2026 LJEA Science and Water Quality Notes

LJEA Science Note: 20260923
More Information on the Lake James Walleye Fishery

This note does not directly address the recent reports of dead walleye and other fish on the Linville side of Lake James. However, it does address the extent and health of the walleye resident to Lake James and the impacts of multiple invasive species.
View a clear and informative webinar: The Walleye Fishery of Lake James
To dive deeper, read: The Dynamic Lake James Walleye Fishery

LJEA Science Note: 20260921
Understanding Late Summer Fish Mortality Events in Lake James

In September, visitors to the Linville side of Lake James and below the dam may notice a troubling sight: dead walleye and other fish floating to the surface. While wildlife officials investigate each incident, this recurring issue is actually the result of an ecological chain reaction that started decades ago.

An Important Factor: In the early 2000s, invasive fish species called blueback herring and alewife were introduced to Lake James—either intentionally or by accident. They quickly multiplied and became a primary food source for the lake's resident walleye. Unfortunately, this new food source eventually became a major threat to the walleye's survival.

Why Do the Walleye Die? The problem peaks as the seasons change. In September, temperature shifts cause the lake's water layers to mix, which changes where oxygen is available deep underwater:

- The blueback herring and alewife migrate into cool but thin and unstable bands of oxygenated water.
- The hungry walleye follow these “bait” fish into these narrow spaces.
- Because the oxygen bands are small and shift easily, walleye often get trapped in "dead zones" with almost no oxygen. As dissolved oxygen levels decline, the walleye can experience severe stress or mortality and may later be observed floating at the surface.

A Bigger Ecosystem Crisis: These late-summer die-offs are just one visible sign of the damage. Blueback herring, alewife, and other invasive species have severely limited the walleye's ability to naturally reproduce in Lake James. Today, State fish stocking plays a dominant, perhaps exclusive, role in maintaining the Lake James walleye fishery.

How You Can Help: Local wildlife officials and anglers are monitoring this ongoing issue. It serves as a reminder of how easily invasive species can permanently damage a lake's natural

balance. To help protect our waters and stop the spread of invasive species, please do your part: Anglers and boaters can help prevent the spread of aquatic invasive species by draining water from boats and livewells, removing aquatic plants and debris, and thoroughly cleaning equipment before visiting another waterbody. **Note: It is illegal to move live fish between waterbodies.**

Finally: It is important to report observations of possible water quality problems. The NC Department of Environmental Quality has a website where you can report fish kills and algal blooms. Other suspected water pollution problems can be reported to your regional DEQ office.

LJEA Science Note: 20260920 Fish Kill in Lake James

We are aware of the reported Walleye kills on Lake James and have reported it to NC DEQ. Unfortunately, this occurs nearly every September. We will post further information about the event, and any information we receive from DEQ, in the coming days.
You can report fish kills and algal blooms on the DEQ website:
NC DEQ Fish Kill & Algal Bloom Citizen Reports

LJEA Science Note: 20260904 E.coli Testing

This week Linville Boat Ramp, LJSP Paddy's Creek swim area, LJSP Catawba swim area, North Fork Cove, North Fork Cove sediment plume, Lake Tahoma, Buck Creek and Old Fort Ball Park are the sites that passed for primary recreation. Greenlee Park, Greenlee Park sediment plume and Mill Creek are suitable for secondary recreation. For the North Fork River site the sample spilled in the lab.
Water samples were collected on Thursday September 03 and tested for E.coli at the following locations:

- Paddy Creek and Catawba Swim Areas in Lake James State Park
- Catawba River at Greenlee Park
- North Fork of the Catawba River above the Lake
- North Fork Cove in Lake James below the mouth of the North Fork of the Catawba
- Linville Boat Ramp
- Lake Tahoma
- Buck Creek upstream of Lake Tahoma
- Mill Creek by the museum
- Old Fort Ball Park

Lake James Environmental Association – 20260903 Bacteria Sampling Results

Bottle #	Site	Sample Time	Water Temp °C	pH	Conductivity (µs/cm)	Secchi depth (cm)	*Lab Turbidity (NTU)*	*E coli* Lab Results (mpn/100ml)	Percent of Guidance Values
1	Linville Boat Ramp (Water Column)	7:46	27.9	8.2	61	115	0.0	3	2.38
2	LJSP Paddy Swim (Water Column)	8:08	28.1	8.5	67	119	0.0	1	0.79
6	LJSP_Catawba Swim (Water Column)	8:34	27.9	8.2	73	117	0.3	1	0.79
4	North Fork River (Water Column)	9:42	25.5	8.1	172	72	1.7	N/A	#VALUE!
3	North Fork Cove (Water Column)	9:27	24.8	7.8	67	54	4.2	9.8	7.78
7	North Fork Cove (Sediment Plume)	9:31	25.3	7.7	67	17	76.0	98.7	78.33
5	Greenlee Park (Water Column)	10:34	24.4	7.9	63	90	0.5	131.4	104.29
8	Greenlee Park (Sediment Plume)	10:37	24.4	7.8	63	40	26.0	275.5	218.65
9	Lake Tahoma (Water Column)	10:06	26.0	7.9	35	112	2.0	7.4	5.87
10	Buck Creek (Water Column)	10:14	25.2	7.5	40	54	3.3	107.6	85.40
12	Mill Creek (Water Column)	9:55	-	-	-	-	1.0	101	80.16
11	Old Fort Ball Park (Water Column)	10:10	-	-	-	-	0.0	228.2	181.11

The above table presents the maximum probable number of E.coli colonies and the percentage of the advisory level for Primary Recreational contact (126 colonies per 100 ml). **That table's color coding represents each of the sampled sites advisory recreational classification:**

- **Green - Primary Recreation contact,**
- **Yellow - Secondary Recreational contact,**
- **Red - Use extra caution or avoid recreational contact.**

Click here to see the Catawba Riverkeeper Foundation Swim Guide.

LJEA recommends avoiding recreating in discolored or excessively murky waters.

If you have questions, email: info@ljea.org

LJEA Science Note: 20260828 E.coli Testing

This week Linville Boat Ramp, LJSP Paddy's Creek swim area, LJSP Catawba swim area, North Fork River, Greenlee Park, Lake Tahoma, and Buck Creek are the sites that passed for primary recreation. North Fork Cove, North Fork Cove sediment plume, Old Fort BallPark and Mill Creek are suitable for secondary recreation.
Water samples were collected on Thursday August 27 and tested for E.coli at the following locations:

- Paddy Creek and Catawba Swim Areas in Lake James State Park
- Catawba River at Greenlee Park
- North Fork of the Catawba River above the Lake
- North Fork Cove in Lake James below the mouth of the North Fork of the Catawba
- Linville Boat Ramp
- Lake Tahoma
- Buck Creek upstream of Lake Tahoma
- Mill Creek by the museum
- Old Fort BallPark

Lake James Environmental Association – 20260827 Bacteria Sampling Results

Bottle #	Site	Sample Time	Water Temp °C	pH	Conductivity (µs/cm)	Secchi depth (cm)	*Lab Turbidity (NTU)*	*E coli* Lab Results (mpn/100ml)	Percent of Guidance Values
1	Linville Boat Ramp (Water Column)	7:47	27.4	8.4	61	122	0.0	1	0.79
2	LJSP Paddy Swim (Water Column)	8:09	27.0	8.3	66	122	0.0	5.2	4.13
6	LJSP_Catawba Swim (Water Column)	8:26	26.9	8.2	73	121	0.0	2	1.59
4	North Fork River (Water Column)	9:23	23.0	8.2	146	67	1.7	48	38.10
3	North Fork Cove (Water Column)	9:07	22.9	7.8	61	38	5.8	461.1	365.95
7	North Fork Cove (Sediment Plume)	9:11	23.1	7.7	63	25	13.8	488.4	387.62
5	Greenlee Park (Water Column)	10:15	22.1	7.7	60	106	1.8	95.8	76.03
8	Greenlee Park (Sediment Plume)	10:17	22.5	7.6	62	40	9.2	106.7	84.68
9	Lake Tahoma (Water Column)	9:48	24.1	7.3	34	109	1.0	4.1	3.25
10	Buck Creek (Water Column)	9:55	24.1	7.6	33	86	1.6	72.2	57.30
12	Mill Creek (Water Column)	9:55	-	-	-	-	0.2	178	141.27
11	Old Fort Ball Park (Water Column)	10:00	-	-	-	-	0.1	191.8	152.22

The above table presents the maximum probable number of E.coli colonies and the percentage of the advisory level for Primary Recreational contact (126 colonies per 100 ml). **That table's color coding represents each of the sampled sites advisory recreational classification:**

- **Green - Primary Recreation contact,**
- **Yellow - Secondary Recreational contact,**
- **Red - Use extra caution or avoid recreational contact.**

Click here to see the Catawba Riverkeeper Foundation Swim Guide.

LJEA recommends avoiding recreating in discolored or excessively murky waters.

If you have questions, email: info@ljea.org

LJEA Science Note: 20260821 E.coli Testing

This week Linville Boat Ramp, LJSP Paddy's Creek swim area, LJSP Catawba swim area, North Fork River, North Fork Cove, Greenlee Park, Lake Tahoma, Buck Creek and the Old Fort Ball Park are the sites that passed for primary recreation. Mill Creek is suitable for secondary recreation. The North Fork Cove sediment plume is suitable for secondary recreation.

Water samples were collected on Thursday August 20 and tested for E.coli at the following locations:

- Paddy Creek and Catawba Swim Areas in Lake James State Park
- Catawba River at Greenlee Park
- North Fork of the Catawba River above the Lake
- North Fork Cove in Lake James below the mouth of the North Fork of the Catawba
- Linville Boat Ramp
- Lake Tahoma
- Buck Creek upstream of Lake Tahoma
- Mill Creek by the museum
- Old Fort Ball Park

Lake James Environmental Association – 20260820 Bacteria Sampling Results

Bottle #	Site	Sample Time	Water Temp °C	pH	Conductivity (µs/cm)	Secchi depth (cm)	*Lab Turbidity (NTU)*	*E coli* Lab Results (mpn/100ml)	Percent of Guidance Values
1	Linville Boat Ramp (Water Column)	8:32	28.4	8.3	61	119	0.0	2	1.59
2	LJSP Paddy Swim (Water Column)	8:53	28.3	8.4	66	120	0.0	3.1	2.46
6	LJSP_Catawba Swim (Water Column)	9:28	28.5	8.1	71	122	0.0	0	0.00
4	North Fork River (Water Column)	11:29	25.1	8.1	150	40	2.0	58.3	46.27
3	North Fork Cove (Water Column)	11:12	26.3	7.7	61	45	3.0	38.4	30.48
8	North Fork Cove (Sediment Plume)	11:19	26.5	7.7	64	23	14.6	128.1	101.67
5	Greenlee Park (Water Column)	10:05	24.1	7.8	59	99	3.2	93.3	74.05
7	Greenlee Park (Sediment Plume)	10:09	24.2	7.7	57	41	19.3	86.2	68.41
9	Lake Tahoma (Water Column)	10:35	26.3	7.7	34	104	0.1	4.1	3.25
10	Buck Creek (Water Column)	10:45	24.4	7.7	40	20	3.7	70.3	55.79
11	Mill Creek (Water Column)	10:00	-	-	-	-	0.0	328.2	260.48
12	Old Fort Ball Park (Water Column)	9:50	-	-	-	-	0.0	104.6	83.02

The above table presents the maximum probable number of E.coli colonies and the percentage of the advisory level for Primary Recreational contact (126 colonies per 100 ml). **That table's color coding represents each of the sampled sites advisory recreational classification:**

- **Green - Primary Recreation contact,**
- **Yellow - Secondary Recreational contact,**
- **Red - Use extra caution or avoid recreational contact.**

Click here to see the Catawba Riverkeeper Foundation Swim Guide.

LJEA recommends avoiding recreating in discolored or excessively murky waters.

If you have questions, email: info@ljea.org

LJEA Science Note: 20260814 E.coli Testing

This week Linville Boat Ramp, LJSP Paddy's Creek swim area, LJSP Catawba swim area, North Fork River, Greenlee Park, Lake Tahoma, Buck Creek and the Old Fort Ball Park are the sites that passed for primary recreation. North Fork Cove,and Mill Creek are suitable for secondary recreation. The North Fork Cove sediment plume exceeded the threshold for both primary and secondary recreation.

Water samples were collected on Thursday August 13 and tested for E.coli at the following locations:

- Paddy Creek and Catawba Swim Areas in Lake James State Park
- Catawba River at Greenlee Park
- North Fork of the Catawba River above the Lake
- North Fork Cove in Lake James below the mouth of the North Fork of the Catawba
- Linville Boat Ramp
- Lake Tahoma
- Buck Creek upstream of Lake Tahoma
- Mill Creek by the museum
- Old Fort Ball Park

Lake James Environmental Association – 20260813 Bacteria Sampling Results

Bottle #	Site	Sample Time	Water Temp °C	pH	Conductivity (µs/cm)	Secchi depth (cm)	*Lab Turbidity (NTU)*	*E coli* Lab Results (mpn/100ml)	Percent of Guidance Values
1	Linville Boat Ramp (Water Column)	7:55	27.2	8.3	59	120	0.0	8.4	6.67
2	LJSP Paddy Swim (Water Column)	8:25	27.1	8.1	61	107	0.0	3.1	2.46
6	LJSP_Catawba Swim (Water Column)	8:46	27.3	8.1	71	111	0.0	8.6	6.83
4	North Fork River (Water Column)	9:44	24.0	8.0	118	51	0.4	35	27.78
3	North Fork Cove (Water Column)	9:26	25.8	7.7	59	38	14.7	178.5	141.67
9	North Fork Cove (Sediment Plume)	9:32	25.7	7.7	61	27	49.2	920.8	730.79
5	Greenlee Park (Water Column)	10:13	23.9	7.7	56	105	0.5	122.3	97.06
8	Greenlee Park (Sediment Plume)	10:16	24.1	8.0	56	65	35.9	686.7	545.00
7	Lake Tahoma (Water Column)	10:42	25.2	7.9	33	113	0.1	0	0.00
10	Buck Creek (Water Column)	10:51	24.2	7.8	34	40	7.3	69.7	55.32
11	Mill Creek (Water Column)	10:00	-	-	-	-	0.0	146.7	116.43
12	Old Fort Ball Park (Water Column)	9:45	-	-	-	-	0.0	44.3	35.16

The above table presents the maximum probable number of E.coli colonies and the percentage of the advisory level for Primary Recreational contact (126 colonies per 100 ml).

That table's color coding represents each of the sampled sites advisory recreational classification:

- **Green - Primary Recreation contact,**
- **Yellow - Secondary Recreational contact,**
- **Red - Use extra caution or avoid recreational contact.**

Click here to see the Catawba Riverkeeper Foundation Swim Guide.

LJEA recommends avoiding recreating in discolored or excessively murky waters.

If you have questions, email: info@ljea.org

LJEA Science Note: 20260806 E.coli Testing

This week Linville Boat Ramp, LJSP Paddy's Creek swim area, LJSP Catawba swim area, and Lake Tahoma are the only sites that passed for primary recreation (Buck Creek was just over the guidance value). North Fork River, North Fork Cove, Greenlee Park, Buck Creek, Mill Creek, and Old Fort Ball Park are suitable for secondary recreation. The North Fork Cove sediment plume exceeded the threshold for both primary and secondary recreation.
Water samples were collected on Thursday July 30 and tested for E.coli at the following locations:

- Paddy Creek and Catawba Swim Areas in Lake James State Park
- Catawba River at Greenlee Park
- North Fork of the Catawba River above the Lake
- North Fork Cove in Lake James below the mouth of the North Fork of the Catawba
- Linville Boat Ramp
- Lake Tahoma
- Buck Creek upstream of Lake Tahoma
- Mill Creek by the museum
- Old Fort Ball Park

Lake James Environmental Association – 20260806 Bacteria Sampling Results

Bottle #	Site	Sample Time	Water Temp °C	pH	Conductivity (µs/cm)	Secchi depth (cm)	*Lab Turbidity (NTU)*	*E coli* Lab Results (mpn/100ml)	Percent of Guidance Values
1	Linville Boat Ramp (Water Column)	7:57	27.1	8.2	61	122	0.0	14.8	11.75
2	LJSP Paddy Swim (Water Column)	8:20	27.4	8.2	62	117	0.0	5.2	4.13
8	LJSP_Catawba Swim (Water Column)	8:41	27.0	8.0	71	118	0.0	10.9	8.65
4	North Fork River (Water Column)	9:36	24.3	8.0	137	44	6.5	238.2	189.05
3	North Fork Cove (Water Column)	9:20	24.6	7.8	54	60	4.1	307.6	244.13
9	North Fork Cove (Sediment Plume)	9:22	24.9	7.8	59	25	10.3	2419.6	1920.32
5	Greenlee Park (Water Column)	10:02	23.4	8.0	51	66	0.4	325.5	258.33
10	Greenlee Park (Sediment Plume)	10:05	23.2	7.9	51	30	24.8	686.7	545.00
6	Lake Tahoma (Water Column)	10:51	25.4	7.5	31	41	7.7	24.1	19.13
7	Buck Creek (Water Column)	11:00	24.5	7.5	35	69	0.4	127.4	101.11
11	Mill Creek (Water Column)	9:45	-	-	-	-	2.7	344.8	273.65
12	Old Fort Ball Park (Water Column)	9:30	-	-	-	-	0.2	201.4	159.84

The above table presents the maximum probable number of E.coli colonies and the percentage of the advisory level for Primary Recreational contact (126 colonies per 100 ml). **That table's color coding represents each of the sampled sites advisory recreational classification:**

- **Green - Primary Recreation contact,**
- **Yellow - Secondary Recreational contact,**
- **Red - Use extra caution or avoid recreational contact.**

Click here to see the Catawba Riverkeeper Foundation Swim Guide.

LJEA recommends avoiding recreating in discolored or excessively murky waters.

If you have questions, email: info@ljea.org

LJEA Science Note: 20260724 E.coli Testing

We had added the Oldfort Ball Park to our E.coli testing sites. This week all sites except North Fork Cove and Mill Creek are suitable for primary recreation. The North Fork Cove sediment plume was also above the Primary recreation threshold. Water samples were collected on Thursday July 30 and tested for E.coli at the following locations:

- Paddy Creek and Catawba Swim Areas in Lake James State Park
- Catawba River at Greenlee Park
- North Fork of the Catawba River above the Lake
- North Fork Cove in Lake James below the mouth of the North Fork of the Catawba
- Linville Boat Ramp
- Lake Tahoma
- Buck Creek upstream of Lake Tahoma
- Mill Creek by the museum
- Old Fort Ball Park

Lake James Environmental Association – 20260730 Bacteria Sampling Results

Bottle #	Site	Sample Time	Water Temp °C	pH	Conductivity (µs/cm)	Secchi depth (cm)	*Lab Turbidity (NTU)*	*E coli* Lab Results (mpn/100ml)	Percent of Guidance Values
1	Linville Boat Ramp (Water Column)	8:08	26.3	8.0	61	100	0.1	1	0.79
2	LJSP Paddy Swim (Water Column)	8:35	26.3	8.4	67	122	0.0	0	0.00
6	LJSP_Catawba Swim (Water Column)	9:00	26.8	8.3	71	122	0.0	5.2	4.13
4	North Fork River (Water Column)	9:57	23.1	8.3	127	67	0.5	51.2	40.63
3	North Fork Cove (Water Column)	9:38	24.1	8.0	51	34	5.0	148.3	117.70
7	North Fork Cove (Sediment Plume)	9:45	24.3	7.9	52	22	19.5	727	576.98
5	Greenlee Park (Water Column)	10:47	22.9	8.2	49	94	0.4	57.8	45.87
8	Greenlee Park (Sediment Plume)	10:57	23.0	8.2	51	52	15.6	123.4	97.94
9	Lake Tahoma (Water Column)	11:07	24.8	8.0	35	110	0.0	16.1	12.78
10	Buck Creek (Water Column)	11:18	24.5	8.0	33	89	0.0	7.4	5.87
11	Mill Creek (Water Column)	10:00	-	-	-	-	0.0	178.5	141.67
12	Old Fort Ball Park (Water Column)	10:15	-	-	-	-	0.0	39.1	31.03

The above table presents the maximum probable number of E.coli colonies and the percentage of the advisory level for Primary Recreational contact (126 colonies per 100 ml). **That table's color coding represents each of the sampled sites advisory recreational classification:**

- **Green - Primary Recreation contact,**
- **Yellow - Secondary Recreational contact,**
- **Red - Use extra caution or avoid recreational contact.**

Click here to see the Catawba Riverkeeper Foundation Swim Guide.

LJEA recommends avoiding recreating in discolored or excessively murky waters.

If you have questions, email: info@ljea.org

LJEA Science Note: 20260724 E.coli Testing

We have added Mill Creek to our E.coli testing sites. This week Linville Boat Ramp, LJSP Paddy Swim, LJSP Catawba Swim, and Lake Tahoma are all suitable for primary recreation. The sites North Fork River, North Fork Cove, Greenlee Park, and Mill Creek near the museum had elevated *E. coli* but are suitable for secondary recreation. The North Fork Cove sediment plume, Greenlee Park sediment plume, and Buck Creek samples exceeded primary and secondary contact thresholds; caution is recommended. Water samples were collected on Thursday July 24 and tested for E.coli at the following locations:

- Paddy Creek and Catawba Swim Areas in Lake James State Park
- Catawba River at Greenlee Park
- North Fork of the Catawba River above the Lake
- North Fork Cove in Lake James below the mouth of the North Fork of the Catawba
- Linville Boat Ramp
- Lake Tahoma
- Buck Creek upstream of Lake Tahoma
- Mill Creek by the museum

Lake James Environmental Association – 20260723 Bacteria Sampling Results

Bottle #	Site	Sample Time	Water Temp °C	pH	Conductivity (µs/cm)	Secchi depth (cm)	*Lab Turbidity (NTU)*	*E coli* Lab Results (mpn/100ml)	Percent of Guidance Values
1	Linville Boat Ramp (Water Column)	11:33	28.0	8.3	61	105	0.0	21.3	16.90
2	LJSP Paddy Swim (Water Column)	11:08	27.2	8.4	64	122	0.0	4.1	3.25
10	LJSP_Catawba Swim (Water Column)	10:45	28.0	8.2	70	122	0.0	4.1	3.25
4	North Fork River (Water Column)	8:27	24.8	8.2	153	55	3.1	235.9	187.22
3	North Fork Cove (Water Column)	8:07	25.6	7.7	59	42	4.5	410.6	325.87
6	North Fork Cove (Sediment Plume)	8:12	25.6	7.8	61	11	26.6	1732.9	1375.32
5	Greenlee Park (Water Column)	9:04	24.7	8.1	53	28	9.8	755.6	599.68
7	Greenlee Park (Sediment Plume)	9:10	24.8	8.0	55	8	23.8	1732.9	1375.32
8	Lake Tahoma (Water Column)	9:45	26.3	7.6	34	9	41.9	56.5	44.84
9	Buck Creek (Water Column)	9:55	25.6	7.8	37	40	7.0	1046.2	830.32
11	Mill Creek (Water Column)	-	-	-	-	-	0.1	365.4	290.00

The above table presents the maximum probable number of E.coli colonies and the percentage of the advisory level for Primary Recreational contact (126 colonies per 100 ml). **That table's color coding represents each of the sampled sites advisory recreational classification:**

- **Green - Primary Recreation contact,**
- **Yellow - Secondary Recreational contact,**
- **Red - Use extra caution or avoid recreational contact.**

Click here to see the Catawba Riverkeeper Foundation Swim Guide.

During yesterday's rainfall and sampling, Greenlee exhibited muddy water conditions and Lake Tahoma also showed increased turbidity.

LJEA recommends avoiding recreating in discolored or excessively murky waters.

If you have questions, email: info@ljea.org

LJEA Science Note: 20260716 E.coli Testing

This week Linville Boat Ramp, LJSP Paddy's Creek and Catawba Swim, North Fork River, Lake Tahoma, and Buck Creek all passed for primary recreation. North Fork Cove, Greenlee did not pass for primary use but are suitable for secondary use. The sediment plume sample for North Fork Cove is suitable for secondary use. The Greenlee Park sediment plume sample exceeded both primary and secondary recreation thresholds. Water samples were collected on Thursday July 16 and tested for E.coli at the following locations:

- Paddy Creek and Catawba Swim Areas in Lake James State Park
- Catawba River at Greenlee Park
- North Fork of the Catawba River above the Lake
- North Fork Cove in Lake James below the mouth of the North Fork of the Catawba
- Linville Boat Ramp
- Lake Tahoma
- Buck Creek upstream of Lake Tahoma

Lake James Environmental Association – 20260716 Bacteria Sampling Results

Bottle #	Site	Sample Time	Water Temp °C	pH	Conductivity (µs/cm)	Secchi depth (cm)	*Lab Turbidity (NTU)*	*E coli* Lab Results (mpn/100ml)	Percent of Guidance Values
1	Linville Boat Ramp (Water Column)	11:50	29.9	8.3	59	122	0.0	4.1	3.25
2	LJSP Paddy Swim (Water Column)	11:17	29.1	8.3	63	122	0.0	4.1	3.25
10	LJSP_Catawba Swim (Water Column)	10:50	29.1	8.1	69	122	0.0	7.4	5.87
4	North Fork River (Water Column)	10:10	25.9	8.0	120	54	3.5	46.4	36.83
3	North Fork Cove (Water Column)	9:39	25.3	7.8	47	44	4.0	172.3	136.75
9	North Fork Cove (Sediment Plume)	9:47	25.8	7.7	47	10	49.3	686.7	545.00
5	Greenlee Park (Water Column)	8:26	23.3	7.6	49	55	3.5	178.5	141.67
6	Greenlee Park (Sediment Plume)	8:33	23.2	7.8	51	19	53.0	1413.6	1121.90
7	Lake Tahoma (Water Column)	8:56	26.0	7.6	36	69	5.2	14.6	11.59
8	Buck Creek (Water Column)	9:11	25.3	7.7	37	30	5.8	115.3	91.51

The above table presents the maximum probable number of E.coli colonies and the percentage of the advisory level for Primary Recreational contact (126 colonies per 100 ml). **That table's color coding represents each of the sampled sites advisory recreational classification:**

- **Green - Primary Recreation contact,**
- **Yellow - Secondary Recreational contact,**
- **Red - Use extra caution or avoid recreational contact.**

Click here to see the Catawba Riverkeeper Foundation Swim Guide.

LJEA recommends avoiding recreating in discolored or excessively murky waters.

If you have questions, email: info@ljea.org

LJEA Science Note: 20260710 E.coli Testing

This week, each site passed within range for primary recreation. Water samples were collected on Thursday July 9 and tested for E.coli at the following locations:

- Paddy Creek and Catawba Swim Areas in Lake James State Park
- Catawba River at Greenlee Park
- North Fork of the Catawba River above the Lake
- North Fork Cove in Lake James below the mouth of the North Fork of the Catawba
- Linville Boat Ramp
- Lake Tahoma
- Buck Creek upstream of Lake Tahoma

Lake James Environmental Association – 20260709 Bacteria Sampling Results

Bottle #	Site	Sample Time	Water Temp °C	pH	Conductivity (µs/cm)	Secchi depth (cm)	*Lab Turbidity (NTU)*	*E coli* Lab Results (mpn/100ml)	Percent of Guidance Values
1	Linville Boat Ramp (Water Column)	11:45	30.2	8.3	61	122	0.0	2	1.59
2	LJSP Paddy Swim (Water Column)	11:10	30.3	8.2	66	122	0.0	2	1.59
11	LJSP Paddy Swim (Sediment Plume)	11:16	30.9	8.2	67	79	0.2	2	1.59
10	LJSP_Catawba Swim (Water Column)	10:42	29.9	8.3	71	122	0.0	3.1	2.46
4	North Fork River (Water Column)	9:57	26.7	8.2	173	49	1.3	10.7	8.49
3	North Fork Cove (Water Column)	9:35	27.8	7.8	67	59	2.1	35.9	28.49
9	North Fork Cove (Sediment Plume)	9:41	28.0	7.6	67	15	33.5	98.7	78.33
5	Greenlee Park (Water Column)	8:17	25.1	7.7	59	67	3.2	104.6	83.02
6	Greenlee Park (Sediment Plume)	8:22	25.1	7.7	61	14	26.1	101.4	80.48
7	Lake Tahoma (Water Column)	8:48	27.8	8.1	36	109	0.0	3.1	2.46
8	Buck Creek (Water Column)	8:57	27.1	7.7	41	45	2.4	6.3	5.00

The above table presents the maximum probable number of E.coli colonies and the percentage of the advisory level for Primary Recreational contact (126 colonies per 100 ml). **That table's color coding represents each of the sampled sites advisory recreational classification:**

- **Green - Primary Recreation contact,**
- **Yellow - Secondary Recreational contact,**
- **Red - Use extra caution or avoid recreational contact.**

Click here to see the Catawba Riverkeeper Foundation Swim Guide.

At the North Fork River and North Fork Cove sites, the water was lower than typical. The receded water left behind thick and muddy banks. The water at these sites was fairly turbid. Additionally, thunderstorms and rainfall over the weekend may change these conditions.

LJEA recommends avoiding recreating in discolored or excessively murky waters.

If you have questions, email: info@ljea.org

LJEA Science Note: 20260708 Lake James Watershed Habitat Assessments

How are our streams recovering from Helene?

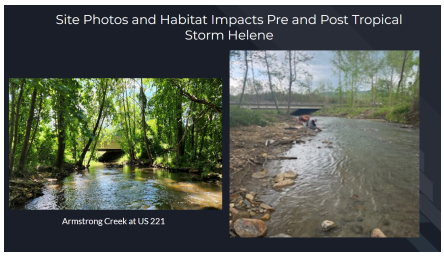
Did you know that LJEA volunteers have been performing stream and riparian habitat assessments since 2017? That has given us a good "baseline" of habitat data. Hurricane Helene really hammered our streams. How are they doing now?

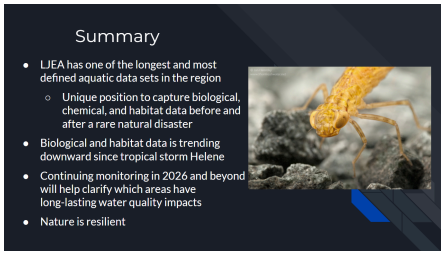
Since the 19th of June, LJEA volunteers have completed stream habitat assessments at 14 sites across the Lake James watershed. The assessments use a numerical scoring system developed by the NC Division of Water Resources with scores ranging from 0 to 100.

Helene severely damaged the habitat along many of our streams, decreasing the habitat score across 18 sampled sites by an average of over 13 points. The good news is that when we compare this year's scores to the assessments performed soon after Helene, we see significant recovery in stream and riparian habitat. For example:

- Two sites along the North Fork of the Catawba River had their scores improve by an average of nearly 35 points
- Sites along Mill Creek in and above Old Fort had their scores improve by over 18 points
- A site on Mackey Creek saw an improvement of 28 points
- Curtis Creek, Armstrong Creek, and other sites evaluated, some which were less impacted by Helene, showed only small variations from last year's post-Helene assessments; several sites actually scored slightly lower this year than they did immediately after Helene.







Reece Environmental Services is currently doing the necessary laboratory work to quantify how the macroinvertebrate (aquatic "bug") communities are doing. We'll report on those results and more habitat scores when they are available.

LJEA is very grateful to all the volunteers who assist with Habitat Assessments and macroinvertebrate sampling. If you would like to help us, performing stream assessments or other tasks, please tell us about your interests by registering here:
Volunteer Interests Registration

See our Facebook page for related photographs. Also, here is a link to a related presentation made at the Lake James Watershed Symposium in February: Bugs, Bugs, Bugs and their Front Yards

LJEA Science Note: 20260702 E.coli Testing

Every site passed for primary recreation with the exception of Buck Creek. Water samples were collected on Wednesday 1 July due to the holiday and tested for E.coli at the following locations:

- Paddy Creek and Catawba Swim Areas in Lake James State Park
- Catawba River at Greenlee Park
- North Fork of the Catawba River above the Lake
- North Fork Cove in Lake James below the mouth of the North Fork of the Catawba
- Linville Boat Ramp
- Lake Tahoma
- Buck Creek upstream of Lake Tahoma

Lake James Environmental Association – 20260701 Bacteria Sampling Results

Bottle #	Site	Sample Time	Water Temp °C	pH	Conductivity (µs/cm)	Secchi depth (cm)	*Lab Turbidity (NTU)*	*E coli* Lab Results (mpn/100ml)	Percent of Guidance Values
1	Linville Boat Ramp (Water Column)	11:41	30.2	8.2	61	78	0.0	1	0.79
2	LJSP Paddy Swim (Water Column)	11:00	29.7	8.1	63	12	0.2	6.3	5.00
11	LJSP Paddy Swim (Sediment Plume)	11:08	30.0	8.1	66	120	2.9	7.4	5.87
10	LJSP_Catawba Swim (Water Column)	10:37	29.5	8.2	70	30	0.0	1	0.79
4	North Fork River (Water Column)	9:53	27.1	8.1	151	35	3.6	28.2	22.38
3	North Fork Cove (Water Column)	9:22	28.5	7.7	67	8	6.5	12.1	9.60
9	North Fork Cove (Sediment Plume)	9:28	28.8	7.7	67	59	56.0	52.7	41.83
5	Greenlee Park (Water Column)	8:08	25.5	7.7	59	122	1.3	66.3	52.62
6	Greenlee Park (Sediment Plume)	8:10	25.6	7.8	59	122	29.3	58.5	46.43
7	Lake Tahoma (Water Column)	8:38	27.1	7.9	37	72	0.1	44.3	35.16
8	Buck Creek (Water Column)	8:51	26.1	7.7	44	122	7.5	204.6	162.38

The above table presents the maximum probable number of E.coli colonies and the percentage of the advisory level for Primary Recreational contact (126 colonies per 100 ml). **That table's color coding represents each of the sampled sites advisory recreational classification:**

- **Green - Primary Recreation contact,**
- **Yellow - Secondary Recreational contact,**
- **Red - Use extra caution or avoid recreational contact.**

Click here to see the Catawba Riverkeeper Foundation Swim Guide.

Hot weather will continue through the holiday weekend, with increasing chances of thunderstorms into next week. These storms may cause changes in water clarity and bacteria levels.

LJEA recommends avoiding recreating in discolored or excessively murky waters.

If you have questions, email: info@ljea.org

LJEA Science Note: 20260625 E.coli Testing

Water samples were collected on Thursday 25 June and tested for E.coli at the following locations:

- Paddy Creek and Catawba Swim Areas in Lake James State Park
- Catawba River at Greenlee Park
- North Fork of the Catawba River above the Lake
- North Fork Cove in Lake James below the mouth of the North Fork of the Catawba
- Linville Boat Ramp
- Lake Tahoma
- Buck Creek upstream of Lake Tahoma

Lake James Environmental Association – 20260625 Bacteria Sampling Results

Bottle #	Site	Sample Time	Water Temp °C	pH	Conductivity (µs/cm)	Secchi depth (cm)	*Lab Turbidity (NTU)*	*E coli* Lab Results (mpn/100ml)	Percent of Guidance Values
1	Linville Boat Ramp (Water Column)	11:39	27.1	8.0	59	122	0.0	0	0.00
2	LJSP Paddy Swim (Water Column)	10:57	26.8	8.1	63	122	0.0	0	0.00
11	LJSP Paddy Swim (Sediment Plume)	11:02	27.5	8.0	63	65	0.3	5.2	4.13
10	LJSP_Catawba Swim (Water Column)	10:33	26.5	7.9	71	122	0.0	0	0.00
4	North Fork River (Water Column)	9:40	22.6	7.9	76	49	2.3	17.3	13.73
3	North Fork Cove (Water Column)	9:09	23.9	7.7	66	30	6.5	16	12.70
9	North Fork Cove (Sediment Plume)	9:15	23.9	7.7	66	5	293.0	304.4	241.59
5	Greenlee Park (Water Column)	7:47	20.6	7.6	62	122	0.0	44.1	35.00
6	Greenlee Park (Sediment Plume)	7:54	20.9	7.8	62	38	26.3	55.6	44.13
7	Lake Tahoma (Water Column)	8:23	23.3	7.7	41	89	0.4	2	1.59
8	Buck Creek (Water Column)	8:33	22.3	7.6	41	40	4.7	7.5	5.95

The above table presents the maximum probable number of E.coli colonies and the percentage of the advisory level for Primary Recreational contact (126 colonies per 100 ml). **That table's color coding represents each of the sampled sites advisory recreational classification:**

- **Green - Primary Recreation contact,**
- **Yellow - Secondary Recreational contact,**
- **Red - Use extra caution or avoid recreational contact.**

Click here to see the Catawba Riverkeeper Foundation Swim Guide.

Hot weather and scattered thunderstorms next week may change conditions. Rainfall can increase turbidity in streams and coves, and the risk of elevated bacteria level rises. Use caution when swimming or wading in cloudy or muddy water. Be sure to keep open wounds covered, avoid swallowing water, and wash your hands afterward.

LJEA recommends avoiding recreating in discolored or excessively murky waters.

If you have questions, email: info@ljea.org

LJEA Science Note: 20260618 E.coli Testing

LJEA collected water samples on June 17 and 18 at our regular monitoring sites around Lake James and its tributaries. Conditions for sampling were typical, with no notable weather events.

Samples collected at:

- Paddy Creek (water column only) and Catawba Swim Areas in Lake James State Park
- Catawba River at Greenlee Park (sediment plume only)
- North Fork of the Catawba River above the Lake
- North Fork Cove (water column only) in Lake James below the mouth of the North Fork of the Catawba
- Linville Boat Ramp
- Lake Tahoma
- Buck Creek upstream of Lake Tahoma

Note: We were unable to collect the Greenlee Park water column sample, North Fork Cove sediment plume sample, and the Paddy Creek sediment plume sample this week.

Lake James Environmental Association – 20260618-19 Bacteria Sampling Results

Bottle #	Site	Sample Time	Water Temp °C	pH	Conductivity (µs/cm)	Secchi depth (cm)	*Lab Turbidity (NTU)*	*E coli* Lab Results (mpn/100ml)	Percent of Guidance Values
1	Linville Boat Ramp (Water Column)						0.0	3.1	2.46
2	LJSP Paddy Swim (Water Column)						0.3	3.1	2.46
-	LJSP Paddy Swim (Sediment Plume)								
9	LJSP_Catawba Swim (Water Column)	9:33	26.7	8.1	71	122	0.0	0	0.00
4	North Fork River (Water Column)						6.4	6.3	5.00
3	North Fork Cove (Water Column)						1.6	77.1	61.19
-	North Fork Cove (Sediment Plume)								
-	Greenlee Park (Water Column)								
6	Greenlee Park (Sediment Plume)	8:00	22.6	7.4	69	23	23.4	73.8	58.57
7	Lake Tahoma (Water Column)	8:35	24.7	7.6	37	64	0.6	4.1	3.25
8	Buck Creek (Water Column)	8:46	24.6	7.5	38	47	2.7	22.8	18.10

Note that the above table presents the maximum probable number of E.coli colonies and the percentage of the advisory level for Primary Recreational contact (126 colonies per 100 ml). **That table's color coding represents each of the sampled sites advisory recreational classification:**

- **Green - Primary Recreation contact,**
- **Yellow - Secondary Recreational contact,**
- **Red - Use extra caution or avoid recreational contact.**

Site samples showed E. coli levels within the range for primary recreation.

Click here to see the Catawba Riverkeeper Foundation Swim Guide.

LJEA recommends avoiding recreating in discolored or excessively murky waters.

If you have questions, email: info@ljea.org

LJEA Science Note: 20260612 E.coli Testing

It's another good weekend to go swimming and wading. All our testing sites, with the exception of Greenlee Park, passed the test for primary water recreation. Water samples were collected on Thursday 11 June and tested for E.coli at the following locations:

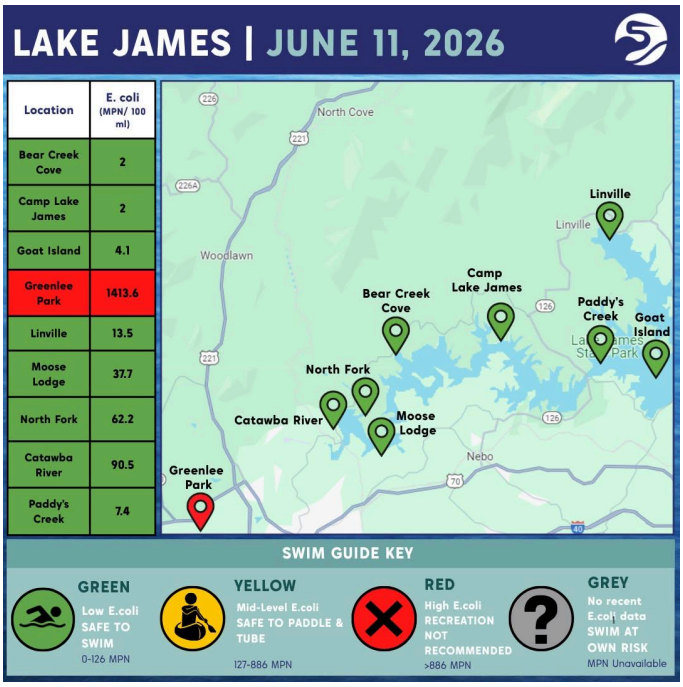
- Paddy Creek and Catawba Swim Areas in Lake James State Park
- Catawba River at Greenlee Park
- North Fork of the Catawba River above the Lake
- North Fork Cove in Lake James below the mouth of the North Fork of the Catawba
- Linville Boat Ramp
- Lake Tahoma
- Buck Creek upstream of Lake Tahoma

Lake James Environmental Association – 20260611 Bacteria Sampling Results

Bottle #	Site	Sample Time	Water Temp °C	pH	Conductivity (µs/cm)	Secchi depth (cm)	*Lab Turbidity (NTU)*	*E coli* Lab Results (mpn/100ml)	Percent of Guidance Values
1	Linville Boat Ramp (Water Column)	12:00	29.8	8.4	24	115	0.3	13.5	10.71
2	LJSP Paddy Swim (Water Column)	11:31	30.1	8.3	25	115	0.2	7.4	5.87
7	LJSP Paddy Swim (Sediment Plume)	11:40	29.5	8.4	26	58	9.1	4.1	3.25
3	LJSP_Catawba Swim (Water Column)	11:02	29.0	8.5	30	115	0.0	0	0.00
4	North Fork River (Water Column)	10:15	29.1	8.6	48	97	0.3	62.2	49.37
12	North Fork Cove (Water Column)	9:55	27.6	7.8	26	46	8.8	90.5	71.83
8	North Fork Cove (Sediment Plume)	10:00	28.5	7.8	25	27	23.5	1413.6	1121.90
5	Greenlee Park (Water Column)	9:15	23.1	8.1	24	22	24.1	1413.6	1121.90
9	Greenlee Park (Sediment Plume)	9:25	23.5	8.1	23	13	48.5	1986.3	1576.43
10	Lake Tahoma (Water Column)	8:50	25.7	8.2	15	87	1.9	17.3	13.73
11	Buck Creek (Water Column)	8:25	23.5	9.2	19	53	3.6	93.3	74.05

The above table presents the maximum probable number of E.coli colonies and the percentage of the advisory level for Primary Recreational contact (126 colonies per 100 ml). **That table's color coding represents each of the sampled sites advisory recreational classification:**

- **Green - Primary Recreation contact,**
- **Yellow - Secondary Recreational contact,**
- **Red - Use extra caution or avoid recreational contact.**



Keep in mind that recent, perhaps very localized, rain since Thursday may have changed conditions, particularly at the stream sites.

LJEA recommends avoiding recreating in discolored or excessively murky waters.

If you have questions, email: info@ljea.org

LJEA Science Note: 20260605 E.coli Testing

It's a good weekend to go swimming and wading in Lake James and Lake Tahoma, the Catawba River and its North Fork, and in Buck Creek. Every site passed the test for primary water recreation. Water samples were collected on Thursday 4 June and tested for E.coli at the following locations:

- Paddy Creek and Catawba Swim Areas in Lake James State Park
- Catawba River at Greenlee Park
- North Fork of the Catawba River above the Lake
- North Fork Cove in Lake James below the mouth of the North Fork of the Catawba
- Linville Boat Ramp
- Lake Tahoma
- Buck Creek upstream of Lake Tahoma

Lake James Environmental Association – 20260604 Bacteria Sampling Results

Bottle #	Site	Sample Time	Water Temp °C	pH	Conductivity (µs/cm)	Secchi depth (cm)	*Lab Turbidity (NTU)*	*E coli* Lab Results (mpn/100ml)	Percent of Guidance Values
1	Linville Boat Ramp (Water Column)	7:45	22.1	7.6	63	122	0	4.1	3.25
2	LJSP Paddy Swim (Water Column)	8:20	22.3	7.7	62	122	0	1	0.79
6	LJSP_Catawba Swim (Water Column)	8:54	22.8	7.7	70	122	0	0	0.00
4	North Fork River (Water Column)	11:17	20.6	7.7	129	122	0.33	18.5	14.68
3	North Fork Cove (Water Column)	10:50	23.0	7.5	60	31	2.97	17.3	13.73
10	North Fork Cove (Sediment Plume)	10:50	22.3	7.5	57	17	14.83	98.5	78.17
5	Greenlee Park (Water Column)	10:09	19.0	7.3	58	122	0.48	42	33.33
9	Greenlee Park (Sediment Plume)	10:09	19.1	7.4	52	11	99	233.3	185.16
7	Lake Tahoma (Water Column)	9:33	21.5	7.4	36	83	1.96	5.5	4.37
8	Buck Creek (Water Column)	9:49	20.0	7.3	37	35	8.81	19.9	15.79

The yellow in the table is from a sample taken after we disturbed the sediment as part of LJEA's on-going water quality research.

Note that the above table presents the maximum probable number of E.coli colonies and the percentage of the advisory level for Primary Recreational contact (126 colonies per 100 ml). **That table's color coding represents each of the sampled sites advisory recreational classification:**

- **Green - Primary Recreation contact,**
- **Yellow - Secondary Recreational contact,**
- **Red - Use extra caution or avoid recreational contact.**

Click here to see the Catawba Riverkeeper Foundation Swim Guide.

LJEA recommends avoiding recreating in discolored or excessively murky waters.

If you have questions, email: info@ljea.org

LJEA Science Note: 20260529 E.coli Testing

Water samples were collected on Thursday 28 May and tested for E.coli at the following locations:

- Paddy Creek and Catawba Swim Areas in Lake James State Park
- Catawba River at Greenlee Park
- North Fork of the Catawba River above the Lake
- North Fork Cove in Lake James below the mouth of the North Fork of the Catawba
- Linville Boat Ramp
- Lake Tahoma
- Buck Creek upstream of Lake Tahoma

Lake James Environmental Association – 20260528 Bacteria Sampling Results

Bottle #	Site	Sample Time	Water Temp °C	pH	Conductivity (µs/cm)	Secchi depth (cm)	*Lab Turbidity (NTU)*	*E coli* Lab Results (mpn/100ml)	Percent of Guidance Values
1	Linville Boat Ramp (Water Column)	11:30	25.3	7.5	59	122	0	1	0.79
2	LJSP Paddy Swim (Water Column)	11:02	25.3	7.5	63	122	0	93.4	74.13
3	LJSP_Catawba Swim (Water Column)	10:34	23.2	7.2	67	122	0.42	6.3	5.00
4	North Fork River (Water Column)	8:54	19.6	7.2	85	32	10.55	2419.6	1920.32
5	North Fork Cove (Water Column)	8:22	20.9	7	45	14	24.71	1986.3	1576.43
6	North Fork Cove (Sediment Plume)	8:22	20.9	7.2	48	7	22.13	2419.6	1920.32
7	Greenlee Park (Water Column)	7:36	19.9	7.2	47	48	5.53	866.4	687.62
8	Greenlee Park (Sediment Plume)	7:36	19.9	7.1	48	4	197	1119.9	888.81
9	Lake Tahoma (Water Column)	9:40	22.8	7.4	31	122	0.21	35.9	28.49
10	Buck Creek (Water Column)	9:55	23.7	5.4	8	60	6.5	579.4	459.84

Note that the above table presents the maximum probable number of E.coli colonies and the percentage of the advisory level for Primary Recreational contact (126 colonies per 100 ml). **That table's color coding represents each of the sampled sites advisory recreational classification:**

- **Green - Primary Recreation contact,**
- **Yellow - Secondary Recreational contact,**
- **Red - Use extra caution or avoid recreational contact.**

Click here to see the Catawba Riverkeeper Foundation Swim Guide.

LJEA recommends avoiding recreating in discolored or excessively murky waters.

If you have questions, email: info@ljea.org

LJEA Science Note: 20260522 E.coli Testing

Water samples were collected on Thursday 21 May and tested for E.coli at the following locations:

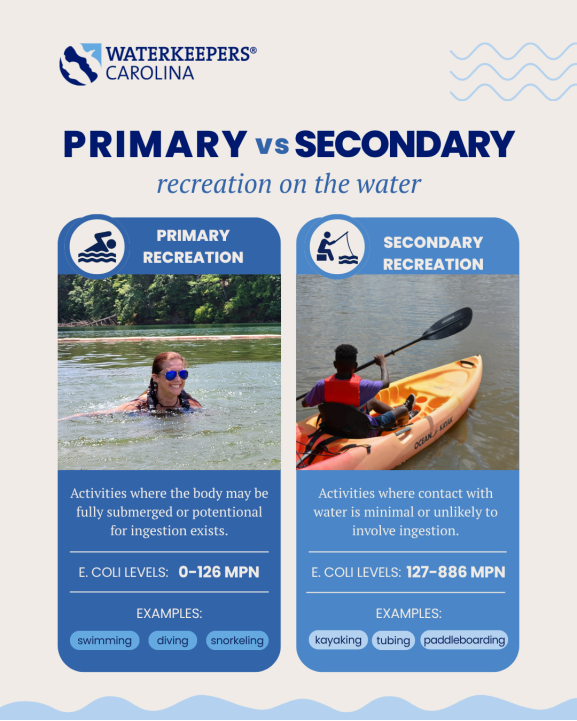
- Paddy Creek and Catawba Swim Areas in Lake James State Park
- Catawba River at Greenlee Park
- North Fork of the Catawba River above the Lake
- North Fork Cove in Lake James below the mouth of the North Fork of the Catawba
- Black Bear Boat Ramp
- Linville Boat Ramp

Lake James Environmental Association – 20260521 Bacteria Sampling Results

Bottle #	Site	Sample Time	Water Temp °C	pH	Conductivity (µs/cm)	Secchi depth (cm)	*Lab Turbidity (NTU)*	*E coli* Lab Results (mpn/100ml)	Percent of Guidance Values
1	Linville Boat Ramp (Water Column)	8:09	24.7	7.5	60	122	0.36	0	0.00
2	LJSP Paddy Swim (Water Column)	8:45	24.1	7.5	66	122	0.14	52	41.27
3	LJSP Paddy Swim (Sediment Plume)	8:45	24.1	7.7	66	82	0.71	37.9	30.08
4	LJSP_Catawba Swim (Water Column)	9:12	24.0	7.8	70	122	0.09	1	0.79
5	LJSP_Catawba Swim (Sediment Plume)	9:17	24.0	8	70	45	6.82	1	0.79
11	Black Bear Boat Ramp (Water Column)	11:10	24.8	7.7	80	105	0.24	6.3	5.00
10	North Fork River (Water Column)	10:56	23.2	7.6	156	101	0.53	57.6	45.71
8	North Fork Cove (Water Column)	10:37	24.1	7.4	66	36	2.58	7.5	5.95
9	North Fork Cove (Sediment Plume)	10:37	24.4	7.5	73	5	227	55.1	43.73
6	Greenlee Park (Water)	10:02	22.9	7.5	61	60	0.24	35	27.78
7	Greenlee Park (Sediment Plume)	10:02	22.9	7.5	61	24	2.96	52.9	41.98

Note that the above table presents the maximum probable number of E.coli colonies and the percentage of the advisory level for Primary Recreational contact (126 colonies per 100 ml). **That table's color coding represents each of the sampled sites advisory recreational classification:**

- **Green - Primary Recreation contact,**
- **Yellow - Secondary Recreational contact,**
- **Red - Avoid recreational contact.**



The rainfall since Thursday has increased the turbidity of some of our streams and lakes. When rainfall causes our streams to become muddy, the risk of high levels of bacteria increases. Always use caution when swimming, wading, or snorkeling in muddy water: Cover any open wounds with a water-resistant bandage, don't swallow the water, wash your hands immediately afterwards and before eating, and shower as soon as practical.

LJEA recommends avoiding recreating in discolored or excessively murky waters.

If you have questions, email: info@ljea.org

2025 LJEA Science and Water Quality Notes

LJEA Science Note: 20250717 E.coli Testing
Water samples were collected and tested for E.coli at the following locations:

- Paddy Creek and Catawba Swim Area in Lake James State Park
- Paddy Creek at two areas upstream of the Lake
- Catawba River at Greenlee Park
- North Fork of the Catawba River above the Lake
- North Fork Cove
- Linville Boat Ramp
- Buck Creek above Lake Tahoma

None of these sites had E.coli levels above the EPA Advisory levels.
The Greenlee Park sample was just below the Advisory Level and a sample taken at Greenlee Park after disturbing the river sediment had E.coli concentrations well above the Advisory level.

LJEA Science Note: 20250710 E.coli Testing
E.coli concentrations below the EPA Advisory level were present at the State Park Catawba Swim Area, Linville Boat Ramp, and North Fork Cove. All other sites that LJEA sampled had E.coli levels above the Advisory value. You can see the test results here: Click here

LJEA Science Note: 20250626 E.coli Testing
On Thursday, LJEA collected water samples at six locations on Lake James and its tributaries and tested for E.coli concentrations. All the lake sites had E.coli levels well below the EPA Advisory level. The highest concentration in the lake water was observed at the Paddy Creek swim area where the concentration was less than 35% of the advisory level. The second highest level was in the North Fork Cove, but it was less than 22% of the advisory level. Concentrations were well above the advisory level in the streams: North Fork of the Catawba and the Catawba River at Greenlee Park. When the sediment was disturbed and water samples taken at both North Fork Cove and Greenlee Park, there was a significant increase in the E.coli concentrations, both being well above the advisory level.

LJEA Science Note: 20250619 E.coli Testing
On Thursday, LJEA collected water samples at six locations on Lake James and its tributaries and tested for E.coli concentrations. Lake James Catawba Swim Area and the Linville Boat Ramp) had E.coli levels well below (less than 10%) the EPA Advisory level. All other sites had concentrations significantly above the EPA Advisory level. Specifically, elevated E.coli levels existed at:

- Lake James State Park Paddy Creek Swim Area
- North Fork Catawba River above Lake James
- North Fork Cove, and
- Catawba River at Greenlee Park

Always use caution when swimming, wading, or snorkeling in muddy water: Cover any open wounds with a water-resistant bandage, don't swallow the water, wash your hands immediately afterwards and before eating, and shower as soon as practical.

LJEA Science Note: 20250612 E.coli Testing

On Thursday 12 June, LJEA obtained water samples from five locations on Lake James, including both of the Lake James State Park swim areas. All Lake samples were well below the EPA Advisory level, The highest observed value was at the Paddy Creek swim area and was less than 25% of the Advisory level. North Fork Cove was at less than 11% and all other sites were less than 1% of the Advisory level.

Samples also were collected in the North Fork above Lake James (<13%), the Catawba River at Yancey Bridge (<59%) and at Greenlee Park (<41%), at Lake Tahoma (<2%), and Buck Creek above Lake Tahoma (<6%).

Samples taken after disturbing the bottom sediment at North Fork Cove and at Greenlee were higher but still below the EPA Advisory levels. Keep in mind that you should avoid swimming and wading in turbid water and to wash your hands and rinse off in clean water immediately after exiting a stream or lake.

LJEA Science Note: 20250605 E.coli Testing
On Thursday 5 June, LJEA obtained water samples from the following locations in Lake James:

- Lake James State Park Catawba Swim Area,
- Linville Boat Ramp,
- North Fork Cove below the mouth of the North Fork

Water samples taken near the surface at all these locations had E.coli concentrations well below the Advisory level. North Fork Cove had the highest level, still less than 33% of the Advisory level.

Our LJEA intern is performing a study that compares samples taken from the water without and with disturbance of the local sediment. We note that North Fork Cove had E.coli levels over 10 times the Advisory level when the sediment was disturbed. <u>This reinforces the standard advice to avoid swimming and wading in turbid water and to wash your hands and rinse off in clean water immediately after exiting a stream or lake.</u>

Water samples were also collected from the North Fork above Lake James, the Catawba River at Greenlee Park, and Forsyth Creek downstream of Plantation Drive. All three of these sites had E.coli concentrations <u>well above</u> the Advisory level.Samples taken after sediment disturbance were even higher.

LJEA Science Note: 20250529 E.coli Testing
On Thursday 29 May, LJEA obtained water samples from the following locations in Lake James:

- Lake James State Park Catawba Swim Area,
- Linville Boat Ramp,
- North Fork Cove below the mouth of the North Fork, and
- Canal Bridge Boat Ramp

The samples were tested for E.coli concentrations. The Swim Area and Linville Boat Ramp sites had very low levels of E.coli. North Fork Cove had E.coli levels <u>above</u> the EPA Swim Advisory level and the Canal Bridge Boat Ramp had levels at 86% of the advisory level.

Samples also were collected on the tributaries at:

- Linville River upstream of NC Hwy 126,
- Mill Creek at Andrews Geyser,

- Mill Creek in Old Fort,
- Crooked Creek near its confluence with the Catawba River, and
- Catawba River at Greenlee Park.

None of these sites had E.coli levels above the advisory level. The highest, Catawba at Greenlee Park, had E.coli levels at 72% of the advisory level..

LJEA Science Note: 20250525 Stream Habitat Assessments

LJEA has completed 17 Stream Habitat Assessments since Helene. Each assessment assigns a score between 0 and 100. 14 sites were assigned scores below their long-term average from assessments in prior years and 3 sites were assigned slightly higher scores. Examples include scores at:

- Two sites along the North Fork decreased by an average of 61%
- The Catawba River at the Old Fort Ball Park decreased by 17%
- Two sites along Mill Creek decreased by an average of 26%
- Our Curtis Creek site decreased by 18%,
- Forsyth Creek decreased by 31%, and
- The Catawba River at Greenlee Park increased by 3%.

We have received taxonomy reports on the macroinvertebrate community at 5 sites. Bioclassifications assign a value of: Poor, Fair, Fair-Good, Good, or Excellent to a site. The results to date indicate that the Bioclassification of 3 sites decreased by one or more classes from their pre-Helene conditions and 2 sites maintained their previous classification. This note will be updated when we have received more of the taxonomy reports.

LJEA Science Note: 20250521 E.coli Testing

On Wednesday 21 May, LJEA obtained samples from 12 locations in Lake James and its tributaries. All locations in Lake James, with the exception of the lake just below the mouth of the North Fork, had E.coli levels well below EPA's swimming advisory level for single samples. Levels in the Linville River were also very low. The North Fork above its confluence with the Lake had levels well above the advisory value as did the Lake below the mouth of the North Fork. The Catawba River at Greenlee Park also had very high levels of E.coli. The areas having high concentrations of E.coli were sampled again today.

LJEA Science Note: 20250521 Herbicides, Pesticides, and Other Compounds Testing

At five locations in Lake James and its tributaries, LJEA collected a total of 10 samples from the water column and from a disturbed sediment plume. We had them tested for compounds known to be used in the watershed and known to be a potential source of eye, skin, or respiratory irritation. All of the samples were analyzed by the Research Triangle Institute (RTI) and the laboratory's estimated concentrations for the specific compounds of concern was one or more orders of magnitude below one part-per-billion (ppb), well below concentrations that might be of concern of incidental, short-term exposure. We are consulting with RTI about additional compounds found in the water and any further testing they may recommend.

LJEA Science Note: 20250520 Sediment Testing

LJEA volunteers have collected sediment samples from 19 sites around Lake James and its tributaries. The samples were tested for metals concentrations by the Environmental Quality Institute (EQI). None of the samples had concentrations of any metals that would be of concern for human contact or as a source of water pollution. We will be doing some follow-up sampling at the previously tested, and other, locations in the coming week.

LJEA Science Note: 20250515 E.coli Testing
On Thursday, May 15, LJEA obtained samples from 9 locations in Lake James and its tributaries. All locations in Lake James had detected levels less than 12% of an EPA swimming advisory level for single samples.. The Linville river above Lake James had levels less than 8%. The North Fork and Catawba river at both Greenlee Park and Phillips Landing had levels at approximately 50%. Part of our sampling includes disturbing the sediments and obtaining samples from the resulting plume. Both Greenlee Park and Phillips Landing showed significantly higher levels of E.coli in the sediment plume. At Greenlee Park the indicated levels far exceeded the advisory values. At Phillips Landing the indicated levels were almost 87% of the advisory level. Always use caution when swimming, wading, or snorkeling in muddy water: Cover any open wounds with a water-resistant bandage, don't swallow the water, wash your hands immediately afterwards and before eating, and shower as soon as practical.

LJEA Science Note: 20250507 E.coli Testing
On Wednesday, May 7, LJEA obtained samples from 9 locations in Lake James and its tributaries. All locations in Lake James had detected levels less than 2% of the level of concern. The North Fork of the Catawba River above its confluence with the Lake had a detected level of approximately 15% of the level of concern. The Catawba River at Phillips Landing in Marion had a detected level of approximately 25% of the level of concern.

LJEA Science Note: 20250416 Bacteria Testing
On Wednesday, April 16, LJEA's intern Stacy Sundell collected water quality samples at the two swim areas in Lake James State Park and in the Catawba River at Greenlee Park. LJEA is pleased to report that the results at the State Park were very good. The highest concentration of E.coli bacteria detected at the State Park locations was less than 3% of our target level of concern. At Greenlee Park, the detected levels were less than 25% of the level of concern. LJEA will be testing these and other locations across the entire Lake James watershed throughout the summer.

Visit this website to learn more about the risk of E.coli bacteria:
https://www.epa.gov/awma/e-coli-parameter-factsheet