Ohio Environmental Protection Agency

Mike DeWine, Governor
Jon Husted, Lt. Governor
Laurie A. Stevenson, Director

March 29, 2022

Limited Environmental Review and Finding of No Significant Impact

City of Hillsboro – Highland County
Comprehensive Storm Sewer Phase 3
Loan number: CS390450-0016

The attached Limited Environmental Review (LER) is for a sanitary sewer and storm water infrastructure project in Hillsboro 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 attached LER.

Upon issuance of this Finding of No Significant Impact (FNSI) determination, award of funds may proceed without further environmental review or public comment unless new information shows that environmental conditions of the proposed project have changed significantly.

Sincerely,

Kathleen Courtright

Kathleen Courtright, Assistant Chief
Division of Environmental and Financial Assistance

Attachment

LIMITED ENVIRONMENTAL REVIEW

Project Identification

Project: Comprehensive Storm Sewer Phase 3

Applicant: City of Hillsboro
130 North High Street
Hillsboro, OH 45133

Loan Number: CS390450-0016

Project Summary

The City of Hillsboro proposes to finance the above-referenced project through Ohio EPA's Water Pollution Control Loan Fund (WPCLF) as a continuation of the city's storm water infrastructure improvements begun in 2017. All of the proposed Phase 3 storm sewer construction project, consisting primarily of new curbs and gutters and new storm sewers, along with related sanitary sewer replacements, will occur in previously disturbed portions of the southern part of the city. The main objective of this proposed storm water infrastructure project is to further reduce the infiltration/inflow (I/I)[1] entering Hillsboro's sanitary sewer system and to redirect the storm water flows to two intermittent streams (Rocky Fork tributaries) in the project area shown in Figure 1.

This project began in 2017 when the city nominated a proposal for planning storm water improvements in the southern half of Hillsboro, along with developing a storm water utility. The estimated total project cost of these proposed sanitary sewer and storm water infrastructure improvements is $5.8 million. Significantly, Hillsboro has received $3.2 million in State of Ohio infrastructure grant funds for this project. The balance of the project costs will be funded through a 0.50%, 30-year loan from the WPCLF. Hillsboro proposes to repay this loan with revenues from its storm water utility. Currently, the city charges its residential customers $60 per year for this service. No increases in this fee are expected to be needed to cover the costs of this proposed project.

History and Existing Conditions

While the northern half of Hillsboro has a functioning storm sewer system, the majority of the southern part of the city lacks this infrastructure. Partly as a result, I/I in its sanitary sewer system has been and continues to be a problem facing the city. In particular, this excessive I/I resulted in bypasses at the city's southern lift station equalization basin and the Hillsboro WWTP in the latter years of the prior decade. Other problems included the city's WWTP having to handle flows twice as much as produced in 2019 by Hillsboro's water treatment plant (WTP) and three sanitary sewer overflows (SSOs) locations in the wastewater collection system.

[1] Infiltration/Inflow (I/I) is defined as extraneous, clear water that enters a sanitary sewer system through surface or subsurface locations. Inflow may include clear water entering the system through manhole covers, roof or foundation drains, direct storm sewer connections, etc. Infiltration usually occurs when clear water enters the system below ground through cracked or broken pipes and manholes, poorly sealed or misaligned pipe joints, damaged or poorly connected sewer laterals, etc.

To address this continuing problem, the city began in November 2017 to plan for upgrading its storm sewer system. This effort included establishing a storm water utility to finance future storm sewer improvements outlined in its storm sewer master plan finished in October 2018. This plan originally identified 14 individual improvements in 11 phases consisting of 18,100 linear feet (lf) of new or replacement storm sewers and 48,200 lf of new curbs and gutters estimated to cost a total of $6.9 million. Of these fourteen improvements, the city has completed work on two of them (East Walnut Street and South High Crossing). Phase 3 consisting of seven storm water and related improvements is the focus of this project and is shown in green in Figure 1 below. The white line is the boundary for the southern part of Hillsboro.

Figure 1. Phase 3 project area map

Upon completion of Phase 3, five improvements will remain unfinished. Figure 2 below shows the areas with I/I problems in the southern part of the city.

Alternatives Analysis

During the early 2018 storm sewer master planning for Hillsboro's overall project, the city evaluated several storm sewer alternatives including conventional gray infrastructure (e.g., storm sewers) as well as more innovative green infrastructure such as bioretention bump outs, green roofs, permeable pavement, and rain gardens. Upon completion of the initial planning and design work, the city and its consultants determined that only gray infrastructure (storm sewers and curbs and gutters) would be best suited to addressing Hillsboro's storm water needs identified in the master plan. Together with the city's sanitary sewer projects, they constitute Hillsboro's approach to eliminating I/I from its wastewater collection system.

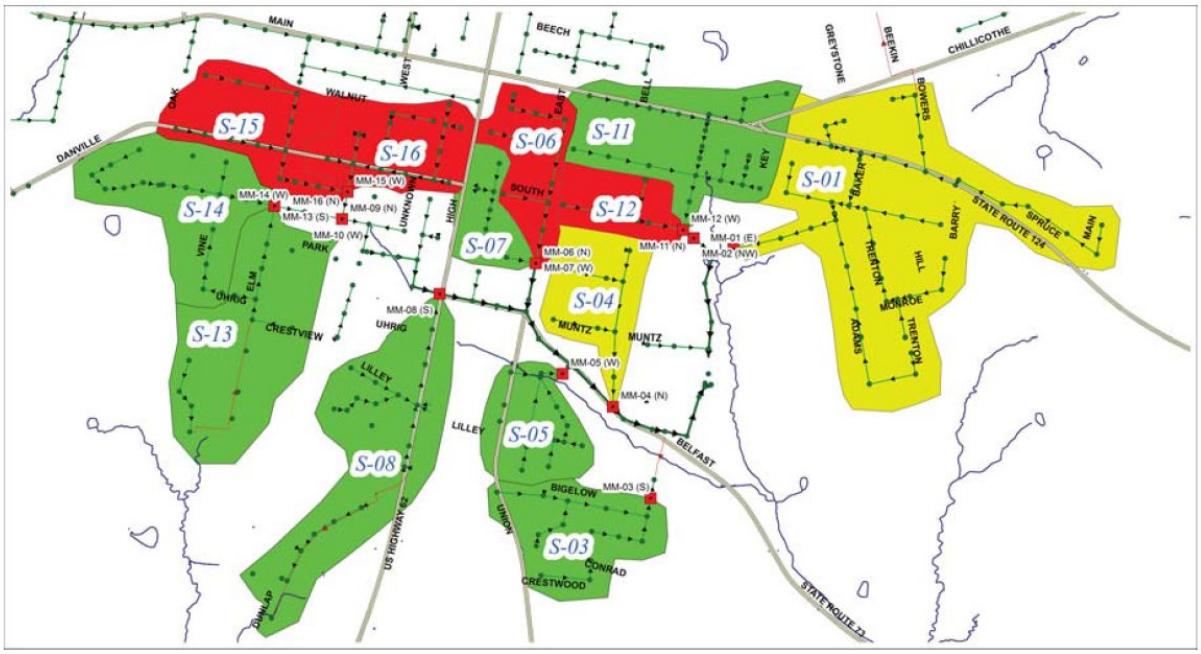

Figure 2. Summary of sub-basins warranting additional investigation
(Red is high I/I and yellow is medium I/I)
Source: 2014 Hillsboro Micromonitoring Report

Project Description

As shown in Figure 1, Hillsboro has determined that the following improvements need to be completed during Phase 3 of the city's comprehensive storm sewer project:

- Sanitary sewers in and along West Pleasant Street between South West and South High streets.
- Storm sewers with catch basins under the road surface or park strips of (1) West Walnut Street from west of Vine Street to east of Elm Street, (2) Vine Street at the intersection with West Pleasant Street and the intersection with West South Street, (3) West South Street from west of Vine Street to east of Elm Street, (4) East South Street, (5) South Elm Street from West Walnut Street to West South Street and near the intersection with West Pleasant Street, (6) Johnson Street, (7) Oak Street, (8) West Pleasant Street from West of Vine Street, (9) East Pleasant Street, and (10) South East Street. This work also includes the installation of two storm sewer outfalls: one near West Pleasant Street and the other near Belfast Pike.
- Curb and gutter improvements on both sides of (1) West Walnut Street between Oak Street on the west and South High Street on the east, (2) Vine Street from West Pleasant Street on the south to West Walnut Street on the north, (3) West South Street between Oak Street on the west and South High Street on the east, (4) East South Street from South High Street on the west to east of Johnson Street on the east, (5) South Elm Street between West Pleasant Street on the south and West Walnut Street on the north, (6) Johnson Street from East Walnut Street on the north to Belfast Road on the south, (7) Oak Street between West Pleasant Street on the south and West South Street on the north, (8) West Pleasant from South High Street on the east to Oak Street on the west, (9) East Pleasant Street between Johnson Street on the east and South High Street on the west, and (10) South East Street from Muntz Street on the south to East Main Street on the north.

Significantly, these improvements are proposed to be made within Hillsboro's two historic districts. All told the proposed project consists of installing about 30,600 lf of curb and gutter improvements, as well as 10,600 lf of storm sewer conduit, and about 1700 lf of sanitary sewer.

Implementation

During project planning, the total estimated cost of the water line replacement project was $5.8 million. All but $408,700 of this amount is for construction. After a $3.2 million state infrastructure grant, Hillsboro is eligible for a 0.50% interest rate, 30-year WPCLF loan for the balance. This fixed interest rate is adjusted monthly to reflect changing market conditions. Utilizing $2.6 million in WPCLF funding will save Hillsboro approximately $806,000 over the 30-year loan term compared to the current market rate of 2.29%.

By proposing to fund its project in this way, Ohio EPA anticipates that the City of Hillsboro should be able to generate enough revenue under its storm water utility to continue to own, operate, and maintain its storm water and wastewater systems well into the future.

Given the city's proposed grant and low-interest loan funding of this project, no storm water utility rate increases are expected to be necessary to pay for this project. Under the storm water fees in effect in Hillsboro in 2022, an in-town residential customer pays $60 per year. Given the financial information presented above, no significant adverse economic impacts on the roughly 3,500 residential users of Hillsboro's storm water utility and infrastructure system are anticipated.

Under the city's proposed project schedule, WPCLF funds are expected to be awarded in April 2022, so that construction can commence soon thereafter. The city estimates that construction will be completed in about eighteen months.

Public Participation

Hillsboro's city council met in March 2018 and on other dates to discuss the options available to address the problems in its storm water infrastructure system. In addition, the city's grant coordinator met with the local historical society in December 2021 to provide information on this project and to address any questions the society's representatives might have. They appear not to have any significant concerns and were in support of the proposed project.

In February 2022, the city met in a session open to the public to discuss the city's Phase 3 storm sewer project. Project information is available from the Ohio EPA contact named below.

Ohio EPA will make a copy of this document available to the public on its announcements web page (https://epa.ohio.gov/wps/portal/gov/epa/divisions-and-offices/environmental-financial-assistance/announcements) and will provide it upon request. A copy may also be posted at the city's municipal building and on its web site (if available).

On the basis of the city's previously held public and council meetings, and the project's limited scope, Ohio EPA has determined that no additional public review and comment on the proposed project is necessary, and that all potentially interested parties have been given adequate opportunity to review and comment on this project and its costs.

Conclusion

The proposed project meets the project type criteria for a Limited Environmental Review (LER); namely, it is an action within a community with existing sanitary and storm sewer systems and which involves the functional replacement of a failing sanitary sewer and storm water infrastructure (no curbs and gutters and storm sewers in the area shown in green in Figure 1). Furthermore, the project meets the other qualifying criteria for an LER; specifically, the proposed project:

Will have no significant environmental effects and will require no specific impact mitigation because the city's proposed Phase 3 project is located generally within previously disturbed portions of the southern half of the City of Hillsboro. The exceptions of concern are two wooded areas near small stream valleys and drainages. The first location needing specific impact mitigation is the wooded area near the intersection of West Pleasant Street and South West Street. There a new storm sewer outfall, headwall structure, and riprap will be placed in such a way that street tree removal will occur only if needed and the disturbed area will be seeded and mulched to limit erosion and sedimentation effects. In addition, any tree clearing will be conducted only between October 1st and March 31st to address bat habitat concerns, the root systems of trees will be left in place to help stabilize the site, and the construction work limits will be kept to a minimum.

The second location requiring specific attention is the steep, wooded slope south of Belfast Pike and Johnson Street shown in Figure 3 below where the second of the two storm sewer outfalls is proposed. By minimizing the amount of disturbance to between 20 and 30 feet in width, avoiding large trees, and seeding and mulching the storm sewer alignment upon completion of pipe installation, the environmental impacts to this stream valley are expected to be minimized.

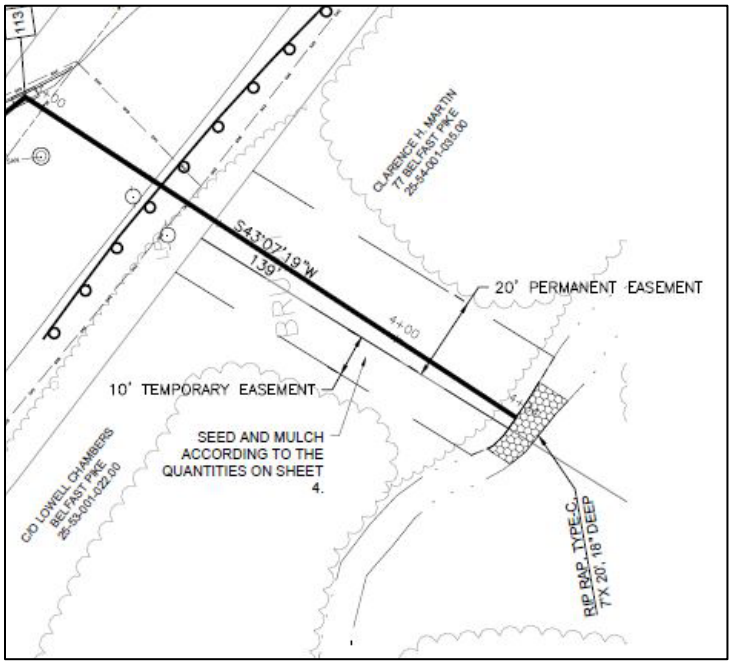

Figure 3. Belfast Pike outfall location

By specifically prohibiting the placement of any excavated material in wetlands near Hillsboro, requiring the city's contractors to adhere to the routine prohibited construction activities in the detail plans and specifications, avoiding any in-stream work, and stabilizing the project area with grass and mulch prior to project completion, this concern has been addressed and no significant adverse

environmental effects are expected. The use of riprap at the toe of each slope is expected to provide a permanent buffer to the new discharge of storm water at the two sites discussed above.

Will have no effect on high-value environmental resources because the Phase 3 project area is generally devoid of any high-value environmental resources and steps have been taken to assure that no adverse off-site impacts to floodways and floodplains, streams, wetlands, or the species that depend on them occur during construction. In particular, as spoil material from excavations generated during this proposed project will be disposed of at a prior-disturbed location shown in Figure 4 and most construction activity will occur within prior-disturbed areas, no adverse impacts on high-value environmental resources are anticipated. Overall, environmental impacts will be held within acceptable levels through proper erosion and sedimentation controls and temporary and permanent seeding of areas disturbed during construction. Local residents may experience minor traffic disruption during the construction of this project in Hillsboro, but the detail plans and specifications include the needed traffic control measures.

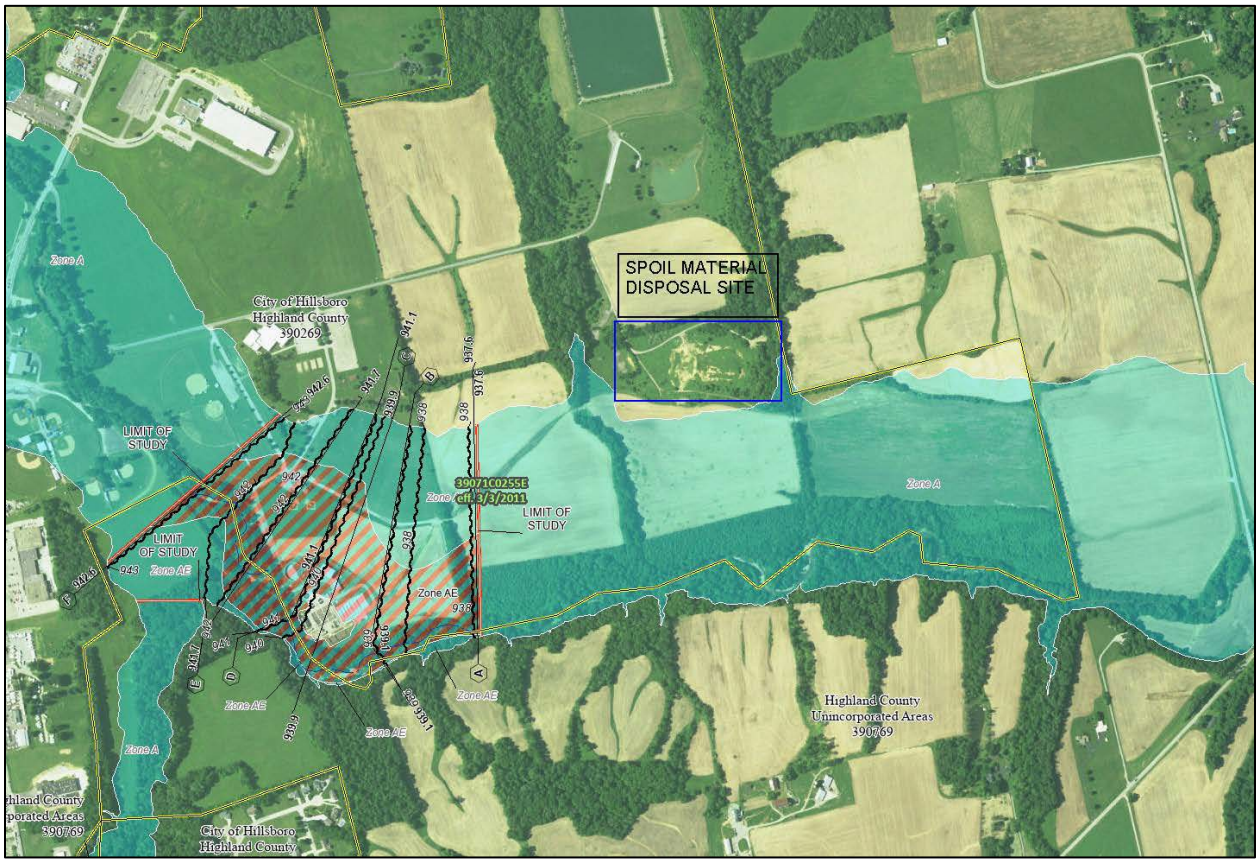

Figure 4. Spoil disposal site for the Phase 3 project

Is cost effective. In comparison to the other alternatives considered during the city's storm water master planning effort, Hillsboro's selected alternatives for its Phase 3 project are clearly more cost-effective. Taking no action would leave the current conditions in place and not resolve the I/I and storm water runoff problems the city is experiencing. Ohio EPA has reviewed this project and found it to be consistent with the water quality management plan for Hillsboro.

Is not a controversial action. Because the city's Phase 3 storm sewer project was discussed in multiple meetings open to the public between 2017 and 2022, at a meeting with the local historical

society in 2021, and no adverse comments were received, Ohio EPA considers this project to be non-controversial. This includes the March 2018 meeting where the project met with favorable approval from the utilities committee and was forwarded to city council for approval.

At present, the city has a minimum, monthly storm water charge of $5 per equivalent residential unit of 2900 square feet of impervious area, or $60 per year effective September 1, 2019. Compared to the city's current annual water and sewer fees, this newer storm water fee is considered to be affordable.

Does not create a new or relocate an existing discharge to surface or ground waters, and 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. The city's proposed project will help address the long-term storm water needs of its residents. As noted above, the project is generally limited in scope. By correcting the storm water management problems in a second part of southern Hillsboro, water quality conditions are expected to improve upon project completion. Thus, no new or relocated discharges of untreated wastewater or storm water to surface or ground waters will occur as a result of the proposed project.

As noted above, the city's proposal for this project is to better manage its storm water runoff through new and replacement storm sewers and related curb and gutter infrastructure. Together with continued educational programs, the volume of storm water generated in the Phase 3 part of southern Hillsboro will not change, but rather be directed more reliably through new infrastructure to the small streams and drainages in the project area within the Rocky Fork and Paint Creek watersheds. With the sanitary sewer improvements to a section of West Pleasant Street, further water quality improvements are expected with completion of that part of the Phase 3 project.

Will not provide capacity to serve a population substantially greater than the existing population because Hillsboro's proposed Phase 3 storm sewer project is intended to remedy existing sanitary sewer and storm water management problems. As such, it is not intended solely to serve a population substantially larger than now exists, or an undeveloped area through extensions of service.

To conclude, the city's Phase 3 storm sewer project is sufficiently limited in scope and meets all applicable criteria to warrant an LER. The planning activities for the proposed project have identified no potentially significant adverse impacts. The proposed Phase 3 project is expected to have no significant, short- or long-term adverse impacts on the quality of the human environment or on sensitive resources such as floodways and floodplains, wetlands, prime or unique agricultural lands, aquifer recharge zones, archaeologically or historically significant sites in Hillsboro's two historic districts and vicinity, or threatened or endangered species. The main benefit of this project will be the improved storm water management and I/I reduction in the southern half of Hillsboro at minimal additional cost to the city and its residents.

Contact information

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