



Mike DeWine, Governor  
Jon Husted, Lt. Governor  
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September 9, 2019

**Limited Environmental Review and Finding of No Significant Impact**

**City of Hillsboro – Highland County  
Comprehensive Storm Sewer Project - Phase 1  
Loan Number: CS390450-0009  
Trunk Line Improvements to Spiegel Street and Northview Drive  
Loan Number: CS390450-0015**

The attached Limited Environmental Review (LER) is for two projects located in Hillsboro, Ohio: a storm water management project and a sanitary sewer project 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 projects, their costs, and expected environmental benefits. Making available this LER fulfills Ohio EPA's environmental review and public notice requirements for this loan program, as described in Ohio Administrative Code (OAC) 3745-150-05.

Ohio EPA analyzes environmental effects of proposed projects as part of its WPCLF program review and approval process. We have concluded that the proposed projects should not result in significant adverse environmental impacts. These two projects' relatively narrow scopes and lack of environmental impacts qualifies them for an LER rather than a more comprehensive Environmental Assessment, as described in OAC 3745-150-06. 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 projects have changed significantly.

Sincerely,

A blue ink signature of Jonathan Bernstein, consisting of a large, stylized 'J' followed by a series of loops and a final 'B'.

Jonathan Bernstein, Assistant Chief  
Division of Environmental and Financial Assistance

Attachment

## LIMITED ENVIRONMENTAL REVIEW

### **Project Identification**

Project 1: City of Hillsboro, Comprehensive Storm Sewer Project - Phase 1<sup>1</sup>

Project 2: City of Hillsboro, Trunk Line Improvements to Spiegel St. and Northview Dr.

Applicant: Mr. Richard Donley, Safety and Service Director  
Ms. Kirby Ellison, Administrative Assistant and Grant Writer  
City of Hillsboro  
130 North High Street  
Hillsboro, OH 45133

Loan Numbers: CS390450-0007 and CS 390450-0015

### **Project Summaries**

The City of Hillsboro proposes to finance the first referenced project through Ohio EPA's Water Pollution Control Loan Fund (WPCLF) as a key component of the twenty-year solution to the city's storm water treatment needs. All of the proposed storm sewer construction project will be in two previously disturbed portions of the city, with the potential exception of the proposed location of one new headwall structure. The main objective of this proposed project is to install new or replacement storm sewer infrastructure that will enable the city to begin to further reduce the infiltration/inflow (I/I)<sup>2</sup> entering its sanitary sewer system and to redirect the storm water flows to two receiving streams (Rocky Fork tributaries) in the project area shown in Figure 1 on Page 2.

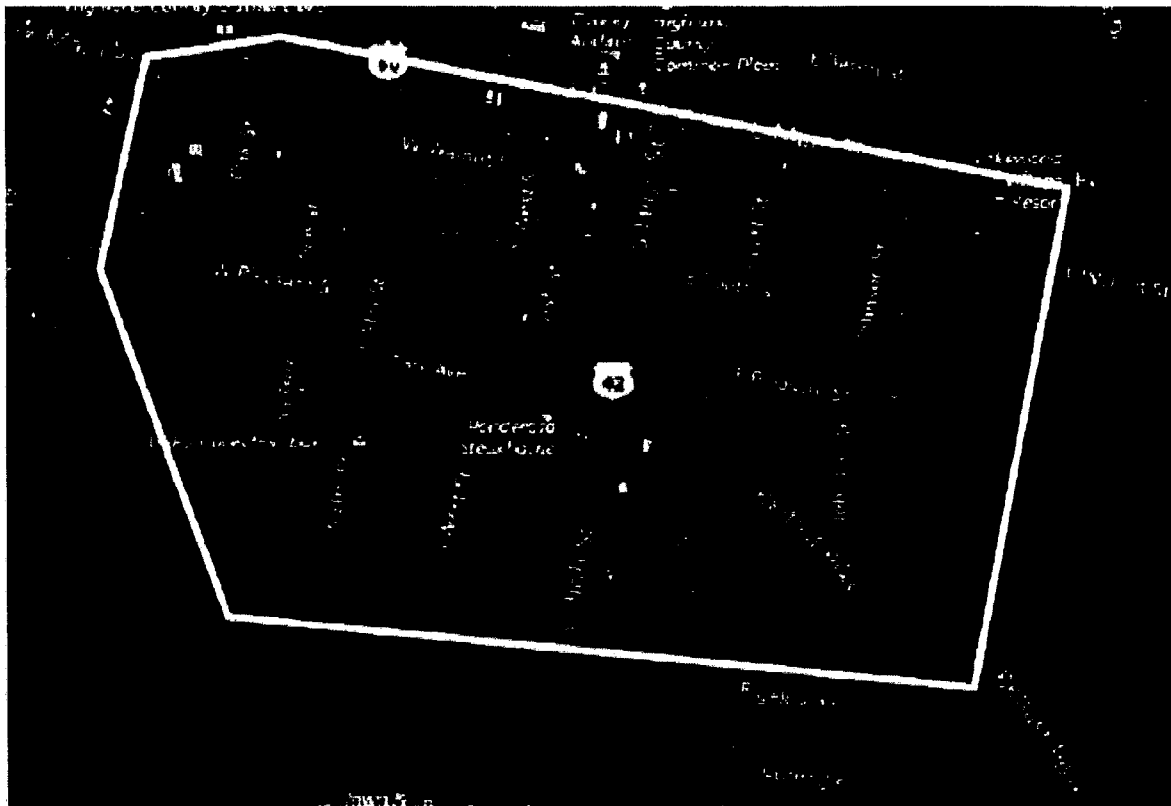
This first project began in November 2017 when the city nominated a comprehensive proposal for planning storm water improvements in the southern half of Hillsboro, along with developing a storm water utility to repay all future debt. Subsequently, the city designed the improvements shown in Figure 2 and applied for a WPCLF construction loan for installing about 2,477 linear feet (LF) of storm sewer and related appurtenances. Upon completing design, the total project cost in the loan application rose from \$1,015,695 to \$1,128,537. Based on recently received bids of \$837,562, which are within 10% of the engineer's estimate, the total project cost is \$1,138,943.

Ohio EPA's WPCLF program expects to finance \$1,015,695 of the entire total project cost amount through its principal forgiveness incentive initiative. The balance (\$123,248), representing the difference between the amount nominated in 2019 and the as-bid costs, will be financed at a 1% hardship interest rate.

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<sup>1</sup> The city has also identified this project as its Phase 1 Drainage Improvements Project (Liberty Township, Highland County, Ohio) in its advertisement for bids.

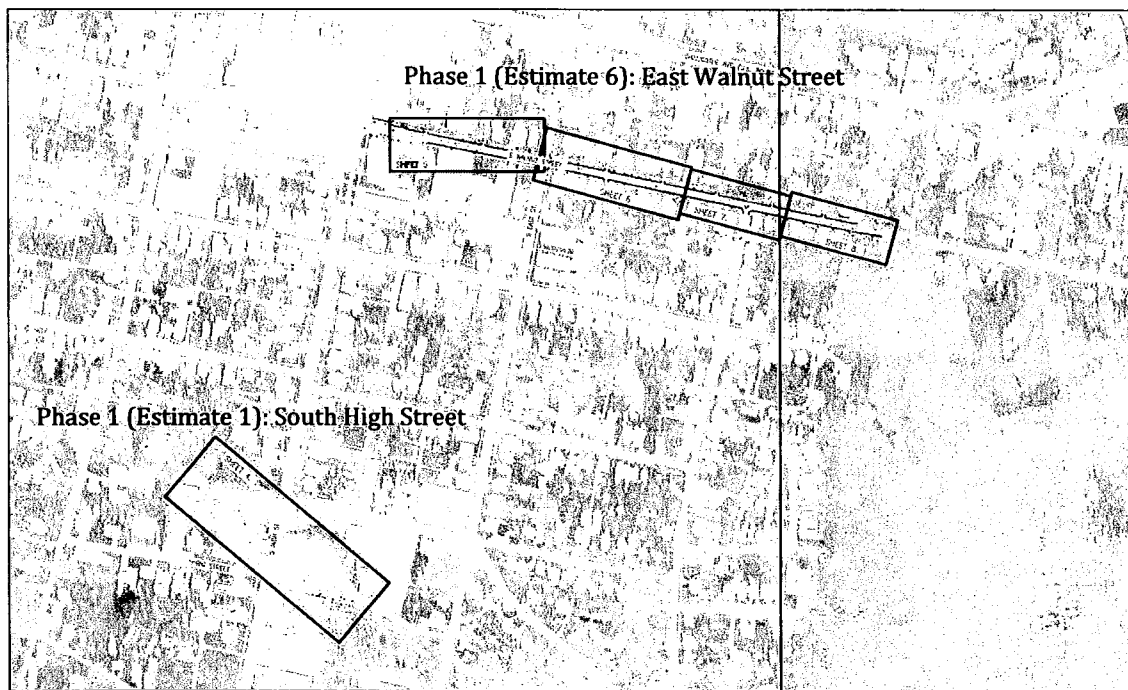
<sup>2</sup> Infiltration/Inflow (I/I) is defined as extraneous, clear water that enters a sanitary sewer system through surface or subsurface locations. Infiltration usually occurs when clear water enters the system below ground through cracked or broken pipes and manholes, poorly sealed or misaligned pipe joints, damaged or poorly connected sewer laterals, etc. Inflow may include clear water entering the system through manhole covers, roof or foundation drains, direct storm sewer connections, etc.



**Figure 1, Storm Sewer Project Area Overview (Source: Storm Water Master Plan, Figure 1)**

The second project consists of replacement of a section of sanitary sewer trunk line between East Street (an extension of Spiegel [also spelled Speigle] Street and just east of North High Street [U.S. Route 62]). In general, this proposed project area is prior disturbed with a mixture of streams, wetlands, streets, and private driveways constituting the landscape. This project's main objective is to address sanitary sewer overflows (SSOs) that occur as a result of insufficient hydraulic capacity in the Northview sanitary trunk sewer. I/I in this project area also contributes to problems at the city's wastewater treatment plant.

Planning for the Trunk Line Improvements to Spiegel St. and Northview Dr. project and other related I/I removal and SSO controls began in 2006, was updated in 2014, and then again in 2017-2019. In particular, the city decided to focus on a linear area between two manholes (1127 and 1115) with the least hydraulic capacity. The project was nominated in August 2018 at an estimated total project cost of \$1,068,800 that rose to \$1,277,800 in August 2019. Based on recently received bids of \$901,932, which are below the engineer's estimate, the total project cost is \$1,251,932. Figure 3 below illustrates the location and alignment of the city's proposed Northview trunk sewer replacement project on the eastern side of Hillsboro.



**Figure 2, Proposed Specific Storm Sewer Improvements Locations: South High St. and East Walnut St.**





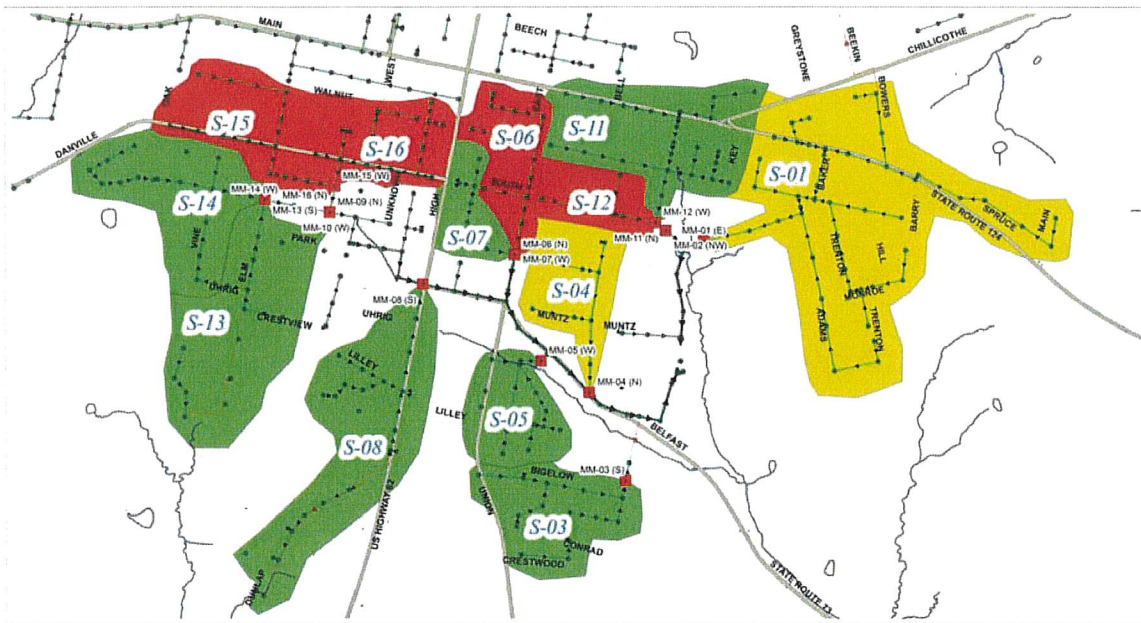
**Figure 3, Northview Trunk Sewer Project Location Shown by Arrow**  
(Source: Sanitary Sewer Collection Plan, Figure 1, Existing Collection System Map)

### **Facilities Planning History and Existing Needs**

Storm Water. While the northern half of Hillsboro has a functioning storm sewer system, 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. To address this continuing problem, the city began in November 2017 to plan for upgrading its storm sewer system and adopting a storm water utility ordinance to finance future storm sewer projects outlined in its storm sewer master plan finished in October 2018. This plan identified 14 projects consisting of 18,100 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 14 project areas, the city decided to focus first on the two Phase 1 locations shown in Figure 2. This conclusion was reached primarily because all of the other areas will need to tie into the most down-gradient improvements made in the Phase 1 areas. Figure 4 below shows the areas with I/I problems in the southern part of the city.



**Figure 4, Summary of sub-basins warranting additional investigation.**  
**Red is high I/I. Yellow is medium I/I. Source: 2014 Hillsboro Micromonitoring Report**

As part of the overall storm water master plan, the city noted that capacity improvements are needed at specific locations. These include the creek crossing site located near the intersection of South High Street and Muntz Street. In this case, the area just south of Muntz Street has a culverted creek crossing (conveyed through storm sewers) underneath existing parking areas. The storm sewer trunk line is downstream of South West Street between South Street and West Pleasant and appears to be either undersized (36-inches at the inlet and 18-inches at the outlet) or mis-labeled in the city's geographical information system (GIS).

**Sanitary Sewers.** As noted above, the Northview Trunk Line between Spiegle and Northview Streets is known to be hydraulically overloaded and to have at least one SSO. In particular, this situation appears to be a result of one section of pipe being much too small in diameter.

More details on the city's alternatives analyses, the selected solution to the sanitary and storm problems, and the scope of these proposed projects can be found in the following section of this document.

## **Alternatives Analysis and Project Description**

**Storm Sewer Alternatives Analysis:** During the early 2018 storm sewer master planning for Hillsboro's overall project, the city and its engineering consultant 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 Phase 1 planning and initial design work, the city and its consultants determined that only gray infrastructure (storm sewers, curbs, and gutters) would be best suited to addressing Hillsboro's Phase 1 needs identified in the master plan as shown in Figure 2. They will also address absent or failed storm sewers and constitute a component of eliminating I/I from the city's sanitary sewer system.

**Project Description:** This proposed project consists of the following improvements. In particular, the storm sewer master plan recommends that based on storm calculations the parallel or replacement storm sewer pipe crossing South High Street should be forth-eight inches in diameter to convey all upstream flow adequately. Including the East Walnut Street improvements, the proposed Phase 1 project consists of almost 2,500 LF of storm sewer pipe ranging in size from 12- to 60-inches in diameter, 3 new headwalls, 23 catch basins, and replacement of existing water lines, driveways, sidewalks, guardrails, and curbs. Trench backfill, riprap placement, and site restoration through seeding and mulching will complete the proposed work. Figures 5 and 6 below show the specific locations of the Phase 1 improvements, including the nearest streams tributary to the Rocky Fork branch of Paint Creek.



**Figure 5, Red Line Shows Proposed S. High St. Storm Sewer Replacement Alignment (Estimate 6)**





**Figure 6, Red Line Shows Proposed New East Walnut St. Storm Sewer Improvements (Estimate 1)**

Northview Sanitary Sewer Alternative Analysis. To address the problems identified in the prior section, Hillsboro and its consultants considered three options: cured-in-place pipe lining, trunk sewer replacement through an open cut trench, trunk sewer replacement through horizontal directional drilling, and an express sewer. Of these options, an express sewer was rejected as it was determined not to be suited to the conditions present in the project area. CIPP lining was ruled out as it would reduce, but not eliminate, SSO events through a roughly 30 percent increase in trunk sewer capacity. The remaining options would focus on replacement of the trunk sewer between two manholes (1127 located near East Street and 1115 in the Hillsboro Cemetery) and allow nearly 1 million gallons of wastewater under peak flows to be handled. Directional drilling was determined to be the better of the two replacement options as it would not disturb the water resources (streams and wetlands) and has less of a risk of disturbing any graves in the cemetery.

Selected Alternative. Given the constraints presented by the project location, the city chose directional boring, consisting of bypass pumping and installing a new 12-inch diameter sanitary sewer parallel to the existing, undersized 10-inch diameter structurally damaged sanitary sewer. This 10-inch sanitary sewer will be abandoned in-place upon project completion. Above ground concerns would be avoided through the use of this approach. The proposed 2100 LF of 12-inch diameter sanitary sewer would be capable of handling existing peak flow rates, would provide additional capacity for any potential growth in the southern part of Hillsboro, and cost about \$948,650.

### **Estimated Project Costs**

Based on the as-bid costs, construction costs are \$837,562; planning, design, contingency, and other costs are \$301,380; and total project costs for the Phase 1 storm sewer project are about \$1,138,943. To pay for construction of these improvements and related construction management and



contingency costs, the City expects to borrow all of this amount from the WPCLF through the principal forgiveness funding initiative, which does not require repayment. Ohio EPA expects that Hillsboro will save almost the entire total project cost amount in this way. The balance of \$123,248 will be financed at 1%, with a total project costs savings of \$1,519,576, when compared to a market rate loan of 2.67%.

With a 1% interest rate, and costs comparable to the Phase 1 storm sewer project for the Northview sanitary trunk sewer project (\$1,277,800), Ohio EPA has concluded that the city should save about \$327,712 over the thirty-year term of its loan.

### **Implementation/Proposed Project Schedule**

Following opening bids for these two projects in July and August 2019, the city expects to receive WPCLF financing in September 2019. Construction of the proposed improvements project is expected to begin in October or later in 2019 and be completed in about three months, including final restoration.

### **Public Participation and Notice**

Hillsboro held council meetings open to the public starting in 2018 and lasting through August 2019. No one from the public attending the meeting that was publicly noticed in the local newspaper and on Facebook apparently had any adverse comments on the storm water utility proposal, the Phase 1 project as shown in Figure 2, or the Northview Sanitary Trunk Sewer project. On this basis, the City of Hillsboro appears to have adequately informed the public about its proposed projects and addressed any concerns through these outreach efforts.

Information that supports this decision to issue an LER is available from the contact at the end of this document. Project information is available from either the City of Hillsboro's consulting engineer, Mr. Gary Silcott of Stantec Consultants, the city's safety and service director, Mr. Richard Donley, Safety and Service Director, or Ms. Kirby Ellison, Administrative Assistant and Grant Writer. The latter can be reached at (937) 393-5219 or through the city's municipal offices located at 130 North High Street, Hillsboro, OH 45133 to answer questions regarding this project.

### **Interagency Coordination**

The proposed projects have been reviewed by the following agencies for technical input, or for conformance with legislation under their jurisdiction, and their findings support an LER:

Ohio Department of Natural Resources  
State Historic Preservation Office

Ohio EPA  
United States Fish and Wildlife Service

### **Limited Environmental Review (LER) Criteria and Conclusion**

Because the proposed projects meet certain minimum conditions and will not individually, cumulatively over the useful life of these improvements, or in conjunction with other federal, state, or private actions have a significant adverse effect on the quality of the human environment, an LER is warranted. More specifically, these conditions cover actions in sewered communities (such as Hillsboro) which are for minor upgrading and/or minor expansion of existing treatment works

including, but not limited to, minor rehabilitation of existing facilities, functional replacement of existing mechanical equipment or structures, and construction of new ancillary facilities adjacent or appurtenant to existing facilities.

In addition, the proposed projects also meet the following specific criteria for an LER:

**The proposed projects will have no significant adverse environmental effects.** The city's proposed Phase 1 storm sewer project and Northview sanitary trunk sewer project are located generally within previously disturbed areas in the southern and eastern parts of the City of Hillsboro as shown in Figures 3-6. The only exceptions appear to be the wooded slopes east and west of South High Street as shown in Figure 7, the wooded area south of East Walnut Street shown in Figure 8, and the recovering wetland area along the existing Northview sanitary trunk sewer alignment in Figure 9. During the environmental reviews of these two projects, Ohio EPA and the city's engineering consultant identified all the potentially sensitive environmental areas in the project area and found that these wooded slopes near and along remnant stream valleys and drainages, and the wetlands and streams on the eastern side of Hillsboro are the only ones of possible concern.

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, limiting tree removal as much as possible along the storm sewer alignment between East Walnut Street and the proposed headwall, and since no in-stream work will be needed to complete this proposed project, this concern was addressed on the storm sewer project. For the Northview sanitary sewer trunk sewer, the use of directional drilling is expected to minimize any impacts on surface water features and the Hillsboro Cemetery in the project area. On this basis, the city's two proposed projects are expected to have no significant adverse environmental effects.



**Figure 7, South High Street Project Photos**





**Figure 8, East Walnut Street Steep Slope**



**Figure 9, Northview Trunk Sewer Alignment Setting**

**The proposed projects do not require extensive general or specific impact mitigation.** Due to the limited scope of the city's proposed projects, the two Phase 1 locations within generally previously disturbed landscapes, and the Northview trunk sewer's location within a previously altered setting, no extensive general or specific impact mitigation beyond that normally applied is required. In particular, by stabilizing the steep slopes with riprap and limiting tree and root removal as much as possible, environmental impacts will be held within acceptable levels through proper erosion and sedimentation controls and temporary and permanent seeding of areas disturbed during construction, as well as adherence to prohibited construction activities in the storm sewer project's detail plans. Local residents may experience minor traffic disruption during the construction of this project in Hillsboro, but the detail plans and specifications include the needed dust and traffic control measures. For example, all stockpiles will be in the roadway, in the parking areas of the proposed work areas, or other prior disturbed construction sites, and away from trees. In addition, no dewatering will be required, all proposed construction will occur during normal working hours, no entire streets will be closed, but single lanes will be closed with flaggers maintaining traffic. Similar provisions in the Northview sanitary trunk sewer contract documents (plans and specifications) will cover these types of concerns during that project.

**The proposed projects will have no adverse effect on high-value environmental resources.** As noted above, the Phase 1 storm sewer and Northview sanitary trunk sewer project areas are 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, wetlands, or the species that depend on them occur during construction in the project areas. In particular, as spoil material disposal from excavations generated during these proposed projects and mostly all construction activity will occur within prior disturbed areas, minimal adverse effects on any high value environmental resources are expected.

**The selected alternatives for these projects are cost-effective.** In comparison to the other alternatives considered during storm water master planning and the sanitary sewer facilities planning, the city's selected alternatives for these projects are more cost-effective. Taking no action would leave the current conditions in place and not resolve the I/I, SSO, and storm water runoff problems the city is experiencing. Ohio EPA has reviewed these projects and found them to be consistent with the water quality management plan for Hillsboro.

**The proposed projects are not a controversial action.** Hillsboro's city council has held multiple open utilities committee and city council meetings on these two and other proposed sanitary and storm sewer projects and the formation of a storm water utility over the past six months. In particular, these meetings were held during February, March, April, June, and August 2019 including a council meeting on August 12, 2019 during which the final reading and passage of the storm water utility ordinance occurred. The city first held discussions on forming a storm water utility in March 2018. The city has indicated that it typically advertises these meetings in the local newspaper and on Hillsboro's Facebook page one day before the meeting to encourage public discussion and get residents' input. According to the city, no adverse comments were received from the people attending the public meetings. On this basis, Ohio EPA considers this project and the creation of the associated storm water utility to be non-controversial. Readers should note that as there was minimal public comment on the storm water sewer topic at the March 2018 meeting, the utilities committee recommended conceptual approval, and it forwarded the idea to city council as a whole for approval.

Furthermore, since the city will save in debt service costs by using the WPCLF principal forgiveness funding on the storm sewer project, the overall project costs will not result in a rate increase to city residents. With no additional costs to be realized by city residents, there is no other known basis for public controversy. Similarly, the 1% hardship funding available for the Northview trunk sewer replacement project between East Street, Greenfield Pike, and South High Street in Hillsboro as shown in Figure 3 will minimize the costs to residents of the city.

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 new storm water fee is considered to be affordable. Currently, the city charges a typical residential customer in Hillsboro a minimum wastewater charge of \$28.02 for the first 133 cubic feet of water usage. With an average residential customer using about 600 cubic feet per month, this usage is equivalent to a monthly fee of \$63.13 based on the minimum charge plus \$7.52 for each additional 100 cubic feet of water used. Expressed as a percentage of Hillsboro's recent annual median household income of \$33,209, a post-project fee of \$757.66 is equivalent to 2.28% and is generally considered to be affordable for the average city resident.

**The proposed projects do not involve new or relocated discharges to surface or ground waters.** The city's proposed projects will help address the long-term storm water and sanitary sewer

needs of its residents. As noted above, the projects are generally limited in scope. By correcting the storm water management problems in one 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 that proposed project. Similarly, Ohio EPA expects that the Northview trunk sewer project will reduce, if not eliminate, discharges through SSOs to the environment.

**No substantial increase in the volume of discharge or the loading of pollutants from an existing source or from new facilities to receiving waters will occur.** As noted above, the city's proposals for these projects are to better manage its storm water runoff through new and replacement storm sewers and related infrastructure, and to improve the operation of its overall wastewater systems. Together with educational programs and green infrastructure, the volume of storm water generated in the Phase 1 parts 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.

**The proposed projects will not provide capacity to serve a population substantially greater than the existing population.** The city's proposed storm sewer and sanitary sewer projects are solely intended to remedy existing storm water and wastewater management problems. As such, they are not intended solely to serve a population substantially larger than now exists, or an undeveloped area.

### **Conclusion**

The proposed projects are sufficiently limited in scope and meets all applicable criteria to warrant an LER. The planning activities for the proposed projects have identified no potentially significant adverse impacts. Together, the proposed Phase 1 project and the Northview Sanitary Trunk Sewer project are 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, coastal areas, or threatened or endangered species. The main benefit of the Phase 1 projects will be the improved storm water management and I/I reduction in the southern half of Hillsboro at no cost to the city and its residents. Similarly, the Northview Sanitary Trunk Sewer project will address residential concerns about odors and the SSO on this sewer line.

### **For further information, please contact:**

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