

West Park Improvements Complete

Collaboration by Metro Water Services (MWS) and Metro Parks for improvements at West Park created a premier park in one of Nashville's most transformative neighborhoods while earning national recognition as a sustainable infrastructure project.

IN ADDITION TO NEW PARK RECREATION FEATURES AND IMPROVEMENTS TO WET-WEATHER AND WASTEWATER SYSTEMS, more than 200 trees were added to the site, and landscape features were designed to capture stormwater runoff. With so many sustainable features incorporated into the design and construction, the Clean Water Nashville project earned the Envision Platinum Award from the Institute for Sustainable Infrastructure.

Last fall, the park reopened to the public for recreational use with a celebration headlined by Metro Nashville Mayor David Briley, Councilwoman Mary Carolyn Roberts, and officials from Metro Parks and MWS. Enhancements to West Park include new recreational amenities as well as wastewater system infrastructure updates that improve water quality in Richland Creek.

"I want to thank the Parks and Water Services departments for turning West Park into a dynamic and more inviting park for the Nations community. I hope neighbors will embrace this beautiful green space and enjoy all the benefits of nature, open space, and recreation that it offers," said Mayor Briley.

The completed project delivers numerous new features and options for parks users, including a new softball field, which was dedicated to the memory of Luis Cisneros, a victim of child abuse who never got to experience playing ball in the park. Additional improvements include a basketball court, playground, and picnic pavilion. A new trail built for walkers, runners, and bikers will be connected in the future to the local greenway system.



Mayor David Briley, District 20 representative Mary Carolyn Roberts, Metro Parks Director Monique Odom and Clean Water Nashville Overflow Abatement Program Director Ron Taylor were among the many celebrating the reopening of West Park.

"Expanding the diversity of recreational features and increasing the day and night use options will attract more park users," said Metro Parks Director Monique Odom. "Our goal for these enhancements is to provide an improved quality of life for existing and future residents while providing park facilities that foster a fun, active, and more livable neighborhood."

The park improvements were conducted along with an expansion of the West Park Equalization Facility. The facility now consists of a pump station, two storage tanks, and associated piping. That is in addition to the West Park Pumping Station that sends flow to the wastewater treatment

plant. As part of this expansion project, a circular, 260-foot diameter, 21-million-gallon wet weather storage tank was constructed. The new storage tank, which includes a mural by artist Eric Henn, will be used when sewer flows exceed the capacity of the existing West Park Pump Station. The tank stores excess wastewater until the flows in the sewer system recede and the stored volume can be sent through the pump station to treatment (see graphic). The expanded storage capacity reduces sanitary sewer overflows into Richland Creek.

“Updating our wastewater infrastructure system is a smart investment in Nashville’s future,” said MWS Director Scott Potter. “The ongoing improvements that we make, like these at West Park, will improve water quality in the Cumberland River and Davidson County’s extensive network of neighborhood creeks, streams, and tributaries.”



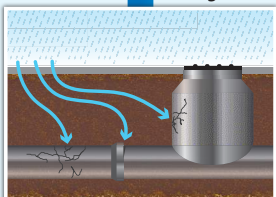
The mural on the new tank mimics the sky and surrounding landscape. It took over 5,000 gallons of paint to accomplish this.

How the West Park Equalization Facility Works



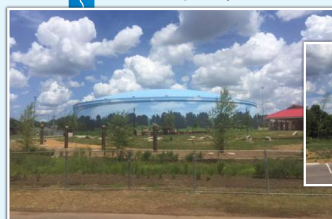
Wastewater flow from residences and businesses

Rain and groundwater may enter through sanitary sewer defects



West Park Pump Station

Stored flows are returned to system for treatment when capacity is available



West Park Equalization/Storage

Flows up to treatment capacity

Flows in excess of treatment capacity



Whites Creek Treatment Plant

The completed **West Park Equalization Facility** provides temporary storage when wastewater flows exceed the sanitary sewer system’s transport and treatment capacity. This occurs during large storm events when rain and groundwater enter the sewer system through defects. The expanded facility stores excess flows until treatment capacity is available, thus reducing sanitary sewer overflows into Richland Creek and improving its water quality.

Metro Nashville receives partial approval of LTCP

IN FEBRUARY 2019, THE U.S. ENVIRONMENTAL PROTECTION AGENCY (EPA),

in conjunction with the Tennessee Department of Environment and Conservation (TDEC), granted partial approval of the Long Term Control Plan (LTCP) for combined sewer overflows (CSOs). Metro Water Services submitted the LTCP as part of a Consent Decree with the agencies. It outlines Metro Water Services' plan to address water quality impacts that result from CSOs to the Cumberland River during storm events.

To develop the LTCP, Metro followed EPA's CSO Policy by implementing a rigorous engineering, quantitative, and scientific process for identifying and evaluating alternatives to reduce CSOs. To develop recommended improvements, Metro Water Services conducted financial and engineering analyses, focusing on four key objectives that were established early in the planning process:

- Improve the water quality of the Cumberland River by reducing impacts from combined sewer overflows.
- Provide a level of CSO controls that results in improvements in water quality that are consistent with the community's use of the Cumberland River.
- Align investment in CSO controls to be commensurate with the contribution of CSOs to water quality relative to other sources.
- Consider the impact of the overall program cost on the ratepayers in the current economic climate.

The LTCP was submitted to EPA and TDEC in September 2011. The LTCP and the Addendum to the LTCP, which provides updated project information, can be found in the

WHAT IS A COMBINED SEWER?

Combined sewer systems (CSS) are designed to convey both **stormwater and sanitary sewage** from residences and businesses. During normal conditions, all flow in the combined sewer system is conveyed to the wastewater treatment plant for treatment. During large storm events, however, the volume of stormwater runoff entering the CSS often exceeds the capacity of pipes, pump stations, and the treatment plant. The permitted release of the excess flow is referred to as a combined sewer overflow, or CSO.

public documents repository (http://www.cleanwaternashville.org/_public-document_repository).

Because only a portion of the LTCP was approved, Metro will continue discussions with EPA and TDEC to obtain full approval of the LTCP while continuing to implement those portions

of the LTCP that received approval.

The LTCP is one of two key pillars of the Clean Water Nashville Overflow Abatement Program. The other pillar, the *Corrective Action Plan / Engineering Report* (CAP/ER) focuses on the sanitary sewer overflows (SSOs) and was approved in 2017.



Ewing Creek Equalization Facility is operational

CONSTRUCTION OF THE EWING CREEK/BRICK CHURCH EQUALIZATION FACILITY,

which consists of a 10.6 million gallon, pre-stressed concrete tank and an 18-million gallons per day wet weather pumping station, is complete and operational. The facility is located near Interstate 24 and Briley Parkway.

The storage tank is utilized when sewer flows exceed the capacity of the existing sewer system. Peak flows are pumped out of the system and stored in the tank until the flows in the system recede. Then the stored volume can be conveyed through the system for treatment. Prior to the construction of the Ewing Creek/Brick Church Facility, flows in excess of the system capacity resulted in sanitary sewer overflows.

The project, which began construction in 2017, is related to other Clean Water Nashville projects to address sewer system limitations in the North Fork of Ewing Creek area, located in **Metro Council District 3**. These projects include:

- The Westchester Drive Rehabilitation project, completed in 2015, renewed approximately 3,850 linear feet of 10- and 18-inch diameter sewer pipe along and crossing the North Fork of Ewing Creek, a tributary to Whites Creek. The rehabilitated infrastructure addressed leaky pipes in the system.
- The neighboring Brick Church Pike Pipe Improvements project, located south of the Westchester Drive Rehabilitation project, was completed in 2018. It included installation of approximately 9,400 linear feet of 24- to 30-inch diameter gravity sewer pipe, 500 linear feet of small diameter sewer pipe, and associated manholes.



Construction photos illustrate the vast footprint of the 10.6-million-gallon Ewing Creek Equalization facility at the start of construction in 2017 (bottom) and as it appeared earlier this year prior to completion. The facility is among several Clean Water Nashville Overflow Abatement Program projects completed in recent years in the North Fork of Ewing Creek area to renew infrastructure and reduce sanitary sewer overflows.

Visit www.cleanwaternashville.org
for program and project information.