Ohio Environmental Protection Agency

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

July 11, 2017
Limited Environmental Review and Finding of No Significant Impact
City of Columbus Blueprint Clintonville Green Infrastructure Part 3
Morse/Dominion Area
Franklin County
WPCLF #390274-0228

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

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

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

Sincerely,

Jerry Rouch

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

JR/LMM

attachment

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LIMITED ENVIRONMENTAL REVIEW
July 11, 2017

Projects: City of Columbus
Blueprint Clintonville Green Infrastructure Part 3
Morse/Dominion Area
CIP 650870-100003 (Bioretention)
WPCLF Loan No.: CS390274-0228

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, 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 3, project. 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 overflows (CSO). Ohio EPA consent orders filed in Franklin County Court of Common Pleas. Blueprint encompasses the City's revisions to its Wet Weather Management Plan (WWMP). Project work includes the construction of storm water facilities to capture and treat existing stormflows and additional runoff generated by the infiltration and inflow remediation efforts being utilized to mitigate overflows of Designed Sewer Relief (DSR) 335 located in Whetstone Park.

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

The cause of SSOs and WIBs is inflow and infiltration (I/I) entering the separate sanitary sewers, including private lateral service connections (the pipe running from the house to the public sanitary sewer), coupled with insufficient capacity to transport it without overflows to a wastewater treatment plant. Inflow is primarily storm water that enters the sanitary sewer system through illegal connections such as downspouts, catch basins and storm drains. Infiltration is ground water that enters the sewer system, generally resulting from wet-weather events, that enters a sewer line through cracks in the pipes or open joints. The City has determined that the majority of I/I enters the system from leaky pipes in 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.

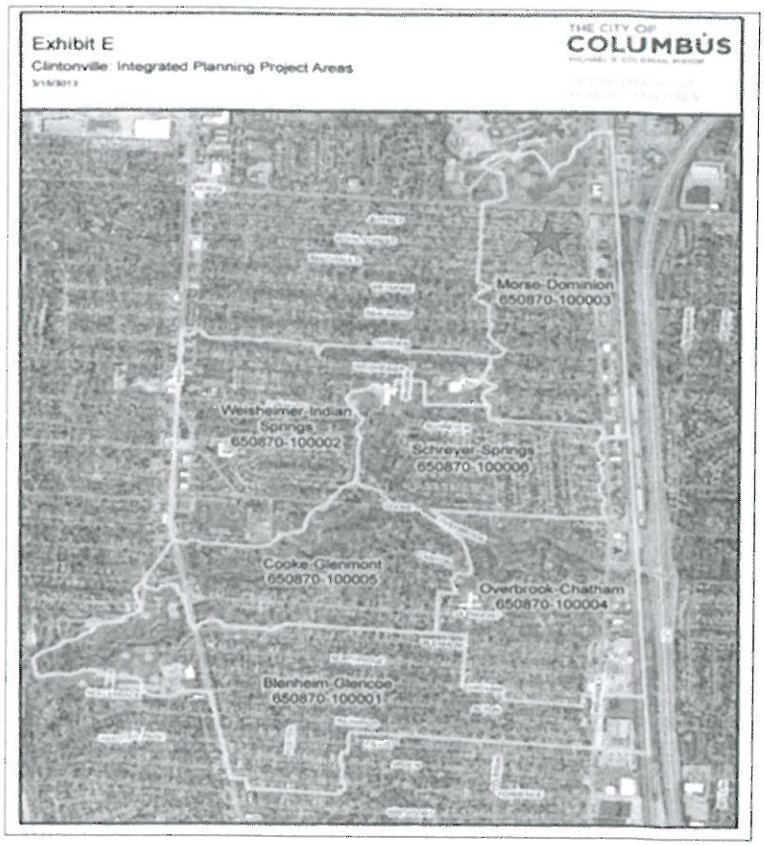
The I/I removal will be accomplished by three technologies involved in Blueprint: rehabilitating sewer pipes (City-owned and private laterals), redirection of roof water away from houses to protect the foundation drain, and a voluntary sump pump program. Stormwater quality is addressed by a fourth technology: 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 drainage area for DSR 335 is approximately 1,000 acres and includes approximately 3,000 homes. To make the work more manageable, the City divided the area into smaller project areas The Part 3 Morse/Dominion area is identified in Figure 1.

The WPCLF program requires an environmental review as part of the loan award decision-making process. This Limited Environmental Review describes the project 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 Part 3 Vicinity Map

★ = Morse/Dominion Part 3 area



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.

The project areas are almost entirely built out and little additional sanitary flow is expected.

1. 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. The gray alternative includes storage basins, piping and tunnels. 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 storm water quality due to extra filtering by vegetation and soils, 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 storm water discharge quality or volume.

Through an assessment of all the watershed assessment units (WAUs) in the Columbus Facility Planning Area (FPA), based on current information presented in the 2012 Ohio EPA Integrated Report, it was determined that approximately 64 percent of the streams in the City's Facilities Planning Area are impaired in part due to storm water factors. The Blueprint alternative's green infrastructure component 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).

2. Description of the Selected Alternative

The Blueprint Clintonville Green Infrastructure Part 3 project will consist of the construction of 53 bioretention facilities along Morse Rd., Jeffrey Pl., Royal Forest Blvd., Beechwold Blvd., Wetmore Rd., Beaumont Rd., Garden Rd., Weisheimer Rd. and Dominion Blvd. as well as a regional water quality basin along Indianola Ave. near its intersection with Royal Forest Blvd. and other such work as may be necessary to complete the contract, in accordance with the drawings, technical specifications, and City of Columbus Construction and Material Specifications.

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 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.

3. Implementation Costs of the Proposed Project

The estimated construction cost for the Blueprint Clintonville Green Infrastructure (Bioretention) Part 3 project is $5,908,000.

The City of Columbus has applied to the WPCLF for financing of $5,658,000 (City funds providing the remainder). Columbus qualifies for the standard below-market interest rate, which is adjusted monthly prior to loan award, and is currently 2.00 percent. Compared to the current market interest rate (3.25 percent), Columbus will save approximately $1,009,000 in interest payments through the WPCLF.

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.

Currently, the average annual Columbus household sewer bill, including the Clean River Surcharge of $9.66 per quarter, is $492, which is approximately 1.1% of local median household income (MHI; $44,072). This amount of household income spent on sewer service charges is slightly below the Ohio average of 1.36%. Based on this, no significant adverse impact to the local economy is expected from implementation of this Columbus Blueprint Clintonville project.

4. Proposed Project Schedule

Ohio EPA anticipates awarding a WPCLF loan to the City of Columbus for this project on July 27, 2017. The Notice to Proceed will be issued by October 1, 2017. The project has an approximate duration of 550 days, resulting in an approximate completion date of April 1, 2019.

B. Environmental Impacts of the Proposed Project

A complete environmental review of this 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 each of the Columbus Blueprint projects to help further prevent adverse environmental impacts. More detailed information regarding potential impacts follows.

Land Use

Existing land use within the project areas generally consists of residential neighborhoods with small commercial development on the High Street and Indianola Avenue corridors. The proposed storm water green infrastructure will alter only the specific sites of each rain garden and the location of the proposed regional water quality basin along Indianola Ave.

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. None of the proposed green infrastructure is in a ravine and the project will not alter the regional topography.

Local Economy

Columbus sewer service charges are driven by the total expected indebtedness of the 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.

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 minor and temporary, ending when construction is complete. Therefore, no significant adverse impact to air quality will result from the project.

Archaeological and Historical Resources

Because the proposed project will be implemented in areas that are predominantly residential and all work will be in previously disturbed areas, Ohio EPA has concluded that the proposed projects will have no effect on properties eligible for or listed on the National Register of Historic Places. The proposed rain gardens and other storm water infiltration features will be minor changes to the landscape and unlikely to adversely affect the setting of any nearby historic structures.

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

Floodplains, Surface Water Resources, and Aquatic Habitat

Adena Brook flows westward between the Cooke/Glenmont Area project and the Schreyer/Springs Area project (see Fig.1). Adena Brook has an aquatic life use designation of warmwater[1] habitat and flows 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.

The entire Clintonville area drains to the Olentangy River, and TSS is a pollutant of concern, according to the Ohio EPA Total Maximum Daily Load (TMDL) report for the Olentangy River Watershed, August 24, 2007. The City calculated that the amount of green infrastructure it plans to install will reduce TSS loading from the pilot area by 22 percent.

Terrestrial Habitat

There are no federal wilderness areas, wildlife refuges or designated critical habitat within the vicinity of the project area. With regards to the two listed federally-endangered/threatened bats that could inhabit trees in residential areas, the USFWS

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

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. The project is in a dense residential area. So it is not expected to impact any other federal or state listed or rare animal or plant species.

There are 3 trees less than 6" in diameter that will be removed/relocated. In addition, 11 small shrubs will be removed. The three trees will be removed between October 1 and March 31. Due to the project type, size and location, the Ohio EPA does not anticipate potential adverse effects to any federally endangered, threatened, proposed or candidate species.

Safety, Traffic, Noise and Aesthetics

The BP Clintonville projects are aligned within public rights-of-way along streets in Clintonville. Green Infrastructure will be located at a safe distance from traffic control features. In residential areas, street widths are typically narrower (22 to 26 feet) and include parking areas on both sides of the street. Placement of green infrastructure that will reduce overall street width will account for the minimum street width requirement of 22 feet from face of curb to face of curb as required by the City of Columbus Department of Public Service. Parking in the project areas was also considered. A minimum of one parking space per residential lot frontage will be maintained.

The sound of motorized construction vehicles operating near the construction site will be similar to that of traffic regularly transiting the project area and is not expected to be a significant impact

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 to the closures or detours.

Although construction activity is generally considered aesthetically displeasing, green infrastructure is generally considered to be aesthetically pleasing. For this reason, the project is unlikely to negatively affect the aesthetics of the neighborhood.

C. Public Participation

The City of Columbus has made efforts throughout project development to keep the public and key stakeholders informed about 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, festivals, 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.

A notification letter will be sent and/or a door hanger will be placed alerting the property owner(s) to imminent construction activity.

Additionally, as part of the State Environmental Review Process, Ohio EPA will post this Limited Environmental Review and Finding of No Significant Impact (FONSI) to our web page located at: (www.epa.ohio.gov/defa/ofa.aspx) under the tab "What's New." Scroll down to view "WPCLF Documents for Review and Comment."

D. Conclusion

Ohio EPA conducts environmental reviews of all projects prior to approving W PCLF financing. Ohio EPA's State Environmental Review Process contains a special set of project review procedures for projects which do not have the potential to "individually, cumulatively over time, or in conjunction with other Federal, State, local, or private actions have a significant adverse effect on the quality of the human environment." Such projects qualify for a Limited Environmental Review. The project meets the other qualifying criteria for a LER; specifically, the proposed project:

- **will have no significant adverse environmental effect**, as sensitive resources such as floodplains, wetlands, riparian areas, prime or unique agricultural lands, aquifer recharge zones, archaeological or historically significant sites, or threatened or endangered species are not present in the project area;

- **does not require extensive specific impact mitigation**, as environmental impacts will be minor and temporary. The three trees less than 6" in diameter will be removed between October 1 and March 31.

- **will have no adverse effect on high value environmental resources**, as the project areas are highly developed residential neighborhoods, with asphalt roads, manicured lawns and numerous existing utilities, so no high value environmental resources are present there;

- **is not controversial actions**, as sewer rates will not be increased as a result of these projects, nor will any adverse impacts to environmental resources occur. Further, Ohio EPA is unaware of any public opposition to the projects;

- is **cost-effective,** as green infrastructure is less expensive than gray infrastructure

- **does not create new, or relocate existing, discharges to surface or ground waters; will not result in substantial increases in the volume of discharge or the loading of pollutants from an existing source or from new facilities to receiving waters; and will not provide capacity to serve a population substantially greater than the existing population,** since the proposed projects do not involve a point source discharge or the treatment of wastewater flows.

The planning activities for the project have identified no potentially significant short-term or long-term adverse impacts on the quality of the human environment or on sensitive resources. Based upon Ohio EPA's review of the planning information and the materials presented in this Limited Environmental Review, there will be no significant adverse impacts from the BP Clintonville Green Infrastructure Project 3 as it relates to the environmental features discussed. Through the use of standard construction mitigation measures, any adverse impacts from construction should generally be short-term and insignificant.

The completion of the BP Clintonville Green Infrastructure Project 3 is an important investment in critical water pollution control infrastructure. The project 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 WIB events and minimize sewage overflows to area streams 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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