

Finding of No Significant Impact
City of Columbus
Blueprint Clintonville Green Infrastructure (Permeable Pavement) Part 2B
Weisheimer/Indian Springs area
CS390274-0219
Franklin County

The attached Limited Environmental Review (LER) is for a project to install permeable pavement that will minimize stormwater volumes that will help mitigate overflows of the Designed Sewer Relief 225 located in Whetstone Park to the 10-year level of service. The Ohio Environmental Protection Agency intends to finance this project through its Water Pollution Control Loan Fund (WPCLF) below-market interest rate revolving loan program. The LER describes the project, its costs, and expected environmental benefits. Making available this LER fulfills Ohio EPA's environmental review and public notice requirements for this loan program.

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

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



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

JR/LMM

attachment

LIMITED ENVIRONMENTAL REVIEW

Projects: City of Columbus

Blueprint Clintonville Green Infrastructure (Permeable Pavement) Part 2B
Weisheimer/Indian Springs Area
CIP 650870-100002B
WPCLF Loan No.: CS390274-0219

Applicant: Ms. Tracie Davies, Director
Department of Public Utilities
910 Dublin Road
Columbus, Ohio 43215-9060

A. Proposed Project

1. Summary

The City of Columbus' Division of Sewerage and Drainage, in Franklin County, has applied to Ohio EPA for financial assistance from the Water Pollution Control Loan Fund (WPCLF) to fund the Blueprint Clintonville Green Infrastructure (BP Clintonville) Part 2B. This project is part of Blueprint Columbus which is an initiative to help address the 2002 sanitary sewer overflows (SSO) and the 2004 combined sewer overflow (CSO) consent orders issued by Ohio EPA – Blueprint encompasses the City's revisions to its Wet Weather Management Plan (WWMP). Project work includes the construction of stormwater facilities to capture and treat runoff generated by the infiltration and inflow remediation efforts being utilized to mitigate overflows of Designed Sewer Relief (DSR) 335 located in Whetstone Park to the 10-year level of service.

Columbus completed a system evaluation and capacity assurance plan (SECAP) in response to the SSO consent order to address SSOs and basement back-ups (water in basements, or WIBs). Columbus developed a long term control plan (LTCP) in response to the CSO consent order to address CSOs. Then in 2005, the City submitted a WWMP to Ohio EPA which combined the previous two plans (SECAP and LTCP) and was intended to address all wet weather overflows. By 2010, the City had invested over a billion dollars toward projects addressing its wet weather overflows and had obtained a substantial reduction in CSO volumes.

In August 2012, the City approached Ohio EPA about re-evaluating the WWMP so that it could explore integrated planning. The purpose of integrated planning is to determine the feasibility of solving the City's SSO and WIB issues by removing inflow and infiltration (I/I) from the system instead of continuing to allow I/I into the system and then

transporting and treating it. The new approach is now referred to as “Blueprint Columbus.”

The Blueprint Columbus plan (September 15, 2015) is a multi-pronged approach aimed at mitigating SSOs, basement back-ups or WIBs, CSOs and improving stormwater quality prior to discharging it to area streams.

The cause of SSOs and WIBs is I/I entering the separate sanitary sewers, including private lateral service connections, coupled with insufficient hydraulic capacity to transport it to treatment without overflows. The city has been studying I/I for years and has determined that the majority of it is entering the system from older residential areas. The SSOs and WIBs will be addressed by removing I/I from the sanitary sewer system, allowing that system to function properly with fewer overflows or back-ups. The I/I removal will be accomplished by three technologies involved in Blueprint: rehabilitating sewer pipes (city owned and private laterals), redirection of roof water away from houses to protect the foundation drain and a voluntary sump pump program. Stormwater quality is addressed by a fourth technology: green infrastructure, which includes rain gardens (bioretention basins) and porous pavement. The city refers to these components as the four pillars.

The DSR 335, located in Whetstone park, is the focus of the Clintonville Blueprint projects. The sewer shed for DSR 335 is approximately 1000 acres and includes approximately 3000 homes. In order to make the work more manageable, the city broke the area into six smaller areas, with area 2 divided into 2A and 2B. This Limited Environmental Review covers work associated construction of pervious pavement in the Weisheimer/Indian Springs area..

The BP Clintonville Part 2B permeable pavement project involves the removal of existing asphalt pavement and installation of permeable pavement for Foster St. between Indian Springs Dr. and Cooke Rd., north of Cooke Rd. between Cooke Way and Henderson Rd., the Alley (Project Alley 2) north of Cooke Rd between Cooke Rd. and Henderson Rd., Dominion Blvd. between Shields Pl. and Sellers Ave, and the entirety of Dixon Ct. in Clintonville. A sidewalk will also be constructed along the north side of Dominion Blvd. from Shields to Dominion Middle School. The project is referred to as the Weisheimer/Indian Springs area permeable pavement (PP) project throughout this document

Ohio EPA anticipates awarding WPCLF loans to the City of Columbus for the Part 2B Clintonville Green Infrastructure project on January 23, 2017. Construction of the projects will begin in the spring of 2017 and be completed by January 31, 2019.

The WPCLF program requires an environmental review as part of the loan award decision-making process. This limited environmental review describes the 2B

permeable pavement project, the planning and analysis that were performed prior to the design and the potential for adverse environmental impacts during construction. Ohio EPA's environmental review has concluded that the proposed projects will not result in significant adverse environmental impacts. More detailed information follows in the sections below.

Figure 1: Blueprint Clintonville Green Infrastructure of 4 Projects Vicinity Map

Part 1 =  Part 2A and B =  Part 4 = 

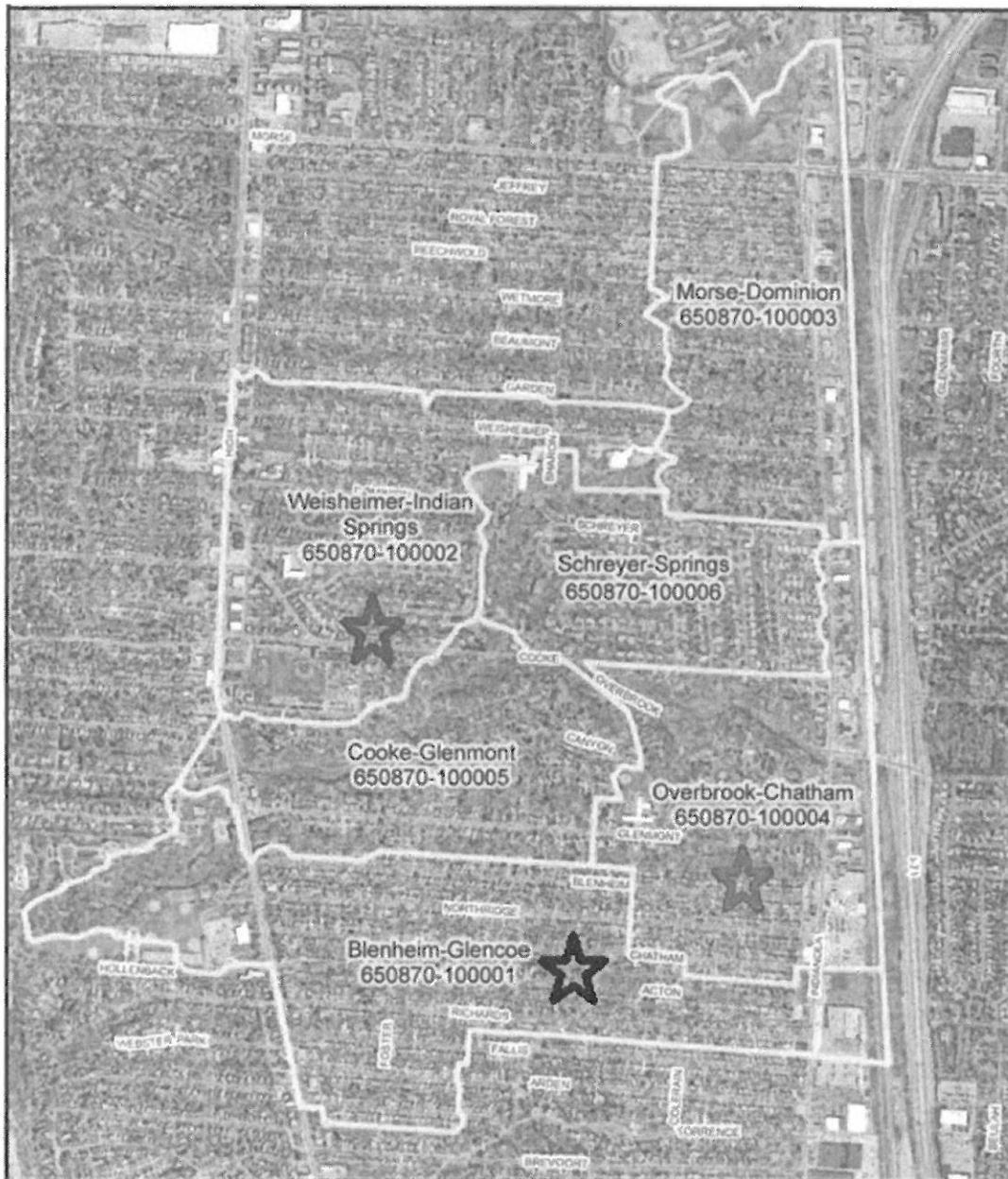
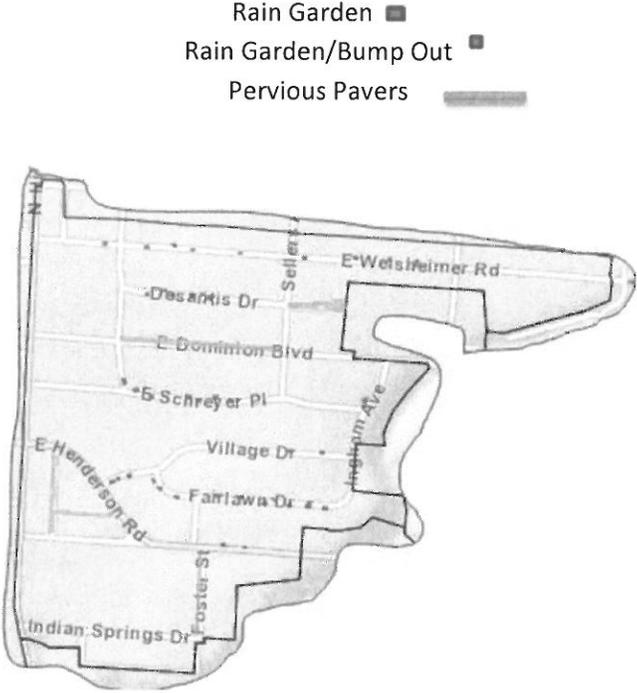


Figure 2: Weisheimer/Indian Springs Bioretention (2A-for future construction) and Permeable Pavement project area (Part 2B)



2. Background and Existing Conditions

As stated above, the City is under orders from Ohio EPA to eliminate sanitary sewer overflows. Blueprint is intended to meet the requirements of those orders, which includes eliminating the overflow into Adena Brook in Whetstone Park (DSR 335). Homes in the Clintonville project areas are connected to a city sanitary sewer that contributes to those overflows.

a. Population Projections

Franklin County has experienced rapid growth from the early 1900s to present. The current population estimate is 1,231,393. Per estimates from the Ohio Development Services Agency, the population of Franklin County is expected to continue to grow at a steady rate of 1.3 percent.

3. Discussion of Alternatives

As part of the City’s Integrated Plan and the WWMP updated plan, the City investigated the best methods for eliminating the SSOs. Generally, two alternatives were developed: the Blueprint alternative and the Gray alternative. Both alternatives meet the requirements of the consent orders, and both have a positive impact on water quality.

The Blueprint plan has two primary water quality advantages: it achieves a greater reduction in overall overflows from the system and it has a positive impact on stormwater quality, which the gray alternative does not have. The gray alternative's only water quality benefit is from reducing sewer overflows. It does not have any impact on stormwater discharges.

Through an assessment of all the watershed assessment units (WAUs) in the Columbus Facility Planning Area (FPA), based on data from the Ohio EPA 2014 Integrated Report, it was found that approximately 64 percent of the area within the Columbus FPA is impaired due to stormwater factors. And since the Blueprint alternative includes a green infrastructure component, it will have a direct, significant and positive impact on water quality. The green infrastructure has been sized to ensure that the I/I removal does not increase localized flooding or the peak rate of discharge and to reduce total suspended solids (TSS).

4. Description of the Selected Alternative

Blueprint Clintonville Green Infrastructure (Permeable Pavement) Part 2B

Weisheimer/Indian Springs project will construct 3042 linear feet of permeable pavement. This includes 389 feet on Dixon, 1111 feet on Dominion, 573 feet on Foster, 540 feet on Cooke Way and 429 feet on Alley 2. The BP Clintonville Part 2B permeable pavement project (PP) involves the removal of existing asphalt pavement and installation of permeable pavement for Foster St. between Indian Springs Dr. and Cooke Rd., north of Cooke Rd. between Cooke Way and Henderson Rd., the Alley (Project Alley 2) north of Cooke Rd. between Cooke Rd. and Henderson Rd., Dominion Blvd. between Shields Pl. and Sellers Ave, and the entirety of Dixon Ct. in Clintonville. A sidewalk will also be constructed along the north side of Dominion Blvd. from Shields to Dominion Middle School.

The City of Columbus is responsible for maintaining all parts of the storm sewer system, including the new rain gardens and green infrastructure. Litter and weeds will be removed on a regular basis and plants will be pruned, trimmed or replaced, as needed.

The goal of the BP Clintonville projects is to provide detention and water quality improvement to rain water that will be redirected from the sanitary sewer system by future Blueprint projects.

5. Implementation Costs of the Proposed Project

The estimated construction cost for the Blueprint Clintonville Green Infrastructure (Permeable Pavement) Part 2B Weisheimer/Indian Springs project will be \$3,800,00.

The City of Columbus has applied to the WPCLF for financing of the cost of this project. Columbus qualifies for the standard below-market interest rate, which is adjusted monthly prior to loan award, and is currently 1.55 percent (December, 2016). The

actual WPCLF loan amount to Columbus will be based on the as-bid costs of the project. Compared to the current market interest rate (2.8 percent in December, 2016), Columbus will save over \$1,282,500 in interest payments through the WPCLF. However, final savings calculations should be determined during the month of loan award.

The City of Columbus passed an ordinance in October, 2014, authorizing an increase in sewer rates as of January, 2015. Inside the City, residential rates will increase approximately 2.89 percent. Outside the city, residential customer rates will increase 3 percent. The Department of Public Utilities will continue to offer the low income discount program that reduces qualifying participant’s sewer commodity portion of their sewer bill by 20 percent.

In 2005, Columbus passed an ordinance to create a Clean River Fee to recover costs of construction for projects necessary to meet the requirements of its two consent orders that mandate elimination of wet-weather related combined sewer overflows and sanitary sewer overflows. This charge was assessed based on each property’s measured impervious surface area. Since 2005, Columbus City Council has approved across-the-board rate increases, including the Clean River Fee, which allows the city to continue to address these consent order projects.

6. Proposed Project Schedule

Project 2B

Bids Opening.....	December 21, 2016
WPCLF Loan Award.....	February 23, 2017
Start Construction.....	June 19, 2017 or earlier
Complete Construction.....	January 31, 2019

B. Environmental Impacts of the Proposed Project

A complete environmental review of this Columbus Blueprint project was conducted, which included the extensive alternatives analysis that has been conducted as part of the City of Columbus’ Integrated Plan and 2015 WWMP Update Report to determine the most cost-effective, environmentally-sound solution to meet the needs of the planning area.

Construction mitigation has been included in the detailed plans and specifications for this Columbus Blueprint project to help further prevent adverse environmental impacts. More detailed information regarding potential impacts follows.

1. Land Use

Existing land use within the project areas generally consists of residential neighborhoods.

2. Major Land Forms

The topography of Clintonville is divided into two regions. North High Street forms the demarcation line and the area east of North High street is higher in elevation than that of the area west of High St. Six glacial ravines, Glen Echo, Walhalla, Overbrook, Beechwold, Delawanda and Bill Moose Run cut through the area from east to west, with stream beds feeding into the Olentangy River. Four of the Ravines have been developed, either with public roadbeds and/or private residences. Glen Echo was the first ravine preserved as a public park. Based on the above, the proposed project will not result in a significant adverse impact to major landforms.

3. Local Economy

According to the 2009-2013 American Community Survey, the median household income (MHI) for Franklin County is \$50,877.

In anticipation of this and many other projects, Columbus issues bonds to generate the capital to proceed with construction. As such, the sewer service charges to Columbus customers are driven by the total expected indebtedness of the City's Division of Sewerage and Drainage, and expected overall operation and maintenance costs, as opposed to the specific indebtedness of this or any other individual project.

Currently, the average Columbus household (using approximately 7,480 gallons of water per month) is charged for wastewater treatment at a quarterly rate of \$122.87. This rate includes the Clean River Surcharge of \$9.66 per quarter. Annually, a typical Columbus household pays \$491.48.

The 2009-2013 American Community Survey estimate for the City of Columbus median household income (MHI) was \$44,072. Therefore, the average annual sewer service charge represents about 1.11% of the MHI for the Columbus area. This amount of household income spent on sewer service charges is slightly below the Ohio average of 1.14%. Based on this, no significant adverse impact to the local economy is expected from implementation of the three Columbus Blueprint Clintonville projects.

4. Air Quality

Franklin County is currently in attainment with respect to carbon monoxide, lead, nitrogen dioxide, particulate matter, and sulfur dioxide. The County is not in attainment of the ozone standards. During construction, standard construction best management practices (BMPs), such as dust suppressants and properly-operated equipment in good working

order will be implemented. With these mitigation measures, any effects on air quality will be short-term, ending when construction is complete. Therefore, no significant adverse impact to air quality will result from the project.

5. Archaeological and Historical Resources

The three Columbus Blueprint Clintonville projects were reviewed against the State Historic Preservation Office (SHPO) database. The proposed projects will be implemented in areas that are predominantly residential developments. Ohio EPA believes that the proposed projects will have no effect on properties eligible for or listed on the National Register of Historic Places. Regardless, the low potential for visual impacts to the setting of these properties would be unlikely to lead to an adverse effect.

In the event of archaeological finds during construction, contractors and subcontractors are required under Ohio Revised Code Section 149.53 to notify SHPO of any archaeological discoveries in the project area, and to cooperate with that entity (and with Ohio EPA) in archaeological and historic surveys and salvage efforts when appropriate.

6. Drinking and Ground Water

All existing drinking water utilities will be identified in each project area. Green Infrastructure shall be located a minimum of 10 feet horizontally from existing sanitary sewers to minimize potential infiltration and lateral flow into the sanitary sewer. However, if impermeable barriers or anti-seep collars are used, then Green Infrastructure may be installed closer than 10 feet.

Therefore, construction of the three Columbus Blueprint projects should not have significant adverse long-term impacts on drinking water or ground water resources.

7. Floodplains, Surface Water Resources and Aquatic Habitat

The Adena Brook flows north of the Cooke/Glenmont Area project, and south of the Schreyer/Springs Area project. Adena Brook has an aquatic life use designation of warmwater¹ habitat and flows westerly, into the Olentangy River. The Olentangy River also has an aquatic life use designation of warmwater habitat.

The green infrastructure component of Blueprint Columbus will first ensure that local flooding will not be made worse when the I/I removal technologies of Blueprint are applied at a later date. Secondly, a standard of at least 20 percent reduction of total suspended solids (TSS) will be applied. When the “do no harm to local flooding” standard and 20 percent TSS reduction is applied in each Clintonville area, the City

¹ Warmwater habitat (WWH) – warmwater habitats are capable of supporting and maintaining a balanced, integrated, adaptive community of warmwater aquatic organisms.

determined it needed approximately 4.3 acres of green infrastructure, split almost evenly between rain gardens and impervious pavement.

The entire Clintonville area drains to the Olentangy River, and TSS is a pollutant of concern, according to the Ohio EPA's total maximum daily load (TMDL). The city calculated that the amount of green infrastructure it plans to install will reduce TSS loading from the pilot area by 22 percent.

8. Terrestrial Habitat and Agriculture

There are no federal wilderness areas, wildlife refuges or designated critical habitat within the vicinity of the project area. With regards to the two federally-endangered/threatened species that could inhabit the area, the Indiana bat and northern long-eared bat, the USFWS recommends that trees exhibiting suitable bat habitat characteristics, along with any other wooded areas or tree lined corridors, be saved wherever possible. However, if those areas cannot be avoided, the USFWS recommends that trees should only be cut from October 1 through March 31. Due to the project type, size and location, the Ohio EPA does not anticipate potential adverse effects to any other federally endangered, threatened, proposed or candidate species.

9. Safety, Traffic, Noise and Aesthetics

Construction of the projects will result in increased noise in the vicinity. These impacts will be mitigated by limiting the hours when blasting work will occur and by conducting pre-and post-blasting surveys and adhering to detailing blasting requirements.

Noise and dust control procedures will comply with the Columbus City Code.

A detailed traffic control plan will be coordinated with the City's Division of Design and Construction. The plan will then be implemented during construction to manage traffic disruptions and prevent public safety problems. It will include temporary detours for lane closures caused by the project, it will allow for the provision of emergency access at all times and it will allow ingress and egress to all residential and commercial properties at all times. All stakeholders will be notified regarding the anticipated road closures and detours at least thirty days prior.

C. Public Participation

The City of Columbus has made efforts throughout project development to keep the public and key stakeholders abreast of the project. This has been accomplished through many means:

- The city developed a video the explain Blueprint Columbus: www.columbus.gov/blueprint,
- Fliers, handouts and water bill inserts introduced residents to the plan and provided information,

- In-person surveys were administered to residents and business proprietors in the areas,
- Road shows were held at community events and festivals and also took place at libraries and community and civic centers, and
- A community advisory panel was formed to represent a broad spectrum of stakeholders across Columbus. Members advised the City on the development of its plan to address both stormwater runoff and sewer overflows.

Additionally, preceding any field activity that will occur, a notification letter will be sent and/or a door hanger will be placed alerting the property owner(s) to the work.

The City of Columbus, Department of Public Utilities has an internet website (<https://columbus.gov/publicutilities/>), where the community can view information about this and upcoming projects.

D. Conclusion

Based upon Ohio EPA's review of the planning information, it is concluded that there will be no significant adverse impacts from the BP Clintonville Green Infrastructure projects 2B, as it relates to the environmental features discussed previously. Through the use of standard construction mitigative measures, any adverse impacts from construction should generally be short-term and insignificant.

The completion of the BP Clintonville Green Infrastructure projects 2B is an important investment in critical water pollution control infrastructure. The projects will install green infrastructure to ensure that when I/I removal technologies of Blueprint are also applied, they do not increase localized flooding or the peak rate of discharge and will also reduce TSS by at least 20 percent. These improvements are necessary to stop and mitigate WIBs and DSRs in Columbus.

E. Questions or Comments

For further information or to provide comments regarding this document or the projects discussed herein, please contact:

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