE TEMP INDIC ALL CONTAINER(S)		EMF.	1	NOTE: THE ABOVE TEMP IN FOR ALL CONTAINER		EMP.
AMMONIA SAM	MPLES PRESERVE MPLES NEUTRALIZ ES PRESERVED	ZED WITH WITH Na <sub>2</sub> S	Na2SO3, CI=	< 0.1		YES NO_ YES NO_ YES NO_	_
			F COLLECTION IN	V PLASTIC CONTAIL	NERS UNLESS NOTED OTHERWIS	E BY:	-
RELINQUIS			DATE / TIM		RECEIVED BY	1	PLE(S) INFO
G.Hen	isley	5-18-1	5 1 10	120 AM	KP		
ANALYSES	RESULT LAKE		/			DATE	INUTU
F. COLI						DATE	INIT'L
cfu/100ml BOD ppm	G 167.0				+ +	5/18/15	70.
TSS ppm							
NH <sub>3</sub> ppm							
COND umho							
TURB ntu							
MLSS ppm							
MLVSS ppm							
ALAKALINITY							
By the above si	gnature I certify t	hat all infor	mation is acc	urate to the be	st of my knowledge.		
By the above signation of the second se			mation is acc	urate to the be	st of my knowledge.		

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 18<sup>th</sup> Edition.

Sample	Analysis	Resul	t_Units_M	DL_	<u>Units</u> Dat	te run Ana	alyst
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. Jorry

Juanita James Laboratory Manager James & James Env. Mgt., Inc. <u>jjemi@bellsouth.net</u> 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)

A-34

OCATION	BILTMORE	LAKE		COUNTY		SPECIAL INFORM	IATION(S)
OCATION	LAKE	LAKE					
D NO.	BLT F265						
NITIAL TEMP						Weekly	
c	22.5						
RAB ample time	0820					- 7.5	
COMP start						1.5	
ample time						-	
late/ time							
					0001 50 40		
TEMP @RECE	COOLER #1		1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 -		COOLER #2	°C	
NOTE: THE A	ABOVE TEMP INDI ALL CONTAINER(S		TEMP.		THE ABOVE TEMP IN FOR ALL CONTAINER		лР.
AMMONIA SA	MPLES PRESERV MPLES NEUTRAL LES PRESERVED	IZED WITH	Na2SO3, CI=< 0.1			YES NO YES NO	
AMMONIA SAI	MPLES NEUTRAL	IZED WITH	Na <sub>2</sub> SO <sub>3</sub> , CI=< 0.1 SO <sub>3</sub> , CI=< 0.1		INLESS NOTED OTHERWIS	YES NO	_
AMMONIA SAI	MPLES NEUTRAL ES PRESERVED BY: <u>Gradies</u> Lected and preser		I Na <sub>2</sub> SO <sub>3</sub> , CI=< 0.1 SO <sub>3</sub> , CI=< 0.1 DF COLLECTION IN PLAS		INLESS NOTED OTHERWIS	YES NO	_
AMMONIA SAI FECAL SAMPI COLLECTED	MPLES NEUTRAL LES PRESERVED BY: Configuration Lected AND PRESER CHED BY	IZED WITH	I Na <sub>2</sub> SO <sub>3</sub> , CI=< 0.1 SO <sub>3</sub> , CI=< 0.1 DF COLLECTION IN PLAS	STIC CONTAINERS L	INLESS NOTED OTHERWIS	YES NO	_
COLLECTED ALL SAMPLES COL RELINQUIS	MPLES NEUTRAL LES PRESERVED BY: <u>G. H.</u> LLECTED AND PRESER SHED BY		Na <sub>2</sub> SO <sub>3</sub> , CI=< 0.1 SO <sub>3</sub> , CI=< 0.1 DF COLLECTION IN PLAS	STIC CONTAINERS L	NLESS NOTED OTHERWIS	YES NO	_E(S) IN
COLLECTED ALL SAMPLES COL RELINQUIS	MPLES NEUTRAL LES PRESERVED BY: G. H.A. LECTED AND PRESER SHED BY RESULT LAKE		Na <sub>2</sub> SO <sub>3</sub> , CI=< 0.1 SO <sub>3</sub> , CI=< 0.1 DF COLLECTION IN PLAS	STIC CONTAINERS L	INLESS NOTED OTHERWIS	YES NO	_E(S) IN
COLLECTED ALL SAMPLES COL RELINQUIS (7. Hanster ANALYSES F. COLI	MPLES NEUTRAL LES PRESERVED BY: <u>G. H.</u> LLECTED AND PRESER SHED BY		Na <sub>2</sub> SO <sub>3</sub> , CI=< 0.1 SO <sub>3</sub> , CI=< 0.1 DF COLLECTION IN PLAS	STIC CONTAINERS L	RECEIVED BY	SE BY: SPLIT SAMPL	_E(S) IN
COLLECTED ALL SAMPLES COL RELINQUIS (7-)4=051- ANALYSES F. COLI cfu/100ml	MPLES NEUTRAL LES PRESERVED BY: G. H.A. LECTED AND PRESER SHED BY RESULT LAKE		Na <sub>2</sub> SO <sub>3</sub> , CI=< 0.1 SO <sub>3</sub> , CI=< 0.1 DF COLLECTION IN PLAS	STIC CONTAINERS L	INLESS NOTED OTHERWIS	YES NO	_E(S) IN
AMMONIA SAI ECAL SAMPLE COLLECTED ALL SAMPLES COL RELINQUIS (A. A. A. A. S. ANALYSES F. COLI Cfu/100ml BOD ppm	MPLES NEUTRAL LES PRESERVED BY: G. H.A. LECTED AND PRESER SHED BY RESULT LAKE		Na <sub>2</sub> SO <sub>3</sub> , CI=< 0.1 SO <sub>3</sub> , CI=< 0.1 DF COLLECTION IN PLAS	STIC CONTAINERS L		YES NO	_E(S) IN
AMMONIA SAI ECAL SAMPLE COLLECTED ALL SAMPLES COL RELINQUIS G. A.A.S. ANALYSES F. COLI Cfu/100ml BOD ppm TSS ppm	MPLES NEUTRAL LES PRESERVED BY: G. H.A. LECTED AND PRESER SHED BY RESULT LAKE		Na <sub>2</sub> SO <sub>3</sub> , CI=< 0.1 SO <sub>3</sub> , CI=< 0.1 DF COLLECTION IN PLAS	STIC CONTAINERS L	INLESS NOTED OTHERWIS	YES NO	_E(S) IN
AMMONIA SAI ECAL SAMPL COLLECTED ALL SAMPLES COL RELINQUIS (7. )4205)- ANALYSES F. COLI cfu/100ml BOD ppm TSS ppm NH <sub>3</sub> ppm	MPLES NEUTRAL LES PRESERVED BY: G. H.A. LECTED AND PRESER SHED BY RESULT LAKE		Na <sub>2</sub> SO <sub>3</sub> , CI=< 0.1 SO <sub>3</sub> , CI=< 0.1 DF COLLECTION IN PLAS	STIC CONTAINERS L	RECEIVED BY	YES NO	_E(S) IN
AMMONIA SAI ECAL SAMPLE COLLECTED ALL SAMPLES COL RELINQUIS (7- 14-051- ANALYSES F. COLI Cfu/100ml BOD ppm TSS ppm NH <sub>3</sub> ppm COND umho	MPLES NEUTRAL LES PRESERVED BY: G. H.A. LECTED AND PRESER SHED BY RESULT LAKE		Na <sub>2</sub> SO <sub>3</sub> , CI=< 0.1 SO <sub>3</sub> , CI=< 0.1 DF COLLECTION IN PLAS	STIC CONTAINERS L		YES NO	_E(S) IN
AMMONIA SAI ECAL SAMPLE COLLECTED ALL SAMPLES COL RELINQUIS (A. A. A. A. A. ANALYSES F. COLI Cfu/100ml BOD ppm TSS ppm NH <sub>3</sub> ppm COND umho TURB ntu	MPLES NEUTRAL LES PRESERVED BY: G. H.A. LECTED AND PRESER SHED BY RESULT LAKE		Na <sub>2</sub> SO <sub>3</sub> , CI=< 0.1 SO <sub>3</sub> , CI=< 0.1 DF COLLECTION IN PLAS	STIC CONTAINERS L	INLESS NOTED OTHERWIS	YES NO	_E(S) IN
AMMONIA SAI ECAL SAMPLE COLLECTED ALL SAMPLES COL RELINQUIS (	MPLES NEUTRAL LES PRESERVED BY: G. H.A. LECTED AND PRESER SHED BY RESULT LAKE		Na <sub>2</sub> SO <sub>3</sub> , CI=< 0.1 SO <sub>3</sub> , CI=< 0.1 DF COLLECTION IN PLAS	STIC CONTAINERS L	INLESS NOTED OTHERWIS	YES NO	_E(S) IN
AMMONIA SAI FECAL SAMPL COLLECTED ALL SAMPLES COL RELINQUIS (7. )4.205)- ANALYSES F. COLI cfu/100ml BOD ppm TSS ppm NH <sub>3</sub> ppm COND umho TURB ntu MLSS ppm ALAKALINIT	MPLES NEUTRAL LES PRESERVED BY: G. H.A. LLECTED AND PRESER CHED BY RESULT LAKE G 164.0		Na <sub>2</sub> SO <sub>3</sub> , CI=< 0.1 SO <sub>3</sub> , CI=< 0.1 DF COLLECTION IN PLAS	STIC CONTAINERS L		YES NO	_E(S) IN
FECAL SAMPI COLLECTED ALL SAMPLES COL RELINQUIS (7. AzASI ANALYSES F. COLI cfu/100ml BOD ppm TSS ppm NH <sub>3</sub> ppm COND umho TURB ntu MLSS ppm ALAKALINIT	MPLES NEUTRAL LES PRESERVED BY: G. H.A. LLECTED AND PRESER GHED BY RESULT LAKE G 164-0	IZED WITH WITH Na <sub>2</sub> S EVED AT TIME ( S - 2 (c -	Na <sub>2</sub> SO <sub>3</sub> , CI=< 0.1 SO <sub>3</sub> , CI=< 0.1 DF COLLECTION IN PLAS	STIC CONTAINERS U		YES NO	_

47.7

# Invoice

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

## Bill To

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

Date	Invoice #
5/27/2015	3715

Quantity	Description	Rate	Amount
Quantity 4	Description Fecal/Collection For May 2015	Rate 50.00	Amount 200.00
Thank you	for your business.	Total	\$200.



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
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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 18<sup>th</sup> Edition.

Sample	ample 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. <u>jjemi@bellsouth.net</u> 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)

A-37

#### CHAIN OF CUSTODY LOCATION BILTMORE LAKE COUNTY SPECIAL INFORMATION(S) LAKE ID NO. BLT INITIAL TEMP 23.5 Weekly GRAB PH: 8.1 0940 sample time COMP start sample time COMP end date/ time COOLER #1 COOLER #2 TEMP @RECEIPT: 6.0 °C TEMP @RECEIPT: °C NOTE: THE ABOVE TEMP INDICATES THE TEMP. NOTE: THE ABOVE TEMP INDICATES THE TEMP. FOR ALL CONTAINER(S) WITHIN. FOR ALL CONTAINER(S) WITHIN. AMMONIA SAMPLES PRESERVED WITH H<sub>2</sub>SO<sub>4</sub>, pH=<2.0 YES NO. AMMONIA SAMPLES NEUTRALIZED WITH Na2SO3, CI=< 0.1 YES NO FECAL SAMPLES PRESERVED WITH Na2SO3, CI=< 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 Cr. Hensley 6-1-15 11:15 1 ANALYSES RESULT LAKE DATE INIT'L F. COLI G 70.0 cfu/100ml 6/1/15 DJLS BOD ppm TSS ppm NH<sub>3</sub> 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.

20.4

a-30



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  $18^{th}$  Edition.

Sample	Analysis	Resul	t Units M	DL	Units Da	te run Ana	alyst
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)

A-39

Regulated by NCDENR/DWQ-Groundwater section

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

		LAKE		COUNTY		SPECIAL INFO	DMATION
-	LAKE					SPECIAL INFO	DRIMATION (S
ID NO.	BLT EOSIS					=	
INITIAL TEMP <sup>⁰</sup> C GRAB	24.4					Weekly	PH-
and the second se	0940					-	111-
sample time COMP start	0,10					- 8.0	1
sample time							
COMP end date/ time							
	COOLER #1			0	OOLER #2		
NOTE: THE A	PT: <u>6.2</u> BOVE TEMP INDIG ALL CONTAINER(S)	CATES THE	ТЕМР.	NOTE: 1	ECEIPT: HE ABOVE TEMP INI OR ALL CONTAINER		EMP.
AMMONIA SAN	ES PRESERVED	ZED WITH	Na <sub>2</sub> SO <sub>3</sub> , Cl=< 0. SO <sub>3</sub> , Cl=< 0.1	1		YES NO_ YES NO_ YES NO_	
COLLECTED B	1. (7.17	ENSIEY					
	ECTED AND PRESERV	ED AT TIME-O	E COLLECTION IN PLA	STIC CONTAINERS LINI	ESS NOTED OTHERWISE	DV.	
	ECTED AND PRESERV	ED AT TIME-O	F COLLECTION IN PLAS	STIC CONTAINERS UNL			
RELINQUIS	ECTED AND PRESERV	ED AT TIME-Ø	F COLLECTION IN PLAS			BY: SPLIT SAMP	PLE(S) INFO
ALL SAMPLES COLL RELINQUISH G. Hensi	ECTED AND PRESERV	(e-8-1	F COLLECTION IN PLAS				PLE(S) INFC
ALL SAMPLES COLL RELINQUISH G. Heast	ECTED AND PRESERV	ED AT TIME-Ø	F COLLECTION IN PLAS				PLE(S) INFO
ALL SAMPLES COLL RELINQUISH G. Heas ANALYSES F. COLI	IECTED AND PRESERV	ED AT TIME-Ø	F COLLECTION IN PLAS			SPLIT SAMP	INIT'L
ALL SAMPLES COLL RELINQUISH G. Hen'S ANALYSES F. COLI Cfu/100ml	ECTED AND PRESERV	ED AT TIME-Ø	F COLLECTION IN PLAS			SPLIT SAMP	
ALL SAMPLES COLL RELINQUISH G. Heas ANALYSES COLI Stu/100ml BOD ppm	IECTED AND PRESERV	ED AT TIME-Ø	F COLLECTION IN PLAS			SPLIT SAMP	INIT'L
ALL SAMPLES COLL RELINQUISH G. HenS ANALYSES COLL	IECTED AND PRESERV	ED AT TIME-Ø	F COLLECTION IN PLAS			SPLIT SAMP	INIT'L
ALL SAMPLES COLL RELINQUISH G. Hen'S ANALYSES F. COLI Cfu/100ml BOD ppm TSS ppm NH <sub>3</sub> ppm	IECTED AND PRESERV	ED AT TIME-Ø	F COLLECTION IN PLAS			SPLIT SAMP	INIT'L
ALL SAMPLES COLL RELINQUISH G. Hen'S ANALYSES F. COLL Stu/100ml BOD ppm TSS ppm NH <sub>3</sub> ppm COND umho	IECTED AND PRESERV	ED AT TIME-Ø	F COLLECTION IN PLAS			SPLIT SAMP	INIT'L
ALL SAMPLES COLL RELINQUISH G. Heas ANALYSES F. COLL Sold ppm TSS ppm NH <sub>3</sub> ppm COND umho TURB ntu	IECTED AND PRESERV	ED AT TIME-Ø	F COLLECTION IN PLAS			SPLIT SAMP	INIT'L
ALL SAMPLES COLL RELINQUISH G. HenS ANALYSES F. COLL cfu/100ml BOD ppm TSS ppm NH <sub>3</sub> ppm COND umho TURB ntu MLSS ppm	IECTED AND PRESERV	ED AT TIME-Ø	F COLLECTION IN PLAS			SPLIT SAMP	INIT'L
ALL SAMPLES COLL RELINQUISH G. HenS ANALYSES F. COLL cfu/100ml BOD ppm TSS ppm NH <sub>3</sub> ppm COND umho TURB ntu MLSS ppm MLVSS ppm	IECTED AND PRESERV	ED AT TIME-Ø	F COLLECTION IN PLAS			SPLIT SAMP	INIT'L
ALL SAMPLES COLL RELINQUISH G. Heas ANALYSES F. COLI cfu/100ml BOD ppm TSS ppm NH <sub>3</sub> ppm COND umho TURB ntu MLSS ppm MLVSS ppm ALAKALINITY ppm	ECTED AND PRESERV	ED AT TIME-O	F COLLECTION IN PLAS		RECEIVED BY	SPLIT SAMP	INIT'L

151,0



**NC Certified Laboratory** 

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

NC wastewater #482

	ce Residential						
Karen Fole	ey						
80 Lake D	rive						
Biltmore L	ake, N. C. 28	715					
Ms. Foley,							
End	closed are the	results of	the analysis	perfor	rmed by our s	taff on your	samples.
The analys	is performed o	conform to	o Standard N	<b>letho</b>	ds 18 <sup>th</sup> Edition	1.	
C 1 .					10 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		
Sample	Analysis	Resul	t Units M	IDL_	<u>Units</u> Da	te run_Ana	alyst
Sample	Analysis	Resul	t Units M	IDL	<u>Units</u> Da	te run Ana	alyst
	Analysis	Resul	t_Units_M	IDL	<u>Units Da</u>	te run Ana	<u>alyst</u>
Biltmore	<u>Analysis</u> FECAL	<u>Resul</u> 100.0		IDL <1	<u>Units Da</u> c/100mL	<u>te run Ana</u> 5-11-15	<u>alyst</u> DJ
Biltmore Lake							
Biltmore Lake Biltmore	FECAL	100.0	c/100mL		c/100mL		
Biltmore Lake Biltmore							
Biltmore Lake Biltmore Lake	FECAL	100.0	c/100mL	<1	c/100mL	5-11-15	DJ
Biltmore Lake Biltmore Lake Biltmore	FECAL FECAL	100.0 167.0	c/100mL c/100mL	<1 <1	c/100mL c/100mL	5-11-15 5-19-15	DJ
Biltmore Lake Biltmore Lake Biltmore	FECAL	100.0	c/100mL c/100mL	<1	c/100mL	5-11-15	DJ
Biltmore Lake Biltmore Lake Biltmore Lake	FECAL FECAL	100.0 167.0	c/100mL c/100mL	<1 <1	c/100mL c/100mL	5-11-15 5-19-15	DJ
Sample Biltmore Lake Biltmore Lake Biltmore Lake Biltmore Lake	FECAL FECAL	100.0 167.0	c/100mL c/100mL c/100mL	<1 <1	c/100mL c/100mL	5-11-15 5-19-15	DJ DJ

Biltmore Lake

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.

c/100mL <1

c/100mL

6-8-15 DJ

Thank you Jerry S

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

FECAL

410.0

NC Drinking Water #37763

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) A-41

OCATION D NO.						SPECIAL INFO	
ITIAL TEMP						2.1.	
ITIAL TEMP						PH:	
		-				7.7	
	23.					1.1	
RAB	0815						
MP start	0015						
mple time							
OMP end ate/ time							- and the second second
	COOLER #1			CC	DOLER #2	°C	
EMP @RECEIPT NOTE: THE AB FOR AL	OVE TEMP INDI	_°C CATES THE T ) WITHIN.	EMP.		THE ABOVE TEMP INDIC	WITHIN.	
MMONIA SAME	PLES PRESERV	ED WITH H	2SO4, pH=<2.0			YES NO	
	PLES NEUTRAL	IZED WITH I	$Na_2SO_3$ , CI=< 0.1	0		YES NO YES NO	
MMONIA SAMF ECAL SAMPLE	S PRESERVED	WITH Na <sub>2</sub> S	O <sub>3</sub> , CI=< 0.1				
MMONIA SAMF ECAL SAMPLE	S PRESERVED	WITH Na <sub>2</sub> S	O <sub>3</sub> , CI=< 0.1				
ECAL SAMPLE	S PRESERVED	WITH Na <sub>2</sub> S	4		NUESS NOTED OTHERWISE BY		
LLECTED BY	Y: C7. H	WITH Na <sub>2</sub> S	F COLLECTION IN PLAS			SPLIT SAMF	PLE(S) INF
ECAL SAMPLE	Y: C7. Ha	WITH Na2S	F COLLECTION IN PLAS		NLESS NOTED OTHERWISE BY	SPLIT SAMF	PLE(S) INF
LLECTED BY	Y: C7. Ha	WITH Na <sub>2</sub> S	F COLLECTION IN PLAS		NLESS NOTED OTHERWISE BY	SPLIT SAMF	PLE(S) INF
ECAL SAMPLE LLECTED BY L SAMPLES COLLE RELINQUISH G. Heas	Y: C7. Ha ECTED AND PRESERVED	WITH Na2S	F COLLECTION IN PLAS		NLESS NOTED OTHERWISE BY	SPLIT SAMF	
ECAL SAMPLE	RESULTS	WITH Na2S	F COLLECTION IN PLAS		NLESS NOTED OTHERWISE BY		INITT
ECAL SAMPLE LLECTED BY L SAMPLES COLLE RELINQUISH G. Heas NALYSES COLI fu/100ml	Y: C7. Ha ECTED AND PRESERVED	WITH Na2S	F COLLECTION IN PLAS		NLESS NOTED OTHERWISE BY	DATE	INITT
ECAL SAMPLE LLECTED BY L SAMPLES COLLE RELINQUISH G. Heas NALYSES COLL SOD ppm	RESULTS	WITH Na2S	F COLLECTION IN PLAS		RECEIVED BY	DATE	INITT
ECAL SAMPLE LLECTED BY L SAMPLES COLLE RELINQUISH G. Heas NALYSES COLI MALYSES COLI MALYSES SOD ppm SS ppm	RESULTS	WITH Na2S	F COLLECTION IN PLAS		RECEIVED OTHERWISE BY	DATE	INITT
ECAL SAMPLE LLECTED BY L SAMPLES COLLE RELINQUISH G. Heas NALYSES NALYSES COLI fu/100ml SOD ppm SS ppm IH <sub>3</sub> ppm	RESULTS	WITH Na2S	F COLLECTION IN PLAS			DATE	INIT
ECAL SAMPLE LLECTED BY L SAMPLES COLLE RELINQUISH G. Hens NALYSES COLI MALYSES COLI MALYSES COLI MALYSES COLI SOD ppm SS ppm NH <sub>3</sub> ppm COND umho	RESULTS	WITH Na2S	F COLLECTION IN PLAS		NLESS NOTED OTHERWISE BY	DATE	INITT
ECAL SAMPLE ILLECTED BY I SAMPLES COLLE RELINQUISH G. Heas COLI Stu/100ml BOD ppm TSS ppm NH <sub>3</sub> ppm COND umho TURB ntu	RESULTS	WITH Na2S	F COLLECTION IN PLAS		RECEIVED OTHERWISE BY	DATE	INITT
ECAL SAMPLE ILLECTED BY I SAMPLES COLLE RELINQUISH G. Heas ANALYSES COLI Sold ppm TSS ppm NH <sub>3</sub> ppm COND umho TURB ntu MLSS ppm	RESULTS	WITH Na2S	F COLLECTION IN PLAS			DATE	INITT
ECAL SAMPLE ILLECTED BY L SAMPLES COLLE RELINQUISH G. Heas ANALYSES COLI Sold ppm TSS ppm NH <sub>3</sub> ppm COND umho TURB ntu	RESULTS	WITH Na2S	F COLLECTION IN PLAS			DATE	PLE(S) INF



NC Certifie	d Laborator	<b>y</b> ]	NC wastewa	ater #4	482	NC Drinkin	g Water #3776
June 16, 20	015						
First Service	ce Residentia	1					
Karen Fole							
80 Lake Di							
Biltmore L	ake, N. C. 28	8715					
Ms. Foley, Enc The analysi	closed are the is performed	results of conform t	the analysis to Standard I	s perfo Metho	rmed by our ds 18 <sup>th</sup> Editio	staff on you on.	r samples.
Sample	Analysis	Resu	lt_Units_N	1DL_	<u>Units D</u>	ate run An	alyst
Biltmore							
Lake	FECAL	167.0	c/100mL	<1	c/100mL	5-19-15	DJ
					C/ TOOMIL	5-19-15	DJ
Biltmore	Carles a						
Lake	FECAL	164.0	c/100mL	<1	c/100mL	5-26-15	DJ
Biltmore							
Lake	FECAL	70.0	c/100mL	~1	/100 T		3.3
	TLEAL	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
					S TOOML	0-0-15	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)

A-43

Regulated by NCDENR/DWQ-Groundwater section To assign test, label shaded area with sample type (C=composite; G=grab)

LOCATION			CHAIN U	F CUSTODY				
	Biltm	ore	lake	COUNTY			SPECIAL IN	FORMATIC
D NO.	BUTFISTS						21	
NITIAL TEMP	23.7							23
C GRAB	0820							0. 2
comple time	0010							
ample time	1							
COMP end date/ time								
					1. A			
	COOLER #1				COOLEI	R#2		
NOTE: THE A	T: 5.7 BOVE TEMP INDI	CATES TH	E TEMP.			OVE TEMP INDICA	TES THE TEMP.	
FOR AI	LL CONTAINER(S	) WITHIN.			FOR AL	L CONTAINER(S) W	/ITHIN.	
AMMONIA SAM	PLES PRESERV	ED WITH	H <sub>2</sub> SO <sub>4</sub> , pH=<2.0	-			YES NO_	
AMMONIA SAM	PLES NEUTRAL	IZED WIT	H Na2SO3, CI=< (	).1			YES NO	
AMMONIA SAM		IZED WIT	H Na2SO3, CI=< (	).1				
AMMONIA SAM FECAL SAMPLE	PLES NEUTRAL ES PRESERVED	IZED WIT WITH Na	H Na <sub>2</sub> SO <sub>3</sub> , Cl=< 0 <sub>2</sub> SO <sub>3</sub> , Cl=< 0.1	).1		=	YES NO_	
AMMONIA SAM	PLES NEUTRAL ES PRESERVED Y: GLH	WITH Na	H Na <sub>2</sub> SO <sub>3</sub> , Cl=< ( <sub>2</sub> SO <sub>3</sub> , Cl=< 0.1				YES NO_	
AMMONIA SAM FECAL SAMPLE	PLES NEUTRAL ES PRESERVED Y: GLH ECTED AND PRESER	WITH Na	H Na <sub>2</sub> SO <sub>3</sub> , CI=< ( <sub>2</sub> SO <sub>3</sub> , CI=< 0.1 OF COLLECTION IN PL				YES NOYES NOYES NOYES NO	
AMMONIA SAM ECAL SAMPLE LLECTED B L SAMPLES COLLI RELINQUISH	PLES NEUTRAL ES PRESERVED Y: GLHE ECTED AND PRESER	VITH Na	H Na <sub>2</sub> SO <sub>3</sub> , CI=< ( <sub>2</sub> SO <sub>3</sub> , CI=< 0.1 OF COLLECTION IN PL DATE / TIME	ASTIC CONTAINER		OTED OTHERWISE BY:	YES NO_	
MMONIA SAM ECAL SAMPLE	PLES NEUTRAL ES PRESERVED Y: GLHE ECTED AND PRESER	VITH Na	H Na <sub>2</sub> SO <sub>3</sub> , CI=< ( <sub>2</sub> SO <sub>3</sub> , CI=< 0.1 OF COLLECTION IN PL	ASTIC CONTAINER			YES NOYES NOYES NOYES NO	
CALECTED B	PLES NEUTRAL ES PRESERVED Y: G. H. ECTED AND PRESER IED BY	VITH Na	H Na <sub>2</sub> SO <sub>3</sub> , CI=< ( <sub>2</sub> SO <sub>3</sub> , CI=< 0.1 OF COLLECTION IN PL DATE / TIME	ASTIC CONTAINER			YES NO_ YES NO_ SPLIT SAM	PLE(S) INF
AMMONIA SAM ECAL SAMPLE ILECTED B I SAMPLES COLLI RELINQUISH G.H.e.AS	PLES NEUTRAL ES PRESERVED Y: GLH ECTED AND PRESER IED BY KESULTS	VITH Na	H Na <sub>2</sub> SO <sub>3</sub> , CI=< ( <sub>2</sub> SO <sub>3</sub> , CI=< 0.1 OF COLLECTION IN PL DATE / TIME	ASTIC CONTAINER			YES NO_ YES NO_ SPLIT SAM	PLE(S) INF
AMMONIA SAM ECAL SAMPLE CALECTED B SAMPLES COLLI RELINQUISH (ALEAS NALYSES COLI Sfu/100ml	PLES NEUTRAL ES PRESERVED Y: G. H. ECTED AND PRESER IED BY	VITH Na	H Na <sub>2</sub> SO <sub>3</sub> , CI=< ( <sub>2</sub> SO <sub>3</sub> , CI=< 0.1 OF COLLECTION IN PL DATE / TIME	ASTIC CONTAINER			YES NO_ YES NO_ SPLIT SAM	PLE(S) INF
AMMONIA SAM ECAL SAMPLE CLECTED B L SAMPLES COLL RELINQUISH CALARAS ANALYSES COLL STU/100ml 30D ppm	PLES NEUTRAL ES PRESERVED Y: GLH ECTED AND PRESER IED BY KESULTS	VITH Na	H Na <sub>2</sub> SO <sub>3</sub> , CI=< ( <sub>2</sub> SO <sub>3</sub> , CI=< 0.1 OF COLLECTION IN PL DATE / TIME	ASTIC CONTAINER			YES NO_ YES NO_ SPLIT SAM	PLE(S) INF
AMMONIA SAM ECAL SAMPLE CAL SAMPLES COLL RELINQUISH GALACAS NALYSES COLL fu/100ml BOD ppm TSS ppm	PLES NEUTRAL ES PRESERVED Y: GLH ECTED AND PRESER IED BY KESULTS	VITH Na	H Na <sub>2</sub> SO <sub>3</sub> , CI=< ( <sub>2</sub> SO <sub>3</sub> , CI=< 0.1 OF COLLECTION IN PL DATE / TIME	ASTIC CONTAINER			YES NO_ YES NO_ SPLIT SAM	PLE(S) INF
AMMONIA SAM ECAL SAMPLE CALECTED B L SAMPLES COLL RELINQUISH CALEAS ANALYSES COLL STU/100ml 30D ppm SS ppm NH <sub>3</sub> ppm	PLES NEUTRAL ES PRESERVED Y: GLH ECTED AND PRESER IED BY KESULTS	VITH Na	H Na <sub>2</sub> SO <sub>3</sub> , CI=< ( <sub>2</sub> SO <sub>3</sub> , CI=< 0.1 OF COLLECTION IN PL DATE / TIME	ASTIC CONTAINER			YES NO_ YES NO_ SPLIT SAM	PLE(S) INF
AMMONIA SAM ECAL SAMPLE CLLECTED B SAMPLES COLLI RELINQUISH G. HeAS COLI STU/100ml BOD ppm TSS ppm NH <sub>3</sub> ppm COND umho	PLES NEUTRAL ES PRESERVED Y: GLH ECTED AND PRESER IED BY HEY RESULTS	VITH Na	H Na <sub>2</sub> SO <sub>3</sub> , CI=< ( <sub>2</sub> SO <sub>3</sub> , CI=< 0.1 OF COLLECTION IN PL DATE / TIME	ASTIC CONTAINER			YES NO_ YES NO_ SPLIT SAM	PLE(S) INF
AMMONIA SAM ECAL SAMPLE DLLECTED B SAMPLES COLLI RELINQUISH G. A. A. A. S ANALYSES COLI Stu/100ml BOD ppm TSS ppm NH <sub>3</sub> ppm COND umho TURB ntu	PLES NEUTRAL ES PRESERVED Y: GLH ECTED AND PRESER IED BY HEY RESULTS	VITH Na	H Na <sub>2</sub> SO <sub>3</sub> , CI=< ( <sub>2</sub> SO <sub>3</sub> , CI=< 0.1 OF COLLECTION IN PL DATE / TIME	ASTIC CONTAINER			YES NO_ YES NO_ SPLIT SAM	PLE(S) INF
AMMONIA SAM FECAL SAMPLE DLLECTED B L SAMPLES COLLI RELINQUISH G. Hers ANALYSES F. COLI Cfu/100ml BOD ppm TSS ppm NH <sub>3</sub> ppm COND umho TURB ntu MLSS ppm	PLES NEUTRAL ES PRESERVED Y: GLH ECTED AND PRESER IED BY HEY RESULTS	VITH Na	H Na <sub>2</sub> SO <sub>3</sub> , CI=< ( <sub>2</sub> SO <sub>3</sub> , CI=< 0.1 OF COLLECTION IN PL DATE / TIME	ASTIC CONTAINER			YES NO_ YES NO_ SPLIT SAM	PLE(S) INF
AMMONIA SAM FECAL SAMPLE CLLECTED B LESAMPLES COLLI RELINQUISH	PLES NEUTRAL ES PRESERVED Y: GLH ECTED AND PRESER IED BY HEY RESULTS	VITH Na	H Na <sub>2</sub> SO <sub>3</sub> , CI=< ( <sub>2</sub> SO <sub>3</sub> , CI=< 0.1 OF COLLECTION IN PL DATE / TIME	ASTIC CONTAINER			YES NO_ YES NO_ SPLIT SAM	PLE(S) INF

NC Certified Laboratory	NC wastewater #482	NC Drinking Water #37763
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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 18<sup>th</sup> Edition.

Sample	Analysis	<u>Resul</u>	t <u>Units</u> M	DL_	Units Dat	e run _ Ana	lyst
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, Jerry Storey Juanita James gen

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

### JJEM AQUEOUS SAMPLE COLLECTION/LAB REPORT FORM (NC CERT 482) A-45

Regulated by NCDENR/DWQ-Groundwater section

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

Bittmore	14/1-2	OF CUSTODY COUNTY		SPECIAL INFO	RMATION
OCATION	Rado				
	Beach				
NO.	BUFRUS			01.1	a
TIAL TEMP	24.9			PH:8	.7
AB	0805				
nple time MP start	0000				
mple time					
MP end te/ time					and the part of the
0001	D.#4	COOL	ER #2		
COOLE		TEMP @RECE		-	
MP @RECEIPT: 5.	O°C MP INDICATES THE TEMP.	NOTE: THE	ABOVE TEMP INDICA		
FOR ALL CON	AINER(S) WITHIN.		ALL CONTAINER(S) W		
				YES NO	_
	DECEDIVED WITH H SO. nH=<				
MONIA SAMPLES PI	LITRALIZED WITH No CO	=< 0.1	-	YES NO	
MMONIA SAMPLES N	EUTRALIZED WITH Na2SO3, CI	=< 0.1		YES NO YES NO	
MMONIA SAMPLES N	EUTRALIZED WITH $Na_2SO_4$ , pro- EUTRALIZED WITH $Na_2SO_3$ , CI ERVED WITH $Na_2SO_3$ , CI=< 0.	=< 0.1			
MMONIA SAMPLES NI ECAL SAMPLES PRES	EUTRALIZED WITH Na <sub>2</sub> SO <sub>3</sub> , CI SERVED WITH Na <sub>2</sub> SO <sub>3</sub> , CI=< 0.	=< 0.1 1			
MONIA SAMPLES NECAL SAMPLES PRES	EUTRALIZED WITH Na <sub>2</sub> SO <sub>3</sub> , CI SERVED WITH Na <sub>2</sub> SO <sub>3</sub> , CI=< 0.	=< 0.1 1	S NOTED OTHERWISE BY:	YES NO	_
MMONIA SAMPLES NE ECAL SAMPLES PRES LLECTED BY:	G. HONGLEY DRESERVED WITH Na2SO3, CI=< 0.	=< 0.1 1 IN PLASTIC CONTAINERS UNLESS	S NOTED OTHERWISE BY:		_
MONIA SAMPLES NE ECAL SAMPLES PRES LLECTED BY: L SAMPLES COLLECTED AN RELINQUISHED BY	G. Honsley DPRESERVED AT TIME OF COLLECTION	=< 0.1 1 IN PLASTIC CONTAINERS UNLESS	S NOTED OTHERWISE BY:	YES NO	
MMONIA SAMPLES NE ECAL SAMPLES PRES LLECTED BY:	G. Honsley DPRESERVED AT TIME OF COLLECTION	=< 0.1 1 IN PLASTIC CONTAINERS UNLESS ME RE	S NOTED OTHERWISE BY:	YES NO	LE(S) INF
MONIA SAMPLES NE ECAL SAMPLES PRES LLECTED BY: SAMPLES COLLECTED AN RELINQUISHED BY (1-HEASE) NALYSES RESULT	EUTRALIZED WITH Na2SO3, CI SERVED WITH Na2SO3, CI=< 0. G. HONSEL D PRESERVED AT TIME OF COLLECTION DATE / TI 6-22-15///	=< 0.1 1 IN PLASTIC CONTAINERS UNLESS ME RE	S NOTED OTHERWISE BY:	YES NO SPLIT SAMP	LE(S) INF
MMONIA SAMPLES NE ECAL SAMPLES PRES LLECTED BY: I SAMPLES COLLECTED AN RELINQUISHED BY G. HEASLEY NALYSES RESULT	EUTRALIZED WITH Na2SO3, CI SERVED WITH Na2SO3, CI=< 0. G. HONSEL D PRESERVED AT TIME OF COLLECTION DATE / TI 6-22-15///	=< 0.1 1 IN PLASTIC CONTAINERS UNLESS ME RE	S NOTED OTHERWISE BY:	YES NO	_
MONIA SAMPLES NE CAL SAMPLES PRES LLECTED BY: SAMPLES COLLECTED AN RELINQUISHED BY G. HEASLEY NALYSES RESULT COLI G. 2 MALYSES RESULT	EUTRALIZED WITH Na <sub>2</sub> SO <sub>3</sub> , CI SERVED WITH Na <sub>2</sub> SO <sub>3</sub> , CI=< 0. G. Honsley DPRESERVED AT TIME OF COLLECTION DATE / TI 6-22-15///	=< 0.1 1 IN PLASTIC CONTAINERS UNLESS ME RE	S NOTED OTHERWISE BY:	YES NO SPLIT SAMP	LE(S) INF
MMONIA SAMPLES NE ECAL SAMPLES PRES LLECTED BY: L SAMPLES COLLECTED AN RELINQUISHED BY G. HEASLEY NALYSES RESULT COLI GU/100ml G 2	EUTRALIZED WITH Na <sub>2</sub> SO <sub>3</sub> , CI SERVED WITH Na <sub>2</sub> SO <sub>3</sub> , CI=< 0. G. Honsley DPRESERVED AT TIME OF COLLECTION DATE / TI 6-22-15///	=< 0.1 1 IN PLASTIC CONTAINERS UNLESS ME RE	S NOTED OTHERWISE BY:	YES NO SPLIT SAMP	LE(S) INF
IMONIA SAMPLES NE CAL SAMPLES PRES LLECTED BY: SAMPLES COLLECTED AN RELINQUISHED BY G. HEASLEY NALYSES RESULT COLI GU/100ml OD ppm SS ppm	EUTRALIZED WITH Na <sub>2</sub> SO <sub>3</sub> , CI SERVED WITH Na <sub>2</sub> SO <sub>3</sub> , CI=< 0. G. Honsley DPRESERVED AT TIME OF COLLECTION DATE / TI 6-22-15///	=< 0.1 1 IN PLASTIC CONTAINERS UNLESS ME RE	S NOTED OTHERWISE BY:	YES NO SPLIT SAMP	LE(S) INI
MMONIA SAMPLES NE ECAL SAMPLES PRES LLECTED BY: L SAMPLES COLLECTED AN RELINQUISHED BY G. HEASLEY NALYSES RESULT COLI GU/100ml COD ppm SS ppm	EUTRALIZED WITH Na <sub>2</sub> SO <sub>3</sub> , CI SERVED WITH Na <sub>2</sub> SO <sub>3</sub> , CI=< 0. G. Honsley DPRESERVED AT TIME OF COLLECTION DATE / TI 6-22-15///	=< 0.1 1 IN PLASTIC CONTAINERS UNLESS ME RE	S NOTED OTHERWISE BY:	YES NO SPLIT SAMP	LE(S) INI
MMONIA SAMPLES NE ECAL SAMPLES PRES LLECTED BY: L SAMPLES COLLECTED AN RELINQUISHED BY (1-HEASE) NALYSES RESULT COLI FU/100ml OD ppm SS ppm H <sub>3</sub> ppm OND umho	EUTRALIZED WITH Na <sub>2</sub> SO <sub>3</sub> , CI SERVED WITH Na <sub>2</sub> SO <sub>3</sub> , CI=< 0. G. Honsley DPRESERVED AT TIME OF COLLECTION DATE / TI 6-22-15///	=< 0.1 1 IN PLASTIC CONTAINERS UNLESS ME RE	S NOTED OTHERWISE BY:	YES NO SPLIT SAMP	LE(S) INF
MMONIA SAMPLES NEECAL SAMPLES PRESELINGUISHED BY: CALECTED BY: CALECTE	EUTRALIZED WITH Na <sub>2</sub> SO <sub>3</sub> , CI SERVED WITH Na <sub>2</sub> SO <sub>3</sub> , CI=< 0. G. Honsley DPRESERVED AT TIME OF COLLECTION DATE / TI 6-22-15///	=< 0.1 1 IN PLASTIC CONTAINERS UNLESS ME RE	S NOTED OTHERWISE BY:	YES NO SPLIT SAMP	LE(S) INI
ECAL SAMPLES PRES	EUTRALIZED WITH Na <sub>2</sub> SO <sub>3</sub> , CI SERVED WITH Na <sub>2</sub> SO <sub>3</sub> , CI=< 0. G. Honsley DPRESERVED AT TIME OF COLLECTION DATE / TI 6-22-15///	=< 0.1 1 IN PLASTIC CONTAINERS UNLESS ME RE	S NOTED OTHERWISE BY:	YES NO SPLIT SAMP	LE(S) INF



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 18<sup>th</sup> Edition.

Sample	Analysis	Result	Units M	DL_	Units Date	e run Ana	lyst
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 Vensx

Juanita James *O* Laboratory Manager James & James Env. Mgt., Inc. <u>jjemi@bellsouth.net</u> 828-697-0063 JJEM AQUEOUS SAMPLE COLLECTION/LAB REPORT FORM (NC CERT 482) A-47

Regulated by NCDENR/DWQ-Groundwater section

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

D NO.	Beach POSPENS BJFSINS 23.3 0815		PH:
D NO.	23.3		( H.
ITIAL TEMP RAB ample time OMP start ample time OMP end	23.3		
RAB ample time OMP start ample time OMP end			PH: 8.6
ample time OMP start ample time OMP end	0815		0.0
ample time OMP end			
OMP end			
ate/ time			
COOLER #1		COOLER #2	
EMP @RECEIPT: 7.0	°C	TEMP @RECEIPT:0	С
NOTE: THE ABOVE TEMP INDIC.		NOTE: THE ABOVE TEMP INDICA	
FOR ALL CONTAINER(S)	WITHIN.	FOR ALL CONTAINER(S) W	VITHIN.
MMONIA SAMPLES PRESERVE	D WITH H <sub>2</sub> SO <sub>4</sub> , pH=<2.0		YES NO
MMONIA SAMPLES NEUTRALIZ	ED WITH Na <sub>2</sub> SO <sub>3</sub> , CI=< 0.1		YES NO
ECAL SAMPLES PRESERVED W	VITH Na <sub>2</sub> SO <sub>3</sub> , CI=< 0.1	a a transmission and the second se	YES NO
DLLECTED BY: CA. Hen	sley	THE POLY AND FOR MOTOR OTHER AND	
	ED AT TIME OF COLLECTION IN PLAST	IC CONTAINERS UNLESS NOTED OTHERWISE BY:	
			SPI IT SAMPLE(S) IN
	DATE / TIME	RECEIVED BY	SPLIT SAMPLE(S) IN
G. Hensley			SPLIT SAMPLE(S) IN
G. Hensley	DATE / TIME		DATE INIT'
G.Hensley NALYSES RESULTS	DATE / TIME 6-29-15/0940 /		DATE INIT'
G.Hensley NALYSES RESULTS COLI fu/100ml	DATE / TIME		
G. Hensley NALYSES RESULTS COLI GU/100ml OD ppm	DATE / TIME 6-29-15/0940 /		DATE INIT'
G.Hensley NALYSES RESULTS COLI fu/100ml OD ppm SS ppm	DATE / TIME 6-29-15/0940 /		DATE INIT'
G.Hensley NALYSES RESULTS COLI fu/100ml COD ppm SS ppm IH <sub>3</sub> ppm	DATE / TIME 6-29-15/0940 /		DATE INIT'
G.Hensley NALYSES RESULTS COLI fu/100ml BOD ppm SS ppm IH <sub>3</sub> ppm COND umho	DATE / TIME 6-29-15/0940 /		DATE INIT'
ANALYSES RESULTS -, COLI -,	DATE / TIME 6-29-15/0940 /		DATE INIT'
G.Hensley ANALYSES RESULTS COLI fu/100ml 30D ppm TSS ppm NH <sub>3</sub> ppm COND umho	DATE / TIME 6-29-15/0940 /		DATE INIT'



NC Certified	l Laboratory	v N	C wastewat	er #48	32 NC	Drinking	Water #37763
July 7, 201:	5						
First Servic	e Residential						
Karen Fole	v						
80 Lake Dr							
Biltmore La	ake, N. C. 28	3715					
					med by our st s 18 <sup>th</sup> Edition.		samples.
Sample	Analysis	Resu	t Units M	DL I	<u>Jnits Dat</u>	e run Ana	<u>lyst</u>
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

Juanita Jaffies Laboratory Manager James & James Env. Mgt., Inc. jjemi@bellsouth.net 828-697-0063 JJEM AQUEOUS SAMPLE COLLECTION/LAB REPORT FORM (NC CERT 482) A-49

Regulated by NCDENR/DWQ-Groundwater section To assign test, label shaded area with sample type (C=composite; G=grab)

		lake CHAINO	COUNTY	SPECIAL INFORMATIO
OCATION	P h		COONTI	PH:
	Beach			1 1 1 1
NO.	20.6			76
RAB				1.0
mple time	0745			
MP start mple time				
OMP end				
ate/ time				
	COOLER #1		COOLER #2	
NOTE: THE A	ABOVE TEMP INE		FOR ALL CONTA	
MMONIA SAM	<b>MPLES NEUTRA</b>	VED WITH $H_2SO_4$ , pH=<2.0 LIZED WITH $Na_2SO_3$ , CI=< D WITH $Na_2SO_3$ , CI=< 0.1	0.1	YES NO YES NO YES NO
ALL FOTED		[		
	BY: G.	Lenstey RVED AT TIME OF COLLECTION IN F	LASTIC CONTAINERS UNLESS NOTED OTHE	ERWISE BY:
L SAMPLES COL	LECTED AND PRESE	Lensley RVED AT TIME OF COLLECTION IN F	LASTIC CONTAINERS UNLESS NOTED OTHE RECEIVED B	ERWISE BY: SY SPLIT SAMPLE(S) IN
RELINQUIS	LECTED AND PRESE	RVED AT TIME OF COLLECTION IN F	RECEIVED B	ERWISE BY: SY SPLIT SAMPLE(S) IN
L SAMPLES COL RELINQUIS G. Heas	HECTED AND PRESE HED BY	RVED AT TIME OF COLLECTION IN F	RECEIVED B	ERWISE BY: SY SPLIT SAMPLE(S) IN DATE INIT
LE SAMPLES COL RELINQUIS G. Heas NALYSES	HED BY	RVED AT TIME OF COLLECTION IN F	RECEIVED B	DATE INIT
L SAMPLES COL RELINQUIS G. Heas NALYSES COLI	HECTED AND PRESE HED BY	RVED AT TIME OF COLLECTION IN F	RECEIVED B	DATE INIT
ANALYSES COLI STU/100ml	HED BY	RVED AT TIME OF COLLECTION IN F	RECEIVED B	DATE INIT
ANALYSES COLI COLI COLI COLI COLI COLI COLI COLI	HED BY	RVED AT TIME OF COLLECTION IN F	RECEIVED B	DATE INIT
L SAMPLES COL RELINQUIS G. Heas NALYSES COLI Stu/100ml 30D ppm TSS ppm NH <sub>3</sub> ppm	HED BY	RVED AT TIME OF COLLECTION IN F	RECEIVED B	DATE INIT
ANALYSES COLI COLI COLI COLI COLI COLI COLI COLI COND umho	HED BY	RVED AT TIME OF COLLECTION IN F	RECEIVED B	DATE INIT
L SAMPLES COL RELINQUIS G. Heas ANALYSES F. COLI Efu/100ml BOD ppm TSS ppm NH <sub>3</sub> ppm COND umho TURB ntu	HED BY	RVED AT TIME OF COLLECTION IN F	RECEIVED B	DATE INIT
L SAMPLES COL RELINQUIS G. Heas ANALYSES COLI MULISS ppm TSS ppm NH <sub>3</sub> ppm COND umho TURB ntu MLSS ppm MLVSS ppm ALAKALINITY	RESULTS		RECEIVED B	DATE INIT



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

ic certified	1 Laboratory	y I	NC wastewat	er #48	32 NC	Drinking	Water #37763
July 14, 20	15						
First Servic	e Residential						
Karen Fole							
80 Lake Dr							
Biltmore La	ake, N. C. 28	8715					
			the analysis f Standard M				samples.
Sample	Analysis	Resu	lt_Units_MI	DL L	<u>Jnits Date</u>	e run_Ana	lyst
Sample Biltmore	Analysis	Resu	<u>lt_Units_M</u> l	<u>DL L</u>	<u>Jnits Date</u>	e run_Ana	lyst
	<u>Analysis</u> FECAL	<u>Resu</u> 36.0	lt_Units_Mi	<u>DL_U</u> <1	<u>JnitsDate</u> c/100mL	<u>e run_Ana</u> 6-15-15	
Biltmore Lake Biltmore	FECAL	36.0	c/100mL	<1	c/100mL	6-15-15	DJ
Biltmore Lake Biltmore							DJ
Biltmore Lake Biltmore Lake	FECAL	36.0	c/100mL	<1	c/100mL	6-15-15	DJ
Biltmore Lake Biltmore Lake Biltmore	FECAL	36.0	c/100mL	<1	c/100mL	6-15-15 6-22-15	DJ
Biltmore Lake Biltmore Lake Biltmore Lake	FECAL FECAL	36.0 29.0	c/100mL c/100mL	<1 <1	c/100mL c/100mL	6-15-15 6-22-15	DJ
Biltmore Lake	FECAL FECAL	36.0 29.0	c/100mL c/100mL	<1 <1	c/100mL c/100mL	6-15-15 6-22-15	DJ

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.

<1

c/100mL

7-13-15 LS

c/100mL

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

FECAL

109.0

Biltmore Lake

# JJEM AQUEOUS SAMPLE COLLECTION/LAB REPORT FORM (NC CERT 482)-51 Regulated by NCDENR/DWQ-Groundwater section To assign test, label shaded area with sample type (C=composite; G=grab)

I OCATION	more la	THE	CHAIN	OF CUSTO	JY				_
LOCATION		4		COUNTY				SPECIAL IN	FORMATIC
	Beach								
ID NO.									
NITIAL TEMP	25.9							PH: 8	27
GRAB		1	-				-	111-6	. ~
sample time	0835							_	
sample time									
late/ time	A A CONTRACTOR	1			12-10-10				
artisti (1997) Al-	COOLER #1				COOLE	-R #2			
TEMP @RECEI		°C		TEA	1 - 1 - 1		°C		
	ABOVE TEMP IND		TEMP.		P @RECEIP	BOVE TEMP I			
	ALL CONTAINER					LL CONTAINE			
				-					
	MPLES PRESERV							YES NO_	
	ES PRESERVED							YES NO_ YES NO_	
			.03, 01 0.1						
COLLECTED E	BY: CIL		96						
	LI-VE	nsieu							
L SAMPLES COL	LECTED AND PRESER	EVED AT TIME O	E COLLECTION IN	PLASTIC CONTAIN	ERS UNI ESS	NOTED OTHERW	ISE BY		
		EVED AT TIME O		I PLASTIC CONTAIN	the second second		ISE BY:	SPLIT SAME	PLE(S) INF
RELINQUIS	HED BY		DATE / TIN	IE	the second second	EIVED BY	ISE BY:	SPLIT SAME	PLE(S) INF
	HED BY			IE	the second second		ISE BY:	SPLIT SAM	PLE(S) INF
RELINQUIS	HED BY		DATE / TIN	IE	the second second	EIVED BY	ISE BY:	SPLIT SAM	
RELINQUIS	HED BY		DATE / TIN	IE	the second second	EIVED BY	ISE BY:	DATE	INIT'L
RELINQUIS	HED BY		DATE / TIN	IE	the second second	EIVED BY	ISE BY:		
RELINQUIS (7- Hea ANALYSES COLI	HED BY		DATE / TIN	IE	the second second	EIVED BY	ISE BY:	DATE	INIT'L
RELINQUIS (7- HeA ANALYSES COLI Stu/100ml 30D ppm TSS ppm	HED BY		DATE / TIN	IE	the second second	EIVED BY	ISE BY:	DATE	INIT'L
RELINQUIS (7- HeA ANALYSES - COLI 	HED BY		DATE / TIN	IE	the second second	EIVED BY	ISE BY:	DATE	INIT'
RELINQUIS (7- HeA ANALYSES COLI Stu/100ml BOD ppm TSS ppm NH <sub>3</sub> ppm COND umho	HED BY		DATE / TIN	IE	the second second	EIVED BY		DATE	INIT'L
RELINQUIS G-HeA ANALYSES COLI Stu/100ml BOD ppm TSS ppm NH <sub>3</sub> ppm COND umho TURB ntu	HED BY		DATE / TIN	IE	the second second	EIVED BY	ISE BY:	DATE	INIT'U
RELINQUIS (7- HeA ANALYSES F. COLI Sold ppm TSS ppm NH <sub>3</sub> ppm COND umho TURB ntu MLSS ppm	HED BY		DATE / TIN	IE	the second second	EIVED BY	ISE BY:	DATE	INIT'L
RELINQUIS (7- HeA ANALYSES - COLI -	HED BY Isley RESULTS 109.0		DATE / TIN	IE	the second second	EIVED BY	ISE BY:	DATE	INIT'L
RELINQUIS (7- HeA ANALYSES COLI	HED BY Isley RESULTS 109.0	7-13-1	DATE / TIN	1E	REC		ISE BY:	DATE	INIT'L
RELINQUIS (1- Hea ANALYSES - COLI -	HED BY Isley RESULTS 109.0	7-13-1	DATE / TIN	1E	REC		ISE BY:	DATE	INIT'L
RELINQUIS (7- HeA ANALYSES COLI	HED BY Isley RESULTS 109.0	7-13-1	DATE / TIN	1E	REC		ISE BY:	DATE	INIT'
RELINQUIS (1- Hea ANALYSES - COLI -	HED BY Isley RESULTS 109.0	7-13-1	DATE / TIN	1E	REC		ISE BY:	DATE	INIT'L
RELINQUIS (7- Hea ANALYSES COLI Stu/100ml 30D ppm TSS ppm NH <sub>3</sub> ppm COND umho TURB ntu MLSS ppm ALAKALINITY Sy the above si	HED BY Isley RESULTS 109.0	7-13-1	DATE / TIN	1E	REC		ISE BY:	DATE	INIT'



C Certified	Laboratory	N	NC wastewater #482			NC Drinking Water #3776.		
July 21, 201	15							
First Servic	e Residential							
Karen Foley								
80 Lake Dri								
Biltmore La	ake, N. C. 28	715						
1								
Ms. Foley,								
Enc	losed are the	results of	the analysis p	erform	ned by our sta	aff on your	samples.	
The analysi	s performed of	conform to	o Standard M	ethods	s 18 <sup>th</sup> Edition.			
		-						
Sample	Analysis	Resul	t Units MI		JnitsDate	e run Ana	lyst	
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					1100 T		TC	
Lake	FECAL	5.0	c/100mL	<1	c/100mL	7-6-15	LS	
D'1								
Biltmore	FECAL	109.0	c/100mL	<1	c/100mL	7-13-15	LS	
Lake	FECAL	109.0	C/ TOULL	-1	C/ TOOML	7-13-15	LO	
Biltmore								
Lake	FECAL	91.0	c/100mL	<1	c/100mL	7-20-15	LS	
Dure	LOIL	1.0	S/ I OUTIL		e, roomin			

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 Jerry Juanita James

Juanita Jámes Laboratory Manager James & James Env. Mgt., Inc. <u>jjemi@bellsouth.net</u> 828-697-0063

## JJEM AQUEOUS SAMPLE COLLECTION/LAB REPORT FORM (NC CERT 482)<sup>A-53</sup> Regulated by NCDENR/DWQ-Groundwater section

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

LOCATION		CO	UNTY	SPECIAL INFORMATI
	Beach			
D NO.				
NITIAL TEMP	25.8			PH: 8.0
C SRAB				11.00
ample time	0835			
OMP start ample time				
OMP end				
ate/ time				
COOLE	R #1		COOLER #2	
EMP @RECEIPT: 6	le °c		TEMP @RECEIPT: 0	С
NOTE: THE ABOVE TE	MP INDICATES THE T	EMP.	NOTE: THE ABOVE TEMP INDICA	-
FOR ALL CONT	AINER(S) WITHIN.		FOR ALL CONTAINER(S) V	VITHIN.
AMMONIA SAMPLES PR	RESERVED WITH H	SO. pH=<2.0		YES NO
MMONIA SAMPLES NE				YES NO
ECAL SAMPLES PRES				YES NO
· · · · · · · · · · · · · · · · · · ·				
COLLECTED BY:	C7. Hensley			
LL SAMPLES COLLECTED AN		F COLLECTION IN PLASTIC	CONTAINERS UNLESS NOTED OTHERWISE BY:	
LL SAMPLES COLLECTED AN	D PRESERVED AT TIME OF	COLLECTION IN PLASTIC	CONTAINERS UNLESS NOTED OTHERWISE BY: RECEIVED BY	SPLIT SAMPLE(S) IN
LL SAMPLES COLLECTED AN	D PRESERVED AT TIME OF	DATE / TIME		SPLIT SAMPLE(S) IN
RELINQUISHED BY	D PRESERVED AT TIME OF	DATE / TIME		
RELINQUISHED BY	DPRESERVED AT TIME OF	DATE / TIME		DATE INIT'
RELINQUISHED BY	D PRESERVED AT TIME OF	DATE / TIME		
RELINQUISHED BY	DPRESERVED AT TIME OF	DATE / TIME		DATE INIT'
RELINQUISHED BY	DPRESERVED AT TIME OF	DATE / TIME		DATE INIT'
IL SAMPLES COLLECTED AN RELINQUISHED BY G. HEASLEY NALYSES COLI Stu/100ml SOD ppm SS ppm IH <sub>3</sub> ppm	DPRESERVED AT TIME OF	DATE / TIME		DATE INIT'
RELINQUISHED BY G. Hensley ANALYSES COLI fu/100ml BOD ppm TSS ppm NH <sub>3</sub> ppm COND umho	DPRESERVED AT TIME OF	DATE / TIME		DATE INIT'
RELINQUISHED BY ANALYSES ANALYSES COLI Stu/100ml 30D ppm TSS ppm NH <sub>3</sub> ppm COND umho TURB ntu	DPRESERVED AT TIME OF	DATE / TIME		DATE INIT'
RELINQUISHED BY G. Hensley ANALYSES COLI SoD ppm TSS ppm NH <sub>3</sub> ppm COND umho TURB ntu MLSS ppm	DPRESERVED AT TIME OF	DATE / TIME		DATE INIT'
RELINQUISHED BY ANALYSES COLI Solution Solution COND umho COND UMH	DPRESERVED AT TIME OF	DATE / TIME		DATE INIT'
RELINQUISHED BY	0 PRESERVED AT TIME OF 7-20-( 6 91.0	DATE / TIME		DATE INIT'
ALL SAMPLES COLLECTED AN RELINQUISHED BY ANALYSES F. COLI cfu/100ml BOD ppm TSS ppm NH <sub>3</sub> ppm COND umho TURB ntu MLSS ppm MLVSS ppm ALAKALINITY Dom By the above signature I	0 PRESERVED AT TIME OF 7-20-( 6 91.0	DATE / TIME		DATE INIT'
RELINQUISHED BY	0 PRESERVED AT TIME OF 7-20-( 6 91.0	DATE / TIME		DATE INIT'

(



NC Certified	d Laboratory	N	C wastewate	er #48	2 NC	Drinking	Water #37763
July 29, 20	15						
First Servic	e Residential						
Karen Fole							
80 Lake Dr	rive						
Biltmore La	ake, N. C. 28	715					
					med by our sta s 18 <sup>th</sup> Edition.		samples.
Sample	_Analysis	Result	Units MI	DL_U	JnitsDate	e run _ Anal	lyst
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. <u>jjemi@bellsouth.net</u> 828-697-0063

### JJEM AQUEOUS SAMPLE COLLECTION/LAB REPORT FORM (NC CERT 482) A-55

Regulated by NCDENR/DWQ-Groundwater section

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

OCATION				COUNTY			SPECIAL INFO	ORMATIO
	Beach							
D NO.								
ITIAL TEMP	26.1						PH: 8	2.4
RAB		-				*	PIT- 0	. 1
ample time	0845							
OMP start								
OMP end							-	
ate/ time								
					2001 55 10			
	COOLER#1	2			COOLER #2			
EMP @RECEIP		_°C			RECEIPT:	0C		
	BOVE TEMP INE		EMP.	NOT	THE ABOVE TE			
FOR A	LL CONTAINER	S) WITHIN.			FOR ALL CONT	AINER(S) WITH	IN.	
MMONIA SAM	PLES PRESER	VED WITH H	2SO4, pH=<2.0				YES NO_	_
			Na2SO3, CI=< 0.	1			YES NO	_
ECAL SAMPLE	ES PRESERVE	D WITH Na <sub>2</sub> S	O <sub>3</sub> , CI=< 0.1				YES NO	-
OLLECTED B	- 1	rensky				-		
	ECTED AND PRESE	RVED AT TIME O	F COLLECTION IN PLA	STIC CONTAINERS				
RELINQUISH	IED BY		DATE / TIME		RECEIVED	BY	SPLIT SAMP	LE(S) INF
G.Hen	isley	7-28-1	5 1 11:05					
	-		/					1010201
NALYSES							DATE	INIT'L
	G +118.0)	118.0	LS 71zolis				TIBBIIS	LS
BOD ppm								
SS ppm								
NH <sub>3</sub> ppm								
NH <sub>3</sub> ppm								
NH₃ ppm COND umho TURB ntu						_		
NH <sub>3</sub> ppm COND umho TURB ntu MLSS ppm								
NH₃ ppm COND umho TURB ntu								



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 18<sup>th</sup> Edition.

Sample	Analysis	Resul	t Units M	DL I	<u>Jnits</u> Dat	e run Ana	lyst
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 Herry x

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

# JJEM AQUEOUS SAMPLE COLLECTION/LAB REPORT FORM (NC CERT 482)<sup>A-57</sup> Regulated by NCDENR/DWQ-Groundwater section To assign test, label shaded area with sample type (C=composite; G=grab)

	tmore la	ahe	CHAIN OF	CUSTODY		
LOCATION			(	COUNTY		SPECIAL INFORMATIC
D NO.						
NITIAL TEMP	25.5					PH: 8.3
C GRAB	0805					111-0-
comple time	0000					
ample time						
COMP end late/ time						
				and the second second		
	COOLER#1			COOL	ER #2	
TEMP @RECEIF	PT: 6.0	°C		TEMP @RECEI	PT: 00	
NOTE: THE A	BOVE TEMP INC		MP.		BOVE TEMP INDICA	TES THE TEMP.
FOR A	LL CONTAINER	s) within.		FOR A	ALL CONTAINER(S) W	ITHIN.
AMMONIA SAM	PLES PRESER	VED WITH Has	SQ4 pH=<2.0			YES NO
			a <sub>2</sub> SO <sub>3</sub> , Cl=< 0.1	have a start		YES NO
	ES PRESERVEI			a a R		YES NO
					(	
COLLECTED E	BY: A.1.	tensley				
LOANDI FO OOL			COLLECTION IN PLAST	TIC CONTAINEDS LINI ESS	NOTED OTHERWORDY	
		NEDAT TIMEOT	COLLECTION INTERIOR	TIC CONTAINERS UNLESS	NOTED OTHERWISE BY:	
RELINQUISI			DATE / TIME		CEIVED BY	SPLIT SAMPLE(S) INF
	HED BY					SPLIT SAMPLE(S) INF
G. Hens	HED BY	1	DATE / TIME			
RELINQUISI G. Hens	RESULTS	1	DATE / TIME			DATE INIT'I
RELINQUISI G. Hens ANALYSES	HED BY	1	DATE / TIME			
RELINQUISI G. Hens ANALYSES -, COLI Stu/100ml	RESULTS	1	DATE / TIME			DATE INIT'I
RELINQUISI G. Hens ANALYSES COLI Stu/100ml BOD ppm TSS ppm	RESULTS	1	DATE / TIME			DATE INIT'I
RELINQUISI G. Hens ANALYSES COLI Stu/100ml BOD ppm TSS ppm	RESULTS	1	DATE / TIME			DATE INIT'I
RELINQUISI G. Hens ANALYSES COLI CTU/100ml BOD ppm TSS ppm NH <sub>3</sub> ppm	RESULTS	1	DATE / TIME			DATE INIT'I
RELINQUISI G. Hens ANALYSES F. COLI afu/100ml BOD ppm TSS ppm NH <sub>3</sub> ppm COND umho	RESULTS	1	DATE / TIME			DATE INIT'I
RELINQUISI G. Hens ANALYSES F. COLI cfu/100ml BOD ppm TSS ppm TSS ppm NH <sub>3</sub> ppm COND umho TURB ntu	RESULTS	1	DATE / TIME			DATE INIT'I
RELINQUISI G. H.ens ANALYSES F. COLI cfu/100ml BOD ppm TSS ppm NH <sub>3</sub> ppm COND umho TURB ntu MLSS ppm MLVSS ppm	RESULTS	1	DATE / TIME			DATE INIT'I
RELINQUISI G. H.ens ANALYSES F. COLI cfu/100ml BOD ppm TSS ppm NH <sub>3</sub> ppm COND umho TURB ntu MLSS ppm MLVSS ppm	RESULTS	1	DATE / TIME			DATE INIT'I
RELINQUISI G. Hens ANALYSES F. COLI Coli Coli BOD ppm TSS ppm NH <sub>3</sub> ppm COND umho TURB ntu MLSS ppm MLVSS ppm ALAKALINITY Ppm	HED BY RESULTS $\leq 10, 0$	8-3-/5	DATE / TIME / //20 / / / / / / / / / / / / / / / / / /			DATE INIT'I
RELINQUISI G. H.ens ANALYSES F. COLI cfu/100ml BOD ppm TSS ppm NH <sub>3</sub> ppm COND umho TURB ntu MLSS ppm MLVSS ppm ALAKALINITY By the above signal	HED BY RESULTS $\leq 10, 0$	8-3-/5	DATE / TIME / //20 / / / / / / / / / / / / / / / / / /			DATE INIT'I
RELINQUISI G. H.ens ANALYSES F. COLI Sold ppm TSS ppm NH <sub>3</sub> ppm COND umho TURB ntu MLSS ppm MLVSS ppm ALAKALINITY By the above signal	HED BY RESULTS $\leq 10, 0$	8-3-/5	DATE / TIME / //20 / / / / / / / / / / / / / / / / / /			DATE INIT'I
RELINQUISI G. H.ens ANALYSES F. COLI Sold ppm TSS ppm NH <sub>3</sub> ppm COND umho TURB ntu MLSS ppm MLVSS ppm ALAKALINITY By the above signal	HED BY RESULTS $\leq 10, 0$	8-3-/5	DATE / TIME / //20 / / / / / / / / / / / / / / / / / /			DATE INIT'I
RELINQUISI G. Hens ANALYSES F. COLI cfu/100ml BOD ppm TSS ppm NH <sub>3</sub> ppm COND umho TURB ntu MLSS ppm MLVSS ppm ALAKALINITY ppm	HED BY RESULTS $\leq 10, 0$	8-3-/5	DATE / TIME / //20 / / / / / / / / / / / / / / / / / /			DATE INIT



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 18<sup>th</sup> Edition.

Sample	Analysis	Result	Units MI	DL U	InitsDate	run_Ana	lyst
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. Venkx

Juanita Janes Laboratory Manager James & James Env. Mgt., Inc. <u>jjemi@bellsouth.net</u> 828-697-0063

A-59

#### 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)

n			PH: 3	
S			PH: S	-
			PH: S	-
			PH. a	10
0				8.0
The second se				
#1	COOLER	#2		
°C	TEMP @RECEIPT.	°C		
NER(S) WITHIN.				
			4	
11 1				-0.4-
	IN PLASTIC CONTAINERS LINESS NO	TED OTHERWISE BY		
			SPLIT SAMP	LE(S) INF
8-11-15 1 00		KD	SPLIT SAMP	LE(S) INF
8-11-15 1 00	155	KR -	SPLIT SAMP	LE(S) INF
8-11-15 1 00		R	SPLIT SAMP	LE(S) INF
		R	DATE	INIT'L
8-11-15 1 00		R		
		R	DATE	INIT'L
		R	DATE	INIT'L
		R	DATE	INIT'L
			DATE	INIT'L
	PINDICATES THE TEMP. NER(S) WITHIN. SERVED WITH H <sub>2</sub> SO <sub>4</sub> , pH=< TRALIZED WITH Na <sub>2</sub> SO <sub>3</sub> , CI RVED WITH Na <sub>2</sub> SO <sub>3</sub> , CI=< 0.	PINDICATES THE TEMP. NER(S) WITHIN. SERVED WITH H <sub>2</sub> SO <sub>4</sub> , pH=<2.0 TRALIZED WITH Na <sub>2</sub> SO <sub>3</sub> , CI=< 0.1 RVED WITH Na <sub>2</sub> SO <sub>3</sub> , CI=< 0.1 RVED WITH Na <sub>2</sub> SO <sub>3</sub> , CI=< 0.1	P INDICATES THE TEMP.       NOTE: THE ABOVE TEMP INDICATION         NER(S) WITHIN.       FOR ALL CONTAINER(S) W         SERVED WITH H2SO4, pH=<2.0	P INDICATES THE TEMP.       NOTE: THE ABOVE TEMP INDICATES THE TEMP.         NER(S) WITHIN.       FOR ALL CONTAINER(S) WITHIN.         SERVED WITH H2SO4, pH=<2.0

C Certifie	ed Laboratory	y N	C wastewate	er #48	2 NC	Drinking	Water #37763
August 18	, 2015						
First Servi	ice Residential	1					
Karen Fol							*
80 Lake D							
Biltmore I	Lake, N. C. 28	8715					
Ms. Foley							
	, closed are the	results of	the analysis r	perform	med by our st	aff on your	samples.
	sis performed						Sumpress
	1						
Sample	Analysis	Resul	t Units MI	DL L	Jnits Date	erun Anal	lyst
Biltmore	1000						1.1
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
Lune	Louin	110.0	C. TO OTTLE		e, roomin	1 20 10	20
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
Lanc							
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 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)

A-61

Regulated by NCDENR/DWQ-Groundwater section

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

LOCATION			C	OUNTY	SPECIAL IN	FORMATIC
	Beach					ORMANO
ID NO.	#1715					
NITIAL TEMP	24.7				PH:	99
C GRAB					FA.	0.1
ample time COMP start	0815					
sample time						
COMP end						
late/ time	A subscription and and			and the second		- 14 - <sup>1</sup> - 1
	COOLER #1			COOLER #2		
TEMP @RECEIP	T: S-0	_°C		TEMP @RECEIPT:	°C	
	BOVE TEMP IND		MP.	NOTE: THE ABOVE TEMP IN		
FOR A	LL CONTAINER (	s) within.		FOR ALL CONTAINER		
			SO4 pH=<2.0		YES NO_	
MMONIA SAM	PLES PRESERV				TES NO_	
MMONIA SAM	PLES NEUTRAL	IZED WITH N	a2SO3, CI=< 0.1	4 T T T	YES NO	
MMONIA SAM	PLES PRESERV PLES NEUTRAL ES PRESERVED	IZED WITH N	a2SO3, CI=< 0.1		YES NOYES NOYES NO	
MMONIA SAM	PLES NEUTRAL ES PRESERVED	IZED WITH N	a2SO3, CI=< 0.1			
ECAL SAMPLE	PLES NEUTRAL ES PRESERVED Y: G.H.	NZED WITH N WITH Na2SO	a <sub>2</sub> SO <sub>3</sub> , Cl=< 0.1 <sub>93</sub> , Cl=< 0.1		YES NO	
MMONIA SAM ECAL SAMPLE COLLECTED B	PLES NEUTRAL ES PRESERVED Y: G.H.	NZED WITH N WITH Na2SO	a <sub>2</sub> SO <sub>3</sub> , Cl=< 0.1 <sub>93</sub> , Cl=< 0.1	CONTAINERS UNLESS NOTED OTHERWIS	YES NO	
MMONIA SAM ECAL SAMPLE OLLECTED B L SAMPLES COLLE ELINQUISH	PLES NEUTRAL ES PRESERVED Y: G. H. ECTED AND PRESER	IZED WITH Na2SO WITH Na2SO PROSINCE OF COMPANY OF COMP	a <sub>2</sub> SO <sub>3</sub> , CI=< 0.1 <sub>03</sub> , CI=< 0.1 <u>COLLECTION IN PLASTIC</u> DATE / TIME	CONTAINERS UNLESS NOTED OTHERWIS	YES NO	<u>.</u>
MMONIA SAM ECAL SAMPLE	PLES NEUTRAL ES PRESERVED Y: G. H. ECTED AND PRESER	NED WITH Na2SO	a <sub>2</sub> SO <sub>3</sub> , CI=< 0.1 <sub>03</sub> , CI=< 0.1 <u>COLLECTION IN PLASTIC</u> DATE / TIME		YES NO	<u>.</u>
COLLECTED BY ECAL SAMPLE COLLECTED BY I SAMPLES COLLE ELINQUISH G - Hensh	PLES NEUTRAL ES PRESERVED Y: G.H. ECTED AND PRESER	IZED WITH Na2SO WITH Na2SO PROSINCE OF COMPANY OF COMP	a <sub>2</sub> SO <sub>3</sub> , CI=< 0.1 <sub>03</sub> , CI=< 0.1 <u>COLLECTION IN PLASTIC</u> DATE / TIME	RECEIVED BY	YES NO	PLE(S) INFC
COLLECTED B COLLECTED B L SAMPLES COLLE ELINQUISH G. Hers h	PLES NEUTRAL ES PRESERVED Y: G.H. ECTED AND PRESER ED BY ESULTS	IZED WITH Na2SO WITH Na2SO PROSINCE OF COMPANY OF COMP	a <sub>2</sub> SO <sub>3</sub> , CI=< 0.1 <sub>03</sub> , CI=< 0.1 <u>COLLECTION IN PLASTIC</u> DATE / TIME	RECEIVED BY	YES NO	<u>.</u>
COLLECTED BY ECAL SAMPLE COLLECTED BY I SAMPLES COLLI ELINQUISH G - Hensh NALYSES COLI fu/100ml	PLES NEUTRAL ES PRESERVED Y: G.H. ECTED AND PRESER	IZED WITH Na2SO WITH Na2SO PROSINCE OF COMPANY OF COMP	a <sub>2</sub> SO <sub>3</sub> , CI=< 0.1 <sub>03</sub> , CI=< 0.1 <u>COLLECTION IN PLASTIC</u> DATE / TIME	RECEIVED BY	YES NO	PLE(S) INFC
MMONIA SAM ECAL SAMPLE OLLECTED B L SAMPLES COLLI ELINQUISH G - H - Colli NALYSES COLI fu/100ml OD ppm	PLES NEUTRAL ES PRESERVED Y: G.H. ECTED AND PRESER ED BY ESULTS	IZED WITH Na2SO WITH Na2SO PROSINCE OF COMPANY OF COMP	a <sub>2</sub> SO <sub>3</sub> , CI=< 0.1 <sub>03</sub> , CI=< 0.1 <u>COLLECTION IN PLASTIC</u> DATE / TIME	RECEIVED BY	YES NO	PLE(S) INFC
COLLECTED B COLLECTED B L SAMPLES COLLE ELINQUISH G - H - M - M NALYSES COLI fu/100ml SS ppm	PLES NEUTRAL ES PRESERVED Y: G.H. ECTED AND PRESER ED BY ESULTS	IZED WITH Na2SO WITH Na2SO PROSINCE OF COMPANY OF COMP	a <sub>2</sub> SO <sub>3</sub> , CI=< 0.1 <sub>03</sub> , CI=< 0.1 <u>COLLECTION IN PLASTIC</u> DATE / TIME	RECEIVED BY	YES NO	PLE(S) INFC
MMONIA SAM ECAL SAMPLE COLLECTED B L SAMPLES COLLI ELINQUISH G - H cos h NALYSES COLI fu/100ml OD ppm SS ppm H <sub>3</sub> ppm	PLES NEUTRAL ES PRESERVED Y: G.H. ECTED AND PRESER ED BY ESULTS	IZED WITH Na2SO WITH Na2SO PROSINCE OF COMPANY OF COMP	a <sub>2</sub> SO <sub>3</sub> , CI=< 0.1 <sub>03</sub> , CI=< 0.1 <u>COLLECTION IN PLASTIC</u> DATE / TIME	RECEIVED BY	YES NO	PLE(S) INFC
COLLECTED B COLLECTED B L SAMPLES COLLI ELINQUISH G - H	PLES NEUTRAL ES PRESERVED Y: G.H. ECTED AND PRESER ED BY ESULTS	IZED WITH Na2SO WITH Na2SO PROSINCE OF COMPANY OF COMP	a <sub>2</sub> SO <sub>3</sub> , CI=< 0.1 <sub>03</sub> , CI=< 0.1 <u>COLLECTION IN PLASTIC</u> DATE / TIME	RECEIVED BY	YES NO	PLE(S) INFC
AMMONIA SAM ECAL SAMPLE COLLECTED B L SAMPLES COLLI ELINQUISH G - Hers h NALYSES COLI fu/100ml 30D ppm SS ppm IH <sub>3</sub> ppm COND umho URB ntu	PLES NEUTRAL ES PRESERVED Y: G.H. ECTED AND PRESER ED BY ESULTS	IZED WITH Na2SO WITH Na2SO PLANT FIME OF O	a <sub>2</sub> SO <sub>3</sub> , CI=< 0.1 <sub>03</sub> , CI=< 0.1 <u>COLLECTION IN PLASTIC</u> DATE / TIME	RECEIVED BY	YES NO	PLE(S) INFC
AMMONIA SAM ECAL SAMPLE COLLECTED B L SAMPLES COLLI ELINQUISH G - H 203 H NALYSES COLI fu/100ml SS ppm H <sub>3</sub> ppm OND umho URB ntu ILSS ppm	PLES NEUTRAL ES PRESERVED Y: G.H. ECTED AND PRESER ED BY ESULTS	IZED WITH Na2SO WITH Na2SO PLANT FIME OF O	a <sub>2</sub> SO <sub>3</sub> , CI=< 0.1 <sub>03</sub> , CI=< 0.1 <u>COLLECTION IN PLASTIC</u> DATE / TIME	RECEIVED BY	YES NO	PLE(S) INFC
ECAL SAMPLE	PLES NEUTRAL ES PRESERVED Y: G.H. ECTED AND PRESER ED BY ESULTS	IZED WITH Na2SO WITH Na2SO PLANT FIME OF O	a <sub>2</sub> SO <sub>3</sub> , CI=< 0.1 <sub>03</sub> , CI=< 0.1 <u>COLLECTION IN PLASTIC</u> DATE / TIME	RECEIVED BY	YES NO	PLE(S) INFC



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 18<sup>th</sup> Edition.

Sample	Analysis	Result	Units_MI	DL U	UnitsDate	erun_Ana	lyst
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 Very Juanita James

Laboratory Manager James & James Env. Mgt., Inc. <u>jjemi@bellsouth.net</u> 828-697-0063 JJEM AQUEOUS SAMPLE COLLECTION/LAB REPORT FORM (NC CERT 482)

A-63

Regulated by NCDENR/DWQ-Groundwater section

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

LOCATION			CHAIN OF C	DUNTY	SPECIAL INFORMATI
	Bach				SPECIAL INFORMATI
D NO.	incenti		+		
NITIAL TEMP	0.1.7				PH: 8.4
C GRAB	24.7				FT1-0-1
	0750				
ample time COMP start					
ample time					
late/ time					
	COOLER#1			COOLER #2	
TEMP @RECEIP		°C			°C
	BOVE TEMP INDI		MP.	TEMP @RECEIPT: NOTE: THE ABOVE TEMP IN	
	LL CONTAINER (S			FOR ALL CONTAINER	
	PLES PRESERV		0 04-220		
			$Ia_2SO_3$ , $CI = < 0.1$		YES NO YES NO
	S PRESERVED				YES NO
			the second s		
OLLECTED B	Y: G.H	ensley			
	Y: G. H	VED AT THEOF	COLLECTION IN PLASTIC	CONTAINERS UNLESS NOTED OTHERWIS	E BY:
	ECTED AND PRESER	VED AT THE OF	COLLECTION IN PLASTIC	CONTAINERS UNLESS NOTED OTHERWISI	E BY: SPLIT SAMPLE(S) IN
L SAMPLES COLL	ECTED AND PRESER	VED AT THE OF	DATE / TIME		
RELINQUISH	ECTED AND PRESER	VED AT TIME OF	DATE / TIME		SPLIT SAMPLE(S) IN
ANALYSES	ECTED AND PRESER	VED AT TIME OF	DATE / TIME		SPLIT SAMPLE(S) IN DATE INIT'
ANALYSES	ECTED AND PRESER	VED AT TIME OF	DATE / TIME		SPLIT SAMPLE(S) IN
ANALYSES COLI SOD ppm	ECTED AND PRESER	VED AT TIME OF	DATE / TIME		SPLIT SAMPLE(S) IN DATE INIT'
ANALYSES COLI G. Henster NALYSES COLI fu/100ml 30D ppm SS ppm	ECTED AND PRESER	VED AT TIME OF	DATE / TIME		SPLIT SAMPLE(S) IN DATE INIT'
ANALYSES COLI SOD ppm SS ppm H <sub>3</sub> ppm	ECTED AND PRESER	VED AT TIME OF	DATE / TIME		SPLIT SAMPLE(S) IN DATE INIT'
ANALYSES COLI G. Hensi ANALYSES COLI fu/100ml 30D ppm TSS ppm NH <sub>3</sub> ppm COND umho	ECTED AND PRESER	VED AT TIME OF	DATE / TIME		SPLIT SAMPLE(S) IN DATE INIT'
L SAMPLES COLL RELINQUISH Ca. Heads ANALYSES COLL Sold ppm SS ppm H <sub>3</sub> ppm COND umho URB ntu	ECTED AND PRESER	VED AT TIME OF	DATE / TIME		SPLIT SAMPLE(S) IN DATE INIT'
L SAMPLES COLL RELINQUISH G. Hensi ANALYSES COLI fu/100ml 30D ppm TSS ppm NH <sub>3</sub> ppm COND umho TURB ntu MLSS ppm	ECTED AND PRESER	VED AT TIME OF	DATE / TIME		SPLIT SAMPLE(S) IN DATE INIT'
L SAMPLES COLL RELINQUISH G. Henster ANALYSES COLI Stu/100ml 30D ppm TSS ppm NH <sub>3</sub> ppm COND umho TURB ntu MLSS ppm MLVSS ppm	ECTED AND PRESER	VED AT TIME OF	DATE / TIME		SPLIT SAMPLE(S) IN DATE INIT'
L SAMPLES COLL RELINQUISH CI. Heads ANALYSES COLI Sold ppm SS ppm WH <sub>3</sub> ppm COND umho URB ntu MLSS ppm MLVSS ppm ALXALINITY DOM	ECTED AND PRESER	VED AT TIMEOF	DATE / TIME		SPLIT SAMPLE(S) IN DATE INIT'
L SAMPLES COLL RELINQUISH CI. Heads ANALYSES COLI Sold ppm SS ppm WH <sub>3</sub> ppm COND umho URB ntu MLSS ppm MLVSS ppm ALXALINITY DOM	ECTED AND PRESER	VED AT TIMEOF	DATE / TIME		SPLIT SAMPLE(S) IN DATE INIT'
L SAMPLES COLL RELINQUISH G. Hensi ANALYSES COLI Solution SS ppm H <sub>3</sub> ppm COND umho URB ntu MLSS ppm MLVSS ppm ALAKALINITY Solution SS ppm MLAKALINITY SS the above sign	ECTED AND PRESER	VED AT TIMEOF	DATE / TIME		SPLIT SAMPLE(S) IN DATE INIT'
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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 18<sup>th</sup> Edition.

Sample	Analysis	Result	Units MI	<u>DL U</u>	nits Date	run Anal	<u>yst</u>
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)

A-65

Regulated by NCDENR/DWQ-Groundwater section

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

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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 18<sup>th</sup> Edition.

Sample	Analysis	Resu	lt_Units_M	<u>DL I</u>	Jnits Dat	e run Ana	lyst
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 A-67

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

LOCATION				COUNT	Y		SPECIA	L INFORMATIC
	Beach						SPECIA	LINFORMATIC
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sample time								
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date/ time		-						
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AL SAMPLES COL RELINQUIS G. Her NALYSES COLI fu/100ml SOD ppm	LECTED AND PRESEN	RVED AT TIME OF	DATE / TIN	1E	RECEI			INIT'L
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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 18<sup>th</sup> Edition.

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

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.

c/100mL

Thank you,

Biltmore

Lake

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

FECAL

133.0

9-22-15 LS

c/100mL

<1



NC Certified Laboratory	NC wastewater #482	NC Drinking Water #37763
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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 18<sup>th</sup> Edition.

Sample	Analysis	Resul	t Units M	DL_U	nits Date	run Anal	<u>yst</u>
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



NC Certified Laboratory	NC wastewater #482	NC Drinking Water #37763
Internet and the second s		

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 18<sup>th</sup> Edition.

Sample	Analysis	Result	Units_MI	<u>DL U</u>	nits Date	run Anal	<u>yst</u>
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



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 18<sup>th</sup> Edition.

Sample	Analysis	Result	Units_MI	<u>DL U</u>	nits Date	run Analy	yst
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	10-07-1	5 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



NC Certified Laboratory NC wastewater #482	NC Drinking Water #37763
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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 18<sup>th</sup> Edition.

Sample	Analysis	Result	Units MI	<u>DL U</u>	nits Date	run Anal	yst
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 <sup>3</sup>	Lake Sample Location <sup>3</sup>	Lake Sample Location <sup>3</sup>						
	Near swim dock (7'	Near swim dock (7'	Cove 1 (2-3'	South end of					
	deep)	deep)	deep)	deep)	deep)	swim dock			
Fecal Coliform Bacteria, CFU/100 ml	5	54 <sup>1</sup> , 96 <sup>2</sup>	80	31	42	27			

#### Notes:

Samples taken at surface unless noted otherwise

<sup>1</sup>sample at surface

<sup>2</sup>sample at bottom

<sup>3</sup>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.

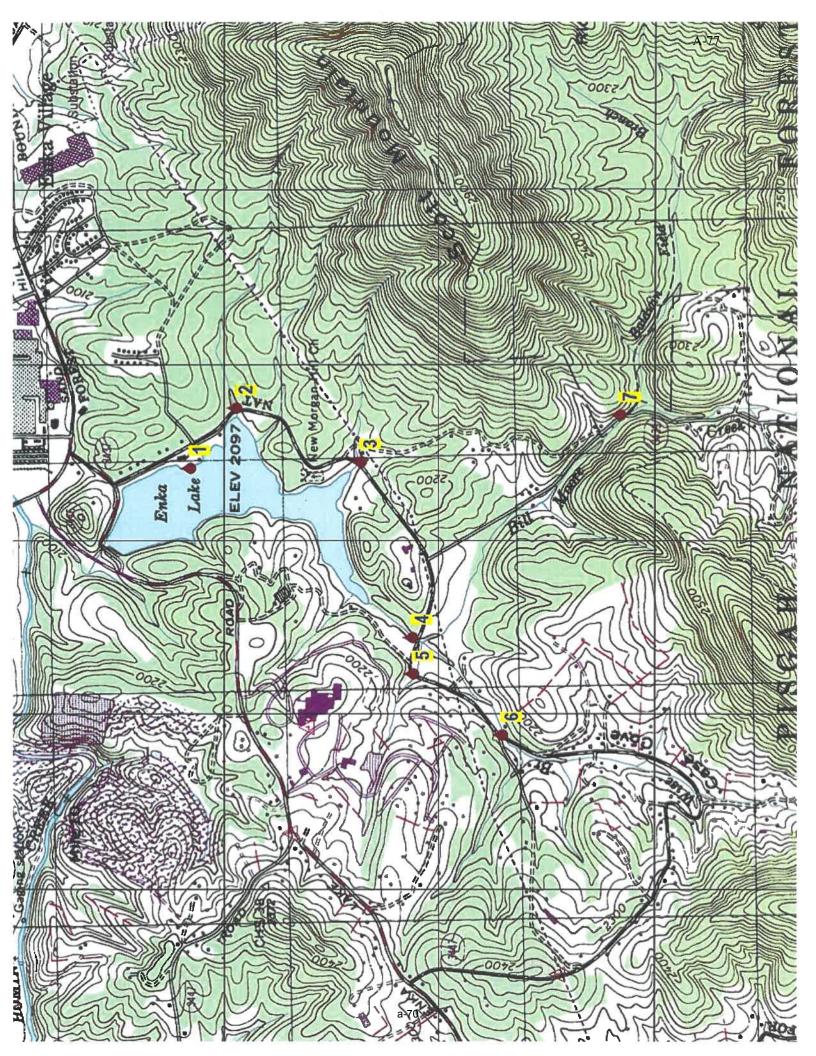
<u>Sample Locations</u>: Lake Drive (not Enka Lake Rd) is off Sandhill Rd. I suggest doing the sampling in the order presented below.

- 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.
- East Unnamed Tributary By #105 Lake Dr. at crosswalk sign. Sample downstream of foot bridge.
- 3. <u>South East Unnamed Tributary</u> After Ponderosa Dr. on the right pull into MSD Pump Station. Walk down to the right to footbridge for sample.
- <u>Lake Head</u> 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. <u>West Unnamed Tributary</u> Short distance to next curve at #418/420, pull over on right. Sample downstream side.
- 6. <u>Wise Br.</u> At Shuler Rd. Sample downstream side.
- 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.





				4-Bill Moore Crk			7-Bill Moore Crk @
DATE	1-Swim	2-East UT	3-South East UT	(Lake Head)	5-West UT	6-Wise Br	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	6	140	196	243	171	340	175

8/15/2017 Cove 2 37 Cove 3 46

#### **<u>Regulatory Impact Analysis</u>**

#### 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 Re	sources (DWR)				
Staff Contact:	Jucilene Hoffmann: Economist II, (DWR) <u>jucilene.hoffmann@ncdenr.gov</u> (919) 707-9016					
	Elizabeth Kountis, Er <u>elizabeth.kountis@no</u> (919) 807-6418	nvironmental Senior Specialist, (DWR) edenr.gov				
Impact Summary:	State government: Local government: Private entities: Substantial Impact: Federal government:	No No No 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. 1

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

2		
3	15A NCAC 02I	B .0304 FRENCH BROAD RIVER BASIN
4	(a) Effective	February 1, 1976, the adopted classifications assigned to the waters within the French
5	Broad River	Basin are set forth in the French Broad River Basin Schedule of Classifications and
6	Water Quality	y Standards, which may be inspected at the following places:
7	(1)	the Internet at http://h2o.enr.state.nc.us/csu/; https://deq.nc.gov/river-basin-classification-
8		schedule.; and
9	(2)	the North Carolina Department of Environment and Natural Resources: Environmental Quality:
10		(A) Asheville Regional Office
11		2090 US Highway 70
12		Swannanoa, North CarolinaCarolina; and
13		(B) Division of Water <u>QualityResources</u>
14		Central Office
15		512 North Salisbury Street
16		Raleigh, North Carolina.
17	(b) Unnamed	d Streams. Such streams entering Tennessee are classified "B."
18	(c) The Fren	ch Broad River Basin Schedule of Classifications and Water Quality Standards was
19	amended effe	ective:
20	(1)	September 22, 1976;
21	(2)	March 1, 1977;
22	(3)	August 12, 1979;
23	(4)	April 1, 1983;
24	(5)	August 1, 1984;
25	(6)	August 1, 1985;
26	(7)	February 1, 1986;
27	(8)	May 1, 1987;
28	(9)	August 1, 1990.
29	(d) The Sche	dule of Classifications and Water Quality Standards for the French Broad River Basin
30	was amended	effective March 1, 1989 as follows:
31	(1)	Cataloochee Creek (Index No. 5-41) and all tributary waters were reclassified from Class C-trout
32		and Class C to Class C-trout ORW and Class C ORW.
33	(2)	South Fork Mills River (Index No. 6-54-3) down to Queen Creek and all tributaries were reclassified
34		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.

9 (g) The Schedule of Classifications and Water Quality Standards for the French Broad River Basin 10 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, 11 12 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, 13 14 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 15 a WS classification to an alternate appropriate primary classification after being identified as 16 17 downstream of a water supply intake or identified as not being used for water supply purposes. 18 (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)] 19 20 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

23 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)

30 and 7-2-(37.5)] from source to a point 0.2 miles downstream of Banjo Branch, including

3 (k) The Schedule of Classifications and Water Quality Standards for the French Broad River Basin

4 was amended effective January 1, 1996 as follows: Stokely Hollow [Index Numbers 6-121.5-(1)

5 and 6-121.5-(2)] from source to mouth of French Broad River has been reclassified from Class

6 WS-II and Class WS-II CA to Class C.

7 (1) The Schedule of Classifications and Water Quality Standards for the French Broad River Basin

8 was amended April 1, 1996 with the reclassification of the French Broad River [Index No. 6-(1)]

9 from a point 0.5 miles downstream of Little River to Mill Pond Creek to Class WS-IV; French

10 Broad River [Index No. 6-(51.5)] from a point 0.6 miles upstream of Mills River to Mills River to

11 Class WS-IV CA (Critical Area), from Mills River to a point 0.1 miles upstream of Boring Mill

12 Branch to Class C; and the Mills River [Index No. 6-54-(5)] was reclassified from City of

13 Hendersonville water supply intake to a point 0.7 miles upstream of mouth of Mills River to Class

14 WS-III, and from a point 0.7 miles upstream of mouth of Mills River to French Broad River to

15 Class WS-III CA (Critical Area).

16 (m) The Schedule of Classifications and Water Quality Standards for the French Broad River

17 Basin was amended August 1, 1998 with the revision to the primary classification for portions of

- 18 the French Broad River [Index No. 6-(38.5)] and the North Toe River 7-2-(10.5) from Class IV to
- 19 Class C.

20 (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.

23 (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)],

25 including all tributaries, from its source to the Canton Reservoir from Class WS-I to Class WS-I

- 26 Tr ORW.
- 27 (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
- 29 River [Index No. 6-(1), 6-(27), 6-(47.5), 6-(52.5), and 6-(54.5)] including its four headwater forks'
- 30 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.

3 (q) The Schedule of Classifications and Water Quality Standards for the French Broad River Basin

4 was amended August 1, 2002 with the reclassification of the North Toe River [Index No. 7-2-

5 (0.5)], including all tributaries, from source to a point 0.2 mile upstream of Pyatt Creek, from Class

6 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.

14 (s) The Schedule of Classifications and Water Quality Standards for the French Broad River Basin

15 was amended effective November 1, 2007 with the reclassification of McClure's Bog near Gash

16 Creek [Index No. 6-47] to Class WL UWL as defined in 15A NCAC 02B .0101.Rule .0202 of this

Subchapter <u>UWL</u>. The North Carolina Division of Water <u>QualityResources</u> maintains a
 Geographic Information Systems data layer of the UWL.

19 (t) The Schedule of Classifications and Water Quality Standards for the French Broad River Basin

20 was amended effective September 1, 2009 with the reclassification of the entire watershed of Big

21 Laurel Creek (Index No. 6-112) from source to the French Broad River from Class C Tr to Class

22 C ORW Tr.

23 (u) The Schedule of Classifications and Water Quality Standards for the French Broad River Basin

24 was amended effective September 1, 2009 with the reclassification of the entire watershed of

25 Spring Creek [Index No. 6-118-(1) and 6-118-(27)] from source to the French Broad River from

26 Class C Tr and Class C to Class C ORW Tr and Class C ORW.

27 (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

29 [Index No. 6-(54.5)] from the confluence of the Mills River to a point 0.2 miles downstream of the

30 confluence of the Mills River from Class B to Class WS-IV&B CA.

1	(w) The Sch	nedule of Classifications and Water Quality Standards for the French Broad River
2	Basin was an	nended January 1, 2019 with the reclassification of Enka Lake, which is a portion of
3	the Bill Moon	re Creek (Index No. 6-76-7), from Class C to Class B.
4		
5		
6	History Note:	Authority G.S. 143-214.1; 143-215.1; 143-215.3(a)(1);
7		Eff. February 1, 1976;
8		Amended Eff. January 1, 2019; December 1, 2011; September 1, 2009; November 1, 2007;
9		September 1, 2004; August 1, 2002; August 1, 2000; August 1, 1998; April 1, 1996; January 1,
10		1996; November 1, 1995; July 1, 1995.
11		

#### **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/waterresources/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**

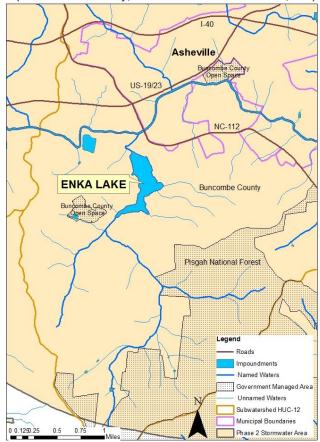
You may attend the public hearing and provide verbal comments that specifically address the proposed reclassification and its regulatory impact analysis for the lake. The Hearing Officer may limit the length of time that you may speak at the public hearing, if necessary, so that all those who wish to 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 <u>North Carolina Register</u> 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 <u>https://deq.nc.gov/news/events/public-notices-hearings</u> (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 <u>http://deq.nc.gov/about/divisions/water-resources</u>.







Release: IMMEDIATE	Contact: Christy Simmons
Date: August 1, 2018	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: <u>https://deq.nc.gov/news/events/public-hearing-proposed-class-b-reclassification-enka-lake</u>.

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 BasingerFROM: Linda CulpeperSUBJECT: 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

Basinger	Corey	<u>Hearing Officer</u> Surface Water Protection Supervisor, Mooresville Regional Office						
Kountis Manning Johnston Davidson Wiggs Fox	Elizabeth Jeff Peter Landon Linda Tim	Div. of Water Resources (CSRRB=Classifications & Standards/Rules Review Branch) Senior Environmental Specialist, CSRRB, Planning Section Chief, CSRRB, Planning Section Environmental Technician, CSRRB, Planning Section Regional Supervisor, Asheville Regional Office Senior Environmental Specialist, Asheville Regional Office Environmental Specialist, Asheville Regional Office						
		Citizens in Attendance (*=made ver		_	_			
Last Name	<u>First Name</u>	Entity Representing	<u>City</u>	<u>County</u>	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 Walker	Irene Sam	Self Self	Biltmore Lake	Buncombe Buncombe	NC NC			
Russu	John	Self	Biltmore Lake Biltmore Lake	Buncombe	NC			
Kussu 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*			

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

# 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 <u>cvmcclung2@gmail.com</u> 440-714-5033 (cell)

From:	Maurice Frank <ma< th=""></ma<>
Sent:	Saturday, August 1
To:	Kountis, Elizabeth
Subject:	[External] I Support

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

CAUTION: External email. Do not click links or open attachments unless verified. Send all suspicious email as an attachment to Report Spam.

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

From:	Mark Foley <outlook_c3d216fe2ec8486b@outlook.com> on behalf of Mark Foley <mfoley359@aol.com></mfoley359@aol.com></outlook_c3d216fe2ec8486b@outlook.com>
Sent:	Friday, August 10, 2018 10:22 AM
То:	Kountis, Elizabeth
Subject: Attachments:	[External] Reclassification of Enka Lake Enka Lake Reclassification Statement.docx

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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.

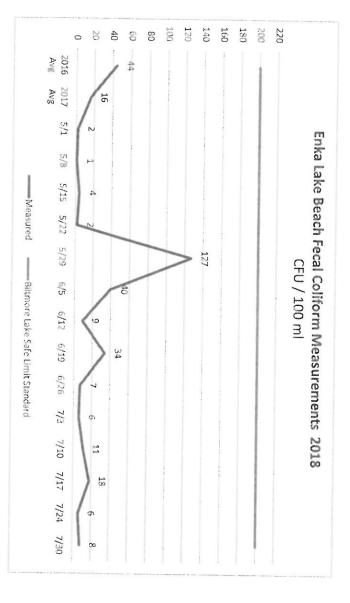
Submitted by: Mark Foley 110 Greenwells Glory Drive Biltmore Lake, NC 28715 A-96

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

# Beach Fecal Coliform CFU/100ml

7/24 7/30	7/10 7/17	7/3	6/19 6/26	6/12	6/5	5/29	5/22	5/15	5/8	5/1	2017 Avg	2016 Avg	Date
<del>۵</del> ۵	11 18	6	34 7	6	40	127	2	4	ц	2	16	44	Measured
200 200	200	200	200	200	200	200	200	200	200	200	200	200	Biltmore Lake Safe Limit Standard

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.



From:	Timothy Mckee <tmckee2@me.com></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

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

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#### 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

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

#### CAUTION: External email. Do not click links or open attachments unless verified. Send all suspicious email as an attachment to Report Spam.

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

From:	Philip Kutzenco <philip@kutzenco.com></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:	[Extornal] Commont on Pronocod Class B. Backsofficienties of 5. June 19
Subject:	[External] Comment on Proposed Class B Reclassification of Enka Lake

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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.
- 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.

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

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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

From:	Calvin B. Marshall <cmarshall@pmlpathology.com></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

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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

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

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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



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

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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 <<u>phil@proxyhomewatch.com</u>> 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 email <u>gbglackin@alum.mit.edu</u> LinkedIn <u>www.linkedin.com/in/gbglackin</u>

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#### Kountis, Elizabeth

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

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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

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

#### CAUTION: External email. Do not click links or open attachments unless verified. Send all suspicious email as an attachment to Report Spam.

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