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FOUNTAIN CITY LAKE: WETLANDS KEY IN BATTLING THICK ALGAE

The City of Knoxville is nearing the completion of a long-term plan to restore the water quality at Fountain City Lake. The last step in a series of infrastructure improvements – adding two wetlands – is being wrapped up this month by a contractor crew.

Here are answers to some Frequently Asked Questions about the City's Fountain City Lake improvements.

Why are the wetlands needed?

For years, thick algae has overwhelmed the lake. The City's aim has been to repair the lake's infrastructure, so that the spring-fed ecosystem can be healthier and regain its long-term balance.

The wetlands plants will be attractive, but their main purposes will be to enhance the lake's water quality and discourage algae growth.

The wetlands do that two ways.

First, the wetlands create better water circulation in Fountain City Lake. That's because the most shallow, stagnant areas – spots that had been conducive to the formation of the worst of the algae – have been converted into the wetlands wildlife habitat.

Second, the wetlands plants themselves absorb nutrients (much of it from duck feces) that otherwise would promote the growth of algae.

So not only are algae-producing conditions reduced, but the water-loving vegetation that's being planted will further discourage stubborn algae from forming.

What plants are in the wetlands beds, and what will they look like once the plants mature?

The wetlands include cardinal flower, blue flag iris, buttonbush, soft rush and wintergreen.

“These wetlands plantings were selected because they’ll do well and require little maintenance,” said David McGinley, Stormwater Engineering Manager. “They’ll grow to between 2 and 4 feet tall. These will be controlled wetlands – not jungle, but not manicured.”

Once the plantings are completed, the spring-fed lake will refill and saturate the new beds. The wetlands plants are fast-growing and should begin filling out the newly planted beds by this summer.

What previous steps did the City take?

The City’s \$750,000 lake restoration project started in fall 2014.

The first major step was repairing a leak in the lake's earthen berm. That allowed managers to control the water levels in the lake and allow it to fill to its proper depth.

Next, crews repaired the fountain and pump house. This improved circulation and aerated the water.

Then, late last fall, the wetlands contractor, Ronald Franks Construction Co., finished building the gabion baskets – mesh structures that were filled with more stones, lined and topped with soil.

The baskets allowed the wetlands beds to be built with sharp vertical drops at their edges, rather than gradual slopes. (Remember, the wetlands were built in the first place to eliminate shallow stagnant areas that were conducive to algae growth. So maintaining deep water levels around the edges of the wetlands is consistent with the plan and its emphasis on deeper, cooler water that circulates well.)

The contractor also removed more muck (contributed to by the feces from overabundant ducks) from the lake's bottom.

Once the plant material became available in late February, subcontractor Landscape Services Inc. initiated the plantings. The last plants to go in will be buttonbush.

“Restoring Fountain City Lake to better health and beauty has required persistent effort and a lot of patience,” Mayor Madeline Rogero said last week. “But we knew from the beginning it would take time to correct problems that were decades in the making.”

What comes next? How can I help?

Fountain City Lake is not owned or managed by the City, but it's clearly a beloved, iconic public space. The City's Communications Department reports that it has received more inquiries about the restoration project than about any other single City program or project in recent years. Mayor Rogero proposed funding for the improvements, and City Council has repeatedly supported the project.

The City's aim was to invest in infrastructure and rectify the lake's algae, muck and circulation problems so that community partners can maintain the lake going forward.

The immediate next step will be easy – and pleasant. Families visiting the lake can simply enjoy watching the wetlands flourish as the plants grow and fill in.

Going forward, we ask visitors to please only feed the ducks, geese and fish the appropriate food that's available at a lakeside feeding station.

That will help safeguard the water quality, because overabundant waterfowl being fed bread and pet food has always been a main culprit in the algae formation. Plus, feeding the ducks the right food is better for their health. “People food” and dog and cat food leads to duck obesity and brittle bones.

The Fountain City Lions Club has been maintaining the park and lake since the 1950s. For a little background, read this column, submitted to the Knoxville News Sentinel last fall by members of the Lions Club board: <http://bit.ly/2tinpEI>

The Lions Club welcomes donations and community support in further enhancing Fountain City Lake and park. Interested in helping? Visit <http://fountaincitylions.org/>. There's a tab on the website where you can make a donation, and the club officers and their phone numbers are listed if you have suggestions or would like to volunteer.