

COLLINS PARK IMPROVEMENTS QUARTERLY UPDATE

Contractor Named for Ozone Treatment Facility Design

The City recently awarded a contract for design of the new ozone treatment facilities to Black & Veatch. Ozone will be used during the filtration process to further protect the City's drinking water supply from the effects of harmful algal blooms (HABs). Ozone is a natural oxidant gas composed of three oxygen molecules. The addition of ozone is considered a best practice in water treatment as it is more effective in removing fungi, bacteria and viruses and is viewed as an ecologically sound option as ozone quickly breaks down into oxygen. Work on the design phase is expected to be complete in February 2018.

Biologically Active Filter Research Underway

Partnering with the Ohio EPA and The University of Toledo, chemists and microbiologists at the Collins Park Water Treatment Plant are evaluating the use of biologically active filters as a treatment method for raw water. In recent years, the composition of source water has changed and contains more natural organic matter that needs to be filtered out. Frequently used in systems that use ozone, biologically active filters help in removing trace organic contaminants and provide taste and odor control. This study will help to optimize biofiltration and lay the groundwork for remaining a sustainable and reliable treatment method to meet current and future EPA standards.

| Current Construction Progress | | | |
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| HEATHERDOWNS Pump station | NEW SUPERVISORY CONTROL And data acquisition (Scada) system | LOW SERVICE Pump station | COLLINS PARK Electrical upgrade |
| 99% WORK COMPLETE \$2.3 MILLION | 90% WORK COMPLETE \$6.7 MILLION | 75% WORK COMPLETE \$25.9 MILLION | 0% WORK COMPLETE \$17.4 MILLION |
| UNDERWAY » Start-up of new pump drives » SCADA interface with Collins Park » Final punch list | UNDERWAY Telemetry interface with remote pump stations Main control room commissioning Low Service pump control integration | UNDERWAY Commissioning new pump Number 1 Commissioning standby generators Door and window replacements | UNDERWAY Contractor mobilization Security fence relocation First Energy substation coordination |

