### FAQ – Frequently Asked Questions

This page introduces questions and answers about the Lake Conestee Site and Dam, and the potential consequences of a dam failure. These FAQs are organized by topic.

#### When the Lake Conestee Dam Fails,

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- Topic No 1: What is in Lake Conestee, and how might it impact Lake Greenwood?
- Topic No.2: What about Flooding and Flood Damage?
- Topic No.3: What could happen downstream in the Reedy River, Boyd's Mill Pond, and the Reedy Arm of Lake Greenwood?
- Topic No.4: What is the solution for containing the hazardous contaminants trapped behind the old dam?
- Topic No.5: What might the economic impacts be for communities along the river, around Boyd's Mill Pond, and Lake Greenwood, and the region?
- Topic No.6: What do we know about the "forever chemicals" (PFAS) in Lake Conestee, and the Reedy, and how might they impact the downstream communities?

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# **FAQ** – Frequently Asked Questions

#### When the Lake Conestee Dam Fails,

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Topic No 1:	What is in Lake Conestee, and how might it impact Lake Greenwood?
Q1.1	How much sediment?
Q1.2	How extensive the contamination?
Q1.3	What will happen to contaminants?
<i>Q1.4</i>	What kinds of pollutants?
Q1.5	How toxic are they?
Q1.6	Will these poisons ever become harmless ?
<b>Q1.</b> 7	How do these chemicals move?
Q1.8	What impacts to downstream ecosystems?
Q1.9	Potential for human exposure?
Q1.10	Exposure in what way?
<i>Q1.11</i>	Will water supplies be protected?

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Topic No 1: What is in Lake Conestee, and how might it impact Lake Greenwood?



#### Question 1.1

How much sediment is trapped behind the LC Dam?



#### 3.25 Million cubic yards!

- Enough to fill 230,000 standard dump trucks! OR
- Enough to fill Charlotte Panthers football stadium, to the brim, TWICE!

This is one of several questions related to Topic No.1. See Q1.1-Q1.11.

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#### Question 1.2

How extensive is the contamination in the 3.25M cu.yd. of sediment filling the old lake, and how bad is it?

From the head of the old lake to the dam 1.5 miles downstream, from the deepest, oldest sediments to the recent deposits on top, millions of pounds of contaminants are present in the mud of LC. Unsafe levels of numerous toxins were found in nearly every sample.

This is one of several questions related to Topic No.1. See Q1.1 - Q1.11.

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Question 1.3

What will happen to those contaminated sediments?



Sediment and the toxins in the old lakebed will be eroded by the Reedy River, and mobilized into the river's flow. These contaminants will move steadily downriver for years. Large storm flows will move more pollutants faster.

This is one of several questions related to Topic No.1. See Q1.1-Q1.11.

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#### Question 1.4

What kinds of chemical pollutants are we talking about?

A 'witches brew' of hazardous substances: Heavy Metals, Pesticides, PCBs, and PAHs (Polycyclic Aromatic Hydrocarbons). Also, we've recently confirmed the presence of high levels of PFAS ('forever chemicals') in LC. Many of these compounds are toxic to humans and wildlife.

This is one of several questions related to Topic No.1. See Q1.1 - Q1.11.

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Question 1.5

How toxic are these contaminants?

Science-based human health and ecological protection levels are established for many of these hazardous substances. Many of these toxins are confirmed or suspected carcinogens. Nearly every sediment sample collected exceeds screening levels for numerous hazardous substances.

This is one of several questions related to Topic No.1. See Q1.1-Q1.11.

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Question 1.6

Will these poisons ever break down or become harmless?

Metals like lead, mercury, and cadmium are stable elements. PCBs and many pesticides were outlawed fifty years ago but persist in the environment still. These and other toxins don't readily break down or degrade. Many of these compounds will stay in the

This is one of several questions related to Topic No.1. See Q1.1 - Q1.11.

environment indefinitely.

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Question 1.7

How do these chemicals move?



Most attach to sediment particles. As the sediment and the toxins are disturbed, they are mobilized into moving water. Storms and flooding events stir up more mud and pollutants to be carried downstream in turbid high waters.

This is one of several questions related to Topic No.1. See Q1.1 - Q1.11.

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#### Question 1.8

What would the impacts be to wildlife and the ecology of the river and reservoirs downstream?



Potentially devastating. Many of these chemicals are toxic and persistent, affecting health and reproduction. Some of them become more concentrated in the food chain. Combinations of multiple compounds may have worse effects.

This is one of several questions related to Topic No.1. See Q1.1 - Q1.11.

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Question 1.9

Is there potential for humans to be exposed to these toxins?



YES. Continued assessment and monitoring of contaminant levels in water, sediment, and fish will be required to assure public safety. Educational outreach programs may be appropriate to help protect the public.

This is one of several questions related to Topic No.1. See Q1.1-Q1.11.

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Topic No 1: What is in Lake Conestee, and how might it impact Lake Greenwood?



Question 1.10

What activities might expose humans to these toxins?



Exposure may occur through sediment contact, digging in the mud, eating fish, swimming, drinking untreated water, or use of contaminated water on lawns or gardens.

This is one of several questions related to Topic No.1. See Q1.1-Q1.11.

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Topic No 1: What is in Lake Conestee, and how might it impact Lake Greenwood?



Question 1.11

Will public water supplies be adequately protected?



To be determined. Absolutely pure water with zero levels of contaminants is always hard to attain. Regardless, increased monitoring and testing will be required to verify the safety of drinking water. Improved treatment processes may be necessary.

This is one of several questions related to Topic No.1. See Q1.1 - Q1.11.

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