



John R. Kasich, Governor
Mary Taylor, Lt. Governor
Craig W. Butler, Director

7/21/17
Limited Environmental Review and Finding of No Significant Impact
Toledo Swan Creek North Sewer Separation
Lucas County
WPCLF # CS390915-0120

The attached Limited Environmental Review (LER) is for a sewer separation project in your area which the Ohio Environmental Protection Agency intends to finance through its Water Pollution Control Loan Fund (WPCLF) below-market interest rate revolving loan program. The LER describes the project, its costs, and expected environmental benefits. Making available this LER fulfills Ohio EPA's environmental review and public notice requirements for this loan program.

Ohio EPA analyzes environmental effects of proposed projects as part of its WPCLF program review and approval process. We have concluded that the proposed project should not result in significant adverse environmental impacts. This project's relatively narrow scope and lack of environmental impacts qualifies it for the LER rather than a more comprehensive Environmental Assessment. More information can be obtained by calling or writing the person named at the end of the document.

Loan award will proceed without further environmental review or public comment unless new information shows that environmental conditions of the proposed project have changed significantly.

Sincerely,

A handwritten signature in blue ink, appearing to read "Jerry Rouch".

JR
Jerry Rouch, Assistant Chief
Division of Environmental and Financial Assistance
Office of Financial Assistance

JR/DH

attachment

LIMITED ENVIRONMENTAL REVIEW

A. Project Identification

Project Name: Toledo Swan Creek North Sewer Separation

Address: Paula Hicks-Hudson, Mayor
City of Toledo
One Government Center, Suite 2200
Toledo, Ohio 43604

WPCLF# CS390915-0120



B. Project Summary

The City of Toledo (Toledo) has applied to the Ohio EPA, Division of Environmental and Financial Assistance (DEFA) for a Water Pollution Control Loan Fund (WPCLF) loan to separate combined sewers in the Swan Creek North neighborhood. Toledo is operating under a 2002 federal consent decree to eliminate combined sewer overflows.

The proposed project involves the separation of combined sewers by the installation of storm sewers in the Swan Creek North Sewer service area (see Figures 1 & 2). The new storm sewer will collect runoff and directly discharge separate stormwater to Swan Creek. The existing combined sewer will become a sanitary sewer. The project also includes construction of six bioretention facilities along the new storm sewer route to improve the quality of the stormwater discharged to Swan Creek.

C. History and Existing Conditions

Toledo is in Lucas County and has a population of 283,932. Toledo's combined sewers date back to the 1860's, carrying both stormwater and wastewater flows from their respective drainage areas.

The combined sewers release excess wet-weather flows from the discharge points known as combined sewer overflows (CSOs). CSOs are partly responsible for water quality degradation in Toledo's natural waterways, including Salt Creek, and pose a public health threat from exposure to raw sewage. In 2002, Toledo entered into a federal consent decree to eliminate the CSO discharges and, from 2005 to 2009, developed the Toledo Waterways Initiative (TWI) Long-Term Control Plan (LTCP) for CSO abatement. The LTCP recommended implementing sewer separation, storage basins or tunnels, green infrastructure, disinfection facilities, etc. as appropriate, for each CSO. In accordance with the LTCP and consent decree, these controls are being built at all CSO locations.

The Swan Creek North CSO Tunnel System was constructed in the early 1990s to provide control of CSO discharges from Regulators 42 (Erie), 43 (Hamilton), 45 (Ewing), and 47 (Junction). During the development of the LTCP, it was determined that the outfalls associated with the Tunnel System have overflow frequencies greater than allowed under the USEPA CSO Control Policy. Improvements to the Erie Street Regulator will reduce the average overflow frequency to Toledo's goal of less than one per year. Over the years 2005-2011, Toledo considered a disinfection system and a tunnel expansion. Multiple analyses concluded partial sewer separation would provide a higher level of CSO control at the same cost as tunnel expansion. Recommendations included a combination of partial stormwater sewer separation, regulator modifications to the Erie Street Regulator, and placement of green infrastructure.

Green infrastructure is an urban stormwater management tool that mimics natural processes to absorb, filter, and treat runoff. As part of the consent decree modification negotiations with USEPA, Toledo agreed to implement green infrastructure practices in select locations within the proposed sewer separation boundary.

D. Project Description

This project will separate sewers in an area roughly bounded by Belmont, Hoag, Buckingham, and Erie streets (Figure 2). Approximately 20,500 feet of 8-inch diameter to 48-inch diameter storm sewer will be installed. The project also includes manholes, catch basins and roadway reconstruction along the sewer routes, as well as some lining of existing combined sewers and modifications to an existing CSO regulator. The project will use a cured-in-place lining process to rehabilitate the existing combined sewer pipes. The cured-in-place process involves the insertion of a fabric tube impregnated with a heat-activated resin into a sewer via existing manholes and cured by circulating hot water or steam. After the liner is intact, a robot cutter opens the existing lateral connection holes to allow wastewater to enter the sewer.

This project includes separating combined sewers located within the Erie, Hamilton, Ewing, and Junction tributary areas. The Erie CSO Regulator is the low point in the system and can therefore experience activity greater than the one overflow per year objective. The stormwater separation will reduce peak flows into the Erie CSO system. Additionally, the weir will be raised to reduce overflow activity and meet the objective of one overflow per year

The proposed green infrastructure includes seven project sites (see Figure 3). The methods that will be used are bio-recreation, bio-retention, and bio-swales. Bio-retention areas are depressed areas that allow shallow ponding of stormwater runoff, often a linear practice intended for infiltration of the water volume in the right-of-way. Bio-recreation is a bio-retention field that can be used for recreation in drier conditions. Bio-swales are stormwater runoff conveyance systems that provide an alternative to storm sewers, typically linear in shape and with soils and vegetation to absorb and filter stormwater. All three methods include developing filtering, with soils and/gravel, and often include the

planting of perennials and grasses. The intended green infrastructure projects are as follows:

T-1: Tecumseh Bio-recreation

Bio-retention that could also serve as a recreational field is proposed for this location because of its relatively flat topography, grass, and shrubs. The drainage area is approximately 2.75 acres.

T-2: Hamilton Bio-retention

Bio-retention is proposed for this location on the vacant parcel. There are no structures on the lot, with grass and shrubbery prominent. The drainage area is approximately 1.3 acres.

T-3: Tecumseh Cascade

Linear bio-retention is proposed for this location. Available vacant parcels between Tecumseh and Hamilton allow for a cascading bio-retention practice that could combine aesthetics with storm water management. The entire site drains towards Hamilton with steeper grades and the drainage area is approximately 3.9 acres.

T-4: Humboldt Bio-retention

Triangular bio-retention was selected for this location. Existing catch basins near Hamilton and Harper will be routed to this area to increase the drainage area, which is approximately 1.1 acres

T-5: Elizabeth Bio-retention

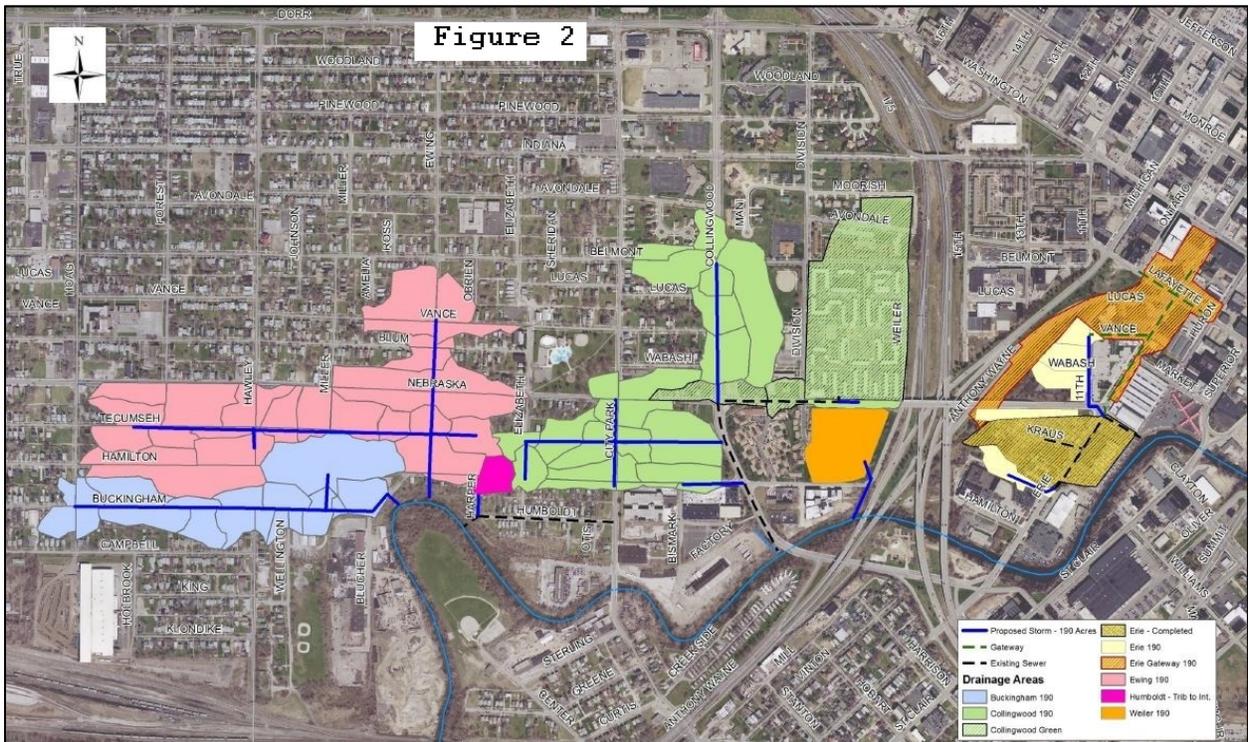
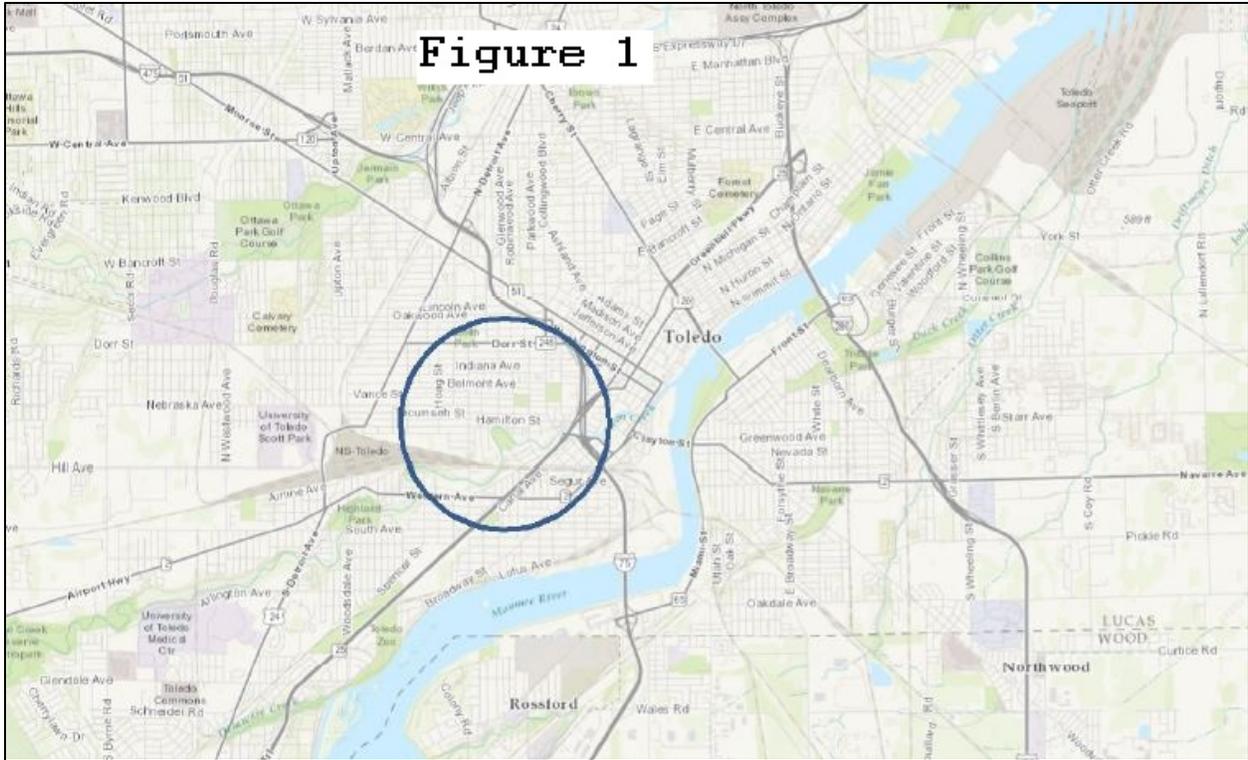
There is limited space available on the small parcel with grass and shrubbery as the prominent land cover. The drainage area is approximately 0.4 acres.

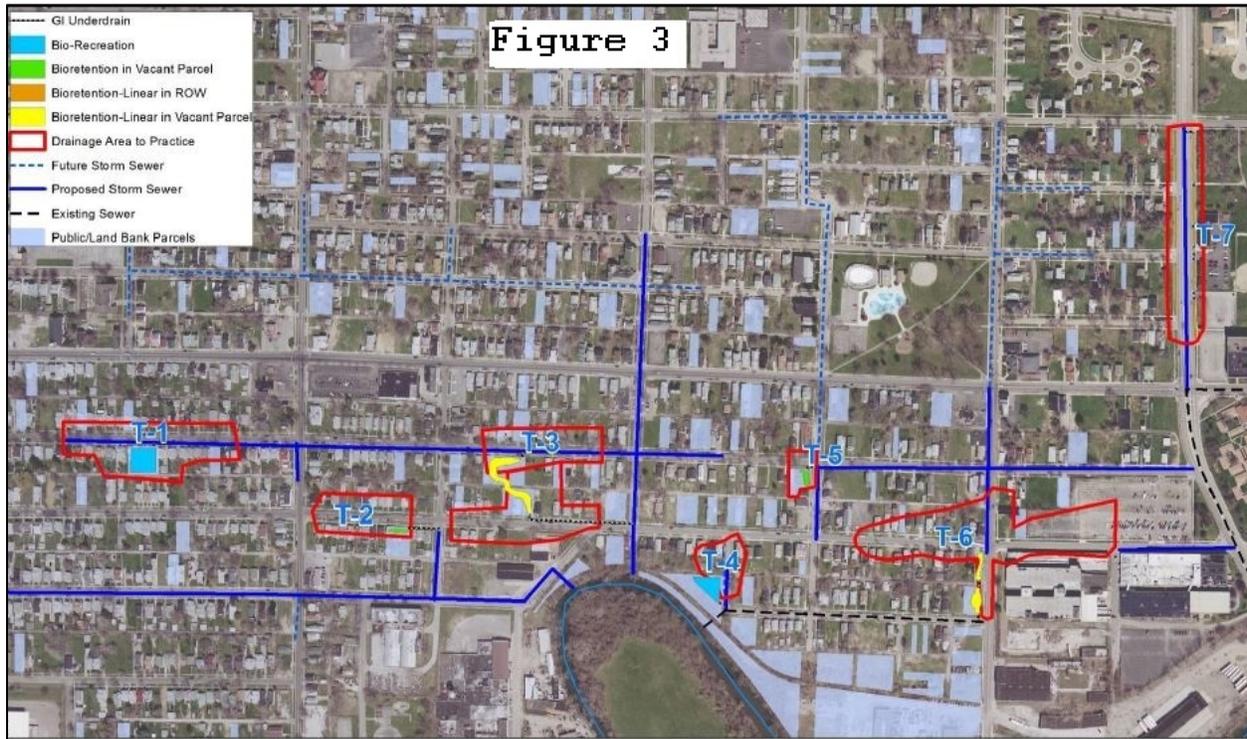
T-6: City Park Terrace

This site drains from 4.5 acres of roads, a parking lot, and small residential/commercial lots. This location is still being analyzed for optimal bio-retention.

T-7: Collingwood Bio-swale

Linear bio-retention in the tree lawn was selected for this site. Runoff would enter the area through curb cuts. The drainage area is approximately 2.0 acres.





E. Estimated Project Costs

The total estimated project cost is \$12,645,188. Approximately \$2,460,000 will come from the Ohio Public Works Commission (OPWC) and Toledo anticipates the balance from the WPCLF. Toledo qualifies for the standard rate of 2.0%. During the 20-year loan period, Toledo will save approximately \$1,687,540 by using WPCLF dollars at this rate, compared to the market rate of 3.25%.

F. Project Schedule

Assuming WPCLF loan award in July 2017, construction will begin in August 2017 and will be substantially completed by November 2019.

G. Public Notification

Toledo has held several neighborhood meetings to inform the area residents and concerned citizens about the upcoming sewer separation project. Toledo also maintains a very informative website to let residents follow the TWI projects. Toledo has not received any negative feedback regarding the proposed project.

Ohio EPA will make a copy of this document available to the public on its web page <http://epa.ohio.gov/defa/ofa.aspx> (“WPCLF Documents for Review and Comment”). Documentation supporting the LER is available from the project contact at the end of this LER.

H. Planning Information

Multidisciplinary comprehensive reviews for environmental and cultural resources were not required because the project will occur in existing streets and cause no change to the sewer service area.

I. Conclusion

The proposed project involves upgrading of existing treatment works including minor rehabilitation, infiltration and inflow correction, and construction of new ancillary facilities adjacent to existing facilities that qualifies for an LER and meets the following additional criteria for an LER:

It has no significant environmental effect; it does not require extensive specific impact mitigation; and it has no effect on high value environmental resources – All the proposed work will be done in the paved road right-of-way and in vacant lots which lack important environmental resources.

Toledo hired a consultant to perform a bat roost survey to determine the extent of suitable habitat for the Indiana bat (endangered) and the Northern long-eared bat (threatened) within the project site. The survey results showed the presence of potential bat roost trees that will be affected by the proposed work. Therefore, Toledo will only remove trees between October 1st and March 31st.

Two of the CSO outfalls are sited within the floodplain. Toledo applied to the Floodplain Administrator for a Floodplain Development Permit.

Standard construction best management practices will minimize noise, dust, traffic disruption, and storm water runoff.

It is cost effective and not controversial - Generally, combined sewer separation is more cost-effective than constructing complete new systems. Toledo has instituted a multi-year rate increase to pay for the numerous, sequential projects required by the federal consent decree. The typical residential annual sewer bill upon project completion will be \$435, which is approximately 1.3% of median household income (MHI; \$33,485). A sewer bill less than 1.8% of MHI is typically considered affordable. These numbers compare favorably to the Ohio average residential sewer bill of \$655, which is 1.3% of state MHI.

By using the WPCLF low-interest financing for this project, Toledo has minimized the cost and the economic impact on residents and the local economy of these federally-required

public health and water quality improvement projects.

Ohio EPA is unaware of controversy about or opposition to this project.

It does not create a new, or relocate an existing, discharge to surface or ground waters; it will not result in substantial increases in the volume of discharge or the loading of pollutants from an existing source or from new facilities to receiving waters; it will not provide capacity to serve a population substantially greater than the existing population – This project will separate combined sewers and create a stormwater bioretention collection system and will have no other effect on the outfall location, sanitary sewer system or sewage treatment capacity. It will not provide additional treatment capacity or the permitted discharge volume or pollutant loading.

The proposed project meets all applicable criteria for a Limited Environmental Review. The planning activities for the project have identified no potentially significant adverse impacts. The project is expected to have no significant short-term or long-term adverse impacts on the quality of the human environment or on sensitive resources (surface waters, coastal zones, floodplains, wetlands, state-designated scenic or recreational rivers, prime or unique agricultural lands, aquifer recharge zones, archaeologically or historically significant sites, threatened or endangered species, or state and federal wildlife areas). Applicable construction impact mitigation measures and practices have been included in the planning documents.

For more information, please contact:

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