



# Phase II Storm Water Program

Fall 2022

## Landfills and Stormwater

Landfills have been a topic of concern for many years. The treatment of stormwater and groundwater from landfills can be an expensive and time intensive processes. This runoff water likely has metals, radionuclides, and organic substances that can all be toxic to the environment. So the question arises, “How should we address landfill water runoff?” There is no “one size fits all” answer, however, there is research showing several cost effective, environmentally friendly options. For instance, Pennanen et. al showed that compost can neutralize the pH and adsorb trace concentrations of metallic ions from stormwater (2). The City of Phenix City treats landfill runoff using a long drainage ditch lined with rock and vegetation (**Figure 2**). This ditch empties into a stormwater retention pond (**Figure 1**) that settles out any remaining particles. The pond then outfalls into a stream.



Figure 1. Phenix City C/D Landfill Pond

### How can you help prevent environmental contamination from landfill runoff?

- Dispose of your waste properly.
- All hazardous materials must be disposed of at specific hazardous waste stations. If you are not sure whether or not your local landfills accept hazardous wastes, call them to find out.
- All electronics must be landfilled properly. The City of Phenix City recycles these materials through a third party.
- All household garbage must be disposed of in a

solid waste landfill specifically for these items. The City of Phenix City only maintains a construction and demolition landfill, which accepts most construction debris, limbs, etc. GFL Environmental has a solid waste landfill specifically for household trash within the Phenix City limits.



Figure 2. Landfill ditch