

Lake Cook Stormwater Retrofit Project

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Problem:

Lake Cook was constructed in the 1970s as a fishing pond. The site is limited in open space as it is bounded by railroad tracks to the north, the Great Waves Waterpark to the west, and a townhouse development to the east. Visitors had to forge their own trails around the lake in order to fish thereby creating erosion and public safety concerns.

Solution:

Following a pond feasibility study in 2012, the City of Alexandria prioritized water quality improvements and additional public amenities at Lake Cook. A sediment forebay and upflow filter were installed to remove pollutants and more than 2,500 native plants were also planted at the site. There is now an expanded fishing pier, permeable lakeside path, a pedestrian bridge and public art by a local artist is featured at the site.

Community Engagement: Before and during construction, the City met with stakeholders including community naturalists, fishermen, and residents of neighboring properties to maintain communication and get design feedback. Educational signs were added to inform the community about stormwater pollution, water quality, native plants, and the wildlife around the pond. This location is highly valued as one of the few urban fishing locations in Northern Virginia, so these signs help to increase public awareness and appreciation of the City's natural resources.



Before: Eroded makeshift fishing access area



After: Sediment forebay on the right and the pond on the left

Photo Credit: City of Alexandria

Key Project Facts

Project Location: Alexandria, VA

Type of Project: Other — Pond Retrofit

Size: 5.32 acres

Pollutants Removed per year: 1,610 lbs. nitrogen; 167 lbs. phosphorous; 134,140 lbs. sediment

Total Cost: \$4,855,000

Funding Sources: City of Alexandria; Virginia Department of Environmental Quality

Partners: Virginia Department of Games and Inland Fisheries; Northern Virginia Regional Park Authority

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What is Polluted Runoff?

The growth of our cities has resulted in too many paved surfaces, which prevent rain water from being absorbed by the ground. Instead, the water runs off streets and buildings, collecting trash and dangerous chemicals on its way. This contaminated water overflows into our streams and rivers, creating public health hazards and toxic waters.

Stormwater projects create safe paths for polluted runoff to be captured and filtered before it reaches our waterways. Projects like these keep communities healthy and the environment clean.

When communities and their local governments work together to solve big problems like stormwater runoff, that's a story worth telling!