

Greater Lawrence Sanitary District Biofilter Media Replacement Project 2023

On October 14th, 2022, sealed bids were opened for the rehabilitation of the Greater Lawrence Sanitary District Biofilter. The project involved removing, disposing, and replacing the existing biofilter media and crushed stone of the underdrain system. Additionally, 60 biofilter leachate pipes were replaced, and two new cleanouts were installed in the odor control piping system. The Biofilter was upgraded with a long-lasting media made of gravel, sand, and soil blend, rather than the conventional woodchip mixed media. The substantial completion of the project was achieved on August 8, 2023.

The District (GLSD) has two biological filters (biofilters) used to treat and remove odors from various areas in the plant. One filter is a stacked tower that uses plastic media. The other uses a combination of gravel, sand, and soil as media. A biofilter is not a traditional filter and does not function like a particulate filter. In the case of GLSD, odorous air is blown through the media. The media provides a habitat for microorganisms and bacteria to grow on. The bacteria produce a biofilm. The odor compounds are adsorbed on the surface of the media by the biofilm, and the odorous compounds are broken down.

