



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

October 7, 2021

Tracie Davies
Columbus Department of Public Utilities
910 Dublin Road - 4th Floor
Columbus, Ohio 43215

Re: City of Columbus
Blueprint TSS Regional Bioretention Basins
Loan Number: CS390274-0368
Finding of No Significant Impact

Dear Ms. Davies:

On September 1, 2021, Ohio EPA issued a preliminary Finding of No Significant Impact (FNSI) and Environmental Assessment for the City of Columbus Blueprint TSS Regional Bioretention Basins project for public review and comment. The thirty-day period for comments has passed and no comments have been received. Therefore, the conclusions contained in that preliminary FNSI become the basis for this final FNSI for the above referenced project.

This final Finding of No Significant Impact may be revised or rescinded at a future date based upon either changes to the proposed project, the presentation of information which significantly alters earlier conclusions, or failure of the applicant to perform the environmental mitigation prescribed in the Environmental Assessment.

Sincerely,

Jonathan Bernstein

Jonathan Bernstein, Assistant Chief
Division of Environmental and Financial Assistance

ENVIRONMENTAL ASSESSMENT

Project Identification

Project: Blueprint TSS Regional Bioretention Basins

Applicant: Columbus Department of Public Utilities
910 Dublin Road - 4th Floor
Columbus, Ohio 43215

Loan Number: CS390274-0368

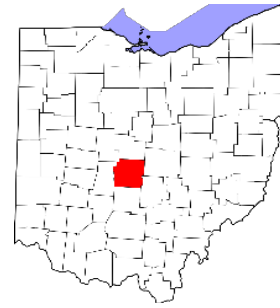


Figure 1. Franklin County

Project Summary

The City of Columbus, in Franklin County (Figure 1), is requesting a \$4,250,000 low-interest loan from the Ohio Water Pollution Control Loan Fund (WPCLF) to construct 12 new regional bioretention basins in the Blueprint Linden Agler/Berrell and Artane/Parkwood project areas on properties acquired by the Department of Public Utilities from the City of Columbus Landbank Redevelopment Office. This project is part of an integrated plan to address combined sewer overflows and water-in-basement problems.

History & Existing Conditions

In 2002 and 2004, the City of Columbus entered into two consent decrees with Ohio EPA to eliminate sewage backups into homes and overflows of untreated sewage into rivers during wet weather events. The city submitted its wet weather management plan (WWMP) to Ohio EPA in 2005 to outline how the city planned to meet the compliance criteria established within their consent decrees. The WWMP contained strategies to address the sewer overflows within their sanitary sewer and combined sewer systems. This plan consisted of building 28 miles of sewer tunnels and upsizing, lining, and replacing pipes. Due to the high cost of the proposed improvements, the city explored other alternatives. In 2013, with Ohio EPA approval, the Columbus Division of Sewerage and Drainage (DOSD) developed Blueprint Columbus as its integrated planning approach to study and incorporate green infrastructure (GI) into the WWMP. Green infrastructure is an approach to water management that mimics the natural water cycle and includes rain gardens, bioswales, permeable pavements, and bioretention areas.

Blueprint Columbus consists of 17 study areas, each roughly 1,000 acres in size. Every study area is broken into four to five project areas. Blueprint Linden is one of those 17 study areas and is comprised of four separate and distinct project areas (Hudson/McGuffey, Oakland Park/Medina, Agler/Berrell, and Artane/Parkwood).

Blueprint Linden's study area sanitary and storm water infrastructure is stressed during wet weather events. The challenges associated with the sanitary and storm sewer systems in the Linden area include the project area's eight designed sewer relief (DSR) points over 850 acres, approximately 660 documented water-in-basement (WIB) complaints, inadequate storm sewer conveyance capacity, and sanitary sewer deficiencies within the Linden area. Additionally, extraneous clear water entering

sanitary sewers through illicit connections to storm sewers or via leaky manholes (inflow) or through cracks in pipes (infiltration) can overflow sewers and cause overflows.

The Agler/Berrell Project Area (see Figure 2) is 212 acres generally bounded by Agler Road on the north, Genessee Avenue on the south, Cleveland Avenue on the west, and Berrell Avenue on the east and includes 70 acres of impervious surface that causes significant storm water runoff. Approximately 30,242 feet of public 6-inch to 96-inch storm sewers convey the storm flows to outfalls which discharge into streams that flow less than a mile to Alum Creek.

The Artane and Parkwood area (see Figure 2) is in the southeast region of the Blueprint Linden area. The Artane and Parkwood Project Area is primarily residential, with commercial properties lining the major arterial streets. The project area receives stormwater from the west (Hudson/McGuffey) and conveys stormwater to the north (Agler/Berrell) and to the south (out of the Blueprint Linden area.)

The homes and infrastructure in the project area were largely built after WWII and much of the stormwater infrastructure is deficient by current standards. Street flooding and ponding after rainfall occur at numerous intersections, street curbs, and rights-of-way area throughout the project area.

The area poses challenges for GI design. Off-street parking on uncurbed streets and use of right-of-way area by adjacent property owners may limit GI options in the right-of-way. A majority of sanitary sewers are located in rear alleyways, making alleyway stormwater management a concern. Vacant or abandoned parcels exist and may provide space for localized GI facilities or low-impact development measures such as bioretention facilities.

The Artane and Parkwood project area has several land bank, tax-delinquent, and vacant properties. In addition to Joan Park, located in the east-central region of Artane and Parkwood, these locations hold the potential for cost-saving regional green infrastructure.

Upon final design of the Blueprint Linden project areas (Artane/Parkwood, Agler/Berrell, Hudson/McGuffey and Oakland Park/Medina), the collective total suspended solids (TSS) reduction as a result of all of the planned green infrastructure (GI) facilities, did not meet the 20% TSS reduction water quality level of service (LOS) goal. As a result of the anticipated TSS reduction deficit, the City of Columbus worked with the project teams to identify additional land bank parcels to construct regional bioretention facilities to aid in meeting the TSS reduction target for the collective Blueprint Linden project area. Most of the available LRO parcels were located within the Artane/Parkwood and Agler/Berrell project areas. Other locations were identified but were determined to not be feasible due to their relative location in the watershed or because the location would divert flow from other planned GI facilities or due to other constructability issues.

Population and Flow Projections

The additional regional GI facilities are primarily for water quality control (TSS reduction) and some level of water quantity control for the existing population. Some locations will accept additional flows from newly redirected tributary areas to maximize the facility design and achieve higher TSS reduction values. In other instances, components of the Artane/Parkwood or Agler/Berrell designs were eliminated or modified in order to optimize the design for the overall project areas and save associated construction and operation and maintenance (O&M) costs.

The twelve basins were implemented in the Artane/Parkwood and Agler/Berrell alternative storm models to estimate the TSS reduction values.

The twelve basins provide an additional 9.9% TSS reduction in the Artane/Parkwood project area, an additional 0.9% TSS reduction in Agler/Berrell area, and an additional 2.5% TSS reduction in the total Blueprint Linden area overall.

Alternatives

Some green infrastructure options are cost prohibitive due to the site conditions that exist in this project area and the limited amount of rights-of-way that can accommodate green infrastructure for a variety of reasons (limited or unavailable right-of-way width, grade issues, off-street parking, location of available space relative to potential tributary area, and existing GI already designed to address tributary area).

Preliminary siting and screening was performed for each available land bank property. Feasible locations were then implemented in the Artane/Parkwood and Agler/Berrell alternative models to quantify the predicted % TSS reduction.

Forty-three additional potential GI locations were investigated; thirty-eight regional opportunities in the Artane/Parkwood project area and five regional and right-of-way locations in the Agler/Berrell area.

The purpose of the additional regional GI facilities is primarily for water quality control (TSS reduction) and some level of water quantity control. Some locations will accept additional flows from newly redirected tributary areas to maximize the facility design and achieve higher TSS reduction values. In other instances, components of the Artane/Parkwood or Agler/Berrell designs were eliminated or modified in order to optimize the design for the overall project areas and save associated construction and O&M costs.

Selected Alternative

The final 12 basin locations were selected based on the highest potential of TSS reduction, downstream locations with unique tributary areas from other planned GI facilities, and feasibility for construction. Land bank locations which were still available at the start of the TSS Basin design include the following:

Eleven regional bioretention facilities in the Artane/Parkwood project area:

- ABE-1, BAN-4, JOY-1, JOY-2, REP-2, REP-3, TAY-1, HUD-3, HUD-5, HUD-7, PAR-2

One regional bioretention facility in the Agler/Berrell project area:

- EDD-1

Several locations identified as being feasible for additional GI opportunities were not available upon the start of the design of the basins or did not achieve a high level of TSS reduction relative to the construction and O&M costs and therefore were not carried through into design.

The overall Blueprint Linden projects TSS reduction value increased from 18.2% to 20.7%, therefore, achieving the TSS reduction LOS target of 20% reduction for the Blueprint Linden area. A detail of a regional bioretention basin is illustrated in Figure 3.

Implementation

The City of Columbus is requesting a \$4,250,000 low-interest loan from the WPCLF to construct 12 regional bioretention basins. Columbus qualifies for the standard low-interest loan rate of 0.46% and a 0.25% Green Project Reserve Discount which will save the city approximately \$693,956 for a 20-year loan compared to the market rate, which is currently 1.71%.

Construction will begin January 2022 and be completed by July 2023.

Public Participation

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

- 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.
- The city developed a video explaining Blueprint Columbus: www.columbus.gov/blueprint.
- 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.
- Information about this specific project is on the city's webpage at: <https://www.columbus.gov/Templates/Detail.aspx?id=2147494011>

In addition, a virtual public meeting was conducted on December 15, 2020, where property owners immediately adjacent to the proposed basins were invited to attend to review and comment on the proposed facilities. No concerns have been raised by the public.

As part of its State Environmental Review Process, Ohio EPA's Division of Environmental and Financial Assistance (DEFA) will post this Environmental Assessment (EA) and Finding of No Significant Impact to its web page located at <http://epa.ohio.gov/defa/ofa.aspx>.

Environmental Impacts

The project has the potential to affect the following features, but the effects will be reduced or mitigated to acceptable levels as explained below.

Air Quality

Franklin County is in violation of the ozone air quality standard. This project will not contribute to this problem. Dust control is the responsibility of the contractor.

Archaeological and Historical Resources

Several of the basin sites were selected for a Phase I Environmental Site Assessment (Phase I) due to their proximity to abandoned railroad lines or active or previous gas station sites.

Although some historical conditions were identified within 0.25 miles of some of the project locations, they are all outside the limits of the parcels. While no historical industrial use occurred directly on the project sites, a potential soil contamination concern exists due to the adjacent railroad line (no longer in operation) at some Bancroft Street and Eddystone Avenue basin sites. If soil staining is observed during construction excavation activities, soil samples should be sent to a laboratory for analysis of potential contaminants.

Aquatic Habitat, Floodplains, and Surface Water Resources

During construction, the contractor is responsible for erosion control and stormwater pollution prevention. Aquatic habitat in Bliss Run Alum Creek will be protected by minimizing the amount of sediment runoff. No wetlands, streams, or floodplains will be impacted by this project.

Endangered Species, Fish and Wildlife

Trees will be preserved to the extent practicable. If trees greater than 3-inches diameter at breast height need to be removed, they will be removed between October 1 and March 31 to protect any endangered bat species.

Energy

Installing passive filtering green infrastructure will result in an energy savings over the energy required to treat surface waters with increased sediment.

Local Economy

The median household income (MHI) of Columbus is \$44,774. The projected average annual residential sewer bill is \$713 which is 1.6% of the MHI. This compares favorably to the Ohio average annual residential sewer bill, \$715.

Ground Water Resources

The contractor will be responsible for dewatering if needed during the construction of the basins, trench water will be diverted to a natural drainage channel or storm sewer while managing for erosion.

Land Use and Terrestrial Habitat

The areas where the bioretention basins will be located are in well-developed residential areas. This is not an important terrestrial habitat area.

Noise/traffic/aesthetics and Safety

The contractor will be responsible for the safe movement of pedestrians and traffic. The contractor will address aesthetics and erosion by seeding after construction and maintaining the bioretention basins after construction. Any noise associated with construction will be temporary.

Unaffected Environmental Features: No coastal zone, state or federal wild or scenic rivers, wetlands, prime farmland, or sole source aquifers are present in or near the work sites. The project will have no adverse secondary (development-related) environmental impacts.

Conclusion

Based upon Ohio EPA's review of the planning information and the materials presented in this Environmental Assessment, we have concluded that there will be no significant adverse impacts from the proposed project as it relates to the environmental features discussed previously. This is because

these features do not exist in the project area, the features exist but will not be adversely affected, or the impacts will be temporary and mitigated.

This project will help reduce the city's stormwater problems, resulting in local public health and water quality benefits.

Contact information

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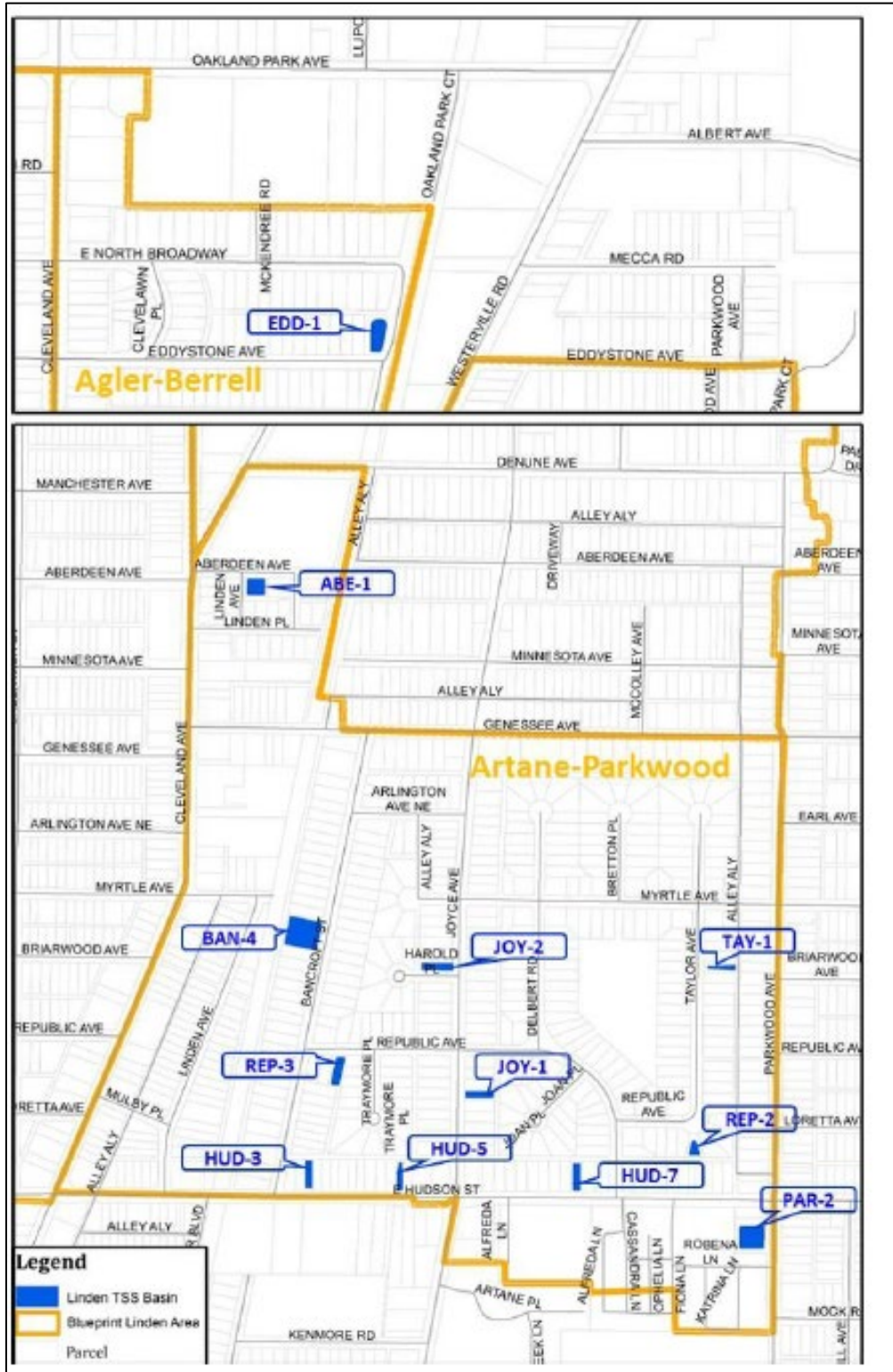


Figure 2. Planned regional bioretention basins

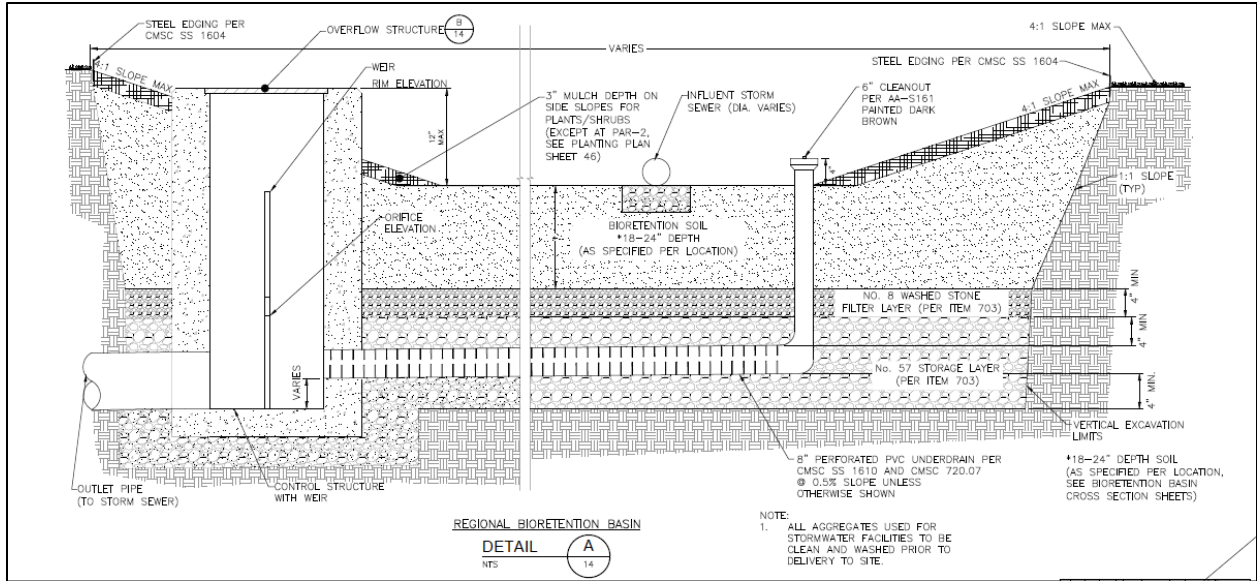


Figure 3. Regional Bioretention Basin Detail