



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

MAY 18, 2016

FINDING OF NO SIGNIFICANT IMPACT
TO ALL INTERESTED CITIZENS, ORGANIZATIONS,
AND GOVERNMENT AGENCIES

CITY OF SPRINGFIELD, ERIE INTERCEPTOR EXPRESS SANITARY SEWER PROJECT,
WPCLF LOAN # CS390880-0010

The purpose of this notice is to seek public input and comments on Ohio EPA's preliminary decision that a Supplemental Environmental Study is not required to implement the recommendations discussed in the attached Environmental Assessment of a wastewater facilities plan submitted by the entity mentioned above.

How were environmental issues considered?

The Water Pollution Control Loan Fund program requires the inclusion of environmental factors in the decision-making process. Ohio EPA has done this by incorporating a detailed analysis of the environmental effects of the proposed alternatives in its review and approval process. Environmental information was developed as part of the facilities plan, as well as through the facilities plan review process and during site inspections. The Agency's preliminary Environmental Assessment found that the project does not require the preparation of a Supplemental Environmental Study.

Why is a Supplemental Environmental Study not required?

Our environmental review concluded that significant environmental impacts will not result from the action. Any adverse impacts have either been eliminated by changes in the facilities plan or have been reduced by the implementation of the mitigative measures discussed in the attached Assessment.

How do I get more information?

A map depicting the location of the project is included as part of the Environmental Assessment. The Environmental Assessment presents additional information on the project, alternatives that were considered, impacts of the action and the basis for our decision. Further information can be obtained by calling or writing the contact person listed in the back of the Environmental Assessment.

How do I submit comments?

Any comments supporting or disagreeing with this preliminary decision should be submitted to me at the letterhead address. We will not take any action on this general plan for 30 calendar days from the date of this notice in order to receive and consider any comments.

What happens next?

In the absence of substantive comments during this period, our preliminary decision will become final. The entity will then be eligible to receive loan assistance from this agency.

Please bring any information that you feel should be considered to our attention. We appreciate your interest in the environmental review process.

Sincerely,



Jerry Rouch, Assistant Chief
Division of Environmental and Financial Assistance

Attachment

ENVIRONMENTAL ASSESSMENT

A. Project Identification

Name: City of Springfield, Erie Interceptor Express Sanitary Sewer Project

Address: Mr. James Bodenmiller, City Manager
76 East High Street
Springfield, Ohio 45502

Loan No.: CS390880-0010

B. Project Overview

The City of Springfield has nominated the above referenced wastewater improvements project for Water Pollution Control Loan Fund (WPCLF) financing through Ohio EPA's Division of Environmental and Financial Assistance (DEFA). Currently, the city utilizes a combined storm and sanitary sewer system to convey wastewater collected from city homes and businesses to its wastewater treatment plant (WWTP) located along the Mad River. This combined system discharges untreated wastewater and storm water to the Mad River and its tributaries under wet weather conditions through numerous permitted outfall structures. Additionally, wet weather can cause partially treated sewage bypasses at the WWTP. To abate the potential human health risk associated with these overflows, Springfield is undertaking capital improvement projects aimed at curbing wet weather bypasses at its WWTP and overflows in the collection system. For example, the city completed a 100 million gallon per day (mgd) capacity high rate treatment facility (HRT) in 2014 to reduce primary wet weather bypasses at the WWTP.

To address collection system overflows, the city proposes to make improvements to its sanitary sewers as recommended in its 2004 combined sewer overflow (CSO) Long Term Control Plan (LTCP), its 2012 LTCP Addendum, and the 2014 Basis of Design report for this project. These improvements are designed to reduce extraneous flows into the sewer system through sewer rehabilitation, sewer separation, and storage and transport of the remaining flows to the WWTP for treatment. As the major part of this proposed project, the Erie Interceptor Express Sanitary Sewer will convey only wastewater directly to the city's WWTP and avoid the combined storm and sanitary portion of the city's sewer system between the city's existing pump stations on the northwest side of Springfield and its WWTP. Together with the city's previously built and WPCLF-funded HRT Unit, the Erie Interceptor Express Sewer project will complete Phase 1 of the city's five phase LTCP as required in Springfield's National Pollutant Discharge Elimination System (NPDES) permit. Readers should note that those five phases need to be completed by July 2031, but that their exact configuration will depend on the effects of preceding projects, updated system and model information, out-of-plan system

improvements, environmental value to area streams, ability to provide multiple benefits to city residents, and affordability. Overall, the Erie Interceptor Express Sewer and the other LTCP projects are expected to result in water quality improvements and human health benefits.

Among the first of the city's LTCP projects scheduled for completion, the Erie Interceptor Express Sewer project consists of installing a dedicated 48-inch gravity sanitary sewer pipe, a pump station, and two parallel force mains; demolishing four existing pump stations and conveying their flows to the new Erie Interceptor Express Sewer via gravity; cleaning and rehabilitating existing sanitary sewers using cured-in-place pipe (CIPP); and restoring the construction work area. The estimated total project cost is \$23.5 million, most of which will be funded through the WPCLF by a proposed 25-year reduced interest rate loan. Currently, the 20-year WPCLF standard interest rate, which is revised monthly to reflect market conditions, is 1.78%. The city's interest rate on its anticipated June 2016 loan award will be similar. The city plans to repay the anticipated WPCLF loan with revenues collected from its wastewater customers in the form of 7% increases in its sanitary sewer service charges, one of which was enacted in 2016. The others will follow in 2017 and 2018. The resulting estimated sewer bill in 2018 (about \$514) will be approximately 1.6 percent of Springfield's median household income of \$31,635, which is considered affordable.

The environmental review of the Erie Interceptor Express Sewer Project conducted by Ohio EPA, described in this document, indicates that the proposed project will not result in significant, adverse, direct or indirect environmental or socioeconomic impacts. Information on the city's alternatives analysis, selected alternative, project implementation, public participation activities, and the project's potential environmental impacts and mitigation can be found below.

C. Existing Conditions

Nearly half of the city's sanitary and storm sewers were originally installed before 1930. There are 7 pump stations, approximately 318 miles of sanitary and combined sewers, and 119 miles of dedicated storm sewers in Springfield. Of the 318 miles in the city's wastewater collection system, approximately 28 percent (89 miles) are combined sewers and 72 percent (229 miles) are separated, sanitary sewers. The majority of the remaining combined sewers are in the older, central part of the city. Combined sewers were designed so that storm water and sanitary sewage are carried in the same pipes. During and following rain storms, the amount of raw wastewater and storm water rises to the extent that the combined sewers discharge through CSO points to the environment without treatment. This condition can lead to water quality and potential human health concerns in the Mad River and its tributaries downstream of these discharge points.

Currently, there are 57 known permitted CSOs in the city's combined collection system. Most (35) of these CSOs discharge to Buck Creek, while the remaining 22

Once the wastewater reaches the city's WWTP under dry weather conditions, the flows pass through primary and secondary stages of treatment before being chlorinated and then discharged at River Mile 25.34 of the Mad River.¹ The city's WWTP is rated to process 25 mgd on an average daily flow basis and a peak flow of 134 mgd, based on the previously completed HRT's primary treatment and influent diverter capacity. The WWTP continues to have bypasses around the primary and secondary treatment processes mainly for maintenance reasons. While the secondary sewage bypass operated only once per year, the primary bypass activated as many as 60 times per year in the past (2008-2011 data). The HRT Unit was designed to reduce activation of the primary bypass to 4 events per year. Significantly, since installing the HRT Unit in 2014 and testing began in 2015, no primary bypass activations have been noted. However, both the primary and secondary treatment unit bypasses have not been closed and physically eliminated.

According to Ohio EPA's 2006 State Water Quality Management Plan, the City of Springfield does not have a designated facilities planning area in Clark County. However, the facilities planning area map shown in Figure 2 illustrates what the city has used on prior projects.

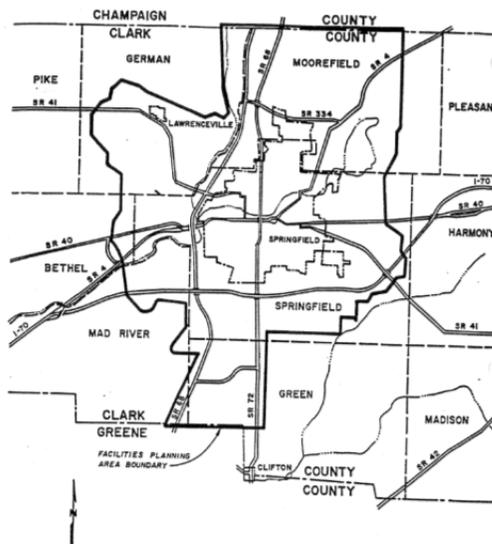


Figure 2, Springfield WWTP Facilities Planning Area (from 1980s and 1990s)

¹ The Springfield WWTP is a trickling filter and complete-mixed activated sludge facility designed to provide preliminary, primary, secondary, and advanced secondary treatment. Wet stream processes include screening and grit removal, primary settling, trickling filters, activated sludge aeration, secondary clarification, disinfection by chlorination, dechlorination, and post aeration. Solid stream processes include sludge stabilization by anaerobic digestion, sludge storage, sludge dewatering using a belt filter press, and recycling of the processed sludge by land application at agronomic rates. There are two WWTP bypasses at this facility: a primary (influent) bypass and a secondary bypass. The previously noted HRT Unit only addresses the primary bypass. Under stress testing completed in 2015 at 50 mgd, the city's WWTP handled no more than 40 mgd of peak flows, while the HRT is rated at 100 mgd. This extra 10 mgd volume cannot be processed currently due to limited capacity in the headworks, primary clarifiers, primary effluent pumps, and trickling filter effluent pumps at the city's WWTP.

D. Future Needs

Given that the main purpose of the Erie Interceptor Express Sewer project is to help address some of the city's wet weather overflow problems, there is little residential population growth associated with it. Rather, in order to address these existing wet-weather needs and an unsewered area problem, the city proposes to make specific improvements to its collection system as noted above.

In the future, the city is required to complete the following LTCP projects in the schedule that is outlined in the NPDES permit available on-line at:

<http://wwwapp.epa.ohio.gov/dsw/permits/doc/1PE00007.pdf>

1. Evaluate the effectiveness of the LTCP WWTP and collection system Phases 1 and 2 projects that have been completed so far and submit a report.
2. Based on a recently completed No Feasible Alternatives Analysis report (2015) for the LTCP Phase 2, design WWTP upgrades necessary to provide complete primary and secondary treatment for flows up to 50 mgd utilizing the latest WWTP stress testing results.
3. Complete the following nine wet weather flow control projects by July 2031: the Mill Creek Sewer Separation project, the Mill Run Consolidation Sewer, the Upper Buck Creek Consolidation Sewer, the Diversion Chamber 40 Storage Tunnel, the Buck Creek Storage Tunnel, the Satellite HRT System, the Lower Buck Creek Sewer Separation, the Lower Buck Creek Consolidation Sewer, and the Indian Run Consolidation Sewer project.

The project list will be reevaluated every six years under an adaptive, programmatic review process. During this process, the listed projects and new alternatives will be evaluated based on the effects of preceding projects, updated system and model information, out-of-plan system improvements and projects, environmental value to the stream, ability to provide multiple benefits to Springfield's citizens, and affordability. Currently, this work is grouped into five phases of improvements and uses the presumptive approach to determine how many CSO activations can occur at each CSO location.

E. Project Planning and Discussion of Feasible Alternatives

1. Unsewered Areas in Springfield, Ohio vicinity

During previous project planning efforts dating back to the 1980s, the city identified 25 to 50 unsewered areas that could not be served by its existing sanitary sewer system and so remained a potential water quality and human health concern. While these unsewered areas continue to rely on septic tanks and other solutions to residential wastewater treatment, the city's Erie Interceptor Express Sewer has the potential to provide one of these unsewered areas, located along Skinner Lane in

Springfield Township, with the opportunity to replace existing home sewage treatment systems (HSTS) with a sanitary sewer connection to the city's WWTP.

City officials notified the seventeen residences of the Skinner Lane area about the potential for them to be served by the new express sewer. Of the ten homes in the immediate project area, one residence's HSTS will be crossed by the proposed sanitary sewer, and so needs to be replaced with a connection to the city's sanitary sewer system. Given the nature of the proposed sewer project, the other residences will not be required to connect to the express interceptor sewer, but rather be given the option to connect to a collection line extension off the north end of the express line. This new collection sewer will be installed, by the city's choice, to make sanitary sewer service accessible to everyone on Skinner Lane when they do decide to tie in. The project will extend a lateral to each property line for the currently unsewered homes along Skinner Lane.

2. Centralized Wastewater Problems in the City

Starting in the late 1990s and after completing the latest in phased improvements to its WWTP, Springfield began addressing the CSOs in its collection system. First among these efforts was the LTCP and Addendum, which outlined a "presumption approach" to CSO control. This approach allows the city an average of four untreated CSO events per year, as long as they do not cause significant water quality impacts. As yet, the city has not completed any specific sanitary sewer relief projects implementing the findings of the LTCP. Rather, the focus has been on larger projects, such as efforts to eliminate stream water from entering the city's sanitary interceptor sewers.

This work was followed by completion of a feasible alternatives report, basis of design report, and technical memoranda to determine how to meet the terms of the city's NPDES permit compliance schedule, including how best to address the city's two WWTP bypasses with the HRT facility and other improvements by 2015. Now that the HRT project has been completed, the city is proceeding with the improvements to its collection system and to other aspects of the WWTP's performance during wet weather.

Alternatives Analysis

Springfield did not consider a no-action alternative more than briefly as it would not address the city's responsibility to complete the proposed wastewater collection sewer improvement projects included in its NPDES permit compliance schedule. With this no-action option not viable, the city evaluated other options to reduce CSO events and lower the volume of wet-weather flows discharged from its existing CSOs. Of these alternatives, the option of separating sewers throughout the entire community was screened from consideration due to its excessive costs. An express sewer was considered for this particular project as it would enable the city to circumvent existing combined sewer system areas and maximize the amount of

sanitary wastewater getting to the city’s WWTP for secondary treatment. On this basis, it was determined to be a better, less costly option than other storage or satellite treatment alternatives.

Based on the city’s completed studies, Springfield has analyzed alternatives for this proposed project. These alternatives consisted of numerous alternative alignments and configurations, as can be found in the city’s basis of design report from March 19, 2014, and are shown in a general way below in Figure 3:

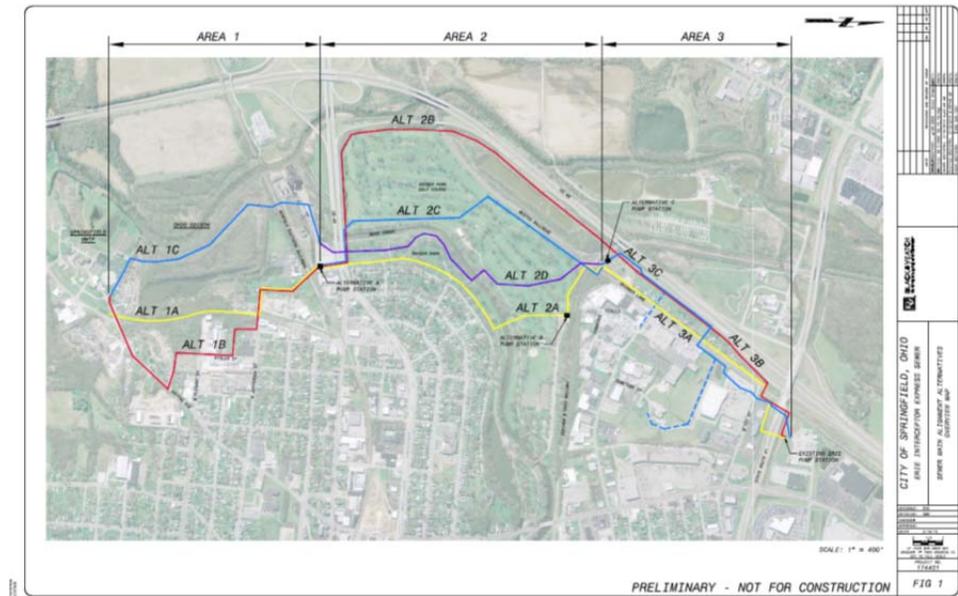


Figure 3, Alternative Alignments

The city considered the following options (see Figure 4) and their costs:

TABLE 2-2 PROBABLE CONSTRUCTION COST	
AREA 1 – SOUTHERN ALIGNMENT	DUAL 16-INCH FORCE MAIN
ALTERNATIVE 1A	\$1,076,000
ALTERNATIVE 1B	\$1,792,000
ALTERNATIVE 1C	\$1,015,000
AREA 2 – GOLF COURSE ALIGNMENT	DUAL 16-INCH FORCE MAIN
ALTERNATIVE 2A	\$2,038,000
ALTERNATIVE 2B	\$2,273,000
ALTERNATIVE 2C	\$1,671,000
ALTERNATIVE 2D	\$1,515,000
AREA 3 – SKINNER LANE ALIGNMENT	42-INCH GRAVITY SEWER
ALTERNATIVE 3A	\$3,727,000
ALTERNATIVE 3B	\$4,110,000
ALTERNATIVE 3C	\$3,285,000

Figure 4, Alternative Alignments (refer to Figure 3) and Their Costs

Source: Erie Interceptor Express Sewer, Technical Memorandum #2 – Alignment Alternatives, p. 16

Based on these relative costs, the City of Springfield chose to implement Alternatives 1C, 2D, and 3C. All of these alignments appear to have the lowest capital costs among the other options listed in Table 2-2 shown in Figure 5. Other considerations leading the city to select these alignments over the other options focused on non-monetary factors such as railroad easement restrictions, topographical constraints, length of pipe running through and thus effects on the golf course property, and other qualitative concerns as presented below in Figure 5:

TABLE 2-1 ALTERNATIVE ROUTE COMPARISON SUMMARY				
Area 1 – Southern Alignment	ALTERNATIVE 1A	ALTERNATIVE 1B	ALTERNATIVE 1C	
Constructability	1	2	2	
Flexibility	1	2	3	
Public Acceptance	2	1	3	
Environmental Assessment	1	3	1	
Maintenance	2	2	2	
Total	7	10	11	
Area 2 – Middle Alignment	ALTERNATIVE 2A	ALTERNATIVE 2B	ALTERNATIVE 2C	ALTERNATIVE 2D
Constructability	2	1	3	3
Flexibility	3	2	3	3
Public Acceptance	1	2	2	2
Environmental Assessment	2	2	2	2
Maintenance	2	1	2	3
Total	10	8	12	13
AREA 3 – Northern Alignment	ALTERNATIVE 3A	ALTERNATIVE 3B	ALTERNATIVE 3C	
Constructability	2	1	2	
Flexibility	1	1	2	
Public Acceptance	1	2	2	
Environmental Assessment	2	2	2	
Maintenance	3	1	2	
Total	9	7	10	
Key: Poor = 1, Fair = 2, Good = 3				

Figure 5, Alternative Alignments and Their Qualitative Differences

Source: Erie Interceptor Express Sewer, Technical Memorandum #2 – Alignment Alternatives, p. 15

F. Selected Alternative

As a dedicated sanitary sewer, the Erie Interceptor Express Sewer includes approximately 6,000 linear feet of 42" diameter gravity sewer, 6,000 linear feet of dual 18" diameter force main, and a new pumping station with a capacity of 13,000 gallon per minute (gpm). In addition, the proposed project involves decommissioning and demolishing the Erie, Skinner Lane, Hometown, and Commerce Circle pump stations, and abandoning their respective force mains. Sanitary flows from the areas now served by these pump stations will instead be conveyed through a combination of new gravity sewers and dual force mains comprising the city's proposed express sanitary sewer to the city's WWTP. Please see Figure 6 below for specific details of the proposed alignment for the Erie Interceptor Express Sewer project.

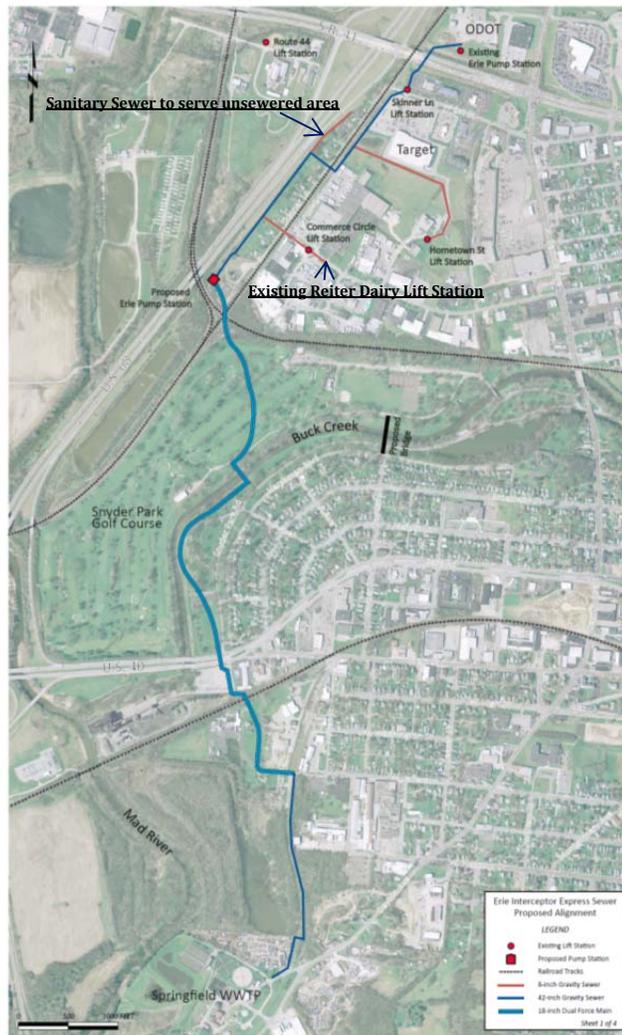


Figure 6, The City of Springfield's Proposed Erie Interceptor Express Sewer Project Map (No Scale)

Other important components of the overall project area include:

- Rerouting the existing force mains serving the State Route 41 and Reiter Dairy pump stations and tying into a new gravity sewer;
- Running about 3,000 lineal feet of sanitary sewer to tie in some commercial and unsewered, residential locations;
- Rehabilitating approximately 4,100 linear feet of the existing 36” cast-in-place concrete high level interceptor (HLI) with a combination of CIPP and slip lining. Portions of the HLI have significant root intrusion and will require heavy cleaning;
- Crossing several existing utilities and railroads using trenchless crossing techniques, including hand-tunneling through rock;
- Installing a 42” diameter gravity sewer the final 2200 lineal feet to the WWTP site; and
- Restoring the work area within the limits of construction.

Taken together, these improvements will reduce the peak wet-weather flows being conveyed to the city’s WWTP, and are expected to provide at least a 20-year solution to the city’s wastewater collection system needs in this part of Springfield. The city expects that other projects (see Future Needs) will culminate in the elimination of the city’s two WWTP bypasses and CSOs.

Within the project area shown in Figure 6 above, Ohio EPA expects that the construction activities will be limited to prior-disturbed areas and an area of floodplain along the Mad River. More specifically, trench excavations between 50 and 60 feet wide are expected to be needed for the 48-inch diameter gravity sewer and dual 18-inch diameter force mains. In contrast, the CIPP repair for the existing HLI sewer will not require any surface disturbance.

Readers should also that four other pump stations will stay in service in the general vicinity of the project area after the project’s completion. These include the Sugar Grove, Masonic Home, Reiter Dairy, and Route 41 Pump Stations. Of the latter, the Sugar Grove and Masonic Home Pump Stations will continue to operate independently and will not be tied into any of the new sanitary sewers being installed during this project because of the added complexity of making the connection to the force main portion of the project.

Other, operational changes include rerouting the discharge from the existing Reiter Dairy Pump Station into the new gravity sewer extension to the Commerce Circle Pump Station, while the discharge of the existing Route 41 Pump Station will be routed to a new gravity sewer.

G. Project Implementation

Springfield will borrow all but \$1.9 million of the estimated \$23.5 million project cost from the WPCLF at a standard interest rate payable over 25 years. The estimated annual WPCLF debt service associated with this project after construction is expected to be \$1.1 to \$1.2 million. WPCLF loan award is anticipated in June 2016. Construction will be initiated in July 2016 and is expected to require two years to complete, ending in July 2018 or earlier.

The City of Springfield last increased its sanitary sewer fees in 2016 in anticipation of this proposed project and to address critical needs for infrastructure improvements through other projects in its NPDES permit compliance schedule. The sewer utility rate increases approved by the City Commission will enable the city to make important investments in the wastewater collection and treatment systems over the next several years, while also keeping up with the impacts of inflation in the general operation of the system and meeting increased regulatory requirements. The planned increases in sewer rates are 7% annually in 2017 and 2018. After 2018, the city's normal practice of annually updating its rate model will help it plan to pay for future expenses to upgrade the city's WWTP or other major improvements to its wastewater and storm sewer systems, such as outlined above in the discussion of projects needed to address the city's NPDES permit compliance schedule.

A typical residential customer using on average 1000 cubic feet per month is currently paying a fee of \$40.17 per month, or about \$450.36 per year for sanitary sewers and storm sewers (separately or combined). This fee will increase to \$45.98 per month, or \$551.76 a year in January 2018. When expressed as a percentage of the City's latest median household income figure of \$31,635, these annual fees are about 1.74% of the City's 2009-2013 MHI. As noted on the city's sewage rates web site, all residents of Springfield using its municipal sewerage system (or where the municipal system is available within three hundred feet of a customer) currently pay sewage service at a rate of \$3.18 per 100 cubic feet monthly, with a minimum charge of \$14.73 per month. Under the city's current rate ordinance, these rates per 100 cubic feet are scheduled to increase in 2017 and 2018, with the rate reaching \$3.64 per 100 cubic feet in 2018, and the minimum monthly charge reaching \$16.86 in 2018. In contrast to the city's prior HRT project funded through the WPCLF, no storm water fee revenues will be used this time to repay Springfield's loan.

H. Environmental Impacts of the Selected Alternative

The environmental review conducted in part by Ohio EPA and other review agencies, described herein, indicates that the proposed improvements within Springfield's project area will not result in significant, adverse direct or indirect environmental impacts on the areas shown in Figures 1-3 and 6 above.

Because the sanitary sewer alignments chosen for Springfield's proposed project are linear and within a previously disturbed area, the amount of land that will be affected by construction is relatively small, and the mitigation developed by the city's engineering consultant is appropriate, Ohio EPA expects the proposed wastewater improvements will not directly result in significant adverse effects on the natural or human environment.

The following natural features will not be affected, for the reasons given. The project is too small in scope to alter major landforms (i.e. plains, mountains, valleys, etc.), and wetlands are mainly absent from the proposed alignments. Next, minimal site grading is proposed for the outfall sewer located within the 100-year floodplain of the Mad River. Finally, the project is generally not located in or near any coastal zones, national wildlife reserves, or state wildlife reserves. As a condition of project approval, disturbed areas will be graded to reflect original drainage patterns following completion of site work. Thus, pre-construction topography will be restored and soils will be largely unaffected by this project.

Where there is any potential for direct impacts on any resources in either the natural or human environment categories, an analysis can be found below in the following summary of Ohio EPA's environmental reviews.

Springfield's Erie Interceptor Express Sewer project also was reviewed by Ohio EPA for indirect (secondary) impacts on the environment. Where pertinent, an explanation has been provided below that describes the current condition of proposed development areas and why no significant adverse environmental impacts from this development are expected. Overall, Springfield's proposed project is not expected to result in any significant, indirect adverse environmental impacts for the reasons cited below. This conclusion was reached mainly because of the lack of any significant natural resources in the project planning area (see Figure 2) that could be threatened by potential urban development, Ohio EPA's expectation that this project will not adversely affect local land use patterns through increasing population, development, and storm water runoff and that impervious surfaces will not be increased in the project area but will in fact be reduced. Similarly, the socio-economic characteristics of the project area are not expected to be adversely affected.

1. Topography, Grading Activities, and Soils

Current estimates are that more material will be excavated from this project's trenches and pump station site than can be utilized during backfilling of trenches and reestablishing cover over existing sanitary sewers (e.g., the existing high level interceptor at the southern end of the project and a few other areas over the proposed 42" inch diameter gravity sewer). As the city has no designated spoils disposal areas, all excess material disposal sites outside of the previously noted locations will require prior Ohio EPA review and approval. Moreover, as a condition of Ohio EPA's project approval, none of the excess excavated soil expected to be

generated during Springfield's proposed project can be used to fill any wetlands, depressions, or floodplains.

As all stockpile sites and contractor equipment laydown areas are required to meet applicable storm water pollution prevention plan requirements and use only prior disturbed, environmentally sound areas within the temporary easement areas, no adverse impacts from this part of the project on topography and soils are expected. To conclude, no significant, direct, adverse impacts from site grading of area soils are expected to result from this proposed project.

2. Surface and Ground Water

➤ Surface Water

The proposed improvements to Springfield's sanitary sewers within the previously-disturbed area shown in Figure 6 above, along with needing only one open-cut stream and wetland crossing during this project under the conditions of an Army Corps of Engineers' permit, indicates that the city's proposed project should not result in any significant, adverse, direct environmental impacts on surface water resources, including the Mad River and its tributaries.

In addition, standard mitigative measures (e.g., perimeter silt fences, storm water inlet protection, trench and excavation dewatering, timely temporary and permanent seeding of bare soil areas) to reduce storm water runoff, erosion, and sedimentation into catch basins, storm sewers and streams during the proposed twenty-four month construction period, plus enforcing prohibited construction activities over this same timeframe, should help assure that no significant, adverse environmental impacts to surface water resources occur. Important to the success of these measures is the requirement that the contractor will install and maintain appropriate erosion and sedimentation controls in accordance with all applicable storm water pollution prevention and erosion control plans in the contract documents. Both the city and the contractor will be responsible for complying with the general storm water pollution prevention plan permit. In addition, the contractor will be responsible for meeting all erosion and sedimentation control terms and conditions found in the Ohio Department of Transportation (ODOT) manual in Item 832, in place of details in the plan sheets.

Impervious Surface Area. Given the type of proposed improvements, the fact that the ground surface, creek crossing, and wetlands in the project work areas will be restored to pre-construction conditions, and the fact that the project will actually decrease by 20% the amount of impervious surfaces in the project area through the construction of the new lift station and

deconstruction of the four existing pump stations, Ohio EPA expects that the impacts on water quality in the Mad River watershed will be minimal.

As a result of these provisions, Ohio EPA anticipates that no significant, adverse, direct impacts on surface water features will result from Springfield's proposed project.

Based on the above information, there should be no significant, short-or long-term, direct or indirect, adverse impacts to surface water resources as a result of the construction of the city's proposed project, and a net improvement in surface water conditions upon reducing the number of WWTP bypasses and CSO activations taking place in the project area.

➤ Ground Water

Ground Water Quality: The Great Miami River and its associated buried valley aquifer system, including the area adjacent to the Mad River, are highly productive, high quality resources and their protection is of vital importance to the City of Springfield and surrounding communities. For this reason, among others, US EPA has designated the system as a sole source aquifer, subject to specific review criteria, and the city is applying specific protection provisions to this project. Provided that the contractors follow specific spill prevention and clean-up approaches and provided they are informed of the sole source aquifer's regional significance at the pre-construction conference, Ohio EPA expects that the aquifer underlying the project area will be adequately protected from any spills that might occur during this proposed project.

Ground Water Dewatering: Given the proximity of the Mad River and its adjacent aquifer to the project area shown in Figure 6, Ohio EPA anticipates that ground water will be encountered. As a result, temporary site dewatering during construction of the proposed project is expected to be necessary, so that it can be completed successfully. To assure no adverse direct impacts, all dewatering flows will be filtered before discharge to any storm sewers or other stabilized sites. Any variations from this proposed dewatering plan may require additional review and approval by Ohio EPA.

To conclude, all dewatering activities must conform to all relevant parts of the contract documents (such as erosion control), as well as the Stormwater Pollution Prevention Plan and any NPDES permit (pretreatment) requirements. As a result, all discharge of dewatered flows will be monitored so as to avoid any adverse environmental impacts from the release of contaminated ground water, sediment laden water, or colder than ambient temperature water to the environment. Once construction is successfully completed in about two years, the dewatering activities will cease, and ground water levels will begin to return to their pre-construction levels.

Based on the above, the proposed project should not result in significant, short-or long-term, direct adverse environmental impacts to ground water quality or quantity.

3. Aquatic, Terrestrial, and Critical Habitat, including Floodplains and Wetlands

➤ Aquatic Habitat

Because of the limited scope of the construction activities, only minor direct impacts on aquatic habitat are anticipated. For example, the city only proposes to make one creek crossing during the entire project and this creek crossing is expected to be performed using an open-cut trench method and a causeway with very specific mitigation required to restore the stream banks and the identified wetland in the proposed alignment. On this basis and the Army Corps of Engineers' approval of conditions in the contract documents, Ohio EPA anticipates that no direct, significant, adverse impacts on surface aquatic habitat features (streams, floodplains, or wetlands) will occur during the proposed construction period. Further support for this conclusion is that the list of prohibited construction activities included in the contract documents precludes the possibility of spoil material disposal in any wetlands or floodplains. In addition, because excess material from trench and pump station excavation will be used to reestablish cover over the High Level Interceptor and proposed 42" gravity sewer, and because any material not used for this purpose will be site subject to Ohio EPA approval, aquatic habitat should not be adversely affected by the disposal of excess excavated material. Finally, trench regrading and properly timed seeding of exposed areas will reduce short term or long term direct impacts to insignificant levels. Adherence to a storm water pollution prevention plan for this project is expected to assure that site restoration occurs in a timely manner so that aquatic habitats are not subject to significant, short-or long-term, direct adverse environmental impacts. Overall, a long-term benefit to aquatic habitats around the Mad River and downstream is the expected outcome of this proposed project.

➤ Terrestrial Habitat

The most notable terrestrial habitat feature in the project area is the presence of individual, mature trees and snags within the proposed project alignment along the Mad River, its tributaries, and other open spaces along the proposed sanitary sewer alignment. Given the city's selection of its chosen sewer alignment, only selected trees will need to be trimmed or removed to facilitate construction of this project. Only a few, residential street trees will be removed as part of this project, or otherwise affected. The majority of both types of trees were removed prior to this project.

According to a report on wetlands and other habitats that was prepared for this project, “the southern portion of the project area passes through a disturbed wooded area where most of the vegetation observed was growing on historic fill material. Dominant tree species observed in the wooded area include American elm, eastern cottonwood, wild black cherry, white ash, black locust, white mulberry, and box-elder in the overstory, and dense thickets of Amur honeysuckle in the understory. The remainder of the project area passes through commercial, residential, and parkland property primarily containing disturbed mowed lawn habitat, where the dominant species observed in these habitats includes tall fescue and Kentucky bluegrass.” This information indicates that high quality forested habitat is absent from the project area; thus, the project should have no significant, adverse, environmental impact on terrestrial habitat in the project area.

In sum, on the basis of these findings for aquatic (wetlands, floodplains, and streams) and terrestrial (upland) habitats, Ohio EPA has determined that Springfield’s proposed project will have no significant, direct, adverse environmental effects on any unique terrestrial or aquatic habitat features. Similarly, given the limited growth potential of the project and facilities planning areas shown above in Figures 1-3 and 6, the potential for indirect and cumulative impacts is also low.

➤ Critical (Suitable) Habitat

According to the Ohio Department of Natural Resources’ (ODNR) Division of Natural Areas, ODNR’s Division of Wildlife, and the U.S. Fish and Wildlife Service (US FWS), the project area shown in Figure 6 includes some potentially critical (suitable) habitat trees (41) for roosting that could be used by federally-listed endangered or threatened species, such as the Indiana bat and the Northern long-eared bat. According to the city, these trees and snags have either been avoided by the proposed sewer alignments or will be removed during the time of year that these trees are not in use by these two bat species. In addition, the project area within Clark County is within the known range of other federally-listed species including the rayed bean (bivalve mollusk), prairie fringed orchid (plant), the bald eagle (bird), and the eastern massasauga (reptile). None of these species will be adversely affected by the proposed project because of an absence of suitable habitat and/or the mitigation chosen by the city to be used during this proposed project, including bivalve relocation. The same applies to any state-listed species inhabiting Buck Creek.

In general, ODNR concluded during its reviews that the proposed project is not likely to have an impact on any of the state-listed animal species that historically have existed in the project area. Similarly, no plant species of any significance are known to now occupy the project area under review in this assessment. Accordingly, Ohio EPA has concluded that no significant adverse

direct, indirect, or cumulative impacts on animals or plants are likely to occur in response to the proposed improvements on the basis of the sites selected for their construction.

4. Land Use (including Open Space) and Agriculture

Based on a review of this proposed project and the existing city and township zoning (available at <http://spfldtwp.org/zoning.html>) for the project area, Ohio EPA has concluded that the project will have no significant direct, indirect, or cumulative adverse effects on either land use or agricultural production for the following reasons. First, the project's location is within the City of Springfield and the adjacent township land along Skinner Lane; and second, from a direct impact standpoint, all construction activities will be limited to a previously-disturbed area (see Figure 6). Thus, no significant, adverse, direct short-term impacts on land use or agricultural lands are possible during this proposed project's two-year construction period, and its subsequent site restoration. Finally, from an indirect and cumulative impact standpoint, any long-term effects on land use or agriculture land are expected to be minimal because the proposed project's focus is on addressing existing problems within the city's collection and treatment systems, not on inducing growth.

5. Air Quality

Air pollution levels in the project area mirror those in Clark County as a whole. Since the entire county is now in full attainment with air quality standards for all six major ("criteria") air pollutants, Ohio EPA has concluded that the city's proposed project will have no significant, adverse, direct, indirect, or cumulative impacts on air quality. This conclusion is supported by the air quality provisions in the detail plans and specifications. With the mitigation proposed for dust control and proper tuning and maintenance of emission controls on heavy equipment, this relatively short-term increase in construction equipment activity should not result in any significant, adverse, short- or long-term impacts on air quality. In addition, use of dust control measures (such as water and calcium chloride) and prompt mulching, reseeding, and repaving of disturbed areas in reasonable sections should limit dust generation to relatively low levels, as well as minimize soil erosion and sedimentation of area waterways.

Ohio EPA supports the conclusion that this proposed project is consistent with the objectives of water quality planning under the Clean Water Act (see Figure 2), and with the State of Ohio's State Implementation Plan under the Clean Air Act. A benefit of this proposed project will be the elimination of

odors associated with the city's CSOs and bypassing of flows to the Mad River from the city's WWTP.

6. Noise, Traffic, Aesthetics, and Safety

The contract specifications and detail plans for Springfield's proposed project provide adequate mitigation to address potential relatively short-term noise, traffic, and aesthetic concerns from truck traffic and other heavy equipment use. As a result of implementing control measures such as keeping construction equipment properly operating between 8:00 AM and 5 PM, preventing construction activity during evening and nighttime hours, and providing emergency access to the construction work areas at all times, no significant, direct project effects on noise, traffic, and aesthetic levels should occur. Overall, noise levels and traffic patterns are expected to return to pre-construction levels once the city's proposed project is completed. By reducing, if not eliminating, the WWTP bypasses and CSOs mentioned in the previous sections of this document, Ohio EPA expects that Springfield's proposed project will improve the overall aesthetics of the project area in the long-run. Finally, provisions have been included in the contract documents to protect workers' hearing and safety during the construction of this project. Compliance with the noise control provisions in the detail plans will help assure this.

7. Energy Use

Based on the planning information provided by Springfield, construction and operation of this proposed project are not expected to require significant amounts of non-renewable energy; thus they will have no significant, short-term or long-term adverse environmental impacts associated with energy production, such as air pollution. The planned two-year construction period, with its energy use in the form of fuel consumption, is unavoidable but necessary if the city's wastewater needs are to be addressed. With less extraneous (storm water) flows entering the collection system upon project completion and fewer pump stations operating after they are replaced by larger, gravity sewers and pump station non-renewable energy use is expected to be less than current usage, and not expected to result in any direct or indirect adverse environmental impacts. The energy demands from these new facilities are expected to be within the range of electrical energy already currently available.

8. Archaeological and Historic Resources

Ohio EPA's review found that this proposed project will not adversely affect archaeological and historic properties. The primary basis for this conclusion is that the proposed sanitary sewer improvements are within previously disturbed locations. Accordingly, the potential to find any undiscovered,

archaeological and historic resources that are eligible for the National Register of Historic Places within the project area appears low. Furthermore, most of the proposed work will take place away from buildings on the National Register of Historic Places, or designated by the State Historic Preservation Office as a historic structure. In particular, careful alignment selection through Snyder Park and the adjacent golf course have avoided the previously undisturbed areas, the Snyder Memorial Bridge, and the clubhouse dating from the 1930s, as well as the relocated Madonna of the Trail monument.

Should any cultural resources appear during the project's construction, the detail plans include the necessary provisions for the contractor to stop work and coordinate with the appropriate authorities at the State Historic Preservation Office in Columbus. Ohio EPA concurs with this approach. On this basis, any direct or indirect impacts on these types of resources should not be adverse.

9. Local Economy

As documented earlier, the proposed project is related to addressing WWTP bypasses and CSOs within the city's collection system, and not to providing capacity for future growth. Also, as noted above in the "Project Implementation" section of this document, the long-term costs of this project and others the city is preparing to construct over the next fifteen years are not expected to have any significant, adverse effect on the local economy. This conclusion is based on the fact that the city has already scheduled sewer rate increases through 2018, that the resulting fees are expected to be affordable for an average city resident, and that the city will save approximately \$4 million over 25 years by using the WPCLF instead of a 3.03% market rate loan.

I. Public Participation

The express sanitary sewer improvements project and the city's proposal to finance it using WPCLF funds, have been reviewed by the following agencies for technical input, or for conformance with legislation under their jurisdiction:

* Ohio Department of Natural Resources
* State Historic Preservation Office
* U.S. Fish and Wildlife Service

* Ohio Environmental Protection Agency
* U.S. Army Corps of Engineers

As no negative comments about the direct or indirect impacts of the proposed improvements were received from these review agencies, Ohio EPA has concluded that any potential concerns were addressed during project planning, as indicated in the environmental impacts section of this document.

In preparation for this proposed project and others still in the planning and design stages, the city has completed public notification and involvement activities, including service committee and city council meetings. These have occurred over the past several years and continue to focus on the city's CSO long-term control plan activities. Most recently, the city held an open-house style public meeting on February 13, 2014 covering this wastewater infrastructure project in Springfield and sent invitations to ninety residents and businesses in the affected project area to attend. A public notice was also placed in the *Springfield News-Sun* a few days prior to the public meeting. In response, thirteen residents attended (mainly from the unsewered part of the project area) and the city addressed the two main comments it received from these residents. Particular attention was paid to questions relating to how far the express sewer should be from any existing (private) water wells, and to potential damage to existing leach fields in the project area. The city responded that they will ensure that the existing wells are located on the survey and that the required 10 foot horizontal clearances between sanitary sewers and the private wells are maintained. (This and other steps should assure that private wells in the project area [known to be at depths over 100 feet deep in limestone] should be unaffected by site dewatering during sewer installation at a depth of 30 feet.) Concerning the known leach fields in the Skinner Lane area, the city committed to showing existing leach fields based on health department records if available, checking with the home owners once the alignment is set, and requiring the contractor to repair any leach fields damaged during construction.

On this basis, the city and its consultant have provided project planning area residents with ample opportunity to have their questions about this and related CSO long-term control plan projects answered during the public review and comment period. Accordingly, Ohio EPA has concluded that the public participation requirements of the WPCLF program have been met and that the city has appropriately involved the public in the decision making process for its proposed collection system improvements project.

J. Reasons for a Preliminary Finding of No Significant Impact

Based upon our review of Springfield's project planning information and the materials presented in this Environmental Assessment, Ohio EPA has concluded that there will be no significant adverse direct impacts from the city's proposed express sewer project as it relates to the environmental features discussed previously. Through avoidance of the most environmentally-sensitive areas and the use of mitigative measures described in this document, the impacts from the project's construction should generally be relatively short-term and insignificant. Given the limited scope and purpose of the proposed project, no significant, adverse indirect or cumulative impacts are expected. On-going city initiatives to implement local zoning and storm water controls, as well as enforcement of existing federal and state regulatory frameworks under the federal Clean Water Act, Endangered Species Act, and existing state law also should help assure that these objectives are met.

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