



Stormwater Success Story: Keeping the Storm Drains Clean

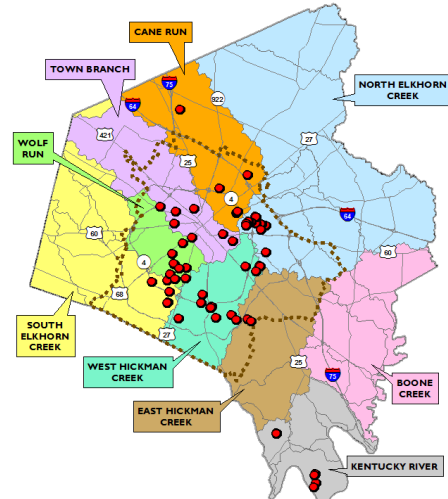
Flooding is a serious matter. Not only do floods pose a public health hazard, but they can damage homes, businesses, personal property, and wildlife habitat. Flooding can occur when trash, sediment, or debris accumulates in culverts and ditches, and blocks the flow of stormwater from passing safely downstream. LFUCG's Storm Crew prevents flooding by inspecting and cleaning culverts around the city when the rain comes – and it has come a lot this year!

LFUCG maintains a list of areas where frequent maintenance is required to prevent flooding caused by clogged drains. Currently, about 50 "critical" culverts are inspected on a monthly basis and whenever an inch or more of rain falls in a day. On average, the city has about 11 such storms each year.

The inspectors are never quite sure about what they will encounter from day to day. "Once we had to use a boat to get to the grates and unclog them," says the crew's supervisor, Anthony Owens, describing the flooding around the detention basin off of Burkewood Drive in eastern Lexington. Sediment, branches, and leaves are the most common debris that accumulates, with plastic bottles and aluminum cans also common. However, the stormwater can wash in some interesting material. "Mattresses, tires, a baby pool, bicycles, shopping carts, basketball goals, pallets – even dead animals," recounts Owens. During one storm, a pile of logs were removed from a drain pipe after a resident cut down a tree before the storm and left the wood too close to the stream. If there is something you have seen washed away by stormwater, odds are they have removed it at some point from the culverts and pipes.

Many of these culverts require maintenance after almost every inspection. The debris that accumulates can really add up – often enough to fill over 7 pickup truck beds. While some of these sites can be cleaned by vacuuming out the debris using a Vactor truck or scooping it out with a backhoe, many have to be cleaned by hand due to accessibility restrictions.

The Lexington Cemetery is one site that must routinely be cleaned by hand. Three trash screens installed along the drainage way capture debris from stormwater that runs off of nearby roads and the surrounding area. About a pickup truck full of debris is removed after most visits. These efforts help maintain the beauty and peacefulness in this memorial garden.



"Critical" culvert locations routinely inspected and cleaned by LFUCG to reduce flooding.



A backhoe is used to remove debris at the Parkside Cave stormwater grate (top). However when some sites get clogged, such as the trash screens at Lexington Cemetery (middle), the Storm Crew must remove the debris using hand tools to allow the water to drain (bottom).



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Storm crew supervisor Anthony Owens removes debris by hand from a clogged inlet at Idlehour Park that machinery cannot access (top). One to two pickup trucks worth of debris (bottom) are routinely removed from several culvert locations.

Some locations, such as the baffle box unit installed in Green Acres Park, have been designed by engineers to catch and remove excess trash and debris from the system but to allow the stormwater to bypass the unit when full so flooding does not occur. The routine maintenance by the storm crews helps minimize potential downstream clogs by collecting as much trash as possible.

In other areas, such as the inlet in Idlehour Park, flooding occurs if the Storm Crew does not remove obstructions as they occur. Because of the importance of this maintenance, the Storm Crew often cleans the culverts on the same day as the inspection but sometimes it may take up to a week. In some cases, this entails the crew filling multiple garbage cans full of debris and hauling them out with a rope to a nearby pickup truck.

These inspection and cleanup efforts are just one piece of LFUCG's robust program to address flooding and water quality around the city. Significant investments are being made to improve areas where the stormwater infrastructure is inadequate. An improved system for prioritizing flooding problem areas has been developed,

with more than \$10 million already spent to address some of the worst areas. LFUCG has committed to spend a total of \$30 million to fix flooding problems as a supplemental environmental project to the Consent Decree. LFUCG also conducts street sweeping, litter cleanup events, and other activities that help reduce flooding in selected areas.

If you would like more information about these efforts, please call LexCall by dialing 311 or (859) 425-CALL.