



**Fisher Run, Olentangy River Watershed**

THE CITY OF  
**COLUMBUS**  
ANDREW J. GINTHER, MAYOR

DEPARTMENT OF  
PUBLIC UTILITIES

## **City of Columbus**

### **Stormwater NPDES Permit**

**January 1, 2020 – December 31, 2020**  
(Ohio EPA Permit Number: 4PI00000\*CD)

# **ANNUAL REPORT**

# CITY OF COLUMBUS ANNUAL REPORT

## AUTHORIZATION TO DISCHARGE UNDER THE NPDES (NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM)

In compliance with the provisions of the Federal Water Pollution Control Act, as amended (33 U.S.C. 1251 et. seq.) and the Ohio Water Pollution Control Act (Ohio Revised Code Section 6111), the City of Columbus is authorized by the Ohio Environmental Protection Agency, to discharge from all portions of the City of Columbus municipal separate storm sewer system, to waters of the State in accordance with the approved Storm Water Management Program, monitoring requirements, and other conditions specified in the permit.

January 1, 2020, through December 31, 2020: Ohio EPA Permit No. 4PI00000\*CD

### CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.



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John Newsome, P.E.

Administrator

Division of Sewerage and Drainage

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## **SECTION 1 – NARRATIVE SUMMARY**

### **1.1 Annual Report Format and Content**

On March 17, 2012, the Ohio EPA issued permit No. 4PI00000\*CD to the City in which conditions for the City’s Stormwater Management Program were defined. Permit No. 4PI00000\*CD became effective on May 1, 2012 and expired on April 30, 2017. Program activities from January 1, 2020, through December 31, 2020, were conducted under permit No. 4PI00000\*CD, with approved modifications, and are summarized in the following report.

### **1.2 Overview**

The City of Columbus (City) owns and operates the municipal separate storm sewer system (MS4) defined as a system of conveyances and controls designed or used for collecting, conveying, and controlling stormwater runoff. The MS4 has been constructed since the founding of the City with the primary purpose of conveying and controlling drainage from developed areas such that standing water or flooding does not result from frequent storm events. As the City has developed and regulatory requirements have changed, the MS4 has grown to consist of drainage related appurtenances including storm sewers, catch basins, curb inlets, junction chambers, manholes, culverts, headwalls and endwalls, stormwater pump stations, ditches, manmade channels, detention facilities and post-construction water quality capture facilities. The MS4 discharges to Big Walnut Creek, Alum Creek, the Olentangy River, the Scioto River, Hellbranch Run, Rocky Fork Creek, lesser named creeks, and unnamed tributaries to each.

A Table of Organization that summarizes the program elements and the responsible party for each element under the City’s SWMP (Stormwater Management Program) is provided in Appendix A.

### **1.3 Description of Evaluation Process**

The effectiveness of the City’s stormwater management program is assessed primarily through tracking BMP implementation. The department verifies or tracks BMP implementation and determines how a management program is being implemented. It is the primary tool for developing most of the City’s measurable goals.

In preparation of the Annual Report, the City compiles tracking information to provide quantitative evidence of the extent of implementation of the various program elements. Data analysis for this type of monitoring consists of an annual summary of the program data and evaluation of trends as appropriate.

### **1.4 Major Findings, Areas of Accomplishment, Areas Needing Improvement, and Future Direction**

Table 1 summarizes the major findings, areas of accomplishment, areas of the stormwater program needing improvement and actions the City intends to take as part of its SWMP. More specific information about activities conducted during the 2020 reporting period is provided in Section 2.

**Table 1**  
**Summary of Major Findings, Areas of Accomplishment,**  
**Areas Needing Improvement, and Future Direction**

| <b>Program Element</b>                  | <b>Major Findings</b>  | <b>Areas of Accomplishment</b>  | <b>Areas Needing Improvement</b>   | <b>Future Direction</b>  |
|---|--|---|--|--|
| Administrative                          | 1. The City of Columbus annexed approximately 46 acres into the City's corporation limits in 2020.                           | 1. Approximately 501 acres of land were annexed into the City of Columbus in 2019. Evaluation of these areas identified 4 home septic treatment systems, 6 stormwater outfalls, no industrial facilities, and 0 sites with post-construction water quality BMPs that were incorporated into the City's MS4 program. | The City has made improvements to various program areas as identified in the USEPA's February 6, 2018, inspection report. The work disruptions brought on by the pandemic in 2020 disrupted work on one remaining piece, full implementation of the comprehensive employee training program. | 1. Evaluation of areas annexed in 2020 to identify additional Home Septic Treatment Systems (HSTS), stormwater outfalls, post-construction BMPs, and industrial locations will be conducted in 2021.<br>2. Several updates to the SWDM are to be incorporated with revisions required by a new permit. |
| Public Education and Public Involvement | 1. The City's partnerships with local agencies, watershed groups and businesses continue to contribute to the success of our | In 2020, the City saw a 37% increase of participation in the GreenSpot Community Backyards program, which can assist residents with private property stormwater   | The City continues to look for ways to measure the effectiveness of our stormwater education programs and the ways in which individual   | 1. In 2021 the residential target themes / audiences will continue to be: pet waste / dog owners, yard maintenance / homeowners, lawn  |

**Table 1**  
**Summary of Major Findings, Areas of Accomplishment,**  
**Areas Needing Improvement, and Future Direction**

| Program Element | Major Findings   | Areas of Accomplishment  | Areas Needing Improvement                        | Future Direction  |
|-----------------|--|--|--|---|
|                 | <p>stormwater education program.</p> <p>2. Targeted campaigns and materials are aimed at specific stormwater quality issues and changing behaviors. In 2020 through the city’s continue partnership with Franklin Soil and Water Conservation District, the City continued to provide backyard water conservation and education to Columbus residents and provided vouchers to assist individuals in implementing Stormwater BMPs on their own property. We also continued education</p> | <p>management. Blueprint Columbus also provided targeted stormwater and green infrastructure education in 4 targeted neighborhoods where Stormwater BMPs would be installed, and to OSU Engineering, Environmental and Natural Resources, and City Planning programs. Additionally, a stronger emphasis has been placed on electronic promotion of programs and messaging in light of 2020 challenges. We have found this allows us to achieve wider distribution.</p> | <p>behaviors change as a result of outreach.</p> | <p>care businesses, garden centers; methods of keeping stormwater onsite/homeowners, landscapers, garden centers.</p> <p>2. 2021 industrial target themes / audience will continue to be: methods of keeping stormwater onsite / water quality impacts associated with land development; Importance of good housekeeping / those who power wash, sweep surfaces and perform other outdoor cleanup activities; Fats Oil and Grease / Restaurants, businesses and</p> |

**Table 1**  
**Summary of Major Findings, Areas of Accomplishment,**  
**Areas Needing Improvement, and Future Direction**

| Program Element          | Major Findings  | Areas of Accomplishment  | Areas Needing Improvement | Future Direction   |
|--------------------------|---|--|---------------------------|--|
|                          | <p>about lawn care practices; materials on proper paint/cement products disposal were distributed to small residential contractors and trades associations to prevent pollution from entering the storm sewer system.</p>   |  |                           | <p>manufacturers whose byproduct or waste includes fats, oil or grease; and residential/small trades contractors, the new area of focus added previously in response to violations discovered by the IDDE program.</p>   |
| <p>Illicit Discharge</p> | <ol style="list-style-type: none"> <li>1. Columbus Public Health (CPH) took action to correct 105 violations that were discovered in 2020. 58 violations were corrected, with 2 properties proceeded to enforcement through environmental court.</li> <li>2. CPH has two properties slated for</li> </ol> | <ol style="list-style-type: none"> <li>1. In 2020, 14 HSTSs connected to the sanitary sewer system via a loan from the Septic Tank Elimination Program (STEP).</li> <li>2. CPH issued orders to connect 13 properties to available sewer.</li> <li>3. Nine sewer extension projects identified by a</li> </ol> |                           | <ol style="list-style-type: none"> <li>1. The City will continue to promote its STEP program in an effort to assist qualifying homeowners with abandonment of their HSTSs.</li> <li>2. Columbus Public Health (CPH) will continue to issue tap orders to HSTS owners located near</li> </ol> |

**Table 1**  
**Summary of Major Findings, Areas of Accomplishment,**  
**Areas Needing Improvement, and Future Direction**

| Program Element | Major Findings                    | Areas of Accomplishment  | Areas Needing Improvement | Future Direction   |
|-----------------|-----------------------------------|--|---------------------------|--|
|                 | remediation through a WPCLF Loan. | <p>prioritization process are in various stages of planning. The designs for three project areas have been completed with two more in process.</p> <p>4. Conducted 48 half-day Food Service Programs to educate restaurant employees about prevention of illicit discharges during parking lot and dumpster cleaning, and conducted 7 full-day Food Service Program training sessions. These programs were attended by 344 restaurant employees.</p> <p>5. CPH again applied for and received \$150,000 from the</p> |                           | <p>an accessible sanitary sewer.</p> <p>3. Sanitary sewer extension projects in various phases of design and construction will provide access to approximately 300 properties with existing HSTSs by 2025.</p> |

**Table 1**  
**Summary of Major Findings, Areas of Accomplishment,**  
**Areas Needing Improvement, and Future Direction**

| <b>Program Element</b> | <b>Major Findings</b>                          | <b>Areas of Accomplishment</b>  | <b>Areas Needing Improvement</b>          | <b>Future Direction</b>               |
|------------------------|--|---|---|---------------------------------------|
|                        |  | <p>OEPA’s Water Pollution Control Loan Fund (WPCLF). These funds will be used to assist low to moderate income homeowners with the repair or replacement of failing household sewage treatment systems. Up to 50% of the funds granted by the WPCLF loan can be used to make connections to existing centralized sanitary sewers systems. The principal forgiveness subsidies neither require a repayment of principal nor any payment of interest.</p> |   |                                       |
| Construction           | Over the past thirteen years a total of 62,815 |   | Mobile data input devices have previously | 1. The Erosion and Sediment Pollution |

**Table 1**  
**Summary of Major Findings, Areas of Accomplishment,**  
**Areas Needing Improvement, and Future Direction**

| <b>Program Element</b> | <b>Major Findings</b>   | <b>Areas of Accomplishment</b> | <b>Areas Needing Improvement</b>  | <b>Future Direction</b>   |
|------------------------|---|--------------------------------|---|---|
|                        | <p>site specific sediment and erosion control construction inspections have been performed in the City of Columbus. The average number of SWP3 inspections per year has been 4,486.</p> |                                | <p>been budgeted but implementation of an electronic inspection and reporting system will be delayed as the effort was incorporated into a much larger project that will replace the City's Computerized Maintenance and Enterprise Asset Management Systems for the Department of Public Utilities. While this project is at least a few years away from completion, the program has already begun transitioning from a paper-based planning and record-keeping process to a GIS-based system.</p> | <p>Control Regulation will be replaced in 2021 with a new Regulation for Control of Stormwater Pollution from Land Disturbance.</p> |

**Table 1**  
**Summary of Major Findings, Areas of Accomplishment,**  
**Areas Needing Improvement, and Future Direction**

| Program Element                        | Major Findings | Areas of Accomplishment  | Areas Needing Improvement   | Future Direction   |
|--|----------------|--|---|--|
| Post Construction                      |                | <ol style="list-style-type: none"> <li>1. 262 maintenance information packets were distributed to owners/management companies responsible for maintaining post-construction BMPs.</li> <li>2. The City utilized a private vendor to perform maintenance work at 620 city-owned bioretention facilities.</li> <li>3. 113 inspections of newly constructed BMPs were performed.</li> </ol> |   | <ol style="list-style-type: none"> <li>1. The Stormwater Drainage Manual will be revised to include requirements for surety bonds prior to construction, professional certification after construction, and easements for access to maintain post-construction BMPs.</li> <li>2. The City will provide training on the Inspection and Maintenance Guidance Manual to internal and external users.</li> </ol> |
| Good Housekeeping/Pollution Prevention |                | Improvements at the Transportation Main Yard were completed in 2020. These included a new materials storage building and dedicated vehicle wash bay.   | While the City has achieved the goal of implementing SWPPPs for all of the identified facilities, some of these documents remain in need of update. | <ol style="list-style-type: none"> <li>1. Continue design of fueling system upgrades to reduce stormwater contamination at one remaining City location.</li> </ol>   |

**Table 1**  
**Summary of Major Findings, Areas of Accomplishment,**  
**Areas Needing Improvement, and Future Direction**

| Program Element                   | Major Findings   | Areas of Accomplishment   | Areas Needing Improvement | Future Direction  |
|-----------------------------------|--|---|---------------------------|---|
|                                   |  |   |                           | 2. Complete the implementation of a formal process for annual audit of all identified City facilities by DPU personnel.   |
| Industrial and Related Facilities | <ol style="list-style-type: none"> <li>1. The names of industries that have been identified and contacted by the City that have not shown proof of permit or No Exposure Certification coverage are listed in Appendix P as Category 1 industries.</li> <li>2. The number of Category 1 industries decreased this reporting period since 17 industries were removed from the City's inventory and no industries re-</li> </ol> | 22 No Exposure Certifications and 4 Industrial General Permits were acquired. |                           | 1. The City will schedule appointments with Ohio EPA throughout 2021 to retrieve copies of NOIs, General Permit confirmation numbers, and No Exposure application and confirmation letters for industries in its inventory. |

**Table 1**  
**Summary of Major Findings, Areas of Accomplishment,**  
**Areas Needing Improvement, and Future Direction**

| <b>Program Element</b> | <b>Major Findings</b>  | <b>Areas of Accomplishment</b>   | <b>Areas Needing Improvement</b> | <b>Future Direction</b>   |
|------------------------|--|--|----------------------------------|---|
|                        | <p>applied for coverage under OEPA Multi-Sector General Permit along with 13 industries that applied for coverage under OEPA No Exposure Certification.</p> <p>3. Zero (0) No Exposure Certification exemptions have expired during this reporting period.</p> |  |                                  |   |
| Wet Weather Monitoring |  | NPDES-qualifying samples were acquired during all four quarters at each of the four monitored sites. |                                  | The City is evaluating ideas that may provide more focus on watersheds for which there are TMDLs. |

## **SECTION 2 – ASSESSMENT OF BEST MANAGEMENT PRACTICES**

The SWMP is an on-going effort to reduce pollutant discharges from the MS4 to the maximum extent practicable. BMPs developed and implemented by various city departments and divisions in response to requirements specified in past and current MS4 permits are evidence of this effort. Compliance tasks are conducted and coordinated by the Department of Public Utilities, Division of Sewerage and Drainage, Stormwater and Regulatory Management Section. Based upon specific SWMP goals, compliance activities are delegated to different departments or divisions including Department of Public Service, Department of Public Safety, and Department of Recreation and Parks. Each of these departments administers practices targeted at reducing pollution from stormwater runoff. The City of Columbus continues to develop and improve a comprehensive employee training program, increase public awareness, foster inter-governmental and inter-community cooperation, and promote the improvement of stormwater runoff in local watersheds.

Ohio EPA permit 4PI00000\*CD requires the City to develop and report on the implementation of BMPs and measurable goals for each element of the City's SWMP. The objective of stormwater BMPs is to control the quality and/or quantity of stormwater runoff to reduce the adverse impact on local receiving waters. BMPs are generally described as activities, regulation of practices, maintenance, structural controls, and management practices and procedures used to prevent or reduce the release of pollutants or otherwise prevent adverse impacts to surface waters. The following tables outline the BMP and measurable goal implementation status for each program component in the SWMP.

**PUBLIC EDUCATION AND OUTREACH ON STORMWATER IMPACTS AND PUBLIC INVOLVEMENT / PARTICIPATION**

**SWMP Component: Identify Target Pollutants**

| <b><u>BMP PE1– Targeted Public Education Themes</u></b>   |   |                                   |           |              |
|---|---|-----------------------------------|-----------|--------------|
| <b>Status:</b><br>Ongoing   |   |                                   |           |              |
| <b>Measurable Goals</b>   | <b>Summary of Activity During Reporting Period<sup>1</sup>:</b>   | <b>Measurable Goals Achieved?</b> |           |              |
|   |   | <b>Yes</b>                        | <b>No</b> | <b>Other</b> |
| 1. Distribute educational materials to reach at least 20% of city residents each year.  | Bill inserts containing stormwater messages were distributed to over 280,000 ratepayers in both hard copy and electronic format via the DPU online billing portal. Enrollment in the online billing portal rose significantly during the pandemic, as customers who usually pay in person utilized alternatives due to in-person payment locations being closed. The actual number of hard copy inserts delivered by mail to customers ranged roughly between 230,000 and 240,000, but all online customers continue to receive either a pdf attachment of the quarterly inserts or a direct link to those inserts within their billing statements. | X                                 |           |              |
| 2. Publicize at least 20 stormwater education messages annually using social media.   | 200+ stormwater education messages were published and cross-promoted on DPU, GreenSpot, and Blueprint Facebook pages, and periodic messages were shared via Twitter.  | X                                 |           |              |
| 3. Review the list of targeted themes and audiences in Table 2-1 during preparation of the City’s annual compliance report to Ohio EPA. | The list of targeted themes was reviewed and discussed with a focus on synthesizing messaging where audiences overlap and enhancing electronic resources to ensure  | X                                 |           |              |

<sup>1</sup> See Appendix B for detailed summary of Public Education and Outreach activities.

| <b><u>BMP PE1– Targeted Public Education Themes</u></b>   |   |                            |    |       |
|---|---|----------------------------|----|-------|
| <b>Status:</b><br>Ongoing   |   |                            |    |       |
| Measurable Goals  | Summary of Activity During Reporting Period <sup>1</sup> :  | Measurable Goals Achieved? |    |       |
|   |   | Yes                        | No | Other |
|   | information is easy to access and fully integrated. These efforts will continue in 2021.  |                            |    |       |
| 4. Continue pet waste campaign. Install and maintain signage and kiosks in parks.                           | 296 residents pledged to pick up after their dog in 2020. The pet waste stations (with bags) installed in parks across the city and around the reservoirs were maintained and repaired throughout the year.   | X                          |    |       |
| 5. Develop yard maintenance program in 2015 and begin implementation in 2016.                               | The Franklin County Soil and Water Conservation District continues to implement Get Grassy! messaging to a wide variety of stakeholders. The program increased electronic resources by creating videos such as “Summer Lawn Care Tips” and “3 Best Things to do with Fall Leaves.” The program received 189 individual pledges this year. The program also offered a lawn mower blade sharpening discount through a limited partnership with Hilliard Lawn & Garden and the City Folks Farm Ship. | X                          |    |       |
| 6. Continue GreenSpot Backyard Conservation and rain barrel cost share program.                             | 11 Columbus residents attended a workshop and 1,830 completed an online course on causes and prevention of stormwater pollution. Each resident was eligible to receive a rebate on a rain barrel, compost bin, native plants, or a tree.  | X                          |    |       |
| 7. Establish grant program for watershed organizations to promote green infrastructure credit and develop a | No new applications were received in 2020 for stormwater credits involving green infrastructure.  |                            |    | X*    |

| <b><u>BMP PE1– Targeted Public Education Themes</u></b>  |  |                                   |           |              |
|--|--|-----------------------------------|-----------|--------------|
| <b>Status:</b><br>Ongoing  |  |                                   |           |              |
| <b>Measurable Goals</b>  | <b>Summary of Activity During Reporting Period<sup>1</sup>:</b>  | <b>Measurable Goals Achieved?</b> |           |              |
|  |  | <b>Yes</b>                        | <b>No</b> | <b>Other</b> |
| mandatory training course as part of grant eligibility.  |  |                                   |           |              |
| 8. Continue public education through the Utility Update and GreenSpot application, outreach activities, webinars and social media. | GreenSpot recruited 1,533 new members in 2020 and participated in many webinars where measures such as washing the car over grass (or at a commercial car wash), picking up pet waste, installing rain gardens/rain barrels and reducing the amount of fertilizers, pesticides, and herbicides used on the lawn were discussed. 31 local businesses became GreenSpot members in 2020 and have committed to or have already taken steps that have a positive influence on reducing stormwater runoff and/or allowing more natural filtering to take place. A list of local businesses who have committed to take action to reduce stormwater runoff is provided in Appendix D. GreenSpot continued its commitment to the US EPA WaterSense program. As a signer we promote WaterSense through social media. As part of GreenSpot’s Corporate Sustainability Initiative, the City’s Pretreatment Program Manager presented information to 7 businesses on fats, oils and grease, stormwater pollution prevention, spill prevention control and counter control measures and green infrastructure. Participants learned about illicit connections, proper | X                                 |           |              |

**BMP PE1– Targeted Public Education Themes**

**Status:**  
Ongoing

| Measurable Goals   | Summary of Activity During Reporting Period <sup>1</sup> :  | Measurable Goals Achieved? |    |       |
|--|---|----------------------------|----|-------|
|  |   | Yes                        | No | Other |
|  | <p>container storage, proper waste storage, proper vehicle parking/storage, and site pollution prevention actions.</p> <p>Blueprint Columbus continued to refine and distribute educational resources to residents about stormwater management and green infrastructure practices. The Outreach Team posted 108 updates/fun facts about green infrastructure and/or stormwater management, which received 17,523 impressions. The Blueprint Outreach Team also launched a new website for Blueprint neighborhoods in summer 2020, which had over 5,000 visitors by the end of the year.</p> <p>Get Grassy! Provided an interview for the Home and Gardens section of the Columbus Dispatch on October 4th, 2020 titled “Long-term investment: Prepping your lawn now for winter can yield positive results come spring,” reaching approximately 80,000 subscribers.</p> |                            |    |       |
| 9. Identify power washer companies and create/distribute educational information starting in 2015. | 75 power washing companies have been provided educational information since 2015.   | X                          |    |       |

| <b><u>BMP PE1– Targeted Public Education Themes</u></b>   |  |                                   |           |              |
|---|--|-----------------------------------|-----------|--------------|
| <b>Status:</b><br>Ongoing   |  |                                   |           |              |
| <b>Measurable Goals</b>   | <b>Summary of Activity During Reporting Period<sup>1</sup>:</b>  | <b>Measurable Goals Achieved?</b> |           |              |
|   |  | <b>Yes</b>                        | <b>No</b> | <b>Other</b> |
| 10. Continue working with Columbus Public Health’s (CPH) Food Protection Program to distribute FOG educational information. | The City conducted an annual FOG training for CPH employees. 3,669 FOG inspections were performed at 3,002 licensed Food Service Establishments.   | X                                 |           |              |
| <b>Planned Activity for Next Reporting Period:</b>  | The City will assess messaging gaps/needs to enhance or refine current program efforts, with a focus on synthesizing messaging where audiences overlap and developing additional metrics to determine campaign effectiveness.  |                                   |           |              |
| <b>Discussion:</b>  | <p>GreenSpot continues to engage the community through speaking engagements and tabling (having a booth at an event). 2020 saw 26 presentations by GreenSpot. Another Sustainability Initiative class was started in the fall of 2020 and there have been regular social media postings. GreenSpot Neighborhood and Clintonville was engaged on water conservation and protection actions such as promoting water conservation tips, native tree and flower plantings along with installing rain barrels. 100 New Home Owners green guides were distributed to populations served by the Ethiopian Tewaheda Social Services (ETSS) and an additional 100 distributed by the Grange Insurance Audubon Center, 100 through Green Columbus, and 50 through GreenSpotNeighborhood Clintonville. The guide has a water protection and conservation section. Additionally ETSS gave a virtual presentation of the GreenSpot Home 101 to 200 adults. This presentation has several slides on ways to conserve water. Organizations that have demonstrated successes in conserving and protecting water were recognized at our virtual GreenSpotLight Awards Celebration, and water conservation/protection messages were included in the GreenSpot eNewsletters and on social media.</p> <p>Blueprint continues to develop new educational materials and investigate ways to engage residents with the green infrastructure installations to increase awareness and appreciation of these features. This includes collaboration with community gardening groups/civic agriculture and increased engagement with schools in Blueprint neighborhoods.</p> |                                   |           |              |

**BMP PE1– Targeted Public Education Themes**

**Status:**  
Ongoing

| Measurable Goals | Summary of Activity During Reporting Period <sup>1</sup> :   | Measurable Goals Achieved? |    |       |
|------------------|--|----------------------------|----|-------|
|                  |  | Yes                        | No | Other |
|                  | * The City has increased awareness of the GI Credit program by providing an information brochure during preliminary site development meetings instead of pursuing the grant program. |                            |    |       |

**PUBLIC EDUCATION AND OUTREACH ON STORMWATER IMPACTS AND PUBLIC INVOLVEMENT / PARTICIPATION**

**SWMP Component: Proper management and disposal of used oil and toxic materials**

| <b>BMP PE2 – Educate Auto Repair Businesses and General Public about Vehicle Fluids and Tire Recyclers</b> |   |                                   |           |              |
|--|---|-----------------------------------|-----------|--------------|
| <b>Status:</b><br>Ongoing  |   |                                   |           |              |
| <b>Measurable Goals</b>  | <b>Summary of Activity During Reporting Period:</b>   | <b>Measurable Goals Achieved?</b> |           |              |
|  |   | <b>Yes</b>                        | <b>No</b> | <b>Other</b> |
| 1. Publicize locations of recyclers of used oil and tires through SWACO.                                   | 1. Instructions on how to properly dispose of used tires and motor oil are posted on the SWACO web site:<br><a href="http://www.swaco.org/Residents/disposal-information.aspx">http://www.swaco.org/Residents/disposal-information.aspx</a><br>2. Household hazardous waste (HHW) recyclers, dates and locations of HHW drop off events coordinated by SWACO are posted on the SWACO web page:<br><a href="http://www.swaco.org/Residents/HouseholdHazardousWaste.aspx">http://www.swaco.org/Residents/HouseholdHazardousWaste.aspx</a><br>3. Information on HHW disposal and link to SWACO site available on Division of Refuse web page within the Columbus Public Service Department:<br><a href="http://www.columbus.gov/Templates/Detail.aspx?id=64642">http://www.columbus.gov/Templates/Detail.aspx?id=64642</a> | X                                 |           |              |
| <b>Planned Activity for Next Reporting Period:</b>   | Meet or exceed measurable goals.  |                                   |           |              |
| <b>Discussion:</b>   |   |                                   |           |              |

**PUBLIC EDUCATION AND OUTREACH ON STORMWATER IMPACTS AND PUBLIC INVOLVEMENT / PARTICIPATION**

**SWMP Component: Inform individuals of proper disposal of household hazardous and toxic materials**

| <b>BMP PE3/PI5 – Educate General Public about Household Hazardous Wastes and Drop Off/Collection</b> |  |                                   |           |              |
|--|--|-----------------------------------|-----------|--------------|
| <b>Status:</b><br>Ongoing  |  |                                   |           |              |
| <b>Measurable Goals</b>  | <b>Summary of Activity During Reporting Period:</b>  | <b>Measurable Goals Achieved?</b> |           |              |
|  |  | <b>Yes</b>                        | <b>No</b> | <b>Other</b> |
| 1. Publicize locations of collection and recyclers of household hazardous waste (HHW) through SWACO. | Publicized location of HHW drop off locations and times through the Solid Waste Authority of Central Ohio (SWACO), which coordinates HHW events in Franklin County. SWACO HHW web page is:<br><a href="http://www.swaco.org/Residents/HouseholdHazardousWaste.aspx">http://www.swaco.org/Residents/HouseholdHazardousWaste.aspx</a> . This page also is accessible through a link on the Division of Refuse web page within the Columbus Public Service Department <a href="http://www.columbus.gov/Templates/Detail.aspx?id=64642">http://www.columbus.gov/Templates/Detail.aspx?id=64642</a> | X                                 |           |              |
| 2. In cooperation with SWACO, conduct annual HHW drop off events each year.                          | 1. Zero HHW drop-off events were conducted in 2020.<br>2. The City maintains a permanent HHW drop-off facility at 645 E. 8th Avenue.   |                                   | X*        |              |
| 3. Track amount of HHW collected per year.   | Collected 229 tons of HHW.   | X                                 |           |              |
| <b>Planned Activity for Next Reporting Period:</b>   | Meet or exceed measurable goals.   |                                   |           |              |
| <b>Discussion:</b>   | * The resources for HHW collection continue to be focused on the permanent drop-off facility.  |                                   |           |              |

**PUBLIC EDUCATION AND OUTREACH ON STORMWATER IMPACTS AND PUBLIC INVOLVEMENT / PARTICIPATION**

**SWMP Component: Residential Lawn Care Program**

| <b>BMP PE4 – Educate Lawn Care Businesses and General Public About Lawn Chemicals and Yard Waste</b> |   |                                   |           |              |
|--|---|-----------------------------------|-----------|--------------|
| <b>Status:</b><br>Ongoing  |   |                                   |           |              |
| <b>Measurable Goals</b>  | <b>Summary of Activity During Reporting Period:</b>   | <b>Measurable Goals Achieved?</b> |           |              |
|  |   | <b>Yes</b>                        | <b>No</b> | <b>Other</b> |
| 1. Include in the stormwater edition of the Utility Update distributed to 310,000 rate payers.       | The Spring stormwater edition included six tips on ways to care for yards in a way that prevents pollutants from entering waterways.  |                                   |           |              |
| 2. Develop yard maintenance nutrient management program in 2015 and begin implementation in 2016.    | Through the Get Grassy! campaign, 189 Columbus residents pledged to maintain their yards and manage nutrients in a way that benefits water quality. Nine lawn care businesses and nurseries of various sizes were provided 11,100 hot cards to distribute to their customers. Get Grassy! attended the 2020 Lawn Mower Clinic hosted by the Ohio State University on March 29, 2020, and provided a table display including Get Grassy! pledge information                              | X                                 |           |              |
| 3. Publicize City’s yard waste collection/recycling program offered through the Division of Refuse.  | <p>1. Publicized recycling tips for homeowners through the Division of Refuse website at: <a href="http://www.columbus.gov/RecyColumbus/">http://www.columbus.gov/RecyColumbus/</a> while highlighting/promoting the city’s new curbside recycling program through our Facebook page.</p> <p>2. Publicized yard waste residential collection program through the Division of Refuse website at: <a href="http://www.columbus.gov/yardwaste/">http://www.columbus.gov/yardwaste/</a></p> | X                                 |           |              |

**BMP PE4 – Educate Lawn Care Businesses and General Public About Lawn Chemicals and Yard Waste**

**Status:**  
Ongoing

| Measurable Goals                                   | Summary of Activity During Reporting Period:  | Measurable Goals Achieved? |    |       |
|--|---|----------------------------|----|-------|
|  |   | Yes                        | No | Other |
|  | 3. Shared several social media reminders about the availability of yard waste collection as well as the benefits to stormwater quality.   |                            |    |       |
| <b>Planned Activity for Next Reporting Period:</b> | Planned Activity for Next Reporting Period: Get Grassy! will continue to focus on identifying additional outlets and strategies to distribute messaging and reach new individuals. The program will explore targeted lawncare education to new homeowners through collaboration with real estate agents, GreenSpot New Americans program, and develop additional educational videos to promote through social media and other electronic channels.  |                            |    |       |
| <b>Discussion:</b>                                 | * During 2020, participation in the online billing portal spiked as the pandemic forced in-person payment locations to close, and the customers who used them turned to online alternatives. The number of customers who received physical, hard copy inserts ranged between 230,000 and just over 240,000. All customers continue to receive either a hard copy of the insert (via postal mail), an electronic/pdf version of the insert (via the billing portal) insert, or a direct link to those inserts (also via the billing portal). Additionally, all stormwater-related information and guidance provided within these inserts remains available 24/7 on the department’s website; topics are seasonally highlighted as appropriate and are also periodically emphasized through social media. |                            |    |       |

**PUBLIC EDUCATION AND OUTREACH ON STORMWATER IMPACTS AND PUBLIC INVOLVEMENT / PARTICIPATION**

**Required SWMP Component: Create opportunities for citizens to participate in the implementation of stormwater activities.**

| <b>BMP PE5 – Develop and Implement Program Assessment Mechanisms</b>                                      |   |                                   |           |              |
|---|---|-----------------------------------|-----------|--------------|
| <b>Status:</b><br>Ongoing   |   |                                   |           |              |
| <b>Measurable Goals</b>   | <b>Summary of Activity During Reporting Period:</b>   | <b>Measurable Goals Achieved?</b> |           |              |
|   |   | <b>Yes</b>                        | <b>No</b> | <b>Other</b> |
| 1. Track the number, types and locations of new GreenSpot signups annually and evaluate trends over time. | New GreenSpot businesses fell into these types: 20 offices, education, nonprofits; 8 industrial and commercial; 3 restaurants, grocers, and retail stores. Trends continue: large businesses that participate in the GreenSpot Sustainability Initiative course tend to encourage their employees to become household GreenSpot members.  | X                                 |           |              |
| 2. Increase the number of GreenSpot households by 1,500 new signups annually.                             | 1,509 households became GreenSpots.   | X                                 |           |              |
| 3. Increase the number of GreenSpot businesses by 10 percent annually.                                    | GreenSpot Businesses increased by 2 percent.  |                                   | X*        |              |
| <b>Planned Activity for Next Reporting Period:</b>  | GreenSpot continues to engage the community through speaking engagements and virtual tabling/presentations. We started another Sustainability Initiative class in the fall of 2020, have regular social media postings, engaging Clintonville through our GreenSpot Neighborhood program on water conservation tips, distributed a New Home Owners Green Guide which has a conserve and protect water section, celebrate organizations that have demonstrated successes in conserving and protecting water at our virtual GreenSpotLight Awards Celebration, and including water conservation/protection messages in the GreenSpot eNewsletters and on social media. Additionally, pivoted and created a three-part recorded presentation for the COSI Science Festival. In 2020 the GreenSpot Advisory Board laid the foundation for “GreenSpot Conversations” which is a webinar series on sustainable topics and interviews with allies. This will launch in 2021. Additionally we are encouraging people to plant trees which helps with water quality. We will hold a 2021 GreenSpotLight Award celebration highlighting the green savings members are experiencing, and will continue to work in the Opportunity Neighborhoods like Linden in encouraging 300 households to install water efficient shower heads. |                                   |           |              |

| <b>BMP PE5 – Develop and Implement Program Assessment Mechanisms</b> |  |                                   |           |              |
|--|--|-----------------------------------|-----------|--------------|
| <b>Status:</b><br>Ongoing  |  |                                   |           |              |
| <b>Measurable Goals</b>  | <b>Summary of Activity During Reporting Period:</b>  | <b>Measurable Goals Achieved?</b> |           |              |
|  |  | <b>Yes</b>                        | <b>No</b> | <b>Other</b> |
| <b>Discussion:</b>   | * The City fell short of a 10% increase in GreenSpot businesses. Business outreach continues. The GreenSpot Advisory Board continues to recruit businesses, however with the pandemic this posed to be challenging. MORPC included recruitment of GreenSpot members in their Sustainable2050 document but movement on this initiative has been slowed due to the pandemic. The “MyGreenSpot” tracking tool has allowed our businesses to report their water commitments. Overall the businesses membership has made 10,189 commitments and metric inputs to conserve and protect water. Additionally, big outreach efforts that resulted in recruiting in large numbers includes our ReCollect reminder call which netted about 200. |                                   |           |              |

**PUBLIC EDUCATION AND OUTREACH ON STORMWATER IMPACTS AND PUBLIC INVOLVEMENT / PARTICIPATION**

**SWMP Component: Public Involvement and Participation Activities**

| <b><u>BMP PI1 – Opportunity for Public Involvement, Storm Drain Marking Project</u></b>                    |   |                                   |           |              |
|--|---|-----------------------------------|-----------|--------------|
| <b>Status:</b><br>Ongoing  |   |                                   |           |              |
| <b>Measurable Goals</b>  | <b>Summary of Activity During Reporting Period:</b>   | <b>Measurable Goals Achieved?</b> |           |              |
|  |   | <b>Yes</b>                        | <b>No</b> | <b>Other</b> |
| 1. Solicit 150,000 homes for participation into the program via brochure distribution and/or bill inserts. | Distributed bill inserts to more than 280,000 residents.  | X                                 |           |              |
| 2. Distribute 300 storm drain markers to volunteer groups per year.  | Distributed 0 storm drain markers.  |                                   | X*        |              |
| <b>Planned Activity for Next Reporting Period:</b>   | Meet or exceed measurable goals.  |                                   |           |              |
| <b>Discussion:</b>   | <p>* Storm drain marker distribution did not occur in 2020 due to restrictions caused by the pandemic.</p> <p>Plans to promote the storm drain marker program more often and to a wider audience in 2020 were shelved by the pandemic, as working remotely prevented access to the markers and adhesive - and also to the department’s mailing account, which covers the cost of mailing the materials to those who request it. As a consequence, no markers/adhesive were distributed during the year. The goal for 2021 is to both resume and increase promotion and distribution of these materials.</p> |                                   |           |              |

**PUBLIC EDUCATION AND OUTREACH ON STORMWATER IMPACTS AND PUBLIC INVOLVEMENT / PARTICIPATION**

**Required SWMP Component: Public Involvement and Participation Activities**

| <b>BMP PI2 – Central Ohio River Pride and Other Waterway Litter Cleanups</b>  |   |                                   |           |              |
|---|---|-----------------------------------|-----------|--------------|
| <b>Status:</b><br>Ongoing   |   |                                   |           |              |
| <b>Measurable Goals</b>   | <b>Summary of Activity During Reporting Period:</b>   | <b>Measurable Goals Achieved?</b> |           |              |
|   |   | <b>Yes</b>                        | <b>No</b> | <b>Other</b> |
| 1. Organize at least one stream or river cleanup per year.  | The City organized one cleanup and publicized via social media several others organized by partner organizations.   | X                                 |           |              |
| 2. River Pride cleanups will be promoted to at least 150,000 Columbus households to encourage public participation. | Six events were promoted via social media. River Pride cleanups were also publicized on the DPU Web site and 614-645-STREAM line.   |                                   |           | X*           |
| <b>Planned Activity for Next Reporting Period:</b>  | Meet or exceed measurable goals.  |                                   |           |              |
| <b>Discussion:</b>  | * Our partner organizations, including waterway advocacy groups, have indicated the due date for materials to be published within our spring billing insert (usually early/mid March) is too early for their schedules. They promote their own events through social media; while such events were reduced in number during 2020 due to the pandemic, DPU continued to publicize those partner events - as well as the River Pride program as a whole - by sharing cleanup and related water quality events on our social media outlets as they are received from those partners. |                                   |           |              |

**PUBLIC EDUCATION AND OUTREACH ON STORMWATER IMPACTS AND PUBLIC INVOLVEMENT / PARTICIPATION**

**Required SWMP Component: Public Involvement and Participation Activities**

| <b><u>BMP PI3 – Onsite Stormwater Retention</u></b>   |   |                                   |           |              |
|---|---|-----------------------------------|-----------|--------------|
| <b>Status:</b><br>Ongoing   |   |                                   |           |              |
| <b>Measurable Goals</b>   | <b>Summary of Activity During Reporting Period:</b>   | <b>Measurable Goals Achieved?</b> |           |              |
|   |   | <b>Yes</b>                        | <b>No</b> | <b>Other</b> |
| 1. Publicize and provide opportunity for onsite residential stormwater retention activities.  | The GreenSpot Community Backyards program was publicized in the Utility Update, GreenSpot e-newsletter, and Franklin Soil and Water newsletters.  | X                                 |           |              |
| 2. Track number of rain barrels sold through the rain barrel cost share program and rain gardens installed through the GreenSpot Community Backyards program. | 1,830 Columbus residents participated through the online course in 2020. 11 Columbus residents participated through the virtual Zoom workshop on July 25, and all in-person workshops were cancelled due to COVID-19. 735 participants (approximately 40%) went on to implement a backyard conservation practice, receiving a \$50 rebate for rain barrels or native plants. 134 participants received a \$50 rebate for compost/vermicompost bins provided by SWACO.   | X                                 |           |              |
| <b>Planned Activity for Next Reporting Period:</b>  | Meet or exceed measurable goals.  |                                   |           |              |
| <b>Discussion:</b>  | <p>GreenSpot Community Backyards remains one of our most popular residential stormwater programs, and saw a 37% participation increase this year. Though additional promotion avenues were identified, the increase of participation in 2020 meant that vouchers were not available for all participants, and so additional promotion of the program was not necessary this year as more than 100 participants were placed on a waiting list. We expect this trend to continue and increase.</p> <p>In order to accommodate this increased demand, we are implementing changes in our vouchers for 2021. After a review of how the vouchers were being used, we determined that the majority of</p> |                                   |           |              |

**BMP PI3 – Onsite Stormwater Retention**

**Status:**  
Ongoing

| Measurable Goals | Summary of Activity During Reporting Period:   | Measurable Goals Achieved? |    |       |
|------------------|--|----------------------------|----|-------|
|                  |  | Yes                        | No | Other |
|                  | vouchers were being used for plants/perennials. Given the relatively lower cost of plants/perennials, we will reduce vouchers for this type of stormwater management from \$50 to \$25, while keeping the \$50 vouchers for trees and rain barrels. This will allow us to serve more residents and encourage more use of at-home stormwater runoff strategies. |                            |    |       |

**PUBLIC EDUCATION AND OUTREACH ON STORMWATER IMPACTS AND PUBLIC INVOLVEMENT / PARTICIPATION**

**Required SWMP Component: Public Involvement and Participation Activities**

| <b>BMP PI4 – Pet Waste Collection Bags</b>                          |   |                                   |           |              |
|---|---|-----------------------------------|-----------|--------------|
| <b>Status:</b><br>Ongoing   |   |                                   |           |              |
| <b>Measurable Goals</b>   | <b>Summary of Activity During Reporting Period:</b>   | <b>Measurable Goals Achieved?</b> |           |              |
|   |   | <b>Yes</b>                        | <b>No</b> | <b>Other</b> |
| 1. Establish and maintain kiosks in city parks with pet waste bags. | 1. 121 pet waste stations were maintained in 94 city parks and at City Hall.<br>2. A total of 16 stations were maintained at city reservoir parks.                                      | X                                 |           |              |
| 2. Distribute pet waste bags for use at city parks.                 | 1. 564,000 pet waste bags were used at city parks.<br>2. 21,200 pet waste bags were distributed at city reservoir parks. An additional 8,100 bags were distributed through other means. | X                                 |           |              |
| <b>Planned Activity for Next Reporting Period:</b>                  |   |                                   |           |              |
| <b>Discussion:</b>  | A new kiosk was installed at the Griggs Reservoir park in 2020.   |                                   |           |              |

**PUBLIC EDUCATION AND OUTREACH ON STORMWATER IMPACTS AND PUBLIC INVOLVEMENT / PARTICIPATION**

**Required SWMP Component: Public Involvement and Participation Activities**

| <b><u>BMP PI6 – Watershed and Land Stewardship</u></b>   |   |                                   |           |              |
|--|---|-----------------------------------|-----------|--------------|
| <b>Status:</b><br>Ongoing, as needed   |   |                                   |           |              |
| <b>Measurable Goals</b>  | <b>Summary of Activity During Reporting Period:</b>   | <b>Measurable Goals Achieved?</b> |           |              |
|  |   | <b>Yes</b>                        | <b>No</b> | <b>Other</b> |
| 1. Perform 400 inspections per year of reservoir landowner properties in the Land Stewardship Program.   | 344 inspections of reservoir landowner properties under the Land Stewardship Program were conducted.  |                                   | X         |              |
| 2. Make 250 contacts per year to provide information and assistance to reservoir landowners in preparing or complying with a Land Stewardship Agreement. | 279 contacts were made to contiguous neighbors regarding the maintenance of City of Columbus reservoir property and the land stewardship program. | X                                 |           |              |
| <b>Planned Activity for Next Reporting Period:</b>   | Meet or exceed measurable goals.  |                                   |           |              |
| <b>Discussion:</b>   | The number of inspections was reduced in 2020 due to the Covid-19 pandemic and staff vacancies.   |                                   |           |              |

**PUBLIC EDUCATION AND OUTREACH ON STORMWATER IMPACTS AND PUBLIC INVOLVEMENT / PARTICIPATION**

**SWMP Component: Public Involvement and Participation Activities**

| <b><u>BMP PI7 – Public Hearings and Presentations</u></b>  |  |                                   |           |              |
|--|--|-----------------------------------|-----------|--------------|
| <b>Status:</b> Ongoing   |  |                                   |           |              |
| <b>Measurable Goals</b>  | <b>Summary of Activity During Reporting Period:</b>  | <b>Measurable Goals Achieved?</b> |           |              |
|  |  | <b>Yes</b>                        | <b>No</b> | <b>Other</b> |
| 1. Publish public meeting dates and locations on the City’s web site and/or by email/mail subscriber notification.   | All Columbus City Council meeting dates are published on the City’s website. Special Council meetings directly involving Public Utilities are also shared via social media. <sup>2</sup>   | X                                 |           |              |
| 2. Hold at least one public hearing per year or meeting where residents can comment on stormwater services. This may include City Council’s annual hearing on stormwater, sanitary and water rates or meetings between DPU and the Central Ohio Watershed Council to keep information current and answer any questions about water quality concerns. | 1. Conducted six public meetings/hearings (one special rate hearing at City Council and five Sewer and Water Advisory Board meetings).<br>2. DPU director, deputy director, assistant director for sustainability and division administrators met quarterly with members of Central Ohio Watershed Council to share information and answer any questions and concerns. | X                                 |           |              |
| 3. Make available public comment opportunities at City Council meetings.   | Public comment opportunities are available at all Columbus City Council meetings, as well as during Council’s annual rates hearing. Public comment is also invited at all Sewer and Water Advisory Board meetings, held at DPU throughout the year.  | X                                 |           |              |
| <b>Planned Activity for Next Reporting Period:</b>   | Meet or exceed measurable goals.   |                                   |           |              |

<sup>2</sup> See Appendix E for list of City Council meeting/hearing dates held during the reporting period.

**BMP PI7 – Public Hearings and Presentations**

**Status:** Ongoing

| Measurable Goals   | Summary of Activity During Reporting Period:   | Measurable Goals Achieved? |    |       |
|--------------------|--|----------------------------|----|-------|
|                    |  | Yes                        | No | Other |
| <b>Discussion:</b> | Except City Council meetings prior to mid-March, all meetings were online/virtual but publicized and open to public comment the same as in previous years. |                            |    |       |

**PUBLIC EDUCATION AND OUTREACH ON STORMWATER IMPACTS AND PUBLIC INVOLVEMENT / PARTICIPATION**

**SWMP Component: Public Involvement and Participation Activities**

| <b><u>BMP PI8 – GreenSpot</u></b>  |   |                                   |           |              |
|--|---|-----------------------------------|-----------|--------------|
| <b>Status:</b><br>Ongoing  |   |                                   |           |              |
| <b>Measurable Goals</b>  | <b>Summary of Activity During Reporting Period:</b>   | <b>Measurable Goals Achieved?</b> |           |              |
|  |   | <b>Yes</b>                        | <b>No</b> | <b>Other</b> |
| 1. Inspire and educate residents, businesses and non-profit/community groups on how to live greener, more sustainable lives, including tips on water quality protection, through various outreach efforts. | The GreenSpot outreach/publicity materials included two features in Franklin Soil and Water Conservation District’s newsletter to teachers, direct teacher contact to 100 educators, SWACO’s home page banner slot, use of the Recollect reminder service (went out to 100,000 people), Next Door (goes out to 60,000 people), tabling and/or presenting at 26 virtual events (examples include: Kids Crest Fest, 1 <sup>st</sup> African Heritage Night, State of the City, Columbus Green Drinks, various OSU presentations to groups, Columbus Realtors, MORPC staff, GEMS school, Simply Living, and more). The program also held 9 webinars covering an array of sustainability topics. More than 400 GreenSpot Kids books (which include water conservation) were distributed through the Ethiopian Tewahedo Social Services. We included dozens of activities (some GreenSpot, some not) on our website for educators to download. The City posted dozens of posts on Facebook and Twitter about conserving and protecting water. From the MyGreenSpot tracking it can be seen that all household members have collectively made 163,344 | X                                 |           |              |

| <b><u>BMP PI8 – GreenSpot</u></b>  |  |                            |    |       |
|--|--|----------------------------|----|-------|
| <b>Status:</b><br>Ongoing  |  |                            |    |       |
| Measurable Goals   | Summary of Activity During Reporting Period:   | Measurable Goals Achieved? |    |       |
|  |  | Yes                        | No | Other |
|  | commitments to conserving and protecting water. Adjusted the individual dashboards for GreenSpot members to track their water conservation efforts. The City had 280 people commit to install a rain barrel on their property. Additionally over the course of the program 532 people have installed water efficient fixtures (toilets, shower heads, and aerators). |                            |    |       |
| 2. Track the number, types, and locations of new GreenSpot signups annually and evaluate trends over time. | New GreenSpot businesses fell into these types: 20 offices, education, nonprofits; 8 industrial and commercial; 3 restaurants, grocers, and retail stores. Continued trends include: large businesses that participate in the GreenSpot Sustainability Initiative course tend to encourage their employees to become household GreenSpot members.                    | X                          |    |       |
| 3. Increase the number of GreenSpot households by 1,500 new signups annually.                              | 1,509 households became GreenSpots.  | X                          |    |       |
| 4. Increase the number of GreenSpot businesses by 10 percent annually.                                     | GreenSpot Businesses increased by 2 percent.   |                            | X* |       |

| <b><u>BMP PI8 – GreenSpot</u></b>                  |  |                                   |           |              |
|--|--|-----------------------------------|-----------|--------------|
| <b>Status:</b><br>Ongoing                          |  |                                   |           |              |
| <b>Measurable Goals</b>                            | <b>Summary of Activity During Reporting Period:</b>  | <b>Measurable Goals Achieved?</b> |           |              |
|  |  | <b>Yes</b>                        | <b>No</b> | <b>Other</b> |
| <b>Planned Activity for Next Reporting Period:</b> | GreenSpot continues to engage the community through speaking engagements and virtual tabling/presentations. We started another Sustainability Initiative class in the fall of 2020, have regular social media postings, engaging Clintonville through our GreenSpot Neighborhood program on water conservation tips, distributed a New Home Owner Green Guide which has a conserve and protect water section, celebrate organizations that have demonstrated successes in conserving and protecting water at our virtual GreenSpotLight Awards Celebration, and including water conservation/protection messages in the GreenSpot eNewsletters and on social media. Additionally, pivoted and created a three part recorded presentation for the COSI Science Festival on water quantity and quality. In 2020 the GreenSpot Advisory Board laid the foundation for “GreenSpot Conversations” which is a webinar series on sustainable topics and interviews with allies. This will launch in 2021. Additionally we are encouraging people to plant trees which helps with water quality. We will hold a 2021 GreenSpotLight Award celebration highlighting the green savings members are experiencing, and will continue to work in the Opportunity Neighborhoods like Linden in encouraging 300 households to install water efficient shower heads. |                                   |           |              |
| <b>Discussion:</b>                                 | * The City fell short of a 10% increase in GreenSpot businesses. Business outreach continues. The GreenSpot Advisory Board continues to recruit businesses, however with the pandemic this posed to be challenging. MORPC included recruitment of GreenSpot members in their Sustainable2050 document but movement on this initiative has been slowed due to the pandemic. The “MyGreenSpot” tracking tool has allowed our businesses to report their water commitments. Overall the businesses membership has made 10,189 commitments and metric inputs to conserve and protect water. Additionally, big outreach efforts that resulted in recruiting in large numbers includes our ReCollect reminder call which netted about 200.   |                                   |           |              |

**PUBLIC EDUCATION AND OUTREACH ON STORMWATER IMPACTS AND PUBLIC INVOLVEMENT / PARTICIPATION**

**SWMP Component: Public Involvement and Participation Activities**

| <b><u>BMP PI9 – Central Ohio Children’s Water Festival and Other School Programs</u></b> |   |                                   |           |              |
|--|---|-----------------------------------|-----------|--------------|
| <b>Status:</b><br>Ongoing  |   |                                   |           |              |
| <b>Measurable Goals</b>  | <b>Summary of Activity During Reporting Period:</b>   | <b>Measurable Goals Achieved?</b> |           |              |
|  |   | <b>Yes</b>                        | <b>No</b> | <b>Other</b> |
| 1. Provide opportunities for children to participate in events annually.                 | The Central Ohio Children’s Water Festival was not held in 2020.  |                                   | X         |              |
| 2. Track the estimated number of participants in children’s events annually.             | The water festival was not held in 2020.  |                                   |           | X            |
| <b>Planned Activity for Next Reporting Period:</b>                                       | None.   |                                   |           |              |
| <b>Discussion:</b>   | The Central Ohio Children’s Water Festival will not be held in 2021 due ongoing public health concerns. |                                   |           |              |

**PUBLIC EDUCATION AND OUTREACH ON STORMWATER IMPACTS AND PUBLIC INVOLVEMENT / PARTICIPATION**

**SWMP Component: Hotline**

| <b><u>BMP PI10 – 614.645.STREAM Hotline</u></b>                            |  |                                   |           |              |
|--|--|-----------------------------------|-----------|--------------|
| <b>Status:</b><br>Ongoing  |  |                                   |           |              |
| <b>Measurable Goals</b>  | <b>Summary of Activity During Reporting Period:</b>  | <b>Measurable Goals Achieved?</b> |           |              |
|  |  | <b>Yes</b>                        | <b>No</b> | <b>Other</b> |
| 1. Establish a hotline for residents to call to report illicit discharges. | Made hotline available to city residents to report illicit discharges. The hotline phone number is 614.645.STREAM (7873).  | X                                 |           |              |
| 2. Publicize hotline in at least one publication each year.                | 1. Distributed bill inserts in which the hotline number was provided.<br>2. Publicized hotline number on DPU website and the DPU Facebook page.<br>3. Storm drain markers applied on inlets bear this hotline number.<br>4. Information cards and a door hanger educate residents and new City employees on stormwater pollution and prominently display the 614.645.STREAM hotline. | X                                 |           |              |
| <b>Planned Activity for Next Reporting Period:</b>                         | Meet or exceed measurable goals.   |                                   |           |              |
| <b>Discussion:</b>   |  |                                   |           |              |

**ILLCIT DISCHARGE**

**Required SWMP Component: Prohibit Non-Stormwater Discharges**

| <b><u>BMP ID1 – Enact and Enforce City Code to Prohibit Non-Stormwater Discharges</u></b>   |   |                                   |           |              |
|---|---|-----------------------------------|-----------|--------------|
| <b>Status:</b><br>Completed   |   |                                   |           |              |
| <b>Measurable Goals</b>   | <b>Summary of Activity During Reporting Period:</b>   | <b>Measurable Goals Achieved?</b> |           |              |
|   |   | <b>Yes</b>                        | <b>No</b> | <b>Other</b> |
| Review City Code at the beginning of each five-year permit cycle, comparing the codes to EPA permit regulations, and the City will revise the codes as necessary. | Columbus City Code Chapter 1145 currently provides the legal authority to prohibit illicit discharges to the MS4 as well as spills and the dumping or disposing of materials other than stormwater into the MS4; to require compliance with conditions in ordinances, permits, contracts or orders; to inspect operators of construction sites and industrial and commercial activities and to receive and collect necessary information such as stormwater plans and operating procedures, and to effectively respond to violations. | X                                 |           |              |
| <b>Planned Activity for Next Reporting Period:</b>  | Meet or exceed measurable goals.  |                                   |           |              |
| <b>Discussion:</b>  |   |                                   |           |              |

**ILLCIT DISCHARGE**  
**SWMP Component: Mapping**

| <b><u>BMP ID2 – Storm Sewer Mapping</u></b>   |   |                                   |           |              |
|---|---|-----------------------------------|-----------|--------------|
| <b>Status:</b><br>Ongoing, annually   |   |                                   |           |              |
| <b>Measurable Goals</b>   | <b>Summary of Activity During Reporting Period:</b>   | <b>Measurable Goals Achieved?</b> |           |              |
|   |   | <b>Yes</b>                        | <b>No</b> | <b>Other</b> |
| 1. Annually review and update mapping of existing MS4 infrastructure and outfalls.                                  | 1. 6 outfalls were added to the City’s inventory during this reporting period.<br>2. New elements of the City’s storm sewer system were continually added throughout the year as new development and redevelopment plans were reviewed and approved by the City. Refer to the City’s Stormwater Management Plan for more information on the City’s mapping process. | X                                 |           |              |
| 2. Annually review and update, if necessary, the list of HSTSs that have been found to discharge to the City’s MS4. | Field investigations and records research has identified 79 HSTSs that discharge to the City’s MS4. <sup>3</sup>  | X                                 |           |              |
| <b>Planned Activity for Next Reporting Period:</b>  | Meet or exceed measurable goals.  |                                   |           |              |
| <b>Discussion:</b>  | The number of HSTSs that discharge to the MS4 dropped from 81 in 2019 to 79 in 2020 due to success in connecting two discharging properties to the sanitary sewer.  |                                   |           |              |

<sup>3</sup> See Appendix F for addresses of known HSTSs that discharge to the City’s MS4.

**ILLICIT DISCHARGE**

**SWMP Component: Illicit Discharge Detection Program**

| <b><u>BMP ID3 – Dry Weather Field Screening Procedures and Activities</u></b>          |  |                                   |           |              |
|--|--|-----------------------------------|-----------|--------------|
| <b>Status:</b><br>Ongoing  |  |                                   |           |              |
| <b>Measurable Goals</b>  | <b>Summary of Activity During Reporting Period:</b>  | <b>Measurable Goals Achieved?</b> |           |              |
|  |  | <b>Yes</b>                        | <b>No</b> | <b>Other</b> |
| 1. Review annually for update written dry weather field screening procedures.          | No changes were warranted to the written dry weather field screening procedures included in the City’s Stormwater Management Plan.   | X                                 |           |              |
| 2. Field crews will receive annual training in dry weather field screening procedures. | Stormwater sampling field crews attended four training sessions to review proper screening procedures <sup>4</sup> .   | X                                 |           |              |
| 3. Dry weather field screen 20% of MS4 outfalls each year.                             | 1. 533 outfalls, or 17% of MS4 outfalls, were field screened during this reporting period <sup>5</sup> .<br>2. 18 outfalls exhibited measurable flow during dry weather screening.   |                                   | X*        |              |
| Planned Activity for Next Reporting Period:  | Meet or exceed measurable goals.   |                                   |           |              |
| <b>Discussion:</b>   | *The dry weather field screen goal of 20% was not achieved due to disruptions in work caused by the pandemic. Only 18 outfalls exhibited measurable flow, which is a significant reduction from a typical year. This is likely due to antecedent dry periods when the outfalls were screened which was partly the result of limited staff availability, especially during the Spring. Dry Weather field screen will be emphasized in 2021 to achieve the 20% goal. |                                   |           |              |

<sup>4</sup> See Appendix G for training summary of City personnel.

<sup>5</sup> See Appendix H for dry weather screening results.

## ILLICIT DISCHARGE

### SWMP Component: Illicit Discharge Detection Program

| <b><u>BMP ID4 – Illicit Discharge Investigations</u></b>   |   |                            |    |       |
|--|---|----------------------------|----|-------|
| <b>Status:</b><br>Ongoing, as needed   |   |                            |    |       |
| Measurable Goals   | Summary of Activity During Reporting Period:  | Measurable Goals Achieved? |    |       |
|  |   | Yes                        | No | Other |
| 1. Review for update, written procedures that describe how to identify and trace illicit discharges and who should be notified in the instance of an illicit discharge, spill, or illegal dumping. | Illicit discharge investigation and reporting procedures were reviewed during this reporting period <sup>6</sup> . No changes were warranted this period.               | X                          |    |       |
| 2. Train investigators annually on established procedures for illicit discharge investigation, response, and notification.   | Field crews attended four training sessions to review illicit discharge detection and notification procedures <sup>7</sup> .  | X                          |    |       |
| 3. Investigate each illicit discharge detected during dry weather field screening.   | No illicit discharge found during dry weather screening conducted in 2020 <sup>8</sup> .  | X                          |    |       |
| 4. Respond, when notified, to each instance of a spill, illegal dumping, sanitary discharge, failing HSTS discharge, or industrial release per the established procedures.                         | 1. Received 170 reports of illicit discharge from general public.*<br>2. Responded to 170 reports of illicit discharge as reported by the general public <sup>9</sup> . | X                          |    |       |
| <b>Planned Activity for Next Reporting Period:</b>   | Meet or exceed measurable goals.  |                            |    |       |
| <b>Discussion:</b>   | *Of the 170 documented reports of illicit discharges, 94 investigations resulted in the identification of an illicit discharge.   |                            |    |       |

<sup>6</sup> Written investigation procedures are included in the City's current Stormwater Management Plan.

<sup>7</sup> See Appendix G for training summary of City personnel.

<sup>8</sup> See Section 3.2 for more information about these investigations.

<sup>9</sup> See Appendix I for summary of illicit discharge reports and investigations.

**ILLCIT DISCHARGE**

**SWMP Component: Illicit Discharge Detection Program**

| <b><u>BMP ID5 – Management of Home Septic Treatment Systems</u></b>   |  |                                   |           |              |
|---|--|-----------------------------------|-----------|--------------|
| <b>Status:</b><br>Ongoing   |  |                                   |           |              |
| <b>Measurable Goals</b>   | <b>Summary of Activity During Reporting Period:</b>  | <b>Measurable Goals Achieved?</b> |           |              |
|   |  | <b>Yes</b>                        | <b>No</b> | <b>Other</b> |
| 1. Maintain a list of HSTS addresses that can be feasibly connected to the City’s central sanitary sewer system through service lateral installation. | The City ordered 13 properties to connect to the sanitary sewer system, 7 Notices of Violation were issued to property owners who failed to comply with an order, and 5 properties were referred to Environmental Court for failure to timely connect.   | X                                 |           |              |
| 2. Inspect all known, off-lot discharging HSTSs annually.   | All known, off-lot discharging HSTSs were inspected.   | X                                 |           |              |
| 3. Track properties that connect to the City’s central sanitary sewer system.   | 38 properties connected to the sanitary sewer system.  | X                                 |           |              |
| 4. Track properties that participate in the City’s STEP program.  | 14 applicants received loans through the Septic Tank Elimination Program (STEP) to abandon their HSTS and tie into the City’s sanitary sewer system.   | X                                 |           |              |
| 5. Develop a process to identify and prioritize for future sanitary sewer extension areas.  | 1. The City completed the prioritization process and developed a list of the top 6 areas. The design of five areas has begun and the contract for design of the sixth area will be awarded next year.<br>2. An additional three priority areas were identified for future sanitary sewer extensions. | X                                 |           |              |
| <b>Planned Activity for Next Reporting Period:</b>  |  |                                   |           |              |

**BMP ID5 – Management of Home Septic Treatment Systems**

**Status:**  
Ongoing

| Measurable Goals   | Summary of Activity During Reporting Period: | Measurable Goals Achieved? |    |       |
|--------------------|--|----------------------------|----|-------|
|                    |  | Yes                        | No | Other |
| <b>Discussion:</b> |  |                            |    |       |

**ILLICIT DISCHARGE**

**Required SWMP Component: Illicit Discharge Training, Tracking and Elimination Program**

| <b><u>BMP ID6 – Illicit Discharge Tracking and Elimination</u></b>  |   |                                   |           |              |
|---|---|-----------------------------------|-----------|--------------|
| <b>Status:</b> Ongoing, as needed   |   |                                   |           |              |
| <b>Measurable Goals</b>   | <b>Summary of Activity During Reporting Period:</b>   | <b>Measurable Goals Achieved?</b> |           |              |
|   |   | <b>Yes</b>                        | <b>No</b> | <b>Other</b> |
| 1. Train upon hire all new employees on the identification of illicit discharges and proper reporting procedures to the City’s IDDE section.                            | 242 new city employees were presented with information on illicit discharge identification and reporting.   | X                                 |           |              |
| 2. Enter results of illicit discharge investigations into tracking database for each illicit discharge investigated.  | Added 170 reports of illicit discharge to the City’s tracking databases.  | X                                 |           |              |
| 3. Close out/document elimination of illicit discharges in tracking database.   | 170 instances of illicit discharge reported by the general public and no instances found during dry weather monitoring were closed out documenting that the illicit discharge was eliminated.           | X                                 |           |              |
| 4. Review annually for update an enforcement action schedule that documents enforcement actions the City will take to eliminate illicit discharges into the City’s MS4. | No changes to the enforcement action schedule were warranted this reporting period.   | X                                 |           |              |
| 5. Apply appropriate enforcement actions to eliminate each identified illicit discharge <sup>10</sup> .   | 1. 5 Notices of Violation were issued.<br>2. \$1,000 in Administrative Fines were assessed.<br>3. Agencies outside of City of Columbus departments were notified of illicit discharges on 26 occasions. | X                                 |           |              |
| <b>Planned Activity for Next Reporting Period:</b>  | Complete revisions to the City’s training program, including goals for new employees.   |                                   |           |              |

<sup>10</sup> See Section 5.1.1 for summary of illicit discharge enforcement actions taken during reporting period.

**BMP ID6 – Illicit Discharge Tracking and Elimination**

**Status:** Ongoing, as needed

| Measurable Goals   | Summary of Activity During Reporting Period: | Measurable Goals Achieved? |    |       |
|--------------------|--|----------------------------|----|-------|
|                    |  | Yes                        | No | Other |
| <b>Discussion:</b> |  |                            |    |       |

**CONSTRUCTION**

**SWMP Component: Construction Program**

| <b><u>BMP CP1 – Construction Site Pollution Prevention Regulation</u></b>   |  |                                   |           |              |
|---|--|-----------------------------------|-----------|--------------|
| <b>Status:</b><br>Ongoing   |  |                                   |           |              |
| <b>Measurable Goals</b>   | <b>Summary of Activity During Reporting Period:</b>  | <b>Measurable Goals Achieved?</b> |           |              |
|   |  | <b>Yes</b>                        | <b>No</b> | <b>Other</b> |
| Annually review, and revise as needed, the Stormwater Drainage Manual and Erosion and Sediment Pollution Control Regulations. | The City’s Stormwater Drainage Manual (SWDM) requires that all construction activity within the city complies with the requirements of Ohio EPA’s current Construction General Permit or the Erosion and Sediment Pollution Control (ESPC) Regulations, whichever is more restrictive. The City continued to advance the process to update the SWDM and replace the ESPC Regulation. |                                   |           | X*           |
| <b>Planned Activity for Next Reporting Period:</b>  | The City will complete the process of updating the SWDM and Erosion and Sediment Pollution Control Regulations.  |                                   |           |              |
| <b>Discussion:</b>  | * The existing ESPC regulation will be replaced with a new regulation that is consistent with the 2018 NPDES permit for Construction Activities in the State of Ohio. After a lengthy public comment and review period this regulation is poised for adoption in 2021.   |                                   |           |              |

**CONSTRUCTION**

**SWMP Component: Construction Program**

| <b><u>BMP CP2 - Construction Site Pollution Prevention Plan Review and Approval Process</u></b>                |  |                                   |           |              |
|--|--|-----------------------------------|-----------|--------------|
| <b>Status:</b><br>Ongoing  |  |                                   |           |              |
| <b>Measurable Goals</b>  | <b>Summary of Activity During Reporting Period:</b>  | <b>Measurable Goals Achieved?</b> |           |              |
|  |  | <b>Yes</b>                        | <b>No</b> | <b>Other</b> |
| The City will review and comment on all submitted construction site pollution prevention plans <sup>11</sup> . | <ol style="list-style-type: none"> <li>247 new construction site pollution prevention plans were submitted to the City for review/approval.</li> <li>247 new construction site pollution prevention plans were reviewed and approved.</li> </ol> | X                                 |           |              |
| <b>Planned Activity for Next Reporting Period:</b>   | Meet or exceed measurable goals.   |                                   |           |              |
| <b>Discussion:</b>   |  |                                   |           |              |

<sup>11</sup> See Appendix J for a list of Construction Site Pollution Prevention Plans that were reviewed.

**CONSTRUCTION**

**SWMP Component: Construction Program**

| <b><u>BMP CP3 – Construction Site Inspection</u></b>  |   |                                   |           |              |
|---|---|-----------------------------------|-----------|--------------|
| <b>Status:</b><br>Ongoing, annually   |   |                                   |           |              |
| <b>Measurable Goals</b>   | <b>Summary of Activity During Reporting Period:</b>   | <b>Measurable Goals Achieved?</b> |           |              |
|   |   | <b>Yes</b>                        | <b>No</b> | <b>Other</b> |
| 1. Review annually for update, written procedures that describe how construction inspections are prioritized and performed.                           | Written construction inspection procedures are presented in the City’s Stormwater Management Plan.  | X                                 |           |              |
| 2. Train inspectors annually on established procedures for construction site inspection.  | Three inspectors attended a workshop of construction BMPs and four inspectors attended training on small-scale BMPs. <sup>12</sup>  | X                                 |           |              |
| 3. Perform an inspection at each construction site at least once every four weeks on average. <sup>13</sup>   | 1. 4,121 construction site inspections were performed.<br>2. Responded to 56 various storm/SWPPP related reports from the general public.<br>3. The average number of active construction site inspections per month was 343. |                                   |           | X*           |
| 4. Perform a follow-up inspection within 10 days from the date a Construction Inspection Report or formal Request for Voluntary Compliance is issued. | There were 124 construction sites in non-compliant status; 22 were resolved within the next 30 day inspection period.   |                                   |           | X*           |
| 5. Maintain 85% of construction sites in compliance with the City’s Construction Site Pollution Prevention Regulations.                               | Over 85% of construction sites inspected were in compliance.  | X                                 |           |              |
| <b>Planned Activity for Next Reporting Period:</b>  | Meet or exceed measurable goals by continuing to improve and modify existing processes.   |                                   |           |              |

<sup>12</sup> See Appendix G for training summary of City personnel.

<sup>13</sup> See Appendix K for construction site visit summary.

**BMP CP3 – Construction Site Inspection**

**Status:**

Ongoing, annually

| Measurable Goals   | Summary of Activity During Reporting Period:   | Measurable Goals Achieved? |    |       |
|--------------------|--|----------------------------|----|-------|
|                    |  | Yes                        | No | Other |
| <b>Discussion:</b> | * Reduced staffing availability due to Covid restrictions resulted in reduced inspection numbers. Through the summer months when the restriction in staffing was greatest the program focus on a smaller set of priority sites that included sites with larger disturbance area as well as sites with poor compliance history. |                            |    |       |

**CONSTRUCTION**

**SWMP Component: Construction Program**

| <b><u>BMP CP4 – Tracking and Enforcement</u></b>  |  |                                   |           |              |
|---|--|-----------------------------------|-----------|--------------|
| <b>Status:</b><br>Ongoing   |  |                                   |           |              |
| <b>Measurable Goals</b>   | <b>Summary of Activity During Reporting Period:</b>  | <b>Measurable Goals Achieved?</b> |           |              |
|   |  | <b>Yes</b>                        | <b>No</b> | <b>Other</b> |
| 1. Update site tracking spreadsheet to include new and active construction sites and add inspection dates, recommended actions, priority, and compliance history for each inspection.   | 1. 246 construction sites were added to the City’s construction site inventory this reporting period.<br>2. The total number of new construction sites inventoried as of the end of this reporting period is 246.<br>3. Added 4,121 inspection results into the City’s tracking spreadsheet. | X                                 |           |              |
| 2. Review annually for update an enforcement action schedule that documents enforcement actions the City will take to ensure construction site compliance with the City’s Erosion and Sediment Pollution Control Regulations. | No changes to the enforcement action schedule were warranted this reporting period.  | X                                 |           |              |
| 3. Apply appropriate enforcement actions to achieve compliance with the City’s Erosion and Sediment Pollution Control Regulation <sup>14</sup> .  | 1. Thirteen Notices of Violation were issued.<br>2. Administrative Fines totaling \$33,750 were issued.  | X                                 |           |              |
| <b>Planned Activity for Next Reporting Period:</b>  | Revise the enforcement action schedule after new the regulations are adopted and review the enforcement process for efficiency improvements.   |                                   |           |              |
| <b>Discussion:</b>  | Reduced staffing availability as a result of Covid resulted may have resulted in less opportunity for enforcement. Overall compliance may be increasing due to increased enforcement activity the previous two years.  |                                   |           |              |

<sup>14</sup> See Section 5.1.2 for summary of construction enforcement actions taken during the reporting period.

**POST CONSTRUCTION**

**SWMP Component: Post-Construction Regulations**

| <b><u>BMP PC1 – Post-Construction BMP Requirements</u></b>  |   |                                   |           |              |
|---|---|-----------------------------------|-----------|--------------|
| <b>Status:</b><br>Ongoing, annually, as needed  |   |                                   |           |              |
| <b>Measurable Goals</b>   | <b>Summary of Activity During Reporting Period:</b>   | <b>Measurable Goals Achieved?</b> |           |              |
|   |   | <b>Yes</b>                        | <b>No</b> | <b>Other</b> |
| 1. Review the City’s Stormwater Drainage Manual (SWDM) when necessary based upon comments and regulatory changes received throughout the year. Revise, if necessary, to reflect accepted standard practices in stormwater management and stormwater regulation. | The City’s Stormwater Drainage Manual (SWDM) requires that all construction activity within the city complies with the requirements of Ohio EPA’s current Construction General Permit. The City continued to advance the process to update the SWDM.  |                                   |           | X*           |
| <b>Planned Activity for Next Reporting Period:</b>  | The City will complete the process of updating the SWDM and associated regulations.   |                                   |           |              |
| <b>Discussion:</b>  | * Revisions to the SWDM were expected to be completed in mid-2019 but efforts to solicit input from stakeholders was more successful than anticipated. Incorporating all changes will result in significant changes to existing processes; and coordination of various City departments, legal review, and generating stakeholder buy-in has been a major undertaking. Revisions to the SWDM were posted for public comment in July 2020 and a final version of the regulation is expected to be adopted in 2021. |                                   |           |              |

**POST CONSTRUCTION**

**SWMP Component: Stormwater Pollution Prevention Plan Reviews**

| <b><u>BMP PC2 – Stormwater Post-Construction Plan Review and Approval Process</u></b>   |   |                                   |           |              |
|---|---|-----------------------------------|-----------|--------------|
| <b>Status:</b><br>Complete, as needed   |   |                                   |           |              |
| <b>Measurable Goals</b>   | <b>Summary of Activity During Reporting Period:</b>   | <b>Measurable Goals Achieved?</b> |           |              |
|   |   | <b>Yes</b>                        | <b>No</b> | <b>Other</b> |
| 1. Review construction plans and Stormwater Management Reports for all new development or redevelopment projects to ensure implementation of post-construction stormwater BMPs as required by the SWDM. | 1. 351 stormwater construction plans were approved, and of those 212 included post-construction BMPs. <sup>15</sup> | X                                 |           |              |
| <b>Planned Activity for Next Reporting Period:</b>  | Meet or exceed measurable goals.  |                                   |           |              |
| <b>Discussion:</b>  |   |                                   |           |              |

<sup>15</sup> See Appendix L for a list of approved plans containing post-construction BMPs.

**POST CONSTRUCTION**

**SWMP Component: Long Term Operation and Maintenance of BMPs**

| <b><u>BMP PC3 – BMP Maintenance Requirements and Inspection</u></b>   |  |                                   |           |              |
|---|--|-----------------------------------|-----------|--------------|
| <b>Status:</b><br>Ongoing   |  |                                   |           |              |
| <b>Measurable Goals</b>   | <b>Summary of Activity During Reporting Period:</b>  | <b>Measurable Goals Achieved?</b> |           |              |
|   |  | <b>Yes</b>                        | <b>No</b> | <b>Other</b> |
| 1. Contact and advise the BMP owner of maintenance and reporting responsibilities for each new BMP added to the City’s BMP inventory. | The City issued 1 notice to BMP owners with information on the function of BMPs and the availability of training on maintenance requirements.  |                                   | X*        |              |
| 2. Inspect each post-construction water quality BMP in the City’s BMP inventory at least once during each permit cycle.               | <ol style="list-style-type: none"> <li>2,796 post-construction water quality BMPs have been constructed to date.</li> <li>Inspected 410 post-construction water quality BMPs for proper maintenance and operation during this reporting period<sup>16</sup>.</li> <li>A total of 2,053 post-construction water quality BMPs have been inspected since the effective date of the current permit.</li> </ol> | X                                 |           |              |
| <b>Planned Activity for Next Reporting Period:</b>  | Continue work to meet established goals, evaluate the notification process, implement improvements, and document new procedures in the SWMP. BMP training notifications that were not sent in 2020 due to staffing disruptions will be sent in 2021.   |                                   |           |              |
| <b>Discussion:</b>  | * Reductions in available staff due to the pandemic and retirements impacted the ability to send training notifications to new BMP owners and safety restrictions impacted the ability to perform in-person trainings.   |                                   |           |              |

<sup>16</sup> Sites where post-construction BMPs were inspected are listed in Appendix M.

**POST CONSTRUCTION**

**SWMP Component: Long Term Operation and Maintenance of BMPs**

| <b><u>BMP PC4 – BMP Maintenance Tracking and Enforcement</u></b>  |   |                                   |           |              |
|---|---|-----------------------------------|-----------|--------------|
| <b>Status:</b><br>Ongoing   |   |                                   |           |              |
| <b>Measurable Goals</b>   | <b>Summary of Activity During Reporting Period:</b>   | <b>Measurable Goals Achieved?</b> |           |              |
|   |   | <b>Yes</b>                        | <b>No</b> | <b>Other</b> |
| 1. Update post-construction BMP database monthly to include new BMPs that are planned and constructed as part of new and redevelopment projects.  | 1. 240 (planned and constructed) post construction water quality BMPs were added to the post-construction BMP database this reporting period.<br>2. 3,519 post-construction water quality BMPs that are either planned or constructed have been inventoried as of the end of this reporting period. | X                                 |           |              |
| 2. Enter results of post-construction BMP inspections into tracking database for each BMP inspected.  | The post-construction BMP database was updated to include inspection reports for 410 post construction water quality BMPs inspected.  | X                                 |           |              |
| 3. Review annually for update an enforcement action schedule that documents enforcement actions the City will take to ensure compliance with the City’s post-construction BMP maintenance requirements. | No revisions to the schedule for enforcement of maintenance issues were necessary.  | X                                 |           |              |
| 4. Apply appropriate enforcement actions to ensure post-construction BMP maintenance compliance.  | 1. 262 inspection reports were sent to BMP owners.<br>2. Forty-seven pre-NOV notifications were issued.<br>3. Four Notices of Violation were issued.<br>4. A total of \$1,000 in Administrative Fines were issued.  | X                                 |           |              |

**BMP PC4 – BMP Maintenance Tracking and Enforcement**

**Status:**  
Ongoing

| Measurable Goals                                   | Summary of Activity During Reporting Period:                              | Measurable Goals Achieved? |    |       |
|--|---|----------------------------|----|-------|
|  |   | Yes                        | No | Other |
| <b>Planned Activity for Next Reporting Period:</b> | Continue adjustments to the enforcement process based on lessons learned. |                            |    |       |
| <b>Discussion:</b>                                 | The new schedule for enforcement of maintenance issues was utilized.      |                            |    |       |

**POLLUTION PREVENTION/GOOD HOUSEKEEPING**  
**Required SWMP Component: List of Municipal Operations**

| <b><u>BMP GH1 – Maintain Inventory of Facilities Owned/Operated and Activities Conducted by the City Having Potential to Generate Stormwater Pollution</u></b> |  |                                   |           |              |
|--|--|-----------------------------------|-----------|--------------|
| <b>Status:</b><br>Ongoing  |  |                                   |           |              |
| <b>Measurable Goals</b>  | <b>Summary of Activity During Reporting Period:</b>                            | <b>Measurable Goals Achieved?</b> |           |              |
|  |  | <b>Yes</b>                        | <b>No</b> | <b>Other</b> |
| Review and update the inventory and GIS coverage annually.   | Total number of City O&M facilities is 86 <sup>17</sup> .                      | X                                 |           |              |
| Compare inventoried facilities to applicability requirements of the Ohio EPA’s Industrial Stormwater Permit upon each 5-year permit renewal period.            | Seven facilities have been identified as requiring industrial permit coverage. | X                                 |           |              |
| <b>Planned Activity for Next Reporting Period:</b>   | Meet or exceed measurable goals.   |                                   |           |              |
| <b>Discussion:</b>   |  |                                   |           |              |

<sup>17</sup> See Appendix N for current list of City facilities that conduct activities having stormwater pollution potential.

**POLLUTION PREVENTION/GOOD HOUSEKEEPING**

**Required SWMP Component: Pollution Prevention Procedures**

| <b><u>BMP GH2 - Develop and Implement Pollution Prevention Practices for City Facilities/Activities</u></b>   |   |                                   |           |              |
|---|---|-----------------------------------|-----------|--------------|
| <b>Status:</b><br>Complete, ongoing   |   |                                   |           |              |
| <b>Measurable Goals</b>   | <b>Summary of Activity During Reporting Period:</b>   | <b>Measurable Goals Achieved?</b> |           |              |
|   |   | <b>Yes</b>                        | <b>No</b> | <b>Other</b> |
| 1. Submit Notices of Intent and prepare Stormwater Pollution Prevention Plans (SWPPPs) or submit No Exposure Applications to OEPA for Tier I city facilities <sup>18</sup> that require coverage under OEPA’s Industrial Stormwater Permit Program. | Three new general permit confirmation letters were issued by Ohio EPA to city-operated facility during this reporting period <sup>19</sup> .  | X                                 |           |              |
| 2. Maintain and distribute written pollution prevention practices and materials online to representative of operating City departments.   | The online repository of written pollution prevention practices and materials was reviewed and updates were made to align the standard SWPPP more closely with the new MSGP permit.                 | X                                 |           |              |
| 3. Incorporate written pollution prevention practices into SWPPPs for Tier II city facilities <sup>20</sup> .   | SWPPPs have been prepared for 79 of the 79 Tier II facilities as of the end of this reporting period.   | X                                 |           |              |
| 4. Continue to implement pollution prevention practices at City-owned and operated O&M facilities that include maintenance of spill kits at City refueling facilities and covering of materials stored outdoors where warranted.                    | The City continued to implement pollution prevention practices at its O&M facilities. The inspections performed at 7 Tier I and 79 Tier II facilities indicated that practices are being performed. | X                                 |           |              |

<sup>18</sup> Tier I facilities are defined as those facilities that require coverage under an Industrial Stormwater NPDES permit or No Exposure Certification.

<sup>19</sup> See Appendix N for industrial permit numbers for regulated City facilities.

<sup>20</sup> Tier II facilities are defined as those facilities that do not require coverage under an Industrial Stormwater NPDES permit or No Exposure Certification but still have the potential to generate stormwater pollution.

**BMP GH2 - Develop and Implement Pollution Prevention Practices for City Facilities/Activities**

**Status:**

Complete, ongoing

| Measurable Goals                                   | Summary of Activity During Reporting Period:   | Measurable Goals Achieved? |    |       |
|--|--|----------------------------|----|-------|
|  |  | Yes                        | No | Other |
| <b>Planned Activity for Next Reporting Period:</b> |  |                            |    |       |
| <b>Discussion:</b>                                 | Renewed permits for three of the City's Tier I facilities were received in February 2020. Field visits for re-evaluation of Tier II facilities were performed. |                            |    |       |

**POLLUTION PREVENTION/GOOD HOUSEKEEPING**

**Required SWMP Component: Pollution Prevention Procedures**

| <b><u>BMP GH3 – Street Cleaning</u></b>  |  |                                   |           |              |
|--|--|-----------------------------------|-----------|--------------|
| <b>Status:</b><br>Ongoing  |  |                                   |           |              |
| <b>Measurable Goals</b>  | <b>Summary of Activity During Reporting Period:</b>  | <b>Measurable Goals Achieved?</b> |           |              |
|  |  | <b>Yes</b>                        | <b>No</b> | <b>Other</b> |
| 1. Continue to incorporate high efficiency sweepers (PM-10 street sweeping equipment) into the City’s street sweeping inventory.   | Five new sweepers were purchased during this reporting period. <sup>21</sup> One of the five new sweepers was put into service during this reporting period.   | X                                 |           |              |
| 2. Sweep each curbed city street at least twice per year. Track and report total lane miles sweep annually.  | 1. Each curbed street was swept at least once.<br>2. 13,404 miles of streets were swept.   |                                   | X*        |              |
| 3. Collect and dispose of all debris and litter collected from street sweeping and roadside litter pick up operations at a sanitary landfill. Track and report total tonnage of material collected and disposed each year. | 6,727 tons of debris and litter were collected and disposed.   | X                                 |           |              |
| 4. Continue to implement existing practices to reduce stormwater pollution from storage of materials collected during street sweeping operations and incorporate permanent structural controls when and where feasible.    | The Transportation Division hauls debris to the transfer stations (Morse Road and Jackson Pike) or directly to the landfill. Debris that must be temporarily stored at each outpost is kept to a minimum and within a containment area prior to final disposal on a weekly basis.                                      | X                                 |           |              |
| <b>Planned Activity for Next Reporting Period:</b>   | Meet or exceed measurable goals.   |                                   |           |              |
| <b>Discussion:</b>   | * Street sweeping operations in 2020 were disrupted by the pandemic. Various precautions resulted in a reduction in available staff. The total amount of debris collected from street sweeping was also reduced which may be due to the decreased usage of the roadway as the public responded to stay-at-home orders. |                                   |           |              |

<sup>21</sup> See Appendix O for the list of the City’s current street sweeper inventory.

**POLLUTION PREVENTION/GOOD HOUSEKEEPING**

**Required SWMP Component: Pollution Prevention Procedures**

| <b><u>BMP GH4 – Deicing and Snow Removal</u></b>  |  |                                   |           |              |
|---|--|-----------------------------------|-----------|--------------|
| <b>Status:</b><br>Ongoing   |  |                                   |           |              |
| <b>Measurable Goals</b>   | <b>Summary of Activity During Reporting Period:</b>  | <b>Measurable Goals Achieved?</b> |           |              |
|   |  | <b>Yes</b>                        | <b>No</b> | <b>Other</b> |
| 1. Continue to store all de-icing material stockpiles under roof or otherwise to prevent materials from entering stormwater runoff.   | City stored deicing materials in six salt barns.   | X                                 |           |              |
| 2. Annually calibrate salt spreaders to meter the minimum amount of material for public safety.   | All 85 trucks used for de-icing operations and snow removal were calibrated for minimum salt application.      | X                                 |           |              |
| 3. Provide training annually to city staff performing de-icing operations to ensure that the established BMP procedures are followed and the minimum amount of de-icing materials is applied to ensure public safety. | 43 city employees were trained on proper salt application techniques at City’s Snow Warriors training session. | X                                 |           |              |
| <b>Planned Activity for Next Reporting Period:</b>  | Meet or exceed measurable goals.   |                                   |           |              |
| <b>Discussion:</b>  |  |                                   |           |              |

**POLLUTION PREVENTION/GOOD HOUSEKEEPING**

**Required SWMP Component: Pollution Prevention Procedures**

| <b><u>BMP GH5 – Refuse Collection</u></b>   |   |                                   |           |              |
|---|---|-----------------------------------|-----------|--------------|
| <b>Status:</b><br>Ongoing   |   |                                   |           |              |
| <b>Measurable Goals</b>   | <b>Summary of Activity During Reporting Period:</b>   | <b>Measurable Goals Achieved?</b> |           |              |
|   |   | <b>Yes</b>                        | <b>No</b> | <b>Other</b> |
| 1. Collect and dispose of refuse weekly and recycled materials biweekly from household within the city. | 1. 343,131 tons of refuse was collected and disposed of through the City’s curbside collection program.<br>2. 37,267 tons of recycling was collected and disposed of from residents through the City’s curbside collection program. | X                                 |           |              |
| 2. Coordinate at least one neighborhood refuse collection campaign per year.                            | 1. 189 neighborhood litter cleanups were conducted.<br>2. 363,910 pounds of refuse was collected and disposed.  | X                                 |           |              |
| 3. Collect yard waste from single-family residential households biweekly.                               | 22,853 tons of yard waste from city residents was collected and composted.  | X                                 |           |              |
| <b>Planned Activity for Next Reporting Period:</b>  | Meet or exceed measurable goals.  |                                   |           |              |
| <b>Discussion:</b>  |   |                                   |           |              |

**POLLUTION PREVENTION/GOOD HOUSEKEEPING**

**Required SWMP Component: Stormwater Facility Maintenance**

| <b><u>BMP GH6 – Stormwater Infrastructure Inspection, Tracking, and Maintenance</u></b>                              |   |                                   |           |              |
|--|---|-----------------------------------|-----------|--------------|
| <b>Status:</b><br>Ongoing  |   |                                   |           |              |
| <b>Measurable Goals</b>  | <b>Summary of Activity During Reporting Period:</b>   | <b>Measurable Goals Achieved?</b> |           |              |
|  |   | <b>Yes</b>                        | <b>No</b> | <b>Other</b> |
| 1. Inspect 10,000 catch basins/inlets annually for cleaning.   | 1. 14,730 catch basins/inlets were inspected<br>2. 2,437 catch basins/inlets were cleaned   | X                                 |           |              |
| 2. Televis 15,000 lineal feet storm sewer annually.  | 24,416 lineal feet of storm sewers were televised.  | X                                 |           |              |
| 3. Clean 50,000 feet of storm sewer pipe per year.   | 36,445 feet of storm sewer pipe was cleaned.  |                                   | X*        |              |
| 4. Inspect all stormwater pump stations at least once quarterly.   | 1. 409 stormwater pump inspections were performed. Each pump station was inspected at least 27 times during the reporting period.<br>2. Six storm water pump stations were cleaned this reporting period.                     | X                                 |           |              |
| 5. Inspect, clean, mow, or otherwise maintain all DOSD stormwater detention/retention basins at least once annually. | 52 stormwater detention basins are being maintained. Preventative maintenance routines for trash rack and/or sluice gate maintenance/inspection have been established. Mowing and vegetation control contracts also in place. | X                                 |           |              |
| 6. Inspect/clean all DOSD maintained trash racks at least twice annually.  | 1. 96 trash racks were maintained.<br>2. 1,102 trash rack inspections were conducted.<br>3. 671 trash rack cleanings were performed.  | X                                 |           |              |
| 7. Clean 30,000 lineal feet of drainage ditches annually.  | 23,987 feet of drainage ditches were cleaned.   |                                   | X*        |              |

**BMP GH6 – Stormwater Infrastructure Inspection, Tracking, and Maintenance**

**Status:**  
Ongoing

| Measurable Goals  | Summary of Activity During Reporting Period:   | Measurable Goals Achieved? |    |       |
|---|--|----------------------------|----|-------|
|   |  | Yes                        | No | Other |
| 8. Maintain and update a database to track regular stormwater facility inspection and maintenance.  | 1. Sewer Maintenance Operations (SMOC) used the Oracle Utilities Work and Asset Management application to track maintenance and inspection activities involving the collection system.<br>2. The City tracked the completion of over 8,382 storm, sanitary, and combined collection system maintenance activities in the Oracle application. | X                          |    |       |
| 9. Follow written pollution prevention (P2) practices for stormwater system maintenance activities. | The written P2 practices for stormwater maintenance included in the SWPPP for the City’s Sewer Maintenance Operations facility are followed when performing maintenance activities.  | X                          |    |       |
| <b>Planned Activity for Next Reporting Period:</b>  | Meet or exceed measurable goals.   |                            |    |       |
| Discussion:   | * In the midst of the 2020 global pandemic, critical work in response to more urgent sewer maintenance issues was prioritized and assigned over routine and preventative maintenance activities.   |                            |    |       |

**POLLUTION PREVENTION/GOOD HOUSEKEEPING**

**Required SWMP Component: Training and Education**

| <b><u>BMP GH7 - Employee Stormwater Pollution Awareness Training</u></b>   |  |                                   |           |              |
|--|--|-----------------------------------|-----------|--------------|
| <b>Status:</b><br>Ongoing  |  |                                   |           |              |
| <b>Measurable Goals</b>  | <b>Summary of Activity During Reporting Period<sup>22</sup>:</b>   | <b>Measurable Goals Achieved?</b> |           |              |
|  |  | <b>Yes</b>                        | <b>No</b> | <b>Other</b> |
| 1. All new City employees undergoing orientation will receive information on stormwater pollution awareness.   | 1. 242 new city employees were presented with information on stormwater pollution.<br>2. 1257 city employees were trained on identification and reporting of illicit discharges.   | X                                 |           |              |
| 3. All new city employees undergoing orientation will be informed of the need and phone number to report illicit discharges.   | 242 new city employees were presented with information on illicit discharge identification and reporting.  | X                                 |           |              |
| 4. City employees that conduct activities at city Tier I and Tier II sites will be trained on elements of their respective stormwater pollution prevention plans annually. | 1. 318 employees were trained at Tier I facilities.<br>2. 1368 employees were trained at Tier II facilities.   |                                   |           | X*           |
| 5. Conduct updated training refresher once every permit term for personnel responsible for overseeing the implementation of P2 practices at City Tier I and Tier II sites. | Training was provided to responsible persons when the City's written P2 practices were updated in 2013.  | X                                 |           |              |
| <b>Planned Activity for Next Reporting Period:</b>   | Revise the City's overall approach to stormwater training and implement specific elements upon completion.   |                                   |           |              |
| <b>Discussion:</b>   | The City intended to revise its approach to stormwater training in 2020 but disruptions caused by response to the pandemic have shifted that work into 2021. * Most but not all employees at facilities were able to be trained in 2020 due to disruptions caused by response to the pandemic. Employee absences, adjusted schedules to reduce employee contacts, restrictions on the size of training classes, the lack of universal computer access for field staff, and increased demands on remaining personnel caused by those not available were all contributing factors. |                                   |           |              |

<sup>22</sup> See Appendix G for summary of City training sessions conducted this reporting period.

**INDUSTRIAL AND RELATED FACILITIES**

**Required SWMP Component: Inventory of Industrial Facilities**

| <b><u>BMP IF1 – Prepare Inventory of Industrial Facilities</u></b>   |  |                                   |           |              |
|--|--|-----------------------------------|-----------|--------------|
| <b>Status:</b><br>Ongoing  |  |                                   |           |              |
| <b>Measurable Goals</b>  | <b>Summary of Activity During Reporting Period:</b>  | <b>Measurable Goals Achieved?</b> |           |              |
|  |  | <b>Yes</b>                        | <b>No</b> | <b>Other</b> |
| 1. Maintain a list of industries that have the potential for meeting the definition of 40 CFR 122.26(b)(14).   | The City continued to maintain its database of industries.   | X                                 |           |              |
| 2. Update the City’s inventory annually based on: <ul style="list-style-type: none"> <li>a. NOIs submitted as part of Stormwater Management Plans,</li> <li>b. New industries identified within the Daily Reporter publication,</li> <li>c. Industries identified through recent illicit discharge and detection investigations</li> <li>d. New industries identified under the Industrial Waste Pretreatment Group, and</li> <li>e. Review of lists of permitted/no exposure qualifying industries maintained by Ohio EPA.</li> </ul> | Inventory updated this period. Current total number of industrial sites in the City’s inventory is 640, a decrease of 28 from the previous year. | X                                 |           |              |
| <b>Planned Activity for Next Reporting Period:</b>   | Meet or exceed measurable goals.   |                                   |           |              |
| <b>Discussion:</b>   |  |                                   |           |              |

**INDUSTRIAL AND RELATED FACILITIES**

**Required SWMP Component: Industrial Facility Inspection Schedule and Inspection Form**

| <b><u>BMP IF2 – Acquisition, Review, and Tracking of Permit Information, Stormwater Pollution Prevention Plans, and Industrial Monitoring Data</u></b>   |  |                                   |           |              |
|--|--|-----------------------------------|-----------|--------------|
| <b>Status:</b><br>Ongoing  |  |                                   |           |              |
| <b>Measurable Goals</b>  | <b>Summary of Activity During Reporting Period:</b>  | <b>Measurable Goals Achieved?</b> |           |              |
|  |  | <b>Yes</b>                        | <b>No</b> | <b>Other</b> |
| 1. Contact Ohio EPA and newly identified industries at least once each year to request: <ul style="list-style-type: none"> <li>a. OEPA NPDES permit numbers or Notices of Intent forms,</li> <li>b. OEPA No Exposure Certification numbers,</li> <li>c. Stormwater Pollution Prevention Plans (SWPPPs),</li> <li>d. Stormwater monitoring data.</li> </ul> | 1. In response to contacts made by the city to date, the City has the following documents actively on file: <ul style="list-style-type: none"> <li>a. 147 Notices of Intent and 130 OEPA NPDES permit numbers</li> <li>b. 451 No Exposure Certifications</li> </ul> 2. 5 SWPPP plans were reviewed during this reporting period.<br>3. No monitoring data for industries was received this reporting period.<br>4. Procured copy of list of industrial permit holders from Ohio EPA; incorporated data into the industry list. | X                                 |           |              |
| 2. Update classifications of Category 1 and Category 2 industries annually. <sup>23</sup>  | 1. 258 Category 1 industries have been identified <sup>24</sup> .<br>2. 382 Category 2 industries have been identified <sup>25</sup> .   | X                                 |           |              |

<sup>23</sup> Industries that cannot show proof of NPDES permit coverage or No Exposure Certification by Ohio EPA or the industrial operator will be classified as Category 1 industries. Industries will be classified as Category 2 industries if Ohio EPA or the industrial operator can show proof of coverage under an industrial NPDES permit or no exposure certification by Ohio EPA and discharge to the City’s MS4. Once a Category 1 industry obtains permit coverage, the industry will be reclassified as Category 2.

<sup>24</sup> See Appendix P for list of Category 1 Industries.

<sup>25</sup> See Appendix Q for list of Category 2 Industries.

**BMP IF2 – Acquisition, Review, and Tracking of Permit Information, Stormwater Pollution Prevention Plans, and Industrial Monitoring Data**

**Status:**  
Ongoing

| Measurable Goals  | Summary of Activity During Reporting Period:  | Measurable Goals Achieved? |    |       |
|---|---|----------------------------|----|-------|
|   |   | Yes                        | No | Other |
| 3. Maintain a hard copy file for SWPPPs and monitoring data received for each Category 2 industrial facility. | Hard copy files are available and located at the City's Division of Sewerage and Drainage, 1250 Fairwood Ave., Columbus, Ohio.  | X                          |    |       |
| <b>Planned Activity for Next Reporting Period:</b>  | <ol style="list-style-type: none"> <li>1. Meet or exceed measurable goals</li> <li>2. Follow-up with Ohio to acquire NOI's, General Permit confirmation numbers, and No Exposure application and certification letters during the 2021 reporting period.</li> <li>3. Acquire monitoring data for Category 2 industries during the 2021 reporting period.</li> </ol> |                            |    |       |
| <b>Discussion:</b>  | The lists of Category 1 and Category 2 facilities includes some that are believed to be closed and no longer in operation but additional review is required to verify before these facilities are removed from the inventory. As verification of closure is made the facility will no longer be included in the Category lists.                                     |                            |    |       |

**INDUSTRIAL AND RELATED FACILITIES**

**Required SWMP Component: Industrial Facility Inspection Schedule and Form**

| <b><u>BMP IF3 – Establish Industrial Facility Inspection Schedule</u></b> |  |                                   |           |              |
|---|--|-----------------------------------|-----------|--------------|
| <b>Status:</b><br>Ongoing, annually                                       |  |                                   |           |              |
| <b>Measurable Goals</b>   | <b>Summary of Activity During Reporting Period:</b>  | <b>Measurable Goals Achieved?</b> |           |              |
|   |  | <b>Yes</b>                        | <b>No</b> | <b>Other</b> |
| Evaluate and prioritize industries for inspections annually.              | <ol style="list-style-type: none"> <li>1. 81 Category 1 and 126 Category 2 industries have been prioritized based on a “High” rating of illicit discharge potential<sup>26</sup>.</li> <li>2. 53 Category 1 and 70 Category 2 industries have been prioritized based on a “Medium” rating of illicit discharge potential.</li> <li>3. 124 Category 1 and 186 Category 2 industries have been prioritized based on a “Low” rating of illicit discharge potential.</li> <li>4. 0 Category 1 and 0 Category 2 industries could not be prioritized since SIC numbers are unknown.</li> </ol> | X                                 |           |              |
| <b>Planned Activity for Next Reporting Period:</b>                        | Meet or exceed measurable goals.   |                                   |           |              |
| <b>Discussion:</b>  |  |                                   |           |              |

<sup>26</sup> High, low, and medium illicit discharge potentials are assigned to each industry based on information provided in Appendix A of the Illicit Discharge and Detection and Elimination, A Guidance Manual for Program Development and Technical Assessments, developed in cooperation with the Center for Watershed Protection and Robert Pitt with the University of Alabama.

**INDUSTRIAL AND RELATED FACILITIES**

**Required SWMP Component: Industrial Facility Inspection Schedule and Form**

| <b><u>BMP IF4 –Industrial Facility Inspection Form</u></b>                  |   |                                   |           |              |
|---|---|-----------------------------------|-----------|--------------|
| <b>Status:</b><br>Ongoing, annually   |   |                                   |           |              |
| <b>Measurable Goals</b>   | <b>Summary of Activity During Reporting Period:</b>                                   | <b>Measurable Goals Achieved?</b> |           |              |
|   |   | <b>Yes</b>                        | <b>No</b> | <b>Other</b> |
| Review annually for update, the Stormwater Industrial Site Inspection form. | The Stormwater Industrial Site Inspection form was reviewed and no changes were made. | X                                 |           |              |
| <b>Planned Activity for Next Reporting Period:</b>                          | Meet or exceed measurable goals.  |                                   |           |              |
| <b>Discussion:</b>  |   |                                   |           |              |

**INDUSTRIAL AND RELATED FACILITIES**  
**Required SWMP Component: Industrial Facility Inspections**

| <b><u>BMP IF5 – Staff Training</u></b>  |   |                                   |           |              |
|---|---|-----------------------------------|-----------|--------------|
| <b>Status:</b><br>Ongoing   |   |                                   |           |              |
| <b>Measurable Goals</b>   | <b>Summary of Activity During Reporting Period:</b>   | <b>Measurable Goals Achieved?</b> |           |              |
|   |   | <b>Yes</b>                        | <b>No</b> | <b>Other</b> |
| Implement routine training programs for employees that perform industrial site inspections. | The City’s industrial stormwater inspectors participated in no training opportunities related to industrial activities this reporting period. <sup>27</sup>   |                                   |           | X*           |
| <b>Planned Activity for Next Reporting Period:</b>  | Evaluate and schedule professional certification training for inspection staff.   |                                   |           |              |
| <b>Discussion:</b>  | * Rehiring of vacant positions was put on hold in 2020 due to the impacts of the pandemic. Training opportunities for the remaining staff member were further reduced due to travel and other restrictions. |                                   |           |              |

<sup>27</sup> See Appendix G for details of City training sessions conducted this reporting period.

**INDUSTRIAL AND RELATED FACILITIES**

**Required SWMP Component: Industrial Facility Inspections**

| <b><u>BMP IF6 – Industrial Facility Inspections</u></b>   |   |                                   |           |              |
|---|---|-----------------------------------|-----------|--------------|
| <b>Status:</b><br>Ongoing   |   |                                   |           |              |
| <b>Measurable Goals</b>   | <b>Summary of Activity During Reporting Period:</b>   | <b>Measurable Goals Achieved?</b> |           |              |
|   |   | <b>Yes</b>                        | <b>No</b> | <b>Other</b> |
| 1. Review annually for update, written procedures that describe how industrial inspections are performed.   | The written industrial inspection procedures contained in the City’s Stormwater Management Plan were reviewed and found to be up-to-date.   | X                                 |           |              |
| 2. Review the SWPPPs of each permitted industry inspected.  | The SWPPPs for 5 permitted industries were reviewed as part of an inspection. <sup>28</sup>   | X                                 |           |              |
| 3. Inspect each Category 1 and Category 2 industry at least once within the City’s MS4 5-year permit cycle. | 1. 55 inspections were conducted at Category 1 industrial facilities <sup>29</sup> .<br>2. 59 inspections were conducted at Category 2 industrial facilities <sup>30</sup> .<br>3. 11 facilities were inspected and did not meet criteria requiring a permit. | X*                                |           |              |
| <b>Planned Activity for Next Reporting Period:</b>  | Meet or exceed measurable goals.  |                                   |           |              |
| <b>Discussion:</b>  | The City intends to inspect each Category 1 and Category 2 industry during the current 5-year cycle which ends April 30, 2022.  |                                   |           |              |

<sup>28</sup> Not all industries are required to obtain permit coverage.

<sup>29</sup> See Appendix P for Category 1 industrial inspection dates.

<sup>30</sup> See Appendix Q for Category 2 industrial inspection dates.

**INDUSTRIAL AND RELATED FACILITIES**

**Required SWMP Component: Industrial Facility Inspections**

| <b><u>BMP IF7 – Industrial Facility Inspection Tracking and Enforcement</u></b>                                    |   |                                   |           |              |
|--|---|-----------------------------------|-----------|--------------|
| <b>Status:</b><br>Ongoing  |   |                                   |           |              |
| <b>Measurable Goals</b>  | <b>Summary of Activity During Reporting Period:</b>   | <b>Measurable Goals Achieved?</b> |           |              |
|  |   | <b>Yes</b>                        | <b>No</b> | <b>Other</b> |
| 1. Enter results of industrial inspections into the tracking database for each industry inspected.                 | Inspection information for 120 industrial inspections were added to the City’s tracking database.   | X                                 |           |              |
| 2. Apply appropriate enforcement actions to eliminate potential pollution problems identified at industrial sites. | 1. Zero instances of suspected illicit discharge to the MS4 were observed during industrial inspections. <sup>31</sup>  | X                                 |           |              |
| 4. Document and forward to Ohio EPA observed violations of Ohio EPA’s industrial stormwater permit.                | 1. 4 inspection reports were issued to industry operators during this reporting period.<br>2. 34 reports of suspected violation of an operator’s permit were submitted to the Ohio EPA. | X                                 |           |              |
| <b>Planned Activity for Next Reporting Period:</b>   | Meet or exceed measurable goals.  |                                   |           |              |
| <b>Discussion:</b>   |   |                                   |           |              |

<sup>31</sup> See Appendix I for summary of illicit discharge reports and investigations.

**INDUSTRIAL AND RELATED FACILITIES**

**Required SWMP Component: Monitoring Industrial Sites**

| <b><u>BMP IF8 – Monitoring and Sampling of Industrial Sites</u></b>   |   |                                   |           |              |
|---|---|-----------------------------------|-----------|--------------|
| <b>Status:</b><br>Ongoing   |   |                                   |           |              |
| <b>Measurable Goals</b>   | <b>Summary of Activity During Reporting Period:</b>   | <b>Measurable Goals Achieved?</b> |           |              |
|   |   | <b>Yes</b>                        | <b>No</b> | <b>Other</b> |
| 1. Review annually for update, written procedures that identify constituents of concern and when industrial facilities are required to monitor stormwater discharges. | The written procedures outlining industrial monitoring strategies included in City’s Stormwater Management Plan were reviewed and found to be up-to-date. | X                                 |           |              |
| 2. Respond, when notified, to each instance of an industrial release per established procedures.  | The City responded to 2 notifications of a suspected industrial release. In neither case did a discharge reach the storm sewer.                           | X                                 |           |              |
| 3. Review and file stormwater monitoring and sampling reports submitted by industrial operators.  | Monitoring reports from 0 Category 2 industries were reviewed by the City.  | X                                 |           |              |
| <b>Planned Activity for Next Reporting Period:</b>  | Meet or exceed measurable goals.  |                                   |           |              |
| <b>Discussion:</b>  |   |                                   |           |              |

## **SECTION 3 – SUMMARY AND ANALYSIS OF COLLECTED INFORMATION**

### **3.1 History of City-Wide Wet Weather Monitoring Program**

From 2007 to 2012 five sampling locations throughout the City representing medium density residential, high density residential, multi-family residential, commercial, and industrial land uses were monitored under permit No. 4PI00000\*BD. From 2013 through the first quarter of 2017, the City of Columbus collected samples at three outfalls that are located downstream of land uses representing residential, commercial and industrial development. On November 2, 2015, the City of Columbus received approval for an alternative wet weather monitoring program that will focus on newly constructed green infrastructure facilities under the City’s Project Blueprint in the residential neighborhood of Clintonville. Analysis is being performed at both the BMP and sewershed levels. Three sewersheds will be retrofitted with Green Infrastructure (GI)—Cooke-Glenmont, Blenheim, and Indian Springs—and a single adjacent sewershed—Beechwold—receiving drainage from areas outside the Clintonville project will be monitored as a control. Analysis of the GI facilities and tributary outfalls targeted by this initiative will provide a better understanding of how GI practices perform under an urban retrofit scenario. A full report on the City’s wet weather monitoring activities and findings during this reporting period can be found in city-wide monitoring report located in Appendix R.

### **3.2 Summary of City-Wide Wet Weather Monitoring Activities**

The City was able to collect samples at each of the outfalls during 2020. The samples were analyzed for the following parameters:

- Fecal coliform (#/100 ml)
- E. coli (#/100 ml)
- Nitrite (NO<sub>2</sub>) (mg/l)
- Total Phosphorous (mg/l)
- Orthophosphate (mg/l)
- Carbonaceous biochemical oxygen demand (CBOD<sub>5</sub>) (mg/l)
- Biochemical oxygen demand (BOD<sub>5</sub>) (mg/l)
- Chemical oxygen demand (COD) (mg/l)
- Total suspended solids (TSS) (mg/l)
- Ammonia (NH<sub>3</sub>) (mg/l)
- Alkalinity (mg/l)
- Oil & grease (mg/l)
- Total cyanide (µg/l)
- Hardness (mg/l)
- Total recoverable cadmium (Cd) (µg/l)
- Total recoverable chromium (Cr) (µg/l)
- Total recoverable copper (Cu) (µg/l)
- Total recoverable lead (Pb) (µg/l)
- Total recoverable nickel (Ni) (µg/l)
- Total recoverable zinc (Zn) (µg/l)

### **3.2.1 Findings Summary**

Clear reductions for almost all water quality parameters were observed. These results demonstrate the pollutant removal effectiveness of the GI installed in these sewersheds compared to the control. Comparing watersheds for pre- and post-GI installation:

- Total organic nitrogen was reduced by 69 and 66 percent for Blenheim and Cooke-Glenmont, respectively.
- Phosphorus was reduced 36 and 28 percent for Blenheim and Indian Springs, respectively.
- TSS concentration was reduced by 62 and 68 percent for Cooke-Glenmont and Indian Springs, respectively.
- Heavy metals were reduced between 4 and 70 percent across the Blenheim, Cooke-Glenmont, and Indian Springs sewersheds.

### **3.3 Illicit Discharge Detection and Elimination/Dry Weather Monitoring**

As part of its Illicit Discharge Detection and Elimination (IDDE) program, the City conducted dry weather monitoring at stormwater outfalls during the January 1, 2020, to December 31, 2020, reporting period to identify the presence of illicit discharges in the City's storm sewer system. The City also investigated reports of illicit discharges into the City's storm sewer system received from the community. A full description of the activities conducted under the IDDE programs during the reporting period is provided in Section 2. The results of the dry weather outfall monitoring program are located in Appendix H, whereas a summary of illicit discharges confirmed as a result of dry weather outfall monitoring during the January 1, 2020, to December 31, 2020, reporting period are provided below.

- There were no illicit discharges detected from dry weather monitoring in 2020.

#### SECTION 4 – REVISIONS TO ASSESSMENT OF CONTROLS AND FISCAL ANALYSIS

There are no revisions necessary to the assessment of controls as implemented under the present permit.

Funds generated by the City of Columbus Stormwater Utility are used to cover all costs for Compliance with the NPDES permit and the City’s stormwater Capital Improvements Program. The utility fee is collected from residential and non-residential customers. In 2020, a residential customer was charged one Equivalent Residential Unit (1 ERU = 2000 sq. ft.) equal to \$0.1591 (effective 01/01/2020) per day for an average annual cost (365 days x \$0.1591) of \$58.07. Non-residential customers pay the same ERU rate based on their total impervious area. The following table contains expenditures for the NPDES program during the reporting period.

| Category             | Cost                   |
|----------------------|------------------------|
| Personnel            | \$2,355,304.21         |
| Materials & Supplies | \$58,850.36            |
| Services             | \$12,860,424.06        |
| Street Cleaning      | \$8,607,720.98         |
| Pro Rata Charges     | \$1,924,754.86         |
| Debt Principal       | \$10,009,700.00        |
| Other Expenditures   | 0.00                   |
| Capital Outlay       | \$60,298.37            |
| Interest on Debt     | \$4,349,702.58         |
| <b>Total Costs:</b>  | <b>\$40,226,755.42</b> |

## **SECTION 5 – SUMMARY OF ENFORCEMENT, INSPECTIONS, PUBLIC EDUCATION, AND EMPLOYEE TRAINING**

In addition to many other requests for service, SRMS and SMOC personnel made 170 investigations of reported or suspected illicit discharges and spills to the MS4 during this reporting period. SRMS also conducted a total of 4,121 construction site inspections, 125 inspections of industries and potential industries, and 262 site inspections for post-construction BMP maintenance during this reporting period.

### **5.1 Summary of Enforcement Actions**

Enforcement action was taken by the City if a violation is observed and a responsible party is identified. Typically the responsible party is notified, the violation is stated and a request is made that immediate steps be taken to cease, prevent, control, and clean up pollutant sources that are, or may, be discharged into stormwater runoff. The SRMS issued 22 Notices of Violation (NOV) during the last reporting period. When a Notice of Violation is sent to the responsible party, an explanation of discharge and a Remedial Action Plan to prevent future occurrences is required. Requests for Voluntary Compliance are issued either verbally or written when a discharge or potential discharge is considered minor in nature and is immediately ceased.

#### **5.1.1 Notices of Violation, Illicit Discharge**

Summaries of the City's five Notices of Violation for illicit discharges during the January 1, 2020, to December 31, 2020, reporting period are provided below. Discharges from industrial facilities subject to 40 CFR 122.26(b)(14) are noted.

- 01/03/2020 Notice of Violation issued to All Crane Rental Corp. at 683 Oakland Park Ave. for pumping sediment-laden water into City's MS4.
- 05/28/2020 Notice of Violation issued to Armor Paving and Sealing at 6900 Americana Parkway for discharging wastewater from cleaning of asphalt equipment into the storm sewer.
- 05/28/2020 Notice of Violation issued to Environlink of Ohio for allowing process wastewater to enter into the storm sewer.
- 06/25/2020 Notice of Violation issued to M P Dory Co. for allowing discharge of wastewater from concrete sawing activity to enter City's MS4.
- 12/24/2020 Notice of Violation issued to Scioto Ready-Mix at 1500 Williams Rd. for allowing process wastewater to enter into the City's MS4.

#### **5.1.2 Notices of Violation, Erosion and Sediment Pollution Control**

Thirteen Notices of Violation were issued to property owners and/or contractors for non-compliance with the City of Columbus construction site pollution prevention requirements during the January 1, 2020, to December 31, 2020, reporting period. Summaries of these actions are provided below:

- 05/21/2020 NOV and Administrative Fine (\$5,000) issued to Romanelli & Hughes Home Building Company for failure to install and maintain stormwater pollution control

practices at the construction site for The Cove under Plan E-3580. The erosion and sediment controls, as required by the approved SWP3, were lacking over the total site. The violations included failure to install and maintain effective perimeter erosion and sediment controls, failure to install diversion swales, failure to install and maintain effective inlet sediment controls, failure to stabilize idle soil, and failure to complete installation of a sediment basin with skimmer.

- 06/25/2020 NOV and Administrative Fine (\$250) issued to Romanelli & Hughes Home Building Company for failure to submit a Remedial Action Plan (RAP) in response to the NOV and Administrative Fine issued on May 21, 2020 regarding various non-compliance issues as required by the SWP3. Since the RAP was not received by the May 31, 2020 deadline, the above mentioned \$250 Administrative Fine was issued.
- 08/65/2020 NOV and Administrative Fine (\$5,000) issued to Riverside Trail Apartments LLC for failure to install and maintain stormwater pollution control practices at the construction site for the Riverside Trail Apartments under Plan CC-18266. The erosion and sediment controls, as required by the approved SWP3, were lacking over the total site. The violations included failure to install and maintain effective perimeter erosion and sediment controls, failure to maintain a functional Concrete washout area, failure to install and maintain effective inlet sediment controls, failure to stabilize idle soil, and failure to complete the installation of all sediment basins with skimmers.
- 09/17/2020 NOV and Administrative Fine (\$5,000) issued to Founders Park Apartments LLC for failure to install and maintain stormwater pollution control practices at the construction site for the Founders Park Apartments under Plan CC-18332. The erosion and sediment controls, as required by the approved SWP3, were lacking over the total site. The violations included failure to install and maintain effective perimeter erosion and sediment controls, failure to maintain a functional Concrete washout area, failure to install and maintain effective inlet sediment controls, failure to stabilize idle soil, and failure to clean the streets.
- 09/17/2020 NOV and Administrative Fine (\$3,000) issued to CN Express LLC for failure to install and maintain stormwater pollution control practices at the construction site for the CN Express under Plan CC-18149. The erosion and sediment controls, as required by the approved SWP3, were lacking over the total site. The violations included failure to install and maintain effective perimeter erosion and sediment controls, failure to stabilize idle soil, and failure to complete the construction of the sediment basin.
- 09/17/2020 NOV issued to Chemcote Inc for an illicit discharge caused by the direct discharge of sediment laden water without proper inlet filtration controls. On September 17, 2020 Chemcote submitted a RAP in response to the NOV.
- 10/15/2020 NOV and Administrative Fine (\$4,000) issued to Firewater Limited for failure to install and maintain stormwater pollution control practices at the construction site for the Little Turtle Golf Club and Fitness Facility under Plan CC-18078. The erosion and sediment controls, as required by the approved SWP3, were lacking

over the total site. The violations included failure to install and maintain effective perimeter erosion and sediment controls, failure to install and maintain effective inlet sediment controls, failure to stabilize idle soil, and failure to clean the streets. On October 27, 2020, Firewater Limited submitted a RAP in response.

- 10/15/2020 NOV issued to National Concrete Cutting and Coring LLC for an illicit discharge caused by the direct discharge of slurry from saw-cutting activities into the MS4. On October 23, 2020, National Concrete Cutting and Coring LLC submitted a RAP in response.
- 10/26/2020 NOCV and Administrative Fine (\$1,000) issued to Boss Excavating Inc. for an illicit discharge caused by discharging sediment laden (muddy) water without proper functioning sediment filtration controls near the Scioto-Big Run Ditch, a tributary of the Scioto River. Discharging sediment laden water with improperly functioning sediment controls is in violation of the approved plan CC-18683. On December 9th, 2020, Boss Excavating Inc. submitted a RAP in response to the NOV.
- 11/19/2020 NOV issued to Oxford Circle Development LLC for an illicit discharge caused by discharging sediment laden (muddy) water into a nearby unnamed tributary of the Big Walnut Creek. Discharging sediment laden water with improperly functioning sediment controls is in violation of the approved plan CC-18430. On December 3rd, 2020, Oxford Circle Development LLC submitted a RAP in response to the NOV.
- 11/30/2020 NOV and Administrative Fine (\$2,000) issued to Oxford Circle Development LLC for failure to install and maintain stormwater pollution control practices at the construction site for The Magnolia Trace Apartments under plan CC-18430. Multiple deficiencies remained unaddressed and in continued Non-Compliance status. The erosion and sediment controls, as required by the approved SWP3, were lacking over the total site. The violations included failure to install and maintain effective perimeter erosion and sediment controls, failure to install a functional concrete washout area, failure to install and maintain effective inlet sediment controls, and failure to stabilize idle soil.
- 12/09/2020 NOV and Administrative Fine (\$3,000) issued to Fifth on Fifth LLC for failure to install and maintain stormwater pollution control practices at the construction site for 5th and Forsythe under Plan CC-18436. The erosion and sediment controls, as required by the approved SWP3, were lacking over the total site. The violations included failure to install and maintain effective perimeter erosion and sediment controls, failure to clean the streets, and failure to install and maintain stabilized construction entrances.
- 12/11/2020 NOV and Administrative Fine (\$5,500) issued to Enviro-Recycling Recycling Group for failure to install and maintain stormwater pollution control practices at the construction site for plan CC-18416 and the properties adjacent to 1155 Bonham Avenue. The erosion and sediment controls, as required by the approved SWP3, were lacking over the total site. There was also a failure in regard to the properties adjacent to the Bonham site, for lack of a prepared SWP3 as part of a

larger common plan of development. The disturbance of land contiguous to the Bonham site also exhibited a failure to install and maintain effective erosion and sediment controls. Deficiencies on the main 1155 Bonham site included violations such as, failure to install and maintain effective perimeter erosion and sediment controls, failure to install and maintain effective inlet sediment controls, failure to maintain an effective vehicle wheel wash, and failure to install and maintain stabilized construction entrances.

### **5.1.3 Notices of Violation, Post-Construction BMP Maintenance**

Four notices of violation were issued to property owners for non-compliance with the post construction BMP maintenance requirements during the January 1, 2020, to December 31, 2020, reporting period.

- 09/22/2020 NOV and Administrative Fine (\$250) issued to Huntington National Bank for failure to maintain BMPs.
- 09/22/2020 NOV and Administrative Fine (\$250) issued to United Dairy Farmers for failure to maintain BMPs.
- 10/09/2020 NOV and Administrative Fine (\$250) issued to dba Lavash Cafe for failure to maintain BMPs.
- 10/09/2020 NOV and Administrative Fine (\$250) issued to Majestic Drywall for failure to maintain BMPs.

### **5.2 Summary of Public Education and Employee Training Programs**

The City of Columbus recognizes that public education and participation and employee education programs that provide information, resources and engagement opportunities to residents, business owners, and city employees can result in improved water quality. The following summarizes stormwater public and employee education opportunities that were provided in 2020.

#### **5.2.1 Public Education and Outreach Summary**

The City's stormwater public education and outreach programs are focused on the following topics:

1. Residential: pet waste; yard maintenance; and methods of keeping stormwater onsite.
2. Industrial/commercial: water quality impacts associated with land development; the importance of good housekeeping; and fats, oil, and grease.

In 2020, the PUP campaign was not able to attend the festivals and community events that have traditionally been our best engagement tool for this audience. However, we still obtained nearly 300 pledges this year, through word of mouth and electronic promotions. PUP Kiosks continue to be maintained at 86 City parks and in the park land around our three reservoirs.

Get Grassy!, the City's yard maintenance program, continued implementation in 2020 and received 189 new pledges, a 28.5% increase from the previous year. Nine lawn care companies and nurseries helped distribute 11,100 educational handouts that encourages residents to take the next step in managing lawns in a way that will protect water quality.

In addition to ongoing Blueprint education and engagement activities, Blueprint has collaborated with local education programs to help our future generation understand the importance of onsite stormwater management in residential areas. Two key highlights from 2019 included:

The Home Contractor Outreach program, which promotes good housekeeping practices for disposal of paint and concrete materials, continued to promote educational messaging to the contractor community. The program attended the Columbus Home Improvement Show on January 3, 2020, and distributed 30 brochures to contractors. Additionally, education was mailed directly to 2,174 contractors, and home contractor messaging was promoted through a 4-week advertisement on bus stop kiosks around Columbus. These educational materials have also been translated into Spanish, and videos are being developed (for release in 2021) to ensure the message is widely available and received.

Overall outreach of stormwater messages continued on DPU social media, through promoting responsible stewardship, sharing of neighborhood cleanup events, and promotion of the storm drain marker program.

### **5.2.2 Employee Education Summary**

The City continues to increase stormwater pollution awareness amongst its employees by providing information on stormwater pollution prevention at new employee orientations and during training conducted to familiarize staff with Stormwater Pollution Prevention Plan contents. Under its EMS, the Department of Public Utilities (DPU) has developed on-line training modules that cover BMPs for various DPU activities such as vehicle washing. The City will continue to provide training on stormwater pollution practices to personnel that work at operations and maintenance facilities. See Appendix G for a summary of employee training activities.



**Public Education and Outreach  
2020 Activity Summary**

| Categories  | Jan.       | Feb.       | March       | April  | May  | June   | July  | Aug.                      | Sept.                     | Oct.                                   | Nov.  | Dec.                         | Total  |
|---|------------|------------|-------------|--|--|--|---|---------------------------|---------------------------|--|---|------------------------------|--|
| Storm drain markers requested (seasonal, usually distributed in increments of 15) | -          | -          | -           | -  | -  | -  | -   | -                         | -                         | -                                      | -   | -                            | --   |
| River Ranger guides requested   | -          | -          | -           | -  | -  | -  | -   | -                         | -                         | -                                      | -   | -                            | -  |
| Bill inserts  | -          | -          | -           | (Home water quality tips, Storm Drain Marking, started 4/18) | (Home water quality tips, Storm Drain Marking) | (Home water quality tips, Storm Drain Marking) | (Home water quality tips, Storm Drain to 7/18; then Green-Spot, CSO/SSO FAQ)<br>13,368/66,693 | (Green-Spot, CSO/SSO FAQ) | (Green-Spot, CSO/SSO FAQ) | (Green-Spot, CSO/SSO FAQ, ended 10/16) | -   | -                            | 471,578* (* total hard copies mailed, not counting online billing portal access) |
| Total   |            |            |             | 82,079   | 70,949   | 74,082   |   | 73,135                    | 73,984                    | 17,288                                 |   |                              |  |
| News releases   | 2 FB posts | 5 FB posts | 10 FB posts | 23 FB posts  | 15 FB posts                                    | 9 FB post                                      | 9 FB posts  | 6 FB posts                | 16 FB posts               | 22 FB posts                            | 8 FB posts  | 8 FB posts                   | 133 FB posts   |
| Waterway cleanups (seasonal)  | -          | -          | -           | -  | -  | -  | -   | -                         | 1                         | 1                                      | -   | -                            | 2  |
| Public service announcements  | GTC-3      | GTC-3      | GTC-3       | GTC-3  | GTC-3  | GTC-3  | GTC-3   | GTC-3                     | GTC-3                     | GTC-3                                  | GTC-3   | GTC-3                        | 12 months  |
| Information available on Web?   | Yes        | Yes        | Yes         | Yes  | Yes  | Yes  | Yes   | Yes                       | Yes                       | Yes                                    | Yes   | Yes                          | 12 months  |
| Special events/other  |            |            |             | Earth Day reminders  |  |  | River Pride (virtual) reminder notifications  |                           |                           | Watershed virtual cleanup reminders    | Watershed virtual cleanup: estimated 90 tons of trash collected by volunteers | Holiday meals "FOG" reminder | 5  |

|                        | 1<br>5  | Boost Post |     |  |           |            |
|------------------------|---|------------|-----|--|-----------|------------|
| 12/31/2020<br>12:29 PM |  We are getting reports of low water pressure  |            | 1K  |  | 107<br>24 | Boost Post |
| 12/30/2020<br>12:41 PM |  Having trouble paying your bill, want to set  |            | 721 |  | 5<br>10   | Boost Post |
| 12/30/2020<br>11:03 AM |       |            | 170 |  | 1<br>0    | Boost Post |
| 12/30/2020<br>10:59 AM |    |            | 283 |  | 3<br>6    | Boost Post |
| 12/24/2020<br>9:47 AM  |  Our Call Center will be closed on Friday,   |            | 216 |  | 0<br>2    | Boost Post |
| 12/22/2020<br>11:10 AM |    |            | 140 |  | 1<br>1    | Boost Post |
| 12/22/2020<br>9:03 AM  |    |            | 164 |  | 0<br>1    | Boost Post |
| 12/21/2020<br>2:49 PM  |    |            | 166 |  | 0<br>0    | Boost Post |
| 12/18/2020<br>4:33 PM  |       |            | 159 |  | 0<br>0    | Boost Post |
| 12/18/2020<br>3:29 PM  |  Water line and hydrant breaks can happen  |            | 255 |  | 6<br>4    | Boost Post |
| 12/17/2020<br>3:01 PM  |   |            | 173 |  | 2<br>5    | Boost Post |
| 12/17/2020<br>10:01 AM |  Need to reach a Customer Service  |            | 147 |  | 0<br>0    | Boost Post |
| 12/16/2020<br>3:48 PM  |   |            | 198 |  | 0<br>6    | Boost Post |
| 12/16/2020<br>10:20 AM |  These beautiful creatures are   |            | 207 |  | 2<br>7    | Boost Post |
| 12/15/2020<br>3:31 PM  |  If paying your Columbus utility bill  |            | 271 |  | 1<br>6    | Boost Post |
| 12/15/2020<br>3:16 PM  |    |            | 150 |  | 0<br>2    | Boost Post |
| 12/14/2020<br>1:40 PM  |  The first official day of winter is next week.                                      |            | 170 |  | 1<br>1    | Boost Post |
| 12/14/2020<br>10:07 AM |  If interested, please do not delay in   |            | 199 |  | 3<br>3    | Boost Post |
| 12/11/2020<br>3:03 PM  |    |            | 110 |  | 3<br>2    | Boost Post |
| 12/11/2020<br>11:42 AM |    |            | 105 |  | 0<br>0    | Boost Post |
| 12/11/2020<br>9:53 AM  |  Apply online below for CARES Act utility bill                                       |            | 119 |  | 2<br>0    | Boost Post |
| 12/10/2020<br>4:22 PM  |  It was a beautiful sunrise over a misty,  |            | 453 |  | 5<br>24   | Boost Post |
| 12/10/2020<br>2:52 PM  |  This holiday season, consider giving a Visa   |            | 210 |  | 0<br>5    | Boost Post |

|                        |   |  |     |             |  |            |
|------------------------|---|--|-----|-------------|--|------------|
| 12/08/2020<br>4:41 PM  |         |  | 141 | 0<br>1      |  | Boost Post |
| 12/08/2020<br>3:14 PM  |    |  | 242 | 0<br>2      |  | Boost Post |
| 12/08/2020<br>2:16 PM  |  If you or loved ones are struggling to pay  |  | 972 | 25<br>32    |  | Boost Post |
| 12/03/2020<br>3:13 PM  |  We know that times are tough for many   |  | 850 | 27<br>20    |  | Boost Post |
| 12/02/2020<br>1:35 PM  |  Happy birthday, EPA! #EPAat50   |  | 182 | 1<br>3      |  | Boost Post |
| 12/01/2020<br>3:46 PM  |  Columbus Public Utilities   |  | 131 | 1<br>1      |  | Boost Post |
| 12/01/2020<br>11:06 AM | The Public Utilities portion of the budget hearings is today  |  | 141 | 3<br>1      |  | Boost Post |
| 11/30/2020<br>10:45 AM |  We know that times are tough for many   |  | 89  | 0<br>1      |  | Boost Post |
| 11/30/2020<br>8:59 AM  |       |  | 169 | 1<br>0      |  | Boost Post |
| 11/25/2020<br>12:19 PM |  If behind on your utility bill, please check to                                       |  | 184 | 4<br>3      |  | Boost Post |
| 11/24/2020<br>3:33 PM  |  Are you a Columbus resident who is behind   |  | 185 | 1<br>6      |  | Boost Post |
| 11/24/2020<br>1:13 PM  |  And remember, no turkey grease down  |  | 214 | 1<br>5      |  | Boost Post |
| 11/24/2020<br>8:46 AM  |  Utility assistance available for  |  | 161 | 5<br>5      |  | Boost Post |
| 11/23/2020<br>4:03 PM  |  Overdue for your water, sewer bills?  |  | 170 | 4<br>0      |  | Boost Post |
| 11/23/2020<br>3:19 PM  |  We are announcing new, direct CARES   |  | 446 | 15<br>8     |  | Boost Post |
| 11/23/2020<br>9:23 AM  |  Big cooking week with Thanksgiving. Please  |  | 24K | 1.2K<br>684 |  | Boost Post |
| 11/20/2020<br>2:32 PM  |  If you see water ponding in front of  |  | 296 | 0<br>2      |  | Boost Post |
| 11/18/2020<br>4:44 PM  |   |  | 177 | 3<br>3      |  | Boost Post |
| 11/18/2020<br>3:58 PM  |  Columbus Public Utilities updated their   |  | 180 | 2<br>1      |  | Boost Post |
| 11/18/2020<br>9:11 AM  |  Columbus Public Utilities   |  | 92  | 2<br>0      |  | Boost Post |
| 11/18/2020<br>9:07 AM  |    |  | 213 | 8<br>3      |  | Boost Post |
| 11/17/2020<br>9:45 AM  |  It's Utilities Against Scams Week. Our  |  | 163 | 0<br>0      |  | Boost Post |
| 11/17/2020<br>9:32 AM  | Did you know that you can apply for a payment plan to   |  | 146 | 2<br>1      |  | Boost Post |
| 11/16/2020<br>11:47 AM |  Columbus Public Utilities updated their   |  | 122 | 5<br>0      |  | Boost Post |
|                        |    |  |     | 0           |  |            |

|                        |   |   |     |    |    |            |
|------------------------|---|---|-----|----|----|------------|
| 11/16/2020<br>11:44 AM |  Columbus Public Utilities  |   | 109 | 0  |    | Boost Post |
| 11/10/2020<br>10:22 AM |  Columbus Public Utilities   |   | 109 | 1  | 1  | Boost Post |
| 11/09/2020<br>10:19 AM |  Columbus Public Utilities   |  | 157 | 0  | 0  | Boost Post |
| 11/05/2020<br>8:46 AM  |  If you have not been able to pay your utility   |   | 259 | 2  | 3  | Boost Post |
| 11/04/2020<br>12:21 PM |  Isn't this appropriate this year? Some de-  |   | 165 | 0  | 1  | Boost Post |
| 11/02/2020<br>1:28 PM  |       |   | 159 | 5  | 1  | Boost Post |
| 10/30/2020<br>3:12 PM  |  Freeze warning tonight - did you  |   | 309 | 1  | 7  | Boost Post |
| 10/29/2020<br>2:11 PM  |  Did you know that 10 local agencies have  |   | 142 | 4  | 0  | Boost Post |
| 10/29/2020<br>1:37 PM  |  Rainy week. If you have the misfortune of   |   | 413 | 41 | 23 | Boost Post |
| 10/29/2020<br>11:12 AM |  It's Learn More About Your Drinking Water   |   | 128 | 0  | 0  | Boost Post |
| 10/29/2020<br>8:52 AM  |  'Peaceful' flowers turn once-troubled site into                                       |   | 190 | 7  | 84 | Boost Post |
| 10/28/2020<br>4:25 PM  |  Is your customer contact info up to date  |   | 161 | 0  | 0  | Boost Post |
| 10/28/2020<br>12:43 PM |    |   | 103 | 1  | 0  | Boost Post |
| 10/27/2020<br>9:50 AM  |  Trees help with water quality by slowing  |   | 128 | 0  | 0  | Boost Post |
| 10/26/2020<br>2:53 PM  |    |   | 156 | 1  | 3  | Boost Post |
| 10/26/2020<br>2:50 PM  |  And remember our employees never  |   | 105 | 1  | 1  | Boost Post |
| 10/26/2020<br>9:56 AM  |  It's National Lead Poisoning Prevention   |   | 146 | 4  | 0  | Boost Post |
| 10/23/2020<br>1:02 PM  |  #ValueWater   |   | 163 | 2  | 2  | Boost Post |
| 10/23/2020<br>12:01 PM |   |   | 84  | 2  | 2  | Boost Post |
| 10/23/2020<br>11:53 AM |  If interested in doing a future self-guided   |   | 177 | 0  | 3  | Boost Post |
| 10/22/2020<br>1:41 PM  |  Did you know that native plants help  |   | 132 | 1  | 1  | Boost Post |
| 10/22/2020<br>9:44 AM  |  Columbus has some history with curbing  |   | 148 | 0  | 2  | Boost Post |
| 10/21/2020<br>1:50 PM  |  While water turnoffs due to non-payment   |   | 165 | 1  | 1  | Boost Post |
| 10/21/2020<br>1:08 PM  |    |   | 116 | 0  | 1  | Boost Post |
| 10/21/2020             |  #StormwaterAwarene  |   |     | 1  |    |            |

|                        |   |  |     |  |         |  |             |
|------------------------|---|--|-----|--|---------|--|-------------|
| 12:57 PM               |  ssWeek   |  |     |  | 3       |  | Boost Post  |
| 10/21/2020<br>9:33 AM  |  Today let's all be thankful for the   |  | 132 |  | 0<br>1  |  | Boost Post  |
| 10/20/2020<br>3:27 PM  |  #StormwaterAwarenessWeek Learn more   |  | 181 |  | 2<br>4  |  | Boost Post  |
| 10/20/2020<br>9:44 AM  |  #ValueWater   |  | 138 |  | 0<br>0  |  | Boost Post  |
| 10/20/2020<br>9:05 AM  |       |  | 209 |  | 9<br>10 |  | Boost Post  |
| 10/19/2020<br>4:33 PM  |       |  | 108 |  | 0<br>1  |  | Boost Post  |
| 10/19/2020<br>12:51 PM |  Is it a coincidence that Imagine A Day  |  | 165 |  | 0<br>1  |  | Boost Post  |
| 10/19/2020<br>10:15 AM |  Disposing of expired or unneeded  |  | 158 |  | 2<br>4  |  | Boost Post  |
| 10/19/2020<br>9:46 AM  |  It's Imagine A Day Without Water Week!  |  | 141 |  | 0<br>0  |  | Boost Post  |
| 10/16/2020<br>4:42 PM  |       |  | 134 |  | 1<br>1  |  | Boost Post  |
| 10/15/2020<br>9:44 AM  |       |  | 218 |  | 9<br>0  |  | Boost Post  |
| 10/14/2020<br>9:14 AM  |       |  | 168 |  | 1<br>1  |  | Boost Post  |
| 10/13/2020<br>11:51 AM |  Have you registered for our Customer  |  | 156 |  | 0<br>0  |  | Boost Post  |
| 10/12/2020<br>12:00 PM |  Did you know that the City of Columbus  |  | 210 |  | 1<br>3  |  | Boost Post  |
| 10/09/2020<br>12:15 PM |  And what lands on the ground often gets   |  | 233 |  | 4<br>4  |  | Boost Post  |
| 10/08/2020<br>9:33 AM  |  Did you know that Columbus offers city  |  | 176 |  | 2<br>2  |  | Boost Post  |
| 10/07/2020<br>3:49 PM  |  Behind on your utility bill? Did you know that                                      |  | 431 |  | 1<br>5  |  | Boost Post  |
| 10/06/2020<br>12:13 PM |  Sustainable Steps Virtual Celebration   |  | 122 |  | 0<br>1  |  | Boost Event |
| 10/05/2020<br>10:52 AM |  A reminder to please secure your valuables  |  | 181 |  | 4<br>0  |  | Boost Post  |
| 10/02/2020<br>1:36 PM  |  This is the last weekend to participate   |  | 386 |  | 3<br>5  |  | Boost Post  |
| 09/30/2020<br>10:40 AM |  Request a payment plan if behind on your  |  | 237 |  | 1<br>2  |  | Boost Post  |
| 09/29/2020<br>9:05 AM  |   |  | 145 |  | 0<br>0  |  | Boost Post  |
| 09/28/2020<br>2:25 PM  |  There is still time to sign up for the Race   |  | 120 |  | 0<br>0  |  | Boost Post  |
| 09/28/2020<br>9:26 AM  |  We recognize a body of water in these 😊   |  | 127 |  | 7<br>1  |  | Boost Post  |
| 09/25/2020<br>3:20 PM  |  Please report utility   |  | 616 |  | 8<br>18 |  | Boost Post  |

|                        |  |     |          |            |
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| 09/25/2020<br>2:54 PM  |  Need community service hours?                  | 493 | 6<br>17  | Boost Post |
| 09/25/2020<br>10:40 AM |   | 174 | 0<br>2   | Boost Post |
| 09/24/2020<br>12:21 PM |  If unable to pay your utility bill, check out  | 176 | 0<br>0   | Boost Post |
| 09/24/2020<br>11:50 AM |  If you missed the last household hazardous     | 180 | 9<br>3   | Boost Post |
| 09/22/2020<br>12:19 PM |  GreenSpot Sustainable Business                 | 147 | 0<br>1   | Boost Post |
| 09/22/2020<br>9:08 AM  |  Seasonal hydrant flushing continues in         | 284 | 15<br>4  | Boost Post |
| 09/21/2020<br>4:45 PM  |  Illegal Dumping                                | 169 | 11<br>1  | Boost Post |
| 09/18/2020<br>3:25 PM  |  Need community service hours?                  | 609 | 13<br>21 | Boost Post |
| 09/17/2020<br>1:56 PM  |   | 145 | 0<br>1   | Boost Post |
| 09/16/2020<br>10:29 AM |  All bills eventually come due. If you need     | 196 | 0<br>1   | Boost Post |
| 09/11/2020<br>12:50 PM |    | 161 | 1<br>0   | Boost Post |
| 09/10/2020<br>10:52 AM |  Reservoir litter cleanups are still on       | 344 | 2<br>8   | Boost Post |
| 09/10/2020<br>9:05 AM  |  Have you registered for the annual Race      | 177 | 0<br>0   | Boost Post |
| 09/09/2020<br>10:01 AM |  Behind on your utility bill? Apply for CARES | 223 | 0<br>0   | Boost Post |
| 09/09/2020<br>9:26 AM  |   | 174 | 1<br>0   | Boost Post |
| 09/08/2020<br>11:11 AM |  Proper HHW disposal helps keep               | 288 | 8<br>9   | Boost Post |
| 09/08/2020<br>11:10 AM |   | 99  | 2<br>1   | Boost Post |
| 09/08/2020<br>11:08 AM |  Great tips for National Preparedness Month!  | 188 | 4<br>0   | Boost Post |
| 09/03/2020<br>11:10 AM | Honeywell Home Wi-Fi 7 Day   | 145 | 3<br>1   | Boost Post |
| 09/03/2020<br>11:04 AM |  Hoover Reservoir dam CIP update: Access      | 213 | 5<br>1   | Boost Post |
| 09/03/2020<br>9:18 AM  |  Registration is now open for the annual      | 183 | 0<br>0   | Boost Post |
| 09/02/2020<br>4:11 PM  |  Firefighters will be flushing & draining     | 840 | 67<br>22 | Boost Post |
| 09/01/2020<br>3:18 PM  |   | 139 | 2<br>1   | Boost Post |
| 09/01/2020<br>3:17 PM  |   | 159 | 3<br>0   | Boost Post |

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| 09/01/2020<br>10:04 AM |  If you are behind on your utility bill, please   | 239    | 1     | 1   | Boost Post |
| 08/31/2020<br>11:43 AM |  Creating natural buffers along water            | 222    | 1     | 1   | Boost Post |
| 08/27/2020<br>8:54 AM  |  Gotten behind on your utility bill? Check out   | 471    | 14    | 4   | Boost Post |
| 08/26/2020<br>9:39 AM  |  It's National Dog Day! Do you, uh, PUP (pick    | 330    | 10    | 7   | Boost Post |
| 08/25/2020<br>2:54 PM  |  Major project at Hoover Reservoir to            | 392    | 28    | 5   | Boost Post |
| 08/25/2020<br>2:25 PM  |  Hoover CIP update: installation of the          | 465    | 21    | 13  | Boost Post |
| 08/25/2020<br>9:38 AM  |  Trouble paying your utility bill? Check out     | 513    | 5     | 5   | Boost Post |
| 08/24/2020<br>10:50 AM |    | 264    | 5     | 4   | Boost Post |
| 08/21/2020<br>5:59 PM  | If you're having trouble paying your city utility bill, check out   | 275    | 1     | 6   | Boost Post |
| 08/20/2020<br>12:33 PM |  Trouble paying your utility bill? Check out     | 246    | 1     | 0   | Boost Post |
| 08/18/2020<br>1:32 PM  |  Hoover Reservoir recreational users: the        | 557    | 9     | 17  | Boost Post |
| 08/15/2020<br>9:06 AM  |  This article also discusses how                | 714    | 71    | 78  | Boost Post |
| 08/15/2020<br>7:30 AM  |  On 8/14/2020 a precautionary boil             | 11.9K  | 633   | 252 | Boost Post |
| 08/14/2020<br>8:48 AM  |  The Columbus Department of Public             | 123.9K | 13.1K | 3K  | Boost Post |
| 08/13/2020<br>3:34 PM  |  Heard about the utility assistance available  | 1.7K   | 31    | 17  | Boost Post |
| 08/13/2020<br>3:19 PM  |  If you are a city power customer and have     | 740    | 4     | 5   | Boost Post |
| 08/13/2020<br>2:51 PM  |  Gotten behind on your utility bill? Request a | 504    | 5     | 0   | Boost Post |
| 08/13/2020<br>11:44 AM |  If your current job situation may meet        | 465    | 3     | 0   | Boost Post |
| 08/12/2020<br>2:37 PM  |  On 8/11/2020 a precautionary boil             | 16.1K  | 1.3K  | 423 | Boost Post |
| 08/12/2020<br>10:09 AM |  Boil water advisory issued for parts of       | 675    | 58    | 13  | Boost Post |
| 08/12/2020<br>9:38 AM  | The boil advisory for a designated area of the central  | 1.4K   | 194   | 35  | Boost Post |
| 08/11/2020<br>3:15 PM  |  A boil water advisory was issued today for a  | 9.4K   | 762   | 205 | Boost Post |
| 08/11/2020<br>9:38 AM  |    | 825    | 8     | 3   | Boost Post |
| 08/10/2020<br>1:41 PM  |    | 465    | 3     | 3   | Boost Post |

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| 08/10/2020<br>11:48 AM |         |  | 340   | 2<br>0      | Boost Post |
| 08/10/2020<br>10:49 AM |    |  | 305   | 1<br>1      | Boost Post |
| 08/06/2020<br>10:03 AM |  Our Division of Power Assistant   |  | 321   | 9<br>4      | Boost Post |
| 08/05/2020<br>12:35 PM |  Septic tanks and aeration tanks fill up. If   |  | 353   | 6<br>4      | Boost Post |
| 08/04/2020<br>4:00 PM  |       |  | 201   | 1<br>1      | Boost Post |
| 08/04/2020<br>3:47 PM  |  A capital improvement project at the Hoover   |  | 14.7K | 1.8K<br>320 | Boost Post |
| 08/04/2020<br>10:52 AM |  Shutoffs due to non-payment remain on   |  | 224   | 3<br>2      | Boost Post |
| 08/03/2020<br>4:28 PM  |  Perennials require less water than  |  | 153   | 1<br>0      | Boost Post |
| 08/03/2020<br>2:22 PM  |  Our Customer Service call hold times have   |  | 204   | 3<br>2      | Boost Post |
| 07/30/2020<br>3:08 PM  |       |  | 150   | 1<br>2      | Boost Post |
| 07/29/2020<br>2:38 PM  |  Water and power shutoffs due to non-  |  | 361   | 10<br>5     | Boost Post |
| 07/29/2020<br>2:28 PM  |  In case you missed it:   |  | 85    | 1<br>1      | Boost Post |
| 07/29/2020<br>12:44 PM |   |  | 107   | 1<br>0      | Boost Post |
| 07/29/2020<br>9:39 AM  |  If you are a Columbus Power customer and  |  | 640   | 13<br>19    | Boost Post |
| 07/28/2020<br>3:02 PM  |  Today we mourn one of our own. Thank you  |  | 290   | 128<br>33   | Boost Post |
| 07/28/2020<br>2:53 PM  |    |  | 106   | 3<br>0      | Boost Post |
| 07/28/2020<br>8:38 AM  |  Mayor Andrew Ginther announces more than  |  | 155   | 9<br>2      | Boost Post |
| 07/27/2020<br>4:02 PM  |  Did you know that if you live or your   |  | 105   | 0<br>0      | Boost Post |
| 07/23/2020<br>2:03 PM  |  Reminder: a service request cannot be   |  | 2.3K  | 16<br>10    | Boost Post |
| 07/23/2020<br>9:43 AM  |    |  | 113   | 0<br>2      | Boost Post |
| 07/22/2020<br>4:39 PM  |   |  | 98    | 3<br>1      | Boost Post |
| 07/22/2020<br>4:37 PM  |  Tour Green Infrastructure at the  |  | 92    | 2<br>1      | Boost Post |
| 07/21/2020<br>10:03 AM |  The phone system for our call center was  |  | 193   | 2<br>3      | Boost Post |
| 07/20/2020<br>9:25 AM  |  Reminder for Columbus Power   |  | 144   | 2<br>2      | Boost Post |
| 07/17/2020             |  Some lawns are  |  |       | 0           |            |

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|------------------------|---|--|-----|----|----|---|------------|
| 10:53 AM               | looking stressed due                        |  | 122 | 2  | 0  | 0 | Boost Post |
| 07/15/2020<br>11:20 AM | 86% water usage                             |  | 122 | 0  | 0  | 0 | Boost Post |
| 07/14/2020<br>11:25 AM | Water tap                                   |  | 130 | 0  | 3  | 0 | Boost Post |
| 07/13/2020<br>2:02 PM  | Water tap                                   |  | 122 | 0  | 2  | 0 | Boost Post |
| 07/13/2020<br>1:48 PM  | Ever wonder what those colored flags        |  | 188 | 5  | 9  | 0 | Boost Post |
| 07/13/2020<br>9:41 AM  | Person with water tap                       |  | 119 | 0  | 1  | 0 | Boost Post |
| 07/09/2020<br>3:37 PM  | Water tap                                   |  | 119 | 0  | 0  | 0 | Boost Post |
| 07/08/2020<br>8:40 AM  | Water tap                                   |  | 226 | 11 | 14 | 0 | Boost Post |
| 07/08/2020<br>8:39 AM  | Water tap                                   |  | 98  | 0  | 0  | 0 | Boost Post |
| 07/07/2020<br>11:11 AM | The storm drain in your street carries rain |  | 115 | 0  | 0  | 0 | Boost Post |
| 07/02/2020<br>8:44 AM  | Hot weather safety reminder: it's illegal   |  | 912 | 22 | 23 | 0 | Boost Post |
| 07/01/2020<br>10:05 AM | Safety reminder as central Ohio weather     |  | 94  | 0  | 0  | 0 | Boost Post |
| 07/01/2020<br>9:49 AM  | Some good tips on staying cool but safe     |  | 133 | 1  | 3  | 0 | Boost Post |
| 06/30/2020<br>10:35 AM | Did you know that 1" of water or rain a     |  | 100 | 1  | 0  | 0 | Boost Post |
| 06/29/2020<br>12:47 PM | Most higher-than-usual water/sewer bills    |  | 125 | 1  | 1  | 0 | Boost Post |
| 06/29/2020<br>10:06 AM | Water tap                                   |  | 109 | 1  | 0  | 0 | Boost Post |
| 06/25/2020<br>11:02 AM | Sustainable logo                            |  | 98  | 2  | 0  | 0 | Boost Post |
| 06/25/2020<br>11:01 AM | Water tap                                   |  | 94  | 0  | 0  | 0 | Boost Post |
| 06/25/2020<br>9:39 AM  | Water and city power shutoffs due to non-   |  | 931 | 61 | 12 | 0 | Boost Post |
| 06/23/2020<br>2:50 PM  | Drink up! Please use reusable water bottles |  | 80  | 0  | 0  | 0 | Boost Post |
| 06/23/2020<br>10:59 AM | Water tap                                   |  | 94  | 1  | 0  | 0 | Boost Post |
| 06/23/2020<br>9:28 AM  | Water tap                                   |  | 98  | 2  | 0  | 0 | Boost Post |
| 06/22/2020<br>2:45 PM  | ICYMI: our call center is back to normal    |  | 171 | 0  | 6  | 0 | Boost Post |
| 06/22/2020<br>1:46 PM  | Our latest drinking water quality report    |  | 177 | 3  | 3  | 0 | Boost Post |
| 06/19/2020             | As of today, June 19,                       |  |     |    | 94 | 0 |            |

|                        |   |  |      |           |  |                            |
|------------------------|---|--|------|-----------|--|----------------------------|
| 11:12 AM               |  our Call Center has  |  |      | 25        |  | <a href="#">Boost Post</a> |
| 06/12/2020<br>12:48 PM |  Good news!<br>Customers can now   |  | 2.4K | 116<br>49 |  | <a href="#">Boost Post</a> |
| 06/11/2020<br>1:48 PM  |  Ever wonder how<br>many gallons of water  |  | 969  | 34<br>24  |  | <a href="#">Boost Post</a> |
| 06/11/2020<br>9:24 AM  |  Have you registered<br>for our Customer   |  | 228  | 2<br>1    |  | <a href="#">Boost Post</a> |
| 06/11/2020<br>8:45 AM  |  For city power<br>restoration updates   |  | 278  | 8<br>9    |  | <a href="#">Boost Post</a> |
| 06/10/2020<br>10:23 AM |       |  | 160  | 0<br>0    |  | <a href="#">Boost Post</a> |
| 06/10/2020<br>10:09 AM |    |  | 158  | 0<br>0    |  | <a href="#">Boost Post</a> |
| 06/10/2020<br>10:08 AM |  Please remember to<br>be safe when boating  |  | 206  | 0<br>2    |  | <a href="#">Boost Post</a> |
| 06/09/2020<br>2:45 PM  |  Due to COVID-19,<br>delinquency shut-offs   |  | 283  | 4<br>2    |  | <a href="#">Boost Post</a> |
| 06/09/2020<br>12:24 PM |       |  | 204  | 5<br>4    |  | <a href="#">Boost Post</a> |
| 06/09/2020<br>11:28 AM |  Hot weather reminder:<br>it's illegal & dangerous                                     |  | 526  | 57<br>25  |  | <a href="#">Boost Post</a> |
| 06/05/2020<br>2:46 PM  |       |  | 173  | 3<br>3    |  | <a href="#">Boost Post</a> |
| 06/05/2020<br>10:48 AM |  Due to COVID-19,<br>Columbus temporarily  |  | 400  | 13<br>10  |  | <a href="#">Boost Post</a> |
| 06/04/2020<br>12:01 PM |   |  | 199  | 7<br>5    |  | <a href="#">Boost Post</a> |
| 06/04/2020<br>10:17 AM |  Planning to fill a<br>backyard pool this  |  | 1.7K | 166<br>44 |  | <a href="#">Boost Post</a> |
| 06/04/2020<br>10:01 AM |  Native landscaping<br>saves a lot of water  |  | 222  | 1<br>6    |  | <a href="#">Boost Post</a> |
| 06/03/2020<br>2:12 PM  |  Frequently asked<br>question: if a waterline  |  | 786  | 24<br>18  |  | <a href="#">Boost Post</a> |
| 06/03/2020<br>12:25 PM |  Repair work continues<br>on the water main  |  | 360  | 13<br>11  |  | <a href="#">Boost Post</a> |
| 06/02/2020<br>5:00 PM  |  Water main update,<br>Morse Road at 270,  |  | 414  | 3<br>6    |  | <a href="#">Boost Post</a> |
| 06/02/2020<br>1:47 PM  |  Water main update,<br>Morse Road at 270,  |  | 356  | 6<br>9    |  | <a href="#">Boost Post</a> |
| 06/02/2020<br>10:42 AM |  the department is<br>aware of a waterline   |  | 603  | 7<br>10   |  | <a href="#">Boost Post</a> |
| 05/29/2020<br>1:13 PM  |  Storm drains and<br>ditches along   |  | 800  | 20<br>20  |  | <a href="#">Boost Post</a> |
| 05/28/2020<br>1:35 PM  |  We are pleased to<br>announce that our  |  | 807  | 17<br>21  |  | <a href="#">Boost Post</a> |
| 05/28/2020<br>9:35 AM  |    |  | 163  | 2<br>0    |  | <a href="#">Boost Post</a> |
| 05/27/2020<br>4:43 PM  |  The same goes for us,   |  | 190  | 2<br>3    |  | <a href="#">Boost Post</a> |

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|------------------------|---|------|------------|----------------------------|
| 05/26/2020<br>9:18 AM  |  If you are a city electric customer, for      | 357  | 5<br>7     | <a href="#">Boost Post</a> |
| 05/22/2020<br>9:00 AM  |  #SafeBoatingWeek                              | 262  | 0<br>3     | <a href="#">Boost Post</a> |
| 05/21/2020<br>1:26 PM  |  #SafeBoatingWeek                              | 130  | 1<br>0     | <a href="#">Boost Post</a> |
| 05/21/2020<br>9:32 AM  |  #SafeBoatingWeek                              | 267  | 4<br>4     | <a href="#">Boost Post</a> |
| 05/20/2020<br>3:43 PM  |  #SafeBoatingWeek                              | 233  | 1<br>1     | <a href="#">Boost Post</a> |
| 05/19/2020<br>4:35 PM  |  #SafeBoatingWeek                              | 248  | 6<br>5     | <a href="#">Boost Post</a> |
| 05/19/2020<br>3:05 PM  |  Columbus floodwalls being activated           | 313  | 53<br>51   | <a href="#">Boost Post</a> |
| 05/19/2020<br>1:26 PM  |  COLUMBUS                                      | 129  | 1<br>1     | <a href="#">Boost Post</a> |
| 05/19/2020<br>1:23 PM  |  COLUMBUS                                      | 219  | 11<br>2    | <a href="#">Boost Post</a> |
| 05/19/2020<br>12:15 PM |  Columbus Public Utilities                     | 506  | 191<br>20  | <a href="#">Boost Post</a> |
| 05/19/2020<br>12:05 PM |  Columbus Public Utilities updated their      | 65   | 3<br>1     | <a href="#">Boost Post</a> |
| 05/19/2020<br>10:51 AM |  It's a wet one out there. If you            | 3.5K | 392<br>104 | <a href="#">Boost Post</a> |
| 05/19/2020<br>10:34 AM |  #SafeBoatingWeek                            | 181  | 11<br>0    | <a href="#">Boost Post</a> |
| 05/18/2020<br>12:57 PM |  It's National Safe Boating Week! A good     | 227  | 6<br>6     | <a href="#">Boost Post</a> |
| 05/18/2020<br>9:50 AM  |  #SafeBoatingWeek                            | 130  | 1<br>3     | <a href="#">Boost Post</a> |
| 05/13/2020<br>10:38 AM |  Reminder, the Community Backyards           | 234  | 14<br>7    | <a href="#">Boost Post</a> |
| 05/11/2020<br>11:35 AM |  Opening a building that has been closed     | 197  | 1<br>3     | <a href="#">Boost Post</a> |
| 05/11/2020<br>10:35 AM |  #SafeBoatingWeek                            | 140  | 5<br>1     | <a href="#">Boost Post</a> |
| 05/11/2020<br>10:32 AM |  #SafeBoatingWeek                            | 118  | 3<br>2     | <a href="#">Boost Post</a> |
| 05/11/2020<br>10:21 AM |  Good educational info to share with kids to | 216  | 24<br>11   | <a href="#">Boost Post</a> |
| 05/08/2020<br>9:41 AM  |  Reason #5 to choose tap over bottled water: | 103  | 0<br>0     | <a href="#">Boost Post</a> |
| 05/07/2020<br>10:55 AM |  Reason #5 to choose tap over bottled water: | 184  | 17<br>1    | <a href="#">Boost Post</a> |
| 05/07/2020<br>10:53 AM |  Reason #5 to choose tap over bottled water: | 313  | 69<br>15   | <a href="#">Boost Post</a> |
| 05/07/2020<br>10:23 AM |  Reason #4 to choose tap over bottled: the   | 157  | 1<br>2     | <a href="#">Boost Post</a> |

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|------------------------|---|--|------|----------|-------------|
| 05/06/2020<br>2:39 PM  |  Digital Event: What's in Our Water?  |  | 57   | 1<br>0   | Boost Event |
| 05/06/2020<br>2:36 PM  |  #DrinkingWaterWeek  |  | 185  | 2<br>7   | Boost Post  |
| 05/06/2020<br>10:09 AM |  #DrinkingWaterWeek<br>#WorkerWednesday  |  | 219  | 13<br>14 | Boost Post  |
| 05/06/2020<br>9:58 AM  |  Reason #3 to choose tap over bottled: less  |  | 280  | 6<br>11  | Boost Post  |
| 05/05/2020<br>1:49 PM  |  Pledge to Get Grassy, get free stuff and  |  | 182  | 6<br>5   | Boost Post  |
| 05/05/2020<br>10:38 AM |                             |  | 214  | 8<br>9   | Boost Post  |
| 05/05/2020<br>10:16 AM |  Let's give a like for all the public workers out  |  | 1.5K | 50<br>88 | Boost Post  |
| 05/05/2020<br>9:36 AM  |  Reason #2 tap water is better: it is much   |  | 374  | 9<br>11  | Boost Post  |
| 05/04/2020<br>4:47 PM  |  Reopening your building after weeks   |  | 201  | 8<br>10  | Boost Post  |
| 05/04/2020<br>4:33 PM  |  If interested in helping children at home learn   |  | 179  | 4<br>5   | Boost Post  |
| 05/04/2020<br>3:16 PM  |  What can you do for #DrinkingWaterWeek?   |  | 150  | 1<br>4   | Boost Post  |
| 05/04/2020<br>11:08 AM |   |  | 93   | 1<br>0   | Boost Post  |
| 05/04/2020<br>9:48 AM  |  Reason #1 tap water is a better choice than   |  | 530  | 10<br>20 | Boost Post  |
| 05/04/2020<br>9:03 AM  |  Opening a building that has been closed   |  | 435  | 15<br>9  | Boost Post  |
| 05/01/2020<br>12:27 PM |  May is National Electric Safety Month.  |  | 321  | 25<br>11 | Boost Post  |
| 05/01/2020<br>12:09 PM |  Great opportunity!<br> |  | 161  | 6<br>1   | Boost Post  |
| 05/01/2020<br>9:45 AM  |  Planning to open a building that has been   |  | 1.6K | 83<br>55 | Boost Post  |
| 04/30/2020<br>3:38 PM  |                         |  | 233  | 6<br>11  | Boost Post  |
| 04/30/2020<br>1:44 PM  |  Delinquency shutoffs for water/power  |  | 283  | 13<br>11 | Boost Post  |
| 04/30/2020<br>10:31 AM |  Remember, call before you dig.  |  | 105  | 2<br>2   | Boost Post  |
| 04/30/2020<br>9:16 AM  |  Are you a Columbus power customer?  |  | 430  | 15<br>11 | Boost Post  |
| 04/29/2020<br>12:10 PM |  Nobody wants to see them drain into our   |  | 207  | 9<br>9   | Boost Post  |
| 04/29/2020<br>10:06 AM |  Another great way to reduce waste is to   |  | 190  | 7<br>3   | Boost Post  |
| 04/28/2020<br>10:21 AM |  Did you know that deep-rooted, native   |  | 348  | 22<br>12 | Boost Post  |

|                        |  |  |     |    |    |             |
|------------------------|--|--|-----|----|----|-------------|
| 04/24/2020<br>3:05 PM  | What happens if you cut down all of a city's   |  | 96  | 0  | 0  | Boost Post  |
| 04/24/2020<br>2:52 PM  |  |  | 145 | 1  | 5  | Boost Post  |
| 04/24/2020<br>9:48 AM  | Call center hours during Ohio's                |  | 343 | 11 | 13 | Boost Post  |
| 04/23/2020<br>4:01 PM  |  |  | 146 | 1  | 3  | Boost Post  |
| 04/22/2020<br>4:40 PM  |  |  | 167 | 2  | 2  | Boost Post  |
| 04/22/2020<br>12:37 PM | Reminder as toilet paper shortages             |  | 778 | 41 | 28 | Boost Post  |
| 04/22/2020<br>11:58 AM |  |  | 136 | 2  | 4  | Boost Post  |
| 04/22/2020<br>9:35 AM  | Trash in the oceans isn't always dumped        |  | 99  | 0  | 1  | Boost Post  |
| 04/22/2020<br>9:10 AM  | Happy Earth Day! It's a different kind of year |  | 223 | 9  | 13 | Boost Post  |
| 04/21/2020<br>4:06 PM  | Earth Day GreenSpot Yard and Alley             |  | 134 | 7  | 4  | Boost Event |
| 04/21/2020<br>3:58 PM  | 8pm 'Green Columbus' General                   |  | 113 | 0  | 2  | Boost Event |
| 04/21/2020<br>10:59 AM | We salute those who do annual litter           |  | 474 | 8  | 14 | Boost Post  |
| 04/21/2020<br>9:12 AM  | Great opportunity!                             |  | 227 | 18 | 6  | Boost Post  |
| 04/20/2020<br>2:43 PM  | Our Division of Power has earned a Reliable    |  | 353 | 30 | 18 | Boost Post  |
| 04/20/2020<br>1:23 PM  | It's National Work Zone Awareness              |  | 202 | 2  | 8  | Boost Post  |
| 04/20/2020<br>10:09 AM | Thank you, Councilmember                       |  | 252 | 31 | 14 | Boost Post  |
| 04/16/2020<br>4:02 PM  |  |  | 101 | 5  | 0  | Boost Post  |
| 04/16/2020<br>1:04 PM  | Low income & senior discount program           |  | 341 | 8  | 8  | Boost Post  |
| 04/16/2020<br>12:48 PM | Recognizing Those Who Keep The Lights          |  | 167 | 3  | 3  | Boost Post  |
| 04/16/2020<br>11:25 AM | Business viewpoint: Utility workers — a        |  | 312 | 34 | 14 | Boost Post  |
| 04/16/2020<br>11:23 AM | Includes some nice water scenes!               |  | 285 | 31 | 22 | Boost Post  |
| 04/16/2020<br>11:19 AM |  |  | 187 | 16 | 5  | Boost Post  |
| 04/16/2020<br>9:48 AM  |  |  | 136 | 7  | 5  | Boost Post  |
| 04/16/2020<br>9:43 AM  | Have you checked out the Community             |  | 690 | 39 | 22 | Boost Post  |
| 04/15/2020             | Storm drains and                               |  |     | 40 |    |             |

|                        |   |  |     |          |            |
|------------------------|---|--|-----|----------|------------|
| 10:19 AM               |  ditches carry rainwater  |  | 37  |          | Boost Post |
| 04/14/2020<br>3:48 PM  |    |  | 206 | 7<br>6   | Boost Post |
| 04/14/2020<br>1:13 PM  |  If you are at home<br>obsessing over your   |  | 205 | 13<br>5  | Boost Post |
| 04/13/2020<br>2:00 PM  |  Do you, uh, PUP?<br>(Pick up poop)? Take  |  | 343 | 6<br>7   | Boost Post |
| 04/13/2020<br>9:14 AM  |  Starting Monday, April<br>13, call center hours                                   |  | 307 | 6<br>10  | Boost Post |
| 04/10/2020<br>11:46 AM |  Starting Monday, April<br>13, our call center                                     |  | 890 | 44<br>37 | Boost Post |
| 04/10/2020<br>9:33 AM  |   |  | 140 | 7<br>3   | Boost Post |
| 04/10/2020<br>9:27 AM  |  Receive benefits from<br>the following  |  | 404 | 10<br>6  | Boost Post |
| 04/09/2020<br>9:09 AM  |  Parents, if you are<br>looking for activities                                     |  | 214 | 6<br>9   | Boost Post |
| 04/08/2020<br>9:31 AM  |  Also, markings do not<br>indicate the type of                                     |  | 367 | 23<br>21 | Boost Post |
| 04/07/2020<br>1:44 PM  |  It's okay; we know our<br>services are mostly                                     |  | 468 | 40<br>56 | Boost Post |
| 04/07/2020<br>11:46 AM |  Electrical Safety<br>Foundation  |  | 118 | 5<br>2   | Boost Post |
| 04/07/2020<br>10:03 AM |  While it may feel like a<br>public health month, it                             |  | 278 | 7<br>11  | Boost Post |
| 04/07/2020<br>9:55 AM  |    |  | 190 | 2<br>4   | Boost Post |
| 04/06/2020<br>10:51 AM |  As Ohio's stay-at-<br>home order continues,                                     |  | 517 | 15<br>16 | Boost Post |
| 04/02/2020<br>9:44 AM  |    |  | 104 | 0<br>0   | Boost Post |
| 04/02/2020<br>9:44 AM  |    |  | 161 | 1<br>4   | Boost Post |
| 04/01/2020<br>12:08 PM |  While many are home,<br>it's an excellent time to                               |  | 129 | 2<br>1   | Boost Post |
| 04/01/2020<br>12:03 PM |  While You Are at<br>Home - Take the   |  | 91  | 0<br>0   | Boost Post |
| 04/01/2020<br>8:25 AM  |    |  | 104 | 3<br>1   | Boost Post |
| 03/31/2020<br>5:03 PM  |  Reminder that we<br>offer discount  |  | 154 | 2<br>1   | Boost Post |
| 03/31/2020<br>3:59 PM  |  Columbus Public<br>Utilities  |  | 125 | 9<br>1   | Boost Post |
| 03/30/2020<br>2:46 PM  |    |  | 204 | 0<br>8   | Boost Post |
| 03/30/2020<br>1:05 PM  |  Heavy rains a<br>temporary solution to  |  | 162 | 9<br>1   | Boost Post |
| 03/30/2020             |  Columbus Public   |  |     | 18       |            |

|                        |   |  |  |      |            |            |
|------------------------|---|--|--|------|------------|------------|
| 9:58 AM                |  Utilities warns against  |  |  | 12   |            | Boost Post |
| 03/27/2020<br>2:49 PM  |   |  |  | 148  | 2<br>3     | Boost Post |
| 03/27/2020<br>9:21 AM  |  While our call center is on shortened hours                                       |  |  | 1.1K | 78<br>30   | Boost Post |
| 03/26/2020<br>11:23 AM |  The same goes for all activities at our   |  |  | 150  | 3<br>4     | Boost Post |
| 03/26/2020<br>9:42 AM  |  In case you missed it: Effective 3/25 due to                                      |  |  | 150  | 0<br>9     | Boost Post |
| 03/25/2020<br>3:11 PM  |  Effective today, due to the COVID-19  |  |  | 995  | 112<br>37  | Boost Post |
| 03/25/2020<br>12:25 PM |  This is a lot of information for a social   |  |  | 3.6K | 917<br>113 | Boost Post |
| 03/25/2020<br>9:10 AM  |  Effective today, due to the COVID-19  |  |  | 643  | 50<br>15   | Boost Post |
| 03/24/2020<br>1:16 PM  |    |  |  | 118  | 2<br>0     | Boost Post |
| 03/24/2020<br>1:10 PM  |    |  |  | 148  | 3<br>2     | Boost Post |
| 03/24/2020<br>1:09 PM  |    |  |  | 93   | 7<br>1     | Boost Post |
| 03/24/2020<br>1:07 PM  |   |  |  | 69   | 5<br>2     | Boost Post |
| 03/24/2020<br>12:52 PM |  Essential utility services will continue,                                       |  |  | 134  | 12<br>2    | Boost Post |
| 03/24/2020<br>12:46 PM |    |  |  | 99   | 8<br>1     | Boost Post |
| 03/24/2020<br>11:26 AM |    |  |  | 100  | 2<br>2     | Boost Post |
| 03/24/2020<br>10:23 AM |  The Department of Public Utilities has  |  |  | 142  | 3<br>0     | Boost Post |
| 03/23/2020<br>4:09 PM  |  What a great way to entertain the kids at                                       |  |  | 111  | 0<br>0     | Boost Post |
| 03/23/2020<br>12:37 PM |  Reminder: shutoffs due to non-payment   |  |  | 413  | 12<br>7    | Boost Post |
| 03/23/2020<br>11:33 AM |  Reminder on what to not flush to avoid  |  |  | 636  | 30<br>19   | Boost Post |
| 03/20/2020<br>4:40 PM  |  Please report any sewer basement  |  |  | 1.7K | 110<br>58  | Boost Post |
| 03/20/2020<br>4:19 PM  |  If your home was built prior to 1963, your                                      |  |  | 1K   | 132<br>22  | Boost Post |
| 03/20/2020<br>1:54 PM  |  With coronavirus price gouging including \$13                                   |  |  | 202  | 19<br>2    | Boost Post |
| 03/20/2020<br>12:49 PM |  In these uncertain times, know that your  |  |  | 627  | 24<br>32   | Boost Post |
| 03/20/2020<br>12:21 PM |  Phone lines are very busy today at Sewer  |  |  | 1.7K | 147<br>44  | Boost Post |
| 03/20/2020             |  Good resource.  |  |  |      | 2          | Boost Post |

| Date       | Time     | Image | Text   | Reactions | Comments | Shares | Boost Post |
|------------|----------|-------|--|-----------|----------|--------|------------|
|            | 11:29 AM |       |  |           |          |        |            |
| 03/20/2020 | 10:19 AM |       | The latest Consumer Confidence Drinking      | 117       | 4        | 3      | Boost Post |
| 03/20/2020 | 10:06 AM |       | One thing we all don't need to worry about   | 147       | 13       | 10     | Boost Post |
| 03/20/2020 | 9:47 AM  |       | COVID-19 Update - Online and Over the        | 167       | 28       | 12     | Boost Post |
| 03/20/2020 | 9:45 AM  |       | While in-person bill payment/permit desks    | 128       | 7        | 2      | Boost Post |
| 03/20/2020 | 9:37 AM  |       | Due to the overnight rainfall many roads     | 100       | 8        | 0      | Boost Post |
| 03/19/2020 | 2:15 PM  |       |  | 88        | 2        | 0      | Boost Post |
| 03/19/2020 | 2:14 PM  |       | Socks? New ones for us!                      | 144       | 3        | 4      | Boost Post |
| 03/18/2020 | 8:48 PM  |       | Information below from the U.S.              | 187       | 29       | 3      | Boost Post |
| 03/18/2020 | 4:18 PM  |       |  | 2.7K      | 148      | 111    | Boost Post |
| 03/18/2020 | 12:22 PM |       | Changes begin today, including call center   | 223       | 12       | 15     | Boost Post |
| 03/17/2020 | 4:57 PM  |       | Due to the COVID-19 crisis, the City of      | 1.4K      | 100      | 34     | Boost Post |
| 03/17/2020 | 9:55 AM  |       | With many of us spending more time at        | 123       | 0        | 0      | Boost Post |
| 03/16/2020 | 3:38 PM  |       |  | 112       | 8        | 0      | Boost Post |
| 03/16/2020 | 10:56 AM |       | Reminder with the TP shortages at stores: if | 2.2K      | 154      | 85     | Boost Post |
| 03/13/2020 | 4:46 PM  |       | Columbus Public Utilities                    | 154       | 5        | 0      | Boost Post |
| 03/13/2020 | 11:52 AM |       | As part of the ongoing efforts on COVID-19,  | 233       | 23       | 21     | Boost Post |
| 03/06/2020 | 11:13 AM |       |  | 142       | 1        | 2      | Boost Post |
| 03/05/2020 | 3:53 PM  |       | Columbus Public Utilities updated their      | 70        | 0        | 0      | Boost Post |
| 03/05/2020 | 11:24 AM |       | It's National Consumer Protection Week.      | 148       | 1        | 2      | Boost Post |
| 03/05/2020 | 11:13 AM |       |  | 112       | 3        | 0      | Boost Post |
| 03/04/2020 | 2:48 PM  |       | For Women's History Month, we remember       | 135       | 4        | 3      | Boost Post |
| 02/28/2020 | 1:52 PM  |       | This helps protect water supplies too,       | 103       | 1        | 0      | Boost Post |
| 02/18/2020 | 6:02 PM  |       | Congratulations to Philip A. Schmidt,        | 306       | 109      | 39     | Boost Post |
| 02/12/2020 | 3:20 PM  |       |  | 127       | 5        | 1      | Boost Post |

|                        |   |  |       |      |     |             |
|------------------------|---|--|-------|------|-----|-------------|
| 02/12/2020<br>3:05 PM  | 2020 GreenSpotLight Awards Celebration        |  | 76    | 0    | 0   | Boost Event |
| 02/10/2020<br>4:53 PM  |   |  | 75    | 0    | 0   | Boost Post  |
| 02/10/2020<br>10:53 AM | Our Call Center phone lines are currently     |  | 130   | 4    | 1   | Boost Post  |
| 02/07/2020<br>3:16 PM  | Conservation Poster Contest - Franklin Soil   |  | 100   | 7    | 1   | Boost Post  |
| 02/07/2020<br>3:13 PM  | Don't let it come to that. Call us to work    |  | 119   | 6    | 1   | Boost Post  |
| 02/06/2020<br>10:20 AM | Maximum income numbers for our low            |  | 233   | 15   | 3   | Boost Post  |
| 02/03/2020<br>10:37 AM |   |  | 67    | 0    | 0   | Boost Post  |
| 01/23/2020<br>5:35 PM  | Rain is in the forecast; if you are a City of |  | 640   | 37   | 10  | Boost Post  |
| 01/13/2020<br>4:25 PM  | If you are a Columbus power customer, are     |  | 253   | 4    | 3   | Boost Post  |
| 01/13/2020<br>10:05 AM | Yikes.  |  | 151   | 8    | 0   | Boost Post  |
| 01/13/2020<br>9:45 AM  | Native plants require less water and          |  | 173   | 4    | 6   | Boost Post  |
| 01/10/2020<br>10:52 AM | We have various job vacancies to be filled    |  | 12.5K | 1.8K | 343 | Boost Post  |
| 01/08/2020<br>12:15 PM | If one of your new year's resolutions was     |  | 156   | 1    | 0   | Boost Post  |
| 01/07/2020<br>9:30 AM  | Sharing this Ohio EPA public comment          |  |       |      |     |             |

## New GreenSpot Commitments for 2020

| Industry               | BusinessName                            |
|------------------------|---|
| office_and_education   | CESO Inc                                |
| restaurant_and_grocery | HSU & Co. Natural Health Store          |
| industrial             | Hill International                      |
| office_and_education   | Schooley Caldwell Associates            |
| office_and_education   | Systems 28 Inc                          |
| industrial             | Environmental Design Group              |
| restaurant_and_grocery | Nurtur Brewery District                 |
| office_and_education   | Scioto Energy                           |
| industrial             | Kimley-Horn                             |
| office_and_education   | New Reach Community Consulting          |
| office_and_education   | Mother's Helper child care and services |
| office_and_education   | CTL Engineering, Inc.                   |
| industrial             | Elford, Inc.                            |
| office_and_education   | First Community Church                  |
| industrial             | Austin Guitar Repair                    |
| office_and_education   | Franklinton Farms                       |
| office_and_education   | Franklin Medical Center                 |
| office_and_education   | Toole Design Group                      |
| office_and_education   | TranSystems Corporation of Ohio         |
| office_and_education   | Font Text                               |
| industrial             | Environmental Remediation Contractor    |
| office_and_education   | Russell Tree Experts                    |
| office_and_education   | The King Arts Complex                   |
| office_and_education   | Mount Carmel Health System              |
| office_and_education   | King Business Interiors                 |
| office_and_education   | JewishColumbus                          |
| restaurant_and_grocery | Wolf's Ridge Brewing                    |
| office_and_education   | Studio Pence                            |
| industrial             | Ashland LLC                             |
| industrial             | Encor Solar                             |
| office_and_education   | Haven Collective                        |

**City of Columbus  
2020  
City Council Meetings**

|           |                              |
|-----------|------------------------------|
| 2/03/20   | Reg.Mtg.#6&7,5:00&6:30p.m.   |
| 2/10/20   | Reg.Mtg.#8&9,5:00&6:30p.m.   |
| 2/24/20   | Reg.Mtg.#10&11,5:00&6:30p.m. |
| 3/02/20   | Reg.Mtg.#12&13,5:00&6:30p.m. |
| 3/16/20   | Reg.Mtg.#14&15,5:00&6:30p.m. |
| 3/23/20   | Reg.Mtg.#16&17,5:00&6:30p.m. |
| 3/30/20   | Reg.Mtg.#18&19,5:00&6:30p.m. |
| 4/06/20   | Reg.Mtg.#20&21,5:00&6:30p.m. |
| 4/20/20   | Reg.Mtg.#22&23,5:00&6:30p.m. |
| 4/27/20   | Reg.Mtg.#24&25,5:00&6:30p.m. |
| 5/04/20   | Reg.Mtg.#26&27,5:00&6:30p.m. |
| 5/11/20   | Reg.Mtg.#28&29,5:00&6:30p.m. |
| 5/18/20   | Reg.Mtg.#30&31,5:00&6:30p.m. |
| 6/01/20   | Reg.Mtg.#22,5:00p.m.         |
| 6/15/20   | Reg.Mtg.#23&24,5:00&6:30p.m. |
| 6/29/20   | Reg.Mtg.#25&26,5:00&6:30p.m. |
| 7/06/20   | Reg.Mtg.#27&28,5:00&6:30p.m. |
| 7/20/20   | Reg.Mtg.#29&30,5:00&6:30p.m. |
| 7/27/20   | Reg.Mtg.#31&32,5:00&6:30p.m. |
| 9/14/20   | Reg.Mtg.#33&34,5:00&6:30p.m. |
| 9/21/20   | Reg.Mtg.#35&36,5:00&6:30p.m. |
| 10/05/20  | Reg.Mtg.#37&38,5:00&6:30p.m. |
| 10/12/20  | Reg.Mtg.#39&40,5:00&6:30p.m. |
| 10/19/20  | Reg.Mtg.#41&42,5:00&6:30p.m. |
| 10/26/20  | Reg.Mtg.#43&44,5:00&6:30p.m. |
| 11/09/20  | Reg.Mtg.#45&46,5:00&6:30p.m. |
| 11/16/20  | Reg.Mtg.#47&48,5:00&6:30p.m. |
| 11/23/20  | Reg.Mtg.#49&50,5:00&6:30p.m. |
| 12/07/20R | eg.Mtg.#51&52,5:00&6:30p.m.  |
| 12/14/20  | Reg.Mtg.#53&54,5:00&6:30p.m. |

Addresses of Home Sewage Treatment Systems  
Known to Discharge to  
The City of Columbus MS4  
December 31, 2020

| Address              | Size (inches) | Configuration | Material |
|----------------------|---------------|---------------|----------|
| 477 E Kanawha Ave    | 6             | Channel       | Plastic  |
| 885 Meeklynn Dr      | 8             | Circular      | Plastic  |
| 949 Meeklynn Dr      | 12            | Circular      | Concrete |
| 1001 Meeklynn Dr     | 18            | Circular      | Concrete |
| 1050 E Cooke Rd      | 4             | Circular      | Plastic  |
| 1271 Southport Cir   | 12            | Circular      | Concrete |
| 1290 Northport Cir   | 18            | Circular      | Clay     |
| 1300 Northport Dr    | 12            | Circular      | Clay     |
| 1301 Southport Dr    | 12            | Circular      | Metal    |
| 1309 Northport Cir   | 4             | Channel       | Plastic  |
| 1315 Southport Dr    | 12            | Circular      | Plastic  |
| 1328 Northport Dr    | 12            | Circular      | Clay     |
| 1335 Southport Dr    | 12            | Circular      | Concrete |
| 1342 Northport Dr    | 4             | Channel       | Plastic  |
| 1355 Southport Dr    | 12            | Circular      | Concrete |
| 1356 Northport Dr    | 12            | Circular      | Clay     |
| 1359 Northport Dr    | 4             | Channel       | Plastic  |
| 1371 Northport Dr    | 4             | Channel       | Plastic  |
| 1379 Southport Dr    | 12            | Circular      | Concrete |
| 1385 Northport Dr    | 4             | Channel       | Plastic  |
| 1388 Portage Dr      | 8             | Circular      | Clay     |
| 1390 Southport Dr    | 10            | Circular      | Clay     |
| 1400 Northport Dr    | 12            | Circular      | Clay     |
| 1460 West Case Rd    | 4             | Channel       | Plastic  |
| 1582 Studer Ave      | 12            | Circular      | Concrete |
| 1593 West Case Rd    | 4             | Circular      | Plastic  |
| 1696 Georgesville Pl | 12            | Circular      | Concrete |
| 1700 West Case Rd    | Unknown       | Unknown       | Unknown  |
| 1702 Georgesville Pl | 12            | Circular      | Concrete |
| 1710 Barnett Rd      | 12            | Circular      | Clay     |
| 1712 Barnett Rd      | 24            | Circular      | Concrete |
| 1715 E 24Th Ave      | 12            | Circular      | Concrete |
| 1800 Snouffer Rd     | 4             | Circular      | Plastic  |
| 1815 Dyer Rd         | 4             | Channel       | Plastic  |
| 1820 Snouffer Rd     | 4             | Circular      | Plastic  |
| 1828 Snouffer Rd     | 15            | Circular      | Clay     |
| 1855 Snouffer Rd     | 15            | Circular      | Plastic  |
| 1865 Snouffer Rd     | 10            | Circular      | Clay     |
| 1867 Snouffer Rd     | 15            | Circular      | Plastic  |
| 1890 Snouffer Rd     | 4             | Channel       | Plastic  |
| 1891 Snouffer Rd     | 12            | Circular      | Plastic  |

Addresses of Home Sewage Treatment Systems  
Known to Discharge to  
The City of Columbus MS4  
December 31, 2020

| Address               | Size (inches) | Configuration | Material |
|-----------------------|---------------|---------------|----------|
| 1907 Snouffer Rd      | 12            | Circular      | Plastic  |
| 1992 Brown Rd         | 10            | Circular      | Plastic  |
| 2200 Sunbury Rd       | 27            | Circular      | Clay     |
| 2209 Watkins Rd       | 45            | Circular      | Plastic  |
| 2221 Watkins Rd       | 8             | Circular      | Clay     |
| 2300 Sunbury Rd       | 18            | Circular      | Concrete |
| 2322 Sunbury Rd       | 12            | Circular      | Concrete |
| 2374 Sunbury Rd       | 12            | Circular      | Concrete |
| 2385 Stelzer Rd       | 21            | Circular      | Concrete |
| 2445 Brooklyn Rd      | 15            | Circular      | Concrete |
| 2456 Harrisburg Pike  | 15            | Circular      | Concrete |
| 2626 Fisher Rd        | 24            | Circular      | Concrete |
| 2665 Spangler Rd      | 24            | Circular      | Concrete |
| 2709 Agler Rd         | 42            | Circular      | Concrete |
| 2900 Innis Rd         | 18            | Circular      | Concrete |
| 2901 Brookdown Dr     | 12            | Circular      | Concrete |
| 3078 Lewis Rd         | 30            | Circular      | Concrete |
| 3085 Brookdown Dr     | 4             | Channel       | Plastic  |
| 3171 E Deshler Ave    | -9            | Circular      | Concrete |
| 3209 Glenoak Dr       | 10            | Circular      | Concrete |
| 3458 Bexvie Ave       | 30            | Circular      | Concrete |
| 3555 El Paso Dr       | 8             | Circular      | Concrete |
| 3600 Ferrell Pl       | 12            | Circular      | Concrete |
| 3712 Behm Rd          | 8             | Circular      | Concrete |
| 3750 Behm Rd          | 8             | Circular      | Clay     |
| 3956 Sunbury Rd       | 12            | Circular      | Concrete |
| 3992 Sunbury Rd       | 10            | Circular      | Concrete |
| 4815 Trabue Rd        | 4             | Channel       | Plastic  |
| 4820 Kenny Rd         | 60            | Circular      | Concrete |
| 4927 Postlewaite Rd   | 12            | Circular      | Concrete |
| 5180 Broadview Rd     | 4             | Channel       | Plastic  |
| 5215 Cherry Bottom Rd | 4             | Channel       | Plastic  |
| 5236 Cherry Bottom Rd | Unknown       | Unknown       | Unknown  |
| 5240 Cherry Bottom Rd | Unknown       | Unknown       | Unknown  |
| 5250 Cherry Bottom Rd | Unknown       | Unknown       | Unknown  |
| 5262 Cherry Bottom Rd | Unknown       | Unknown       | Unknown  |
| 6015 Cooper Rd        | 4             | Channel       | Plastic  |
| 6033 Refugee Rd       | 6             | Circular      | Plastic  |
| 6350 Harlem Rd        | Unknown       | Unknown       | Unknown  |
| 6847 Smoky Row Rd     | 24            | Circular      | Concrete |

## City of Columbus 2020 Employee Training Summary

| <b>Date(s)</b> | <b>Sponsor</b>                         | <b>Name of Class / Description</b>   | <b>No. of City Attendees</b> | <b>Program Element</b> |
|----------------|--|--|------------------------------|------------------------|
| 02/20/20       | Hydro International                    | Stormwater Maintenance Myths   | 2                            | PC                     |
| 02/26/20       | USEPA                                  | Research to Support and Implement Recreational Water Quality Criteria            | 1                            | PD, WWM                |
| 03/04/20       | One Water                              | Government Affairs Workshop  | 1                            | CP                     |
| 05/20/20       | Center for Watershed Protection        | Small Scale BMPs   | 4                            | CP, PC                 |
| 07/16/20       | SaveLocalWaters.org                    | Developing an Effective & Approvable Storm Water Pollution Prevention Plan       | 1                            | CP                     |
| 10/13/20       | Environmental Professionals Network    | Conversations on the Politics and Science of Climate Change in the Buckeye State | 1                            | PD, WWM                |
| 11/05/20       | Franklin SWCD                          | Construction and Post-Construction MCM Workshop                                  | 3                            | CP, PC                 |
| 12/08/20       | Ohio Floodplain Management Association | Ohio Statewide Floodplain Management Conference                                  | 1                            | PD                     |
| 12/15/20       | Ohio Floodplain Management Association | Ohio Statewide Floodplain Management Conference                                  | 1                            | PD                     |

PD - Program Development  
PE - Public Education and Outreach  
GH - Good Housekeeping

PI - Public Involvement  
CP - Construction Program  
IF - Industrial Facilities

IDDE - Illicit Discharge Detection/Elimination  
PC - Post Construction  
WWM - Wet Weather Monitoring

## City of Columbus 2020 Employee Training Summary

| Date(s) | Sponsor  | Name of Class / Description   | No. of City Attendees | Program Element |
|---------|--|---|-----------------------|-----------------|
| various | Department of Public Utilities,<br>Divisions of Water and Power      | SWPPP training at 3 water treatment plants, 910 Dublin Road facility, 3 watershed management facilities, and 3500/3568 Indianola Avenue facility. | 172                   | GH              |
| various | Department of Public Utilities,<br>Division of Sewerage and Drainage | SWPPP training at 2 wastewater treatment plants, the Compost facility, Sewer Maintenance Operations Center, and the Grit Pad facility.            | 236                   | GH              |
| various | Department of Public Service,<br>Division of Refuse                  | SWPPP training at 3 city-operated refuse collection facilities.   | 90                    | GH              |
| various | Department of Public Service,<br>Traffic Management Division         | SWPPP training for employees.   | 0                     | GH              |
| various | Department of Public Service,<br>Infrastructure Management Division  | SWPPP and snow removal training for 6 transportation maintenance facilities.  | 90                    | GH              |
| various | Columbus Public Health   | SWPPP training for employees.   | 3                     | GH              |
| various | Department of Recreation &<br>Parks                                  | SWPPP training for 14 maintenance facilities and 5 city-owned golf courses.   | 45                    | GH              |
| various | Department of Finance &<br>Management                                | SWPPP training for fleet and facilities management.   | 35                    | GH              |
| various | Department of Public Safety,<br>Division of Fire                     | SWPPP training at 33 fire stations.   | 1000                  | GH              |
| various | Department of Public Safety,<br>Division of Police                   | SWPPP training at 5 support facilities.   | 15                    | GH              |



2020 Dry Weather Screenings

| NODEID    | DATE      | COLOR | ODOR | TURBIDITY | OIL SHEEN | FLOW | pH      | TEMP | CU   | PHENOLS | Cl2  | NH3  | DET  |
|-----------|-----------|-------|------|-----------|-----------|------|---------|------|------|---------|------|------|------|
| UNITS     |           |       |      |           |           | cfs  |         | C°   | mg/L | mg/L    | mg/L | mg/L | mg/L |
| LIMITS    |           |       |      |           |           |      | 6.5-9.0 |      | 0.1  | 1.5     | 1.0  | 2.5  | 1.0  |
| 0009T0904 | 1/16/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0009T0280 | 1/16/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0068T0408 | 1/23/2020 | Clear | None | Clear     | No        | N/M  | 7.4     | 5    | 0    | 0       | 0    | 0.4  | 0.25 |
| 0117T0062 | 1/28/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0117T0284 | 1/28/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0857T0938 | 1/28/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0117T0129 | 1/28/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0857T0627 | 1/28/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0857T0184 | 1/28/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 1107t1585 | 1/28/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 1107t1585 | 1/28/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 1107t1585 | 1/28/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 1107t1585 | 1/28/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0117T0848 | 1/28/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0857T0632 | 1/28/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0161T0461 | 1/28/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| SC292     | 1/28/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| SC293     | 1/28/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 1107T1585 | 1/28/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 1107T1241 | 1/28/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0161T0672 | 1/28/2020 | Clear | None | Clear     | No        | 0.01 | 7.5     | 5    | 0    | 0       | 0.3  | 0    | 0.25 |
| 0979T0748 | 1/28/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0979T0695 | 1/28/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0043T1283 | 1/28/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0044T0878 | 1/28/2020 | Clear | None | Clear     | No        | 0.05 | 7.6     | 6    | 0    | 0       | 0    | 0.2  | 0.25 |
| 0372T0614 | 1/29/2020 | Clear | None | Clear     | No        | 0.07 | 7.6     | 6    | 0    | 0       | 0    | 0.3  | 0.25 |
| 0541T0104 | 1/29/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0636T0684 | 1/29/2020 | Clear | None | Clear     | No        | N/M  | 7.3     | 5    | 0    | 0       | 0    | 0.4  | 0.5  |
| 0217T0424 | 1/29/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0217T0346 | 1/29/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0216T1087 | 1/29/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0280T0665 | 1/29/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0216T0878 | 1/29/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0216T0866 | 1/29/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0216T0832 | 1/29/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0216T0205 | 1/29/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0118T0949 | 1/29/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |

2020 Dry Weather Screenings

| NODEID       | DATE      | COLOR | ODOR | TURBIDITY | OIL SHEEN | FLOW | pH      | TEMP | CU   | PHENOLS | Cl2  | NH3  | DET  |
|--------------|-----------|-------|------|-----------|-----------|------|---------|------|------|---------|------|------|------|
| UNITS        |           |       |      |           |           | cfs  |         | C°   | mg/L | mg/L    | mg/L | mg/L | mg/L |
| LIMITS       |           |       |      |           |           |      | 6.5-9.0 |      | 0.1  | 1.5     | 1.0  | 2.5  | 1.0  |
| 0118T0800    | 1/29/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0352T0200    | 1/30/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0352T0197    | 1/30/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| BD42         | 1/30/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0353T0001    | 1/30/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0280T0368    | 1/30/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0280T0158    | 1/30/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0280T0380    | 1/30/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0280T0381    | 1/30/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0280T0323    | 1/30/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0037t0357    | 5/4/2020  |       |      |           |           |      |         |      |      |         |      |      |      |
| SC365        | 6/26/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| SC361        | 6/26/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| SC360        | 6/26/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| SC359        | 6/26/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| SC357        | 6/26/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| SC358        | 6/26/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0589T0064    | 6/26/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| SC379        | 6/26/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0151T0088    | 6/26/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0106T0005    | 6/26/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0106T0001    | 6/26/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| SC376        | 6/26/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| SC366        | 6/26/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 1107t1585    | 7/7/2020  |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 1107t1585    | 7/7/2020  |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 1107t1585    | 7/7/2020  |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0108t637     | 7/7/2020  |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0069t0429    | 7/7/2020  |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0069t0159    | 7/7/2020  |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0069t0429    | 7/7/2020  |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0069t0429    | 7/7/2020  |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0853T0388(S) | 7/15/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0853T0388(N) | 7/15/2020 | Clear | None | Clear     | No        | 0.12 | 8.6     | 23   | 0    | 0       | 0    | 0.4  | 0.25 |
| 0747T0120    | 7/15/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0375T0754    | 7/15/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0118T0326    | 7/15/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |

2020 Dry Weather Screenings

| NODEID    | DATE      | COLOR | ODOR | TURBIDITY | OIL SHEEN | FLOW | pH      | TEMP | CU   | PHENOLS | Cl2  | NH3  | DET  |
|-----------|-----------|-------|------|-----------|-----------|------|---------|------|------|---------|------|------|------|
| UNITS     |           |       |      |           |           | cfs  |         | C°   | mg/L | mg/L    | mg/L | mg/L | mg/L |
| LIMITS    |           |       |      |           |           |      | 6.5-9.0 |      | 0.1  | 1.5     | 1.0  | 2.5  | 1.0  |
| 0118T0525 | 7/15/2020 | Clear | None | Clear     | No        | N/M  | 7.4     | 20   | 0    | 0       | 0.1  | 0.2  | 0.5  |
| 0118T0534 | 7/15/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0365T0212 | 7/15/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0445T0060 | 7/15/2020 | Clear | None | Clear     | No        | N/ M | 7.3     | 18   | 0    | 0       | 0    | 0.2  | 0.25 |
| SC299     | 7/15/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0855T0005 | 7/15/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0641T0907 | 7/15/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0009T1273 | 7/17/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0085T0827 | 7/17/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0027T0261 | 7/17/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0009T0614 | 7/17/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0009T0117 | 7/17/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0009T0889 | 7/17/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0024T0382 | 7/17/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0358T0023 | 7/20/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| BD32      | 7/20/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0568T0736 | 7/20/2020 |       |      |           |           | N/F  |         |      |      |         |      |      |      |
| SC309     | 7/20/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| SC375     | 7/20/2020 |       |      |           |           | N/F  |         |      |      |         |      |      |      |
| 0009T0339 | 7/20/2020 |       |      |           |           | n/F  |         |      |      |         |      |      |      |
| 0009T0336 | 7/20/2020 |       |      |           |           | N/F  |         |      |      |         |      |      |      |
| SC356     | 7/20/2020 |       |      |           |           | C/f  |         |      |      |         |      |      |      |
| 0046T0995 | 7/20/2020 |       |      |           |           | n/F  |         |      |      |         |      |      |      |
| SC163     | 7/27/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| SC162     | 7/27/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0107T0373 | 7/27/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| SC364     | 7/27/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0107T0408 | 7/27/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0107T0011 | 7/27/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| SC380     | 7/27/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0069T0159 | 7/27/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0072T0152 | 7/27/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0069t0429 | 7/27/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0214T0239 | 7/27/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0161T0479 | 7/27/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0112T0191 | 7/30/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0112T0181 | 7/30/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |

2020 Dry Weather Screenings

| NODEID    | DATE      | COLOR | ODOR | TURBIDITY | OIL SHEEN | FLOW | pH      | TEMP | CU   | PHENOLS | Cl2  | NH3  | DET  |
|-----------|-----------|-------|------|-----------|-----------|------|---------|------|------|---------|------|------|------|
| UNITS     |           |       |      |           |           | cfs  |         | C°   | mg/L | mg/L    | mg/L | mg/L | mg/L |
| LIMITS    |           |       |      |           |           |      | 6.5-9.0 |      | 0.1  | 1.5     | 1.0  | 2.5  | 1.0  |
| 0112T0306 | 7/30/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0112T0108 | 7/30/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0112T0531 | 7/30/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0073T0570 | 7/30/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0112T0564 | 7/30/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0073T0539 | 7/30/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0073T0290 | 7/30/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0073T0133 | 7/30/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0073T0522 | 7/30/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0043T1057 | 7/30/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0043T1075 | 7/30/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0167T0280 | 8/11/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 1107t1585 | 8/11/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| SC308     | 8/11/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| SC389     | 8/11/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0219T0343 | 8/11/2020 | Clear | None | Clear     | No        | N/M  | 7.8     | 23   | 0    | 0       | 0    | 0.3  | 0.25 |
| 0074T0638 | 8/11/2020 |       |      |           |           |      |         |      |      |         |      |      |      |
| 0074T0221 | 8/11/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0074T0558 | 8/11/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0074T0603 | 8/11/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0114T0468 | 8/11/2020 | Clear | None | Clear     | No        | 0.01 | 7.6     | 22   | 0    | 0       | 0    | 0.2  | 0.25 |
| SC377     | 8/11/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0165T0133 | 8/11/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0216T1070 | 8/11/2020 | Clear | None | Clear     | No        | 0.02 | 7.6     | 21   | 0    | 0       | 0    | 0.2  | 0.25 |
| 0040T0055 | 8/12/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0106T0637 | 8/12/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0006T0524 | 8/12/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0006T0099 | 8/12/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0006T0087 | 8/12/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0006T0090 | 8/12/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0001T0018 | 8/12/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| SC296     | 8/12/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0001T0289 | 8/12/2020 |       |      |           |           |      |         |      |      |         |      |      |      |
| 0002T2848 | 8/12/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0002T2844 | 8/12/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0078T0163 | 8/12/2020 | Clear | None | Clear     | No        | 0.01 | 7.5     | 23   | 0    | 0       | 0    | 0.3  | 0.25 |
| 0117T0585 | 8/13/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |

2020 Dry Weather Screenings

| NODEID       | DATE      | COLOR | ODOR | TURBIDITY | OIL SHEEN | FLOW | pH      | TEMP | CU   | PHENOLS | Cl2  | NH3  | DET  |
|--------------|-----------|-------|------|-----------|-----------|------|---------|------|------|---------|------|------|------|
| UNITS        |           |       |      |           |           | cfs  |         | C°   | mg/L | mg/L    | mg/L | mg/L | mg/L |
| LIMITS       |           |       |      |           |           |      | 6.5-9.0 |      | 0.1  | 1.5     | 1.0  | 2.5  | 1.0  |
| 0180T0246    | 8/13/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| AC162        | 8/13/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0179T0326    | 8/13/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| AC168        | 8/13/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0303T1805    | 8/13/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0375T0753    | 8/13/2020 | Clear | None | Clear     | No        | 0.31 | 7.4     | 22   | 0    | 0       | 0.2  | 0    | 0.25 |
| 0855T0257    | 8/13/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0368T0628    | 8/13/2020 | Clear | None | Clear     | No        | 0.05 | 7.6     | 22   | 0    | 0       | 0    | 0.3  | 0.25 |
| 0223T0240    | 8/13/2020 | Clear | None | Clear     | No        | N/M  | 7.4     | 22   | 0    | 0       | 0    | 0.3  | 0.25 |
| 0079T0375    | 8/13/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0079T0043    | 8/13/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0079T0124    | 8/13/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0042T0096    | 8/13/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0037T0104    | 8/14/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| OL189        | 8/14/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0161T0349    | 8/26/2020 |       |      |           |           |      |         |      |      |         |      |      |      |
| 0151T0045    | 8/26/2020 |       |      |           |           |      |         |      |      |         |      |      |      |
| SC179        | 8/26/2020 |       |      |           |           |      |         |      |      |         |      |      |      |
| SC178        | 8/26/2020 |       |      |           |           |      |         |      |      |         |      |      |      |
| SC177        | 8/26/2020 |       |      |           |           |      |         |      |      |         |      |      |      |
| 0120T0128(S) | 8/26/2020 |       |      |           |           |      |         |      |      |         |      |      |      |
| SC244        | 8/26/2020 |       |      |           |           |      |         |      |      |         |      |      |      |
| SC242        | 8/26/2020 |       |      |           |           |      |         |      |      |         |      |      |      |
| SC241        | 8/26/2020 |       |      |           |           |      |         |      |      |         |      |      |      |
| 0005T1061    | 8/26/2020 |       |      |           |           |      |         |      |      |         |      |      |      |
| 0005T1055    | 8/26/2020 |       |      |           |           |      |         |      |      |         |      |      |      |
| 0027T0275    | 8/26/2020 |       |      |           |           |      |         |      |      |         |      |      |      |
| BW9/20       | 8/26/2020 |       |      |           |           |      |         |      |      |         |      |      |      |
| 0219T0190    | 8/26/2020 |       |      |           |           |      |         |      |      |         |      |      |      |
| 0107T0195    | 8/26/2020 |       |      |           |           |      |         |      |      |         |      |      |      |
| 0058T0328    | 8/26/2020 |       |      |           |           |      |         |      |      |         |      |      |      |
| 0107T0151    | 8/26/2020 |       |      |           |           |      |         |      |      |         |      |      |      |
| 0107T0170    | 8/26/2020 |       |      |           |           |      |         |      |      |         |      |      |      |
| 0052T0440    | 8/26/2020 |       |      |           |           |      |         |      |      |         |      |      |      |
| 0052T0437    | 8/26/2020 |       |      |           |           |      |         |      |      |         |      |      |      |
| 0231T0691    | 8/26/2020 |       |      |           |           |      |         |      |      |         |      |      |      |
| 0369T0328    | 8/26/2020 |       |      |           |           |      |         |      |      |         |      |      |      |

2020 Dry Weather Screenings

| NODEID        | DATE      | COLOR | ODOR | TURBIDITY | OIL SHEEN | FLOW | pH             | TEMP | CU         | PHENOLS    | Cl2        | NH3        | DET        |
|---------------|-----------|-------|------|-----------|-----------|------|----------------|------|------------|------------|------------|------------|------------|
| UNITS         |           |       |      |           |           | cfs  |                | C°   | mg/L       | mg/L       | mg/L       | mg/L       | mg/L       |
| <b>LIMITS</b> |           |       |      |           |           |      | <b>6.5-9.0</b> |      | <b>0.1</b> | <b>1.5</b> | <b>1.0</b> | <b>2.5</b> | <b>1.0</b> |
| 0001T0663     | 8/26/2020 |       |      |           |           |      |                |      |            |            |            |            |            |
| 0116T0238     | 8/26/2020 |       |      |           |           |      |                |      |            |            |            |            |            |
| 0279T1322     | 8/26/2020 |       |      |           |           |      |                |      |            |            |            |            |            |
| 0219T0141     | 8/26/2020 |       |      |           |           |      |                |      |            |            |            |            |            |
| 0106T0605     | 8/26/2020 |       |      |           |           |      |                |      |            |            |            |            |            |
| SC288         | 8/26/2020 |       |      |           |           |      |                |      |            |            |            |            |            |
| 0067T0495     | 8/26/2020 |       |      |           |           |      |                |      |            |            |            |            |            |
| 0067T0616     | 8/26/2020 |       |      |           |           |      |                |      |            |            |            |            |            |
| 0103T0589     | 8/26/2020 |       |      |           |           |      |                |      |            |            |            |            |            |
| 0002T2852     | 8/26/2020 |       |      |           |           |      |                |      |            |            |            |            |            |
| 0001T3164     | 8/26/2020 |       |      |           |           |      |                |      |            |            |            |            |            |
| 0067T0850     | 8/26/2020 |       |      |           |           |      |                |      |            |            |            |            |            |
| 0642T0718     | 8/26/2020 |       |      |           |           |      |                |      |            |            |            |            |            |
| 0019T0471     | 8/26/2020 |       |      |           |           |      |                |      |            |            |            |            |            |
| 0019T0007     | 8/26/2020 |       |      |           |           |      |                |      |            |            |            |            |            |
| SC182         | 8/26/2020 |       |      |           |           |      |                |      |            |            |            |            |            |
| 0642T0606     | 8/26/2020 |       |      |           |           |      |                |      |            |            |            |            |            |
| 0009T0338     | 8/26/2020 |       |      |           |           |      |                |      |            |            |            |            |            |
| 0052T0560     | 8/26/2020 |       |      |           |           |      |                |      |            |            |            |            |            |
| SC346         | 8/26/2020 |       |      |           |           |      |                |      |            |            |            |            |            |
| SC344         | 8/26/2020 |       |      |           |           |      |                |      |            |            |            |            |            |
| SC313         | 8/26/2020 |       |      |           |           |      |                |      |            |            |            |            |            |
| SC313         | 8/26/2020 |       |      |           |           |      |                |      |            |            |            |            |            |
| SC254         | 8/26/2020 |       |      |           |           |      |                |      |            |            |            |            |            |
| SC253         | 8/26/2020 |       |      |           |           |      |                |      |            |            |            |            |            |
| SC252         | 8/26/2020 |       |      |           |           |      |                |      |            |            |            |            |            |
| AC116         | 8/26/2020 |       |      |           |           |      |                |      |            |            |            |            |            |
| 0043T1273     | 8/26/2020 |       |      |           |           |      |                |      |            |            |            |            |            |
| 0002T3004     | 8/26/2020 |       |      |           |           |      |                |      |            |            |            |            |            |
| 0568T0795     | 9/16/2020 |       |      |           |           | 0    |                |      |            |            |            |            |            |
| 0568T0805     | 9/16/2020 |       |      |           |           | 0    |                |      |            |            |            |            |            |
| 0569T0061     | 9/16/2020 |       |      |           |           | 0    |                |      |            |            |            |            |            |
| 0569T0257     | 9/16/2020 |       |      |           |           | 0    |                |      |            |            |            |            |            |
| 0569T0370     | 9/16/2020 |       |      |           |           | 0    |                |      |            |            |            |            |            |
| 0569T0753     | 9/16/2020 |       |      |           |           | 0    |                |      |            |            |            |            |            |
| 0457T0639     | 9/21/2020 |       |      |           |           | 0    |                |      |            |            |            |            |            |
| 0457T0643     | 9/21/2020 |       |      |           |           | 0    |                |      |            |            |            |            |            |

2020 Dry Weather Screenings

| NODEID    | DATE      | COLOR | ODOR | TURBIDITY | OIL SHEEN | FLOW | pH      | TEMP | CU   | PHENOLS | Cl2  | NH3  | DET  |
|-----------|-----------|-------|------|-----------|-----------|------|---------|------|------|---------|------|------|------|
| UNITS     |           |       |      |           |           | cfs  |         | C°   | mg/L | mg/L    | mg/L | mg/L | mg/L |
| LIMITS    |           |       |      |           |           |      | 6.5-9.0 |      | 0.1  | 1.5     | 1.0  | 2.5  | 1.0  |
| 0457T0337 | 9/22/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0457T0432 | 9/22/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0457T0570 | 9/22/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0457T0719 | 9/22/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0457T0785 | 9/22/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0459T0198 | 9/22/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0459T0288 | 9/23/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0460T0109 | 9/23/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0460T0487 | 9/23/2020 |       |      |           |           | 0.01 | 7.3     |      | 0    | 0       | 0    | 0.1  | 0.25 |
| 0472T0466 | 9/24/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0457T0043 | 9/24/2020 | Clear | None | Clear     | None      | 0    | 8.1     | 6    | 0    | 0       | 0    | 0.1  | 0    |
| 0471T0162 | 9/24/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0472T0360 | 9/24/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0472T0459 | 9/24/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0472T0608 | 9/24/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0472T0611 | 9/24/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0472T0614 | 9/24/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| BW340     | 10/2/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| BW339     | 10/2/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| BW341     | 10/2/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| BW264     | 10/2/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| BW342     | 10/2/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0394T0131 | 10/2/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0394T0110 | 10/2/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0394T0378 | 10/2/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0396T0056 | 10/2/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0396T0259 | 10/2/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0396T0248 | 10/2/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| WC33      | 10/2/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| WC34      | 10/2/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0395T0296 | 10/2/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0479T0830 | 10/2/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0393T0084 | 10/2/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| BW255     | 10/2/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| BW257     | 10/2/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| BW256     | 10/2/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| BW327     | 10/2/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |

2020 Dry Weather Screenings

| NODEID    | DATE       | COLOR | ODOR | TURBIDITY | OIL SHEEN | FLOW | pH      | TEMP | CU   | PHENOLS | Cl2  | NH3  | DET  |
|-----------|------------|-------|------|-----------|-----------|------|---------|------|------|---------|------|------|------|
| UNITS     |            |       |      |           |           | cfs  |         | C°   | mg/L | mg/L    | mg/L | mg/L | mg/L |
| LIMITS    |            |       |      |           |           |      | 6.5-9.0 |      | 0.1  | 1.5     | 1.0  | 2.5  | 1.0  |
| BW316     | 10/2/2020  |       |      |           |           | 0    |         |      |      |         |      |      |      |
| BW294     | 10/2/2020  |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0392T0651 | 10/2/2020  |       |      |           |           | 0    |         |      |      |         |      |      |      |
| BW318     | 10/2/2020  |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0009T0952 | 10/7/2020  |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0010T0068 | 10/7/2020  |       |      |           |           | 0    |         |      |      |         |      |      |      |
| OL178     | 10/7/2020  |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0010T0150 | 10/7/2020  |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0010T0705 | 10/7/2020  |       |      |           |           | 0    |         |      |      |         |      |      |      |
| OL179     | 10/7/2020  |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0010T0419 | 10/7/2020  |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0010T0414 | 10/7/2020  |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0010T0403 | 10/7/2020  |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0315T0074 | 10/9/2020  |       |      |           |           | 0    |         |      |      |         |      |      |      |
| BW268     | 10/9/2020  |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0315T0694 | 10/9/2020  |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0315T0193 | 10/9/2020  |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0315T0180 | 10/9/2020  |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0315T0206 | 10/9/2020  |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0315T0215 | 10/9/2020  | Clear | None | Clear     | No        | 0.01 | 7.4     | 18   | 0    | 0       | 0    | 0.2  | 0.25 |
| 0315T0373 | 10/9/2020  |       |      |           |           | 0    |         |      |      |         |      |      |      |
| BW279     | 10/9/2020  |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0315T0550 | 10/9/2020  |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0315T0034 | 10/9/2020  |       |      |           |           | 0    |         |      |      |         |      |      |      |
| BW305     | 10/9/2020  |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0389T0098 | 10/9/2020  |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0472T0170 | 10/9/2020  |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0562T1006 | 10/15/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0562T1098 | 10/15/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0562T1092 | 10/15/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0562T0762 | 10/15/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| BW338     | 10/15/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0562T1085 | 10/15/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0562T1081 | 10/15/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0561T0557 | 10/15/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0561T0246 | 10/15/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0561T0559 | 10/15/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |

2020 Dry Weather Screenings

| NODEID    | DATE      | COLOR | ODOR | TURBIDITY | OIL SHEEN | FLOW | pH      | TEMP | CU   | PHENOLS | Cl2  | NH3  | DET  |
|-----------|-----------|-------|------|-----------|-----------|------|---------|------|------|---------|------|------|------|
| UNITS     |           |       |      |           |           | cfs  |         | C°   | mg/L | mg/L    | mg/L | mg/L | mg/L |
| LIMITS    |           |       |      |           |           |      | 6.5-9.0 |      | 0.1  | 1.5     | 1.0  | 2.5  | 1.0  |
| 0647T0949 | 11/2/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0647T0419 | 11/2/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| BW309     | 11/2/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| BW310     | 11/2/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| BW312     | 11/2/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| BW311     | 11/2/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0550T0411 | 11/2/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0647T0393 | 11/2/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0647T0030 | 11/2/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0647T0001 | 11/2/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0648T0578 | 11/2/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0753T0470 | 11/2/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0754T0027 | 11/2/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| BW345     | 11/2/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| BW315     | 11/2/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| SC382     | 11/3/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| SC314     | 11/3/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| SC315     | 11/3/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| SC316     | 11/3/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| SC317     | 11/3/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0122T0419 | 11/3/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0122T0412 | 11/3/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| SC383     | 11/3/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| SC319     | 11/3/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0122T0423 | 11/3/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| SC318     | 11/3/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0122T0444 | 11/3/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0122T0441 | 11/3/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0171T0299 | 11/3/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| SC320     | 11/3/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| SC353     | 11/3/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| SC352     | 11/3/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| BD13      | 11/4/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| BD14      | 11/4/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| BD15      | 11/4/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0275T0027 | 11/4/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0275T001A | 11/4/2020 | Clear | None | Clear     | No        | 0.01 | 7.8     | 9    | 0    | 0       | 0    | 0.2  | 0.25 |

2020 Dry Weather Screenings

| NODEID    | DATE      | COLOR | ODOR | TURBIDITY | OIL SHEEN | FLOW | pH      | TEMP | CU   | PHENOLS | Cl2  | NH3  | DET  |
|-----------|-----------|-------|------|-----------|-----------|------|---------|------|------|---------|------|------|------|
| UNITS     |           |       |      |           |           | cfs  |         | C°   | mg/L | mg/L    | mg/L | mg/L | mg/L |
| LIMITS    |           |       |      |           |           |      | 6.5-9.0 |      | 0.1  | 1.5     | 1.0  | 2.5  | 1.0  |
| 0275T001B | 11/4/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0275T0009 | 11/4/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0275T0006 | 11/4/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| SC265     | 11/4/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| SC266     | 11/4/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| SC275     | 11/4/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| SC274     | 11/4/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0214T0239 | 11/4/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| SC290     | 11/4/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| SC289     | 11/4/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| SC276     | 11/4/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0159T0901 | 11/4/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0398T0162 | 11/5/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0398T0102 | 11/5/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0399T0818 | 11/5/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0398T0079 | 11/5/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| WC32      | 11/5/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0399T0821 | 11/5/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0035T0844 | 11/6/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0035T0844 | 11/6/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0035T1046 | 11/6/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0035T0609 | 11/6/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0204T0208 | 11/6/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0204T0201 | 11/6/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0204T0035 | 11/6/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0203T0969 | 11/6/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0203T0669 | 11/6/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| SC305     | 11/6/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| SC341     | 11/6/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0263T0065 | 11/6/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0144T0112 | 11/6/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0144T0102 | 11/6/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0144T0061 | 11/6/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| BW355     | 11/6/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| BW356     | 11/6/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0392T0570 | 11/9/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0392T0581 | 11/9/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |

2020 Dry Weather Screenings

| NODEID    | DATE       | COLOR | ODOR | TURBIDITY | OIL SHEEN | FLOW    | pH  | TEMP | CU   | PHENOLS | Cl2  | NH3  | DET  |
|-----------|------------|-------|------|-----------|-----------|---------|-----|------|------|---------|------|------|------|
| UNITS     |            |       |      |           |           | cfs     |     | C°   | mg/L | mg/L    | mg/L | mg/L | mg/L |
| LIMITS    |            |       |      |           |           | 6.5-9.0 | 0.1 | 1.5  | 1.0  | 2.5     | 1.0  |      |      |
| 0392T0334 | 11/9/2020  |       |      |           |           | 0       |     |      |      |         |      |      |      |
| 0392T0325 | 11/9/2020  |       |      |           |           | 0       |     |      |      |         |      |      |      |
| BW276     | 11/9/2020  |       |      |           |           | 0       |     |      |      |         |      |      |      |
| 0392T0547 | 11/9/2020  | Clear | None | Clear     | No        | 0.02    | 7.7 | 13   | 0    | 0       | 0    | 0.4  | 0.5  |
| 0392T0213 | 11/9/2020  |       |      |           |           | 0       |     |      |      |         |      |      |      |
| 0392T0209 | 11/9/2020  |       |      |           |           | 0       |     |      |      |         |      |      |      |
| 0394T0281 | 11/9/2020  |       |      |           |           | 0       |     |      |      |         |      |      |      |
| 0394T0356 | 11/9/2020  |       |      |           |           | 0       |     |      |      |         |      |      |      |
| 0477T0395 | 11/9/2020  |       |      |           |           | 0       |     |      |      |         |      |      |      |
| 0477T0410 | 11/9/2020  |       |      |           |           | 0       |     |      |      |         |      |      |      |
| BW343     | 11/9/2020  |       |      |           |           | 0       |     |      |      |         |      |      |      |
| 0477T0416 | 11/9/2020  |       |      |           |           | 0       |     |      |      |         |      |      |      |
| 0395T0196 | 11/9/2020  |       |      |           |           | 0       |     |      |      |         |      |      |      |
| 0394T0914 | 11/9/2020  |       |      |           |           | 0       |     |      |      |         |      |      |      |
| BW344     | 11/9/2020  |       |      |           |           | 0       |     |      |      |         |      |      |      |
| BW265     | 11/9/2020  |       |      |           |           | 0       |     |      |      |         |      |      |      |
| 0660T0552 | 11/10/2020 |       |      |           |           | 0       |     |      |      |         |      |      |      |
| 0660T0515 | 11/10/2020 |       |      |           |           | 0       |     |      |      |         |      |      |      |
| 0660T0516 | 11/10/2020 |       |      |           |           | 0       |     |      |      |         |      |      |      |
| 0660T0548 | 11/10/2020 |       |      |           |           | 0       |     |      |      |         |      |      |      |
| 0560T0016 | 11/10/2020 | Clear | None | Clear     | No        | 0.02    | 7.8 | 16   | 0    | 0       | 0    | 0.3  | 0.5  |
| 0560T0017 | 11/10/2020 |       |      |           |           | 0       |     |      |      |         |      |      |      |
| 0660T0498 | 11/10/2020 |       |      |           |           | 0       |     |      |      |         |      |      |      |
| BW358     | 11/10/2020 |       |      |           |           | 0       |     |      |      |         |      |      |      |
| BW362     | 11/10/2020 |       |      |           |           | 0       |     |      |      |         |      |      |      |
| BW292     | 11/10/2020 |       |      |           |           | 0       |     |      |      |         |      |      |      |
| BW359     | 11/10/2020 |       |      |           |           | 0       |     |      |      |         |      |      |      |
| BW360     | 11/10/2020 |       |      |           |           | 0       |     |      |      |         |      |      |      |
| 0561T0127 | 11/10/2020 |       |      |           |           | 0       |     |      |      |         |      |      |      |
| 0562T0581 | 11/10/2020 |       |      |           |           | 0       |     |      |      |         |      |      |      |
| 0561T0067 | 11/10/2020 |       |      |           |           | 0       |     |      |      |         |      |      |      |
| 0561T0064 | 11/10/2020 |       |      |           |           | 0       |     |      |      |         |      |      |      |
| 0561T0195 | 11/10/2020 |       |      |           |           | 0       |     |      |      |         |      |      |      |
| BW363     | 11/10/2020 |       |      |           |           | 0       |     |      |      |         |      |      |      |
| 0447T0600 | 11/18/2020 |       |      |           |           | 0       |     |      |      |         |      |      |      |
| 0366T0731 | 11/18/2020 |       |      |           |           | 0       |     |      |      |         |      |      |      |
| 0366T0450 | 11/18/2020 |       |      |           |           | 0       |     |      |      |         |      |      |      |

2020 Dry Weather Screenings

| NODEID    | DATE       | COLOR | ODOR | TURBIDITY | OIL SHEEN | FLOW | pH      | TEMP | CU   | PHENOLS | Cl2  | NH3  | DET  |
|-----------|------------|-------|------|-----------|-----------|------|---------|------|------|---------|------|------|------|
| UNITS     |            |       |      |           |           | cfs  |         | C°   | mg/L | mg/L    | mg/L | mg/L | mg/L |
| LIMITS    |            |       |      |           |           |      | 6.5-9.0 |      | 0.1  | 1.5     | 1.0  | 2.5  | 1.0  |
| 0366T0352 | 11/18/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0366T0374 | 11/18/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0366T0519 | 11/18/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0535T0194 | 11/18/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0535T0199 | 11/18/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0535T0172 | 11/18/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| SC388     | 11/18/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0052T0429 | 11/19/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| OL199     | 11/19/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| OL198     | 11/19/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0085T0176 | 11/19/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| OL121     | 11/19/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| OL123     | 11/19/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| OL122     | 11/19/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0086T0249 | 11/19/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0086T0806 | 11/19/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0196T0209 | 11/19/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0145T0128 | 11/19/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0145T0116 | 11/19/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0145T0312 | 11/19/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| BW332     | 11/19/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| BW357     | 11/19/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| BW335     | 11/19/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| BW334     | 11/19/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| OL147     | 11/20/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0232T0443 | 11/20/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0232T0096 | 11/20/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0232T0094 | 11/20/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0232T0086 | 11/20/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| OL124     | 11/20/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0297T0632 | 11/20/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0297T0164 | 11/20/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0297T0166 | 11/20/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0297T0174 | 11/20/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0297T0680 | 11/20/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| OL192     | 11/20/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| OL193     | 11/20/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |

2020 Dry Weather Screenings

| NODEID    | DATE       | COLOR | ODOR | TURBIDITY | OIL SHEEN | FLOW    | pH  | TEMP | CU   | PHENOLS | Cl2  | NH3  | DET  |
|-----------|------------|-------|------|-----------|-----------|---------|-----|------|------|---------|------|------|------|
| UNITS     |            |       |      |           |           | cfs     |     | C°   | mg/L | mg/L    | mg/L | mg/L | mg/L |
| LIMITS    |            |       |      |           |           | 6.5-9.0 | 0.1 | 1.5  | 1.0  | 2.5     | 1.0  |      |      |
| OL194     | 11/20/2020 |       |      |           |           | 0       |     |      |      |         |      |      |      |
| 0297T0094 | 11/20/2020 |       |      |           |           | 0       |     |      |      |         |      |      |      |
| 0001T0156 | 11/20/2020 |       |      |           |           | 0       |     |      |      |         |      |      |      |
| 0001T0449 | 11/20/2020 |       |      |           |           | 0       |     |      |      |         |      |      |      |
| 0001T1005 | 11/20/2020 |       |      |           |           | 0       |     |      |      |         |      |      |      |
| 0356T0478 | 12/8/2020  |       |      |           |           | 0       |     |      |      |         |      |      |      |
| 0356T0047 | 12/8/2020  |       |      |           |           | 0       |     |      |      |         |      |      |      |
| BD22      | 12/8/2020  |       |      |           |           | 0       |     |      |      |         |      |      |      |
| BD21      | 12/8/2020  | Clear | None | Clear     | No        | 0.01    | 7.4 | 6    | 0    | 0       | 0    | 0.3  | 0.25 |
| BD23      | 12/8/2020  |       |      |           |           | 0       |     |      |      |         |      |      |      |
| BD34      | 12/8/2020  |       |      |           |           | 0       |     |      |      |         |      |      |      |
| 0356T0324 | 12/8/2020  |       |      |           |           | 0       |     |      |      |         |      |      |      |
| 0356T0292 | 12/8/2020  |       |      |           |           | 0       |     |      |      |         |      |      |      |
| BD24      | 12/8/2020  |       |      |           |           | 0       |     |      |      |         |      |      |      |
| BD35      | 12/8/2020  |       |      |           |           | 0       |     |      |      |         |      |      |      |
| BD36      | 12/8/2020  |       |      |           |           | 0       |     |      |      |         |      |      |      |
| 0001T0001 | 12/8/2020  |       |      |           |           | 0       |     |      |      |         |      |      |      |
| 0001T0018 | 12/8/2020  |       |      |           |           | 0       |     |      |      |         |      |      |      |
| SC296     | 12/8/2020  |       |      |           |           | 0       |     |      |      |         |      |      |      |
| 0356T0583 | 12/8/2020  |       |      |           |           | 0       |     |      |      |         |      |      |      |
| BD39      | 12/8/2020  |       |      |           |           | 0       |     |      |      |         |      |      |      |
| BD37      | 12/8/2020  |       |      |           |           | 0       |     |      |      |         |      |      |      |
| BD38      | 12/8/2020  |       |      |           |           | 0       |     |      |      |         |      |      |      |
| BD40      | 12/8/2020  |       |      |           |           | 0       |     |      |      |         |      |      |      |
| 0157T0107 | 12/9/2020  |       |      |           |           | 0       |     |      |      |         |      |      |      |
| BD11      | 12/9/2020  | Clear | None | Clear     | No        | 0.06    | 7.6 | 8    | 0    | 0       | 0    | 0.1  | 0    |
| 0349T0207 | 12/9/2020  |       |      |           |           | 0       |     |      |      |         |      |      |      |
| 0280T0357 | 12/9/2020  |       |      |           |           | 0       |     |      |      |         |      |      |      |
| 0280T0551 | 12/9/2020  |       |      |           |           | 0       |     |      |      |         |      |      |      |
| 0280T0380 | 12/9/2020  |       |      |           |           | 0       |     |      |      |         |      |      |      |
| 0280T0224 | 12/9/2020  |       |      |           |           | 0       |     |      |      |         |      |      |      |
| 0280T0381 | 12/9/2020  |       |      |           |           | 0       |     |      |      |         |      |      |      |
| 0280T0360 | 12/9/2020  |       |      |           |           | 0       |     |      |      |         |      |      |      |
| 0280T0170 | 12/9/2020  |       |      |           |           | 0       |     |      |      |         |      |      |      |
| 0280T0158 | 12/9/2020  |       |      |           |           | 0       |     |      |      |         |      |      |      |
| 0280T0368 | 12/9/2020  |       |      |           |           | 0       |     |      |      |         |      |      |      |
| 0280T0369 | 12/9/2020  |       |      |           |           | 0       |     |      |      |         |      |      |      |

2020 Dry Weather Screenings

| NODEID    | DATE       | COLOR | ODOR | TURBIDITY | OIL SHEEN | FLOW | pH      | TEMP | CU   | PHENOLS | Cl2  | NH3  | DET  |
|-----------|------------|-------|------|-----------|-----------|------|---------|------|------|---------|------|------|------|
| UNITS     |            |       |      |           |           | cfs  |         | C°   | mg/L | mg/L    | mg/L | mg/L | mg/L |
| LIMITS    |            |       |      |           |           |      | 6.5-9.0 |      | 0.1  | 1.5     | 1.0  | 2.5  | 1.0  |
| 0216T0981 | 12/9/2020  |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0217T0424 | 12/9/2020  |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0216T0852 | 12/9/2020  |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0216T0969 | 12/9/2020  |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0160T0266 | 12/9/2020  |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0160T0090 | 12/9/2020  |       |      |           |           | 0    |         |      |      |         |      |      |      |
| SC267     | 12/9/2020  |       |      |           |           | 0    |         |      |      |         |      |      |      |
| SC272     | 12/9/2020  |       |      |           |           | 0    |         |      |      |         |      |      |      |
| SC271     | 12/9/2020  |       |      |           |           | 0    |         |      |      |         |      |      |      |
| SC270     | 12/9/2020  |       |      |           |           | 0    |         |      |      |         |      |      |      |
| SC277     | 12/9/2020  |       |      |           |           | 0    |         |      |      |         |      |      |      |
| SC306     | 12/9/2020  |       |      |           |           | 0    |         |      |      |         |      |      |      |
| SC273     | 12/9/2020  |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0279T0560 | 12/10/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0279T0510 | 12/10/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0279T0509 | 12/10/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0279T0138 | 12/10/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0279T0505 | 12/10/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0279T0017 | 12/10/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0279T1014 | 12/10/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0279T0487 | 12/10/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0316T0139 | 12/11/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0391T0383 | 12/11/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0391T0433 | 12/11/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0390T0382 | 12/11/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0390T0048 | 12/11/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0390T0092 | 12/11/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| WC26      | 12/15/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0481T0261 | 12/15/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| WC27      | 12/15/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| WC29      | 12/15/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| WC28      | 12/15/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0477T0379 | 12/15/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0477T0377 | 12/15/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |
| 0477T0373 | 12/15/2020 |       |      |           |           | 0    |         |      |      |         |      |      |      |

## 2013 Illicit Discharge

### Investigation Summary

| <b>Date Reported</b> | <b>Name / Company Address</b>  | <b>Cause</b>   | <b>Resolution</b>   |
|----------------------|--|--|---|
| 1/3/2020             | Los Guachos<br>7370 Sawmill Road Columbus<br>OH 43235                    | Lids left open on grease bin letting rain fill the bin. No frequent cleaning of bin.   | Spoke with manager to have bin pumped also about better house keeping.  |
| 1/3/2020             | BLD Services, LLC<br>2424 Tyler Street, Kenner, LA<br>70062              | Upon arrival, we found a sheen for 1 block on Yaronia Drive North. A contractor lining lateral sewers were storing the socks for the lining process, on canvas tarps. The socks have to be lubricated, and oil residue was on the roadway. | Contractor put down oil-dry and swept it up. I contacted EPA with results. Oil did not reach MS4 or Waters Of The State. Refer to IPIR# 2001EPA0000011-I001.  |
| 1/9/2020             | Unknown<br>4755 Ransey Ct Columbus, OH<br>43230                          | Sump pump discharge and downspout discharge draining to back of the lot and water pooling up. Water going onto other properties.   | Complaint was called back in , it looks like a sewer permits issue, was put into permits backlog to inspect the work.   |
| 1/16/2020            | CNC Granite<br>2225 Mckinley Avenue<br>Columbus, OH 43204                | Received a call from Ben Harriff/O.E.P.A./O.S.C. that CNC Granite was dumping granite dust/slurry into storm sewer. O.E.P.A. received the call from an anonymous caller.   | Upon arrival, we found no signs of anything being dumped on the property or in/near a storm sewer. All saw cutting is done inside of building where all slurry goes to an underground storage tank, and |
| 1/21/2020            | Unknown<br>West Pacemont Road &<br>Olentangy Trail Columbus, OH<br>43202 | Cold weather caused temperature deviation in the pond which lead to Gizzard Shad death.  | Reported fish kill due to weather to O.E.P.A. also called O.D.N.R. Brad Kiger, left a voice mail.   |
| 1/22/2020            | Ruter Services<br>1635 Owl Creek Rd, Frankfort,<br>Oh 45628              | Accident caused fuel tank to rupture, spilling fuel on the road and into O.D.O.T. convience system.  | Fuel was contained in the inlet. Rustys towing and Greencharge were in charge of cleanup, directed by the O.S.C.  |
| 1/27/2020            | The Crest Gastropub<br>2855 Indianola Ave, Columbus,<br>Oh 43202         | Restaurant was washing off the back area of their business causing soap and water to go down the back alley.   | Talked to Ismail (Manager) about this not being an accepted practice. Told him to have staff sweep up into grass strip as much as possible. Gave them a copy of City code 1145.86 and Small             |

## 2013 Illicit Discharge

### Investigation Summary

| <b>Date Reported</b> | <b>Name / Company Address</b>  | <b>Cause</b>   | <b>Resolution</b>  |
|----------------------|--|--|--|
| 1/29/2020            | Snyder Brick and Block<br>3180 Valleyview Drive<br>Columbus OH. 43204            | Rick Blackmore was concerned about private inlet impacted with sediment being washed into the city's MS4.  | No sediment is impacting the MS4 at this time. I rechecked on 02/06/2020 during rain event and still no sediment in MS4.   |
| 1/31/2020            | Calhoon Plumbing<br>959 Frebis Avenue Columbus<br>OH 43206                       | Work being done during wet weather . Had straw in place to catch sediment from going into city catch basin.  |  |
| 1/31/2020            | Bryce Bozman<br>1729 East Whitter Street<br>Columbus Ohio 43206                  | Workers cleaned paint brushes out in ditch, just east of 1729 East Whitter Street.   | Informed the porperty owner of wrong doing, had workers clean all paint from the ditch line.   |
| 2/3/2020             | Belly Burger and Whisky Joint<br>26 North High Street Rear<br>Columbus OH. 43215 | Received this job from Complaints supervisor Mike Link. Anonymous caller complained of grease around a dumpster. Manager of restaurant said one of the employees spilled some grease when they were taking it out to the dumpster. | Capital Crossroads told manager they would clean it up. Grease did not make it to the city's MS4. The nearest inlet also goes to combination sewer.  |
| 2/3/2020             | Rockford Homes<br>999 Polaris Parkway Suite 200<br>Columbus OH 43240             | Contractor is bypassing, by pumping to the creek with 2 pumps with bags on both pumps. Working on storm lines.   | No illicit discharge contractor has filter bags, utilizing BMPs for pumping.   |
| 2/7/2020             | Hartco Cable<br>1401 Gorman Drive Geneseo IL<br>61254                            | B.M.P. not in place while working. Causing mud to enter MS4.   | Had supervisor put out BMP. To stop flow to MS4. Clean up work area. Gave copy City code 1145.86   |
| 2/12/2020            | Turkey Hill<br>1880 East Broad Street<br>Columbus OH 43203                       | A person putting gas in his car, let it over flow 5-10 gallons of gasoline to the ground.  | HEPACO was on the scene doing cleanup when we arrived. All fuel went into private storm inlet under canopy, which goes to an oil separator, then out to combination sewer. Contacted Ben Harrif with |
| 2/12/2020            | Super Chef's<br>1344 Cherry Bottom Road<br>Gahanna OH 43230                      | Poor house keeping, grease bin was not full but there was grease dumped around the bin.  | Spoke with owner about better house keeping.   |

## 2013 Illicit Discharge

### Investigation Summary

| <b>Date Reported</b> | <b>Name / Company Address</b>   | <b>Cause</b>  | <b>Resolution</b>   |
|----------------------|---|---|---|
| 2/13/2020            | Pizza Hut<br>3880 Sullivant Avenue<br>Columbus, OH 43228                            | Grease interceptor overflowing into the parking lot. Overflow is not near any MS4 entrance.   | Spoke with Jason Westfal from pretreatment . Contractor cleaned up, stayed on property spill did not reach City MS4.  |
| 2/21/2020            | American Trademark Construction Services<br>200 Lau Parkway, Englewood,<br>Oh 45315 | Complaint was about tracking out along 994-987 Frank Rd area. Area coming out of construction area at 987 Frank seemed clean.   | Talked to foreman and explained why we stopped. Franklin County inspects this construction site (Brooke Frusher)  |
| 2/24/2020            | City of Columbus Refuse<br>2100 Alum Creek Drive<br>Columbus OH 43207               | A city trash truck blew a hydraulic line on it's arm, leaking fluid at several trash cans in this area.   | Diego Debonis was sending someone out to do the cleanup. The truck with the blown hose was on it's way back in to get repaired. While we were at this site ,the oil was cleaned up and removed from |
| 2/25/2020            | Little Lebanon Catering<br>2630 Billingsley Road Columbus<br>OH 43235               | I received a call from Jeff Lyons about one of his sanitarians being at this location and noticed the grease. There was grease on the side of the building as if they cleaned out pots of grease outside. | I returned about 2 hours later to try to reach someone at this location, but was not able to. The grease on the side of the building had been shovelled up and put into bags and put into trash     |
| 2/26/2020            | The SYGMA Network Inc.<br>2400 Harrison Road Columbus,<br>OH 43204                  | SYGMA worker left fuel truck P.T.O. running unattended and the hose burst causing the tanker to leak off road diesel.   | SYGMA's Environmental contractor(s) was on site working cleaning up the spill when we arrived.<br>Crews on site: Ohio EPA , CSX and Green Charge. City of   |
| 2/26/2020            | Guardian Relocation<br>1212 St George Rd, Evansville,<br>IN 47711                   | Commercial truck parked long term in a neighborhood leaking fluids on the street causing severe staining.   | Made company aware of City Code 1145.86 and the long term parking issues. Company said that they will address this issue. Follow up on 02/28/2020, truck was removed and oil staining cleaned       |
| 2/26/2020            | Western Express<br>7135 Centennial Place, Nashville,<br>Tn 37209                    | Fuel tank from semi got a hole in it causing fuel to get into private storm. Product never reached City of Columbus MS4.  | Contractor was on site when we arrived. Spill was being contained and cleaned up by Nathan Davis from UST was the lead on the cleanup. IR# 2002EPA0000268   |
| 2/26/2020            | Super Deal Cars<br>1209 North 4TH Street<br>Columbus OH 43201                       | No problem found . Received A call from OEPA , about a possible leaking vehicles on site making into the storm sewer  | O.E.P.A IPR26616 No spill found checked inside and outside of shop.   |

## 2013 Illicit Discharge

### Investigation Summary

| <b>Date Reported</b> | <b>Name / Company Address</b>  | <b>Cause</b>   | <b>Resolution</b>  |
|----------------------|--|--|--|
| 3/2/2020             | Unknown<br>6001 Roselawn Avenue<br>Columbus, OH 43232                | SMOC Supervisor Lynn Floyd called in a sheen in the stream at the end of Roselawn. We tracked the sheen back into Reynoldsburg area and was not able to confirm the cause of the sheen.  | We set 1 boom to catch product in stream at Roselawn. We used 6 absorbent pads to pick up the product. Contacted Chris Holmes with OEPA with our findings. Checked back on 03/03/2020 and          |
| 3/5/2020             | Complete General Construction<br>1221 E 5th Ave, Columbus, OH 43219  | Saw Cutting on Livingston Ave with no inlet protection. Material was contained in the assets that are being removed this week for road widening project, no illicit discharge to City's MS4.   | Gave them a copy of 1145.86  |
| 3/5/2020             | Resident<br>3834 Rosette Drive Grove City,<br>OH 43123               | Received a call from Complaints Supervisor Mike Link. The van at this location is leaking a good amount of fluids into the roadway. I got no answer at this house. A neighbor confirmed the van belonged to this address.                              | Put down 1/2 bag of oil dry on 3/5/2020. returned on 3/9/2020 to clean up oil dry. The resident pulled up in van while doing the cleanup. Resident stated he got the oil leak repaired. I put down |
| 3/25/2020            | Unknown<br>2796 Quailview Ln Hilliard, OH 43026                      | Complaint was that stormwater has been discharging for 6 months in curbline.   | Appears to be normal groundwater discharge, field screening was normal, have had large rain events recently.   |
| 3/28/2020            | Unknown<br>3700 Collet Court Columbus, OH 43228                      | Met with Michael Newman he says when water is low there is a black slime on the rocks. I took pictures and also did not see any evidence of a spill or contamination in the water or storm drains in the area. Raining off & on all day water is high. | Michael would like us to look at the creek after a few days of dry weather. Spoke to Michael Newman today 04/17/2020 he said water looks clear and he will call me if he sees anything more        |
| 3/30/2020            | Unknown<br>3048 Valleywood Dr Columbus,<br>OH 43223                  | Neighbor complained about neighbor dumping stuff into Big Run.   | No evidence of dumping at this address.  |
| 4/3/2020             | City Of Columbus<br>2100 Alum Creek Dr, Columbus,<br>OH 43207        | City trash truck blew a hydraulic line.  | ERC is cleaning up the spilled oil with oil dry and washing the storm/ cleaning the drains.  |
| 4/3/2020             | Samantha Barnhart<br>883 East Whittier Street<br>Columbus Ohio 43206 | This has been an on going problem. The issue is with the shared servic line. 879,883,889 all share this service. The problem has been found by a contractor. They are in the works to figure out who owns all properties and split the repair bill.    | Work on private shared service line will begin as soon as they figure out how to split the bill. I had the home owner stop the pumping out to the street. I checked back 4 times and still no      |

## 2013 Illicit Discharge

### Investigation Summary

| <b>Date Reported</b> | <b>Name / Company Address</b>   | <b>Cause</b>  | <b>Resolution</b>   |
|----------------------|---|---|---|
| 4/3/2020             | Unknown<br>1064 South 22nd Street<br>Columbus Ohio 43206  | The report was pumping water. No pumping took place while I was here.   | I took pictures of signs of previous pumping. I got no answer at their door. Checked back 4 times with no pumping and no answer at the door.  |
| 4/3/2020             | Park Enterprise<br>560 Barks Rd W, Marion, OH<br>43302  | Crew pumped out rain water from their work site on top of hill above path work site north of 2886 Airport Road. Crew says they had bags on the ends of hoses. There was a bag there but no pumps. | Crew said they clean off the bike path with skid-steer and broom attachment   |
| 4/6/2020             | Unknown<br>3400 Valley Park Avenue<br>Columbus, OH 43231  | Had a complaint called in that there was soapy water coming from 3400 Valley Park Avenue, when I arrived the area was dry and clean no signs of dumping/pumping of water.                         | Area was dry and clean no signs of dumping/pumping of water.  |
| 4/11/2020            | NGI LLC Dave trinh Owner<br>1465 Cordell Avenue Columbus,<br>OH 43211                                       | Robert Scott, tenant pumped raw sewage out of basement to the back yard.  | Dave Trinh owner of NGI is getting CPR drains to come out and repair the private sewer lines. Sewage stayed on the property did not discharge into MS4.                                 |
| 4/12/2020            | Excel Trucking LLC/ Brad Langstraat<br>One Riverfront Plaza, 55 Campau<br>Ave NW, Grand Rapids, MI<br>49505 | Excel Trucking Company's driver crashed his semi truck and the fuel tank was ruptured in the crash leaking about 60 gallons of on-road diesel.  | OEPA is involved along with Drew from ERC and are cleaning up the spilled diesel. All of the spilled diesel was cleaned up and affected stormwater assests also cleaned. OEPA           |
| 4/15/2020            | CRD Residential<br>805 West City Center Drive Suite<br>160 Carmel IN<br>46032                               | JLG Skytrack fork lift started leaking fuel and crew kept driving it up and down the street.  | CRG (Trevor Howard) admits fault and will get oil dry and brooms and clean up the area and bag up the oil dry and dispose of it property  |
| 4/17/2020            | Unknown<br>2191 South Hamilton Road<br>Columbus, OH 43232   | Burak Ergezen (AEP) called and asked me to go and check 3 AEP vaults near Groves Road & South Hamilton Road. The New River Electric Crew on site claimed the water smelled like sewage.           | Met with Brad Clemens (NRE) on site, he had his crew open AEP vaults for me to gather samples. I pulled samples from all three vaults and found 0.2 or less Ammonia in the samples. The |
| 4/19/2020            | Blas Carpet Cleaning<br>798 Cap Ln, Worthington, OH<br>43085  | Resident stated that carpet cleaning company in the past have been dumping into storm sewer. No evidence seen in the area.  | Put curb markers on inlets in area. Provided Blas Carpet corporate Office with our city code and carpet cleaning fact sheet.  |

## 2013 Illicit Discharge

### Investigation Summary

| <b>Date Reported</b> | <b>Name / Company Address</b>  | <b>Cause</b>   | <b>Resolution</b>  |
|----------------------|--|--|--|
| 4/19/2020            | Jesse Roberts<br>1444 Pinewild Dr Columbus, OH 43223                         | Homeowner had car paint bombed earlier in the day, causing paint to get into curblines. Police report was done during the day about this act of vandalism.   | Helped homeowner clean curblines with absorbent. Victim of a crime.  |
| 4/30/2020            | Pro Truck Wash<br>4255 Roberts Road Columbus Ohio 43228                      | Jeff Bertacchi reported to me, he received a call from John with the EPA about this company washing vehicles outside and it may be getting into the storm line.  | Pro Truck Wash has an outdoor wash pad with inlets that go to their oil/water separator and then to sanitary line. Outfall was clean. No illicit discharge.                    |
| 5/5/2020             | Unknown<br>West Beechwood Boulevard<br>Columbus, OH 43214                    | Reported mud in the creek coming from a pipe end. When I got to pipe end the water was already clear. Did not find anyone working or pumping in the area that comes to this pipe end.  | The mud discharged ceased, was not able to identify the source.  |
| 5/11/2020            | None<br>2nd Avenue & Lexington<br>Columbus, OH 43211                         | Complaint was a car leaking oil at E 2nd and Lexington. Didn't appear to be any problems when I arrived.   | NO illicit discharge found, could not locate any leaking oil on the road. Delay in response was due to Covid 19 staffing issues.   |
| 5/11/2020            | Envirolink<br>12362 Oak Ave, Bailey, NC 27807                                | Envirolink was cleaning out stormsewer laterals, allowing mud from cleaning to backflow into the stormsewer line and out to the creek. They had a vac-truck downstream of cleaning but plenty of wastewater was getting past it into the           | Kevin and his employees will put a filter in the manhole down stream and then suck out the mud that gets trapped in the manhole before moving to the next one. NOV was issued. |
| 5/11/2020            | Unknown<br>2nd Avenue & Lexington<br>Columbus, OH 43211                      | Looks like a unknown vehicle leaked some oil at the stop sign at 2nd Avenue and Lexington Avenue   | I used a small amount of oil dry and cleaned up the oil spilled on roadway.  |
| 5/13/2020            | City of Columbus Div of Water<br>2600 Airport Dr Columbus, OH 43219          | 10" water main ruptured causing severe erosion around Airport Dr.  | Was turned in to leak detection on 05/22/2020.   |
| 5/14/2020            | Armor Paving and Sealing<br>6900 americana<br>parkway, reynoldsburg OH 43068 | Vince said he was power washing his lawn mower over the storm drain. Vince also said that the stripping crew unhooked their hoses for the strippers in the area of the drain. The drain is the a private drain on his property next to a dumpster. | Vince said he will not wash or unhook stripping equipment over drains. Vince will clean the drains, and he is looking into building a wash bay.                                |

## 2013 Illicit Discharge

### Investigation Summary

| <b>Date Reported</b> | <b>Name / Company Address</b>   | <b>Cause</b>   | <b>Resolution</b>   |
|----------------------|---|--|---|
| 5/14/2020            | M & S Grub Hub/Empanadas and more<br>6460 East Broad Street<br>Columbus, OH 43213 | Some one is duping frying oil in and around the parking spot number 907 & 908 at Life storage 6460 East Broad St. In the parking spots there are food trailer parked Empanadas and More. Notified the property owner of oil dumping in the grass area. | Life Storage hired TNT Landscaping to do the clean up.<br>TNT Landscaping 740-391-3610  |
| 5/14/2020            | Anderson Concretee INC<br>600 North Hamilton road<br>Columbus, OH 43219           | Looks like the earthen wall washed out in to the river due to heavy rains.   | Mark said he will put together a few workers and put up a retainment barrier to stop material from getting in the river. Met with Rick Compton VP of operations on 06/2/2020, retainment wall |
| 5/19/2020            | Unknown<br>445 Fairlawn Columbus, OH<br>43214                                     | Organic material gathers in this Bioretention Cell and when water pools and becomes stagant it begins to decompose.  | Our findings were given to our Land Development Specialist Kari Hiatt to have landscape contractor clean the cell out.  |
| 5/19/2020            | Unknown<br>945 Forest Creek Dr Columbus,<br>OH 43223                              | Complaint was that creek sometimes looks discolored, like coffee with cream  | No discolored discharge when I arrived, SSO has activated in the past, possible cause of discoloration.   |
| 5/21/2020            | Steeple Chase Village<br>1552 Pine St, Columbus, OH<br>43217                      | Complaint was that sewage was being pumped into the street. No sewage in curb, just groundwater discharge from sump.   | Talked to Community Manager, Towne Properties just recently brought to the community. My understanding is they are rerouting sump pumps to the curblin and trying ot identify all private     |
| 5/22/2020            | Premier Produce<br>3882 Agler Rd, Columbus, OH<br>43219                           | Customer didn't know where their Sanitary lateral went. They had a backup even though they did have their lateral cleaned. No illicit discharge to MS4.  | Records show even though they are in Columbus, they have Franklin County as sewer provider.   |
| 5/26/2020            | 4359 HoneyWood Court<br>Columbus, OH 43228  | Complaint email said dumping of oil at this location.  | No contact information . Noothing found in either inlets near house number given.   |
| 5/28/2020            | City Of Columbus/ Refuse<br>2100 Alum Creek Drive<br>Columbus Ohio 43207          | Received 311 for hydraulic oil leaking from a trash truck. Upon arrival, there were no signs of oil on roadway.  | No illicit discharge, was not able to confirm the complaint, no oil on the ground.  |

## 2013 Illicit Discharge

### Investigation Summary

| <b>Date Reported</b> | <b>Name / Company Address</b>  | <b>Cause</b>   | <b>Resolution</b>   |
|----------------------|--|--|---|
| 5/28/2020            | Unknown<br>139 Green Springs Drive<br>Columbus, OH 43235                 | Received a call about sump pump discharging constantly.  | I tested discharge for chlorine and detergents. Chlorine test was 0.0 and detergents was .5- .75. Seems to be ground water. No illicit discharge.   |
| 5/28/2020            | Unknown<br>567 Jenkins Avenue Columbus,<br>OH 43207                      | A 55 gallon poly drum was dropped in alley behind 576 Jenkins Avenue.  | Ben Harriff OEPA/ OSC had a contractor remove the drum. No discharge from the drum.   |
| 5/31/2020            | Iyad Abid<br>1949 Bayport Dr Grove City, OH<br>43123                     | Used motor oil coming from sump discharge line. I went inside on 06/01 to the home to check sump pit. Ran a field screening for detergents, .25 ppm which is normal...no evidence of oil ever being in the sump. | Tennant is going to clean discharge line. ERC cleaned curb and contained oil on 05/31. Someone could of poured oil outside and infiltrated into sump line. No evidence of oil in the            |
| 6/3/2020             | HP Logistics<br>8053 LEAD CIR APT 837 FORT<br>WORTH, TX 76137            | Fuel tank on semi ruptured causing fuel to get into our MS4.   | Clean Harbors came on site to clean storm lines, fuel, and surface area. Follow u on 06/04/2020 and cleanup was finished.   |
| 6/9/2020             | M.P. Dory Co<br>@001 Integrity Drive Columbus<br>Oh 43209                | Saw cutting without proper B.M.P.  | Had supervisor put proper B.M.P. In place, dandy bags, straw, soft boom. Also had them clean up the street.   |
| 6/9/2020             | Jearmy Hall<br>5575 CoreHaven Street<br>Westerville, OH 43081            | Directional boring for spectrum cable. Drill contractor hit a private forced main sewer line. Sewage went into a ditch.  | Chucks septic cleaned affected area Savko Repaired froce main by connecting to gravinty trunk line. All sewage stayed in ditch was able to be cleaned up without making to waters of the state. |
| 6/12/2020            | Premy Padamadan Homeowner<br>3145 Winding Creek Dr<br>Columbus, OH 43223 | complaint was that sewage was coming out of garage at above address.   | Homeowner had staginant rain water in a container that got tipped over. No evidence of sewage coming from house.  |
| 6/12/2020            | Anthony N Damoah<br>1968 Hamstead Drive Columbus<br>Ohio 43229           | Drive shaft on truck broke while driving and swung and hit feul tank.  | First call Enviromental Cleaned parking lot. No feul made it to inlet .   |

## 2013 Illicit Discharge

### Investigation Summary

| <b>Date Reported</b> | <b>Name / Company Address</b>  | <b>Cause</b>  | <b>Resolution</b>  |
|----------------------|--|---|--|
| 6/12/2020            | Stera Properties<br>231 E Lakeview Ave<br>231 E Lakeview Ave Columbus,<br>OH 43202 | Appears that contractors had rinsed out small batch concrete mixer into our MS4   | Stera Properties called back, I explained city code 1145.86, They were going to come out and clean residual solids in the curblane. Material was dry and had stained the street. Storm sewer is open and |
| 6/13/2020            | Unknown<br>Livingston Avenue & I 70  | Fire dep. Called this in. OEPA was not notified.  | Not sure what contractor done the cleanup, but no sign of illicit discharge at this time.  |
| 6/16/2020            | Buckeye Constrution LLC<br>4134 Anson Drive Hilliard OH<br>43026                   | Appears this contractor washed off concrete tools in roadway, and allowed slury to run down curb to inlet.  | Attempted to contact Paul Coldwell several times. Left message with no response.   |
| 6/18/2020            | Unknown<br>4374 Stinson Drive West<br>Columbus, OH 43214                           | Received a call from Ben Harriff EPA / OSC about black discharge at 0231T0691 outfall. Discharge was caused by fresh blacktop sealant of parking lot at retirement center in Upper Arlington. | I tracked discharge back to Upper Arlington. I contacted Tony, ICID for Upper Arlington. Tony tracked the discharge to the retirement center and stoped the discharge. I contacted EPA with findings.    |
| 6/19/2020            | Savvas Remone LLC.<br>1888 East 17th Avenue<br>Columbus OH 43219                   | Received complaint from Constrution Sup II about this contractor had a damaged connection to the city sewer while repairing a service line, and was pumping sediment and sewage to the street | When I arrived, they had the hole filled in and showed no signs of pumping. Looked as if the job was complete.   |
| 6/19/2020            | Unknown<br>2239 Severhill drive Dublin, OH<br>43016                                | Received job from Aleks. Neighbor reported on the 18th, two of his neighbors were pumping chlorinated pool water out to the curb.   | On the 19th when I arrived, there were no signs of anyone pumping pool water. I talked to all 4 homeowners, that have pools on this block, and passed out educational materials about city               |
| 6/22/2020            | Kapish Trucking<br>57 Darthmouth Way, Brunswick<br>Township ,N.J. 08902            | Truck crashed and fuel tank ripped causing fuel to discharge on freeway. Stayed in ODOT curblane, didn't reach our MS4  | Pro Tow was on the scene doing cleanup along with ODOT. Trevor Irwin was also communicating by phone.  |
| 6/24/2020            | Unknown<br>1044 Loretta Ave Columbus, OH<br>43211                                  | Appears that a trash can had gotten some rain in it and tipped over leaving trash juice on the street and curblane.   | Call Rodney Sparks at Street Department. He sent sweeper truck to flush and sweep the street. Was completed within the hour.   |

## 2013 Illicit Discharge

### Investigation Summary

| <b>Date Reported</b> | <b>Name / Company Address</b>  | <b>Cause</b>  | <b>Resolution</b>  |
|----------------------|--|---|--|
| 6/24/2020            | ABM<br>1817 Obrien Rd, Columbus ,Oh<br>43228                                   | Incident was caught on film on 06/18/2020 of employee dumping mop water into catch basin. Catch basin goes to combination sewer.  | Talked to district manager on 06/25/2020 to explain. He then addressed the issue and trained employees on proper disposal. Sent email giving details.  |
| 6/26/2020            | Eric Wooleys Backhoe Service<br>4699 Carroll Cemetary Rd,<br>Carroll ,Oh 43112 | Changing out water service line and line broke overrunning the excavation pit and going down the street till water was shut off.  | Explained city code 1145.86. This was an accident and contractor was cleaning curblin when I arrived. Did final cleaning after work was done and backfill was completed.                           |
| 6/29/2020            | Unknown<br>3344 Allegheny Avenue<br>Columbus, OH 43209                         | I received a call from Jeff Keener that his crew found oil in the retention basin behind 3344 Allegheny Avenue.   | dye test on the floor drains in the shops at Cal's and it never came out to the retention basin. The oil was cleaned up, no active discharge, oil in the basin was absorbed and cleaned by Matthew |
| 6/30/2020            | home owner/ Jumana Thaher<br>2424 Stewart Hollow Court<br>Hilliard OH 43026    | Home owner's friend washed their paint brushes out over the drain not realizing where the drain leads to.   | Home owner and friend cleaned the drain with brushes and rags. Only paint residue in the catch basin and the first foot or so of pipe. I went back the next day and looks like they did a good job |
| 7/2/2020             | Lesley Blevins (Renter)<br>1057 St Agnes Avenue<br>Columbus OH 43204           | Renter Lesley drained the old pool water out of pool to the street per Lesley   | I talked to renters and told them discharging chlorinated pool water to the street is prohibited, I also informed the party of not to do it again. Gave them pool drainage handout                 |
| 7/9/2020             | Marcella's<br>1319 Polaris Parkway Columbus<br>Oh 43240                        | No discharge found  | Checked all around address nothing found areas was very clean. All FOG paperwork up to date.   |
| 7/13/2020            | Unknown<br>4374 Stimson Drive Columbus,<br>OH 43214                            | Appears that someone washed out paint brushes earlier causing about 30 feet of open channel to be discolored. Sampled outfall 0231T0691 and discharge from pipe appeared to be clear. | Looked upstream for any evidence of discharge. Sewershed was flushed by the time we got there.   |
| 7/14/2020            | City Of Columbus / Water<br>910 Dublin Road Columbus OH<br>43215               | Received call from EPA/ OSC Ben Harriff about Adena Brook Flowing milky white.  | Tracked back to Maize Road just south of Cook Road. Found a water leak on a 12" main. Reported info back to EPA.   |

## 2013 Illicit Discharge

### Investigation Summary

| <b>Date Reported</b> | <b>Name / Company Address</b>  | <b>Cause</b>  | <b>Resolution</b>  |
|----------------------|--|---|--|
| 7/16/2020            | EWI<br>1250 Arthur Adams Dr,<br>Columbus, Oh 43221                                       | Company spilled drum of Acu Lube at dock. Greencharge was contractor hired to do cleanup. All drainage is Ohio State ownership to state waters.   | Spill was contained on site. Kent Halloran from Ohio State was directing cleanup with Greencharge.   |
| 7/17/2020            | Kokosing Construction Company Inc.<br>6235 Westerville Road<br>Westerville OH 43081      | I received an email about kokosing washing roadway with water truck, into unprotected inlets. When I showed up, the water truck was driving across Parsons Ave., heading East on Mooberry washing mud from roadway into storm inlet on the North East | I spoke with Kokosing senior Superintendent Scott Beveridge about the complaint. Mr. Beveridge stated they did not wash Parsons Ave. South of Mooberry. These are the inlets the |
| 7/20/2020            | Unknown<br>46 East Maynard Columbus, OH<br>43202   | Complaint was that someone was working on truck letting fluids go down the street.  | No oil or fluids were found on street at the time of visit. No violation.  |
| 7/21/2020            | City of Columbus Hap Creamen<br>4262 Morse Rd, Columbus, Oh<br>43230                     | Slurry line ruptured during construction in the area of the line. O.E.P.A. and E.R.C. are at site doing cleanup.  | E.R.C. is cleaning street and stream. S.M.O.C. came out and cleaned our MS4 to Alum Creek.   |
| 7/22/2020            | Team Fishel<br>1600 Walcutt Road Columbus<br>OH 43228                                    | Traffic accident was the cause of this spill. Fishel dump truck heading north on Hampton, turning West on Main. A car hit the dump truck on the drivers side, rupturing the fuel tank.  | Team Fissel contacted ERC for cleanup. Spill did go into the stormline, but did not reach the outfall. ERC cleaned up roadway and cleaned inlet and stormline.                   |
| 8/6/2020             | Colleen Smitley<br>2066 Parkwood Avenue<br>Columbus Oh 43219                             | Odor in or around ditch. All Test run nothing found. Spoke to Jeff Lyons about homes that are on spictic tanks.   | Columbus Health Department Jeff Lyons Found power is not on to the aeration system they have 2 weeks to correct the problem.   |
| 8/12/2020            | Shelly and Sands<br>1515 Harmon Ave, Columbus,<br>OH 43223                               | There was no discharge when checked . Any problem had been cleaned up and fixed before I went out and checked   | There was no discharge when checked . Any problem had been cleaned up and fixed before I went out and checked.   |
| 8/13/2020            | Commons Of Canal Winchester Apartments<br>6300 Refugee Road Canal<br>Winchester OH 43110 | The pond sample I took was within all parameters from field test. This pond has 4 incoming pipes from all private stormlines and no outgoing pipe. This retention basin and all stormlines are the apartments responsibility.                         | Took large amber jar to lab for testing per management.  |

## 2013 Illicit Discharge

### Investigation Summary

| <b>Date Reported</b> | <b>Name / Company Address</b>   | <b>Cause</b>  | <b>Resolution</b>   |
|----------------------|---|---|---|
| 8/18/2020            | Unknown<br>1310 Pierce Avenue, Columbus,<br>OH 43227                  | Received complaint about neighbor dumping something in the storm inlet in front of 1310 Pierce Ave. | Upon arrival, there were no signs of dumping. No illicit discharge to city MS4.   |
| 8/19/2020            | Unknown<br>3711 Fountain Cove Lane Grove<br>City, OH 43123            | Receiver complaint about fish kill at 3711 Fountain Cove Lane from OEPA.                            | I met with ODNR officer Matt Teders at this location. After contacting company that treats this pond, it was determined the fish kill was due to temperature change and not chemicals.  |
| 8/20/2020            | Unknown<br>4059 Fulton Street East<br>Columbus, OH 43205              | Received Complaint about 4059 Fulton St. pumping wastewater from sump pump for 3-4 years.           | Upon arrival, there were no signs of sump pump even running. No signs of any wastewater being pumped out. No illicit discharge to MS4 at this time.                                     |
| 8/25/2020            | Stone Hinge + Little Turtle<br>147 N High St, Gahanna, OH<br>43230    | Spraying water to clean dirt off roadway instead of sweeping roadway.                               | Had worker Craig Camble stop spraying road and informed of city code 1145.86  |
| 8/25/2020            | Unknown<br>1380 Manchester Aveune<br>Columbus, OH 43211               | Metal drain pipe with water setting in it and dripping out looks to be rusty water.                 | downspout drain Legal discharge   |
| 8/26/2020            | Anheuser-Busch<br>700 Shrock Road Columbus,<br>43229                  | leaking Flange  | The Maintenance crew shut down the line and made a temporary repair until the new part gets in next week. I followed up on Friday and the Temporary repair was holding and the area was |
| 8/27/2020            | City Of Columbus<br>3500 Indianola Avenue<br>Columbus, OH 43214       | Ground water in the pipe after testing all test come back with no signs of foreign matter.          | Pipe should be televised to see if any broken pipe is causing excess infiltration in line   |
| 9/1/2020             | Certified Oil / HEPACO<br>4601 Homer Ohio lane Groveport<br>OH. 43125 | Semi truck driver over flowed fuel tank.  | HEPACO was already clening spill when we arrived. Fuel did make it to the private retention basin on this property, but did not reach the city MS4 or Waters of the State               |

## 2013 Illicit Discharge

### Investigation Summary

| <b>Date Reported</b> | <b>Name / Company Address</b>   | <b>Cause</b>  | <b>Resolution</b>  |
|----------------------|---|---|--|
| 9/9/2020             | Lisa south home owner<br>790 Harwood Columbus, OH<br>43228            | Lisa's husband (Mike) hooked hose up to pool to drain pool for the season   | Lisa removed the hose from the street and put in her yard. She also said she will let the water in pool set a few days and test water for chlorine/ Chemicals next time before dumping to the city drains. |
| 9/9/2020             | AEP<br>N Front St, Columbus, OH 43215                                 | Contractor hit AEP line causing Mineral oil to leak out in to the ground.   | Storm water was called out for mapping help Also called pretreatment Jason to inform them of the oil in sewer.   |
| 9/9/2020             | Mid- OHIO Utilities<br>2294 East Main Street Lancaster<br>OH 43130    | looks like they dumped part of a load out of a vac-truck, per Jonathan a cap came off of the vac-truck spilling mud and muddy water on the parking lot and it ran into the alley. | Crew swept the muddy water off to the side of road will come back with vac-truck to clean road and side of road and gravel lot. Jonathan Beard says he will clean the area, & put down new stone in        |
| 9/9/2020             | Unknown<br>3989 Briggs Road Columbus OH<br>43228                      | Looks like some one pumped muddy rain water out of footers for garage into the street at 3989 Briggs Road.  | Left note and card on door for them to call me and to clean the curb.<br>muddy water did not make it to storm sewer but did to the curb line.  |
| 9/13/2020            | DN Trucking<br>17544 Ralphps Ranch Rd, San<br>Diego, Ca 92127         | Semi Truck crashed, ripping hole in saddle tank causing fuel to get into O.D.O.T. assets  | CCTR and Pro Tow doing cleanup that's being coordinated by Dave Saxor from O.D.O.T.  |
| 9/15/2020            | Universal Auto Parts<br>1061 Mckinley Ave, Columbus,<br>Oh 43222      | 2 alarm fire at business. Ther was some runoff from diluted hydrocarbons into our MS4. Fire fighting activity was done when we arrived.   | Checked outfall downstream and didn't see any fuel in river.   |
| 9/16/2020            | City of Columbus Refuse<br>2100 Alum Creek Drive<br>Columbus OH 43207 | Recived complaint about thash truck leaking trash juice the day before I recived this complaint.  | Trash juice was dry and staining roadway in front of 2680 N. Fourth St. I contacted streets department to send sweeper to remove, Per Jeff Cox Email.  |
| 9/18/2020            | Unknown<br>327 East New England Avenue<br>Worthington, OH 43085       | No discharge from City of Columbus at this time.  |  |

## 2013 Illicit Discharge

### Investigation Summary

| <b>Date Reported</b> | <b>Name / Company Address</b>   | <b>Cause</b>  | <b>Resolution</b>  |
|----------------------|---|---|--|
| 9/18/2020            | Hampton Woods Apartments<br>2819 East Dublin Granville road<br>Columbus OH. 43231 | Muddy water entering Minerva Park lake.   | Hampton Woods had a private water leak which pushed mud into the retention basin. Contractor made repair to water line and cleaned mud from basin. No further discharge. |
| 9/22/2020            | Battelle<br>505 King Avenue Columbus OH<br>43201                                  | Battelle had a forklift blow a hydraulic hose and lost 1 Quart of oil near inlet.   | Battelle made repair to forklift and cleaned up oil.   |
| 9/23/2020            | Jackie Rollins<br>841 Greenfeild Drive Columbus<br>Ohio 43223                     | Private pump Station having blockage casuing upflowin grass area  | Spoke with Jackie Rollins about clean up of the grass area that was covered in sewage. Waterworks was on site to fix pump station this will stop upflow.                 |
| 9/24/2020            | Unknown<br>3514 Oaklawn Street Columbus,<br>OH 43224                              | looks like possible Herbicide drift that kill her plants, we did not see any trace of water or any illicit discharge of sewers or other contaminants in the area.   | Matthew Claypool gave Rebecca Messer the phone number to the Ohio state extension office in Franklin County  |
| 9/29/2020            | Unknown<br>815 Hudson Street Columbus,<br>OH 43211                                | Received call from EPA about antifreeze in the rear of 815 Hudson.  | Small amount of antifreeze was in the alley behind 815. No cars near by. Cleaned up antifreeze with small amount of floor dry. Discharge did not make it to the MS4.     |
| 10/16/2020           | Epic Fiber<br>2613 Sawbury Bulivard<br>Columbus OH. 43235                         | Directional boring crew released mud on ground when pulling machine back. Mud went into inlet and down the road to another inlet. No BMP's were in place on inlets. | Crew is coming out to clean up street and storm sewer. I checked back on next work day and all mud was cleaned up in roadway and storm sewer.                            |
| 10/18/2020           | Fiber One<br>950 S Powerline Rd, Unit 448,<br>Deerfield Beach, Fl 33442           | Company hit C.O.C. force main while doing directional boring. Ditch line is O.D.O.T. Not City MS4   | Company is paying a company (Travco) to fix line , Company contained in ditch line and had contractors clean the area.   |
| 10/21/2020           | Lore Grey<br>1170 Discovery Drive Columbus<br>Ohio 43085                          | Owner drained there pool or had the water hose from the pool to the city catch basin  | No pumping was going on when checked area but the water hose was still laid out and end of the hose was still in the city catch basin.                                   |

## 2013 Illicit Discharge

### Investigation Summary

| <b>Date Reported</b> | <b>Name / Company Address</b>                                 | <b>Cause</b>  | <b>Resolution</b>   |
|----------------------|---|---|---|
| 10/23/2020           | Unknown<br>425 Hosack Columbus, OH 43207                      | Complaint was about putrid smell in the area and wanted to see if it was MS4 related. No odor at time of arrival.   | Ran dry weather screening at 0039T0465. Tested normal and no smell.   |
| 10/23/2020           | Directional Bore<br>5536 Mills Road Ostrander OH.<br>43061    | Received a call from Fred Garrett about a boring company releasing mud into roadway and storm inlet.  | Upon arrival the mud appears to be coming from a water main break near the bore machine. The City of Columbus, division of water is already aware of the break. The city had a posted sign    |
| 10/23/2020           | Blake Construction<br>265 W Main St, Plain City, Oh<br>43064  | Complaint was company was dumping concrete into storm sewer. No dumping had occurred when we arrived.   | Gave them a copy of City Code 1145.86, explained to them to keep up on their housekeeping while they are doing remodel at address.  |
| 11/5/2020            | Unknown<br>6393 Sea Level Drive<br>Westerville, OH 43081      | Looks to be a dump truck had dumped a load of gravel when doing so hydraulic oil is now all over road way and curb line.  | When found the oil on roadway had already soaked in due to receiving call days after problem had happened. Put down oil dry and left over the weekend to soak up and clean up any excess oil. |
| 12/4/2020            | Unknown<br>18 N Nelson Rd /Nelson / E<br>Broad Columbus, OH   | On 12/03/2020, citizen noticed a white milky substance in Alum Creek at Nelson Rd and East Broad. Did not report till following day.  | Creek was clear upon arrival, no visible discharge and called citizen to explain my findings.   |
| 12/14/2020           | Spiniello<br>3500 E Biddle St, Baltimore,<br>Maryland 21213   | Bypass pumps for sanitary line was leaking causing sewage to get onto ground. Nothing reached our MS4 or waters of the state.   | Follow up on 12/15/2020. Pump system was fixed and area was cleaned up.   |
| 12/14/2020           | Take 5 Oil Change<br>4844 North High Street                   | Pump Malfunction cause oil to leak on the floor in October of this year.  | Crew at Take 5 Oil Change cleaned up the oil and put it in the waste oil tank. & fixed the pump.  |
| 12/22/2020           | Base Line NXC LLC<br>3101 New Haven Ave Ft. Wayne<br>IN 46803 | Subcontractor doing work for Base Line NXC LLC<br>Simplicity Contracting INC. 161 Harrow Gate Drive Carmel 46033 317-670-5509 did not prevent their drilling mud /gel from getting in to the storm sewer system and | Base Line NXC LLC will vacuum up and clean the storm sewers and rocks at Alum Creek   |

# SERVICE REQUEST REPORT

Service Request No.

**2000076**



Created Date: 01/02/2020 09:06 AM

## WORK LOCATION

|                                      |             |
|--------------------------------------|-------------|
| Address: 4252 OAK MILL DR            | Suite: 0203 |
| Cross Street:                        |             |
| City:                                | State: Zip: |
| Service Request Type: INVESTIGATE    |             |
| Problem Code: YMSS - Main Sewer Stop |             |

|   |
|---|
| Problem Description: DIST 203--SUMP PUMP IS RUNNING CONSTANTLY. PLEASE CHECK SANITARY AND STORM. NO ONE HOME. PLEASE LEAVE NOTE ON DOOR OF FINDINGS |
|---|

|                             |              |                                      |              |
|-----------------------------|--------------|--------------------------------------|--------------|
| Requested Date:             | Crew : VERS1 | Dept: SEWERMNT                       | Area: SEWERS |
| Next Approver:              |              |                                      |              |
| Dispatcher: WHITE, JANICE L |              | Call Back Ready: N                   |              |
| Status: CLOSED              |              | Customer Call Back: N                |              |
| WO/Task No:                 |              | Finished Date: 01/02/2020 11:41:31AM |              |

## CUSTOMER INFORMATION

|                  |                       |
|------------------|-----------------------|
| Customer ID:     | Bill Customer: N      |
| Name:            | Customer Call Back: N |
| Work Phone: Ext: | Home Phone:           |
| Company:         | Tax ID:               |

## REPORTED BY

|                                 |              |
|---------------------------------|--------------|
| Name: GUZZO, JOHN               | Call Back: N |
| Address:                        | Suite:       |
| City:                           | State: Zip:  |
| Work Phone: (614) 588-6362 Ext: | Home Phone:  |

# SERVICE REQUEST REPORT

Service Request No.  
**2000076**



Created Date: 01/02/2020 09:06 AM

### CLOSEOUT INFORMATION

|  |                             |                      |
|--|-----------------------------|----------------------|
| Start: 01/02/2020 09:11 AM   | Finish: 01/02/2020 11:39 AM | Completed: Y         |
| Failure: YNCF  | Repair: YNFWN               | Further Action:YNFAN |
| Comments: YNCF/OPEN – Not city failure, the _8_ inch sanitary and 12 inch storm sewer serving the problem location was open and flowing when checked. Checked upstream manholes #__s0412, t0666_ and downstream manhole #_s0411, t0665__. Tenant was notified of findings by / note. |                             |                      |
| Inspected By: verhage/payne  | Date: 02-JAN-20             |                      |
| Signoff By: _____  | Date: _____                 |                      |
| Closed By: LINK, MICHAEL A   | Date: 06-JAN-20             |                      |

### SPECIFICATIONS

| Seq. No     | Attribute                      | Value                               |
|-------------|--------------------------------|-------------------------------------|
| ID: 2000003 | Category: DOSD WORK DAT        | Type: SMNT_EVENT                    |
|             |                                | Title: WIB - MSS AND SSO - CSO DATA |
| 5           | CHECKED FROM STRUCTURE #       |                                     |
| 10          | CHECKED TO STRUCTURE #         |                                     |
| 15          | CAUSE = GREASE Y               |                                     |
| 20          | CAUSE = ROOTS Y                |                                     |
| 25          | CAUSE = DEBRIS Y               |                                     |
| 30          | CAUSE = SURCHARGED Y           |                                     |
| 35          | CAUSE = OTHER                  |                                     |
| 40          | CAUSE = UNKNOWN Y              |                                     |
| 45          | OPEN V=VAC R=ROD H=HAND        |                                     |
| 50          | TENANT WATER DRAINED Y         |                                     |
| 55          | TENANT NOTIFIED?               |                                     |
| 60          | WORK SEQUENCE                  |                                     |
| 65          | CLEAN FROM #                   |                                     |
| 70          | CLEAN TO #                     |                                     |
| 75          | TV FROM #                      |                                     |
| 80          | TV TO #                        |                                     |
| 85          | DESIGNED SEWER RELIEF - DSR #  |                                     |
| 90          | STRUCTURE OVERFLOWED #         |                                     |
| 95          | MH # - UPSTREAM OF BLOCKAGE    |                                     |
| 100         | MH # - DOWNSTREAM OF BLOCKAGE  |                                     |
| 105         | OVERFLOW AFFECTED AREA?        |                                     |
| 110         | SUMP PUMP ADDRESS              |                                     |
| 115         | SECURE 1=SIGN 2=HANGER 3=OTHER |                                     |
| 120         | TIME/DATE OVERFLOW STOPPED     |                                     |
| 125         | RECEIVING STRUCTURE #          |                                     |

# SERVICE REQUEST REPORT

Service Request No.  
**2000149**



Created Date: 01/03/2020 12:04 AM

## WORK LOCATION

|  |             |
|--|-------------|
| Address:1570 KOEBEL RD                                 | Suite: 0066 |
| Cross Street:  |             |
| City:  | State: Zip: |
| Service Request Type: INVESTIGATE                      |             |
| Problem Code: YWIB - Water in Basement (drain backup). |             |

|  |
|--|
| Problem Description: DIST # 66 - CITIZEN REPORTS HER SUMP PUMP CAN'T KEEP UP WITH THE WATER COMING IN. |
|--|

|                              |            |                                      |             |
|------------------------------|------------|--------------------------------------|-------------|
| Requested Date:              | Crew :SMIC | Dept: SEWERMNT                       | Area:SEWERS |
| Next Approver:               |            |                                      |             |
| Dispatcher:ADKINS, MELINDA L |            | Call Back Ready: N                   |             |
| Status: CLOSED               |            | Customer Call Back: N                |             |
| WO/Task No:                  |            | Finished Date: 01/03/2020 01:38:29AM |             |

## CUSTOMER INFORMATION

|              |      |                       |
|--------------|------|-----------------------|
| Customer ID: |      | Bill Customer: N      |
| Name:        |      | Customer Call Back: N |
| Work Phone:  | Ext: | Home Phone:           |
| Company:     |      | Tax ID:               |

## REPORTED BY

|                            |                                 |
|----------------------------|---------------------------------|
| Name: HARPER, LISA         | Call Back: N                    |
| Address:1570 KOEBEL RD     | Suite: 0066                     |
| City:                      | State: Zip:                     |
| Work Phone: (614) 512-6111 | Ext: Home Phone: (614) 409-9363 |

# SERVICE REQUEST REPORT

Service Request No.

**2000149**



Created Date: 01/03/2020 12:04 AM

## CLOSEOUT INFORMATION

|   |                             |                       |
|---|-----------------------------|-----------------------|
| Start: 01/03/2020 01:00 AM  | Finish: 01/03/2020 01:30 AM | Completed: Y          |
| Failure: YNCF   | Repair: YNFWN               | Further Action: YNFAN |
| Comments: YNCF/OPEN – Not city failure, the _8_ inch sanitary / sewer serving the problem location was open and flowing when checked. Checked upstream manhole #_0066s0220_ and downstream manhole #_0066s0221_. Tenant was notified of findings by phone message |                             |                       |
| Inspected By: smith/stoops  | Date: 03-JAN-20             |                       |
| Signoff By: _____   | Date: _____                 |                       |
| Closed By: LINK, MICHAEL A  | Date: 06-JAN-20             |                       |

## SPECIFICATIONS

| Seq. No     | Attribute                      | Value                               |
|-------------|--------------------------------|-------------------------------------|
| ID: 2000011 | Category: DOSD WORK DAT        | Type: SMNT_EVENT                    |
|             |                                | Title: WIB - MSS AND SSO - CSO DATA |
| 5           | CHECKED FROM STRUCTURE #       |                                     |
| 10          | CHECKED TO STRUCTURE #         |                                     |
| 15          | CAUSE = GREASE Y               |                                     |
| 20          | CAUSE = ROOTS Y                |                                     |
| 25          | CAUSE = DEBRIS Y               |                                     |
| 30          | CAUSE = SURCHARGED Y           |                                     |
| 35          | CAUSE = OTHER                  |                                     |
| 40          | CAUSE = UNKNOWN Y              |                                     |
| 45          | OPEN V=VAC R=ROD H=HAND        |                                     |
| 50          | TENANT WATER DRAINED Y         |                                     |
| 55          | TENANT NOTIFIED?               |                                     |
| 60          | WORK SEQUENCE                  |                                     |
| 65          | CLEAN FROM #                   |                                     |
| 70          | CLEAN TO #                     |                                     |
| 75          | TV FROM #                      |                                     |
| 80          | TV TO #                        |                                     |
| 85          | DESIGNED SEWER RELIEF - DSR #  |                                     |
| 90          | STRUCTURE OVERFLOWED #         |                                     |
| 95          | MH # - UPSTREAM OF BLOCKAGE    |                                     |
| 100         | MH # - DOWNSTREAM OF BLOCKAGE  |                                     |
| 105         | OVERFLOW AFFECTED AREA?        |                                     |
| 110         | SUMP PUMP ADDRESS              |                                     |
| 115         | SECURE 1=SIGN 2=HANGER 3=OTHER |                                     |
| 120         | TIME/DATE OVERFLOW STOPPED     |                                     |
| 125         | RECEIVING STRUCTURE #          |                                     |

Submitted by: RFLAMB

Oracle

Report s\_rpt138 v 1912-1

# SERVICE REQUEST REPORT

Service Request No.  
**2000227**



Created Date: 01/03/2020 04:52 PM

## WORK LOCATION

|   |             |
|---|-------------|
| Address:71 AVONDALE AVE                         | Suite:      |
| Cross Street:                                   |             |
| City:   | State: Zip: |
| Service Request Type: INVESTIGATE               |             |
| Problem Code: YFLOOD - Flooding, surface water. |             |

|   |
|---|
| Problem Description: . CALLER SAYS THERE ARE LEAVES PILED AT THE CURB HERE THAT IS CAUSING THE STREET TO FLOOD WHEN IT RAINS REALLY HARD. SHE FEELS THE LEAVES ARE BLOCKING THE DRAINS. PLEASE CHECK. THANKS. |
|---|

|                     |             |                                      |             |
|---------------------|-------------|--------------------------------------|-------------|
| Requested Date:     | Crew :WALE2 | Dept: SEWERMNT                       | Area:SEWERS |
| Next Approver:      |             |                                      |             |
| Dispatcher:CRLESLIE |             | Call Back Ready: N                   |             |
| Status: CLOSED      |             | Customer Call Back: N                |             |
| WO/Task No:         |             | Finished Date: 01/03/2020 06:50:07PM |             |

## CUSTOMER INFORMATION

|              |      |                       |
|--------------|------|-----------------------|
| Customer ID: |      | Bill Customer: N      |
| Name:        |      | Customer Call Back: N |
| Work Phone:  | Ext: | Home Phone:           |
| Company:     |      | Tax ID:               |

## REPORTED BY

|                               |                  |
|-------------------------------|------------------|
| Name: NO CUSTOMER INFORMATION | Call Back: 0     |
| Address:                      | Suite:           |
| City:                         | State: Zip:      |
| Work Phone:                   | Ext: Home Phone: |

# SERVICE REQUEST REPORT

28 JAN 2020

08:22 AM

Service Request No.

**2000227**



Created Date: 01/03/2020 04:52 PM

## CLOSEOUT INFORMATION

Start: 01/03/2020 05:30 PM

Finish: 01/03/2020 07:00 PM

Completed: \_\_\_\_\_

Failure: YPDBINSP

Repair: \_\_\_\_\_

Further Action:YNFAN

Comments: Storm inlets at Avondale and State st were open and flow ing at time of inspection.

Inspected By: Epw alters & Alroberts

Date: 03-JAN-20

Signoff By: \_\_\_\_\_

Date: \_\_\_\_\_

Closed By: JOHNSON, FRED L

Date: 03-JAN-20

# SERVICE REQUEST REPORT

Service Request No.  
**2000328**



Created Date: 01/06/2020 09:22 AM

## WORK LOCATION

|  |             |
|--|-------------|
| Address:1064 AFTON RD                                  | Suite: 0174 |
| Cross Street:  |             |
| City:  | State: Zip: |
| Service Request Type: INVESTIGATE                      |             |
| Problem Code: YUPFLOW - Flow from ground or structure. |             |

Problem Description: OK TO CLOSE WHEN WORK ORDER IS FINISHED. Shattuck Ave and W North Broadway. ON-LINE REQUEST. The city sewer is backing up and putrid water is flowing steadily through a manhole cover. It is flooding the easement and our backyard. There is a very old, city owned silver maple nearby that may be a contributing factor. I believe this to be a sanitary issue, in any regard, it does not smell pleasant. Please fix it soon. (rear of property)

|                        |            |                                      |             |
|------------------------|------------|--------------------------------------|-------------|
| Requested Date:        | Crew :SMIC | Dept: SEWERMNT                       | Area:SEWERS |
| Next Approver:         |            |                                      |             |
| Dispatcher:RSRAAB      |            | Call Back Ready: N                   |             |
| Status: WORK ORDER     |            | Customer Call Back: N                |             |
| WO/Task No: 2000623/01 |            | Finished Date: 01/06/2020 10:55:18AM |             |

## CUSTOMER INFORMATION

|                  |                       |
|------------------|-----------------------|
| Customer ID:     | Bill Customer: N      |
| Name:            | Customer Call Back: N |
| Work Phone: Ext: | Home Phone:           |
| Company:         | Tax ID:               |

## REPORTED BY

|                                 |                      |
|---------------------------------|----------------------|
| Name: Lawver, Lari              | Call Back: 0         |
| Address: 1064 AFTON RD          | Suite:               |
| City: COLUMBUS                  | State: OH Zip: 43221 |
| Work Phone: (614) 459-4954 Ext: | Home Phone:          |

# SERVICE REQUEST REPORT

Service Request No.

**2000328**



Created Date: 01/06/2020 09:22 AM

## CLOSEOUT INFORMATION

|   |                             |                      |
|---|-----------------------------|----------------------|
| Start: 01/06/2020 09:30 AM  | Finish: 01/06/2020 11:00 AM | Completed: Y         |
| Failure: YMHOG  | Repair: YJETTED             | Further Action:YCCTV |
| Comments: YSSO1 - The 8__ inch sanitary sewer was stopped up when checked. Stoppage occurred between upstream manhole # _0174S0407__ and downstream manhole # _0174S0403__. Manhole # _0174S0407__ was found overflowing at time of arrival. The sewage was contained in area on ground. Sewer was opened with / Vactor by: G. BLACKBURN__ and overflow ended at _10:45AM__. John Rubadue was notified by _MIKE LINK__. Signs and door hangers were placed at _REAR OF 1064 AFTON RD__ and the site was secured from the public. The site and sewer will need to be cleaned via attached Work Order number. Cause of overflow was roots / SSO/CSO email notification sent. NEED TO T.V 8 INCH SANITARY FROM 0174S0407 TO 0174S0403 REAR OF 1064 AFTON RD<br>BRIAN BLACKBURN JETTED SEWER OPEN FROM 0174S0403 TO 0174S0407 ...REAR OF 1064 AFTON |                             |                      |
| Inspected By: SMITH/STEWART   | Date: 06-JAN-20             |                      |
| Signoff By: _____   | Date: _____                 |                      |
| Closed By: _____  | Date: _____                 |                      |

## DOCUMENTS AND PROCEDURES

| Document ID | Document Type | Status  | Revision | Last Update Date |
|-------------|---------------|---------|----------|------------------|
| 311-106967  | DOCUMENT      | CREATED |          |                  |

## SPECIFICATIONS

| Seq. No     | Attribute                     | Value                               |
|-------------|-------------------------------|-------------------------------------|
| ID: 2000042 | Category: DOSD WORK DAT       | Type: SMNT_EVENT                    |
|             |                               | Title: WIB - MSS AND SSO - CSO DATA |
| 5           | CHECKED FROM STRUCTURE #      | 0174S0407                           |
| 10          | CHECKED TO STRUCTURE #        | 0174S0403                           |
| 15          | CAUSE = GREASE Y              |                                     |
| 20          | CAUSE = ROOTS Y               | YES                                 |
| 25          | CAUSE = DEBRIS Y              |                                     |
| 30          | CAUSE = SURCHARGED Y          |                                     |
| 35          | CAUSE = OTHER                 |                                     |
| 40          | CAUSE = UNKNOWN Y             |                                     |
| 45          | OPEN V=VAC R=ROD H=HAND       | VACTOR                              |
| 50          | TENANT WATER DRAINED Y        | TENANT DID NOT HAVE WATER           |
| 55          | TENANT NOTIFIED?              | YES                                 |
| 60          | WORK SEQUENCE                 |                                     |
| 65          | CLEAN FROM #                  |                                     |
| 70          | CLEAN TO #                    |                                     |
| 75          | TV FROM #                     | 0174S0407                           |
| 80          | TV TO #                       | 0174S0403                           |
| 85          | DESIGNED SEWER RELIEF - DSR # |                                     |
| 90          | STRUCTURE OVERFLOWED #        | 0174S0407                           |
| 95          | MH # - UPSTREAM OF BLOCKAGE   |                                     |
| 100         | MH # - DOWNSTREAM OF BLOCKAGE |                                     |

# SERVICE REQUEST REPORT

Created Date: 01/09/2020 03:00 PM

Service Request No.  
**2000639**



## WORK LOCATION

|   |             |
|---|-------------|
| Address:4755 RANSEY CT                        | Suite:      |
| Cross Street:                                 |             |
| City:   | State: Zip: |
| Service Request TypeINVESTIGATE               |             |
| Problem Code: Y311 - SMOC 311 SERVICE REQUEST |             |

Problem Description: END OF BLOCK; ALONG WEST SIDE OF TOWNHOUSE NEAR REAR. PIPE STICKS OUT OF GROUND. V. ON-LINE REQUEST. RESIDENT HAS INSTALLED WITHOUT A PERMIT A DISCHARGE WATER LINE FROM HOUSE FROM UNKNOWN SOURCE THAT CONSTANTLY DUMPS OUT SIDE OF SOUTHWESTERN REAR CORNER (SEWAGE???) - SPILLING WATER ONTO ADJACENT PROPERTY AND INTO CITY ROW. THIS IS ILLEGAL PER CITY STORMWATER CODES  
END OF BLOCK; ALONG WEST SIDE OF TOWNHOUSE NEAR REAR. PIPE STICKS OUT OF GROUND. V

|                         |        |                                      |             |
|-------------------------|--------|--------------------------------------|-------------|
| Requested Date:         | Crew : | Dept: SEWERMNT                       | Area:SEWERS |
| Next Approver:          |        |                                      |             |
| Dispatcher:MLODACHOWSKI |        | Call Back Ready: N                   |             |
| Status: CLOSED          |        | Customer Call Back: N                |             |
| WO/Task No:             |        | Finished Date: 01/10/2020 02:15:26PM |             |

## CUSTOMER INFORMATION

|                  |                       |
|------------------|-----------------------|
| Customer ID:     | Bill Customer: N      |
| Name:            | Customer Call Back: N |
| Work Phone: Ext: | Home Phone:           |
| Company:         | Tax ID:               |

## REPORTED BY

|                               |              |
|-------------------------------|--------------|
| Name: NO CUSTOMER INFORMATION | Call Back: 0 |
| Address:                      | Suite:       |
| City:                         | State: Zip:  |
| Work Phone: Ext:              | Home Phone:  |

Refer to Illicit Discharge  
Investigation 01102020-1

# SERVICE REQUEST REPORT

28 JAN 2020

08:29 AM

Service Request No.  
**2000639**



Created Date: 01/09/2020 03:00 PM

## CLOSEOUT INFORMATION

|  |                             |                       |
|--|-----------------------------|-----------------------|
| Start: 01/10/2020 10:00 AM   | Finish: 01/10/2020 11:30 AM | Completed: _____      |
| Failure: _____   | Repair: _____               | Further Action: _____ |
| Comments: REASSIGNED TO STORMWATER FOR POTENTIAL ILLICIT DISCHARGE. Refer to S.R.M.S. investigation 01102020-1 |                             |                       |
| Inspected By: LINK   | Date: 09-JAN-20             |                       |
| Signoff By: Lamb   | Date: 10-JAN-20             |                       |
| Closed By: LAMB, ROBERT F  | Date: 10-JAN-20             |                       |

## CALL HISTORY

|  |                                  |
|--|----------------------------------|
| <b>Call No: 2</b>  | Call Date: 01/09/2020 03:00:46PM |
| Comments: . BASED ON RESPONSE, SR TYPE HAS BEEN CHANGED FROM BUILDING IMPROVEMENTS WITHOUT PERMIT TO SEWER/MISCELLANEOUS |                                  |
| Response: STATUS UPDATE  |                                  |
| Call Back: N   | Date:                            |
| Caller Name:   |                                  |
| Caller Phone:  | Ext:                             |
| <b>Call No: 1</b>  | Call Date: 01/09/2020 03:00:36PM |
| Comments: Service request type was changed from BUILDING IMPROVEMENTS WITHOUT PERMIT to SEWER/MISCELLANEOUS              |                                  |
| Response: New SR Type  |                                  |
| Call Back: N   | Date:                            |
| Caller Name:   |                                  |
| Caller Phone:  | Ext:                             |

# SERVICE REQUEST REPORT

Service Request No.  
**2001558**



Created Date: 01/23/2020 08:01 AM

## WORK LOCATION

|   |             |
|---|-------------|
| Address:1021 HAGUE AVE S                          | Suite: 0075 |
| Cross Street:                                     |             |
| City:   | State: Zip: |
| Service Request Type INVESTIGATE                  |             |
| Problem Code: YASSCLN - Assess need for cleaning. |             |

|   |
|---|
| Problem Description: DIST # 0075. THERE IS BUNCH OF LEAVE INSIDE THE SEWER DRAINS IN FRONT OF THE HOUSE |
|---|

|                            |                                      |                |             |
|----------------------------|--------------------------------------|----------------|-------------|
| Requested Date:            | Crew :ENGS1                          | Dept: SEWERMNT | Area:SEWERS |
| Next Approver:             |                                      |                |             |
| Dispatcher:BRMARTINEZCOLON | Call Back Ready: N                   |                |             |
| Status: WORK ORDER         | Customer Call Back: N                |                |             |
| WO/Task No: 2002587/01     | Finished Date: 01/27/2020 07:34:56AM |                |             |

## CUSTOMER INFORMATION

|              |                       |
|--------------|-----------------------|
| Customer ID: | Bill Customer: N      |
| Name:        | Customer Call Back: N |
| Work Phone:  | Ext: Home Phone:      |
| Company:     | Tax ID:               |

## REPORTED BY

|                            |                      |
|----------------------------|----------------------|
| Name: DAVIS, MIKE          | Call Back: 0         |
| Address: 742 S HIGH STREET | Suite:               |
| City: COLUMBUS             | State: OH Zip: 43206 |
| Work Phone: (614) 299-2034 | Ext: Home Phone:     |

# SERVICE REQUEST REPORT

28 JAN 2020

08:26 AM

Service Request No.

**2001558**



Created Date: 01/23/2020 08:01 AM

## CLOSEOUT INFORMATION

Start: 01/23/2020 09:30 AM

Finish: 01/23/2020 10:20 AM

Completed: Y

Failure: YDIRTY

Repair: \_\_\_\_\_

Further Action: YCLEAN

Comments: YCBB1 - The catch basin (# 0075T0505) (12" T) in front of 1021 S. Hague Ave. needs to have the debris vactored out.

Inspected By: Engle / Walters

Date: 23-JAN-20

Signoff By: \_\_\_\_\_

Date: \_\_\_\_\_

Closed By: \_\_\_\_\_

Date: \_\_\_\_\_

# SERVICE REQUEST REPORT

Service Request No.

**2001817**



Created Date: 01/27/2020 10:04 AM

## WORK LOCATION

|   |             |
|---|-------------|
| Address: E BROAD ST                               | Suite: 0562 |
| Cross Street: MEIJER DR                           |             |
| City:   | State: Zip: |
| Service Request Type: INVESTIGATE                 |             |
| Problem Code: YASSCLN - Assess need for cleaning. |             |

|   |
|---|
| Problem Description: DIST. #0562. Storm drain directly in front of first fire hydrant north of East Broad St. on Meijer Dr. is clogged? Road was more flooded than picture shows.. ON-LINE REQUEST. |
|---|

|                    |             |                                      |              |
|--------------------|-------------|--------------------------------------|--------------|
| Requested Date:    | Crew :BOYM1 | Dept: SEWERMNT                       | Area: SEWERS |
| Next Approver:     |             |                                      |              |
| Dispatcher: RSRAAB |             | Call Back Ready: N                   |              |
| Status: CLOSED     |             | Customer Call Back: N                |              |
| WO/Task No:        |             | Finished Date: 01/27/2020 10:59:42AM |              |

## CUSTOMER INFORMATION

|              |      |                       |
|--------------|------|-----------------------|
| Customer ID: |      | Bill Customer: N      |
| Name:        |      | Customer Call Back: N |
| Work Phone:  | Ext: | Home Phone:           |
| Company:     |      | Tax ID:               |

## REPORTED BY

|                               |                  |
|-------------------------------|------------------|
| Name: NO CUSTOMER INFORMATION | Call Back: 0     |
| Address:                      | Suite:           |
| City:                         | State: Zip:      |
| Work Phone:                   | Ext: Home Phone: |

# SERVICE REQUEST REPORT

11 FEB 2020

07:44 AM

Service Request No.  
**2001817**



Created Date: 01/27/2020 10:04 AM

### CLOSEOUT INFORMATION

|   |                             |                       |
|---|-----------------------------|-----------------------|
| Start: 01/27/2020 10:45 AM  | Finish: 01/27/2020 11:00 AM | Completed: Y          |
| Failure: YNCF   | Repair: YNFWN               | Further Action: YNFAN |
| Comments: YNCF- INLETS AT THE ABOVE LOCATION ARE PRIVATE PER GIS. |                             |                       |
| Inspected By: MBOYD/TMOORE  | Date: 27-JAN-20             |                       |
| Signoff By: _____   | Date: _____                 |                       |
| Closed By: LINK, MICHAEL A  | Date: 30-JAN-20             |                       |

### DOCUMENTS AND PROCEDURES

| <u>Document ID</u> | <u>Document Type</u> | <u>Status</u> | <u>Revision</u> | <u>Last Update Date</u> |
|--------------------|----------------------|---------------|-----------------|-------------------------|
| 311-107713         | DOCUMENT             | CREATED       |                 |                         |

# SERVICE REQUEST REPORT

Service Request No.  
**2001831**



Created Date: 01/27/2020 11:00 AM

## WORK LOCATION

|   |             |
|---|-------------|
| Address:1423 MANCHESTER AVE                   | Suite:      |
| Cross Street:                                 |             |
| City:   | State: Zip: |
| Service Request Type: INVESTIGATE             |             |
| Problem Code: Y311 - SMOG 311 SERVICE REQUEST |             |

|  |
|--|
| Problem Description: MEDINA. ON-LINE REQUEST. LEAVES CLOGGING THE GUTTERS AND STORM SEWER CATCH BASIN ALONG THE 1400 BLOCK OF MANCHESTER FROM MEDINA |
|--|

|                    |        |                       |              |
|--------------------|--------|-----------------------|--------------|
| Requested Date:    | Crew : | Dept: SEWERMNT        | Area: SEWERS |
| Next Approver:     |        |                       |              |
| Dispatcher: RSRAAB |        | Call Back Ready: N    |              |
| Status: CLOSED     |        | Customer Call Back: N |              |
| WO/Task No:        |        | Finished Date:        |              |

## CUSTOMER INFORMATION

|                  |                       |
|------------------|-----------------------|
| Customer ID:     | Bill Customer: N      |
| Name:            | Customer Call Back: N |
| Work Phone: Ext: | Home Phone:           |
| Company:         | Tax ID:               |

## REPORTED BY

|                               |              |
|-------------------------------|--------------|
| Name: NO CUSTOMER INFORMATION | Call Back: 0 |
| Address:                      | Suite:       |
| City:                         | State: Zip:  |
| Work Phone: Ext:              | Home Phone:  |

# SERVICE REQUEST REPORT

28 JAN 2020  
08:27 AM

Service Request No.  
**2001831**



Created Date: 01/27/2020 11:00 AM

## CLOSEOUT INFORMATION

|                     |               |                       |
|---------------------|---------------|-----------------------|
| Start: _____        | Finish: _____ | Completed: _____      |
| Failure: _____      | Repair: _____ | Further Action: _____ |
| Comments:           |               |                       |
|                     |               |                       |
| Inspected By: _____ | Date: _____   |                       |
| Signoff By: _____   | Date: _____   |                       |
| Closed By: _____    | Date: _____   |                       |

## CALL HISTORY

|   |                                  |
|---|----------------------------------|
| <b>Call No: 2</b>   | Call Date: 01/27/2020 11:00:39AM |
| Comments: SEE NEW SERVICE REQUEST FOR SEWERS.   |                                  |
| Response: NO CAUSE FOR ACTION - CLOSE SR  |                                  |
| Call Back: N  | Date:                            |
| Caller Name:  |                                  |
| Caller Phone:   | Ext:                             |
| <b>Call No: 1</b>   | Call Date: 01/27/2020 11:00:19AM |
| Comments: Service request type was changed from REQUEST FOR STREET SWEEPING/CLEANING to SEWER/MISCELLANEOUS |                                  |
| Response: New SR Type   |                                  |
| Call Back: N  | Date:                            |
| Caller Name:  |                                  |
| Caller Phone:   | Ext:                             |

# SERVICE REQUEST REPORT

Service Request No.  
**2001848**



Created Date: 01/27/2020 01:02 PM

### WORK LOCATION

|  |             |
|--|-------------|
| Address: 2855 INDIANOLA AVE                                  | Suite: 0127 |
| Cross Street: CRESTVIEW RD                                   |             |
| City:  | State: Zip: |
| Service Request Type: INVESTIGATE                            |             |
| Problem Code: YSPILL - Non-water spill; chemical, fuel, etc. |             |

|  |
|--|
| Problem Description: DIST-- 127-- CITIZEN CALLED AND SPOTTED SOMEONE DUMPING CHEMICAL LIKE SUBSTANCE IN THE ALLEY BEHIND THE CREST GASTRO PUB HEADING TOWARDS THE SEWER. DISPATCHER NOTIFIED BOB LAMB IN STORMWATER. |
|--|

|                             |        |                                      |              |
|-----------------------------|--------|--------------------------------------|--------------|
| Requested Date:             | Crew : | Dept: SEWERMNT                       | Area: SEWERS |
| Next Approver:              |        |                                      |              |
| Dispatcher: WHITE, JANICE L |        | Call Back Ready: N                   |              |
| Status: CLOSED              |        | Customer Call Back: N                |              |
| WO/Task No:                 |        | Finished Date: 01/27/2020 01:22:42PM |              |

### CUSTOMER INFORMATION

|              |      |                       |
|--------------|------|-----------------------|
| Customer ID: |      | Bill Customer: N      |
| Name:        |      | Customer Call Back: N |
| Work Phone:  | Ext: | Home Phone:           |
| Company:     |      | Tax ID:               |

### REPORTED BY

|                            |                  |
|----------------------------|------------------|
| Name: ANONYMOUS CALLER     | Call Back: N     |
| Address:                   | Suite:           |
| City:                      | State: Zip:      |
| Work Phone: (614) 582-3705 | Ext: Home Phone: |

Refer to Illicit Discharge  
Investigation 01272020-1

# SERVICE REQUEST REPORT

28 JAN 2020  
08:28 AM

Service Request No.  
**2001848**



Created Date: 01/27/2020 01:02 PM

## CLOSEOUT INFORMATION

|   |                             |                       |
|---|-----------------------------|-----------------------|
| Start: 01/27/2020 01:22 PM                    | Finish: 01/27/2020 02:10 PM | Completed: Y          |
| Failure: _____                                | Repair: _____               | Further Action: _____ |
| Comments: Refer to S.R.M.S. report 01272020-1 |                             |                       |
| Inspected By: Lamb                            | Date: 27-JAN-20             |                       |
| Signoff By: Lamb                              | Date: 27-JAN-20             |                       |
| Closed By: LAMB, ROBERT F                     | Date: 27-JAN-20             |                       |

## SPECIFICATIONS

|                |                         |              |                   |
|----------------|-------------------------|--------------|-------------------|
| ID: 2001008    | Category: DOSD WORK DAT | Type: SPILL  | Title: SPILL DATA |
| <u>Seq. No</u> | <u>Attribute</u>        | <u>Value</u> |                   |
| 5              | SPILL AFFECTED AREA?    |              |                   |
| 10             | CAUSE?                  |              |                   |
| 15             | CONTAINED Y             |              |                   |
| 20             | STORMWATER NOTIFIED Y   |              |                   |
| 25             | EPA ON SITE Y           |              |                   |
| 30             | RECEIVING STRUCTURE #   |              |                   |
| 35             | RECEIVING WATERWAY?     |              |                   |

# SERVICE REQUEST REPORT

Service Request No.  
**2001942**



Created Date: 01/28/2020 04:06 PM

## WORK LOCATION

|  |             |
|--|-------------|
| Address:1451 NORTHWEST BLVD                            | Suite: 0026 |
| Cross Street:  |             |
| City:  | State: Zip: |
| Service Request Type: INVESTIGATE                      |             |
| Problem Code: YWIB - Water in Basement (drain backup). |             |

|  |
|--|
| Problem Description: DIST #26 - PROPERTIES FROM 1445 TO 1451 ARE EXPERIENCING A BACKUP. LANDLORD IS THERE AND WORKING ON IT. |
|--|

|                              |             |                       |             |
|------------------------------|-------------|-----------------------|-------------|
| Requested Date:              | Crew :WALE2 | Dept: SEWERMNT        | Area:SEWERS |
| Next Approver:               |             |                       |             |
| Dispatcher:ADKINS, MELINDA L |             | Call Back Ready: N    |             |
| Status: WORK ORDER           |             | Customer Call Back: N |             |
| WO/Task No: 2002754/01       |             | Finished Date:        |             |

## CUSTOMER INFORMATION

|                  |                       |
|------------------|-----------------------|
| Customer ID:     | Bill Customer: N      |
| Name:            | Customer Call Back: N |
| Work Phone: Ext: | Home Phone:           |
| Company:         | Tax ID:               |

## REPORTED BY

|                                 |              |
|---------------------------------|--------------|
| Name: LOLLA, HOYT               | Call Back: N |
| Address:1451 NORTHWEST          | Suite: 0026  |
| City:                           | State: Zip:  |
| Work Phone: (614) 565-3417 Ext: | Home Phone:  |

# SERVICE REQUEST REPORT

Service Request No.

**2001942**



Created Date: 01/28/2020 04:06 PM

## CLOSEOUT INFORMATION

|   |                             |                          |
|---|-----------------------------|--------------------------|
| Start: 01/28/2020 07:30 PM  | Finish: 01/28/2020 10:30 PM | Completed: _____         |
| Failure: Y STOP   | Repair: Y JETTED            | Further Action: Y REPAIR |
| Comments: Y WIB/STOPPED/OPND1 - The 8 inch sanitary sewer serving the problem location was stopped up when checked. Stoppage occurred between upstream manhole # 0026s0334 and downstream manhole # 0026s0335. Sewer was opened with Vactor by: Kevin Clark and tenant's water drained. Cause of stoppage was unknown. Tenant was notified of findings by investigator. |                             |                          |
| Inspected By: Epw alters & Alroberts  | Date: 28-JAN-20             |                          |
| Signoff By: _____   | Date: _____                 |                          |
| Closed By: _____  | Date: _____                 |                          |

## SPECIFICATIONS

| ID: 2001058 | Category: DOSD WORK DAT        | Type: SMNT_EVENT | Title: WIB - MSS AND SSO - CSO DATA |
|-------------|--------------------------------|------------------|-------------------------------------|
| Seq. No     | Attribute                      | Value            |                                     |
| 5           | CHECKED FROM STRUCTURE #       | 0026s0331        |                                     |
| 10          | CHECKED TO STRUCTURE #         | 0026s0334        |                                     |
| 15          | CAUSE = GREASE Y               |                  |                                     |
| 20          | CAUSE = ROOTS Y                |                  |                                     |
| 25          | CAUSE = DEBRIS Y               |                  |                                     |
| 30          | CAUSE = SURCHARGED Y           |                  |                                     |
| 35          | CAUSE = OTHER                  |                  |                                     |
| 40          | CAUSE = UNKNOWN Y              | y                |                                     |
| 45          | OPEN V=VAC R=ROD H=HAND        | v                |                                     |
| 50          | TENANT WATER DRAINED Y         | y                |                                     |
| 55          | TENANT NOTIFIED?               | y                |                                     |
| 60          | WORK SEQUENCE                  |                  |                                     |
| 65          | CLEAN FROM #                   |                  |                                     |
| 70          | CLEAN TO #                     |                  |                                     |
| 75          | TV FROM #                      |                  |                                     |
| 80          | TV TO #                        |                  |                                     |
| 85          | DESIGNED SEWER RELIEF - DSR #  |                  |                                     |
| 90          | STRUCTURE OVERFLOWED #         |                  |                                     |
| 95          | MH # - UPSTREAM OF BLOCKAGE    |                  |                                     |
| 100         | MH # - DOWNSTREAM OF BLOCKAGE  |                  |                                     |
| 105         | OVERFLOW AFFECTED AREA?        |                  |                                     |
| 110         | SUMP PUMP ADDRESS              |                  |                                     |
| 115         | SECURE 1=SIGN 2=HANGER 3=OTHER |                  |                                     |
| 120         | TIME/DATE OVERFLOW STOPPED     |                  |                                     |
| 125         | RECEIVING STRUCTURE #          |                  |                                     |

# SERVICE REQUEST REPORT

Service Request No.  
**2001921**

**\*2001921\***

Created Date: 01/28/2020 01:07 PM

## WORK LOCATION

|   |             |
|---|-------------|
| Address:5101 TRABUE RD                            | Suite: 0220 |
| Cross Street:                                     |             |
| City:   | State: Zip: |
| Service Request TypeINVESTIGATE                   |             |
| Problem Code: YODOR - Bad odor inside or outside. |             |

Problem Description: dist 220--CALLER FROM A THIRD PARTY SOURCE SAYS A UPS WORKER SPOTTED A SEWER LEAK. 2ND CALL FROM DPU- DUBLIN PLANT FROM 614-645-6495 STATED THE SEWER LEAK MAY INTER INTO THE CREEK.BOTH CALL TRANSFERRED TO STORM WATER 614-645-0363. NEITHER CALL COULD NOT SAY WHERE THIS LEAK EXACT LOCATION WAS SPOTTED. THIRD PARTY WAS FROM EPA- ANTHONY ROBINSON WHO A SLO COULD NOT GIVE NO OTHER INFO BUT AN ADDRESS.

|                            |             |                                      |             |
|----------------------------|-------------|--------------------------------------|-------------|
| Requested Date:            | Crew :ENGS1 | Dept: SEWERMNT                       | Area:SEWERS |
| Next Approver:             |             |                                      |             |
| Dispatcher:WHITE, JANICE L |             | Call Back Ready: N                   |             |
| Status: CLOSED             |             | Customer Call Back: N                |             |
| WO/Task No:                |             | Finished Date: 01/28/2020 01:19:00PM |             |

## CUSTOMER INFORMATION

|                  |                       |
|------------------|-----------------------|
| Customer ID:     | Bill Customer: N      |
| Name:            | Customer Call Back: N |
| Work Phone: Ext: | Home Phone:           |
| Company:         | Tax ID:               |

## REPORTED BY

|                                 |              |
|---------------------------------|--------------|
| Name: ROBINSON, ANTHONY         | Call Back: N |
| Address:                        | Suite:       |
| City: EPA                       | State: Zip:  |
| Work Phone: (614) 728-3392 Ext: | Home Phone:  |

# SERVICE REQUEST REPORT

Service Request No. **\*2001921\***  
**2001921**

Created Date: 01/28/2020 01:07 PM

## CLOSEOUT INFORMATION

|   |                             |                     |
|---|-----------------------------|---------------------|
| Start: 01/28/2020 01:25 PM  | Finish: 01/28/2020 02:45 PM | Completed: Y        |
| Failure: YNCF   | Repair: YNFWN               | Further Action:YNFI |
| Comments: YSSO2 - The 8 inch sanitary sewer was found to have previously been stopped up. Stoppage occurred between upstream manhole # 0220S0343 and downstream manhole # 0220S0625. Manhole # 0220S0343 was found to have overflowed and the sewage entered the storm system at storm inlet number 0220T0355. Sewer was opened with a vactor by Waterworks. Mike Link was notified by S. Engle. These sanitary and storm sewers are private sewers. This matter was referred to Storm Water. |                             |                     |
| Inspected By: Engle / Walters   | Date: 28-JAN-20             |                     |
| Signoff By: _____   | Date: _____                 |                     |
| Closed By: LINK, MICHAEL A  | Date: 30-JAN-20             |                     |

## SPECIFICATIONS

| ID: 2001055 | Category: DOSD WORK DAT  | Type: SPILL      | Title: SPILL DATA                   |
|-------------|--------------------------|------------------|-------------------------------------|
| Seq. No     | Attribute                | Value            |                                     |
| 5           | SPILL AFFECTED AREA?     |                  |                                     |
| 10          | CAUSE?                   |                  |                                     |
| 15          | CONTAINED Y              |                  |                                     |
| 20          | STORMWATER NOTIFIED Y    |                  |                                     |
| 25          | EPA ON SITE Y            |                  |                                     |
| 30          | RECEIVING STRUCTURE #    |                  |                                     |
| 35          | RECEIVING WATERWAY?      |                  |                                     |
| ID: 2001056 | Category: DOSD WORK DAT  | Type: SMNT_EVENT | Title: WIB - MSS AND SSO - CSO DATA |
| Seq. No     | Attribute                | Value            |                                     |
| 5           | CHECKED FROM STRUCTURE # | 0220S0343        |                                     |
| 10          | CHECKED TO STRUCTURE #   | 0220S0625        |                                     |
| 15          | CAUSE = GREASE Y         |                  |                                     |
| 20          | CAUSE = ROOTS Y          |                  |                                     |
| 25          | CAUSE = DEBRIS Y         |                  |                                     |
| 30          | CAUSE = SURCHARGED Y     |                  |                                     |
| 35          | CAUSE = OTHER            |                  |                                     |
| 40          | CAUSE = UNKNOWN Y        |                  |                                     |
| 45          | OPEN V=VAC R=ROD H=HAND  | V                |                                     |
| 50          | TENANT WATER DRAINED Y   |                  |                                     |
| 55          | TENANT NOTIFIED?         | Y                |                                     |
| 60          | WORK SEQUENCE            |                  |                                     |
| 65          | CLEAN FROM #             |                  |                                     |
| 70          | CLEAN TO #               |                  |                                     |
| 75          | TV FROM #                |                  |                                     |
| 80          | TV TO #                  |                  |                                     |

## SERVICE REQUEST REPORT

26 JAN 2021

09:08 AM

Service Request No.  
**2001921****\*2001921\***

Created Date: 01/28/2020 01:07 PM

**SPECIFICATIONS**

| <i>Seq. No</i> | <i>Attribute</i>               | <i>Value</i>                        |
|----------------|--------------------------------|-------------------------------------|
| ID: 2001056    | Category: DOSD WORK DAT        | Type: SMNT_EVENT                    |
|                |                                | Title: WIB - MSS AND SSO - CSO DATA |
| 85             | DESIGNED SEWER RELIEF - DSR #  |                                     |
| 90             | STRUCTURE OVERFLOWED #         |                                     |
| 95             | MH # - UPSTREAM OF BLOCKAGE    |                                     |
| 100            | MH # - DOWNSTREAM OF BLOCKAGE  |                                     |
| 105            | OVERFLOW AFFECTED AREA?        |                                     |
| 110            | SUMP PUMP ADDRESS              |                                     |
| 115            | SECURE 1=SIGN 2=HANGER 3=OTHER |                                     |
| 120            | TIME/DATE OVERFLOW STOPPED     |                                     |
| 125            | RECEIVING STRUCTURE #          |                                     |
| 130            | RECEIVING WATERWAY?            |                                     |



# SERVICE REQUEST REPORT

Service Request No.  
**2002232**



Created Date: 02/03/2020 09:44 AM

## WORK LOCATION

|  |             |
|--|-------------|
| Address: N PEARL ST  | Suite: 0003 |
| Cross Street: E LYNN ST                                      |             |
| City:  | State: Zip: |
| Service Request Type: INVESTIGATE                            |             |
| Problem Code: YSPILL - Non-water spill; chemical, fuel, etc. |             |

|   |
|---|
| Problem Description: DIST #0003. CALLER REPORTS THERE IS A DUMPSTER AT THE SW CORNER OF N PEARL ST AND E LYNN ST THAT IS SPILLING OUT OIL AND IT IS RUNNING INTO THE SEWER. THANK YOU |
|---|

|                      |        |                                      |              |
|----------------------|--------|--------------------------------------|--------------|
| Requested Date:      | Crew : | Dept: SEWERMNT                       | Area: SEWERS |
| Next Approver:       |        |                                      |              |
| Dispatcher: NSCHOATE |        | Call Back Ready: N                   |              |
| Status: CLOSED       |        | Customer Call Back: N                |              |
| WO/Task No:          |        | Finished Date: 02/11/2020 08:12:13AM |              |

## CUSTOMER INFORMATION

|                  |                       |
|------------------|-----------------------|
| Customer ID:     | Bill Customer: N      |
| Name:            | Customer Call Back: N |
| Work Phone: Ext: | Home Phone:           |
| Company:         | Tax ID:               |

## REPORTED BY

|                            |              |
|----------------------------|--------------|
| Name: DECLINED BY CUSTOMER | Call Back: 0 |
| Address:                   | Suite:       |
| City:                      | State: Zip:  |
| Work Phone: Ext:           | Home Phone:  |

Refer to Illicit Discharge  
Investigation 02032020-1

# SERVICE REQUEST REPORT

Service Request No.  
**2002232**



Created Date: 02/03/2020 09:44 AM

## CLOSEOUT INFORMATION

|  |                             |                       |
|--|-----------------------------|-----------------------|
| Start: 02/03/2020 10:02 AM   | Finish: 02/03/2020 03:00 PM | Completed: _____      |
| Failure: _____   | Repair: _____               | Further Action: _____ |
| Comments: FOWARD FOR REASSIGNMENT – Forw arded to DOSD Stormw ater for potential illicit discharge/spill. See S.R.M.S. report 02032020-1 |                             |                       |
| Inspected By: LINK   | Date: 03-FEB-20             |                       |
| Signoff By: lamb   | Date: 11-FEB-20             |                       |
| Closed By: LAMB, ROBERT F  | Date: 11-FEB-20             |                       |

## SPECIFICATIONS

| ID: 2001273 | Category: DOSD WORK DAT | Type: SPILL | Title: SPILL DATA |
|-------------|-------------------------|-------------|-------------------|
| Seq. No     | Attribute               | Value       |                   |
| 5           | SPILL AFFECTED AREA?    |             |                   |
| 10          | CAUSE?                  |             |                   |
| 15          | CONTAINED Y             |             |                   |
| 20          | STORMWATER NOTIFIED Y   |             |                   |
| 25          | EPA ON SITE Y           |             |                   |
| 30          | RECEIVING STRUCTURE #   |             |                   |
| 35          | RECEIVING WATERWAY?     |             |                   |

# SERVICE REQUEST REPORT

Service Request No.  
**2002297**



Created Date: 02/03/2020 04:29 PM

## WORK LOCATION

|   |             |
|---|-------------|
| Address:3221 BRICE RD                             | Suite: 0395 |
| Cross Street:                                     |             |
| City:   | State: Zip: |
| Service Request Type: INVESTIGATE                 |             |
| Problem Code: YOTHP - Other problem not in codes. |             |

Problem Description: Dist.#:95 - A building (orhouse) is being built behind her house. The builder keeps leaving a pump running, w hich is pumping muddy w ater into a creek and leaving her yard soggy. She said she spoke w ith City Sew ers and Code Enforcement, one of w hom told her to call SMOC.

|                            |             |                                      |             |
|----------------------------|-------------|--------------------------------------|-------------|
| Requested Date:            | Crew :JOHF1 | Dept: SEWERMNT                       | Area:SEWERS |
| Next Approver:             |             |                                      |             |
| Dispatcher:SCOTT, MARCIA R |             | Call Back Ready: N                   |             |
| Status: CLOSED             |             | Customer Call Back: N                |             |
| WO/Task No:                |             | Finished Date: 02/03/2020 06:25:06PM |             |

## CUSTOMER INFORMATION

|                  |                       |
|------------------|-----------------------|
| Customer ID:     | Bill Customer: N      |
| Name:            | Customer Call Back: N |
| Work Phone: Ext: | Home Phone:           |
| Company:         | Tax ID:               |

## REPORTED BY

|                       |                            |
|-----------------------|----------------------------|
| Name: Jacks, Jamilyn  | Call Back: N               |
| Address:3221 BRICE RD | Suite: 0395                |
| City:                 | State: Zip:                |
| Work Phone: Ext:      | Home Phone: (614) 582-9756 |

# SERVICE REQUEST REPORT

11 FEB 2020  
07:54 AM

Service Request No.  
**2002297**



Created Date: 02/03/2020 04:29 PM

## CLOSEOUT INFORMATION

|  |                             |                      |
|--|-----------------------------|----------------------|
| Start: 02/03/2020 03:30 PM   | Finish: 02/03/2020 04:30 PM | Completed: _____     |
| Failure: YCNTRPROB   | Repair: _____               | Further Action:YNFAN |
| Comments: Construction work is being done and they are using by pass pumps to pump water not sanitary water. Told customer that it is legal to do what they are doing. |                             |                      |
| Inspected By: F.Johnson  | Date: 03-FEB-20             |                      |
| Signoff By: _____  | Date: _____                 |                      |
| Closed By: JOHNSON, FRED L   | Date: 03-FEB-20             |                      |

**SERVICE REQUEST REPORT**

Service Request No. **\*2002360\***  
**2002360**

Created Date: 02/04/2020 02:44 PM

**WORK LOCATION**

|   |             |
|---|-------------|
| Address:1861 GANTZ RD                             | Suite: 0071 |
| Cross Street:                                     |             |
| City:   | State: Zip: |
| Service Request Type INVESTIGATE                  |             |
| Problem Code: YODOR - Bad odor inside or outside. |             |

Problem Description: DIST #0071. EMAIL-We received a complaint this morning through our Assistant Chief, from Don Parsons about a sew age smell at the confluence of Early Run and Scioto Big Run. Mike Gallaway said that Columbus has a SSO location on Early Run, so that may be the best place to start. Is this within Columbus' MS4 area? If so, could you please have someone investigate the stream for the presence of sewage and follow up with me after? Please let me know if this isn't within your MS4 area, and I will follow up with Franklin County.

|                            |             |                                      |             |
|----------------------------|-------------|--------------------------------------|-------------|
| Requested Date:            | Crew :GRAA1 | Dept: SEWERMNT                       | Area:SEWERS |
| Next Approver:             |             |                                      |             |
| Dispatcher:LINK, MICHAEL A |             | Call Back Ready: N                   |             |
| Status: CLOSED             |             | Customer Call Back: N                |             |
| WO/Task No:                |             | Finished Date: 02/04/2020 07:07:12PM |             |

**CUSTOMER INFORMATION**

|                  |                       |
|------------------|-----------------------|
| Customer ID:     | Bill Customer: N      |
| Name:            | Customer Call Back: N |
| Work Phone: Ext: | Home Phone:           |
| Company:         | Tax ID:               |

**REPORTED BY**

|                     |              |
|---------------------|--------------|
| Name: RUBADUE, JOHN | Call Back: N |
| Address:            | Suite:       |
| City:               | State: Zip:  |
| Work Phone: Ext:    | Home Phone:  |

**NOTES**

DESCRIPTION: S/W/C/O @ MANHOLE #'S 0071S0222 & 0071S0219. Run visual inspection of ditchline E/O Gantz Rd. S/O 2062 Gantz Rd. NOTIFY J. RUBADUE OF FINDINGS.

## SERVICE REQUEST REPORT

26 JAN 2021

09:11 AM

Service Request No.

2002360

\*2002360\*

Created Date: 02/04/2020 02:44 PM

## CLOSEOUT INFORMATION

Start: 02/04/2020 03:30 PM

Finish: 02/04/2020 05:30 PM

Completed: \_\_\_\_\_

Failure: YNCF

Repair: \_\_\_\_\_

Further Action:YNFAN

Comments: YBO2 - The 54 inch sanitary sewer serving the problem location was open and flowing when checked.  
Checked upstream manhole # 0071S0224 and downstream manhole #0071S0218.

Inspected By: GRASHEL/WALTERS

Date: 04-FEB-20

Signoff By: \_\_\_\_\_

Date: \_\_\_\_\_

Closed By: JOHNSON, FRED L

Date: 05-FEB-20

## SPECIFICATIONS

ID: 2001382 Category: DOSD WORK DAT Type: SMNT\_EVENT Title: WIB - MSS AND SSO - CSO DATA

| Seq. No | Attribute                      | Value |
|---------|--------------------------------|-------|
| 5       | CHECKED FROM STRUCTURE #       |       |
| 10      | CHECKED TO STRUCTURE #         |       |
| 15      | CAUSE = GREASE Y               |       |
| 20      | CAUSE = ROOTS Y                |       |
| 25      | CAUSE = DEBRIS Y               |       |
| 30      | CAUSE = SURCHARGED Y           |       |
| 35      | CAUSE = OTHER                  |       |
| 40      | CAUSE = UNKNOWN Y              |       |
| 45      | OPEN V=VAC R=ROD H=HAND        |       |
| 50      | TENANT WATER DRAINED Y         |       |
| 55      | TENANT NOTIFIED?               |       |
| 60      | WORK SEQUENCE                  |       |
| 65      | CLEAN FROM #                   |       |
| 70      | CLEAN TO #                     |       |
| 75      | TV FROM #                      |       |
| 80      | TV TO #                        |       |
| 85      | DESIGNED SEWER RELIEF - DSR #  |       |
| 90      | STRUCTURE OVERFLOWED #         |       |
| 95      | MH # - UPSTREAM OF BLOCKAGE    |       |
| 100     | MH # - DOWNSTREAM OF BLOCKAGE  |       |
| 105     | OVERFLOW AFFECTED AREA?        |       |
| 110     | SUMP PUMP ADDRESS              |       |
| 115     | SECURE 1=SIGN 2=HANGER 3=OTHER |       |
| 120     | TIME/DATE OVERFLOW STOPPED     |       |
| 125     | RECEIVING STRUCTURE #          |       |

Submitted by: RFLAMB

Oracle

Report s\_rpt138 v 1912-1

# SERVICE REQUEST REPORT

Service Request No.  
**2002360**

**\*2002360\***

Created Date: 02/04/2020 02:44 PM

## SPECIFICATIONS

|                    |                                |                         |  |
|--------------------|--------------------------------|-------------------------|--|
| <i>ID:</i> 2001382 | <i>Category:</i> DOSD WORK DAT | <i>Type:</i> SMNT_EVENT | <i>Title:</i> WIB - MSS AND SSO - CSO DATA |
| <u>Seq. No</u>     | <u>Attribute</u>               | <u>Value</u>            |  |
| 130                | RECEIVING WATERWAY?            |                         |  |



# SERVICE REQUEST REPORT

Service Request No.  
**2002651**



Created Date: 02/11/2020 07:02 AM

## WORK LOCATION

|  |             |
|--|-------------|
| Address: 5TH AVE                                       | Suite: 0031 |
| Cross Street: SUNBURY RD                               |             |
| City:  | State: Zip: |
| Service Request Type: INVESTIGATE                      |             |
| Problem Code: YUPFLOW - Flow from ground or structure. |             |

|   |
|---|
| Problem Description: DIST # 0031 - Caller stated sanitary hole is spurring water and has a a smell. |
|---|

|                            |              |                       |              |
|----------------------------|--------------|-----------------------|--------------|
| Requested Date:            | Crew :PAY J1 | Dept: SEWERMNT        | Area: SEWERS |
| Next Approver:             |              |                       |              |
| Dispatcher: BAXTER, CIERRA |              | Call Back Ready: N    |              |
| Status: ACTIVE             |              | Customer Call Back: N |              |
| WO/Task No:                |              | Finished Date:        |              |

## CUSTOMER INFORMATION

|                  |                       |
|------------------|-----------------------|
| Customer ID:     | Bill Customer: N      |
| Name:            | Customer Call Back: N |
| Work Phone: Ext: | Home Phone:           |
| Company:         | Tax ID:               |

## REPORTED BY

|                                 |              |
|---------------------------------|--------------|
| Name: Dendinger, Ryan           | Call Back: N |
| Address:                        | Suite:       |
| City:                           | State: Zip:  |
| Work Phone: (419) 217-9516 Ext: | Home Phone:  |

# SERVICE REQUEST REPORT

Service Request No.  
**2002651**



Created Date: 02/11/2020 07:02 AM

## CLOSEOUT INFORMATION

|                            |               |                       |
|----------------------------|---------------|-----------------------|
| Start: 02/11/2020 07:11 AM | Finish: _____ | Completed: _____      |
| Failure: _____             | Repair: _____ | Further Action: _____ |
| Comments:                  |               |                       |
|                            |               |                       |
| Inspected By: _____        | Date: _____   |                       |
| Signoff By: _____          | Date: _____   |                       |
| Closed By: _____           | Date: _____   |                       |

## SPECIFICATIONS

| ID: 2001544 | Category: DOSD WORK DAT        | Type: SMNT_EVENT | Title: WIB - MSS AND SSO - CSO DATA |
|-------------|--------------------------------|------------------|-------------------------------------|
| Seq. No     | Attribute                      | Value            |                                     |
| 5           | CHECKED FROM STRUCTURE #       |                  |                                     |
| 10          | CHECKED TO STRUCTURE #         |                  |                                     |
| 15          | CAUSE = GREASE Y               |                  |                                     |
| 20          | CAUSE = ROOTS Y                |                  |                                     |
| 25          | CAUSE = DEBRIS Y               |                  |                                     |
| 30          | CAUSE = SURCHARGED Y           |                  |                                     |
| 35          | CAUSE = OTHER                  |                  |                                     |
| 40          | CAUSE = UNKNOWN Y              |                  |                                     |
| 45          | OPEN V=VAC R=ROD H=HAND        |                  |                                     |
| 50          | TENANT WATER DRAINED Y         |                  |                                     |
| 55          | TENANT NOTIFIED?               |                  |                                     |
| 60          | WORK SEQUENCE                  |                  |                                     |
| 65          | CLEAN FROM #                   |                  |                                     |
| 70          | CLEAN TO #                     |                  |                                     |
| 75          | TV FROM #                      |                  |                                     |
| 80          | TV TO #                        |                  |                                     |
| 85          | DESIGNED SEWER RELIEF - DSR #  |                  |                                     |
| 90          | STRUCTURE OVERFLOWED #         |                  |                                     |
| 95          | MH # - UPSTREAM OF BLOCKAGE    |                  |                                     |
| 100         | MH # - DOWNSTREAM OF BLOCKAGE  |                  |                                     |
| 105         | OVERFLOW AFFECTED AREA?        |                  |                                     |
| 110         | SUMP PUMP ADDRESS              |                  |                                     |
| 115         | SECURE 1=SIGN 2=HANGER 3=OTHER |                  |                                     |
| 120         | TIME/DATE OVERFLOW STOPPED     |                  |                                     |
| 125         | RECEIVING STRUCTURE #          |                  |                                     |

## SERVICE REQUEST REPORT

02 MAR 2020

07:49 AM

Created Date: 02/12/2020 07:50 AM

Service Request No.

2002738



## WORK LOCATION

|   |             |
|---|-------------|
| Address:7723 SOUTHWICK DR                     | Suite: 0852 |
| Cross Street:                                 |             |
| City:   | State: Zip: |
| Service Request TypeINVESTIGATE               |             |
| Problem Code: Y311 - SMOC 311 SERVICE REQUEST |             |

|  |
|--|
| Problem Description: . EMAIL RECEIVED:<br>I RECENTLY MOVED INTO 7723 SOUTHWICK DRIVE DUBLIN, OH 43016. SINCE I HAVE MOVED IN I HAVE NOTICED THAT MY NEIGHBORS BACK YARD HAS A LOT OF STANDING WATER. THERE IS ALSO STANDING WATER BETWEEN OUR TWO YARDS. THE SUMP-PUMP IN MY BASEMENT IS RUNNING A LOT. THE DRAIN OUT INTO THE STREET IN BETWEEN OUR TWO HOUSES ALWAYS HAS A LOT OF WATER. I WAS HOPING SOMEONE COULD CHECK THE WATER LINES/PIPES AND MAKE SURE THERE IS NO LEAK. OR OFFER OTHER SUGGESTIONS AS WHAT I SHOULD DO TO FOLLOW UP. |
|--|

|                     |        |                       |             |
|---------------------|--------|-----------------------|-------------|
| Requested Date:     | Crew : | Dept: SEWERMNT        | Area:SEWERS |
| Next Approver:      |        |                       |             |
| Dispatcher:SJSPARKS |        | Call Back Ready: N    |             |
| Status: HELD        |        | Customer Call Back: N |             |
| WO/Task No:         |        | Finished Date:        |             |

## CUSTOMER INFORMATION

|              |                       |
|--------------|-----------------------|
| Customer ID: | Bill Customer: N      |
| Name:        | Customer Call Back: N |
| Work Phone:  | Ext: Home Phone:      |
| Company:     | Tax ID:               |

## REPORTED BY

|                            |                      |
|----------------------------|----------------------|
| Name: Link, Megan          | Call Back: 0         |
| Address: 7723 SOUTHWICK DR | Suite:               |
| City: COLUMBUS             | State: OH Zip: 43016 |
| Work Phone: (614) 827-5837 | Ext: Home Phone:     |

# SERVICE REQUEST REPORT

Service Request No.

**2002738**



Created Date: 02/12/2020 07:50 AM

## CLOSEOUT INFORMATION

|  |                 |                       |
|--|-----------------|-----------------------|
| Start: _____   | Finish: _____   | Completed: _____      |
| Failure: _____   | Repair: _____   | Further Action: _____ |
| Comments: RETURN FOR REASSIGNMENT – Not DOSD related; Forward to Division of Water |                 |                       |
| Inspected By: LINK   | Date: 12-FEB-20 |                       |
| Signoff By: _____  | Date: _____     |                       |
| Closed By: _____   | Date: _____     |                       |

## CALL HISTORY

|  |                                  |
|--|----------------------------------|
| <b>Call No: 3</b>  | Call Date: 02/12/2020 03:13:33PM |
| Comments: Service request type was changed from STREET FLOODING/BLOCKED DRAINS to WATER/MISCELLANEOUS      |                                  |
| Response: New SR Type  |                                  |
| Call Back: N   | Date:                            |
| Caller Name:   |                                  |
| Caller Phone:  | Ext:                             |
| <b>Call No: 2</b>  | Call Date: 02/12/2020 07:51:06AM |
| Comments: . BASED ON RESPONSE, SR TYPE CHANGED FROM WATER/MISCELLANEOUS TO STREET FLOODING/BLOCKED DRAINS, |                                  |
| Response: STATUS UPDATE  |                                  |
| Call Back: N   | Date:                            |
| Caller Name:   |                                  |
| Caller Phone:  | Ext:                             |

# SERVICE REQUEST REPORT

Created Date: 02/12/2020 07:50 AM

Service Request No.

**2002738**



## CALL HISTORY

**Call No: 1**

Call Date: 02/12/2020 07:50:55AM

Comments: Service request type was changed from WATER/MISCELLANEOUS to STREET FLOODING/BLOCKED DRAINS

Response: New SR Type

Call Back: N      Date:

Caller Name:

Caller Phone:

Ext:



# SERVICE REQUEST REPORT

Service Request No.

**\*2002783\***

Created Date: 02/12/2020 05:54 PM

**2002783**

## WORK LOCATION

|                                       |             |
|---------------------------------------|-------------|
| Address:1971 OAKLAND PARK AV          | Suite: 0179 |
| Cross Street:                         |             |
| City:                                 | State: Zip: |
| Service Request TypeINVESTIGATE       |             |
| Problem Code: YMSS - Main Sew er Stop |             |

|  |
|--|
| Problem Description: DIST #179 - NORTH - MAINTENANCE STAFF AT APARTMENT COMPLEX REPORTS A POSSIBLE MSS |
|--|

|                              |             |                       |             |
|------------------------------|-------------|-----------------------|-------------|
| Requested Date:              | Crew :ROBA2 | Dept: SEWERMNT        | Area:SEWERS |
| Next Approver:               |             |                       |             |
| Dispatcher:ADKINS, MELINDA L |             | Call Back Ready: N    |             |
| Status: CLOSED               |             | Customer Call Back: N |             |
| WO/Task No: 2004425/01       |             | Finished Date:        |             |

## CUSTOMER INFORMATION

|              |      |                       |
|--------------|------|-----------------------|
| Customer ID: |      | Bill Customer: N      |
| Name:        |      | Customer Call Back: N |
| Work Phone:  | Ext: | Home Phone:           |
| Company:     |      | Tax ID:               |

## REPORTED BY

|                              |        |                            |
|------------------------------|--------|----------------------------|
| Name: TOWNS                  |        | Call Back: N               |
| Address:1971 OAKLAND PARK AV |        | Suite: 0179                |
| City:                        | State: | Zip:                       |
| Work Phone: (614) 999-3400   | Ext:   | Home Phone: (614) 285-8058 |

**SERVICE REQUEST REPORT**

Service Request No. **\*2002783\***  
**2002783**

Created Date: 02/12/2020 05:54 PM

**CLOSEOUT INFORMATION**

|  |                             |                          |
|--|-----------------------------|--------------------------|
| Start: 02/12/2020 06:00 PM   | Finish: 02/12/2020 07:30 PM | Completed: _____         |
| Failure: Y STOP  | Repair: Y JETTED            | Further Action: Y REPAIR |
| Comments: YWIB/STOPPED/OPND1 - The 8 inch sanitary sewer serving the problem location was stopped up when checked. Stoppage occurred between upstream manhole #0179S0160 and downstream manhole #0179S0034. Sewer was opened with Vactor by: Eddie Back and tenant's water drained. Cause of stoppage was unknown. Tenant was notified of findings by investigator |                             |                          |
| Inspected By: A. Roberts / A. Grashel  | Date: 12-FEB-20             |                          |
| Signoff By: _____  | Date: _____                 |                          |
| Closed By: GRIFFITH, MICHAEL A   | Date: 28-FEB-20             |                          |

**SPECIFICATIONS**

| ID: 2001673    | Category: DOSD WORK DAT        | Type: SMNT_EVENT | Title: WIB - MSS AND SSO - CSO DATA |
|----------------|--------------------------------|------------------|-------------------------------------|
| <u>Seq. No</u> | <u>Attribute</u>               | <u>Value</u>     |                                     |
| 5              | CHECKED FROM STRUCTURE #       | 0179S0160        |                                     |
| 10             | CHECKED TO STRUCTURE #         | 0179S0034        |                                     |
| 15             | CAUSE = GREASE Y               |                  |                                     |
| 20             | CAUSE = ROOTS Y                |                  |                                     |
| 25             | CAUSE = DEBRIS Y               |                  |                                     |
| 30             | CAUSE = SURCHARGED Y           |                  |                                     |
| 35             | CAUSE = OTHER                  |                  |                                     |
| 40             | CAUSE = UNKNOWN Y              | Y                |                                     |
| 45             | OPEN V=VAC R=ROD H=HAND        | V                |                                     |
| 50             | TENANT WATER DRAINED Y         | Y                |                                     |
| 55             | TENANT NOTIFIED?               | Y                |                                     |
| 60             | WORK SEQUENCE                  |                  |                                     |
| 65             | CLEAN FROM #                   |                  |                                     |
| 70             | CLEAN TO #                     |                  |                                     |
| 75             | TV FROM #                      |                  |                                     |
| 80             | TV TO #                        |                  |                                     |
| 85             | DESIGNED SEWER RELIEF - DSR #  |                  |                                     |
| 90             | STRUCTURE OVERFLOWED #         |                  |                                     |
| 95             | MH # - UPSTREAM OF BLOCKAGE    |                  |                                     |
| 100            | MH # - DOWNSTREAM OF BLOCKAGE  |                  |                                     |
| 105            | OVERFLOW AFFECTED AREA?        |                  |                                     |
| 110            | SUMP PUMP ADDRESS              |                  |                                     |
| 115            | SECURE 1=SIGN 2=HANGER 3=OTHER |                  |                                     |
| 120            | TIME/DATE OVERFLOW STOPPED     |                  |                                     |
| 125            | RECEIVING STRUCTURE #          |                  |                                     |

# SERVICE REQUEST REPORT

Service Request No.

**\*2002783\***

Created Date: 02/12/2020 05:54 PM

**2002783**

## SPECIFICATIONS

|                    |                                |                         |  |
|--------------------|--------------------------------|-------------------------|--|
| <i>ID:</i> 2001673 | <i>Category:</i> DOSD WORK DAT | <i>Type:</i> SMNT_EVENT | <i>Title:</i> WIB - MSS AND SSO - CSO DATA |
| <u>Seq. No</u>     | <u>Attribute</u>               | <u>Value</u>            |  |
| 130                | RECEIVING WATERWAY?            |                         |  |



# SERVICE REQUEST REPORT

Created Date: 02/13/2020 09:18 AM

Service Request No.  
**2002800**



### WORK LOCATION

|  |             |
|--|-------------|
| Address:3880 SULLIVANT AVE                             | Suite: 0115 |
| Cross Street:  |             |
| City:  | State: Zip: |
| Service Request Type: INVESTIGATE                      |             |
| Problem Code: YUPFLOW - Flow from ground or structure. |             |

|  |
|--|
| Problem Description: DIST #0115. CALLER REPORTS EVERY TIME THE TOILET IS FLUSHED INSIDE IT COMES UP IN THE PARKING LOT. CALLER STATES THERE IS A RAW SEWAGE SMELL AND THE SEWAGE ITSELF IN THE PARKING LOT. THANK YOU<br>*****2/13/2020 PER ENVIRONMENTAL HEALTH " POSSIBLE SEWER LATERAL PROBLEM. FORWARD TO SEWERS AND DRAINS" |
|--|

|                      |                                      |                |             |
|----------------------|--------------------------------------|----------------|-------------|
| Requested Date:      | Crew :KISL1                          | Dept: SEWERMNT | Area:SEWERS |
| Next Approver:       |                                      |                |             |
| Dispatcher: NSCHOATE | Call Back Ready: N                   |                |             |
| Status: CLOSED       | Customer Call Back: N                |                |             |
| WO/Task No:          | Finished Date: 02/13/2020 11:07:32AM |                |             |

### CUSTOMER INFORMATION

|                  |                       |
|------------------|-----------------------|
| Customer ID:     | Bill Customer: N      |
| Name:            | Customer Call Back: N |
| Work Phone: Ext: | Home Phone:           |
| Company:         | Tax ID:               |

### REPORTED BY

|                            |              |
|----------------------------|--------------|
| Name: DECLINED BY CUSTOMER | Call Back: 0 |
| Address:                   | Suite:       |
| City:                      | State: Zip:  |
| Work Phone: Ext:           | Home Phone:  |

Refer to Illicit Discharge  
Investigation 02132020-1

# SERVICE REQUEST REPORT

Service Request No.

**2002800**



Created Date: 02/13/2020 09:18 AM

### CLOSEOUT INFORMATION

|   |                             |                       |
|---|-----------------------------|-----------------------|
| Start: 02/13/2020 09:30 AM  | Finish: 02/13/2020 11:00 AM | Completed: Y          |
| Failure: YNCF   | Repair: YNFWN               | Further Action: YNFAN |
| Comments: YNCF/OPEN – Not city failure, the 8 inch sanitary sewer serving the problem location was open and flowing when checked. Checked upstream manhole # 0115s0298 and downstream manhole #0115s0293. Grease trap at above address has evidence of an overflow in to parking can not confirm or deny whether or not the grease went in to the storm sewer or ditch line do to snow and rain covering the parking lotP. referred to Stormwater and Pretreatment . Please refer to SRMS Investigation report 02132020-1 |                             |                       |
| Inspected By: Kisner, L . Stoops, D   | Date: 13-FEB-20             |                       |
| Signoff By: _____   | Date: _____                 |                       |
| Closed By: LINK, MICHAEL A  | Date: 14-FEB-20             |                       |

### SPECIFICATIONS

| ID: 2001686 | Category: DOSD WORK DAT        | Type: SMNT_EVENT | Title: WIB - MSS AND SSO - CSO DATA |
|-------------|--------------------------------|------------------|-------------------------------------|
| Seq. No     | Attribute                      | Value            |                                     |
| 5           | CHECKED FROM STRUCTURE #       |                  |                                     |
| 10          | CHECKED TO STRUCTURE #         |                  |                                     |
| 15          | CAUSE = GREASE Y               |                  |                                     |
| 20          | CAUSE = ROOTS Y                |                  |                                     |
| 25          | CAUSE = DEBRIS Y               |                  |                                     |
| 30          | CAUSE = SURCHARGED Y           |                  |                                     |
| 35          | CAUSE = OTHER                  |                  |                                     |
| 40          | CAUSE = UNKNOWN Y              |                  |                                     |
| 45          | OPEN V=VAC R=ROD H=HAND        |                  |                                     |
| 50          | TENANT WATER DRAINED Y         |                  |                                     |
| 55          | TENANT NOTIFIED?               |                  |                                     |
| 60          | WORK SEQUENCE                  |                  |                                     |
| 65          | CLEAN FROM #                   |                  |                                     |
| 70          | CLEAN TO #                     |                  |                                     |
| 75          | TV FROM #                      |                  |                                     |
| 80          | TV TO #                        |                  |                                     |
| 85          | DESIGNED SEWER RELIEF - DSR #  |                  |                                     |
| 90          | STRUCTURE OVERFLOWED #         |                  |                                     |
| 95          | MH # - UPSTREAM OF BLOCKAGE    |                  |                                     |
| 100         | MH # - DOWNSTREAM OF BLOCKAGE  |                  |                                     |
| 105         | OVERFLOW AFFECTED AREA?        |                  |                                     |
| 110         | SUMP PUMP ADDRESS              |                  |                                     |
| 115         | SECURE 1=SIGN 2=HANGER 3=OTHER |                  |                                     |
| 120         | TIME/DATE OVERFLOW STOPPED     |                  |                                     |
| 125         | RECEIVING STRUCTURE #          |                  |                                     |

# SERVICE REQUEST REPORT

Created Date: 02/13/2020 09:18 AM

Service Request No.  
**2002800**



## SPECIFICATIONS

|                |                         |                  |                                     |
|----------------|-------------------------|------------------|-------------------------------------|
| ID: 2001686    | Category: DOSD WORK DAT | Type: SMNT_EVENT | Title: WIB - MSS AND SSO - CSO DATA |
| <u>Seq. No</u> | <u>Attribute</u>        | <u>Value</u>     |                                     |
| 130            | RECEIVING WATERWAY?     |                  |                                     |

## CALL HISTORY

|   |                                  |
|---|----------------------------------|
| <b>Call No: 2</b>   | Call Date: 02/13/2020 09:18:56AM |
| Comments: . PER RESPONSE, SERVICE REQUEST TYPE CHANGED FROM SWR TYPE FROM INSPECT RESTAURANT/FOOD ESTABLISHMENT TO SEWER/MISCELLANEOUS, |                                  |
| Response: STATUS UPDATE   |                                  |
| Call Back: N  | Date:                            |
| Caller Name:  |                                  |
| Caller Phone:   | Ext:                             |
| <b>Call No: 1</b>   | Call Date: 02/13/2020 09:18:52AM |
| Comments: Service request type was changed from INSPECT RESTAURANT/FOOD ESTABLISHMENT to SEWER/MISCELLANEOUS                            |                                  |
| Response: New SR Type   |                                  |
| Call Back: N  | Date:                            |
| Caller Name:  |                                  |
| Caller Phone:   | Ext:                             |



## SERVICE REQUEST REPORT

02 MAR 2020

07:57 AM

Service Request No.

**2002888**

Created Date: 02/14/2020 01:48 PM

**WORK LOCATION**

|   |             |
|---|-------------|
| Address:2281 HIGH ST                              | Suite: 0068 |
| Cross Street:                                     |             |
| City:   | State: Zip: |
| Service Request Type: INVESTIGATE                 |             |
| Problem Code: YODOR - Bad odor inside or outside. |             |

|   |
|---|
| Problem Description: **PRIVATE ONGOING ISSUE. CALL BACK COMPLETED. Tenant says that a man hole is under the trailer and is smelling very bad now .<br>In the past it has smell too, they are in lot 16. |
|---|

|                            |             |                                      |             |
|----------------------------|-------------|--------------------------------------|-------------|
| Requested Date:            | Crew :LINM1 | Dept: SEWERMNT                       | Area:SEWERS |
| Next Approver:             |             |                                      |             |
| Dispatcher:OPDY KE, BRET E |             | Call Back Ready: N                   |             |
| Status: CLOSED             |             | Customer Call Back: N                |             |
| WO/Task No:                |             | Finished Date: 02/14/2020 02:15:29PM |             |

**CUSTOMER INFORMATION**

|                     |                       |
|---------------------|-----------------------|
| Customer ID:        | Bill Customer: N      |
| Name: Bryan, Ruttan | Customer Call Back: N |
| Work Phone:         | Ext: Home Phone:      |
| Company:            | Tax ID:               |

**REPORTED BY**

|             |                  |
|-------------|------------------|
| Name:       | Call Back: N     |
| Address:    | Suite:           |
| City:       | State: Zip:      |
| Work Phone: | Ext: Home Phone: |

# SERVICE REQUEST REPORT

Service Request No.

**2002888**



Created Date: 02/14/2020 01:48 PM

## CLOSEOUT INFORMATION

|   |                             |                        |
|---|-----------------------------|------------------------|
| Start: 02/14/2020 02:01 PM  | Finish: 02/14/2020 02:15 PM | Completed: Y           |
| Failure: Y NCF  | Repair: Y NFWN              | Further Action: Y NFAN |
| Comments: **PRIVATE ONGOING ISSUE. CALL BACK COMPLETED. ALL SEWERS ON SITE ARE PRIVATE. REFERED CALLER TO PROPERTY MANAGER. |                             |                        |
| Inspected By: LINK  | Date: 14-FEB-20             |                        |
| Signoff By: _____   | Date: _____                 |                        |
| Closed By: LINK, MICHAEL A  | Date: 14-FEB-20             |                        |

## SPECIFICATIONS

| ID:     | 2001945                        | Category: | DOSD WORK DAT | Type: | SMNT_EVENT | Title: | WIB - MSS AND SSO - CSO DATA |
|---------|--------------------------------|-----------|---------------|-------|------------|--------|------------------------------|
| Seq. No | Attribute                      |           |               |       |            |        | Value                        |
| 5       | CHECKED FROM STRUCTURE #       |           |               |       |            |        |                              |
| 10      | CHECKED TO STRUCTURE #         |           |               |       |            |        |                              |
| 15      | CAUSE = GREASE Y               |           |               |       |            |        |                              |
| 20      | CAUSE = ROOTS Y                |           |               |       |            |        |                              |
| 25      | CAUSE = DEBRIS Y               |           |               |       |            |        |                              |
| 30      | CAUSE = SURCHARGED Y           |           |               |       |            |        |                              |
| 35      | CAUSE = OTHER                  |           |               |       |            |        |                              |
| 40      | CAUSE = UNKNOWN Y              |           |               |       |            |        |                              |
| 45      | OPEN V=VAC R=ROD H=HAND        |           |               |       |            |        |                              |
| 50      | TENANT WATER DRAINED Y         |           |               |       |            |        |                              |
| 55      | TENANT NOTIFIED?               |           |               |       |            |        |                              |
| 60      | WORK SEQUENCE                  |           |               |       |            |        |                              |
| 65      | CLEAN FROM #                   |           |               |       |            |        |                              |
| 70      | CLEAN TO #                     |           |               |       |            |        |                              |
| 75      | TV FROM #                      |           |               |       |            |        |                              |
| 80      | TV TO #                        |           |               |       |            |        |                              |
| 85      | DESIGNED SEWER RELIEF - DSR #  |           |               |       |            |        |                              |
| 90      | STRUCTURE OVERFLOWED #         |           |               |       |            |        |                              |
| 95      | MH # - UPSTREAM OF BLOCKAGE    |           |               |       |            |        |                              |
| 100     | MH # - DOWNSTREAM OF BLOCKAGE  |           |               |       |            |        |                              |
| 105     | OVERFLOW AFFECTED AREA?        |           |               |       |            |        |                              |
| 110     | SUMP PUMP ADDRESS              |           |               |       |            |        |                              |
| 115     | SECURE 1=SIGN 2=HANGER 3=OTHER |           |               |       |            |        |                              |
| 120     | TIME/DATE OVERFLOW STOPPED     |           |               |       |            |        |                              |
| 125     | RECEIVING STRUCTURE #          |           |               |       |            |        |                              |

# SERVICE REQUEST REPORT

Created Date: 02/14/2020 01:48 PM

Service Request No.

**2002888**



## SPECIFICATIONS

|                |                         |                  |                                     |
|----------------|-------------------------|------------------|-------------------------------------|
| ID: 2001945    | Category: DOSD WORK DAT | Type: SMNT_EVENT | Title: WIB - MSS AND SSO - CSO DATA |
| <u>Seq. No</u> | <u>Attribute</u>        | <u>Value</u>     |                                     |
| 130            | RECEIVING WATERWAY?     |                  |                                     |



## SERVICE REQUEST REPORT

02 MAR 2020

08:01 AM

Service Request No.

**2003527**

Created Date: 02/27/2020 01:29 PM

**WORK LOCATION**

|   |                                  |
|---|----------------------------------|
| Address:3311 BLUHM CT                             | Suite: 0074                      |
| Cross Street:BLUHM RD                             |                                  |
| City:   | State: Zip:                      |
|   | Service Request Type:INVESTIGATE |
| Problem Code: YOTHP - Other problem not in codes. |                                  |

|  |
|--|
| Problem Description: DIST 74-- POSSIBLE UP FLOW. WATER IS COMMNG OUT FROM THE GROUND IN THE REAR OF HOUSE. SOMEONE IS HOME |
|--|

|                            |             |                                      |             |
|----------------------------|-------------|--------------------------------------|-------------|
| Requested Date:            | Crew :DAVM1 | Dept: SEWERMNT                       | Area:SEWERS |
| Next Approver:             |             |                                      |             |
| Dispatcher:WHITE, JANICE L |             | Call Back Ready: N                   |             |
| Status: FINISHED           |             | Customer Call Back: N                |             |
| WO/Task No:                |             | Finished Date: 02/27/2020 02:13:13PM |             |

**CUSTOMER INFORMATION**

|              |      |                       |
|--------------|------|-----------------------|
| Customer ID: |      | Bill Customer: N      |
| Name:        |      | Customer Call Back: N |
| Work Phone:  | Ext: | Home Phone:           |
| Company:     |      | Tax ID:               |

**REPORTED BY**

|                            |        |              |
|----------------------------|--------|--------------|
| Name: LENORA               |        | Call Back: N |
| Address:                   |        | Suite:       |
| City:                      | State: | Zip:         |
| Work Phone: (614) 702-8086 | Ext:   | Home Phone:  |

# SERVICE REQUEST REPORT

02 MAR 2020  
08:01 AM

Created Date: 02/27/2020 01:29 PM

Service Request No.  
**2003527**



## CLOSEOUT INFORMATION

|  |                             |                      |
|--|-----------------------------|----------------------|
| Start: 02/27/2020 01:32 PM   | Finish: 02/27/2020 02:10 PM | Completed: Y         |
| Failure: YNCF  | Repair: YNOWORKFND          | Further Action:YNFAN |
| Comments: THE CALLERS ISSUE IS THIER SUMP PUMP. THEY WERE ADVISED TO CONTACT A PRIVATE PLUMBER |                             |                      |
| Inspected By: M DAVEY S VERHAGE  | Date: 27-FEB-20             |                      |
| Signoff By: _____  | Date: _____                 |                      |
| Closed By: _____   | Date: _____                 |                      |

# SERVICE REQUEST REPORT

Service Request No.  
**2003553**

**\*2003553\***

Created Date: 02/28/2020 07:17 AM

### WORK LOCATION

|   |             |
|---|-------------|
| Address: MCCUTCHEON RD                          | Suite: 0182 |
| Cross Street:STELZER RD                         |             |
| City:   | State: Zip: |
| Service Request Type INVESTIGATE                |             |
| Problem Code: YFLOOD - Flooding, surface water. |             |

|   |
|---|
| Problem Description: DIST# 0182 - w oman reported w ater main break on Mccutcheon Rd by Stelzer Rd. YASSCLN Storm assets. |
|---|

|                           |              |                                      |             |
|---------------------------|--------------|--------------------------------------|-------------|
| Requested Date:           | Crew :PAY J1 | Dept: SEWERMNT                       | Area:SEWERS |
| Next Approver:            |              |                                      |             |
| Dispatcher:BAXTER, CIERRA |              | Call Back Ready: N                   |             |
| Status: CLOSED            |              | Customer Call Back: N                |             |
| WO/Task No:               |              | Finished Date: 03/03/2020 08:09:58AM |             |

### CUSTOMER INFORMATION

|                  |                       |
|------------------|-----------------------|
| Customer ID:     | Bill Customer: N      |
| Name:            | Customer Call Back: N |
| Work Phone: Ext: | Home Phone:           |
| Company:         | Tax ID:               |

### REPORTED BY

|                                 |              |
|---------------------------------|--------------|
| Name:                           | Call Back: N |
| Address:                        | Suite:       |
| City:                           | State: Zip:  |
| Work Phone: (614) 946-4723 Ext: | Home Phone:  |

### NOTES

|   |
|---|
| NOTE: DOW CALLED VIA DISPATCH. 3 PREVIOUS DOW SR'S. WORKING DOW SR 2003488. |
|---|

# SERVICE REQUEST REPORT

25 JAN 2021  
09:32 AM

Service Request No.  
**2003553**

**\*2003553\***

Created Date: 02/28/2020 07:17 AM

## CLOSEOUT INFORMATION

|   |                             |                       |
|---|-----------------------------|-----------------------|
| Start: 02/28/2020 08:00 AM  | Finish: 02/28/2020 09:00 AM | Completed: Y          |
| Failure: YASSTAGNCY   | Repair: YNFWN               | Further Action: YNFAN |
| Comments: YFLOOD/OPEN- This w ater leak in road not sew ers problem. all inlets taking w ater . |                             |                       |
| Inspected By: Jeffrey Payne & Mike Albright   | Date: 28-FEB-20             |                       |
| Signoff By: _____   | Date: _____                 |                       |
| Closed By: LINK, MICHAEL A  | Date: 05-MAR-20             |                       |

# SERVICE REQUEST REPORT

Service Request No.  
**2003699**

**\*2003699\***

Created Date: 03/02/2020 10:57 AM

## WORK LOCATION

|  |             |
|--|-------------|
| Address:2281 S HIGH ST                                 | Suite: 0068 |
| Cross Street:  |             |
| City:  | State: Zip: |
| Service Request Type: INVESTIGATE                      |             |
| Problem Code: YUPFLOW - Flow from ground or structure. |             |

|  |
|--|
| Problem Description: DIST 68. SEWAGE COMMING UP FROM UNDER THE TRAILOR HOUSE LOT 5. CITIZEN BOY FRIEND IS HOME |
|--|

|                            |             |                                      |             |
|----------------------------|-------------|--------------------------------------|-------------|
| Requested Date:            | Crew :OPDB1 | Dept: SEWERMNT                       | Area:SEWERS |
| Next Approver:             |             |                                      |             |
| Dispatcher:WHITE, JANICE L |             | Call Back Ready: N                   |             |
| Status: CLOSED             |             | Customer Call Back: N                |             |
| WO/Task No:                |             | Finished Date: 03/06/2020 08:46:00AM |             |

## CUSTOMER INFORMATION

|                  |                       |
|------------------|-----------------------|
| Customer ID:     | Bill Customer: N      |
| Name:            | Customer Call Back: N |
| Work Phone: Ext: | Home Phone:           |
| Company:         | Tax ID:               |

## REPORTED BY

|                                 |              |
|---------------------------------|--------------|
| Name: MRIDEO, CONNIE            | Call Back: N |
| Address:                        | Suite:       |
| City:                           | State: Zip:  |
| Work Phone: (614) 772-5123 Ext: | Home Phone:  |

# SERVICE REQUEST REPORT

Service Request No.  
**2003699**

**\*2003699\***

Created Date: 03/02/2020 10:57 AM

**CLOSEOUT INFORMATION**

|   |                             |                       |
|---|-----------------------------|-----------------------|
| Start: 03/02/2020 11:02 AM  | Finish: 03/02/2020 01:03 PM | Completed: Y          |
| Failure: YNCF   | Repair: YNFWN               | Further Action: YNFAN |
| Comments: YNCF/PRIVATE-The city sewer was checked at asset 0068S0277 and found it open. Check private asset 0068S2078 and found the incoming pipe from from the west could not be seen but the outgoing line to city asset was open. Private asset had lots of Greece is a private problem.<br>Department of Commerce personal Gary Whitaker for the State of Ohio arrived as we were doing our investigation and took names and number of people for trailer court and said he would write a report of what he saw. His number is 614-644-2223 |                             |                       |
| Inspected By: Opdyke/Davey  | Date: 02-MAR-20             |                       |
| Signoff By: _____   | Date: _____                 |                       |
| Closed By: LINK, MICHAEL A  | Date: 06-MAR-20             |                       |

**SPECIFICATIONS**

| ID: 2002742 | Category: DOSD WORK DAT        | Type: SMNT_EVENT | Title: WIB - MSS AND SSO - CSO DATA |
|-------------|--------------------------------|------------------|-------------------------------------|
| Seq. No     | Attribute                      | Value            |                                     |
| 5           | CHECKED FROM STRUCTURE #       |                  |                                     |
| 10          | CHECKED TO STRUCTURE #         |                  |                                     |
| 15          | CAUSE = GREASE Y               |                  |                                     |
| 20          | CAUSE = ROOTS Y                |                  |                                     |
| 25          | CAUSE = DEBRIS Y               |                  |                                     |
| 30          | CAUSE = SURCHARGED Y           |                  |                                     |
| 35          | CAUSE = OTHER                  |                  |                                     |
| 40          | CAUSE = UNKNOWN Y              |                  |                                     |
| 45          | OPEN V=VAC R=ROD H=HAND        |                  |                                     |
| 50          | TENANT WATER DRAINED Y         |                  |                                     |
| 55          | TENANT NOTIFIED?               |                  |                                     |
| 60          | WORK SEQUENCE                  |                  |                                     |
| 65          | CLEAN FROM #                   |                  |                                     |
| 70          | CLEAN TO #                     |                  |                                     |
| 75          | TV FROM #                      |                  |                                     |
| 80          | TV TO #                        |                  |                                     |
| 85          | DESIGNED SEWER RELIEF - DSR #  |                  |                                     |
| 90          | STRUCTURE OVERFLOWED #         |                  |                                     |
| 95          | MH # - UPSTREAM OF BLOCKAGE    |                  |                                     |
| 100         | MH # - DOWNSTREAM OF BLOCKAGE  |                  |                                     |
| 105         | OVERFLOW AFFECTED AREA?        |                  |                                     |
| 110         | SUMP PUMP ADDRESS              |                  |                                     |
| 115         | SECURE 1=SIGN 2=HANGER 3=OTHER |                  |                                     |
| 120         | TIME/DATE OVERFLOW STOPPED     |                  |                                     |
| 125         | RECEIVING STRUCTURE #          |                  |                                     |

# SERVICE REQUEST REPORT

Created Date: 03/02/2020 10:57 AM

Service Request No.  
**2003699**

**\*2003699\***

## SPECIFICATIONS

|                    |                                |                         |  |
|--------------------|--------------------------------|-------------------------|--|
| <i>ID:</i> 2002742 | <i>Category:</i> DOSD WORK DAT | <i>Type:</i> SMNT_EVENT | <i>Title:</i> WIB - MSS AND SSO - CSO DATA |
| <u>Seq. No</u>     | <u>Attribute</u>               | <u>Value</u>            |  |
| 130                | RECEIVING WATERWAY?            |                         |  |



# SERVICE REQUEST REPORT

Service Request No.

**\*2003746\***

**2003746**

Created Date: 03/03/2020 08:33 AM

## WORK LOCATION

|  |        |             |  |
|--|--------|-------------|--|
| Address:2382 WESTWOOD DR                               |        | Suite: 0047 |  |
| Cross Street:  |        |             |  |
| City:  | State: | Zip:        |  |
| Service Request Type: INVESTIGATE                      |        |             |  |
| Problem Code: YUPFLOW - Flow from ground or structure. |        |             |  |

|  |  |  |  |
|--|--|--|--|
| Problem Description: Flooding Street, toilet paper and debris present, w ater entering creek |  |  |  |
|--|--|--|--|

|                              |                                      |                       |             |
|------------------------------|--------------------------------------|-----------------------|-------------|
| Requested Date:              | Crew :BOYM1                          | Dept: SEWERMNT        | Area:SEWERS |
| Next Approver:               |                                      |                       |             |
| Dispatcher:FANNIN II, PAUL D |                                      | Call Back Ready: N    |             |
| Status: CLOSED               |                                      | Customer Call Back: N |             |
| WO/Task No:                  | Finished Date: 03/03/2020 03:03:52PM |                       |             |

## CUSTOMER INFORMATION

|              |                       |             |
|--------------|-----------------------|-------------|
| Customer ID: | Bill Customer: N      |             |
| Name:        | Customer Call Back: N |             |
| Work Phone:  | Ext:                  | Home Phone: |
| Company:     | Tax ID:               |             |

## REPORTED BY

|             |              |                            |
|-------------|--------------|----------------------------|
| Name: Chip  | Call Back: N |                            |
| Address:    | Suite:       |                            |
| City:       | State:       | Zip:                       |
| Work Phone: | Ext:         | Home Phone: (740) 808-0285 |

**SERVICE REQUEST REPORT**

Service Request No.  
**2003746**

**\*2003746\***

Created Date: 03/03/2020 08:33 AM

**CLOSEOUT INFORMATION**

|   |                             |                          |
|---|-----------------------------|--------------------------|
| Start: 03/03/2020 09:00 AM  | Finish: 03/03/2020 10:00 AM | Completed: Y             |
| Failure: YMHOG  | Repair: YNFWN               | Further Action: YRECHECK |
| Comments: YWIBHEADED1/RECHECK- The 8-15 inch sanitary sewer serving the problem location was headed up between upstream manhole # Y0046S0357 and downstream manhole # Y0046S0406 when checked due to heavy rains, reported overflow had stopped prior to arrival. Debris had washed away. Refer to YRECHECK procedure for further investigation. Tenant was notified of findings by investigator. |                             |                          |
| Inspected By: MBOYD/TMOORE  | Date: 03-MAR-20             |                          |
| Signoff By: _____   | Date: _____                 |                          |
| Closed By: LINK, MICHAEL A  | Date: 05-MAR-20             |                          |

**SPECIFICATIONS**

| Seq. No     | Attribute                      | Value                               |
|-------------|--------------------------------|-------------------------------------|
| ID: 2002909 | Category: DOSD WORK DAT        | Type: SMNT_EVENT                    |
|             |                                | Title: WIB - MSS AND SSO - CSO DATA |
| 5           | CHECKED FROM STRUCTURE #       | 0046S0357                           |
| 10          | CHECKED TO STRUCTURE #         | 0046S0406                           |
| 15          | CAUSE = GREASE Y               |                                     |
| 20          | CAUSE = ROOTS Y                |                                     |
| 25          | CAUSE = DEBRIS Y               |                                     |
| 30          | CAUSE = SURCHARGED Y           | Y                                   |
| 35          | CAUSE = OTHER                  |                                     |
| 40          | CAUSE = UNKNOWN Y              |                                     |
| 45          | OPEN V=VAC R=ROD H=HAND        |                                     |
| 50          | TENANT WATER DRAINED Y         | N                                   |
| 55          | TENANT NOTIFIED?               | Y                                   |
| 60          | WORK SEQUENCE                  |                                     |
| 65          | CLEAN FROM #                   |                                     |
| 70          | CLEAN TO #                     |                                     |
| 75          | TV FROM #                      |                                     |
| 80          | TV TO #                        |                                     |
| 85          | DESIGNED SEWER RELIEF - DSR #  |                                     |
| 90          | STRUCTURE OVERFLOWED #         | 0046s0357                           |
| 95          | MH # - UPSTREAM OF BLOCKAGE    |                                     |
| 100         | MH # - DOWNSTREAM OF BLOCKAGE  |                                     |
| 105         | OVERFLOW AFFECTED AREA?        | Glen View Park                      |
| 110         | SUMP PUMP ADDRESS              |                                     |
| 115         | SECURE 1=SIGN 2=HANGER 3=OTHER | N                                   |
| 120         | TIME/DATE OVERFLOW STOPPED     |                                     |
| 125         | RECEIVING STRUCTURE #          |                                     |

# SERVICE REQUEST REPORT

Created Date: 03/03/2020 08:33 AM

Service Request No.  
**2003746**

**\*2003746\***

## SPECIFICATIONS

|                    |                                |                         |  |
|--------------------|--------------------------------|-------------------------|--|
| <i>ID:</i> 2002909 | <i>Category:</i> DOSD WORK DAT | <i>Type:</i> SMNT_EVENT | <i>Title:</i> WIB - MSS AND SSO - CSO DATA |
| <u>Seq. No</u>     | <u>Attribute</u>               | <u>Value</u>            |  |
| 130                | RECEIVING WATERWAY?            | Scioto River            |  |



## SERVICE REQUEST REPORT

26 JAN 2021

09:15 AM

Created Date: 03/03/2020 10:11 AM

Service Request No.  
**2003794****\*2003794\*****WORK LOCATION**

|   |             |
|---|-------------|
| Address:1201 COOKE RD E                           | Suite: 0234 |
| Cross Street:                                     |             |
| City:   | State: Zip: |
| Service Request Type INVESTIGATE                  |             |
| Problem Code: YODOR - Bad odor inside or outside. |             |

|   |
|---|
| Problem Description: DIST #0234. (N) CALLER STATES THERE IS A RAW SEWAGE SMELL COMING FROM THE CATCH BASIN NEAR THIS PROPERTY |
|---|

|                   |             |                                      |             |
|-------------------|-------------|--------------------------------------|-------------|
| Requested Date:   | Crew :JOHF1 | Dept: SEWERMNT                       | Area:SEWERS |
| Next Approver:    |             |                                      |             |
| Dispatcher:RSRAAB |             | Call Back Ready: N                   |             |
| Status: CLOSED    |             | Customer Call Back: N                |             |
| WO/Task No:       |             | Finished Date: 03/03/2020 03:55:44PM |             |

**CUSTOMER INFORMATION**

|              |      |                       |
|--------------|------|-----------------------|
| Customer ID: |      | Bill Customer: N      |
| Name:        |      | Customer Call Back: N |
| Work Phone:  | Ext: | Home Phone:           |
| Company:     |      | Tax ID:               |

**REPORTED BY**

|                            |                      |
|----------------------------|----------------------|
| Name: WILLMAN, GEORGIANNA  | Call Back: 1         |
| Address: 1201 E COOKE RD   | Suite:               |
| City: COLUMBUS             | State: OH Zip: 43224 |
| Work Phone: (614) 447-2305 | Ext: Home Phone:     |

# SERVICE REQUEST REPORT

Service Request No.  
**2003794**

**\*2003794\***

Created Date: 03/03/2020 10:11 AM

### CLOSEOUT INFORMATION

|  |                             |                       |
|--|-----------------------------|-----------------------|
| Start: 03/03/2020 01:30 PM   | Finish: 03/03/2020 01:49 PM | Completed: _____      |
| Failure: _____   | Repair: _____               | Further Action: _____ |
| Comments: YBO1 - The 12 inch sanitary sewer serving the problem location was open and flowing when checked.no sewer smell at the time of investigation |                             |                       |
| Inspected By: F.Johnson  | Date: 03-MAR-20             |                       |
| Signoff By: _____  | Date: _____                 |                       |
| Closed By: JOHNSON, FRED L   | Date: 03-MAR-20             |                       |

### SPECIFICATIONS

| ID: 2002918 | Category: DOSD WORK DAT        | Type: SMNT_EVENT | Title: WIB - MSS AND SSO - CSO DATA |
|-------------|--------------------------------|------------------|-------------------------------------|
| Seq. No     | Attribute                      | Value            |                                     |
| 5           | CHECKED FROM STRUCTURE #       |                  |                                     |
| 10          | CHECKED TO STRUCTURE #         |                  |                                     |
| 15          | CAUSE = GREASE Y               |                  |                                     |
| 20          | CAUSE = ROOTS Y                |                  |                                     |
| 25          | CAUSE = DEBRIS Y               |                  |                                     |
| 30          | CAUSE = SURCHARGED Y           |                  |                                     |
| 35          | CAUSE = OTHER                  |                  |                                     |
| 40          | CAUSE = UNKNOWN Y              |                  |                                     |
| 45          | OPEN V=VAC R=ROD H=HAND        |                  |                                     |
| 50          | TENANT WATER DRAINED Y         |                  |                                     |
| 55          | TENANT NOTIFIED?               |                  |                                     |
| 60          | WORK SEQUENCE                  |                  |                                     |
| 65          | CLEAN FROM #                   |                  |                                     |
| 70          | CLEAN TO #                     |                  |                                     |
| 75          | TV FROM #                      |                  |                                     |
| 80          | TV TO #                        |                  |                                     |
| 85          | DESIGNED SEWER RELIEF - DSR #  |                  |                                     |
| 90          | STRUCTURE OVERFLOWED #         |                  |                                     |
| 95          | MH # - UPSTREAM OF BLOCKAGE    |                  |                                     |
| 100         | MH # - DOWNSTREAM OF BLOCKAGE  |                  |                                     |
| 105         | OVERFLOW AFFECTED AREA?        |                  |                                     |
| 110         | SUMP PUMP ADDRESS              |                  |                                     |
| 115         | SECURE 1=SIGN 2=HANGER 3=OTHER |                  |                                     |
| 120         | TIME/DATE OVERFLOW STOPPED     |                  |                                     |
| 125         | RECEIVING STRUCTURE #          |                  |                                     |

# SERVICE REQUEST REPORT

Created Date: 03/03/2020 10:11 AM

Service Request No.  
**2003794**

**\*2003794\***

## SPECIFICATIONS

|                |                         |                  |                                     |
|----------------|-------------------------|------------------|-------------------------------------|
| ID: 2002918    | Category: DOSD WORK DAT | Type: SMNT_EVENT | Title: WIB - MSS AND SSO - CSO DATA |
| <u>Seq. No</u> | <u>Attribute</u>        | <u>Value</u>     |                                     |
| 130            | RECEIVING WATERWAY?     |                  |                                     |

## CALL HISTORY

|   |                                  |
|---|----------------------------------|
| <b>Call No: 1</b>   | Call Date: 03/16/2020 08:37:09AM |
| Comments: . CITIZEN CALLED IN TO CHECK STATUS OF REQUEST. NOT HAPPY WITH RESPONSE STATING IT IS SMELLING NOW. REQUESTED TO SPEAK WITH SOMEONE IN DPU. TRANSFERED CALLER. DS |                                  |
| Response: CUSTOMER CONTACT  |                                  |
| Call Back: N  | Date:                            |
| Caller Name:  |                                  |
| Caller Phone:   | Ext:                             |



# SERVICE REQUEST REPORT

Service Request No.

**\*2003759\***

**2003759**

Created Date: 03/03/2020 09:11 AM

## WORK LOCATION

|  |             |
|--|-------------|
| Address:4385 OLENTANGY RIVER RD                        | Suite: 0232 |
| Cross Street:  |             |
| City:  | State: Zip: |
| Service Request Type: INVESTIGATE                      |             |
| Problem Code: YUPFLOW - Flow from ground or structure. |             |

|   |
|---|
| Problem Description: **Duplicate SEE SR #2003783<br>DIST #0232-(W)-FLOODING FEW DOORS DOWN FROM ADDRESS |
|---|

|                            |             |                                      |             |
|----------------------------|-------------|--------------------------------------|-------------|
| Requested Date:            | Crew :BOYM1 | Dept: SEWERMNT                       | Area:SEWERS |
| Next Approver:             |             |                                      |             |
| Dispatcher:WHITE, JANICE L |             | Call Back Ready: N                   |             |
| Status: CLOSED             |             | Customer Call Back: N                |             |
| WO/Task No:                |             | Finished Date: 03/03/2020 03:10:36PM |             |

## CUSTOMER INFORMATION

|                  |                       |
|------------------|-----------------------|
| Customer ID:     | Bill Customer: N      |
| Name:            | Customer Call Back: N |
| Work Phone: Ext: | Home Phone:           |
| Company:         | Tax ID:               |

## REPORTED BY

|                                 |              |
|---------------------------------|--------------|
| Name: MOORE, BROOKE             | Call Back: N |
| Address:4385 OLENTANGY RIVER RD | Suite: 0232  |
| City:                           | State: Zip:  |
| Work Phone: (415) 652-7919 Ext: | Home Phone:  |

**SERVICE REQUEST REPORT**

Service Request No.  
**2003759**

**\*2003759\***

Created Date: 03/03/2020 09:11 AM

**CLOSEOUT INFORMATION**

|   |                             |                          |
|---|-----------------------------|--------------------------|
| Start: 03/03/2020 11:20 AM  | Finish: 03/03/2020 11:30 AM | Completed: Y             |
| Failure: YHEADED  | Repair: YNFWN               | Further Action: YRECHECK |
| Comments: YWIBHEADED1/RECHECK- The 8-21 inch sanitary sewer serving the problem location was headed up between upstream manhole # Y0232S0105 and downstream manhole # Y0297S0083 when checked due to heavy rains. Refer to YRECHECK procedure for further investigation. Tenant was notified of findings by investigator. |                             |                          |
| Inspected By: MBOYD/TMOORE  | Date: 03-MAR-20             |                          |
| Signoff By: _____   | Date: _____                 |                          |
| Closed By: LINK, MICHAEL A  | Date: 05-MAR-20             |                          |

**SPECIFICATIONS**

| Seq. No     | Attribute                      | Value                               |
|-------------|--------------------------------|-------------------------------------|
| ID: 2002916 | Category: DOSD WORK DAT        | Type: SMNT_EVENT                    |
|             |                                | Title: WIB - MSS AND SSO - CSO DATA |
| 5           | CHECKED FROM STRUCTURE #       | S0105                               |
| 10          | CHECKED TO STRUCTURE #         | S0083                               |
| 15          | CAUSE = GREASE Y               |                                     |
| 20          | CAUSE = ROOTS Y                |                                     |
| 25          | CAUSE = DEBRIS Y               |                                     |
| 30          | CAUSE = SURCHARGED Y           | N                                   |
| 35          | CAUSE = OTHER                  | Y                                   |
| 40          | CAUSE = UNKNOWN Y              | N                                   |
| 45          | OPEN V=VAC R=ROD H=HAND        |                                     |
| 50          | TENANT WATER DRAINED Y         |                                     |
| 55          | TENANT NOTIFIED?               |                                     |
| 60          | WORK SEQUENCE                  |                                     |
| 65          | CLEAN FROM #                   |                                     |
| 70          | CLEAN TO #                     |                                     |
| 75          | TV FROM #                      |                                     |
| 80          | TV TO #                        |                                     |
| 85          | DESIGNED SEWER RELIEF - DSR #  |                                     |
| 90          | STRUCTURE OVERFLOWED #         |                                     |
| 95          | MH # - UPSTREAM OF BLOCKAGE    |                                     |
| 100         | MH # - DOWNSTREAM OF BLOCKAGE  |                                     |
| 105         | OVERFLOW AFFECTED AREA?        |                                     |
| 110         | SUMP PUMP ADDRESS              |                                     |
| 115         | SECURE 1=SIGN 2=HANGER 3=OTHER |                                     |
| 120         | TIME/DATE OVERFLOW STOPPED     |                                     |
| 125         | RECEIVING STRUCTURE #          |                                     |

# SERVICE REQUEST REPORT

Created Date: 03/03/2020 09:11 AM

Service Request No.  
**2003759**

**\*2003759\***

## SPECIFICATIONS

|                    |                                |                         |  |
|--------------------|--------------------------------|-------------------------|--|
| <i>ID:</i> 2002916 | <i>Category:</i> DOSD WORK DAT | <i>Type:</i> SMNT_EVENT | <i>Title:</i> WIB - MSS AND SSO - CSO DATA |
| <u>Seq. No</u>     | <u>Attribute</u>               | <u>Value</u>            |  |
| 130                | RECEIVING WATERWAY?            |                         |  |



## SERVICE REQUEST REPORT

25 JAN 2021

09:56 AM

Service Request No.

2003886

\*2003886\*

Created Date: 03/04/2020 08:26 AM

## WORK LOCATION

|   |             |
|---|-------------|
| Address:3476 LINDSTROM DR                         | Suite: 0118 |
| Cross Street:                                     |             |
| City:   | State: Zip: |
| Service Request Type: INVESTIGATE                 |             |
| Problem Code: YASSCLN - Assess need for cleaning. |             |

Problem Description: DIST #0118. CALLER REPORTS THE STORM DRAIN IN FRONT OF 3476 LINDSTROM DR IS BLOCKED BY ACCUMULATED LEAVES, STATES THEY WATERFLOW CAUSED THE LEAVES TO PILE IN FRONT AND BLOCK THE DRAINS. DOES NOT CAUSE THE STREET TO FLOOD YET BUT DOES BACK THE SIDE OF THE STREET UP. THANK YOU

|                      |             |                                      |             |
|----------------------|-------------|--------------------------------------|-------------|
| Requested Date:      | Crew :KISL1 | Dept: SEWERMNT                       | Area:SEWERS |
| Next Approver:       |             |                                      |             |
| Dispatcher: NSCHOATE |             | Call Back Ready: N                   |             |
| Status: CLOSED       |             | Customer Call Back: N                |             |
| WO/Task No:          |             | Finished Date: 03/04/2020 03:48:37PM |             |

## CUSTOMER INFORMATION

|              |                       |
|--------------|-----------------------|
| Customer ID: | Bill Customer: N      |
| Name:        | Customer Call Back: N |
| Work Phone:  | Ext: Home Phone:      |
| Company:     | Tax ID:               |

## REPORTED BY

|                                  |                      |
|----------------------------------|----------------------|
| Name: SCHMUTZLER, JOHN           | Call Back: 0         |
| Address: 3476 LINDSTROM DR HELEN | Suite:               |
| City: COLUMBUS                   | State: OH Zip: 43228 |
| Work Phone:                      | Ext: Home Phone:     |

# SERVICE REQUEST REPORT

25 JAN 2021  
09:56 AM

Service Request No.  
**2003886**

**\*2003886\***

Created Date: 03/04/2020 08:26 AM

## CLOSEOUT INFORMATION

|   |                             |                      |
|---|-----------------------------|----------------------|
| Start: 03/04/2020 01:40 PM  | Finish: 03/04/2020 02:00 PM | Completed: Y         |
| Failure: YDIRTY   | Repair: YHNDCLND            | Further Action:YNFAN |
| Comments: YHNDCLEAN/OPEN-removed leaves by hand from inlet # 0118T0833 and inlet #0118T0173 . spock to complaint about findings . |                             |                      |
| Inspected By: Kisner.L,Stoops.D   | Date: 04-MAR-20             |                      |
| Signoff By: _____   | Date: _____                 |                      |
| Closed By: LINK, MICHAEL A  | Date: 05-MAR-20             |                      |

## SERVICE REQUEST REPORT

25 JAN 2021  
09:57 AM

Created Date: 03/04/2020 02:18 PM

Service Request No.  
**2003944****\*2003944\*****WORK LOCATION**

|   |             |
|---|-------------|
| Address:2556 BROWNFIELD RD                        | Suite: 0319 |
| Cross Street:                                     |             |
| City:   | State: Zip: |
| Service Request Type: INVESTIGATE                 |             |
| Problem Code: YASSCLN - Assess need for cleaning. |             |

|   |
|---|
| Problem Description: DIST #0319.CARBONDALE RD. ON-LINE REQUEST. THERE'S LEAVES, TRASH AND GLASS ALONG CURB WHICH PREVENTS WATER FROM FREELY DRAINING INTO SEWER. THANK YOU. |
|---|

|                   |             |                                      |             |
|-------------------|-------------|--------------------------------------|-------------|
| Requested Date:   | Crew :BOYM1 | Dept: SEWERMNT                       | Area:SEWERS |
| Next Approver:    |             |                                      |             |
| Dispatcher:RSRAAB |             | Call Back Ready: N                   |             |
| Status: CLOSED    |             | Customer Call Back: N                |             |
| WO/Task No:       |             | Finished Date: 03/05/2020 07:43:58AM |             |

**CUSTOMER INFORMATION**

|              |      |                       |
|--------------|------|-----------------------|
| Customer ID: |      | Bill Customer: N      |
| Name:        |      | Customer Call Back: N |
| Work Phone:  | Ext: | Home Phone:           |
| Company:     |      | Tax ID:               |

**REPORTED BY**

|                             |           |              |
|-----------------------------|-----------|--------------|
| Name: Latta, Jonathan       |           | Call Back: 0 |
| Address: 2556 BROWNFIELD RD |           | Suite:       |
| City: COLUMBUS              | State: OH | Zip: 43232   |
| Work Phone: (614) 563-0082  | Ext:      | Home Phone:  |

**SERVICE REQUEST REPORT**

Service Request No.  
**2003944**

**\*2003944\***

Created Date: 03/04/2020 02:18 PM

**CLOSEOUT INFORMATION**

|  |                             |                      |
|--|-----------------------------|----------------------|
| Start: 03/04/2020 02:40 PM   | Finish: 03/04/2020 02:50 PM | Completed: Y         |
| Failure: YASSTAGNCY  | Repair: YNFWN               | Further Action:YNFAN |
| Comments: YNDOSD-THERE'S LEAVES, TRASH AND GLASS ALONG CURB WHICH PREVENTS WATER FROM FREELY DRAINING INTO SEWER. SEWERS OPEN AND FREE OF DREBIS SELF CLEANING CBS. LEAVES IN GUTTER NOT S & D . |                             |                      |
| Inspected By: MBOYD/MWALLACE   | Date: 04-MAR-20             |                      |
| Signoff By: _____  | Date: _____                 |                      |
| Closed By: LINK, MICHAEL A   | Date: 05-MAR-20             |                      |

**CALL HISTORY**

|  |                                  |
|--|----------------------------------|
| <b>Call No: 1</b>  | Call Date: 03/04/2020 02:18:53PM |
| Comments: Service request type w as changed from REQUEST FOR STREET SWEEPING/CLEANING to SEWER/MISCELLANEOUS |                                  |
| Response:New SR Type   |                                  |
| Call Back: N   | Date:                            |
| Caller Name:   |                                  |
| Caller Phone:  | Ext:                             |

**SERVICE REQUEST REPORT**

Service Request No.  
**2004019**

**\*2004019\***

Created Date: 03/05/2020 11:50 AM

**WORK LOCATION**

|  |             |
|--|-------------|
| Address:3834 ROSETTE DR                                      | Suite: 0112 |
| Cross Street:  |             |
| City:  | State: Zip: |
| Service Request Type: INVESTIGATE                            |             |
| Problem Code: YSPILL - Non-water spill; chemical, fuel, etc. |             |

Problem Description: . EMAIL RECEIVED:  
 HI, WE HAVE HAD AN ISSUE WITH TWO VEHICLES THAT ARE LEAKING LOTS OF OIL CONTINUOUSLY PARKING IN FRONT OF 3834 ROSETTE DRIVE AND LEAVING OIL ON A DAILY BASIS. THIS WAS PREVIOUSLY CALLED IN AND A NOTE LEFT ON THE CARS AND THE OIL WAS SORT OF CLEANED UP. THE CARS CONTINUE TO PARK, LEAK OIL AND CAUSE A HUGE MESS. I DO NOT SEE A GOOD CATEGORY TO REPORT THIS UNDER ON THE SERVICE REQUEST PAGE. CAN YOU PLEASE ADVISE? THIS HAS BEEN AN ISSUE FOR 4-5 MONTHS AND THE STREET IS THICK WITH OIL AND NEEDS ADDRESSED PERMANENTLY. THE VEHICLE OWNERS HAVE ZERO CONCERN AND REGULARLY LEAVE THEIR CARS RUNNING IN THE MORNING HERE TO WARM THEM UP AND MAKES IT WORSE - BOTH VEHICLES ARE OWNED BY THE SAME HOME. WHEN IT WAS REPORTED BEFORE, THE PERSON THAT CAME OUT JUST PUT A NOTE ON THE CAR AND PUT DOWN SOME SAWDUST TO CLEAN IT UP. ADVICE APPRECIATED. THANK YOU.  
 \*\*\*\*\*03/05/20 PER ROW MANAGER JBYRUM "AS PER FIELD INSPECTION NOTES FROM ROW MANAGER D BYRUM: PLEASE FORWARD TO SEWERS AND DRAINS TO ASSURE OIL IS NOT RUNNING INTO DRAINAGE SYSTEM. NO FURTHER ACTION REQUIRED"

|                     |        |                                      |             |
|---------------------|--------|--------------------------------------|-------------|
| Requested Date:     | Crew : | Dept: SEWERMNT                       | Area:SEWERS |
| Next Approver:      |        |                                      |             |
| Dispatcher:SJSPARKS |        | Call Back Ready: N                   |             |
| Status: CLOSED      |        | Customer Call Back: N                |             |
| WO/Task No:         |        | Finished Date: 03/05/2020 02:40:19PM |             |

**CUSTOMER INFORMATION**

|                  |                       |
|------------------|-----------------------|
| Customer ID:     | Bill Customer: N      |
| Name:            | Customer Call Back: N |
| Work Phone: Ext: | Home Phone:           |
| Company:         | Tax ID:               |

**REPORTED BY**

|                                 |              |
|---------------------------------|--------------|
| Name: ALKIRE PLACE HOA          | Call Back: 0 |
| Address:                        | Suite:       |
| City:                           | State: Zip:  |
| Work Phone: (614) 886-5657 Ext: | Home Phone:  |

Refer to Illicit Discharge  
Investigation 03052020-1

# SERVICE REQUEST REPORT

25 JAN 2021  
08:32 AM

Service Request No.  
**2004019**

**\*2004019\***

Created Date: 03/05/2020 11:50 AM

### CLOSEOUT INFORMATION

|   |                 |                       |
|---|-----------------|-----------------------|
| Start: 03/05/2020 02:40 PM  | Finish: _____   | Completed: _____      |
| Failure: _____  | Repair: _____   | Further Action: _____ |
| Comments: REFERED TO STORMWATER FOR POSSIBLE ILLICIT DISCHARGE.Please refer to SRMS# 03052020-1 |                 |                       |
| Inspected By: LINK  | Date: 05-MAR-20 |                       |
| Signoff By: _____   | Date: _____     |                       |
| Closed By: ESEMAN, MICHAEL L  | Date: 05-MAR-20 |                       |

### SPECIFICATIONS

| ID: 2002967 | Category: DOSD WORK DAT | Type: SPILL | Title: SPILL DATA |
|-------------|-------------------------|-------------|-------------------|
| Seq. No     | Attribute               | Value       |                   |
| 5           | SPILL AFFECTED AREA?    |             |                   |
| 10          | CAUSE?                  |             |                   |
| 15          | CONTAINED Y             |             |                   |
| 20          | STORMWATER NOTIFIED Y   |             |                   |
| 25          | EPA ON SITE Y           |             |                   |
| 30          | RECEIVING STRUCTURE #   |             |                   |
| 35          | RECEIVING WATERWAY?     |             |                   |

### CALL HISTORY

|  |                                  |
|--|----------------------------------|
| <b>Call No: 2</b>  | Call Date: 03/05/2020 11:50:35AM |
| Comments: . BASED ON RESPONSE, SERVICE REQUEST TYPE CHANGED FROM TRASH/DEBRIS ALONG RIGHT-OF-WAY TO SEWER/MISCELLANEOUS, |                                  |
| Response: STATUS UPDATE  |                                  |
| Call Back: N   | Date:                            |
| Caller Name:   |                                  |
| Caller Phone:  | Ext:                             |

# SERVICE REQUEST REPORT

Created Date: 03/05/2020 11:50 AM

Service Request No.  
**2004019**

**\*2004019\***

## CALL HISTORY

**Call No: 1**

Call Date: 03/05/2020 11:50:30AM

Comments: Service request type was changed from TRASH/DEBRIS ALONG RIGHT-OF-WAY to SEWER/MISCELLANEOUS

Response: New SR Type

Call Back: N      Date:

Caller Name:

Caller Phone:                      Ext:



**SERVICE REQUEST REPORT**

Created Date: 03/06/2020 08:52 AM

Service Request No.  
**2004070**

**\*2004070\***

**WORK LOCATION**

|   |             |
|---|-------------|
| Address:205 MORSE RD                              | Suite: 0371 |
| Cross Street:                                     |             |
| City:   | State: Zip: |
| Service Request Type INVESTIGATE                  |             |
| Problem Code: YOTHP - Other problem not in codes. |             |

|  |
|--|
| Problem Description: <b>**CROSSBORE**</b> EMAIL: Joshua Fuchs, MS Consultants. Reported a CCTV crew performing video work for Clintonville 2 East CIP No. 611625-110192 found a crossbore in 18" storm pipe segment 0371T0018:0371T0017. |
|--|

|                            |        |                       |             |
|----------------------------|--------|-----------------------|-------------|
| Requested Date:            | Crew : | Dept: SEWERMNT        | Area:SEWERS |
| Next Approver:             |        |                       |             |
| Dispatcher:LINK, MICHAEL A |        | Call Back Ready: N    |             |
| Status: CANCELED           |        | Customer Call Back: N |             |
| WO/Task No:                |        | Finished Date:        |             |

**CUSTOMER INFORMATION**

|                  |                       |
|------------------|-----------------------|
| Customer ID:     | Bill Customer: N      |
| Name:            | Customer Call Back: N |
| Work Phone: Ext: | Home Phone:           |
| Company:         | Tax ID:               |

**REPORTED BY**

|                                       |              |
|---------------------------------------|--------------|
| Name: Fuchs, Joshua                   | Call Back: N |
| Address:                              | Suite:       |
| City: MS Consultants                  | State: Zip:  |
| Work Phone: (614) 898-7100 Ext: 10274 | Home Phone:  |

# SERVICE REQUEST REPORT

Created Date: 03/06/2020 08:52 AM

Service Request No.  
**2004070**

**\*2004070\***

## CLOSEOUT INFORMATION

|                     |               |                       |
|---------------------|---------------|-----------------------|
| Start: _____        | Finish: _____ | Completed: _____      |
| Failure: _____      | Repair: _____ | Further Action: _____ |
| Comments:           |               |                       |
| Inspected By: _____ | Date: _____   |                       |
| Signoff By: _____   | Date: _____   |                       |
| Closed By: _____    | Date: _____   |                       |

# SERVICE REQUEST REPORT

Service Request No.  
**2004141**

**\*2004141\***

Created Date: 03/08/2020 04:10 PM

## WORK LOCATION

|   |             |
|---|-------------|
| Address:3243 LONG COVE CT                         | Suite: 0569 |
| Cross Street:                                     |             |
| City:   | State: Zip: |
| Service Request Type: INVESTIGATE                 |             |
| Problem Code: YASSCLN - Assess need for cleaning. |             |

|   |
|---|
| Problem Description: DIST #0568, (S+E) CALLER STATES WATER IS COMING FROM THEIR SUMP PUMP & ALSO BOTH SIDE OF THE BASEMENT NEVERTHELESS WHEN THEY TURN THE SUMP PUMP OFF THERE IS NO WATER. NEXT, THE DOW TRANSFERED THE CALL TO US BECAUSE A POTENTIAL SEWER BACK UP. PLEASE CHECK ALL CITY SEWER & SPEAK W/ THE HOMEOWNERS. |
|---|

|                                |             |                                      |             |
|--------------------------------|-------------|--------------------------------------|-------------|
| Requested Date:                | Crew :DAVM1 | Dept: SEWERMNT                       | Area:SEWERS |
| Next Approver:                 |             |                                      |             |
| Dispatcher: JONES, CRYSTALYN R |             | Call Back Ready: Y                   |             |
| Status: CLOSED                 |             | Customer Call Back: N                |             |
| WO/Task No:                    |             | Finished Date: 03/09/2020 12:58:18PM |             |

## CUSTOMER INFORMATION

|                  |                       |
|------------------|-----------------------|
| Customer ID:     | Bill Customer: N      |
| Name:            | Customer Call Back: N |
| Work Phone: Ext: | Home Phone:           |
| Company:         | Tax ID:               |

## REPORTED BY

|                                 |              |
|---------------------------------|--------------|
| Name: STERN, BONNIE             | Call Back: Y |
| Address:3243 LONG COVE CT       | Suite:       |
| City:                           | State: Zip:  |
| Work Phone: (614) 569-1013 Ext: | Home Phone:  |

# SERVICE REQUEST REPORT

25 JAN 2021  
10:00 AM

Created Date: 03/08/2020 04:10 PM

Service Request No.  
**2004141**

**\*2004141\***

## CLOSEOUT INFORMATION

|  |                             |                       |
|--|-----------------------------|-----------------------|
| Start: 03/09/2020 11:37 AM   | Finish: 03/09/2020 12:55 PM | Completed: Y          |
| Failure: YNCF  | Repair: YNOWORKFND          | Further Action: YNFAN |
| Comments: THE CALLER ISSUE IS THIER SUMP PUMP. THE CITY'S STORM SEWER WAS OPEN AT THE TIME WE ARRIVED. THE CALLER WAS NOTIFIED OF OUR FINDINGS |                             |                       |
| Inspected By: M DAVEY S VERHAGE  | Date: 09-MAR-20             |                       |
| Signoff By: _____  | Date: _____                 |                       |
| Closed By: LINK, MICHAEL A   | Date: 11-MAR-20             |                       |

# SERVICE REQUEST REPORT

Service Request No.

**\*2004618\***

**2004618**

Created Date: 03/17/2020 09:22 AM

## WORK LOCATION

|  |             |
|--|-------------|
| Address: HILLIARD ROME RD                                    | Suite: 0281 |
| Cross Street: GLENCHES-TER DR                                |             |
| City:  | State: Zip: |
| Service Request Type: INVESTIGATE                            |             |
| Problem Code: YSPILL - Non-water spill; chemical, fuel, etc. |             |

|   |
|---|
| Problem Description: . RECEIVED A CALL FROM FRANKLIN COUNTY ENG. OFFICE. STATES THAT THERE IS DIESEL FULL ON HILLIARD ROME RD - JUST PAST GLENCHES-TER. |
|---|

|                     |        |                                      |              |
|---------------------|--------|--------------------------------------|--------------|
| Requested Date:     | Crew : | Dept: SEWERMNT                       | Area: SEWERS |
| Next Approver:      |        |                                      |              |
| Dispatcher: MRLEWIS |        | Call Back Ready: N                   |              |
| Status: CLOSED      |        | Customer Call Back: N                |              |
| WO/Task No:         |        | Finished Date: 04/28/2020 10:20:39AM |              |

## CUSTOMER INFORMATION

|                  |                       |
|------------------|-----------------------|
| Customer ID:     | Bill Customer: N      |
| Name:            | Customer Call Back: N |
| Work Phone: Ext: | Home Phone:           |
| Company:         | Tax ID:               |

## REPORTED BY

|                                 |              |
|---------------------------------|--------------|
| Name: COUNTY ENG., FRANKLIN     | Call Back: 0 |
| Address:                        | Suite:       |
| City:                           | State: Zip:  |
| Work Phone: (440) 813-0431 Ext: | Home Phone:  |

**SERVICE REQUEST REPORT**

Service Request No.  
**2004618**

**\*2004618\***

Created Date: 03/17/2020 09:22 AM

**CLOSEOUT INFORMATION**

|   |                 |                       |
|---|-----------------|-----------------------|
| Start: 03/17/2020 09:45 AM  | Finish: _____   | Completed: _____      |
| Failure: _____  | Repair: _____   | Further Action: _____ |
| Comments: REFERED TO STORMWATER FOR POTENTIAL ILLICIT DISCHARGE.<br>On 03/17/20 IDDE crew s responded and found no signs of fuel spill. |                 |                       |
| Inspected By: LINK  | Date: 17-MAR-20 |                       |
| Signoff By: _____   | Date: _____     |                       |
| Closed By: ESEMAN, MICHAEL L  | Date: 28-APR-20 |                       |

**SPECIFICATIONS**

| ID: 2003611 | Category: DOSD WORK DAT | Type: SPILL | Title: SPILL DATA |
|-------------|-------------------------|-------------|-------------------|
| Seq. No     | Attribute               | Value       |                   |
| 5           | SPILL AFFECTED AREA?    |             |                   |
| 10          | CAUSE?                  |             |                   |
| 15          | CONTAINED Y             |             |                   |
| 20          | STORMWATER NOTIFIED Y   |             |                   |
| 25          | EPA ON SITE Y           |             |                   |
| 30          | RECEIVING STRUCTURE #   |             |                   |
| 35          | RECEIVING WATERWAY?     |             |                   |

**CALL HISTORY**

|  |                                  |
|--|----------------------------------|
| Call No: 2   | Call Date: 03/17/2020 09:23:06AM |
| Comments: . BASED ON RESPONSE, SERVICE REQUEST TYPE CHANGED FROM TRASH/DEBRIS ALONG RIGHT-OF-WAY TO SEWER/MISCELLANEOUS, |                                  |
| Response: STATUS UPDATE  |                                  |
| Call Back: N   | Date:                            |
| Caller Name:   |                                  |
| Caller Phone:  | Ext:                             |

# SERVICE REQUEST REPORT

Created Date: 03/17/2020 09:22 AM

Service Request No.  
**2004618**

**\*2004618\***

## CALL HISTORY

|  |                                  |
|--|----------------------------------|
| <b>Call No: 1</b>  | Call Date: 03/17/2020 09:23:01AM |
| Comments: Service request type was changed from TRASH/DEBRIS ALONG RIGHT-OF-WAY to SEWER/MISCELLANEOUS |                                  |
| Response: New SR Type  |                                  |
| Call Back: N   | Date:                            |
| Caller Name:   |                                  |
| Caller Phone:  | Ext:                             |



## SERVICE REQUEST REPORT

25 JAN 2021  
10:37 AMService Request No.  
**2004679****\*2004679\***

Created Date: 03/18/2020 04:47 PM

**WORK LOCATION**

|   |             |
|---|-------------|
| Address: WOODY HAYES DR                           | Suite: 0052 |
| Cross Street: CANNON DR                           |             |
| City:   | State: Zip: |
| Service Request Type: INVESTIGATE                 |             |
| Problem Code: YOTHP - Other problem not in codes. |             |

|   |
|---|
| Problem Description: DIST #52 - CITIZEN REPORTS A WHITE SUBSTANCE COMING OUT OF AN INLET ON THE BIKE TRAIL ON WOODY HAYES DRIVE JUST WEST OF THE FRENCH FIELD HOUSE. STRUCTURE T0437 OR T0954. HE SAID THERE WAS A NEARBY SIGN THAT INDICATED TO REPORT IF THERE WAS ANY UNUSUAL SUBSTANCE FLOWING FROM THE STRUCTURE. THE STRUCTURE IS ABOUT 10 FEET FROM THE TRAIL. |
|---|

|                               |             |                                      |              |
|-------------------------------|-------------|--------------------------------------|--------------|
| Requested Date:               | Crew :WALE2 | Dept: SEWERMNT                       | Area: SEWERS |
| Next Approver:                |             |                                      |              |
| Dispatcher: ADKINS, MELINDA L |             | Call Back Ready: N                   |              |
| Status: CLOSED                |             | Customer Call Back: N                |              |
| WO/Task No:                   |             | Finished Date: 03/18/2020 11:48:58PM |              |

**CUSTOMER INFORMATION**

|                  |                       |
|------------------|-----------------------|
| Customer ID:     | Bill Customer: N      |
| Name:            | Customer Call Back: N |
| Work Phone: Ext: | Home Phone:           |
| Company:         | Tax ID:               |

**REPORTED BY**

|                                 |              |
|---------------------------------|--------------|
| Name: PIERCE, DEON              | Call Back: N |
| Address: WOODY HAYES DR         | Suite: 0052  |
| City:                           | State: Zip:  |
| Work Phone: (614) 496-2116 Ext: | Home Phone:  |

# SERVICE REQUEST REPORT

25 JAN 2021  
10:37 AM

Created Date: 03/18/2020 04:47 PM

Service Request No.  
**2004679**

**\*2004679\***

## CLOSEOUT INFORMATION

|   |                             |                       |
|---|-----------------------------|-----------------------|
| Start: 03/18/2020 07:30 PM                        | Finish: 03/18/2020 08:30 PM | Completed: _____      |
| Failure: YPDBINSP                                 | Repair: _____               | Further Action: YNFAN |
| Comments: No problem found at time of inspection. |                             |                       |
| Inspected By: Epw alters & Fljohnson              | Date: 18-MAR-20             |                       |
| Signoff By: _____                                 | Date: _____                 |                       |
| Closed By: JOHNSON, FRED L                        | Date: 19-MAR-20             |                       |

**SERVICE REQUEST REPORT**

Created Date: 03/25/2020 11:32 AM

Service Request No.  
**2005575**

**\*2005575\***

**WORK LOCATION**

|   |             |
|---|-------------|
| Address:2796 QUAILVIEW LN                       | Suite: 0357 |
| Cross Street:                                   |             |
| City:   | State: Zip: |
| Service Request Type: INVESTIGATE               |             |
| Problem Code: YFLOOD - Flooding, surface water. |             |

|   |
|---|
| Problem Description: DIST 0357 (W) Quailview Lane & Morel Way. ON-LINE REQUEST. Storm water has been constantly flowing for 6+ months. Possibly illegal dumping into storm water. Occasional odd material found in water. |
|---|

|                    |        |                                      |             |
|--------------------|--------|--------------------------------------|-------------|
| Requested Date:    | Crew : | Dept: SEWERMNT                       | Area:SEWERS |
| Next Approver:     |        |                                      |             |
| Dispatcher:CABURKE |        | Call Back Ready: N                   |             |
| Status: CLOSED     |        | Customer Call Back: N                |             |
| WO/Task No:        |        | Finished Date: 05/20/2020 02:39:47PM |             |

**CUSTOMER INFORMATION**

|                  |                       |
|------------------|-----------------------|
| Customer ID:     | Bill Customer: N      |
| Name:            | Customer Call Back: N |
| Work Phone: Ext: | Home Phone:           |
| Company:         | Tax ID:               |

**REPORTED BY**

|                               |              |
|-------------------------------|--------------|
| Name: NO CUSTOMER INFORMATION | Call Back: 0 |
| Address:                      | Suite:       |
| City:                         | State: Zip:  |
| Work Phone: Ext:              | Home Phone:  |

Refer to Illicit Discharge  
Investigation 05202020-2

# SERVICE REQUEST REPORT

25 JAN 2021  
08:35 AM

Service Request No.  
**2005575**

**\*2005575\***

Created Date: 03/25/2020 11:32 AM

## CLOSEOUT INFORMATION

|  |                             |                       |
|--|-----------------------------|-----------------------|
| Start: 05/20/2020 10:00 AM   | Finish: 05/20/2020 11:00 AM | Completed: Y          |
| Failure: _____   | Repair: _____               | Further Action: _____ |
| Comments: Discharge in curblin appears to be groundw ater. Refer to S.R.M.S. report 05202020-2 |                             |                       |
| Inspected By: Lamb   | Date: 20-MAY-20             |                       |
| Signoff By: _____  | Date: _____                 |                       |
| Closed By: LAMB, ROBERT F  | Date: 20-MAY-20             |                       |

## DOCUMENTS AND PROCEDURES

| <u>Document ID</u> | <u>Document Type</u> | <u>Status</u> | <u>Revision</u> | <u>Last Update Date</u> |
|--------------------|----------------------|---------------|-----------------|-------------------------|
| 311-109735         | DOCUMENT             | CREATED       |                 |                         |

# SERVICE REQUEST REPORT

Created Date: 03/26/2020 06:50 AM

Service Request No.  
**2005636**

**\*2005636\***

## WORK LOCATION

|   |             |
|---|-------------|
| Address:1094 SAY AVE                              | Suite: 0028 |
| Cross Street:                                     |             |
| City:   | State: Zip: |
| Service Request Type: INVESTIGATE                 |             |
| Problem Code: YOTHP - Other problem not in codes. |             |

|  |
|--|
| Problem Description: E Fourth Avenue. ON-LINE REQUEST. Raw sewage is collecting on sidewalk from discharge at 1094 Say |
|--|

|                        |             |                                      |             |
|------------------------|-------------|--------------------------------------|-------------|
| Requested Date:        | Crew :ENGS1 | Dept: SEWERMNT                       | Area:SEWERS |
| Next Approver:         |             |                                      |             |
| Dispatcher:MLBOONE     |             | Call Back Ready: N                   |             |
| Status: CLOSED         |             | Customer Call Back: N                |             |
| WO/Task No: 2008607/01 |             | Finished Date: 03/27/2020 08:01:58AM |             |

## CUSTOMER INFORMATION

|              |                       |
|--------------|-----------------------|
| Customer ID: | Bill Customer: N      |
| Name:        | Customer Call Back: N |
| Work Phone:  | Ext: Home Phone:      |
| Company:     | Tax ID:               |

## REPORTED BY

|                                 |                      |
|---------------------------------|----------------------|
| Name: Klein, Andrew             | Call Back: 0         |
| Address: 162 DETROIT AVE *UNIT: | Suite:               |
| City: COLUMBUS                  | State: OH Zip: 43201 |
| Work Phone: (614) 299-6139      | Ext: Home Phone:     |

### SERVICE REQUEST REPORT

25 JAN 2021  
10:39 AM

Service Request No.  
**2005636**

**\*2005636\***

Created Date: 03/26/2020 06:50 AM

#### CLOSEOUT INFORMATION

|   |                             |                        |
|---|-----------------------------|------------------------|
| Start: 03/26/2020 10:15 AM  | Finish: 03/26/2020 11:00 AM | Completed: Y           |
| Failure: YNCF   | Repair: YEXPOSDSTR          | Further Action: YCLEAN |
| <p>Comments: YOPEN - The 12 inch combination sewer serving the problem location was open and flowing when checked. Checked upstream manhole # 0028C0132 and downstream manhole # 0028C0127. We located and uncovered manhole # 0028C0132. P. Fannin II notified Storm Water section to test unknown substance in the curb line. YCLN - This sewer needs to be cleaned with a vactor from manhole # 0028C0127 one section(s) to manhole # 0028C0132 as soon as possible.</p> |                             |                        |
| Inspected By: Engle / Woodall   | Date: 26-MAR-20             |                        |
| Signoff By: _____   | Date: _____                 |                        |
| Closed By: GRIFFITH, MICHAEL A  | Date: 14-APR-20             |                        |

# SERVICE REQUEST REPORT

Created Date: 03/26/2020 03:24 PM

Service Request No.  
**2005664**

**\*2005664\***

## WORK LOCATION

|  |             |
|--|-------------|
| Address:3834 ROSETTE DR                                      | Suite: 0112 |
| Cross Street:  |             |
| City:  | State: Zip: |
| Service Request Type: INVESTIGATE                            |             |
| Problem Code: YSPILL - Non-water spill; chemical, fuel, etc. |             |

|  |
|--|
| Problem Description: DIST 0112 . EMAIL RECEIVED: PREVIOUSLY HAD DISCUSSED WITH MICHAEL EASTMAN OF STORM WATER - VAN PARKED IN FRONT OF 3834 ROSETTE IS STILL ACTIVELY LEAKING OIL INTO MAIN ROAD AND HAS BEEN SINCE DECEMBER. I DO NOT HAVE THE SERVICE REQUEST NUMBER - GMC WITH OHIO PLATE # HOT6143. I AM AWARE THIS IS NOT MAIN CONCERN DUE TO COVID-19, BUT I WAS TOLD TO REPORT IF IT CONTINUES. CALLED NON-EMERGENCY DISPATCH AS INSTRUCTED BY MIKE IF ISSUE CONTINUES AND THEY ADVISED THEY WILL NOT COME OUT FOR AN OIL POLLUTION ISSUE AND TO SEND EMAIL TO 311. |
|--|

|                      |        |                                      |              |
|----------------------|--------|--------------------------------------|--------------|
| Requested Date:      | Crew : | Dept: SEWERMNT                       | Area: SEWERS |
| Next Approver:       |        |                                      |              |
| Dispatcher: SJSPARKS |        | Call Back Ready: N                   |              |
| Status: CLOSED       |        | Customer Call Back: N                |              |
| WO/Task No:          |        | Finished Date: 05/27/2020 08:37:15AM |              |

## CUSTOMER INFORMATION

|                  |                       |
|------------------|-----------------------|
| Customer ID:     | Bill Customer: N      |
| Name:            | Customer Call Back: N |
| Work Phone: Ext: | Home Phone:           |
| Company:         | Tax ID:               |

## REPORTED BY

|                                 |              |
|---------------------------------|--------------|
| Name: ALKIRE PLACE HOA          | Call Back: 0 |
| Address:                        | Suite:       |
| City:                           | State: Zip:  |
| Work Phone: (614) 886-5657 Ext: | Home Phone:  |

Refer to Illicit Discharge  
Investigation 03052020-1

# SERVICE REQUEST REPORT

Service Request No.  
**2005664**

**\*2005664\***

Created Date: 03/26/2020 03:24 PM

### CLOSEOUT INFORMATION

|   |                 |                       |
|---|-----------------|-----------------------|
| Start: 05/27/2020 08:37 AM  | Finish: _____   | Completed: _____      |
| Failure: _____  | Repair: _____   | Further Action: _____ |
| Comments: Vehicle w as repaired and oil w as cleaned up. No signs of new discharge w as found w hen i checked back.<br>Refer to S.R.M.S. 03052020-1 |                 |                       |
| Inspected By: LINK  | Date: 27-MAR-20 |                       |
| Signoff By: _____   | Date: _____     |                       |
| Closed By: ESEMAN, MICHAEL L  | Date: 27-MAY-20 |                       |

### SPECIFICATIONS

| ID: 2004372 | Category: DOSD WORK DAT | Type: SPILL | Title: SPILL DATA |
|-------------|-------------------------|-------------|-------------------|
| Seq. No     | Attribute               | Value       |                   |
| 5           | SPILL AFFECTED AREA?    |             |                   |
| 10          | CAUSE?                  |             |                   |
| 15          | CONTAINED Y             |             |                   |
| 20          | STORMWATER NOTIFIED Y   |             |                   |
| 25          | EPA ON SITE Y           |             |                   |
| 30          | RECEIVING STRUCTURE #   |             |                   |
| 35          | RECEIVING WATERWAY?     |             |                   |

## SERVICE REQUEST REPORT

25 JAN 2021

10:04 AM

Service Request No.

**\*2005732\***

Created Date: 03/27/2020 03:05 PM

**2005732****WORK LOCATION**

|   |             |
|---|-------------|
| Address:2896 DIBBLEE AVE                          | Suite: 0078 |
| Cross Street:                                     |             |
| City:   | State: Zip: |
| Service Request Type: INVESTIGATE                 |             |
| Problem Code: YASSCLN - Assess need for cleaning. |             |

Problem Description: DIST #0078. (W) Hague. ON-LINE REQUEST. Leaves and debri packed under metal grate

|                    |             |                                      |             |
|--------------------|-------------|--------------------------------------|-------------|
| Requested Date:    | Crew :KISL1 | Dept: SEWERMNT                       | Area:SEWERS |
| Next Approver:     |             |                                      |             |
| Dispatcher:CABURKE |             | Call Back Ready: N                   |             |
| Status: CLOSED     |             | Customer Call Back: N                |             |
| WO/Task No:        |             | Finished Date: 05/17/2020 11:24:56AM |             |

**CUSTOMER INFORMATION**

|                  |                       |
|------------------|-----------------------|
| Customer ID:     | Bill Customer: N      |
| Name:            | Customer Call Back: N |
| Work Phone: Ext: | Home Phone:           |
| Company:         | Tax ID:               |

**REPORTED BY**

|                                 |                      |
|---------------------------------|----------------------|
| Name: Kohnen, Scott             | Call Back: 0         |
| Address: 2896 DIBBLEE AVE       | Suite:               |
| City: COLUMBUS                  | State: OH Zip: 43204 |
| Work Phone: (614) 778-7902 Ext: | Home Phone:          |

# SERVICE REQUEST REPORT

25 JAN 2021  
10:04 AM

Service Request No.  
**2005732**

**\*2005732\***

Created Date: 03/27/2020 03:05 PM

### CLOSEOUT INFORMATION

|  |                             |                      |
|--|-----------------------------|----------------------|
| Start: 05/17/2020 09:50 AM   | Finish: 05/17/2020 11:00 AM | Completed: Y         |
| Failure: YDIRTY  | Repair: YHNDCLND            | Further Action:YNFAN |
| Comments: F/O 2896 Dibblee Ave hand cleaned inlet the inlet does not have asset number .the inlet had leaves and debris in it. |                             |                      |
| Inspected By: Kisner.L   | Date: 17-MAY-20             |                      |
| Signoff By: _____  | Date: _____                 |                      |
| Closed By: FANNIN II, PAUL D   | Date: 27-MAY-20             |                      |

### DOCUMENTS AND PROCEDURES

| <u>Document ID</u> | <u>Document Type</u> | <u>Status</u> | <u>Revision</u> | <u>Last Update Date</u> |
|--------------------|----------------------|---------------|-----------------|-------------------------|
| 311-109833         | DOCUMENT             | CREATED       |                 |                         |

## SERVICE REQUEST REPORT

25 JAN 2021  
08:38 AMService Request No.  
**2005768****\*2005768\***

Created Date: 03/28/2020 09:33 PM

**WORK LOCATION**

|   |             |
|---|-------------|
| Address:3048 VALLEYWOOD DR                    | Suite:      |
| Cross Street:                                 |             |
| City:   | State: Zip: |
| Service Request Type: INVESTIGATE             |             |
| Problem Code: Y311 - SMOG 311 SERVICE REQUEST |             |

Problem Description: . EMAIL RECEIVED:

ON SEVERAL OCCASIONS I HAVE WITNESSED THE NEIGHBORS BEHIND MY HOUSE DUMPING I THE CREEK AND ITS FULL OF GARBAGE AND HALF THEIR STUFF FROM THEIR YARD - THEY SIMPLY DON'T CARE.

ITS NOW TRASH FILLED BY THEIR PROPERTY IN THE CREEK, THEY DUMP LIQUIDS FROM BARRELS AND WHAT NOT. IT NEEDS TO STOP.

|                      |        |                                      |              |
|----------------------|--------|--------------------------------------|--------------|
| Requested Date:      | Crew : | Dept: SEWERMNT                       | Area: SEWERS |
| Next Approver:       |        |                                      |              |
| Dispatcher: SJSPARKS |        | Call Back Ready: N                   |              |
| Status: CLOSED       |        | Customer Call Back: N                |              |
| WO/Task No:          |        | Finished Date: 03/30/2020 11:09:35AM |              |

**CUSTOMER INFORMATION**

|              |      |                       |
|--------------|------|-----------------------|
| Customer ID: |      | Bill Customer: N      |
| Name:        |      | Customer Call Back: N |
| Work Phone:  | Ext: | Home Phone:           |
| Company:     |      | Tax ID:               |

**REPORTED BY**

|                               |        |              |
|-------------------------------|--------|--------------|
| Name: NO CUSTOMER INFORMATION |        | Call Back: 0 |
| Address:                      |        | Suite:       |
| City:                         | State: | Zip:         |
| Work Phone:                   | Ext:   | Home Phone:  |

Refer to Illicit Discharge  
Investigation 03302020-1

# SERVICE REQUEST REPORT

25 JAN 2021  
08:38 AM

Service Request No.  
**2005768**

**\*2005768\***

Created Date: 03/28/2020 09:33 PM

### CLOSEOUT INFORMATION

|  |                             |                       |
|--|-----------------------------|-----------------------|
| Start: 03/30/2020 09:00 AM                       | Finish: 03/30/2020 10:00 AM | Completed: Y          |
| Failure: _____                                   | Repair: _____               | Further Action: _____ |
| Comments: Refer to SRMS investigation 03302020-1 |                             |                       |
| Inspected By: lamb                               | Date: 30-MAR-20             |                       |
| Signoff By: lamb                                 | Date: 30-MAR-20             |                       |
| Closed By: LAMB, ROBERT F                        | Date: 31-MAR-20             |                       |

### DOCUMENTS AND PROCEDURES

| <u>Document ID</u> | <u>Document Type</u> | <u>Status</u> | <u>Revision</u> | <u>Last Update Date</u> |
|--------------------|----------------------|---------------|-----------------|-------------------------|
| 311-109876         | DOCUMENT             | CREATED       |                 |                         |

### CALL HISTORY

|   |                                  |
|---|----------------------------------|
| <b>Call No: 1</b>   | Call Date: 03/28/2020 09:33:17PM |
| Comments: Service request type was changed from SW/REFUSE/MISC to SEWER/MISCELLANEOUS |                                  |
| Response: New SR Type   |                                  |
| Call Back: N  | Date:                            |
| Caller Name:  |                                  |
| Caller Phone:   | Ext:                             |

# SERVICE REQUEST REPORT

Created Date: 03/28/2020 04:04 PM

Service Request No.  
**2005761**

**\*2005761\***

## WORK LOCATION

|   |             |
|---|-------------|
| Address:3700 COLLET CT                            | Suite: 0119 |
| Cross Street:                                     |             |
| City:   | State: Zip: |
| Service Request Type: INVESTIGATE                 |             |
| Problem Code: YOTHP - Other problem not in codes. |             |

|   |
|---|
| Problem Description: please see storm water investigation number 03282020-1<br>DIST #119 - WEST - CITIZEN REPORTED A DRAINAGE DITCH AT THE REAR OF HIS ADDRESS HAS CLOUDY WATER, LOKE A RESIDUE AND THE ROCKS HAVE BLACK SCUM ON THEM. THERE IS NOTHING, LIKE OIL POURING INTO THE DITCH. DISTCH IS FIVE MILES LONG. DISPATCHER SCOTT CALLED MATT REPASKY, CREATED A CALLED AND CALLED A CREW MEMBER. |
|---|

|                               |        |                                      |              |
|-------------------------------|--------|--------------------------------------|--------------|
| Requested Date:               | Crew : | Dept: SEWERMNT                       | Area: SEWERS |
| Next Approver:                |        |                                      |              |
| Dispatcher: ADKINS, MELINDA L |        | Call Back Ready: N                   |              |
| Status: CLOSED                |        | Customer Call Back: N                |              |
| WO/Task No:                   |        | Finished Date: 09/03/2020 11:09:39AM |              |

## CUSTOMER INFORMATION

|                  |                       |
|------------------|-----------------------|
| Customer ID:     | Bill Customer: N      |
| Name:            | Customer Call Back: N |
| Work Phone: Ext: | Home Phone:           |
| Company:         | Tax ID:               |

## REPORTED BY

|                                 |              |
|---------------------------------|--------------|
| Name: NEWMAN, MICHAEL           | Call Back: N |
| Address:3700 COLLET CT          | Suite: 0119  |
| City:                           | State: Zip:  |
| Work Phone: (614) 361-5588 Ext: | Home Phone:  |

Refer to Illicit Discharge  
Investigation 03282020-1

# SERVICE REQUEST REPORT

25 JAN 2021  
08:37 AM

Service Request No.  
**2005761**

**\*2005761\***

Created Date: 03/28/2020 04:04 PM

## CLOSEOUT INFORMATION

|   |                             |                       |
|---|-----------------------------|-----------------------|
| Start: 03/28/2020 06:30 PM                    | Finish: 03/28/2020 08:30 PM | Completed: Y          |
| Failure: _____                                | Repair: _____               | Further Action: _____ |
| Comments: Please refer to S.R.M.S.#03282020-1 |                             |                       |
| Inspected By: Claypool                        | Date: 28-MAR-20             |                       |
| Signoff By: _____                             | Date: _____                 |                       |
| Closed By: CLAYPOOL, MATTHEW E                | Date: 03-SEP-20             |                       |

## SERVICE REQUEST REPORT

25 JAN 2021

10:43 AM

Service Request No.

2006099

\*2006099\*

Created Date: 04/02/2020 08:23 PM

## WORK LOCATION

|   |             |
|---|-------------|
| Address:3151 HOWEY RD                             | Suite: 0177 |
| Cross Street:                                     |             |
| City:   | State: Zip: |
| Service Request Type: INVESTIGATE                 |             |
| Problem Code: YOTHP - Other problem not in codes. |             |

Problem Description: DIST #177 - NORTH - UNKNOWN CITIZEN REPORTED SEEING A MAN THAT LIVES AT 3151 HOWEY RD USING A SNOWSHOVEL SCOOPING DEBRIS INTO THE STORM DRAIN AT THE SOUTHEAST CORNER OF HOWEY AND E. NORTH BROADWAY. THIS MAN SCOOPED DEBRIS INTO THE STORM DRAIN FOR ABOUT AN HOUR. HE HAS DONE THIS BEFORE.

|                              |             |                                      |             |
|------------------------------|-------------|--------------------------------------|-------------|
| Requested Date:              | Crew :ROBA2 | Dept: SEWERMNT                       | Area:SEWERS |
| Next Approver:               |             |                                      |             |
| Dispatcher:ADKINS, MELINDA L |             | Call Back Ready: N                   |             |
| Status: CLOSED               |             | Customer Call Back: N                |             |
| WO/Task No:                  |             | Finished Date: 04/03/2020 09:44:25AM |             |

## CUSTOMER INFORMATION

|                  |                       |
|------------------|-----------------------|
| Customer ID:     | Bill Customer: N      |
| Name:            | Customer Call Back: N |
| Work Phone: Ext: | Home Phone:           |
| Company:         | Tax ID:               |

## REPORTED BY

|                       |              |
|-----------------------|--------------|
| Name: UNKNOWN         | Call Back: N |
| Address:3151 HOWEY RD | Suite: 0177  |
| City:                 | State: Zip:  |
| Work Phone: Ext:      | Home Phone:  |

# SERVICE REQUEST REPORT

25 JAN 2021  
10:43 AM

Service Request No.  
**2006099**

**\*2006099\***

Created Date: 04/02/2020 08:23 PM

## CLOSEOUT INFORMATION

|   |                             |                       |
|---|-----------------------------|-----------------------|
| Start: 04/03/2020 08:00 AM  | Finish: 04/03/2020 09:30 AM | Completed: _____      |
| Failure: YOPEN  | Repair: _____               | Further Action: YNFAN |
| Comments: w ent to problem area checked all catch basin #0177t0615, 0177t0616, 0177t0617, 0177t0618, w as no debris located drains are open |                             |                       |
| Inspected By: A. Roberts / R. Jackson   | Date: 03-APR-20             |                       |
| Signoff By: _____   | Date: _____                 |                       |
| Closed By: LINK, MICHAEL A  | Date: 06-APR-20             |                       |

# SERVICE REQUEST REPORT

Service Request No.  
**2006202**

**\*2006202\***

Created Date: 04/06/2020 11:32 AM

## WORK LOCATION

|  |             |
|--|-------------|
| Address:3400 VALLEY PARK AVE                                 | Suite:      |
| Cross Street:  |             |
| City:  | State: Zip: |
| Service Request Type: INVESTIGATE                            |             |
| Problem Code: YSPILL - Non-water spill; chemical, fuel, etc. |             |

|  |
|--|
| Problem Description: . PER VOICEMAIL<br>CALLER STATES THIS ADDRESS REGULARLY HAS A MILKY/SUDSY WATER FLOWING FORM THE HOME, DOWN THE DRVEWAY, DOWN THE CURBLINE TO THE SEWER DRAIN - BELIEVES IT IS FROM LAUNDRY DRAINING - PLEASE CHECK |
|--|

|                     |        |                                      |             |
|---------------------|--------|--------------------------------------|-------------|
| Requested Date:     | Crew : | Dept: SEWERMNT                       | Area:SEWERS |
| Next Approver:      |        |                                      |             |
| Dispatcher:AMMCCUNE |        | Call Back Ready: N                   |             |
| Status: CLOSED      |        | Customer Call Back: N                |             |
| WO/Task No:         |        | Finished Date: 04/07/2020 02:55:58PM |             |

## CUSTOMER INFORMATION

|              |      |                       |
|--------------|------|-----------------------|
| Customer ID: |      | Bill Customer: N      |
| Name:        |      | Customer Call Back: N |
| Work Phone:  | Ext: | Home Phone:           |
| Company:     |      | Tax ID:               |

## REPORTED BY

|                 |        |              |
|-----------------|--------|--------------|
| Name: VOICEMAIL |        | Call Back: 0 |
| Address:        |        | Suite:       |
| City:           | State: | Zip:         |
| Work Phone:     | Ext:   | Home Phone:  |

Refer to Illicit Discharge  
Investigation 04062020-1

**SERVICE REQUEST REPORT**

25 JAN 2021  
08:40 AM

Service Request No.  
**2006202**

**\*2006202\***

Created Date: 04/06/2020 11:32 AM

**CLOSEOUT INFORMATION**

|   |                             |                       |
|---|-----------------------------|-----------------------|
| Start: 04/06/2020 01:00 PM                | Finish: 04/06/2020 02:00 PM | Completed: Y          |
| Failure: _____                            | Repair: _____               | Further Action: _____ |
| Comments: please refer to SRMS 04062020-1 |                             |                       |
| Inspected By: LINK                        | Date: 06-APR-20             |                       |
| Signoff By: Lamb                          | Date: 07-APR-20             |                       |
| Closed By: LAMB, ROBERT F                 | Date: 07-APR-20             |                       |

**SPECIFICATIONS**

|                |                         |              |                   |
|----------------|-------------------------|--------------|-------------------|
| ID: 2004466    | Category: DOSD WORK DAT | Type: SPILL  | Title: SPILL DATA |
| <u>Seq. No</u> | <u>Attribute</u>        | <u>Value</u> |                   |
| 5              | SPILL AFFECTED AREA?    |              |                   |
| 10             | CAUSE?                  |              |                   |
| 15             | CONTAINED Y             |              |                   |
| 20             | STORMWATER NOTIFIED Y   |              |                   |
| 25             | EPA ON SITE Y           |              |                   |
| 30             | RECEIVING STRUCTURE #   |              |                   |
| 35             | RECEIVING WATERWAY?     |              |                   |

# SERVICE REQUEST REPORT

Service Request No.  
**2006341**

**\*2006341\***

Created Date: 04/08/2020 03:31 PM

## WORK LOCATION

|   |             |
|---|-------------|
| Address:3726 MULLANE CT                           | Suite: 0446 |
| Cross Street:                                     |             |
| City:   | State: Zip: |
| Service Request Type INVESTIGATE                  |             |
| Problem Code: YASSCLN - Assess need for cleaning. |             |

Problem Description: DIST #0446 (W) Frantz Road and the south entrance to Ballymead. The drain is behind the fence in the back of the property, along the road.. ON-LINE REQUEST. No street flooding, but the storm drain is full of leaves up to the grate. It is located on the south side of Frantz Road across from the south intersection of Ballymead and Frantz Road.

|                    |             |                                      |             |
|--------------------|-------------|--------------------------------------|-------------|
| Requested Date:    | Crew :LINM1 | Dept: SEWERMNT                       | Area:SEWERS |
| Next Approver:     |             |                                      |             |
| Dispatcher:CABURKE |             | Call Back Ready: N                   |             |
| Status: CLOSED     |             | Customer Call Back: N                |             |
| WO/Task No:        |             | Finished Date: 05/17/2020 08:17:58AM |             |

## CUSTOMER INFORMATION

|                  |                       |
|------------------|-----------------------|
| Customer ID:     | Bill Customer: N      |
| Name:            | Customer Call Back: N |
| Work Phone: Ext: | Home Phone:           |
| Company:         | Tax ID:               |

## REPORTED BY

|                                 |                      |
|---------------------------------|----------------------|
| Name: Treon, Ronald             | Call Back: 0         |
| Address: 3726 MULLANE CT MARY   | Suite:               |
| City: COLUMBUS                  | State: OH Zip: 43016 |
| Work Phone: (614) 792-0851 Ext: | Home Phone:          |

# SERVICE REQUEST REPORT

25 JAN 2021  
10:07 AM

Service Request No.  
**2006341**

**\*2006341\***

Created Date: 04/08/2020 03:31 PM

## CLOSEOUT INFORMATION

|  |                             |                      |
|--|-----------------------------|----------------------|
| Start: 05/16/2020 04:15 PM   | Finish: 05/16/2020 05:00 PM | Completed: Y         |
| Failure: YDIRTY  | Repair: YHNDCLND            | Further Action:YNFAN |
| Comments: YINLET/DIRTY – The storm sewer serving the problem location was open and flowing when checked. Inlet #0365T1049 grate was cleaned by hand. No further work needed. |                             |                      |
| Inspected By: WOODALL/LINK   | Date: 16-MAY-20             |                      |
| Signoff By: _____  | Date: _____                 |                      |
| Closed By: LINK, MICHAEL A   | Date: 17-MAY-20             |                      |

## SERVICE REQUEST REPORT

25 JAN 2021  
10:08 AM

Created Date: 04/08/2020 03:31 PM

Service Request No.  
**2006342****\*2006342\*****WORK LOCATION**

|   |             |
|---|-------------|
| Address:252 JEFFREY PL W                          | Suite:      |
| Cross Street:                                     |             |
| City:   | State: Zip: |
| Service Request Type: INVESTIGATE                 |             |
| Problem Code: YASSCLN - Assess need for cleaning. |             |

Problem Description: . ON-LINE REQUEST. Storm sewer drain in front of 252 W Jeffrey Pl. is blocked with leaves and debris.

|                    |             |                                      |             |
|--------------------|-------------|--------------------------------------|-------------|
| Requested Date:    | Crew :VERS1 | Dept: SEWERMNT                       | Area:SEWERS |
| Next Approver:     |             |                                      |             |
| Dispatcher:CABURKE |             | Call Back Ready: N                   |             |
| Status: CLOSED     |             | Customer Call Back: N                |             |
| WO/Task No:        |             | Finished Date: 04/08/2020 05:46:39PM |             |

**CUSTOMER INFORMATION**

|              |      |                       |
|--------------|------|-----------------------|
| Customer ID: |      | Bill Customer: N      |
| Name:        |      | Customer Call Back: N |
| Work Phone:  | Ext: | Home Phone:           |
| Company:     |      | Tax ID:               |

**REPORTED BY**

|                            |           |              |
|----------------------------|-----------|--------------|
| Name: Hoffman, Elizabeth   |           | Call Back: 0 |
| Address: 252 W JEFFREY PL  |           | Suite:       |
| City: COLUMBUS             | State: OH | Zip: 43214   |
| Work Phone: (614) 404-7701 | Ext:      | Home Phone:  |

# SERVICE REQUEST REPORT

25 JAN 2021  
10:08 AM

Service Request No.  
**2006342**

**\*2006342\***

Created Date: 04/08/2020 03:31 PM

## CLOSEOUT INFORMATION

|   |                             |                       |
|---|-----------------------------|-----------------------|
| Start: 04/08/2020 05:41 PM  | Finish: 04/08/2020 06:30 PM | Completed: _____      |
| Failure: YDIRTY   | Repair: YHNDCLND            | Further Action: YNFAN |
| Comments: Clean leaves from around storm inlets 0370T0287, 0286, 0237 |                             |                       |
| Inspected By: Verhage/Sw ank  | Date: 08-APR-20             |                       |
| Signoff By: _____   | Date: _____                 |                       |
| Closed By: JOHNSON, FRED L  | Date: 08-APR-20             |                       |

# SERVICE REQUEST REPORT

Service Request No.  
**2006584**

**\*2006584\***

Created Date: 04/14/2020 05:41 PM

## WORK LOCATION

|   |             |
|---|-------------|
| Address:2613 DIANE PL                             | Suite: 0066 |
| Cross Street:                                     |             |
| City:   | State: Zip: |
| Service Request Type INVESTIGATE                  |             |
| Problem Code: YASSCLN - Assess need for cleaning. |             |

|  |
|--|
| Problem Description: Caller states there are leaves in the storm sew ers, originally w ritten up and ran as a WIB. |
|--|

|                              |             |                                      |             |
|------------------------------|-------------|--------------------------------------|-------------|
| Requested Date:              | Crew :LIGJ1 | Dept: SEWERMNT                       | Area:SEWERS |
| Next Approver:               |             |                                      |             |
| Dispatcher:MARTIN, DARRELL W |             | Call Back Ready: N                   |             |
| Status: CLOSED               |             | Customer Call Back: N                |             |
| WO/Task No:                  |             | Finished Date: 04/14/2020 06:19:15PM |             |

## CUSTOMER INFORMATION

|                  |                       |
|------------------|-----------------------|
| Customer ID:     | Bill Customer: N      |
| Name:            | Customer Call Back: N |
| Work Phone: Ext: | Home Phone:           |
| Company:         | Tax ID:               |

## REPORTED BY

|                                 |              |
|---------------------------------|--------------|
| Name: Mary, Smith               | Call Back: N |
| Address:2613 DIANE PL           | Suite: 0066  |
| City:                           | State: Zip:  |
| Work Phone: (614) 491-1370 Ext: | Home Phone:  |

# SERVICE REQUEST REPORT

Service Request No.  
**2006584**

**\*2006584\***

Created Date: 04/14/2020 05:41 PM

### CLOSEOUT INFORMATION

|   |                             |                       |
|---|-----------------------------|-----------------------|
| Start: 04/14/2020 05:30 PM  | Finish: 04/14/2020 06:15 PM | Completed: Y          |
| Failure: YNCF   | Repair: YNFWN               | Further Action: YNFAN |
| Comments: YFLOOD/CLN- checked stom drains for cleaning and they were all open. The CB/INLET #_0066t0092__ @ _0066t0093__, CB/Inlet was cleaned. |                             |                       |
| Inspected By: lightle   | Date: 14-APR-20             |                       |
| Signoff By: _____   | Date: _____                 |                       |
| Closed By: JOHNSON, FRED L  | Date: 21-MAY-20             |                       |

### SPECIFICATIONS

| Seq. No     | Attribute                      | Value                               |
|-------------|--------------------------------|-------------------------------------|
| ID: 2004531 | Category: DOSD WORK DAT        | Type: SMNT_EVENT                    |
|             |                                | Title: WIB - MSS AND SSO - CSO DATA |
| 5           | CHECKED FROM STRUCTURE #       |                                     |
| 10          | CHECKED TO STRUCTURE #         |                                     |
| 15          | CAUSE = GREASE Y               |                                     |
| 20          | CAUSE = ROOTS Y                |                                     |
| 25          | CAUSE = DEBRIS Y               |                                     |
| 30          | CAUSE = SURCHARGED Y           |                                     |
| 35          | CAUSE = OTHER                  |                                     |
| 40          | CAUSE = UNKNOWN Y              |                                     |
| 45          | OPEN V=VAC R=ROD H=HAND        |                                     |
| 50          | TENANT WATER DRAINED Y         |                                     |
| 55          | TENANT NOTIFIED?               |                                     |
| 60          | WORK SEQUENCE                  |                                     |
| 65          | CLEAN FROM #                   |                                     |
| 70          | CLEAN TO #                     |                                     |
| 75          | TV FROM #                      |                                     |
| 80          | TV TO #                        |                                     |
| 85          | DESIGNED SEWER RELIEF - DSR #  |                                     |
| 90          | STRUCTURE OVERFLOWED #         |                                     |
| 95          | MH # - UPSTREAM OF BLOCKAGE    |                                     |
| 100         | MH # - DOWNSTREAM OF BLOCKAGE  |                                     |
| 105         | OVERFLOW AFFECTED AREA?        |                                     |
| 110         | SUMP PUMP ADDRESS              |                                     |
| 115         | SECURE 1=SIGN 2=HANGER 3=OTHER |                                     |
| 120         | TIME/DATE OVERFLOW STOPPED     |                                     |
| 125         | RECEIVING STRUCTURE #          |                                     |

# SERVICE REQUEST REPORT

Created Date: 04/14/2020 05:41 PM

Service Request No.  
**2006584**

**\*2006584\***

## SPECIFICATIONS

|                    |                     |                                |                         |  |
|--------------------|---------------------|--------------------------------|-------------------------|--|
| <i>ID:</i> 2004531 |                     | <i>Category:</i> DOSD WORK DAT | <i>Type:</i> SMNT_EVENT | <i>Title:</i> WIB - MSS AND SSO - CSO DATA |
| <u>Seq. No</u>     | <u>Attribute</u>    | <u>Value</u>                   |                         |  |
| 130                | RECEIVING WATERWAY? |                                |                         |  |



## SERVICE REQUEST REPORT

25 JAN 2021  
08:41 AM

Created Date: 04/19/2020 05:30 PM

Service Request No.  
**2006742****\*2006742\*****WORK LOCATION**

|  |             |
|--|-------------|
| Address:4955 SPRINGDALE BLVD                                 | Suite: 0286 |
| Cross Street:  |             |
| City:  | State: Zip: |
| Service Request Type: INVESTIGATE                            |             |
| Problem Code: YSPILL - Non-water spill; chemical, fuel, etc. |             |

|   |
|---|
| Problem Description: DIST 0286, CALLER STATES WASTEWATER IS DUMPED INTO THE STORM SEWER ACF THE ABOVE ADDRESS BY A COMMERCIAL CARPET COMPANY BLAS, PLEASE INVESTIGATE |
|---|

|                                |        |                                      |             |
|--------------------------------|--------|--------------------------------------|-------------|
| Requested Date:                | Crew : | Dept: SEWERMNT                       | Area:SEWERS |
| Next Approver:                 |        |                                      |             |
| Dispatcher: JONES, CRYSTALYN R |        | Call Back Ready: Y                   |             |
| Status: CLOSED                 |        | Customer Call Back: N                |             |
| WO/Task No:                    |        | Finished Date: 04/20/2020 02:50:36PM |             |

**CUSTOMER INFORMATION**

|              |      |                       |
|--------------|------|-----------------------|
| Customer ID: |      | Bill Customer: N      |
| Name:        |      | Customer Call Back: N |
| Work Phone:  | Ext: | Home Phone:           |
| Company:     |      | Tax ID:               |

**REPORTED BY**

|                              |        |              |
|------------------------------|--------|--------------|
| Name: TROTT, HEATHER         |        | Call Back: Y |
| Address:4955 SPRINGDALE BLVD |        | Suite: 0286  |
| City:                        | State: | Zip:         |
| Work Phone: (614) 595-9265   | Ext:   | Home Phone:  |

Refer to Illicit Discharge  
Investigation 04202020-1

# SERVICE REQUEST REPORT

Created Date: 04/19/2020 05:30 PM

Service Request No.  
**2006742**

**\*2006742\***

## CLOSEOUT INFORMATION

|   |                 |                       |
|---|-----------------|-----------------------|
| Start: 04/20/2020 02:50 PM                                  | Finish: _____   | Completed: _____      |
| Failure: _____  | Repair: _____   | Further Action: _____ |
| Comments: Please refer to S.R.M.S. investigation 04202020-1 |                 |                       |
|   |                 |                       |
| Inspected By: _____   | Date: _____     |                       |
| Signoff By: _____   | Date: _____     |                       |
| Closed By: LAMB, ROBERT F                                   | Date: 20-APR-20 |                       |

## SPECIFICATIONS

| ID: 2004546 | Category: DOSD WORK DAT | Type: SPILL | Title: SPILL DATA |
|-------------|-------------------------|-------------|-------------------|
| Seq. No     | Attribute               | Value       |                   |
| 5           | SPILL AFFECTED AREA?    |             |                   |
| 10          | CAUSE?                  |             |                   |
| 15          | CONTAINED Y             |             |                   |
| 20          | STORMWATER NOTIFIED Y   |             |                   |
| 25          | EPA ON SITE Y           |             |                   |
| 30          | RECEIVING STRUCTURE #   |             |                   |
| 35          | RECEIVING WATERWAY?     |             |                   |

# SERVICE REQUEST REPORT

Service Request No.  
**2007218**

**\*2007218\***

Created Date: 05/01/2020 11:17 AM

## WORK LOCATION

|   |             |
|---|-------------|
| Address:603 COLUMBIAN AVE                         | Suite: 0022 |
| Cross Street:SAFFORD AVE                          |             |
| City:   | State: Zip: |
| Service Request TypeINVESTIGATE                   |             |
| Problem Code: YODOR - Bad odor inside or outside. |             |

|   |
|---|
| Problem Description: DIST 22 (W) NEIGHBOR SAYS SUMP PUMP DISCHARGING SANITARY SEWER OUT INTO THE STREET |
|---|

|                            |             |                                      |             |
|----------------------------|-------------|--------------------------------------|-------------|
| Requested Date:            | Crew :WALS2 | Dept: SEWERMNT                       | Area:SEWERS |
| Next Approver:             |             |                                      |             |
| Dispatcher:WHITE, JANICE L |             | Call Back Ready: N                   |             |
| Status: CLOSED             |             | Customer Call Back: N                |             |
| WO/Task No:                |             | Finished Date: 05/01/2020 01:06:01PM |             |

## CUSTOMER INFORMATION

|                  |                       |
|------------------|-----------------------|
| Customer ID:     | Bill Customer: N      |
| Name:            | Customer Call Back: N |
| Work Phone: Ext: | Home Phone:           |
| Company:         | Tax ID:               |

## REPORTED BY

|                                 |              |
|---------------------------------|--------------|
| Name: ANONYMOUS CALLER          | Call Back: N |
| Address:                        | Suite:       |
| City:                           | State: Zip:  |
| Work Phone: (614) 975-4667 Ext: | Home Phone:  |

# SERVICE REQUEST REPORT

Service Request No. **\*2007218\***  
**2007218**

Created Date: 05/01/2020 11:17 AM

## CLOSEOUT INFORMATION

|   |                             |                       |
|---|-----------------------------|-----------------------|
| Start: 05/01/2020 12:00 PM  | Finish: 05/01/2020 01:30 PM | Completed: _____      |
| Failure: YNCF   | Repair: YNFWN               | Further Action: YNFAN |
| Comments: the sanitary sewer line serving 603 columbian ave was open and flowing at time of investigation, checked upstream M.H.#0022s0128 and downstream M.H.#0022s0125. the water that is being pumped in to street from this address is not sanitary. looks to be ground water from sump pump. |                             |                       |
| Inspected By: s.w alters  | Date: 01-MAY-20             |                       |
| Signoff By: _____   | Date: _____                 |                       |
| Closed By: LINK, MICHAEL A  | Date: 05-MAY-20             |                       |

## SPECIFICATIONS

| ID: 2004882    | Category: DOSD WORK DAT        | Type: SMNT_EVENT | Title: WIB - MSS AND SSO - CSO DATA |
|----------------|--------------------------------|------------------|-------------------------------------|
| <u>Seq. No</u> | <u>Attribute</u>               | <u>Value</u>     |                                     |
| 5              | CHECKED FROM STRUCTURE #       |                  |                                     |
| 10             | CHECKED TO STRUCTURE #         |                  |                                     |
| 15             | CAUSE = GREASE Y               |                  |                                     |
| 20             | CAUSE = ROOTS Y                |                  |                                     |
| 25             | CAUSE = DEBRIS Y               |                  |                                     |
| 30             | CAUSE = SURCHARGED Y           |                  |                                     |
| 35             | CAUSE = OTHER                  |                  |                                     |
| 40             | CAUSE = UNKNOWN Y              |                  |                                     |
| 45             | OPEN V=VAC R=ROD H=HAND        |                  |                                     |
| 50             | TENANT WATER DRAINED Y         |                  |                                     |
| 55             | TENANT NOTIFIED?               |                  |                                     |
| 60             | WORK SEQUENCE                  |                  |                                     |
| 65             | CLEAN FROM #                   |                  |                                     |
| 70             | CLEAN TO #                     |                  |                                     |
| 75             | TV FROM #                      |                  |                                     |
| 80             | TV TO #                        |                  |                                     |
| 85             | DESIGNED SEWER RELIEF - DSR #  |                  |                                     |
| 90             | STRUCTURE OVERFLOWED #         |                  |                                     |
| 95             | MH # - UPSTREAM OF BLOCKAGE    |                  |                                     |
| 100            | MH # - DOWNSTREAM OF BLOCKAGE  |                  |                                     |
| 105            | OVERFLOW AFFECTED AREA?        |                  |                                     |
| 110            | SUMP PUMP ADDRESS              |                  |                                     |
| 115            | SECURE 1=SIGN 2=HANGER 3=OTHER |                  |                                     |
| 120            | TIME/DATE OVERFLOW STOPPED     |                  |                                     |
| 125            | RECEIVING STRUCTURE #          |                  |                                     |

# SERVICE REQUEST REPORT

Created Date: 05/01/2020 11:17 AM

Service Request No.  
**2007218**

**\*2007218\***

## SPECIFICATIONS

|                    |                                |                         |  |
|--------------------|--------------------------------|-------------------------|--|
| <i>ID:</i> 2004882 | <i>Category:</i> DOSD WORK DAT | <i>Type:</i> SMNT_EVENT | <i>Title:</i> WIB - MSS AND SSO - CSO DATA |
| <u>Seq. No</u>     | <u>Attribute</u>               | <u>Value</u>            |  |
| 130                | RECEIVING WATERWAY?            |                         |  |



# SERVICE REQUEST REPORT

Service Request No.  
**2007682**

**\*2007682\***

Created Date: 05/11/2020 02:47 PM

## WORK LOCATION

|   |             |
|---|-------------|
| Address: E 2ND AVE                                | Suite: 0013 |
| Cross Street: LEXINGTON AVE                       |             |
| City:   | State: Zip: |
| Service Request Type: INVESTIGATE                 |             |
| Problem Code: YOTHP - Other problem not in codes. |             |

|  |
|--|
| Problem Description: **REFERED TO STORMWATER. . PER VOICEMAIL, CALLER WANTS TO REMAIN ANONYMOUS. STATES THERE IS A OIL LEAK NEAR THIS INTERSECTION. SAYS ITS ON LEXINGTON AVE GOING TOWARD E 5TH AVE |
|--|

|                        |        |                                      |              |
|------------------------|--------|--------------------------------------|--------------|
| Requested Date:        | Crew : | Dept: SEWERMNT                       | Area: SEWERS |
| Next Approver:         |        |                                      |              |
| Dispatcher: GAHOLLOWAY |        | Call Back Ready: N                   |              |
| Status: CLOSED         |        | Customer Call Back: N                |              |
| WO/Task No:            |        | Finished Date: 05/20/2020 02:42:44PM |              |

## CUSTOMER INFORMATION

|                  |                       |
|------------------|-----------------------|
| Customer ID:     | Bill Customer: N      |
| Name:            | Customer Call Back: N |
| Work Phone: Ext: | Home Phone:           |
| Company:         | Tax ID:               |

## REPORTED BY

|                     |              |
|---------------------|--------------|
| Name: PER VOICEMAIL | Call Back: 0 |
| Address:            | Suite:       |
| City:               | State: Zip:  |
| Work Phone: Ext:    | Home Phone:  |

Refer to Illicit Discharge  
Investigation 05202020-1

# SERVICE REQUEST REPORT

25 JAN 2021  
08:42 AM

Service Request No.  
**2007682**

**\*2007682\***

Created Date: 05/11/2020 02:47 PM

## CLOSEOUT INFORMATION

|  |                             |                       |
|--|-----------------------------|-----------------------|
| Start: 05/20/2020 09:00 AM   | Finish: 05/20/2020 09:30 AM | Completed: Y          |
| Failure: _____   | Repair: _____               | Further Action: _____ |
| Comments: No oil leaking or any oil issues at this time, refer to S.R.M.S. report 05202020-1 |                             |                       |
| Inspected By: Lamb   | Date: 20-MAY-20             |                       |
| Signoff By: _____  | Date: _____                 |                       |
| Closed By: LAMB, ROBERT F  | Date: 20-MAY-20             |                       |

## CALL HISTORY

|   |                                  |
|---|----------------------------------|
| <b>Call No: 2</b>   | Call Date: 05/11/2020 02:48:43PM |
| Comments: . BASED ON RESPONSE FROM SREET MAINTENANCE, SERVICE REQUEST TYPE CHANGED FROM TRASH/DEBRIS ALONG RIGHT-OF-WAY TO SEWER/MISCELLANEOUS ***ATTN STORMWATER**** |                                  |
| Response: STATUS UPDATE   |                                  |
| Call Back: N  | Date:                            |
| Caller Name:  |                                  |
| Caller Phone:   | Ext:                             |
| <b>Call No: 1</b>   | Call Date: 05/11/2020 02:47:09PM |
| Comments: Service request type was changed from TRASH/DEBRIS ALONG RIGHT-OF-WAY to SEWER/MISCELLANEOUS  |                                  |
| Response: New SR Type   |                                  |
| Call Back: N  | Date:                            |
| Caller Name:  |                                  |
| Caller Phone:   | Ext:                             |

# SERVICE REQUEST REPORT

Service Request No.  
**2008048**

**\*2008048\***

Created Date: 05/18/2020 01:17 PM

## WORK LOCATION

|  |             |
|--|-------------|
| Address: 495 FAIRLAWN DR                                     | Suite: 0233 |
| Cross Street:  |             |
| City:  | State: Zip: |
| Service Request Type: INVESTIGATE                            |             |
| Problem Code: YSPILL - Non-water spill; chemical, fuel, etc. |             |

Problem Description: . WHEN THE OWNERS OF 495 FAIRLAWN DRIVE CLEAN THEIR SWIMMING POOL, THE WATER IS DUMPED INTO THE DRAIN THAT DRAINS INTO OUR RAIN GARDEN. THE WATER IS MILKY IN COLOR AND OUR RAIN GARDEN SMELLS LIKE SEWAGE. I WAS UNDER THE ASSUMPTION THAT WATER FROM A SWIMMING POOL WAS TO BE DISCHARGED INTO A SEWER LINE NOT INTO THE STREET. CAN ANYTHING BE DONE ABOUT THIS? LAST SUMMER, THE SMELL WAS HORRIFIC. THE CITY CAME AND TESTED THE WATER ONCE LAST YEAR AND SAID NOTHING WAS IN THE WATER. I HAVE PHOTOGRAPHED THE WATER TO SHOW THE COLOR AND CAN MAKE THOSE PHOTOS AVAILABLE. THE RAIN GARDEN HAS A NEGATIVE FLOW SO THE WATER JUST SITS IN IT. PLEASE HELP RESOLVE THIS PROBLEM. I SPOKE WITH THE NEIGHBOR WHO'S POOL DISCHARGES INTO THE STORM DRAIN AND THEY SAID THERE WAS NOTHING IN THE WATER THAT WOULD CAUSE THE SMELL.

|                     |        |                                      |              |
|---------------------|--------|--------------------------------------|--------------|
| Requested Date:     | Crew : | Dept: SEWERMNT                       | Area: SEWERS |
| Next Approver:      |        |                                      |              |
| Dispatcher: PMZEIER |        | Call Back Ready: N                   |              |
| Status: CLOSED      |        | Customer Call Back: N                |              |
| WO/Task No:         |        | Finished Date: 05/19/2020 02:24:22PM |              |

## CUSTOMER INFORMATION

|                  |                       |
|------------------|-----------------------|
| Customer ID:     | Bill Customer: N      |
| Name:            | Customer Call Back: N |
| Work Phone: Ext: | Home Phone:           |
| Company:         | Tax ID:               |

## REPORTED BY

|                                 |                      |
|---------------------------------|----------------------|
| Name: Strayer, Susan            | Call Back: 0         |
| Address: 445 FAIRLAWN DRIVE     | Suite:               |
| City: COLUMBUS                  | State: OH Zip: 43214 |
| Work Phone: (614) 519-9652 Ext: | Home Phone:          |

Refer to Illicit Discharge  
Investigation 05192020-1

**SERVICE REQUEST REPORT**

Service Request No.  
**2008048**

**\*2008048\***

Created Date: 05/18/2020 01:17 PM

**CLOSEOUT INFORMATION**

|   |                             |                       |
|---|-----------------------------|-----------------------|
| Start: 05/19/2020 08:30 AM  | Finish: 05/19/2020 10:30 AM | Completed: Y          |
| Failure: _____  | Repair: _____               | Further Action: _____ |
| Comments: Was given to our Land Development Specialist to have contractor clean out bioretention cell...tends to collect organic material in spring and fall. Refer to S.R.M.S. #05192020-1 |                             |                       |
| Inspected By: Lamb  | Date: 19-MAY-20             |                       |
| Signoff By: _____   | Date: _____                 |                       |
| Closed By: LAMB, ROBERT F   | Date: 19-MAY-20             |                       |

**SPECIFICATIONS**

|                |                         |              |                   |
|----------------|-------------------------|--------------|-------------------|
| ID: 2005647    | Category: DOSD WORK DAT | Type: SPILL  | Title: SPILL DATA |
| <u>Seq. No</u> | <u>Attribute</u>        | <u>Value</u> |                   |
| 5              | SPILL AFFECTED AREA?    |              |                   |
| 10             | CAUSE?                  |              |                   |
| 15             | CONTAINED Y             |              |                   |
| 20             | STORMWATER NOTIFIED Y   |              |                   |
| 25             | EPA ON SITE Y           |              |                   |
| 30             | RECEIVING STRUCTURE #   |              |                   |
| 35             | RECEIVING WATERWAY?     |              |                   |

# SERVICE REQUEST REPORT

Service Request No.  
**2009512**

**\*2009512\***

Created Date: 05/27/2020 09:41 PM

## WORK LOCATION

|  |             |
|--|-------------|
| Address:2936 MEDINA AVE                                      | Suite: 0129 |
| Cross Street:  |             |
| City:  | State: Zip: |
| Service Request Type: INVESTIGATE                            |             |
| Problem Code: YSPILL - Non-water spill; chemical, fuel, etc. |             |

|  |
|--|
| Problem Description: DIST #129 NORTH CITIZEN REPORTS A TRASH TRUCK LEAKED HYDRAULIC FLUID FROM 2936 MEDINA TO OAKLAND PARK |
|--|

|                               |        |                                      |              |
|-------------------------------|--------|--------------------------------------|--------------|
| Requested Date:               | Crew : | Dept: SEWERMNT                       | Area: SEWERS |
| Next Approver:                |        |                                      |              |
| Dispatcher: ADKINS, MELINDA L |        | Call Back Ready: N                   |              |
| Status: CLOSED                |        | Customer Call Back: N                |              |
| WO/Task No:                   |        | Finished Date: 05/29/2020 10:32:05AM |              |

## CUSTOMER INFORMATION

|              |      |                       |
|--------------|------|-----------------------|
| Customer ID: |      | Bill Customer: N      |
| Name:        |      | Customer Call Back: N |
| Work Phone:  | Ext: | Home Phone:           |
| Company:     |      | Tax ID:               |

## REPORTED BY

|                            |        |              |
|----------------------------|--------|--------------|
| Name: CRANDOFF, JAMES      |        | Call Back: N |
| Address:2936 MEDINA AVE    |        | Suite: 0129  |
| City:                      | State: | Zip:         |
| Work Phone: (614) 329-0059 | Ext:   | Home Phone:  |

Refer to Illicit Discharge  
Investigation 05282020-1

# SERVICE REQUEST REPORT

09 FEB 2021  
12:47 PM

Service Request No.  
**2009512**

**\*2009512\***

Created Date: 05/27/2020 09:41 PM

## CLOSEOUT INFORMATION

|  |                 |                       |
|--|-----------------|-----------------------|
| Start: 05/29/2020 10:32 AM   | Finish: _____   | Completed: Y          |
| Failure: _____   | Repair: _____   | Further Action: _____ |
| Comments: No signs of oil on roadway or in MS4. Refer to S.R.M.S. 05282020-1 |                 |                       |
| Inspected By: Michael Eseman   | Date: 28-MAY-20 |                       |
| Signoff By: _____  | Date: _____     |                       |
| Closed By: ESEMAN, MICHAEL L   | Date: 29-MAY-20 |                       |

## SPECIFICATIONS

|                |                         |              |                   |
|----------------|-------------------------|--------------|-------------------|
| ID: 2006659    | Category: DOSD WORK DAT | Type: SPILL  | Title: SPILL DATA |
| <u>Seq. No</u> | <u>Attribute</u>        | <u>Value</u> |                   |
| 5              | SPILL AFFECTED AREA?    |              |                   |
| 10             | CAUSE?                  |              |                   |
| 15             | CONTAINED Y             |              |                   |
| 20             | STORMWATER NOTIFIED Y   |              |                   |
| 25             | EPA ON SITE Y           |              |                   |
| 30             | RECEIVING STRUCTURE #   |              |                   |
| 35             | RECEIVING WATERWAY?     |              |                   |

# SERVICE REQUEST REPORT

Service Request No.  
**2009484**

**\*2009484\***

Created Date: 05/27/2020 02:39 PM

## WORK LOCATION

|   |             |
|---|-------------|
| Address:5431 HALL RD                          | Suite: 0216 |
| Cross Street:                                 |             |
| City:   | State: Zip: |
| Service Request Type INVESTIGATE              |             |
| Problem Code: Y311 - SMOC 311 SERVICE REQUEST |             |

Problem Description: DIST 0216 . ON-LINE REQUEST. On the west side of our backyard is wet at times with standing water even when we have had no rain. last night we had a steady stream of water. At times it smells like sewage

At 1058 Norton road is a building they have been slowly building. During the major storms a few weeks ago muddy water was running from this property into the storm drain located in Bolton Estates and into ours and the neighbors. The neighbor, located at 5445 Hall has standing water in his yard.

|                   |        |                                      |             |
|-------------------|--------|--------------------------------------|-------------|
| Requested Date:   | Crew : | Dept: SEWERMNT                       | Area:SEWERS |
| Next Approver:    |        |                                      |             |
| Dispatcher:RSRAAB |        | Call Back Ready: N                   |             |
| Status: CLOSED    |        | Customer Call Back: N                |             |
| WO/Task No:       |        | Finished Date: 09/08/2020 02:33:15PM |             |

## CUSTOMER INFORMATION

|              |      |                       |
|--------------|------|-----------------------|
| Customer ID: |      | Bill Customer: N      |
| Name:        |      | Customer Call Back: N |
| Work Phone:  | Ext: | Home Phone:           |
| Company:     |      | Tax ID:               |

## REPORTED BY

|                            |           |              |
|----------------------------|-----------|--------------|
| Name: rizzonelli, Rae      |           | Call Back: 0 |
| Address: 5431 hall rd      |           | Suite:       |
| City: Columbus             | State: OH | Zip: 43228   |
| Work Phone: (614) 448-6563 | Ext:      | Home Phone:  |

# SERVICE REQUEST REPORT

Service Request No.  
**2009484**

**\*2009484\***

Created Date: 05/27/2020 02:39 PM

## CLOSEOUT INFORMATION

|   |                             |                       |
|---|-----------------------------|-----------------------|
| Start: 09/08/2020 02:00 PM  | Finish: 09/08/2020 02:30 PM | Completed: Y          |
| Failure: _____  | Repair: _____               | Further Action: _____ |
| Comments: Appears to be failing HSTS system by description. Forw arded findings to Columbus Public Health via Email |                             |                       |
| Inspected By: Lamb  | Date: 08-SEP-20             |                       |
| Signoff By: _____   | Date: _____                 |                       |
| Closed By: LAMB, ROBERT F   | Date: 08-SEP-20             |                       |

# SERVICE REQUEST REPORT

Created Date: 05/28/2020 12:35 PM

Service Request No.  
**2009575**

**\*2009575\***

## WORK LOCATION

|   |             |
|---|-------------|
| Address:646 COLEBRIDGE DR                         | Suite: 0561 |
| Cross Street:                                     |             |
| City:   | State: Zip: |
| Service Request Type: INVESTIGATE                 |             |
| Problem Code: YOTHP - Other problem not in codes. |             |

|  |
|--|
| Problem Description: DIST 0561 BEHIND ADRESSS LISTED IN BETWEEN NEIGHBORING BACKY ARDS.. ON-LINE REQUEST. SEWER COVER LEFT BY CONSTRUCTION CREW STILL ON DRAIN AND CAUSING FLOODING WITH HEAVY RAIN. |
|--|

|                    |        |                                      |              |
|--------------------|--------|--------------------------------------|--------------|
| Requested Date:    | Crew : | Dept: SEWERMNT                       | Area: SEWERS |
| Next Approver:     |        |                                      |              |
| Dispatcher: RSRAAB |        | Call Back Ready: N                   |              |
| Status: CLOSED     |        | Customer Call Back: N                |              |
| WO/Task No:        |        | Finished Date: 09/08/2020 01:26:10PM |              |

## CUSTOMER INFORMATION

|                  |                       |
|------------------|-----------------------|
| Customer ID:     | Bill Customer: N      |
| Name:            | Customer Call Back: N |
| Work Phone: Ext: | Home Phone:           |
| Company:         | Tax ID:               |

## REPORTED BY

|                               |              |
|-------------------------------|--------------|
| Name: NO CUSTOMER INFORMATION | Call Back: 0 |
| Address:                      | Suite:       |
| City:                         | State: Zip:  |
| Work Phone: Ext:              | Home Phone:  |

# SERVICE REQUEST REPORT

Service Request No.  
**2009575**

**\*2009575\***

Created Date: 05/28/2020 12:35 PM

### CLOSEOUT INFORMATION

|                                      |                             |                       |
|--------------------------------------|-----------------------------|-----------------------|
| Start: 09/08/2020 09:00 AM           | Finish: 09/08/2020 10:30 AM | Completed: Y          |
| Failure: _____                       | Repair: _____               | Further Action: _____ |
| Comments: No cover....sew er is open |                             |                       |
| Inspected By: Lamb                   | Date: 08-SEP-20             |                       |
| Signoff By: _____                    | Date: _____                 |                       |
| Closed By: LAMB, ROBERT F            | Date: 08-SEP-20             |                       |

### CALL HISTORY

|   |                                  |
|---|----------------------------------|
| <b>Call No: 1</b>   | Call Date: 05/28/2020 12:35:23PM |
| Comments: Service request type w as changed from CODE/DEMOLITION OR CONSTRUCTION DEBRIS/PRIVATE PROPERTY to SEWER/MISCELLANEOUS |                                  |
| Response:New SR Type  |                                  |
| Call Back: N  | Date:                            |
| Caller Name:  |                                  |
| Caller Phone:   | Ext:                             |

# SERVICE REQUEST REPORT

Service Request No.

**\*2010560\***

Created Date: 06/12/2020 07:14 AM

**2010560**

## WORK LOCATION

|   |             |
|---|-------------|
| Address:1600 HILLIARD & ROME RD                   | Suite: 0283 |
| Cross Street:                                     |             |
| City:   | State: Zip: |
| Service Request Type INVESTIGATE                  |             |
| Problem Code: YOTHP - Other problem not in codes. |             |

|   |
|---|
| Problem Description: DIST# 0283 - FUEL TRUCK SPILL, DIESEL FUEL WENT INTO SEWER |
|---|

|                           |             |                                      |             |
|---------------------------|-------------|--------------------------------------|-------------|
| Requested Date:           | Crew :BOWJ1 | Dept: SEWERMNT                       | Area:SEWERS |
| Next Approver:            |             |                                      |             |
| Dispatcher:BAXTER, CIERRA |             | Call Back Ready: N                   |             |
| Status: CLOSED            |             | Customer Call Back: N                |             |
| WO/Task No:               |             | Finished Date: 06/12/2020 08:39:04AM |             |

## CUSTOMER INFORMATION

|                  |                       |
|------------------|-----------------------|
| Customer ID:     | Bill Customer: N      |
| Name:            | Customer Call Back: N |
| Work Phone: Ext: | Home Phone:           |
| Company:         | Tax ID:               |

## REPORTED BY

|                  |              |
|------------------|--------------|
| Name:            | Call Back: N |
| Address:         | Suite:       |
| City:            | State: Zip:  |
| Work Phone: Ext: | Home Phone:  |

Refer to Illicit Discharge  
Investigation 06122020-2

# SERVICE REQUEST REPORT

Service Request No.  
**2010560**

**\*2010560\***

Created Date: 06/12/2020 07:14 AM

## CLOSEOUT INFORMATION

|   |                             |                       |
|---|-----------------------------|-----------------------|
| Start: 06/12/2020 07:17 AM  | Finish: 06/12/2020 08:37 AM | Completed: _____      |
| Failure: _____  | Repair: _____               | Further Action: _____ |
| Comments: Nothing has made it to storm sewer . Contacted Owner of truck to have clean up started of the feul that is on Hillard & Rome Road. Refer to S.R.M.S. 06122020-2 |                             |                       |
| Inspected By: Bowling   | Date: 12-JUN-20             |                       |
| Signoff By: _____   | Date: _____                 |                       |
| Closed By: BOWLING, JERRY D   | Date: 20-AUG-20             |                       |

# SERVICE REQUEST REPORT

Service Request No.  
**2010625**

**\*2010625\***

Created Date: 06/12/2020 03:53 PM

## WORK LOCATION

|  |             |
|--|-------------|
| Address:129 E PACEMENT RD                                    | Suite: 0127 |
| Cross Street:  |             |
| City:  | State: Zip: |
| Service Request Type INVESTIGATE                             |             |
| Problem Code: YSPILL - Non-water spill; chemical, fuel, etc. |             |

|  |
|--|
| Problem Description: CITIZEN SEEN POURING PAINT INTO GUTTER GOING INTO STORM SEWER |
|--|

|                            |        |                                      |             |
|----------------------------|--------|--------------------------------------|-------------|
| Requested Date:            | Crew : | Dept: SEWERMNT                       | Area:SEWERS |
| Next Approver:             |        |                                      |             |
| Dispatcher:WHITE, JANICE L |        | Call Back Ready: N                   |             |
| Status: CLOSED             |        | Customer Call Back: N                |             |
| WO/Task No:                |        | Finished Date: 06/15/2020 06:57:08AM |             |

## CUSTOMER INFORMATION

|                  |                       |
|------------------|-----------------------|
| Customer ID:     | Bill Customer: N      |
| Name:            | Customer Call Back: N |
| Work Phone: Ext: | Home Phone:           |
| Company:         | Tax ID:               |

## REPORTED BY

|                  |              |
|------------------|--------------|
| Name: ANONYMOUS  | Call Back: N |
| Address:         | Suite:       |
| City:            | State: Zip:  |
| Work Phone: Ext: | Home Phone:  |

Refer to Illicit Discharge  
Investigation 06122020-1

# SERVICE REQUEST REPORT

Service Request No.  
**2010625**

**\*2010625\***

Created Date: 06/12/2020 03:53 PM

## CLOSEOUT INFORMATION

|  |                             |                       |
|--|-----------------------------|-----------------------|
| Start: 06/12/2020 05:00 PM             | Finish: 06/12/2020 05:50 PM | Completed: _____      |
| Failure: _____                         | Repair: _____               | Further Action: _____ |
| Comments: Refer to S.R.M.S. 06122020-1 |                             |                       |
| Inspected By: Lamb                     | Date: 15-JUN-20             |                       |
| Signoff By: _____                      | Date: _____                 |                       |
| Closed By: LAMB, ROBERT F              | Date: 15-JUN-20             |                       |

## SPECIFICATIONS

|                |                         |              |                   |
|----------------|-------------------------|--------------|-------------------|
| ID: 2008941    | Category: DOSD WORK DAT | Type: SPILL  | Title: SPILL DATA |
| <u>Seq. No</u> | <u>Attribute</u>        | <u>Value</u> |                   |
| 5              | SPILL AFFECTED AREA?    |              |                   |
| 10             | CAUSE?                  |              |                   |
| 15             | CONTAINED Y             |              |                   |
| 20             | STORMWATER NOTIFIED Y   |              |                   |
| 25             | EPA ON SITE Y           |              |                   |
| 30             | RECEIVING STRUCTURE #   |              |                   |
| 35             | RECEIVING WATERWAY?     |              |                   |

# SERVICE REQUEST REPORT

Service Request No. **\*2010632\***  
**2010632**

Created Date: 06/12/2020 05:04 PM

### WORK LOCATION

|   |             |
|---|-------------|
| Address:3145 WINDING CREEK DR                                 | Suite: 0074 |
| Cross Street:   |             |
| City:   | State: Zip: |
| Service Request TypeINVESTIGATE                               |             |
| Problem Code: YSPILL - Non-w ater spill; chemical, fuel, etc. |             |

|  |
|--|
| Problem Description: DIST # 74 WEST - CITIZEN REPORTED HER NEIGHBOR HAS SEWAGE COMING FROM THEIR GARAGE, DOWN THE DRIVEWAY, ONTO THE SIDEWALK AND INTO THE STREET. |
|--|

|                              |        |                                      |             |
|------------------------------|--------|--------------------------------------|-------------|
| Requested Date:              | Crew : | Dept: SEWERMNT                       | Area:SEWERS |
| Next Approver:               |        |                                      |             |
| Dispatcher:ADKINS, MELINDA L |        | Call Back Ready: N                   |             |
| Status: CLOSED               |        | Customer Call Back: N                |             |
| WO/Task No:                  |        | Finished Date: 06/15/2020 06:52:01AM |             |

### CUSTOMER INFORMATION

|                  |                       |
|------------------|-----------------------|
| Customer ID:     | Bill Customer: N      |
| Name:            | Customer Call Back: N |
| Work Phone: Ext: | Home Phone:           |
| Company:         | Tax ID:               |

### REPORTED BY

|                               |              |
|-------------------------------|--------------|
| Name: UNKNOWN                 | Call Back: N |
| Address:3145 WINDING CREEK DR | Suite: 0074  |
| City:                         | State: Zip:  |
| Work Phone: Ext:              | Home Phone:  |

Refer to Illicit Discharge  
Investigation 06122020-3

# SERVICE REQUEST REPORT

Created Date: 06/12/2020 05:04 PM

Service Request No.  
**2010632**

**\*2010632\***

## CLOSEOUT INFORMATION

|                                    |                             |                       |
|------------------------------------|-----------------------------|-----------------------|
| Start: 06/12/2020 06:00 PM         | Finish: 06/12/2020 06:30 PM | Completed: Y          |
| Failure: _____                     | Repair: _____               | Further Action: _____ |
| Comments: Refer to SRMS 06122020-3 |                             |                       |
|                                    |                             |                       |
| Inspected By: Lamb                 | Date: 12-JUN-20             |                       |
| Signoff By: _____                  | Date: _____                 |                       |
| Closed By: LAMB, ROBERT F          | Date: 15-JUN-20             |                       |

## SPECIFICATIONS

| ID: 2008942    | Category: DOSD WORK DAT | Type: SPILL  | Title: SPILL DATA |
|----------------|-------------------------|--------------|-------------------|
| <u>Seq. No</u> | <u>Attribute</u>        | <u>Value</u> |                   |
| 5              | SPILL AFFECTED AREA?    |              |                   |
| 10             | CAUSE?                  |              |                   |
| 15             | CONTAINED Y             |              |                   |
| 20             | STORMWATER NOTIFIED Y   |              |                   |
| 25             | EPA ON SITE Y           |              |                   |
| 30             | RECEIVING STRUCTURE #   |              |                   |
| 35             | RECEIVING WATERWAY?     |              |                   |

## SERVICE REQUEST REPORT

25 JAN 2021

09:03 AM

Service Request No.

2010978

**\*2010978\***

Created Date: 06/18/2020 04:08 PM

**WORK LOCATION**

|   |             |
|---|-------------|
| Address:2239 SEVERHILL DR                         | Suite: 0973 |
| Cross Street:                                     |             |
| City:   | State: Zip: |
| Service Request Type: INVESTIGATE                 |             |
| Problem Code: YOTHP - Other problem not in codes. |             |

Problem Description: DIST # 973 NORTHWEST NEIGHBOR REPORTED HER NEIGHBORS AT 2239 AND 2247 SEVERHILL HAVE BEEN DRAINING THEIR POOLS INTO THE STORM. THERE ARE 2 OTHER HOMES WITH INGROUND POOLS THAT MAY NEED TO BE MADE AWARE THAT DRAINING THEIR POOLS INTO THE STORM IS NOT PERMITTED - 2232 AND 2264 (NEIGHBOR DID NOT STATE THESE NIGHBORS HAVE DRAINED THEIR POOLS INTO THE STORM)

|                              |        |                                      |             |
|------------------------------|--------|--------------------------------------|-------------|
| Requested Date:              | Crew : | Dept: SEWERMNT                       | Area:SEWERS |
| Next Approver:               |        |                                      |             |
| Dispatcher:ADKINS, MELINDA L |        | Call Back Ready: N                   |             |
| Status: CLOSED               |        | Customer Call Back: N                |             |
| WO/Task No:                  |        | Finished Date: 07/15/2020 10:55:38AM |             |

**CUSTOMER INFORMATION**

|                  |                       |
|------------------|-----------------------|
| Customer ID:     | Bill Customer: N      |
| Name:            | Customer Call Back: N |
| Work Phone: Ext: | Home Phone:           |
| Company:         | Tax ID:               |

**REPORTED BY**

|                           |              |
|---------------------------|--------------|
| Name: UNKNOWN             | Call Back: N |
| Address:2239 SEVERHILL DR | Suite: 0973  |
| City:                     | State: Zip:  |
| Work Phone: Ext:          | Home Phone:  |

Refer to Illicit Discharge  
Investigation 06192020-2

# SERVICE REQUEST REPORT

Service Request No.

**2010978**

**\*2010978\***

Created Date: 06/18/2020 04:08 PM

## CLOSEOUT INFORMATION

|                                     |                 |                       |
|-------------------------------------|-----------------|-----------------------|
| Start: 07/15/2020 10:55 AM          | Finish: _____   | Completed: _____      |
| Failure: _____                      | Repair: _____   | Further Action: _____ |
| Comments: Refer to SRMS# 06192020-2 |                 |                       |
| Inspected By: _____                 | Date: _____     |                       |
| Signoff By: _____                   | Date: _____     |                       |
| Closed By: ESEMAN, MICHAEL L        | Date: 15-JUL-20 |                       |

## SERVICE REQUEST REPORT

26 JAN 2021

09:19 AM

Service Request No.

2011377

\*2011377\*

Created Date: 06/24/2020 07:03 PM

## WORK LOCATION

|   |             |
|---|-------------|
| Address:2672 REGINA AVE                           | Suite: 0044 |
| Cross Street:SAINT PATRICK RD                     |             |
| City:   | State: Zip: |
| Service Request Type:INVESTIGATE                  |             |
| Problem Code: YODOR - Bad odor inside or outside. |             |

|   |
|---|
| Problem Description: Dist 0044 (W)*** Caller states that she thinks there is a dead animal in one of the storm drains in front of her house. Please check all inlets in front of address. |
|---|

|                           |             |                                      |             |
|---------------------------|-------------|--------------------------------------|-------------|
| Requested Date:           | Crew :WALS2 | Dept: SEWERMNT                       | Area:SEWERS |
| Next Approver:            |             |                                      |             |
| Dispatcher:JEFFREY KEENER |             | Call Back Ready: N                   |             |
| Status: CLOSED            |             | Customer Call Back: N                |             |
| WO/Task No:               |             | Finished Date: 06/25/2020 10:17:24AM |             |

## CUSTOMER INFORMATION

|                    |      |                       |
|--------------------|------|-----------------------|
| Customer ID:       |      | Bill Customer: N      |
| Name: Tisdale, Jan |      | Customer Call Back: N |
| Work Phone:        | Ext: | Home Phone:           |
| Company:           |      | Tax ID:               |

## REPORTED BY

|                            |        |              |
|----------------------------|--------|--------------|
| Name: Tisdale, Jan         |        | Call Back: N |
| Address:2672 REGINA AVE    |        | Suite: 0044  |
| City:                      | State: | Zip:         |
| Work Phone: (614) 867-7256 | Ext:   | Home Phone:  |

# SERVICE REQUEST REPORT

Service Request No. **\*2011377\***  
**2011377**

Created Date: 06/24/2020 07:03 PM

**CLOSEOUT INFORMATION**

|   |                             |                       |
|---|-----------------------------|-----------------------|
| Start: 06/25/2020 09:30 AM  | Finish: 06/25/2020 10:30 AM | Completed: _____      |
| Failure: YOPEN  | Repair: YHNDCLND            | Further Action: YNFAN |
| Comments: YBO2 - The C.B #0044t0679 on S.W.C. of regina ave and st patrick rd. the storm sewer serving the problem location was open and flowing when checked. the Bad odor was caused by a few dead fish that had been dumped in to c.b.. Tenant was notified of findings by investigator. |                             |                       |
| Inspected By: s.w alters  | Date: 25-JUN-20             |                       |
| Signoff By: _____   | Date: _____                 |                       |
| Closed By: LINK, MICHAEL A  | Date: 25-JUN-20             |                       |

**SPECIFICATIONS**

| ID: 2009867 | Category: DOSD WORK DAT        | Type: SMNT_EVENT | Title: WIB - MSS AND SSO - CSO DATA |
|-------------|--------------------------------|------------------|-------------------------------------|
| Seq. No     | Attribute                      | Value            |                                     |
| 5           | CHECKED FROM STRUCTURE #       |                  |                                     |
| 10          | CHECKED TO STRUCTURE #         |                  |                                     |
| 15          | CAUSE = GREASE Y               |                  |                                     |
| 20          | CAUSE = ROOTS Y                |                  |                                     |
| 25          | CAUSE = DEBRIS Y               |                  |                                     |
| 30          | CAUSE = SURCHARGED Y           |                  |                                     |
| 35          | CAUSE = OTHER                  |                  |                                     |
| 40          | CAUSE = UNKNOWN Y              |                  |                                     |
| 45          | OPEN V=VAC R=ROD H=HAND        |                  |                                     |
| 50          | TENANT WATER DRAINED Y         |                  |                                     |
| 55          | TENANT NOTIFIED?               |                  |                                     |
| 60          | WORK SEQUENCE                  |                  |                                     |
| 65          | CLEAN FROM #                   |                  |                                     |
| 70          | CLEAN TO #                     |                  |                                     |
| 75          | TV FROM #                      |                  |                                     |
| 80          | TV TO #                        |                  |                                     |
| 85          | DESIGNED SEWER RELIEF - DSR #  |                  |                                     |
| 90          | STRUCTURE OVERFLOWED #         |                  |                                     |
| 95          | MH # - UPSTREAM OF BLOCKAGE    |                  |                                     |
| 100         | MH # - DOWNSTREAM OF BLOCKAGE  |                  |                                     |
| 105         | OVERFLOW AFFECTED AREA?        |                  |                                     |
| 110         | SUMP PUMP ADDRESS              |                  |                                     |
| 115         | SECURE 1=SIGN 2=HANGER 3=OTHER |                  |                                     |
| 120         | TIME/DATE OVERFLOW STOPPED     |                  |                                     |
| 125         | RECEIVING STRUCTURE #          |                  |                                     |

# SERVICE REQUEST REPORT

Service Request No.

**2011377**

**\*2011377\***

Created Date: 06/24/2020 07:03 PM

## SPECIFICATIONS

|                |                         |                  |                                     |
|----------------|-------------------------|------------------|-------------------------------------|
| ID: 2009867    | Category: DOSD WORK DAT | Type: SMNT_EVENT | Title: WIB - MSS AND SSO - CSO DATA |
| <u>Seq. No</u> | <u>Attribute</u>        | <u>Value</u>     |                                     |
| 130            | RECEIVING WATERWAY?     |                  |                                     |



# SERVICE REQUEST REPORT

Service Request No.  
**2012509**

**\*2012509\***

Created Date: 07/13/2020 08:05 AM

## WORK LOCATION

|   |             |
|---|-------------|
| Address: HIGH ST                                  | Suite: 0004 |
| Cross Street: BROAD ST                            |             |
| City:   | State: Zip: |
| Service Request Type: INVESTIGATE                 |             |
| Problem Code: YOTHP - Other problem not in codes. |             |

|  |
|--|
| Problem Description: At the Statehouse, complaint of sump pumps running constantly |
|--|

|                            |              |                                      |              |
|----------------------------|--------------|--------------------------------------|--------------|
| Requested Date:            | Crew : MOOT3 | Dept: SEWERMNT                       | Area: SEWERS |
| Next Approver:             |              |                                      |              |
| Dispatcher: NAGY, DANIEL A |              | Call Back Ready: N                   |              |
| Status: CLOSED             |              | Customer Call Back: N                |              |
| WO/Task No:                |              | Finished Date: 07/13/2020 02:01:52PM |              |

## CUSTOMER INFORMATION

|                  |                       |
|------------------|-----------------------|
| Customer ID:     | Bill Customer: N      |
| Name:            | Customer Call Back: N |
| Work Phone: Ext: | Home Phone:           |
| Company:         | Tax ID:               |

## REPORTED BY

|                    |                            |
|--------------------|----------------------------|
| Name: Queen, Randy | Call Back: N               |
| Address:           | Suite:                     |
| City:              | State: Zip:                |
| Work Phone: Ext:   | Home Phone: (614) 206-8762 |

# SERVICE REQUEST REPORT

25 JAN 2021  
10:54 AM

Service Request No.  
**2012509**

**\*2012509\***

Created Date: 07/13/2020 08:05 AM

## CLOSEOUT INFORMATION

|  |                             |                       |
|--|-----------------------------|-----------------------|
| Start: 07/13/2020 08:48 AM   | Finish: 07/13/2020 09:30 AM | Completed: Y          |
| Failure: YOPEN   | Repair: YNFWN               | Further Action: YNFAN |
| Comments: YNCF/OPEN – Not city failure, the 48 inch combination Sewer serving the problem location was open and flowing when checked. Checked upstream manhole #C0105 and downstream manhole #C1373. Tenant was notified of findings by investigator / phone |                             |                       |
| Inspected By: TMOORE/MBOYD   | Date: 13-JUL-20             |                       |
| Signoff By: _____  | Date: _____                 |                       |
| Closed By: LINK, MICHAEL A   | Date: 16-JUL-20             |                       |

## SERVICE REQUEST REPORT

25 JAN 2021  
10:56 AMService Request No.  
**2012636****\*2012636\***

Created Date: 07/14/2020 02:09 PM

**WORK LOCATION**

|   |             |
|---|-------------|
| Address:7388 RUM CAY LN                           | Suite: 0472 |
| Cross Street:                                     |             |
| City:   | State: Zip: |
| Service Request Type: INVESTIGATE                 |             |
| Problem Code: YOTHP - Other problem not in codes. |             |

|   |
|---|
| <p>Problem Description: DIST #0472 (S&amp;E). EMAIL RECEIVED: I AM HELPING A CLIENT OF MINE WITH A DRAINAGE ISSUE TO THE REAR OF THE PROPERTY.<br/>THERE IS A DRAIN PIPE COMING FROM THE REAR OF THE NORTHERN BORDERING PROPERTY DRAINING TO AN OPEN DITCH AND LEADING TO A STORM WATER INLET.<br/>THIS OPEN DRAIN IS RESULTING IN EROSION AND MOSQUITOS.<br/>PLEASE HAVE SOMEONE CONTACT ME REGARDING THIS.<br/>THANK YOU.</p> |
|---|

|                     |             |                                      |             |
|---------------------|-------------|--------------------------------------|-------------|
| Requested Date:     | Crew :MOOT3 | Dept: SEWERMNT                       | Area:SEWERS |
| Next Approver:      |             |                                      |             |
| Dispatcher:SJSPARKS |             | Call Back Ready: N                   |             |
| Status: CLOSED      |             | Customer Call Back: N                |             |
| WO/Task No:         |             | Finished Date: 07/15/2020 02:48:40PM |             |

**CUSTOMER INFORMATION**

|                  |                       |
|------------------|-----------------------|
| Customer ID:     | Bill Customer: N      |
| Name:            | Customer Call Back: N |
| Work Phone: Ext: | Home Phone:           |
| Company:         | Tax ID:               |

**REPORTED BY**

|                                 |              |
|---------------------------------|--------------|
| Name: HEBERT, CHRIS             | Call Back: 0 |
| Address:                        | Suite:       |
| City:                           | State: Zip:  |
| Work Phone: (614) 419-3844 Ext: | Home Phone:  |

# SERVICE REQUEST REPORT

Service Request No.  
**2012636**

**\*2012636\***

Created Date: 07/14/2020 02:09 PM

### CLOSEOUT INFORMATION

|  |                             |                       |
|--|-----------------------------|-----------------------|
| Start: 07/15/2020 07:13 AM   | Finish: 07/15/2020 09:00 AM | Completed: Y          |
| Failure: YNCF  | Repair: YNFWN               | Further Action: _____ |
| Comments: YNCF/OPEN – Not city failure, the 15 inch storm sewer serving the problem location was open and flowing when checked. Checked upstream INLET #Y0472T0976 and downstream manhole #Y0472T0975. Tenant was notified of findings by investigator / phone / |                             |                       |
| Inspected By: TMOORE/MBOYD   | Date: 15-JUL-20             |                       |
| Signoff By: _____  | Date: _____                 |                       |
| Closed By: LINK, MICHAEL A   | Date: 16-JUL-20             |                       |

### CALL HISTORY

|  |                                  |
|--|----------------------------------|
| <b>Call No: 2</b>  | Call Date: 07/14/2020 02:09:56PM |
| Comments: . SWR TYPE FROM WATER/MISCELLANEOUS TO SEWER/MISCELLANEOUS,                      |                                  |
| Response: STATUS UPDATE  |                                  |
| Call Back: N   | Date:                            |
| Caller Name:   |                                  |
| Caller Phone:  | Ext:                             |
| <b>Call No: 1</b>  | Call Date: 07/14/2020 02:09:48PM |
| Comments: Service request type was changed from WATER/MISCELLANEOUS to SEWER/MISCELLANEOUS |                                  |
| Response: New SR Type  |                                  |
| Call Back: N   | Date:                            |
| Caller Name:   |                                  |
| Caller Phone:  | Ext:                             |

# SERVICE REQUEST REPORT

Service Request No.  
**2014907**

**\*2014907\***

Created Date: 08/18/2020 09:47 AM

## WORK LOCATION

|   |             |
|---|-------------|
| Address:1310 PIERCE AVE                       | Suite:      |
| Cross Street:                                 |             |
| City:   | State: Zip: |
| Service Request Type INVESTIGATE              |             |
| Problem Code: Y311 - SMOC 311 SERVICE REQUEST |             |

|  |
|--|
| Problem Description: . CALLER STATES THE PERSON AT THIS ADDRESS IS POURING SOMETHING DOWN THE SEWER, ALSO 1315 IS DOING THE SAME THING, MULTIPLE TIMES, PLEASE CHECK, BROWN LIQUID |
|--|

|                         |        |                                      |             |
|-------------------------|--------|--------------------------------------|-------------|
| Requested Date:         | Crew : | Dept: SEWERMNT                       | Area:SEWERS |
| Next Approver:          |        |                                      |             |
| Dispatcher:MLODACHOWSKI |        | Call Back Ready: N                   |             |
| Status: CLOSED          |        | Customer Call Back: N                |             |
| WO/Task No:             |        | Finished Date: 09/04/2020 01:44:08PM |             |

## CUSTOMER INFORMATION

|                  |                       |
|------------------|-----------------------|
| Customer ID:     | Bill Customer: N      |
| Name:            | Customer Call Back: N |
| Work Phone: Ext: | Home Phone:           |
| Company:         | Tax ID:               |

## REPORTED BY

|                               |              |
|-------------------------------|--------------|
| Name: NO CUSTOMER INFORMATION | Call Back: 0 |
| Address:                      | Suite:       |
| City:                         | State: Zip:  |
| Work Phone: Ext:              | Home Phone:  |

Refer to Illicit Discharge  
Investigation 09042020-1

# SERVICE REQUEST REPORT

25 JAN 2021  
09:05 AM

Service Request No.  
**2014907**

**\*2014907\***

Created Date: 08/18/2020 09:47 AM

## CLOSEOUT INFORMATION

|  |                             |                       |
|--|-----------------------------|-----------------------|
| Start: 09/04/2020 08:30 AM   | Finish: 09/04/2020 09:30 AM | Completed: _____      |
| Failure: _____   | Repair: _____               | Further Action: _____ |
| Comments: REFERED TO STORMWATER FOR POSSIBLE ILLICIT DISCHARGE. CONTACTED VIA PHONE. No dumping in sewer in area, refer to S.R.M.S. 09042020-1 |                             |                       |
| Inspected By: LINK   | Date: 18-AUG-20             |                       |
| Signoff By: _____  | Date: _____                 |                       |
| Closed By: LAMB, ROBERT F  | Date: 04-SEP-20             |                       |

# SERVICE REQUEST REPORT

Service Request No.  
**2014931**

**\*2014931\***

Created Date: 08/18/2020 04:06 PM

### WORK LOCATION

|   |             |
|---|-------------|
| Address:2218 SUNLEAF CT                           | Suite: 0634 |
| Cross Street:                                     |             |
| City:   | State: Zip: |
| Service Request Type: INVESTIGATE                 |             |
| Problem Code: YOTHP - Other problem not in codes. |             |

Problem Description: DIST # 634 NORTH CITIZEN REPORTS HER SUMP PUMP HAS BEEN CONSTANTLY RUNNING SINCE MAY. CITY TESTED THE WATER AND IT DOES NOT HAVE CHLORINE IN IT. THE WATER COLLECTS IN FRONT OF HER HOUSE NEAR THE SUMP PUMP PIPE AT THE CURB. IT IS A 2 FOOT WIDE PUDDLE BUT EXTENDS INTO THE CUL-D-SAC. IS CONCERNED ABOUT WHERE THE WATER IS COMING FROM AND IT IS ONLY A MATTER OF TIME BEFORE HER SUMP PUMP BURNS UP. PLEASE CHECK THE SANITARY LINE TO THE FRONT OF HER HOUSE.

|                              |             |                       |             |
|------------------------------|-------------|-----------------------|-------------|
| Requested Date:              | Crew :GRAA1 | Dept: SEWERMNT        | Area:SEWERS |
| Next Approver:               |             |                       |             |
| Dispatcher:ADKINS, MELINDA L |             | Call Back Ready: N    |             |
| Status: CLOSED               |             | Customer Call Back: N |             |
| WO/Task No: 2021000/01       |             | Finished Date:        |             |

### CUSTOMER INFORMATION

|                  |                       |
|------------------|-----------------------|
| Customer ID:     | Bill Customer: N      |
| Name:            | Customer Call Back: N |
| Work Phone: Ext: | Home Phone:           |
| Company:         | Tax ID:               |

### REPORTED BY

|                                 |              |
|---------------------------------|--------------|
| Name: PIATKA, ANNE              | Call Back: N |
| Address:2218 SUNLEAF CT         | Suite: 0634  |
| City:                           | State: Zip:  |
| Work Phone: (614) 266-2336 Ext: | Home Phone:  |

# SERVICE REQUEST REPORT

Service Request No.  
**2014931**

**\*2014931\***

Created Date: 08/18/2020 04:06 PM

## CLOSEOUT INFORMATION

|  |                             |                       |
|--|-----------------------------|-----------------------|
| Start: 08/18/2020 06:30 PM   | Finish: 08/18/2020 09:30 PM | Completed: _____      |
| Failure: YNYD  | Repair: _____               | Further Action: YCCTV |
| Comments: no script available-- T.V. 2 sections of storm sewer from upstream junction chamber #0634T0146 to downstream manhole #0634T0146 to determine why 66 inch line has standing water in it, also T.V. upstream from junction chamber #0634T1212 to 50 feet past manhole #0634T0074 to check for any failure of 66 inch sewer line. |                             |                       |
| Inspected By: grashel  | Date: 18-AUG-20             |                       |
| Signoff By: _____  | Date: _____                 |                       |
| Closed By: GRIFFITH, MICHAEL A   | Date: 30-NOV-20             |                       |

# SERVICE REQUEST REPORT

Service Request No.  
**2015106**

**\*2015106\***

Created Date: 08/20/2020 02:17 PM

## WORK LOCATION

|   |             |
|---|-------------|
| Address:4059 FULTON ST E                      | Suite:      |
| Cross Street:                                 |             |
| City:   | State: Zip: |
| Service Request Type: INVESTIGATE             |             |
| Problem Code: Y311 - SMOG 311 SERVICE REQUEST |             |

Problem Description: . PER WEBMAIL

GOOD EVENING,

WE RECEIVED THE FOLLOWING COMPLAINT:  
 4059 E FULTON ST. . PER EMAIL HELLO, MY NEIGHBOR MR. AND MRS. ALTON AND CONNIE HALE AT 4059 E. FULTON ST. COLUMBUS, OHIO HAS INSTALLED PLUMBING PIPES THAT DRAIN WASTE WATER FROM THE SUMP PUMP IN THEIR BASEMENT TO THE FRONT OF THEIR HOUSE. THIS PLUMBING VIOLATION HAS BEEN IN PLACE FOR ABOUT 3 4 YEARS. I KNOW THAT THE CITY OF COLUMBUS IS IN THE PROCESS OF PROJECT BLUEPRINT TO KEEP UNWANTED WASTE WATER AND OTHER CHEMICAL DEBRIS FROM REACHING OUR STORM DRAINAGE SYSTEMS. THE WHITE PVC PIPES BEING USED RUN FROM THE BACK OF THEIR HOUSE ON THE WESTERN SIDE, DOWN THE DRIVEWAY AND EMPTY INTO THE FRONT YARD. I AM REASONABLY SURE THAT THIS IS A VIOLATION OF COLUMBUS CITY CODE, AND ALSO ADDS TO THE POLLUTION PROBLEMS WITH OUR STREAMS AND RIVERS. THANK YOU, GARY ROYER 614-549-7739  
 \*\*\*\*\*8/20/20 PER RESPONSE FROM WATER 'REASSIGN TO SEWERS - CITIZEN THINKS WASTEWATER IS BEING DUMPED INTO THEYARD PER ATTACHED PHOTOS"

|                     |        |                                      |             |
|---------------------|--------|--------------------------------------|-------------|
| Requested Date:     | Crew : | Dept: SEWERMNT                       | Area:SEWERS |
| Next Approver:      |        |                                      |             |
| Dispatcher:DJREEDER |        | Call Back Ready: N                   |             |
| Status: CLOSED      |        | Customer Call Back: N                |             |
| WO/Task No:         |        | Finished Date: 09/10/2020 09:09:07AM |             |

## CUSTOMER INFORMATION

|              |                       |
|--------------|-----------------------|
| Customer ID: | Bill Customer: N      |
| Name:        | Customer Call Back: N |
| Work Phone:  | Ext: Home Phone:      |
| Company:     | Tax ID:               |

## REPORTED BY

|                            |                      |
|----------------------------|----------------------|
| Name: ROYER, GARY          | Call Back: 0         |
| Address: 4051 E FULTON ST  | Suite:               |
| City: COLUMBUS             | State: OH Zip: 43227 |
| Work Phone: (614) 549-7739 | Ext: Home Phone:     |

Refer to Illicit Discharge  
Investigation 08202020-1

Submitted by: RFLAMB

Oracle

Report s\_rpt138 v 1912-1

# SERVICE REQUEST REPORT

Service Request No.  
**2015106**

**\*2015106\***

Created Date: 08/20/2020 02:17 PM

### CLOSEOUT INFORMATION

|                                     |                 |                       |
|-------------------------------------|-----------------|-----------------------|
| Start: 09/10/2020 09:09 AM          | Finish: _____   | Completed: _____      |
| Failure: _____                      | Repair: _____   | Further Action: _____ |
| Comments: Refer to SRMS# 08202020-1 |                 |                       |
| Inspected By: LINK                  | Date: 20-AUG-20 |                       |
| Signoff By: _____                   | Date: _____     |                       |
| Closed By: ESEMAN, MICHAEL L        | Date: 10-SEP-20 |                       |

### CALL HISTORY

|  |                                  |
|--|----------------------------------|
| <b>Call No: 2</b>  | Call Date: 08/20/2020 02:17:53PM |
| Comments: . BASED ON RESPONSE, SERVICE REQUEST TYPE CHANGED FROM WATER/MISCELLANEOUS TO SEWER/MISCELLANEOUS, |                                  |
| Response: STATUS UPDATE  |                                  |
| Call Back: N   | Date:                            |
| Caller Name:   |                                  |
| Caller Phone:  | Ext:                             |
| <b>Call No: 1</b>  | Call Date: 08/20/2020 02:17:47PM |
| Comments: Service request type was changed from WATER/MISCELLANEOUS to SEWER/MISCELLANEOUS                   |                                  |
| Response: New SR Type  |                                  |
| Call Back: N   | Date:                            |
| Caller Name:   |                                  |
| Caller Phone:  | Ext:                             |

# SERVICE REQUEST REPORT

Service Request No.  
**2015481**

**\*2015481\***

Created Date: 08/26/2020 07:49 PM

## WORK LOCATION

|   |             |
|---|-------------|
| Address:1735 TENDRIL CT                           | Suite: 0640 |
| Cross Street:                                     |             |
| City:   | State: Zip: |
| Service Request Type: INVESTIGATE                 |             |
| Problem Code: YASSCLN - Assess need for cleaning. |             |

|  |
|--|
| Problem Description: DIST 640 (N) OHIO EPA WOULD LIKE TO KNOW IF THERE IS ANY PROBLEM FOUND IN STORM SEWER BECAUSE A RESDENT FOUND/SEE WHITE SUBSTANCE IN THE CREEK BEHIND ABOVE ADDRESS. STORM WATER CREW HAS BEEN CALLED BY DISPATCHER TO CHECK OUT CREEK. PER FRED JOHNSON A COMPLAINT CREW CAN ASSIST STORM WATER CREW |
|--|

|                            |             |                                      |             |
|----------------------------|-------------|--------------------------------------|-------------|
| Requested Date:            | Crew :GRAA1 | Dept: SEWERMNT                       | Area:SEWERS |
| Next Approver:             |             |                                      |             |
| Dispatcher:WHITE, JANICE L |             | Call Back Ready: N                   |             |
| Status: CLOSED             |             | Customer Call Back: N                |             |
| WO/Task No:                |             | Finished Date: 08/26/2020 10:54:00PM |             |

## CUSTOMER INFORMATION

|                  |                       |
|------------------|-----------------------|
| Customer ID:     | Bill Customer: N      |
| Name:            | Customer Call Back: N |
| Work Phone: Ext: | Home Phone:           |
| Company:         | Tax ID:               |

## REPORTED BY

|                                 |              |
|---------------------------------|--------------|
| Name: ERWIN, TREVOR             | Call Back: N |
| Address:                        | Suite:       |
| City: OHIO EPA                  | State: Zip:  |
| Work Phone: (614) 866-2484 Ext: | Home Phone:  |

Refer to Illicit Discharge  
Investigation 08262020-1

# SERVICE REQUEST REPORT

Service Request No.

**2015481**

**\*2015481\***

Created Date: 08/26/2020 07:49 PM

## CLOSEOUT INFORMATION

|   |                             |                     |
|---|-----------------------------|---------------------|
| Start: 08/26/2020 09:00 PM  | Finish: 08/26/2020 11:00 PM | Completed: _____    |
| Failure: YCONT  | Repair: _____               | Further Action:YNFI |
| Comments: no script available----customer reported bad oder in creak behind his house it w as refered to pre treatment.<br>Refer to S.R.M.S. 08262020-1 |                             |                     |
| Inspected By: grashel/w alters  | Date: 26-AUG-20             |                     |
| Signoff By: _____   | Date: _____                 |                     |
| Closed By: JOHNSON, FRED L  | Date: 27-AUG-20             |                     |

# SERVICE REQUEST REPORT

Created Date: 09/13/2020 04:04 AM

Service Request No.  
**2016599**

**\*2016599\***

## WORK LOCATION

|  |             |
|--|-------------|
| Address:522 GREENLAWN AVE                                    | Suite: 0019 |
| Cross Street:  |             |
| City:  | State: Zip: |
| Service Request Type: INVESTIGATE                            |             |
| Problem Code: YSPILL - Non-water spill; chemical, fuel, etc. |             |

|   |
|---|
| Problem Description: DIST#- 0019 - { 70w to 71 s greenlaw n ramp NEAR 315} ----- 100 GALLOON GAS TANK SPILL, REPORTED BY FIRE DEPT - (MABRY 614-221-2345 - CALL IF ANY QUESTIONS) |
|---|

|                           |        |                                      |             |
|---------------------------|--------|--------------------------------------|-------------|
| Requested Date:           | Crew : | Dept: SEWERMNT                       | Area:SEWERS |
| Next Approver:            |        |                                      |             |
| Dispatcher:BAXTER, CIERRA |        | Call Back Ready: N                   |             |
| Status: CLOSED            |        | Customer Call Back: N                |             |
| WO/Task No:               |        | Finished Date: 09/14/2020 01:16:38PM |             |

## CUSTOMER INFORMATION

|                  |                       |
|------------------|-----------------------|
| Customer ID:     | Bill Customer: N      |
| Name:            | Customer Call Back: N |
| Work Phone: Ext: | Home Phone:           |
| Company:         | Tax ID:               |

## REPORTED BY

|                  |              |
|------------------|--------------|
| Name:            | Call Back: N |
| Address:         | Suite:       |
| City:            | State: Zip:  |
| Work Phone: Ext: | Home Phone:  |

Refer to Illicit Discharge  
Investigation 09132020-1

# SERVICE REQUEST REPORT

Service Request No.  
**2016599**

**\*2016599\***

Created Date: 09/13/2020 04:04 AM

**CLOSEOUT INFORMATION**

|   |                             |                       |
|---|-----------------------------|-----------------------|
| Start: 09/13/2020 04:09 AM  | Finish: 09/13/2020 06:30 AM | Completed: Y          |
| Failure: _____  | Repair: _____               | Further Action: _____ |
| Comments: No fuel made into city assets,,all ODOT assets to river, ODOT and Pro Tow in charge of cleanup. Refer to S.R.M.S. #09132020-1 |                             |                       |
| Inspected By: Lamb  | Date: 14-SEP-20             |                       |
| Signoff By: _____   | Date: _____                 |                       |
| Closed By: LAMB, ROBERT F   | Date: 14-SEP-20             |                       |

**SPECIFICATIONS**

| ID: 2014329 | Category: DOSD WORK DAT | Type: SPILL | Title: SPILL DATA |
|-------------|-------------------------|-------------|-------------------|
| Seq. No     | Attribute               | Value       |                   |
| 5           | SPILL AFFECTED AREA?    |             |                   |
| 10          | CAUSE?                  |             |                   |
| 15          | CONTAINED Y             |             |                   |
| 20          | STORMWATER NOTIFIED Y   |             |                   |
| 25          | EPA ON SITE Y           |             |                   |
| 30          | RECEIVING STRUCTURE #   |             |                   |
| 35          | RECEIVING WATERWAY?     |             |                   |

### SERVICE REQUEST REPORT

Service Request No.  
**2016830**

**\*2016830\***

Created Date: 09/15/2020 05:37 PM

#### WORK LOCATION

|  |             |
|--|-------------|
| Address:1061 MCKINLEY AVE                                    | Suite: 0009 |
| Cross Street:  |             |
| City:  | State: Zip: |
| Service Request Type INVESTIGATE                             |             |
| Problem Code: YSPILL - Non-water spill; chemical, fuel, etc. |             |

|  |
|--|
| Problem Description: DIST#0009 - firehouse called in gases going into sewer from a fire. |
|--|

|                           |        |                                      |             |
|---------------------------|--------|--------------------------------------|-------------|
| Requested Date:           | Crew : | Dept: SEWERMNT                       | Area:SEWERS |
| Next Approver:            |        |                                      |             |
| Dispatcher:BAXTER, CIERRA |        | Call Back Ready: N                   |             |
| Status: CLOSED            |        | Customer Call Back: N                |             |
| WO/Task No:               |        | Finished Date: 09/16/2020 09:07:26AM |             |

#### CUSTOMER INFORMATION

|                  |                       |
|------------------|-----------------------|
| Customer ID:     | Bill Customer: N      |
| Name:            | Customer Call Back: N |
| Work Phone: Ext: | Home Phone:           |
| Company:         | Tax ID:               |

#### REPORTED BY

|                  |              |
|------------------|--------------|
| Name:            | Call Back: N |
| Address:         | Suite:       |
| City:            | State: Zip:  |
| Work Phone: Ext: | Home Phone:  |

Refer to Illicit Discharge  
Investigation 09152020-1

# SERVICE REQUEST REPORT

09 FEB 2021  
01:24 PM

Service Request No.  
**2016830**

**\*2016830\***

Created Date: 09/15/2020 05:37 PM

## CLOSEOUT INFORMATION

|   |                             |                       |
|---|-----------------------------|-----------------------|
| Start: 09/15/2020 05:40 PM  | Finish: 09/15/2020 08:30 PM | Completed: Y          |
| Failure: _____  | Repair: _____               | Further Action: _____ |
| Comments: Discharge was stopped when we arrived...firefighting activity. Refer to S.R.M.S. report number 09152020-1 |                             |                       |
| Inspected By: Lamb  | Date: 16-SEP-20             |                       |
| Signoff By: _____   | Date: _____                 |                       |
| Closed By: LAMB, ROBERT F   | Date: 16-SEP-20             |                       |

## SPECIFICATIONS

| ID: 2014342 | Category: DOSD WORK DAT | Type: SPILL | Title: SPILL DATA |
|-------------|-------------------------|-------------|-------------------|
| Seq. No     | Attribute               | Value       |                   |
| 5           | SPILL AFFECTED AREA?    |             |                   |
| 10          | CAUSE?                  |             |                   |
| 15          | CONTAINED Y             |             |                   |
| 20          | STORMWATER NOTIFIED Y   |             |                   |
| 25          | EPA ON SITE Y           |             |                   |
| 30          | RECEIVING STRUCTURE #   |             |                   |
| 35          | RECEIVING WATERWAY?     |             |                   |

## SERVICE REQUEST REPORT

16 FEB 2021  
09:58 AM

Created Date: 09/28/2020 06:37 PM

Service Request No. **2017718**      **\*2017718\***

**WORK LOCATION**

|  |                  |
|--|------------------|
| Address: I-71 S  | Suite: 0087      |
| Cross Street: 17TH AVE                                       |                  |
| City:  | State:      Zip: |
| Service Request Type: INVESTIGATE                            |                  |
| Problem Code: YSPILL - Non-water spill; chemical, fuel, etc. |                  |

|   |
|---|
| Problem Description: Dist.#: 87 - There was an accident on 71S, which involved a truck carrying 200 gallons of diesel fuel. Ben was on his way to the scene, so he did not know how much fuel went into the sewer system. |
|---|

|                             |             |                                      |              |
|-----------------------------|-------------|--------------------------------------|--------------|
| Requested Date:             | Crew :MOOT3 | Dept: SEWERMNT                       | Area: SEWERS |
| Next Approver:              |             |                                      |              |
| Dispatcher: SCOTT, MARCIA R |             | Call Back Ready: N                   |              |
| Status: CLOSED              |             | Customer Call Back: N                |              |
| WO/Task No:                 |             | Finished Date: 09/28/2020 08:49:52PM |              |

**CUSTOMER INFORMATION**

|                       |                       |
|-----------------------|-----------------------|
| Customer ID:          | Bill Customer: N      |
| Name:                 | Customer Call Back: N |
| Work Phone:      Ext: | Home Phone:           |
| Company:              | Tax ID:               |

**REPORTED BY**

|                                      |                  |
|--------------------------------------|------------------|
| Name: Ben                            | Call Back: N     |
| Address: E.P.A.                      | Suite:           |
| City:                                | State:      Zip: |
| Work Phone: (614) 512-3508      Ext: | Home Phone:      |

# SERVICE REQUEST REPORT

Service Request No.  
**2017718**

**\*2017718\***

Created Date: 09/28/2020 06:37 PM

**CLOSEOUT INFORMATION**

|  |                             |                       |
|--|-----------------------------|-----------------------|
| Start: 09/28/2020 06:15 PM   | Finish: 09/28/2020 08:46 PM | Completed: Y          |
| Failure: YASSTAGNCY  | Repair: YNFWN               | Further Action: _____ |
| Comments: Provided assistants to storm water dept. in semi crash on 71 south of hudson ave. with a diesel spill. |                             |                       |
| Inspected By: Tmoore   | Date: 28-SEP-20             |                       |
| Signoff By: _____  | Date: _____                 |                       |
| Closed By: JOHNSON, FRED L   | Date: 30-SEP-20             |                       |

**SPECIFICATIONS**

| ID: 2015825 | Category: DOSD WORK DAT | Type: SPILL | Title: SPILL DATA |
|-------------|-------------------------|-------------|-------------------|
| Seq. No     | Attribute               | Value       |                   |
| 5           | SPILL AFFECTED AREA?    |             |                   |
| 10          | CAUSE?                  |             |                   |
| 15          | CONTAINED Y             |             |                   |
| 20          | STORMWATER NOTIFIED Y   |             |                   |
| 25          | EPA ON SITE Y           |             |                   |
| 30          | RECEIVING STRUCTURE #   |             |                   |
| 35          | RECEIVING WATERWAY?     |             |                   |

# SERVICE REQUEST REPORT

Service Request No.

**\*2018853\***

**2018853**

Created Date: 10/18/2020 12:12 PM

## WORK LOCATION

|  |             |
|--|-------------|
| Address:6144 BROAD ST W                        | Suite: 0351 |
| Cross Street:                                  |             |
| City:  | State: Zip: |
| Service Request Type: INVESTIGATE              |             |
| Problem Code: YASSIST - Assist another agency. |             |

|   |
|---|
| Problem Description: OK TO CLOSE WHEN WORK ORDER IS FINISHED. Dist.#: 351 - A Florida Company was doing some directional boring and hit a force sewer main. |
|---|

|                            |             |                                      |             |
|----------------------------|-------------|--------------------------------------|-------------|
| Requested Date:            | Crew :STES1 | Dept: SEWERMNT                       | Area:SEWERS |
| Next Approver:             |             |                                      |             |
| Dispatcher:SCOTT, MARCIA R |             | Call Back Ready: N                   |             |
| Status: CLOSED             |             | Customer Call Back: N                |             |
| WO/Task No: 2027702/01     |             | Finished Date: 10/20/2020 03:02:05PM |             |

## CUSTOMER INFORMATION

|                  |                       |
|------------------|-----------------------|
| Customer ID:     | Bill Customer: N      |
| Name:            | Customer Call Back: N |
| Work Phone: Ext: | Home Phone:           |
| Company:         | Tax ID:               |

## REPORTED BY

|                                 |              |
|---------------------------------|--------------|
| Name: Leyshon, Mike             | Call Back: N |
| Address:                        | Suite:       |
| City:                           | State: Zip:  |
| Work Phone: (614) 580-0069 Ext: | Home Phone:  |

Refer to Illicit Discharge Investigation 10182020-1

# SERVICE REQUEST REPORT

Service Request No.  
**2018853**

**\*2018853\***

Created Date: 10/18/2020 12:12 PM

### CLOSEOUT INFORMATION

|   |                             |                     |
|---|-----------------------------|---------------------|
| Start: 10/18/2020 12:30 PM  | Finish: 10/18/2020 01:30 PM | Completed: Y        |
| Failure: YASSTAGNCY   | Repair: YSTANDBY            | Further Action:YNFI |
| <p>Comments: A PRIVATE COMPANY ( FIBER-1 JERRY GARZA 305-495-9849 &amp; LEAD CORE 512- 878-7226 BOTH THESE'S COMPANY'S CALLED BIG TEST FOR CLEAN UP BUT NO SHOW AS OF 1:30 PM ON 10/18/2020 AND THE CONFIRMATION # IS AZ29100243 ) HIT SA-12 FORCE MAIN WHICH IS LEAKING AGONG THE DITCH LINE OF W BROAD ST ON THE NORTH SIDE, OVERFLOW SIGN'S WAS PLACE FOR THE PUBLIC SAFTY AND THIS HAS REACHED THE ALTON DARBY CREEK AS WELL, STORM WATER CREW WAS CALLED IN AND LARRY LAMP WITH PUMP HOUSE WAS ALSO NOTIFIED OF THIS PROBLEM BOTH CONTRACTOR AND SUPERINTEND WAS ON SIGHT AND WAITING FOR STORM WATER'S ARRIVAL. Refer to S.R.M.S.10182020-1</p> |                             |                     |
| Inspected By: STEWART / CHAVIS  | Date: 18-OCT-20             |                     |
| Signoff By: _____   | Date: _____                 |                     |
| Closed By: GRIFFITH, MICHAEL A  | Date: 04-NOV-20             |                     |

# SERVICE REQUEST REPORT

Service Request No.  
**2019289**

**\*2019289\***

Created Date: 10/23/2020 12:35 PM

## WORK LOCATION

|   |             |
|---|-------------|
| Address: BANK ST  | Suite: 0006 |
| Cross Street:FRANKFORT ST                                     |             |
| City:   | State: Zip: |
| Service Request TypeINVESTIGATE                               |             |
| Problem Code: YSPILL - Non-w ater spill; chemical, fuel, etc. |             |

|   |
|---|
| Problem Description: DIST 6 (E) CITIZEN SEEN CONTRACTOR DUMPING UNUSED CONTRETE INTO THE N/E/C SEWER DISPATCHER GAVE INFO TO BOB LAMB AND ALEKSANDR YAHNISKIY IN STORMWATER. DISPATCHER CLOSED COMPLAINT. |
|---|

|                            |        |                                      |             |
|----------------------------|--------|--------------------------------------|-------------|
| Requested Date:            | Crew : | Dept: SEWERMNT                       | Area:SEWERS |
| Next Approver:             |        |                                      |             |
| Dispatcher:WHITE, JANICE L |        | Call Back Ready: N                   |             |
| Status: CLOSED             |        | Customer Call Back: N                |             |
| WO/Task No:                |        | Finished Date: 10/23/2020 12:44:29PM |             |

## CUSTOMER INFORMATION

|                  |                       |
|------------------|-----------------------|
| Customer ID:     | Bill Customer: N      |
| Name:            | Customer Call Back: N |
| Work Phone: Ext: | Home Phone:           |
| Company:         | Tax ID:               |

## REPORTED BY

|                                 |              |
|---------------------------------|--------------|
| Name: ANONYMOUS                 | Call Back: N |
| Address:                        | Suite:       |
| City:                           | State: Zip:  |
| Work Phone: (919) 376-9410 Ext: | Home Phone:  |

Refer to Illicit Discharge  
Investigation 10232020-2

# SERVICE REQUEST REPORT

Service Request No.

**2019289**

**\*2019289\***

Created Date: 10/23/2020 12:35 PM

## CLOSEOUT INFORMATION

|                                       |                 |                       |
|---------------------------------------|-----------------|-----------------------|
| Start: 10/23/2020 12:44 PM            | Finish: _____   | Completed: _____      |
| Failure: _____                        | Repair: _____   | Further Action: _____ |
| Comments: Refer to S.R.M.S.10232020-2 |                 |                       |
| Inspected By: _____                   | Date: _____     |                       |
| Signoff By: _____                     | Date: _____     |                       |
| Closed By: WHITE, JANICE L            | Date: 23-OCT-20 |                       |

## SPECIFICATIONS

|                |                         |              |                   |
|----------------|-------------------------|--------------|-------------------|
| ID: 2017085    | Category: DOSD WORK DAT | Type: SPILL  | Title: SPILL DATA |
| <u>Seq. No</u> | <u>Attribute</u>        | <u>Value</u> |                   |
| 5              | SPILL AFFECTED AREA?    |              |                   |
| 10             | CAUSE?                  |              |                   |
| 15             | CONTAINED Y             |              |                   |
| 20             | STORMWATER NOTIFIED Y   |              |                   |
| 25             | EPA ON SITE Y           |              |                   |
| 30             | RECEIVING STRUCTURE #   |              |                   |
| 35             | RECEIVING WATERWAY?     |              |                   |

# SERVICE REQUEST REPORT

Service Request No.  
**2019965**

**\*2019965\***

Created Date: 11/04/2020 12:55 PM

## WORK LOCATION

|   |             |
|---|-------------|
| Address:534 WILSON AVE                            | Suite: 0015 |
| Cross Street:                                     |             |
| City:   | State: Zip: |
| Service Request Type: INVESTIGATE                 |             |
| Problem Code: YOTHP - Other problem not in codes. |             |

|  |
|--|
| Problem Description: DIST #0015 (S&E). SUMP PUMP IS PUMPING OUT SLUDGE AND RAW SEWAGE TO THE STREET THAT LEADS TO COLE AND WILSON BUT IT IS SETTLING IN FRONT OF HER LOCATION STARTING FROM 534 WILSON |
|--|

|                     |             |                                      |             |
|---------------------|-------------|--------------------------------------|-------------|
| Requested Date:     | Crew :CHAR1 | Dept: SEWERMNT                       | Area:SEWERS |
| Next Approver:      |             |                                      |             |
| Dispatcher:DJREEDER |             | Call Back Ready: N                   |             |
| Status: CLOSED      |             | Customer Call Back: N                |             |
| WO/Task No:         |             | Finished Date: 11/04/2020 01:54:11PM |             |

## CUSTOMER INFORMATION

|                  |                       |
|------------------|-----------------------|
| Customer ID:     | Bill Customer: N      |
| Name:            | Customer Call Back: N |
| Work Phone: Ext: | Home Phone:           |
| Company:         | Tax ID:               |

## REPORTED BY

|                                 |                      |
|---------------------------------|----------------------|
| Name: HOOD, SHEILA              | Call Back: 0         |
| Address: 556 WILSON AVE         | Suite:               |
| City: COLUMBUS                  | State: OH Zip: 43205 |
| Work Phone: (614) 230-2356 Ext: | Home Phone:          |

# SERVICE REQUEST REPORT

Service Request No.  
**2019965**

**\*2019965\***

Created Date: 11/04/2020 12:55 PM

## CLOSEOUT INFORMATION

|  |                             |                     |
|--|-----------------------------|---------------------|
| Start: 11/04/2020 01:05 PM   | Finish: 11/04/2020 02:05 PM | Completed: Y        |
| Failure: YNCF  | Repair: YNFWN               | Further Action:YNFI |
| Comments: REFERRED TO DEPT. OF HEALTH FOR FOLLOW UP- Comb. Sew er @ R/O open w hen checked @ 0015C0542 & 0015S0541, no discharge to storm. |                             |                     |
| Inspected By: CHAVIS   | Date: 04-NOV-20             |                     |
| Signoff By: _____  | Date: _____                 |                     |
| Closed By: LINK, MICHAEL A   | Date: 06-NOV-20             |                     |

# SERVICE REQUEST REPORT

Service Request No.  
**2020075**

**\*2020075\***

Created Date: 11/06/2020 08:24 AM

## WORK LOCATION

|   |             |
|---|-------------|
| Address:534 WILSON AVE                            | Suite:      |
| Cross Street:                                     |             |
| City:   | State: Zip: |
| Service Request Type: INVESTIGATE                 |             |
| Problem Code: YOTHP - Other problem not in codes. |             |

|   |
|---|
| Problem Description: . SEE SR 2011048002  |
| CALLER STATES THE ENTIRE CURB AREA IS FULL OF FECES AND SHE WANTS IT CLEANED UP. THE STREET SMELLS, SHE'S STEPPING IN FECES, AND NONE OF THIS IS GOING TO DRAIN ANYWHERE. |

|                   |             |                                      |             |
|-------------------|-------------|--------------------------------------|-------------|
| Requested Date:   | Crew :LINM1 | Dept: SEWERMNT                       | Area:SEWERS |
| Next Approver:    |             |                                      |             |
| Dispatcher:RSRAAB |             | Call Back Ready: N                   |             |
| Status: CLOSED    |             | Customer Call Back: N                |             |
| WO/Task No:       |             | Finished Date: 11/06/2020 10:39:37AM |             |

## CUSTOMER INFORMATION

|                  |                       |
|------------------|-----------------------|
| Customer ID:     | Bill Customer: N      |
| Name:            | Customer Call Back: N |
| Work Phone: Ext: | Home Phone:           |
| Company:         | Tax ID:               |

## REPORTED BY

|                                 |                      |
|---------------------------------|----------------------|
| Name: HOOD, SHEILA              | Call Back: 0         |
| Address: 556 WILSON AVE         | Suite:               |
| City: COLUMBUS                  | State: OH Zip: 43205 |
| Work Phone: (614) 230-2356 Ext: | Home Phone:          |

# SERVICE REQUEST REPORT

25 JAN 2021  
11:21 AM

Service Request No.  
**2020075**

**\*2020075\***

Created Date: 11/06/2020 08:24 AM

## CLOSEOUT INFORMATION

|  |                             |                       |
|--|-----------------------------|-----------------------|
| Start: 11/06/2020 09:29 AM   | Finish: 11/06/2020 10:36 AM | Completed: Y          |
| Failure: YPDBINSP  | Repair: YNFWN               | Further Action: YNFAN |
| Comments: Onsite visit by SUP. II 11.06.20. Contacted CoC Storm Water to sample. Test confirmed raw waste water on curb, discharging from 534 Wilson Ave. Storm Water contacting resident for enforcement. REFERRED TO DEPT. OF HEALTH, VIA PHONE. |                             |                       |
| Inspected By: LINK   | Date: 06-NOV-20             |                       |
| Signoff By: _____  | Date: _____                 |                       |
| Closed By: LINK, MICHAEL A   | Date: 06-NOV-20             |                       |

SERVICE REQUEST REPORT

Service Request No.  
**2020806**

**\*2020806\***

Created Date: 11/16/2020 12:50 PM

**WORK LOCATION**

|   |             |
|---|-------------|
| Address:1010 ROUSSEAU LN                          | Suite: 0279 |
| Cross Street:                                     |             |
| City:   | State: Zip: |
| Service Request Type: INVESTIGATE                 |             |
| Problem Code: YASSCLN - Assess need for cleaning. |             |

|   |
|---|
| Problem Description: DIST #0279 (W). GUTTER AND STORM DRAIN CLOGGED BY TREE THE TREE LOCATED AT 1007 ROUSSEAU, HE STATES HE CANNOT HANDLE CLEANING UP AND OUT OF DRAIN LIKE HE USED TO. HE STATES BLOW OFF STREET AND COME ACROSS AND CLOG DRAIN ACROSS FROM ADDRESS. PLEASE HELP. THANK YOU. |
|---|

|                     |             |                                      |             |
|---------------------|-------------|--------------------------------------|-------------|
| Requested Date:     | Crew :VERS1 | Dept: SEWERMNT                       | Area:SEWERS |
| Next Approver:      |             |                                      |             |
| Dispatcher:DDSPARKS |             | Call Back Ready: N                   |             |
| Status: CLOSED      |             | Customer Call Back: N                |             |
| WO/Task No:         |             | Finished Date: 11/16/2020 02:30:47PM |             |

**CUSTOMER INFORMATION**

|                  |                       |
|------------------|-----------------------|
| Customer ID:     | Bill Customer: N      |
| Name:            | Customer Call Back: N |
| Work Phone: Ext: | Home Phone:           |
| Company:         | Tax ID:               |

**REPORTED BY**

|                                 |                      |
|---------------------------------|----------------------|
| Name: CASTO, RALPH & CAROL      | Call Back: 0         |
| Address: 1010 ROUSSEAU LN       | Suite:               |
| City: COLUMBUS                  | State: OH Zip: 43119 |
| Work Phone: (614) 832-4801 Ext: | Home Phone:          |

# SERVICE REQUEST REPORT

25 JAN 2021  
10:23 AM

Service Request No.  
**2020806**

**\*2020806\***

Created Date: 11/16/2020 12:50 PM

## CLOSEOUT INFORMATION

|   |                             |                       |
|---|-----------------------------|-----------------------|
| Start: 11/16/2020 12:59 PM  | Finish: 11/16/2020 02:00 PM | Completed: _____      |
| Failure: YNCF   | Repair: YNFWN               | Further Action: YNFAN |
| Comments: NO CLOGGED DRAINS LARGE LEAF PILES IN FRONT OF THE INLETS LEAVES LOOK LIKE THEY WER RAKED UP TO THE INLETS NO TREE GROWING OUT OF INLET SMALL AMOUNT OF SHORT GRASS IN GRATE BETWEEN FRAME. NOT SEWER RELATED |                             |                       |
| Inspected By: VERHAGE/DAVEY   | Date: 16-NOV-20             |                       |
| Signoff By: _____   | Date: _____                 |                       |
| Closed By: LINK, MICHAEL A  | Date: 03-DEC-20             |                       |

# SERVICE REQUEST REPORT

Service Request No.  
**2021278**

**\*2021278\***

Created Date: 11/23/2020 07:41 AM

### WORK LOCATION

|   |             |
|---|-------------|
| Address:188 WESTWOOD RD                           | Suite: 0232 |
| Cross Street:                                     |             |
| City:   | State: Zip: |
| Service Request Type: INVESTIGATE                 |             |
| Problem Code: YASSCLN - Assess need for cleaning. |             |

|   |
|---|
| Problem Description: DIST #0232 (N) Zeller . ON-LINE REQUEST. Leaves are clogging gutter and storm drain. |
|---|

|                    |                                      |                |             |
|--------------------|--------------------------------------|----------------|-------------|
| Requested Date:    | Crew :BOYM1                          | Dept: SEWERMNT | Area:SEWERS |
| Next Approver:     |                                      |                |             |
| Dispatcher:MRLEWIS | Call Back Ready: N                   |                |             |
| Status: CLOSED     | Customer Call Back: N                |                |             |
| WO/Task No:        | Finished Date: 11/23/2020 08:49:23AM |                |             |

### CUSTOMER INFORMATION

|                  |                       |
|------------------|-----------------------|
| Customer ID:     | Bill Customer: N      |
| Name:            | Customer Call Back: N |
| Work Phone: Ext: | Home Phone:           |
| Company:         | Tax ID:               |

### REPORTED BY

|                               |              |
|-------------------------------|--------------|
| Name: NO CUSTOMER INFORMATION | Call Back: 0 |
| Address:                      | Suite:       |
| City:                         | State: Zip:  |
| Work Phone: Ext:              | Home Phone:  |

# SERVICE REQUEST REPORT

Service Request No.  
**2021278**

**\*2021278\***

Created Date: 11/23/2020 07:41 AM

## CLOSEOUT INFORMATION

|   |                             |                       |
|---|-----------------------------|-----------------------|
| Start: 11/23/2020 08:35 AM  | Finish: 11/23/2020 09:05 AM | Completed: Y          |
| Failure: YDIRTY   | Repair: YREMOVED            | Further Action: YNFAN |
| Comments: The flooding at this location w as caused by excessive debris LEAVES OVER. The CB/INLET #T0375, CB/Inlet w as hand cleaned OF LEAVES. |                             |                       |
| Inspected By: MBOYD   | Date: 23-NOV-20             |                       |
| Signoff By: _____   | Date: _____                 |                       |
| Closed By: LINK, MICHAEL A  | Date: 30-NOV-20             |                       |

# SERVICE REQUEST REPORT

Service Request No.  
**2022584**

**\*2022584\***

Created Date: 12/14/2020 10:59 AM

### WORK LOCATION

|   |             |
|---|-------------|
| Address: CALUMET ST                               | Suite: 0127 |
| Cross Street: OLENTANGY ST                        |             |
| City:   | State: Zip: |
| Service Request Type: INVESTIGATE                 |             |
| Problem Code: YASSCLN - Assess need for cleaning. |             |

|  |
|--|
| Problem Description: DIST# 0127- (clintonville area) - a guy called in and said a woman put a bed pillow down the manhole, he can see it but cant reach it to get it out. ( he stated it was the manhole that is on the NW side of the bridge in the area, you should be able to see the pillow when you look down it. |
|--|

|                            |                                      |                |              |
|----------------------------|--------------------------------------|----------------|--------------|
| Requested Date:            | Crew : CHAR1                         | Dept: SEWERMNT | Area: SEWERS |
| Next Approver:             |                                      |                |              |
| Dispatcher: BAXTER, CIERRA | Call Back Ready: N                   |                |              |
| Status: CLOSED             | Customer Call Back: N                |                |              |
| WO/Task No: 2032859/01     | Finished Date: 12/14/2020 01:24:16PM |                |              |

### CUSTOMER INFORMATION

|                  |                       |
|------------------|-----------------------|
| Customer ID:     | Bill Customer: N      |
| Name:            | Customer Call Back: N |
| Work Phone: Ext: | Home Phone:           |
| Company:         | Tax ID:               |

### REPORTED BY

|                  |              |
|------------------|--------------|
| Name:            | Call Back: N |
| Address:         | Suite:       |
| City:            | State: Zip:  |
| Work Phone: Ext: | Home Phone:  |

# SERVICE REQUEST REPORT

Created Date: 12/14/2020 10:59 AM

Service Request No.  
**2022584**

**\*2022584\***

## CLOSEOUT INFORMATION

|  |                             |                        |
|--|-----------------------------|------------------------|
| Start: 12/14/2020 12:00 PM   | Finish: 12/14/2020 01:30 PM | Completed: Y           |
| Failure: YDIRTY  | Repair: YHNDCLND            | Further Action: YCLEAN |
| <p>Comments: YFLOOD/CLN- The water had receded @ time of investigation. Catch basin # 0127T0829 needs cleaned by hand due to excessive debris. The CB/INLET # 0127T0829, located at the rear of 100 E.Arcadia Ave. CB/Inlet was hand cleaned by: with the leads shot by power cleaning vactor.</p> |                             |                        |
| Inspected By: CHAVIS   | Date: 14-DEC-20             |                        |
| Signoff By: _____  | Date: _____                 |                        |
| Closed By: GRIFFITH, MICHAEL A   | Date: 18-DEC-20             |                        |

**SERVICE REQUEST REPORT**

Created Date: 12/14/2020 05:27 PM

Service Request No.  
**2022621**

**\*2022621\***

|                            |                                      |                |             |
|----------------------------|--------------------------------------|----------------|-------------|
| Requested Date:            | Crew :MOOT3                          | Dept: SEWERMNT | Area:SEWERS |
| Next Approver:             |                                      |                |             |
| Dispatcher:SCOTT, MARCIA R | Call Back Ready: N                   |                |             |
| Status: CLOSED             | Customer Call Back: N                |                |             |
| WO/Task No:                | Finished Date: 12/15/2020 04:19:29PM |                |             |

**CUSTOMER INFORMATION**

|              |                       |             |
|--------------|-----------------------|-------------|
| Customer ID: | Bill Customer: N      |             |
| Name:        | Customer Call Back: N |             |
| Work Phone:  | Ext:                  | Home Phone: |
| Company:     | Tax ID:               |             |

**REPORTED BY**

|                            |              |             |
|----------------------------|--------------|-------------|
| Name: Green, Fire Fighter  | Call Back: N |             |
| Address: C.F.D.            | Suite:       |             |
| City:                      | State:       | Zip:        |
| Work Phone: (614) 221-2345 | Ext:         | Home Phone: |

**CLOSEOUT INFORMATION**

|   |                             |                       |
|---|-----------------------------|-----------------------|
| Start: 12/14/2020 05:32 PM  | Finish: 12/14/2020 07:30 PM | Completed: Y          |
| Failure: YCNTRDAMAG   | Repair: YNFWN               | Further Action: _____ |
| Comments: contractor issue with bypass pump @ nelson park. Refer to S.R.M.S. 12142020-1 |                             |                       |
| Inspected By: tmoore  | Date: 14-DEC-20             |                       |
| Signoff By: _____   | Date: _____                 |                       |
| Closed By: JOHNSON, FRED L  | Date: 17-DEC-20             |                       |

**SPECIFICATIONS**

|                |                         |              |                   |
|----------------|-------------------------|--------------|-------------------|
| ID: 2019464    | Category: DOSD WORK DAT | Type: SPILL  | Title: SPILL DATA |
| <u>Seq. No</u> | <u>Attribute</u>        | <u>Value</u> |                   |
| 5              | SPILL AFFECTED AREA?    |              |                   |
| 10             | CAUSE?                  |              |                   |
| 15             | CONTAINED Y             |              |                   |
| 20             | STORMWATER NOTIFIED Y   |              |                   |
| 25             | EPA ON SITE Y           |              |                   |
| 30             | RECEIVING STRUCTURE #   |              |                   |

Submitted by: RFLAMB

Refer to Illicit Discharge  
Investigation 12142020-1

Oracle

Report s\_rpt138 v 1912-1

# SERVICE REQUEST REPORT

Created Date: 12/14/2020 05:27 PM

Service Request No.  
**2022621**

**\*2022621\***

## WORK LOCATION

|  |             |
|--|-------------|
| Address: NELSON RD   | Suite: 0059 |
| Cross Street: MARYLAND AVE                                   |             |
| City:  | State: Zip: |
| Service Request Type INVESTIGATE                             |             |
| Problem Code: YSPILL - Non-water spill; chemical, fuel, etc. |             |

Problem Description:

# SERVICE REQUEST REPORT

Created Date: 12/14/2020 05:27 PM

Service Request No.  
**2022621**

**\*2022621\***

## SPECIFICATIONS

|                |                         |              |                   |
|----------------|-------------------------|--------------|-------------------|
| ID: 2019464    | Category: DOSD WORK DAT | Type: SPILL  | Title: SPILL DATA |
| <u>Seq. No</u> | <u>Attribute</u>        | <u>Value</u> |                   |
| 35             | RECEIVING WATERWAY?     |              |                   |



## 2020 SWP3 Construction Plans Reviewed

| Plan Name   | Plan #      | Acres<br>Disturbed |
|---|-------------|--------------------|
| Old Beechwold Blueprint SWS Imps                                  | CC-18646    | 1011.00            |
| FRA-270-51.50 270S @ US23   |             | 87.20              |
| Hoover Farms Section 4 Parts 1 & 2                                | 3688-E      | 78.25              |
| Fra 70-22.61 70 East at 270 North RRx                             | Fra-70      | 75.70              |
| Grandview Crossing Storm- Grandview Ave & Dublin Rd               | CC-18859    | 57.35              |
| FRA-71-14.36 Phase 6R   | 3598-E      | 33.20              |
| Lawndale Commons on Long Road                                     | CC-19024    | 32.79              |
| Consumer Square East redevelopment, Storm                         | CC-18133    | 32.07              |
| Twin Valley Behavioral Healthcare Hospital                        | CC-18883    | 30.50              |
| Twin Valley Behavioral  | CC-18882    | 30.40              |
| Walnut Woods Section 1 & 2  | E-3696      | 29.58              |
| FRA-70-13.11, Proj. 4A Part 2                                     | 3084-E      | 27.10              |
| Rickenbacker GLP Rail 1566  | CC-18825    | 25.16              |
| Columbus Crew Training Facility                                   | CC-18728    | 25.00              |
| Victoria Manor on Stelzer Road                                    | CC-19071    | 23.93              |
| 5091 E. Walnut St. - Philips Farm                                 | CC-18887    | 23.18              |
| Cornerstone Village   | CC-18876    | 22.04              |
| Pleasant View Middle School 2767 Holt Road                        | CC-18890    | 21.71              |
| Windmill Pointe Apts  | CC-18903    | 21.65              |
| Andrew Reserve off Hamilton Road Ext.                             | CC-18926    | 21.30              |
| Orchard Lakes Sect. 1 off Lehman Rd.                              | 3737-E      | 20.05              |
| West Campus (OSU) Phase 1 Parking                                 | CC-18804    | 19.89              |
| Meadows at Shannon Lakes, Sect 5 Pts 1 & 2                        | 3729-E      | 19.73              |
| Imprs. of Trabue Rd., from E. of I-270 & to W. of Trabue Run Road | E-3700      | 19.59              |
| Columbus Impound Lot  | CC-18914    | 18.42              |
| 510 Sunbury Road  | CC-18606    | 17.68              |
| Riggins Rd Apts. Ph. 2 e/o Avery Road                             | CC-19031    | 17.00              |
| State Route 23 near Rathmill Rd.                                  | FRA-23-4.19 | 16.14              |
| Hoover Farms, Section 5   | 3735-E      | 15.60              |
| Gender Road Apartments  | CC-18735    | 15.46              |
| Turnberry Farms Section 10  | 3707-E      | 15.46              |
| Killarney Woods SI E. Broad w/o Taylor                            | 3721-E      | 15.38              |
| Cover my Meds Office Dev. Phase 2- at 911 John St.                | CC-18868    | 14.40              |
| Pro-Tow on Lockbourne Industrial Pkwy                             | CC-19052    | 14.33              |
| Sophie Village at Abbie Trails Improvements, Phase 1 & 2          | E-3699      | 14.26              |
| Agler Road Warehouse w/o N Cassady                                | CC-19080    | 13.58              |
| Eureka Fremont Blueprint Hilltop Project                          | CC-18597    | 12.72              |
| Camden Industrial Park SI   | 3740-E      | 12.60              |
| Camden Industrial Park on Camden Ave.                             | CC-19032    | 12.48              |
| East Parking Lot (525 Nelson Rd.)                                 | CC-18956    | 12.00              |
| Columbus Crew MLS Stadium   | CC-18852    | 11.83              |
| Airside 5 on Bridgeway Ave  | CC-18805    | 11.41              |
| FC Correction Center - Continuation Ph                            | CC-19000    | 11.27              |
| Lehman Park on Lehman Road  | CC-18782    | 11.17              |

2020 SWP3 Construction Plans Reviewed

| Plan Name                                       | Plan #    | Acres<br>Disturbed |
|---|-----------|--------------------|
| Coffey Road Parl & Recreation Field             | CC-18867  | 10.76              |
| Trails at Chatterton East Sect. 1, Part 3       | 3742-E    | 10.61              |
| 6450 Lasalle Drive Bilding Expansion            | CC-18888  | 10.44              |
| Prairie Township Sports Complex Phase 2         | CC-18842  | 10.28              |
| OSU Ambulatory Care Center on Kenny Road        | CC-18856  | 10.22              |
| Lyra Drive East Extension Phase 1               | 3481-E    | 10.00              |
| Lehnert Farms Revisions                         | CC-17222  | 9.80               |
| Parkside Section 2 on Ulry Road                 | 3678-E    | 9.77               |
| Roadway Imps. Little Turtle Way                 | 3525-E    | 9.68               |
| Crowne Point at 5960 W. Broad St                | CC-18853  | 9.50               |
| Paul Peterson Company on Scioto Darby           | CC-18802  | 9.25               |
| Walcutt Apts s/o Roberts Road                   | CC-18936  | 9.09               |
| OSU Ambulatory Facility on Kenny Rd             | CC-18810  | 8.65               |
| Blacklick Creek Sanitary CIP 650034             | CC-18989  | 8.63               |
| Hamilton Quarter Spec Office                    | CC-18796  | 8.61               |
| Andelyn off Arthur Adams Dr.                    | CC-19044  | 8.57               |
| AY Manufacturing, LTD off Crosswind Dr.         | CC-18843  | 8.55               |
| Hamilton Road Extention Improvements            | E-3690    | 8.54               |
| Abbie Trails Storage on Gender Rd.              | CC-19101  | 8.53               |
| Andelyn, Arthur E. Adams Dr.                    | CC-18973  | 8.20               |
| OSU Contractor Laydown Area on Woody Hayes Dr.  | CC-18846  | 8.00               |
| Blueprint Hilltop Project Palmetto/Westgate     | CC-18633  | 7.67               |
| WMC Inpatient Hospital Garage                   | CC-18976  | 7.58               |
| AEP Bethel and Sawmill line rebuild             | No plan # | 7.30               |
| Bolton Crossing Addition on Holt Rd             | CC-18063  | 7.03               |
| Galloway Extension& Galloway-Hilliard Removal   | AEP       | 7.00               |
| Amberfield at Big Walnut Part 3                 | E-3701    | 6.93               |
| OSU West Campus Infrastructure on Kenny         | CC-19027  | 6.79               |
| Columbus Crew MLS Stadium Temp Gravel Lot       | CC-19096  | 6.71               |
| NCH Research building & Purple Garage           | CC-18855  | 6.50               |
| Homestead Senior Living on E. Broad             | CC-18995  | 6.39               |
| Homestead Senior Living on E. Broad             | 3733-E    | 6.39               |
| Columbus Country Club off E Broad St            | CC-18786  | 6.18               |
| White Farms Road SI n/o Riggins Rd.             | 3679-E    | 6.05               |
| Wexner Med Center Inpatient Tower Pre-grade     | CC-18958  | 5.79               |
| Scioto Peninsula Roadway Improvements Phase 1   | 3677-E    | 5.50               |
| Scioto Darby and Walcutt Rd. SI Imps (Hilliard) | CIP T-76  | 5.45               |
| Campus PARC on Kinnear Rd.                      | CC-18800  | 5.40               |
| Refuse Station Imps on Georgesville Rd.         | CC-19074  | 5.39               |
| Vertex Refining on E. Fifth Ave                 | CC-19015  | 5.29               |
| Vertex Refining on E. Fifth Ave                 | 3736-E    | 5.29               |
| Dublin Rd/Franz Rd 30" Water main               | CT2234    | 5.19               |
| Gravity 2.0 on McDowell St.                     | CC-18952  | 5.14               |
| Alta Drive Storage                              | CC-18950  | 5.08               |

## 2020 SWP3 Construction Plans Reviewed

| Plan Name  | Plan #       | Acres<br>Disturbed |
|--|--------------|--------------------|
| Maple Meadows on Maple Canyon Ave                    | CC19108      | 4.97               |
| Hamilton Quarter Phse 2 Outparcel                    | CC-18964     | 4.96               |
| Noise Wall Repairs on 315                            | FRA-315-7.13 | 4.90               |
| FRA-70-21.33 Hamilton Rd @ I-70                      | 3634-E       | 4.90               |
| N. Hamilton on Warner Rd                             | 3662-E       | 4.75               |
| TSS Bioretention Basins (Blueprint) Linden           | CC-19103     | 4.70               |
| Touchstone Field Place on Lockbourne Rd              | CC-19060     | 4.60               |
| Hamilton Road Multi-Family                           | CC-18996     | 4.48               |
| E. Broad and Hmilton (Whitehall)                     | FRA-16-6.87  | 4.43               |
| DCM7 Delivery Station off Kingsmill Ct.              | CC-18991     | 4.29               |
| Cultivation Center on Hall Road                      | G&F          | 4.17               |
| Dickenson Street Improve. w/o Civita Ave             | E-3697       | 4.16               |
| WMC Inpatient Hospital Tower Dropoff Area            | CC-19074     | 3.98               |
| North 4th Street (1206) 4th and 5th                  | CC-19113     | 3.96               |
| Thompson Road Apts                                   | CC-19045     | 3.81               |
| Mt. Carmel Development Phase C on Hartford Ave       | CC-19106     | 3.74               |
| Cardinal Storage on Trabue Rd SI                     | 3747-E       | 3.65               |
| State Auto HQ on E Broad                             | CC-19059     | 3.54               |
| Cardinal Storage on Trabue Rd                        | CC-19067     | 3.51               |
| Hayden Run Retail- Storm                             | CC-18677     | 3.48               |
| Hayden Run Road (East Side)                          | 3660-E       | 3.48               |
| Fra-161-Cable Barrier                                | 161-18.63    | 3.47               |
| Processing Plant on Bolton Field St                  | CC-18906     | 3.43               |
| North Algonquin Avenue (220) Industrial Warehouse    | CC-18834     | 3.41               |
| OSU Interdisciplinary HS Center                      | CC-18835     | 3.40               |
| Rogue Parking Lot on E 5th Avenue                    | CC-18783     | 3.21               |
| T. Marzetti Packaging Expansion on Frank Rd.         | CC-19105     | 3.21               |
| NCH Research Builking 4                              | CC-18787     | 3.20               |
| Linview Park Project Blueprint Linden PA             | CC-18945     | 3.01               |
| Interdisciplinary Research Facility                  | CC-18811     | 3.00               |
| Sheetz 034 on Stelzer Road                           | CC-19087     | 2.99               |
| OSU Area B 1503 Cannon Drive                         | CC-18706     | 2.94               |
| Orange Barrel Media off McKinley                     | G&F          | 2.92               |
| Rickenbacker Intermodal 24" Sanitary Sewer extention | CC-18863     | 2.90               |
| ABCO Concrete Pumping on Jetway Blvd.                | CC-19046     | 2.87               |
| Roswell Drive Area Water Line Imps                   | CT2131       | 2.87               |
| Capital Kia, Morse Road SI                           | 3681-E       | 2.86               |
| Aldi Store #10 on S. Hamilton Rd.                    | CC-18792     | 2.78               |
| Hap Cremean WP Intake Structure & Low Head           | CC-18957     | 2.69               |
| The Bubbly Center on Central College                 | CC-18798     | 2.68               |
| OSU Frank Stanton Vet Clinic on Coffey Rd            | CC-18822     | 2.67               |
| Vandalia Rentals on N. Wilson Road                   | CC-18944     | 2.66               |
| Viaquest ICF Homes on Joi Ave                        | CC-19065     | 2.62               |
| Creekside Place on Nelson Road                       | CC-18806     | 2.60               |

2020 SWP3 Construction Plans Reviewed

| Plan Name   | Plan #     | Acres Disturbed |
|---|------------|-----------------|
| Trabue Road to w/o Walcutt SI                         | 3682-E     | 2.59            |
| Trabue and Walcutt Warehouse                          | 3682-E     | 2.59            |
| 1899 Refugee Road- Warde & Burke Tunneling, storm     | CC-18849   | 2.44            |
| Victoria Manor on Stelzer Road SI                     | 3748-E     | 2.43            |
| Jeffrey VI & VII (Phase 2) on Dickenson               | CC-19013   | 2.37            |
| Maple Canyon (6261) Parking Lot                       | CC-18974   | 2.30            |
| McCord Middle School- 1500 Hard Road                  | CC-18865   | 2.24            |
| Sheetz on N. Hamilton and 161                         | CC-19022   | 2.21            |
| Caliber Collision on Bolton Field St                  | CC-18940   | 2.17            |
| Gas Station @ Bethel and Godown Rds                   | CC-19003   | 2.11            |
| Atcheson Place Lofts                                  | CC-18836   | 2.05            |
| Savvas Madison Commercial Development on E 17th       | CC-18774   | 2.04            |
| S. High St., from n/o Rumsey Rd. to s/o Southgate Dr. | E-3692     | 2.02            |
| Casey's General Store on Hamilton Rd.                 | CC-18795   | 2.00            |
| Sheetz 20 on Brice Road                               | CC-19048   | 1.99            |
| Brice Road and Tussing Road SI (Sheetz)               | 3744-E     | 1.99            |
| Starling Parking Garage on Capital St.                | CC-18961   | 1.98            |
| Lockbourne Greene                                     | CC-19055   | 1.94            |
| CHP/DHC Plant Smart Campus Project (OSU)              | CC-19110   | 1.94            |
| Confluence Village Park                               | CC-19025   | 1.92            |
| South Hamilton Road Retail Project                    | CC-18766   | 1.89            |
| Dodd Parking Garage, OSU                              | CC-18989   | 1.89            |
| Abbie Trails Storage on Gender Rd.                    | G&F        | 1.88            |
| Sheetz on N. Meadows BLVD                             | CC-19100   | 1.84            |
| Chelsea Glen Retail                                   | CC-18889   | 1.81            |
| Westerville Road (SR3) Morse Rd. Imps                 | FRA-3-22.9 | 1.81            |
| Hamilton Parker Phase 1                               | 3651-E     | 1.79            |
| All R Friends on Arlingate Lane                       | CC-19079   | 1.76            |
| Scioto Darby Preserve on SD, Executive Court          | CC-19057   | 1.75            |
| NCR-Bretton Woods on Cleveland Ave                    | CC-19049   | 1.74            |
| Meijer Gas #58 at 6155 Sawmill Road                   | CC-18885   | 1.72            |
| Tuttle Park on Oakland Ave                            | CC-19007   | 1.72            |
| Rickenbacker Intermodal San Extension                 | CC-18900   | 1.70            |
| Claycraft Road (453)                                  | CC-18909   | 1.68            |
| Chick-Fil-A on Park Center Circle                     | CC-18818   | 1.66            |
| NCR-Salem Village on E. Dublin Granville Rd           | CC-19068   | 1.60            |
| Heritage Point on Neil Ave                            | CC-19042   | 1.58            |
| Columbus Box Storage on New Market Center Way         | CC-19092   | 1.56            |
| Blue Sky Car Wash on W. Dublin Granville              | CC-19098   | 1.56            |
| Caldwell Automotive on Heaton Rd.                     | CC-18789   | 1.55            |
| CMHA Post Oak Station Early Learning Center           | CC-19114   | 1.54            |
| OSU Wexner Medical Center e/o Cannon Dr.              | CC-19064   | 1.52            |
| Scioto Peninsula Sanitary, Storm & Water Imp CIP      | CC-18187   | 1.50            |
| Grandview Crossing Offsite Imps                       | 3586-E     | 1.50            |

2020 SWP3 Construction Plans Reviewed

| Plan Name  | Plan #       | Acres<br>Disturbed |
|--|--------------|--------------------|
| Springhill Suites on Trabue and Rentra Dr.   | CC-18992     | 1.50               |
| AEP Morse Genoa Transmission Line  | AEP 1590     | 1.46               |
| SC Wash and Tan on Centennial Dr.  | 3720-E       | 1.44               |
| SC Wash and Tan on Centennial Dr.  | CC-18920     | 1.44               |
| OSU Newton Hall Renovation & Additions   | CC-18779     | 1.42               |
| OSU, Hess Road e/o Kenny   | CC-18915     | 1.36               |
| Delille Oxygen Co. on Marion Road  | CC-18985     | 1.36               |
| Scioto Peninsula Re development  | CC-18884     | 1.34               |
| Dollar Tree on Silver Drive  | CC-18978     | 1.34               |
| Improvements of Kingsford Road   | 3665-E       | 1.33               |
| Brooklyn Rd/Cleveland Ave. Home Sewage Treatment Systems Elimination<br>Project, CIP | CC-18519     | 1.33               |
| Grant Park Redevelopment Phase 4 at 1408 N. Grant                                    | CC-18897     | 1.30               |
| Gates Junction on West Broad   | CC-18962     | 1.30               |
| Mount Carmel Dev. Phase A on S. Hartford   | CC-18791     | 1.27               |
| Mount Carmel Dev. Phase A, 55 S. Hartford  | CC-18791     | 1.27               |
| Integrity Drive Trail Connector  | CC-18902     | 1.25               |
| Mango's Place New Albany off Albany Way Dr.  | G&F          | 1.15               |
| Smart Trucking Express LLC on Joyce Ave  | CC-19095     | 1.15               |
| Mangos Place- New Albany - Storm   | CC-18861     | 1.14               |
| Moo Moo Express Car Wash on E. Main St   | CC-19017     | 1.08               |
| Old Henderson Road (980)   | CC-18984     | 1.06               |
| East Fifth Ave (300) SI @ 5th and 6th St.  | 3738-E       | 1.05               |
| East Fifth Ave (300) @ 5th and 6th St.   | CC-19021     | 1.05               |
| Tire Discounters on Hilliard Rome Rd   | CC-19040     | 1.05               |
| Mount Carmel Dev. Phase B on S. Hartford Ave.  | CC-19072     | 1.05               |
| Westside Early Childhood LC on Clarendon   | 3730-E       | 1.04               |
| Kroger Fuel Center N593 on Morse Rd  | CC-18769     | 1.00               |
| Bank of America on W North Broadway  | 3675-E       | 1.00               |
| Warner Rd w/o Hamilton SI (Turkey Hill)  | 3680-E       | 1.00               |
| Warner Rd w/o Hamilton SI (Turkey Hill)  | 3680-E       | 1.00               |
| E. Broad, Kelton, E. Oak, Fra.Park S. SI   | 3657-E       | 1.00               |
| Chantry Drive SI   | 3686-E       | 1.00               |
| East 11th Ave SI w/o N. Pearl Alley  | 3638-E       | 1.00               |
| Chestershire Area Waterline Imps   | CT3122       | 1.00               |
| S. Hamilton Road Imps.   | 3689-E       | 1.00               |
| Refugee Rd at Winchester Pike Intersection Imps                                      | 3527-E       | 1.00               |
| Wendys on N. Hamilton Rd   | CC-18942     | 1.00               |
| Columbus Temple Renovation on Gateway Blvd   | CC-18977     | 1.00               |
| Sawmill Rd. SI on Banker Drive   | 3702-E       | 1.00               |
| Knightsbridge Blvd and Jasonway Street Lighting                                      | CIP-670853   | 1.00               |
| East Broad St Street Lighting Imps   | CIP-670851   | 1.00               |
| FRA-40-20.10 Main and Hamilton   | PID-110379   | 1.00               |
| Homestead Drive Area Waterline Imps  | Contract2129 | 1.00               |

2020 SWP3 Construction Plans Reviewed

| Plan Name   | Plan #            | Acres<br>Disturbed |
|---|-------------------|--------------------|
| Olentangy River Rd. over Linworth Run                                 | SHA-CR9-11.62     | 1.00               |
| Cable Barrier 161 Plain Twp and New Albany                            | FRA-161-18.63     | 1.00               |
| Huntington National Bank on Gemini Place                              | CC-19054          | 1.00               |
| Mock Road Area Waterline Imps   | CT 2127           | 1.00               |
| Barnett/E. Deshler Home Sewage TSEP                                   | CC-19050          | 1.00               |
| Edsel Ave. Area Water Line Imps                                       | CT-2128           | 1.00               |
| South Weyant Ave. Area Water Line Imps                                | CT-2121           | 1.00               |
| Tim Hortons Fishinger Road  | CC-18858          | 0.79               |
| St Fancis Telecommunication Tower- 4171 Dresden St                    | CC-18655          | 0.69               |
| Williams Road Storage Building, 2060-2062 Williams Road               | CC-18898          | 0.58               |
| Archer-Daniels-Midland Company 4260 Groves Road                       | CC-18848          | 0.58               |
| 1589 Georgesville Square Drive- Bank of America                       | CC-18879          | 0.31               |
| NCH Orthopedic Center Parking Lot Mods- 479 Parsons                   | CC-18807          | 0.30               |
| Kilbourne Street from Vine St. to Spruce St. Stage 1                  | A-1868            | 0.23               |
| Tim Hortons at 1135 Dublin Road                                       | CC-18866          | 0.23               |
| OSU Aerospace Research Center, 2300 W. Case Road                      | CC-18899          | 0.18               |
| Starling Parking Garage   | CC-18857          | 0.09               |
| 1360 McKinley Ave, -Geer Gas storm Improvements                       | CC-18817          | 0.02               |
| Lockbourne Rd Water Vault repair- DPU 690528-100003                   | DPU 690528-100003 | 0.01               |
| Hudson St. Utility Relocation, W. of I-71 ramp & w. of Cleveland Ave. | E-3635            | 0.01               |
| ODOT FRA/PEL 71-27.77 0.00 3661E                                      | 3661-E            | *                  |
| Operation Sidewalks School Sidewalks Task 2 Ann St & 17th St          | 3644-E            | *                  |
| Private Sanitary Sewers for Grandview Crossing, Grandview Heights     | CC-18283          | *                  |

2020 SWP3 Construction Site Inspections

| Project Name   | WS | Plan #        | # of visits |
|--|----|---------------|-------------|
| 2J Supply  | AC | CC-18604      | 8           |
| 3434 Livingston -The Livingston Branch library IMP           | AC | CC-18515      | 2           |
| 6450 Lasalle Drive- Building Expansion                       | BW | CC-18888      | 6           |
| Agler Road Imps  | AC | 3252-E        | 1           |
| Brentwood Lake Apts.   | BL | CC-18702      | 1           |
| CKTC Buddhist Temple/645 Rich                                | SC | CC-18746      | 1           |
| 1000 East Dublin Granville Rd Storage Facility               | AC | CC-18443      | 10          |
| 1110 N.Cassady   | AC | CC-18426      | 5           |
| 1282 Essex Avenue  | OL | CC-18546      | 7           |
| 1333 Fields Ave. - COTA                                      | SC | CC-18468      | 5           |
| 15th & High Building B                                       | OL | CC-18346      | 2           |
| 15th & High Phase 2 Detention #1                             | OL | CC-18154      | 2           |
| 15th & High Phase 2 Detention #2                             | OL | CC-18197      | 2           |
| 15th Avenue & High Street Redevelopment PH2                  | OL | 3451-E        | 6           |
| 172 East North Broadway                                      | OL | Single Family | 9           |
| 176 East Weber Road  | OL | Single Family | 4           |
| 2295 LOCKBOURNE ROAD LTD                                     | SC | No Plan       | 4           |
| 230 E.Long St. Apts  | SC | CC-18169      | 5           |
| 255 South High Street  | SC | CC-17688      | 14          |
| 265 State St.  | SC | CC-18131      | 1           |
| 271 & 275 E. Greenwood Ave & 264 E. 4th Ave                  | OL | Single Family | 3           |
| 2734 old coutright C&SG                                      | BW | CC-17978      | 1           |
| 281 & 287 E. Greenwood Ave. and 268 & 286 E. 4th Ave         | OL | Single Family | 3           |
| 2851 Lazar Road  | SC | No Plan       | 1           |
| 291 & 289 E. Greenwood Ave. and 288 & 294 E. 4th Ave. (rear) | OL | Single Family | 3           |
| 306 E. Fourth Ave  | OL | Single Family | 4           |
| 315 / Broadway / Olentangy / Ramps-Project 2                 | OL | 3439-E        | 6           |
| 315/Broadway/Olentangy/Ramps                                 | OL | 3402-E        | 5           |
| 3400 Morse Crossing - VSP                                    | AC | CC-17507      | 1           |
| 3600 Enterprise Avenue Addition                              | SC | CC-18202      | 5           |
| 3600 Johnny Appleseed ct                                     | AC | No Plan       | 3           |
| 361 Loeffler Ave   | SC | CC-18054      | 1           |
| 385 Clinton Heights Avenue                                   | OL | Single Family | 4           |
| 3905 Sullivant Avenue  | SC | CC-16883      | 11          |
| 3rd Avenue RR Bridge   | OL | 2931-E        | 8           |
| 4 X 5 Condominiums   | OL | CC-17883      | 4           |
| 40 West First Avenue Apartments                              | OL | CC-17972      | 7           |
| 43 @ New Albany  | BW | CC-18274      | 8           |
| 488 Reynolds Ave   | SC | Single Family | 4           |
| 500 West Broad Street  | SC | CC-17617      | 5           |
| 510 Sunbury Rd   | AC | CC-18657      | 10          |
| 525 N Nelson Rd  | AC | CC-18606      | 3           |

Legend for Watersheds: AC - Alum Creek, BD - Big Darby. BL - Blacklick Creek, BW - Big Walnut Creek, LW - Little Walnut Creek, OL - Olentangy River, RF - Rocky Fork Creek, SC - Scioto River

2020 SWP3 Construction Site Inspections

| Project Name   | WS | Plan #        | # of visits |
|--|----|---------------|-------------|
| 5509 Sunbury Rd - MYC                                | BW | CC-16855      | 10          |
| 579 E. Second Ave.                                   | SC | Single Family | 1           |
| 582 E. Second Ave.                                   | SC | Single Family | 1           |
| 583 E. Second Ave.                                   | SC | Single Family | 1           |
| 589 E. Second Ave.                                   | SC | Single Family | 1           |
| 593 E. Second Ave.                                   | SC | Single Family | 1           |
| 599 E. Second Ave.                                   | SC | Single Family | 1           |
| 5th and Forsythe - 1300 Forythe Ave                  | OL | CC-18436      | 7           |
| 6450 Lasalle Drive 6 dock Expansion                  | BW | CC-18039      | 2           |
| 707 W Broad Street Demolition                        | SC | No Plan       | 11          |
| 7189 East Broad St Job                               | BL | CC-18544      | 1           |
| 7280 Lehman Rd                                       | BL | CC-18782      | 1           |
| 800 N. High St.                                      | OL | CC-17837      | 2           |
| 818 E. Main St. - Turner Const. Temp. Parking Lot    | SC | CC-17637      | 1           |
| 840 Michigan Ave                                     | OL | CC-18215      | 1           |
| 85 N High Dev Imps of N High St, W Long St, W Gay St | SC | 3316-E        | 4           |
| 850 Harmon Avenue                                    | SC | No Plan       | 11          |
| 882 South Front Street                               | SC | CC-17534      | 8           |
| 92. N. Fifth St.                                     | SC | Single Family | 2           |
| 934 E Gay St   | SC | No Plan       | 1           |
| 95-113 E. 11th Ave.                                  | OL | CC-18678      | 1           |
| 96 N. Fifth St.                                      | SC | Single Family | 1           |
| 966 S. High St.-COLUMBUS MAENNERCHOR                 | SC | CC-18497      | 7           |
| AAA Gandview Avenue                                  | SC | CC-18125      | 13          |
| Abbey Church Village                                 | SC | CC-17421      | 1           |
| Abbott Nutrition Building                            | OL | CC-18373      | 3           |
| Acadia Healthcare                                    | BW | CC-17838      | 10          |
| AD Farrow Museum on West Broad (building permit)     | SC | No Plan       | 6           |
| Addison Woods  | SC | CC-17686      | 4           |
| AEP Car IR Building                                  | SC | CC-18176      | 1           |
| AEP Karl Road Station                                | AC | CC-18348      | 2           |
| AEP Old Morrison                                     | BW | G&F           | 1           |
| AEP Old Morrison Stream Mitigation                   | BW | CC-18307      | 1           |
| AEP Transmission Service Center                      | BW | CC-18211      | 11          |
| Aglor/Berrell Blueprint Linden Project CIP           | AC | CC-18427      | 2           |
| Airport Hilton Tru                                   | AC | CC-18088      | 10          |
| Airside IV   | BW | CC-18085      | 12          |
| Al Bordelon Truck Lot- 850 Frank                     | SC | No Plan       | 10          |
| Aldi Store # 10                                      | BW | C-18792       | 2           |
| Alkire Run 2   | BR | 4463-D        | 3           |
| All Trucks - Jatinder Bhangu Site                    | SC | CC-18603      | 4           |
| All Trucks - Jatinder Bhangu Site In Active          | SC | No Plan       | 7           |

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2020 SWP3 Construction Site Inspections

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|--|-------|---------------|-------------|
| Aloft Hotel - 1295 Olentangy River Road    | OL    | CC-18003      | 5           |
| Alta Drive SI to Park Road                 | AC    | 3501-E        | 2           |
| Alta Drive Storage Ph. 1 & 2               | AC    | CC-18950      | 1           |
| Alta View Village                          | OL    | 2180-E        | 5           |
| Alum Creek Dr@ Rohr Rd Imp                 | AC    | E-3618        | 2           |
| Alum Creek Subtrunk                        | AC    | CC-16802      | 2           |
| Alum Creek Topsoil                         | AC    | NA            | 1           |
| Alum Creek Trail Pedestrian/Bike Crossings | AC    | 3469-E        | 5           |
| Alum Creek Trail Shepard Connector         | AC    | CC-18077      | 5           |
| Am Add New Build Lots - Redevelopment      | AC    | Single Family | 7           |
| Amberfield @ Big Walnut (Sect. 1)          | BW    | 4396-D,4436-D | 4           |
| Amerasource Bergen                         | BW    | CC-18692      | 10          |
| Amerco U-Haul Northland                    | OL    | CC-18333      | 10          |
| American Leak Detection                    | SC    | CC-18325      | 11          |
| American Self Storage                      | BL    | CC-17459      | 8           |
| Andrew Reserve CC-18926                    | RF    | CC-18926      | 2           |
| Arcadia Drive Area WL Imp.                 | OL    | DOW - CIP     | 5           |
| Arco Shook Rd.                             | BW    | CC-18509      | 12          |
| Art Van Outparcel                          | AC    | CC-18163      | 3           |
| Arts & College Prep Academy                | BW    | CC-18222      | 6           |
| Ashton Point Section 2                     | SC    | CC-18438      | 15          |
| ASR Hamilton Morse to 161 contract 1       | BW    | 3228-E        | 6           |
| ASR Hamilton Morse to 161 contract 2       | BW    | 3271-E        | 4           |
| Atcheson Place Lofts                       | SC    | CC-18836      | 3           |
| Audubon Park                               | AC    | CC-18042      | 2           |
| Austin Place Extended Stay                 | SC    | CC-17770      | 17          |
| Auto Body on East Broad                    | BL    | CC-18179      | 9           |
| AutoZone Columbus OH6089 1745 Morse Rd     | AC    | CC-18719      | 6           |
| Avant Dr & Harlem Rd SI                    | RF    | 3479-E        | 11          |
| Avant Homes - Harlem Rd                    | RF    | CC-18037      | 11          |
| Avery Road Imp                             | SC    | 3554-E        | 10          |
| Bank of America Gahanna                    | BW    | CC-18636      | 2           |
| Bank of America Hilliard                   | SC    | CC-18676      | 2           |
| Basinghall Road Imp                        | SC    | 3679-E        | 3           |
| Battelle Hotel on East 5th                 | OL    | CC-18354      | 6           |
| Baxter House                               | BW    | CC-18759      | 4           |
| Baywood Hotel & Suites                     | AC    | CC-18221      | 9           |
| Bedford Place Phase 1 & 2                  | DY-BL | CC-14694      | 10          |
| Belmont House                              | SC    | CC-18052      | 7           |
| Bethany Baptist Church                     | OL    | CC-17928      | 8           |
| Big Walnut Augmentation Rickenbacker       | BW    | CC-15311      | 7           |
| Big Walnut Trail                           | BW    | CC-18458      | 2           |

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2020 SWP3 Construction Site Inspections

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|--|----|-----------|-------------|
| Bishop Watterson H.S. Field Renovation       | OL | CC-18347  | 4           |
| Blue Hippo- carwash                          | BL | CC-18496  | 12          |
| Bob Boyd                                     | OL | CC-18517  | 3           |
| Bob Evans Restaurants                        | AC | CC-18445  | 4           |
| Boys & Girls Clubs, 012 Cleveland Ave.       | OL | CC-18730  | 2           |
| Branch Library                               | AC | CC-18515  | 2           |
| Brentwood Lake Apartments                    | BL | CC-18702  | 6           |
| Brice Station@ Americana Pkwy                | BL | CC-18476  | 12          |
| Broadview North Apts.                        | OL | CC-18521  | 1           |
| Brook Lane Extended Stay Hotel               | SC | CC-17716  | 12          |
| Brook Lane II                                | BD | CC-18683  | 11          |
| Bryden Row                                   | SC | CC-17866  | 8           |
| Bubbly Center                                | BW | CC-18798  | 2           |
| Budd Dairy on East 4th Avenue                | OL | CC-18026  | 7           |
| Burger King Winchester Pike                  | BW | CC-18607  | 8           |
| Caldera House Columbus Pike                  | OL | CC-18245  | 4           |
| Caldwell Automotive                          | AC | CC-18789  | 6           |
| Camden Yard                                  | SC | SC/G&F    | 6           |
| Campus PARC on Kinnear Rd. (1121)            | OL | CC-18800  | 1           |
| Candlelite Lane Development                  | AC | CC-18107  | 13          |
| Candlelite Lane SI                           | AC | 3504-E    | 6           |
| Canopy Hotel                                 | SC | CC-17670  | 1           |
| Capital KIA - 3445 Morse Rd.                 | AC | CC-18528  | 7           |
| Cargominium Dev.                             | AC | CC-17505  | 9           |
| Carpenters Local Union 1909 Arlingate Lane   | SC | CC-18473  | 11          |
| Carr Supply                                  | AC | CC-18489  | 9           |
| Central College and Harlem Road              | RF | 3254-E    | 6           |
| Central College Condos                       | RF | CC-17933  | 9           |
| Central Sterile Supply Sanitary              | OL | CC-18381  | 8           |
| Central Sterile Supply Water Service         | OL | WL Plan   | 1           |
| Certified Oil #491 at 5865 South High Street | SC | CC-18276  | 12          |
| Certified Oil Gas Station on Ikea            | AC | CC-18216  | 4           |
| Chambers Road (1145)                         | OL | CC-18765  | 1           |
| Chambers Road Apartments                     | OL | CC-17 411 | 1           |
| Champions Golf Course                        | AC | CC-18317  | 8           |
| Chatterton Rd Improvement                    | LW | 3540-E    | 2           |
| Chelsea Glen Commercial Parcels              | GC | CC-14626  | 8           |
| Chelsea Glen Retail 2                        | BL | CC-18889  | 1           |
| Chemical Abstracts Services PL Exp           | OL | CC-18389  | 4           |
| Chili's - 5990 N. Hamilton Rd.               | RF | CC-18423  | 5           |
| Chilis Gemini Place- Polaris                 | AC | CC-18424  | 4           |
| Chipolte S. Hamilton                         | BW | CC-18917  | 1           |

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## 2020 SWP3 Construction Site Inspections

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|---|----|------------|-------------|
| Chipotle on South High St                             | SC | CC-18734   | 3           |
| Christian Center Resto                                | AC | CC-14451   | 1           |
| Civitas Ave Si  | SC | 3603-E     | 6           |
| Cleveland Ave. Apts.                                  | SC | CC-18224   | 5           |
| Cloumbis Gas Work on W. Fifth Ave                     | OL | NA         | 2           |
| CMHA Ohio Townhomes on Brentnell                      | AC | CC-18210   | 8           |
| CN Express  | SC | CC-18149   | 11          |
| Cobbleton   | BL | CC-13202   | 2           |
| COC Traffic Signal System - Danbert                   | OL | 3450-E     | 1           |
| Coca Cola   | AC | CC-15823   | 7           |
| COF Academy   | AC | CC-18219   | 2           |
| College Road Infrastructure                           | OL | ENGIE Plan | 6           |
| Collins Dr Si   | AC | E-3614     | 2           |
| Columbus Country Club                                 | BW | CC-18786   | 8           |
| Columbus Crew MLS Stadium                             | OL | CC-18646   | 20          |
| Columbus Gas Work on W. Fifth Ave                     | OL | NA         | 1           |
| Columbus Metropolitan Library Hilltop Branch Addition | SC | CC-18724   | 5           |
| Columbus Space  | BW | CC-17257   | 1           |
| Comfort Suites on Hutchinson Avenue                   | OL | CC-18191   | 10          |
| Confluence Park Si                                    | OL | 3630-E     | 6           |
| CONRAC - JGIA   | BW | CC-17987   | 11          |
| Consummer SquareEast                                  | BL | CC-18133   | 13          |
| Cornerstone Village                                   | SC | CC-18876   | 1           |
| COTA Fields Ave Facility Reno                         | OL | CC-18468   | 1           |
| Cottages At Warner                                    | RF | CC-17624   | 1           |
| Courtyards at Riverside Drive                         | SC | CC-18365   | 12          |
| Cover My Meds   | SC | CC-18400   | 13          |
| Creeside Place  | AC | CC-18806   | 7           |
| Cremation Center                                      | AC | CC-18405   | 1           |
| Crescent Run  | BR | CC-17412   | 10          |
| Cretor Plumbing                                       | BL | CC-18331   | 9           |
| Crew Practice Facility                                | OL | CC-18728   | 2           |
| Crossing at Grove City Apartments                     | SC | CC-18059   | 16          |
| Crossings at Rocky Fork, Section 1                    | BW | 3464-E     | 11          |
| Crossings at Rocky Fork, Section 2 & 3                | BW | 3541-E     | 11          |
| Crown Pointe  | SC | CC-18853   | 1           |
| CSCC School of Hosp. Mgmt. & C. Art                   | SC | CC-18008   | 2           |
| DCM7 Delivery Station                                 | OL | CC-18991   | 2           |
| Dellie Oxygen Co.                                     | SC | CC-18985   | 2           |
| Demorest Townhomes                                    | BR | CC-18682   | 1           |
| Dennis Hyundai  | OL | CC-18518   | 3           |
| Dennis Koon Office Building                           | BW | CC-18249   | 9           |

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|---|----|-----------|-------------|
| Dent Solutions                              | BW | CC-17014  | 1           |
| Dixon House                                 | SC | CC-18727  | 10          |
| Dollar General                              | AC | CC-18641  | 1           |
| Dollar Tree on Silver Drive (2391)          | OL | CC-18978  | 1           |
| Dorchester Section 5 with 4 & 2             | BL | 3393-E    | 15          |
| Dormatory Dev. - Norwich (200) Multi-Family | OL | CC-17804  | 4           |
| Dorothis Pond                               | BL | CC-13037  | 2           |
| DPS Material Storage on East 25th           | AC | CC-18269  | 8           |
| Drury Inn & Suites Polaris                  | AC | CC-18068  | 10          |
| Dublin Granville Rd CIP                     | RF | 3449-E    | 6           |
| Dublin Road & Old Dublin Road Street Imp.   | SC | 3372-E    | 4           |
| Dublin Road Water Plant                     | SC | CC-17806  | 12          |
| E. 11th Ave Improvements                    | OL | 3638-E    | 1           |
| E. Broad St. (750) Mixed Use                | SC | CC-18666  | 1           |
| E. Broad St. Improvement - Richmond Reserve | BL | 3620-E    | 2           |
| E. Fifth Ave (307 E.)                       | OL | CC-17823  | 2           |
| E. Hubbard & Pearl                          | OL | 3432-E    | 5           |
| E. Long, Neilston St, E. Lafayette SI       | SC | 3609-E    | 5           |
| E. Long,N. 5th, Lafayette, & Neilston SI    | SC | 3495-E    | 5           |
| E. Park, Spruce & Armstrong SI              | SC | 3409-E    | 2           |
| E.Long St. 818                              | SC | CC-18500  | 7           |
| E.Main St & S. Ashburton Rd                 | AC | E-3617    | 2           |
| E.Main St. & James rd                       | AC | E-3427    | 1           |
| Eagle Trace                                 | BW | CC-17730  | 12          |
| Eagle Trace, Section 1 & 2 (Mass Ex.)       | BW | CC-17717  | 12          |
| Earl Ave                                    | AC | CC-18796  | 1           |
| East Block Residential @ Easton TC, Phase 3 | BW | CC-18697  | 7           |
| East Fifth Avenue Retail Buildings A & B    | SC | CC-18293  | 3           |
| East Landings Sect 1 Parts 1&2              | BW | 2022-E    | 3           |
| East Main St Decorative Light impro         | AC | "13E0220" | 4           |
| East Parking lot at 525 Sunbury             | AC | CC-18956  | 6           |
| East State Street (265)                     | SC | CC-18131  | 10          |
| East State Street (265) SI                  | SC | 3493-E    | 10          |
| Easton Loop SI                              | BW | 3460-E    | 8           |
| Easton Square Place                         | BW | CC-18555  | 4           |
| Easton TC - Aloft Hotel                     | BW | CC-18384  | 8           |
| Easton TC PH3                               | BW | cc-18010  | 9           |
| Easton TC PH3 (Parcel 30)                   | BW | CC-18501  | 10          |
| Easton TC PH3 Mid-Town                      | BW | CC-18259  | 5           |
| Eastpointe Church on Waggoner               | BL | CC-18247  | 8           |
| Eastwood,Broad Woodland SI                  | AC | E-3472    | 1           |
| Emanuel Chin Baptist Church                 | BR | CC-17548  | 1           |

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|---|----|-------------------|-------------|
| Emanuel Chin Baptist Church Phase 2           | BD | CC-18929          | 2           |
| Emerson Park                                  | RF | CC-17426          | 10          |
| Enterprise Rent-A-Car                         | OL | CC-18712          | 6           |
| Enviro-Recycling - Bonham Av                  | OL | SWP3/CC-18416     | 7           |
| FAI-CR7-1.57 (Refugee Road)                   | BL | 3270-E            | 7           |
| Fairfield County - Refugee Road               | BL | FAI- 1.57         | 7           |
| Fairfield Inn                                 | BW | CC-18153          | 7           |
| Fairway Blvd. Condos                          | BW | CC-17898          | 9           |
| Fenimore on Central College                   | BW | CC-17939          | 5           |
| Fields Ave SI                                 | SC | 3595-E            | 2           |
| Fine Line Auto Body                           | SC | CC-18466          | 10          |
| Fire Station #35                              | BL | CC-15193          | 7           |
| First Community Church North Campus           | SC | CC-17849          | 5           |
| Five14 Church                                 | BW | CC-18232          | 7           |
| Food Fort                                     | AC | CC-18257          | 3           |
| Former Columbia Gas Work (W. 5th Ave.)        | OL | NA                | 1           |
| Forsythe, Highland and Alleys SI              | OL | 3614-E            | 7           |
| Founders Park Mass Grade & Fill               | OL | CC-18305          | 2           |
| Founders Park Storm                           | OL | CC-18332          | 8           |
| Fourth and Hamlet Condo                       | OL | CC-18492          | 6           |
| FRA 315-06.37 SR315 Offsite SCPZ M.           | OL | CC-18439          | 2           |
| FRA -71 21.26 Ramp to Silver Dr. @ Hudson Dr. | AC | 3549-E            | 1           |
| FRA Johnstown Rd Alum Creek Trail             | AC | 3438-E / P&R SWP3 | 4           |
| Franklin County Correction Facility           | SC | CC-17794          | 15          |
| Franklin County Forensic Science Center       | SC | CC-18113          | 16          |
| Franklin Medical Center                       | SC | CC-18087          | 3           |
| Franklin Park Cascades                        | AC | CC-18523          | 2           |
| Franklin, The on East Broad                   | AC | CC-18023          | 4           |
| Friendship Village                            | SC | CC-17799          | 2           |
| Frito-Lay Parking on Broughton                | BL | CC-18336          | 8           |
| Fruit of the Spirit SDA Church                | AC | CC-17327          | 10          |
| Gantz Road Storage Facility                   | SC | CC-18252          | 14          |
| Gateway Lofts                                 | SC | CC-17643          | 12          |
| GCCC Parking Garage Exp.                      | OL | CC-18255          | 1           |
|   | SC | CC-18255          | 5           |
| Gemini Place @ Costco                         | AC | 3482-E            | 1           |
| Gender Road Apartments                        | BW | CC-18735          | 2           |
| Gender Road Public Storage                    | BW | CC-17753          | 12          |
| Generations Pass & Edgar Waldo Way            | OL | 3510-E            | 6           |
| Germain Mazda on Morse                        | BW | CC-18714          | 2           |
| GiGi's Dog Shelter part 1                     | GC | CC-17941          | 1           |
| GiGi's Expansion                              | BW | CC-18538          | 12          |

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|--|----|---------------|-------------|
| Graceland Flats                                  | OL | CC-17422      | 10          |
| Graduate Columbus - 750 N. High St               | OL | CC-18082      | 2           |
| Grandview Crossing                               | SC | CC-18315      | 14          |
| Grandview Heights Service Center                 | SC | CC-18235      | 13          |
| Grant Apts                                       | SC | CC-18715      | 2           |
| Grant Park Houses (Indiv Lots)                   | OL | Single Family | 4           |
| Grant Park Redev., Ph. 2                         | OL | CC-18495      | 9           |
| Grant Park Redev., Ph. 3                         | OL | CC-17948      | 9           |
| Grant Park Redev., Ph. 4                         | OL | CC-18672      | 9           |
| Grant Park Redev., Ph. 4 - East                  | OL | CC-18897      | 1           |
| Grant Park Redevelopment                         | OL | G & F         | 8           |
| Grant,Oak ,Capital SI                            | SC | E-3656        | 2           |
| Gravity 2  | SC | CC-18548      | 6           |
| Gray Gables Realty, 1519-1523 Olentangy River Rd | OL | CC-18643      | 1           |
| Groveport logistics Hub                          | WC | CC-18186      | 13          |
| Hamilton @ Central College                       | BW | 3431-E        | 7           |
| Hamilton and Briarwood Ave. Imp                  | AC | 3623-E        | 2           |
| Hamilton Avenue Imp                              | AC | 3611-E        | 1           |
| Hamilton Parker Development on Vine St           | SC | CC-18663      | 7           |
| Hamilton Qtr Flats (Phase 1)                     | BW | CC-17440      | 12          |
| Hamilton Qtr Flats (Phase 2 -san)                | BW | CC-18308      | 8           |
| Hamilton Qtr Flats Sub Area 6 - Mass Excav       | RF | CC-18135      | 7           |
| Hamilton Qtr Retail/Target - Mass Excav          | RF | CC-18166      | 13          |
| Hamilton Qtr Retail/Target - Sanitary            | RF | CC-18174      | 7           |
| Hamilton Qtr Retail/Target - Storm               | RF | CC-18220      | 10          |
| Hamilton Quarter - Area Basin 100 G&F            | RF | SC16670-00002 | 11          |
| Hamilton Quarter FSED                            | RF | CC-17757      | 8           |
| Hamilton Quarter Outparcels                      | BW | CC-18447      | 7           |
| Hamilton Rd                                      | BL | E-3303        | 1           |
| Hamilton Road @ 161 SI                           | BW | 3560-E        | 4           |
| Harlow   | SC | CC-18226      | 10          |
| Harlow - Street Improvements                     | SC | 3517-E        | 2           |
| Hayden Run Aerial Sewer                          | SC | CC-18340      | 7           |
| Hayden Run Retail                                | SC | CC-18677      | 2           |
| HCWP Concrete Rehab                              | BW | Secured       | 1           |
| HCWP Standby Power Best Management Practices     | BW | Secured       | 4           |
| Healthy Community Way Slyn Run                   | OL | CC-18143      | 9           |
| Healthy Eating Dining                            | BW | CC-18798      | 4           |
| Healthy Pets                                     | SC | CC-18659      | 2           |
| Henderson Road Residences                        | SC | CC-18074      | 8           |
| Hensel Ready Mix                                 | BW | CC-16853      | 10          |
| Hilton Garden Inn (4831 Sunbury Rd)              | AC | CC-18360      | 8           |

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|--|----|-------------|-------------|
| Hilton Home 2  | SC | CC-18120    | 12          |
| Hilton Hotel 2.0   | SC | CC-18675    | 2           |
| Homestead Senior Living  | BL | E-3733      | 1           |
| Hoover Farms Grade and Fill                                    | BW | G & F       | 6           |
| Hoover Farms Section 2-F                                       | BW | 19670-00009 | 6           |
| HQ Casey's General Store                                       | BW | CC-18795    | 4           |
| HQ Spec Office CC-18796  | BW | CC-18796    | 7           |
| HQ Starbucks   | BW | CC-18913    | 4           |
| Hugh White Honda   | SC | CC-18380    | 12          |
| Hunters Glen Section 1   | LW | 3301-E      | 9           |
| Hunters Glen Section 2   | LW | 3435-E      | 9           |
| Hyatt Place on Polaris Parkway                                 | AC | CC-18178    | 10          |
| Imps N High St Ph3 (W Starr to W. King)                        | SC | 3385-E      | 5           |
| Imps N High St Phase 4 (Short North SID PH4 - King to 9th Ave) | SC | 3327-E      | 5           |
| Imps of Medina Ave from Hudson to Briarwood                    | OL | 3570-E      | 1           |
| Indian Mound Community Center                                  | SC | CC-18030    | 12          |
| Indianola Avenue Redevelopment                                 | OL | CC-17601    | 1           |
| Ingleside Avenue (871)   | OL | CC-17656    | 4           |
| Inverness Place Imp.   | BW | E-3591      | 7           |
| James rd @ Livingston av                                       | AC | E-3500      | 1           |
| James Rd CIP   | BW | 2979-E      | 5           |
| Jaqueline N  | AC | CC-18288    | 8           |
| Jaqueline S  | AC | CC-18310    | 8           |
| Jeffrey Park MSMS Reconfiguration                              | SC | CC-18285    | 8           |
| Jeffrey Park PH 3  | SC | CC-16683    | 7           |
| Jeffrey Park Phase 8   | SC | CC-18372    | 7           |
| Jeffrey Park PT 2  | SC | 3155-E      | 5           |
| Jeffrey Phase IV   | SC | CC-16683    | 7           |
| Jeffrey Place VI & VII   | SC | CC-18652    | 7           |
| JP Morgan Chase  | BW | CC-18410    | 1           |
| Karl Road Library  | AC | CC-18680    | 7           |
| Kenlawn Place  | AC | CC-18696    | 6           |
| King-Lincoln Sl  | SC | E-3640      | 1           |
| Kingsmill Pkwy Det. Center                                     | OL | CC-18435    | 1           |
| Kinnear Rd Improvement   | OL | 3709-E      | 1           |
| KIPP School Athletic Field                                     | AC | CC-18096    | 2           |
| Kokosing CC Storage Building                                   | AC | CC-18240    | 7           |
| Kroger Fuel Center # 593 on Morse Rd                           | AC | CC-18769    | 10          |
| Lane Woods   | SC | CC-12360    | 10          |
| Laurel Healthcare  | BR | CC-18019    | 4           |
| Lazelle Road Ph. A   | OL | 3168-E      | 10          |
| Lazelle Road Ph. B   | OL | 3023-E      | 10          |

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## 2020 SWP3 Construction Site Inspections

| Project Name                                   | WS | Plan #        | # of visits |
|--|----|---------------|-------------|
| Lazelle Road Ph. C                             | AC | 3169-E        | 10          |
| Lee's RV Storage Addition                      | OL | CC-18295      | 4           |
| Legacy Village Homes on E Broad St             | AC | CC-17867      | 8           |
| Library Park Apartments on Oak                 | SC | CC-18318      | 9           |
| Library Park Sidewalks & Street                | SC | E-3547        | 3           |
| Lincoln at Pearl Apts. & Garage                | OL | CC-17965      | 7           |
| Linden Park Recreation Center                  | AC | CC-18392      | 10          |
| Linworth Baptist Church                        | OL | CC-18731      | 1           |
| Little Turtle Apartments                       | BW | CC-17937      | 12          |
| Little Turtle Condos                           | BW | CC-17868      | 11          |
| Little Turtle Golf Course and Fitness Facility | BW | CC-18078      | 11          |
| Livingston Ave CIP Phase B                     | AC | 3259-E        | 2           |
| Livingston Ave CIP Phase C                     | AC | 3442-E        | 3           |
| loeffler Ave. 361                              | AC | CC-18054      | 2           |
| Loefler Residence                              | AC | CC-18771      | 2           |
| Long & 3rd                                     | SC | CC-18242      | 7           |
| Luxe 23 on North High Street                   | OL | CC-18296      | 6           |
| Luxe 88  | OL | CC-18475      | 9           |
| Lyra Drive Extension Ph. 1 & 2                 | AC | CC-18736      | 1           |
| M Five Land PID 010 243275                     | BL | No Plan       | 1           |
| Magnolia Trace Apts.                           | BW | CC-18340      | 11          |
| Main Street IMP                                | BW | E-3304        | 1           |
| Marble Cliff Quarry Development                | SC | CC-18138      | 14          |
| Mark Walker Warehouse                          | SC | CC-18502      | 7           |
| Marsh Brook                                    | LW | CC-18422      | 8           |
| Masjid Oumar Al Parking Lot                    | BW | CC-15475      | 2           |
| Matan Building                                 | SC | CC-17357      | 13          |
| Mayfair  | RF | CC-17014      | 3           |
| MBI Columbus on Buckeye Park                   | AC | CC-18554      | 8           |
| McCord Middle School                           | OL | CC-18865      | 1           |
| McCutcheon Crossing (single Family)            | AC | Single Family | 8           |
| McDaniels Construction Inc. Office on Woodland | AC | CC-18630      | 5           |
| McDonalds on Harrisburg Pike                   | SC | CC-18098      | 4           |
| McNaughten-McKay 2255 Citygate                 | AC | CC-17585      | 2           |
| Meadows @ Shannon Lakes Sec. 1                 | BC | 4415-D        | 10          |
| Meadows @ Shannon Lakes Sec. 2 & 3             | BC | 4437-D        | 10          |
| Meijer Gas #058                                | SC | CC-18885      | 7           |
| Menards on Hilliard Rome                       | SC | CC-17856      | 15          |
| Metro Parks Marble Cliff Project               | SC | CC-18431      | 2           |
| Metropololitan House On Hamilton               | BW | CC-18742      | 2           |
| Mews 2 on Normandy                             | SC | CC-17705      | 5           |
| Michigan Avenue Apartments on Ingleside        | OL | CC-17923      | 1           |

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2020 SWP3 Construction Site Inspections

| Project Name  | WS | Plan #    | # of visits |
|---|----|-----------|-------------|
| Mid-city Electric Building addition 975 eastwind dr         | AC | No Plan   | 1           |
| Mike Baumann Plumbing Inc.                                  | SC | CC-18271  | 12          |
| Minks Express Eastland(Inactive)                            | BW | No Plan   | 1           |
| Moo Moo Carwash on S High                                   | SC | CC-18617  | 5           |
| Morgan East   | AC | CC-17987  | 8           |
| Morgan West   | AC | CC-17988  | 8           |
| Morse Rd and Sunbury Rd Imp                                 | AC | 3565-E    | 3           |
| Morse Rd East of Trellis                                    | BW | 3543-E    | 2           |
| Morse Rd FRA-CR317-4.96                                     | BW | FRA-CR317 | 5           |
| Morse Rd. AEP Station                                       | BW | CC-18201  | 9           |
| Morse Road Substation                                       | OL | CC-18184  | 1           |
| Motorist Topiary Park Housing                               | SC | 3445-E    | 9           |
| Motorists IS Topiary Park                                   | SC | CC-17980  | 9           |
| Mount Carmel East, NW Pl                                    | BL | CC-17372  | 14          |
| Mount Carmel East S. Property Line                          | BW | CC-18089  | 1           |
| Mount Carmel Renovations                                    | SC | CC-18218  | 11          |
| N. Fifth St. (E. Side)                                      | SC | 3629-E    | 1           |
| N. Fourth Dev. - 875 N. Fourth St.                          | SC | CC-17994  | 7           |
| N. High St. Improvements @ E. Tomkins SI                    | OL | 3601-E    | 1           |
| N. High St. Phase 2 (Short North SID PH2 - Poplar to Starr) | SC | 3384-E    | 5           |
| N.Harding @ E. Broad St                                     | AC | E-3511    | 2           |
| NACO  | BW | CC-17255  | 7           |
| Nationwide Blvd & Hocking St                                | SC | 3083-E    | 5           |
| Nationwide Blvd Imp   | SC | 3287-E    | 1           |
| NCH Behavioral Pavillion                                    | SC | CC-17650  | 9           |
| NCH Central Energy  | SC | CC-17645  | 9           |
| NCH Childcare Facility                                      | SC | CC-18111  | 13          |
| NCH Children's Crossroad Extension                          | SC | CC-17326  | 9           |
| NCH Conf Facility & Data Center                             | SC | CC-18099  | 3           |
| NCH Enabling Work   | SC | CC-17968  | 9           |
| NCH Hospital West Campus PL                                 | SC | CC-18164  | 9           |
| NCH lot E   | SC | CC-18629  | 1           |
| NCH Orthopedic Parking Lot                                  | SC | CC-18807  | 2           |
| NCH Research Bldn 4 & Purple Garage                         | SC | CC-18855  | 3           |
| Neilston Street & E Long Street Garage 2019                 | SC | CC-18481  | 5           |
| New Albany Rd West  | RF | 3180-E    | 1           |
| New Fire Station 16   | AC | CC-18326  | 10          |
| New Mason - Neruda Ave                                      | SC | CC-18238  | 7           |
| Noble & E. Main St  | AC | E-3517    | 1           |
| Noe Bixby Dump- Murphy Development & Conie                  | BL | No Plan   | 5           |
| Normandy Ave, N Sixth St, & Alley Improvements              | SC | 3370-E    | 5           |
| Normandy Residences   | SC | CC-18270  | 2           |

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2020 SWP3 Construction Site Inspections

| Project Name                                      | WS | Plan #        | # of visits |
|---|----|---------------|-------------|
| North Grove Single Family                         | SC | 4442-D        | 10          |
| North High Retail                                 | OL | CC-18367      | 4           |
| North High Street Imp                             | OL | 3590-E        | 4           |
| Northland Gate                                    | AC | CC-18764      | 5           |
| Norton Road @ Johnson Road                        | HB | 3399-E        | 5           |
| Oak & Wilson Residences                           | AC | CC-18781      | 1           |
| Oak St. (330)                                     | SC | CC-17437      | 10          |
| Oak St. Décor lighting                            | SC | E0220         | 1           |
| ODOT Roberts Road FSMF                            | SC | CC-18060      | 5           |
| OH Expo Cntr                                      | OL | CC-18550      | 1           |
| Ohio Brewing on East 2nd Ave.                     | SC | CC-18693      | 4           |
| Ohio CAT on Walcutt                               | SC | CC-18262      | 14          |
| Ohio Center Way Improvement                       | SC | 3550-E        | 1           |
| Ohio Expo Center - E. 17th (717)                  | OL | CC-18550      | 1           |
| Ohio Health Neuro Wellness Center                 | OL | CC-18193      | 9           |
| Old Hamilton Rd Improvements                      | BW | 3358-E        | 1           |
| Old Morrison Road Imps AEP                        | BW | 3508-E        | 6           |
| Olent. R R 24"Water Main                          | OL | DOW15-031     | 5           |
| Olentangy Meadows Drive                           | OL | 3522-E        | 4           |
| Olentangy Reserve Place                           | OL | 3426-E        | 4           |
| Olentangy River Rd at W. N. Broadway              | OL | 3401-E        | 9           |
| Olentangy Trail connector, Nationwide Blvd        | OL | CC-18723      | 1           |
| Olentangy Trail Imp                               | OL | 3485-E        | 3           |
| Optometry Clinic on Neil                          | OL | CC-18516      | 5           |
| OSHP Academy Security Imp.                        | AC | CC-18454      | 6           |
| OSU - Central Sterile Supply                      | OL | CC-18368      | 4           |
| OSU - Contractor Laydown Area 894 Woody Hayes Dr. | OL | CC-18846      | 1           |
| OSU - Frank Station Vet Clinic                    | OL | CC-18822      | 1           |
| OSU - MOB Hamilton Quarter                        | RF | SC18760-00010 | 13          |
| OSU - Ty Tucker Tennis Center                     | OL | CC-18640      | 9           |
| OSU - WMC RAF PH1                                 | RF | CC-18452      | 13          |
| OSU Advanced Materials                            | OL | CC-18084      | 6           |
| OSU Air Park Site Ph. 1                           | OL | CC-18385      | 10          |
| OSU Ambulatory Facility - Storm Demo/Grading      | OL | CC-18856      | 2           |
| OSU Area B Trailers (Cannon Dr.)                  | OL | CC-18706      | 8           |
| OSU Arts District                                 | OL | CC-18524      | 6           |
| OSU Arts District (site enabling)                 | OL | CC-18408      | 4           |
| OSU Cannon Dr. Entry Wall                         | OL | OSU Plan      | 6           |
| OSU Cannon Drive - SWP3                           | OL | CC-18287      | 9           |
| OSU Don Scott Airport                             | OL | CC-18483      | 5           |
| OSU East Hospital West wing                       | AC | CC-18165      | 8           |
| OSU Franklin County Extension Office              | OL | CC-18053      | 4           |

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2020 SWP3 Construction Site Inspections

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|---|----|----------|-------------|
| OSU INTERDISCIPLINARY Research Facility | OL | CC-18811 | 2           |
| OSU West Campus Infrastructure Phase 1  | OL | CC-18804 | 1           |
| OSU-Coffey Rd Sports center Improvement | OL | No Plan  | 1           |
| Otto Beatty                             | SC | CC-17032 | 12          |
| Panaera on Morse Road                   | AC | CC-18428 | 1           |
| Panera - 6120 Sawmill                   | OL | CC-18695 | 9           |
| Panera Bread on Orion                   | AC | CC-18616 | 9           |
| Park & Spruce Hotel                     | SC | CC-17809 | 5           |
| Parks Edge Condos                       | SC | CC-17226 | 9           |
| Parkside Section 1 on Uly Road          | BW | 3613-E   | 6           |
| Parkside Section 2 on Uly Road          | BW | 3678-E   | 6           |
| Patrick Square                          | BL | CC-17552 | 1           |
| Ped. Safety Impr. McGuffey & Duxberry   | OL | 3412-E   | 1           |
| Perry St. - W. 5th Ave                  | OL | 3561-E   | 8           |
| Phillips Farms CC-18887                 | BW | CC-18887 | 1           |
| Plaza at Hamilton Quarter               | BW | CC-18644 | 7           |
| Plaza on Norton Road                    | BR | CC-16733 | 9           |
| Pleasant View Middle School             | SC | CC-18890 | 3           |
| Poindexter Ph 3                         | AC | CC-17864 | 11          |
| Pointe at Polaris Ph. 2                 | AC | CC-18462 | 10          |
| Polaris Amphitheater Fill Site          | AC | CC-17441 | 11          |
| Polaris Amphitheater Site SI            | AC | CC-17744 | 9           |
| Polaris Independent Living Facility     | AC | CC-17709 | 10          |
| Polaris Parkway Rehabilitation          | AC | 3221-E   | 10          |
| Polaris Police Station                  | AC | CC-18124 | 10          |
| Postle Hall Expansion on Neil           | OL | CC-18006 | 4           |
| Prairie Township Sports Complex         | HB | CC-17186 | 14          |
| Preserve Crossing V                     | RF | CC-17894 | 1           |
| Preston Hollow Section 1 & 2            | RF | 3388-E   | 11          |
| Preston Hollow Section 3                | RF | 3506-E   | 11          |
| Preston Hollow Section 4                | RF | 3558-E   | 10          |
| Quarry Trails Development               | SC | CC-18431 | 2           |
| Rail court Global                       | BW | E-3573   | 1           |
| Rail Court South                        | BW | CC-18421 | 12          |
| Ravello                                 | SC | CC-18399 | 11          |
| Ravines @ McNaughton                    | BW | CC-13589 | 2           |
| Reach The - on Goodale Ph 2             | OL | CC-18215 | 11          |
| Refectory                               | OL | CC-18642 | 1           |
| Refugee Rd@ Fairwood Traffic signal     | SC | E-3408   | 1           |
| Renu Mechanical                         | AC | CC-18341 | 11          |
| Reserve @ Sawmill Ravine                | SC | CC-18268 | 3           |
| Residence Inn                           | BW | CC-18159 | 9           |

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|---|----|------------|-------------|
| Richmond Reserve                                | BL | CC-18544   | 7           |
| Rick West 2&3                                   | BW | CC-18467   | 13          |
| Rickenbacker Global Logistics park              | BW | CC-18825   | 1           |
| Rickenbacker Global logistics Park              | BW | E-3673     | 1           |
| Riggins Road Cardinal Self Storage              | SC | CC-18664   | 10          |
| Riverside Trail Apartments                      | LW | CC-18266   | 13          |
| RJP Enterprises                                 | AC | CC-15227   | 1           |
| Roadway Imps Creative Campus Ph 2               | SC | 3450-E     | 6           |
| Roberts Road Outpost                            | SC | CC-18539   | 15          |
| Rogue Fitness Parking Lot                       | SC | CC-17889   | 4           |
| Rogue Parking Lot                               | OL | CC-18783   | 1           |
| Rohr Rd @ Loves Truckstop SI                    | AC | E-3505     | 2           |
| S. 6th St.@E.State St.                          | SC | E-3548     | 1           |
| S. Hamilton Rd Retail                           | BW | CC-18766   | 1           |
| S. Hamilton SI                                  | BW | E-3689     | 2           |
| Saint Catherine Church                          | AC | CC-18322   | 9           |
| Sancus Blvd Imp                                 | AC | 3496-E     | 10          |
| Savor Grocery on Hamilton                       | BW | CC-17908   | 1           |
| Savor Motel                                     | BW | CC-17915   | 1           |
| Savvas Madison Commercial Development on E 17th | AC | CC-18774   | 1           |
| Saw cut - for utility work Spring St            | SC | NA         | 2           |
| Scarborough Blvd. Site                          | BW | No Plan    | 1           |
| Scholar House (CMHA)                            | AC | CC-18377   | 8           |
| Schugel Trucking                                | SC | CC-17561   | 8           |
| Scioto Communities on Obetz                     | SC | CC-17773   | 8           |
| Scioto Peninsula Hotel                          | SC | CC-18823   | 4           |
| Scioto Peninsula Office                         | SC | CC-18839   | 5           |
| Scioto Peninsula South Site                     | SC | No Plan    | 1           |
| Scioto Peninsula Storm & Water                  | SC | CC-18187   | 4           |
| Sears Holdings                                  | BW | CC-15185   | 1           |
| Sharbot Apartment                               | AC | CC-17892   | 10          |
| Shook Rd Imp.tyed with CC-18509                 | BW | E-3627     | 1           |
| Shrim Farm Way                                  | GC | E-2297     | 1           |
| Silver Area Water Line Impr.                    | AC | DOW 15-031 | 1           |
| Sinclair Road s/o Freeway Drive SI              | OL | 3544-E     | 10          |
| Sinclair Road SI                                | OL | 2913-E     | 7           |
| Slane Farms (Subarea "A-C")                     | RF | CC-16805   | 1           |
| Sophie Village At Abbie Trails                  | BL | 3699-E     | 2           |
| South Grant Ave Apartments at Oak               | SC | CC-18715   | 1           |
| South18th, Newton Street, & Stone Avenue        | SC | 3489-E     | 13          |
| Southerly Wastewater Treatment Plant            | SC | Secured    | 15          |
| Spangler Rd Condos                              | AC | CC-14204   | 1           |

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|--|----|----------|-------------|
| St. Francis Telecommunications Tower             | AC | CC-18655 | 10          |
| Starling Parking Garage                          | SC | CC-18857 | 1           |
| Station 324                                      | OL | CC-18102 | 1           |
| Steffens-Schultz                                 | BR | CC-18273 | 12          |
| Sterling Innovations Campus Imp                  | SC | CC-18121 | 6           |
| Straders Garden Center                           | BR | CC-17756 | 11          |
| Summerlyn 6                                      | BR | 3275-E   | 17          |
| Summit View Detention Basin                      | SC | CC-17971 | 1           |
| Sunbury Springs (5850-5866 Sunbury)              | BW | CC-18477 | 8           |
| Sunpark Apartments on Alta Drive                 | OL | CC-18182 | 2           |
| Supper Club on East 5th Avenue                   | OL | CC-18234 | 3           |
| Sussex Place 1                                   | SC | 4416-D   | 14          |
| Sussex Place 2                                   | SC | 2007-E   | 14          |
| Sussex Place 3                                   | SC | 3564-E   | 6           |
| Sweetwater                                       | SC | 3507-E   | 15          |
| Swensons New Albany                              | BW | CC-18491 | 4           |
| Swensons New Albany - SI                         | BW | 3616-E   | 4           |
| Teders Rental Properties                         | SC | CC-18649 | 4           |
| Telhio Credit Union                              | AC | No Plan  | 6           |
| Temple Israel                                    | AC | CC-18137 | 8           |
| Terrace Avenue & Broad Street Storm Improvements | SC | CC-16066 | 4           |
| The Aubrey                                       | SC | CC-18622 | 4           |
| The Aubrey SI Summit, E 5th, Alley, Francis Pl.  | SC | 3645-E   | 1           |
| The Avenue on Indianola                          | OL | CC-17601 | 8           |
| The Burk   | OL | CC-18556 | 2           |
| The Burk in Linworth                             | OL | CC-18605 | 8           |
| The Cove   | BW | E-3580   | 19          |
| The Edge at Polaris                              | AC | CC-18303 | 11          |
| The Gemma  | AC | CC-18158 | 8           |
| The Livingston                                   | SC | CC-18116 | 9           |
| The View on Pavey Square                         | OL | CC-17706 | 5           |
| Tim Hortons Fishinger Blvd                       | SC | CC-18858 | 6           |
| Tomkins Studios                                  | OL | CC-18470 | 5           |
| Tomkins Townhouses                               | OL | CC-18542 | 5           |
| Town Square Villages @ Shannon                   | BL | CC-13192 | 2           |
| Trabue Rd. Bridge FRA                            | SC | E-3380   | 14          |
| Traditions on East Broad                         | BW | CC-17572 | 10          |
| Trails at Chatterton East, Section 1             | LW | 2216-E   | 9           |
| Trails at Chatterton East, Section 1, Pt 2       | LW | E-3647   | 2           |
| Trautman Building                                | SC | CC-16692 | 12          |
| Trevcor Business Center                          | BW | CC-18079 | 8           |
| Trolley Barn                                     | AC | CC-18625 | 10          |

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|---|----|----------|-------------|
| Truenorth Shell Service Station at 8500 N. High | OL | CC-18541 | 4           |
| Truenorth Shell Service Station Bethel Road     | SC | CC-18469 | 3           |
| Truro Station (Joe Dirt)                        | BW | G&F      | 9           |
| Turkey Hill #724 on Stelzer                     | BW | CC-18506 | 2           |
| Turnberry Farms Section 8                       | BL | 3446-E   | 12          |
| Turnberry Farms Section 9                       | BL | CC-18737 | 1           |
| Twin Creeks Warehouse                           | SC | CC-18241 | 11          |
| Twin Valley Behavioral Health                   | SC | CC-18883 | 1           |
| Uni Car Lot on Harrisburg Pike                  | SC | CC-17743 | 3           |
| United Rentals                                  | SC | CC-18595 | 2           |
| University City                                 | OL | CC-18005 | 9           |
| UPS Employee Parking Lot                        | SC | CC-17566 | 16          |
| UPS Integrad                                    | SC | CC-18056 | 14          |
| UPS OHTRA 1                                     | SC | CC-17541 | 16          |
| UPS OHTRA 2                                     | SC | CC-17627 | 16          |
| UPS OHTRA Expansion                             | SC | CC-18309 | 16          |
| Utility work @ E. 5th Ave & Indianola Ave.      | SC | NA       | 1           |
| Victorian Grand Res.                            | OL | CC-18301 | 6           |
| Village @ Abbie Trails sec 4,5,6                | BL | 3195-E   | 11          |
| Village @ Abbie Trails sec 7,8                  | BL | 3371-E   | 12          |
| Village @ Abbie Trails Sec 9,10                 | BL | 3347-E   | 13          |
| Village @ Abbie Trails, Section 1               | BL | 4385-D   | 11          |
| Village @ Abbie Trails, Section 2               | BL | 4404-D   | 11          |
| Village @ Courtright Square                     | AC | CC-13438 | 2           |
| Villages of Shannon Green                       | BW | 3512-E   | 10          |
| Villas @ Swan Pointe                            | BW | CC-18632 | 13          |
| Villas at Castleton                             | SC | CC-18323 | 10          |
| W. Eleventh & Neil SI                           | OL | 3602-E   | 4           |
| W. Fifth Avenue (1319) Car Wash SI              | OL | 3604-E   | 1           |
| W. Goodale St. SI                               | OL | 3559-E   | 5           |
| W. Third Ave. Imp. (Luxe 23 on N. High St.)     | OL | 3545-E   | 6           |
| Walcutt Apartments                              | SC | CC-17913 | 2           |
| Walcutt Road Warehouse                          | SC | CC-18203 | 10          |
| Waldron & Civitas SI                            | SC | 3295-E   | 7           |
| Wall St., W. First, W. Price Improvements       | OL | 3443-E   | 7           |
| Walnut Woods                                    | BW | CC-18864 | 1           |
| Warehouse Parking Expansion off Williams        | BW | CC-18223 | 7           |
| Warner Rd PH 2                                  | RF | 2766-E   | 1           |
| Watpa Thavon                                    | BL | CC-17877 | 7           |
| Wendler Commons                                 | AC | CC-18609 | 3           |
| Wendys 5970 N Hamilton CC-18942                 | BW | CC-18308 | 2           |
| Wesley Woods PH 1 & 2                           | RF | CC-17254 | 6           |

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2020 SWP3 Construction Site Inspections

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|--------------------------------------|----|----------|-------------|
| West Albany Crossing                 | BW | CC-18364 | 5           |
| West Goodale (555)                   | OL | CC-18069 | 9           |
| West Goodale (555) Mass Grade & Fill | OL | CC-17990 | 10          |
| Westbelt Drive                       | SC | CC-17913 | 8           |
| Westerville Rd N/O Ferris            | AC | E-3562   | 4           |
| Wexner Med. Cntr. Imp. Grg.          | OL | CC-18432 | 8           |
| Wexner Med. Cntr. Inp. Tower         | OL | CC-18958 | 2           |
| Wheatland Crossing Ph I              | SC | CC-18419 | 13          |
| Wheatland Crossing Ph II             | SC | CC-18417 | 13          |
| Whispering Creek Apartments          | SC | CC-17920 | 13          |
| Whispering Creek Apartments SI       | SC | 3437-E   | 13          |
| White Castle / Goodale               | OL | CC-17990 | 1           |
| Windmill Pointe                      | SC | CC-18903 | 3           |
| Windsor Site - Dirt 4U, LLC          | AC | CC-18261 | 8           |
| Woodfield Park on Cassady Ave        | AC | CC-18671 | 9           |
| Woodlands Backyard Sports Dome       | SC | CC-18277 | 12          |
| Woodward Ave Detention Basin         | AC | CC-17471 | 6           |
| Woodward Ave San CIP 650570-100001   | AC | CC-17291 | 9           |
| Woodward Wildwood Woodnell Storm CIP | AC | CC-15722 | 9           |
| Worth Ave Easton Loop East           | BW | 3568-E   | 6           |
| Worthington Christian Ed Academy     | AC | CC-18083 | 8           |
| WOSU at 15th & High                  | OL | CC-18379 | 5           |
| ZTA New Facility on E. 15th Ave.     | OL | CC-18086 | 5           |

Legend for Watersheds: AC - Alum Creek, BD - Big Darby, BL - Blacklick Creek, BW - Big Walnut Creek, LW - Little Walnut Creek, OL - Olentangy River, RF - Rocky Fork Creek, SC - Scioto River

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| Drawing | Project Name   | Approval Date |
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| CC18676 | BANK OF AMERICA HILLIARD 1742 HILLIARD ROME ROAD                               | 1/9/2020      |
| CC18726 | DIXON HOUSE  | 1/9/2020      |
| CC18734 | CHIPOTLE RESTAURANT 3566 SOUTH HIGH STREET                                     | 1/13/2020     |
| E3228   | HAMILTON ROAD PHASE A CONTRACT 1 VIC/O MORSE ROAD                              | 1/13/2020     |
| E3271   | HAMILTON ROAD PHASE A - CONTRACT 2   | 1/13/2020     |
| E3639   | CASSADY AVENUE VIC/O AIRPORT DRIVE   | 1/14/2020     |
| CC18548 | GRAVITY 2.0  | 1/15/2020     |
| CC18685 | WESTSIDE ACADEMY 4330 CLIME ROAD   | 1/15/2020     |
| E3560   | NORTH HAMILTON ROAD VIC/O WARNER ROAD  | 1/17/2020     |
| CC18973 | ANDELYN  | 1/19/2020     |
| CC18614 | GAY STREET APARTMENTS  | 1/21/2020     |
| CC18626 | JP MORGAN CHASE BANK   | 1/21/2020     |
| CC18684 | BANK OF AMERICA  | 1/21/2020     |
| CC18618 | BENTON COMMONS (WESTERVILLE)   | 1/27/2020     |
| E3655   | SIXTH AVENUE SIDEWALKS UNIVERSITY DISTRICT                                     | 1/27/2020     |
| CC18192 | SEWER LINE EXTENSION AREAS 4B, 4C AND 13 18-019-CIP                            | 1/29/2020     |
| CC18613 | MEADOW GROVE ESTATES NORTH SECTIONS 4 & 5                                      | 1/29/2020     |
| CC18668 | THE COURTYARDS AT NEW ALBANY PHASE 2   | 1/29/2020     |
| CC18669 | HOOVER FARMS SUBTRUNK SEWER CIP 650016   | 1/29/2020     |
| CC18707 | SANITARY SEWER FOR POTH ROAD AND HAMILTON ROAD                                 | 1/29/2020     |
| CC18719 | AUTOZONE COLUMBUS OH6089   | 1/29/2020     |
| CC18673 | HOOVER FARMS SECTION 2 & 3   | 1/30/2020     |
| CC18725 | 361 LOEFFLER AVENUE  | 1/31/2020     |
| CC18727 | DIXON HOUSE  | 1/31/2020     |
| CC18738 | EMMANUEL CHIN BAPTIST CHURCH PHASE 2 (SUPERSEDED BY 18929)                     | 2/3/2020      |
| E3618   | ALUM CREEK DRIVE & ROHR ROAD   | 2/4/2020      |
| CC18675 | HILTON HOTEL 2.0   | 2/5/2020      |
| E3556   | CULVERT REPLACEMENT ON GODOWN ROAD   | 2/10/2020     |
| CC18683 | BROOK LANE II  | 2/12/2020     |
| CC18710 | GENDER ROAD APARTMENTS   | 2/12/2020     |
| CC18765 | 1145 CHAMBERS ROAD   | 2/12/2020     |
| CC18697 | EAST BLOCK RESIDENTIAL EASTON TOWN CENTER PHASE 3                              | 2/13/2020     |
| CC18739 | JIVA MED SPA   | 2/13/2020     |
| E3570   | MEDINA AVENUE  | 2/16/2020     |
| CC18458 | BIG WALNUT TRAIL   | 2/25/2020     |
| CC18659 | HEALTHY PETS 6488 HAYDEN RUN ROAD  | 2/26/2020     |
| CC18740 | METROPOLITAN HOUSE   | 2/26/2020     |
| E3317   | BARNETT RD, NORTH CHESTERFIELD RD, EAST NORTH BROADWAY, STEELE AVE, WICKLOW RD | 2/26/2020     |
| CC18645 | THE RESIDENCES AT BROWN'S FARM PHASES 1 & 2                                    | 2/27/2020     |
| CC18615 | ICON VILLAS AT MCNAUGHTEN  | 2/28/2020     |
| CC18666 | 750 EAST BROAD STREET DEVELOPMENT  | 2/28/2020     |
| CC18625 | TROLLEY BARN   | 2/29/2020     |
| E3672   | GALLOWAY ROAD AND HALL ROAD  | 3/3/2020      |
| CC18486 | INLAND PRODUCTS  | 3/5/2020      |
| CC18639 | 525 NORTH NELSON ROAD  | 3/5/2020      |
| CC18741 | ST. FRANCIS DESALES HIGH SCHOOL  | 3/5/2020      |
| CC18737 | TURNBERRY FARMS SECTION 9  | 3/6/2020      |
| E3477   | MORSE ROAD (FRA-CR17-4.96)   | 3/6/2020      |
| E3656   | SOUTH GRANT AVENUE, OAK STREET AND EAST CAPITAL STREET                         | 3/12/2020     |
| E3669   | TURNBERRY FARMS SECTION 9  | 3/12/2020     |
| E3642   | HOOVER FARMS SECTION 2 & 3   | 3/13/2020     |
| CC18054 | 361 LOEFFLER AVENUE  | 3/16/2020     |
| CC18701 | DEMAREST TOWNHOMES   | 3/16/2020     |
| CC18714 | GERMAIN MAZDA OF COLUMBUS 4330 MORSE ROAD                                      | 3/16/2020     |
| CC18715 | SOUTH GRANT AVENUE APARTMENTS  | 3/16/2020     |
| CC18751 | BAXTER HOUSE   | 3/16/2020     |
| CC18681 | 2882 LEWIS CENTRE WAY  | 3/18/2020     |
| CC18824 | LIVINGSTON AVENUE CULVERT REPAIR AND WATER LINE RELOCATION                     | 3/18/2020     |

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| E3594   | CHERRY BOTTOM ROAD (WEST SIDE)   | 3/19/2020 |
| A1858   | NEIGHBORHOOD SIDEWALK GAPS, NORTH LINDEN AND SOUTH LINDEN                        | 3/20/2020 |
| CC18682 | DEMOREST ROAD 1900 DEMOREST ROAD   | 3/20/2020 |
| CC18694 | 2235 SULLIVANT AVENUE PARKING LOT STORM INLET                                    | 3/20/2020 |
| CC18705 | 554 EAST MAIN STREET   | 3/20/2020 |
| CC18752 | HAMILTON PARKER DEVELOPMENT  | 3/20/2020 |
| CC18187 | SCIOTO PENINSULA SANITARY, STORM & WATER IMPROVEMENTS CIP 650885-100001 & 690236 | 3/23/2020 |
| CC18733 | BUTLER FARMS SECTION 4 & 5   | 3/23/2020 |
| E3653   | NORTH HARTFORD AVENUE VIC/O MCKINLEY AVENUE                                      | 3/24/2020 |
| CC18601 | HAMILTON PARKER DEVELOPMENT PHASE 1  | 3/27/2020 |
| CC18601 | HAMILTON PARKER DEVELOPMENT PHASE 2  | 3/27/2020 |
| E3630   | CONFLUENCE VILLAGE PUBLIC INFRASTRUCTURE   | 3/30/2020 |
| E3648   | NATIONWIDE BOULEVARD WIDENING  | 3/30/2020 |
| CC18721 | THE FARMS AT JEFFERSON PHASE 3,4 & 5   | 4/1/2020  |
| CC18783 | ROGUE PARKING LOT  | 4/3/2020  |
| CC18795 | CASEYS GENERAL STORE   | 4/3/2020  |
| CC18796 | HAMILTON QUARTER SPEC OFFICE   | 4/3/2020  |
| E3625   | MCNAUGHTEN ROAD  | 4/3/2020  |
| CC18696 | KENLAWN PLACE  | 4/7/2020  |
| CC18680 | KARL ROAD LIBRARY  | 4/9/2020  |
| CC18289 | GLOBAL HEATH SERVICES  | 4/14/2020 |
| CC18781 | OAK AND WILSON RESIDENTS 1284 EAST OAK STREET                                    | 4/14/2020 |
| CC18778 | PARKS EDGE PHASE 3   | 4/15/2020 |
| CC18812 | COLUMMBUS METROPOLITAN LIBRARY   | 4/15/2020 |
| E3641   | WEST BROAD STREET VIC/O HILLIARD-ROME ROAD                                       | 4/16/2020 |
| E3650   | DEMOREST ROAD & DEMOREST COVE COURT  | 4/16/2020 |
| E3564   | SUSSEX PLACE SECTION 3, PHASE 1 & 2  | 4/21/2020 |
| CC18528 | CAPITAL KIA  | 4/23/2020 |
| CC18657 | 510 SUNBURY ROAD   | 4/23/2020 |
| CC18828 | WEST STATE STREET SANITARY SEWER IMPROVEMENTS                                    | 4/24/2020 |
| CC18735 | GENDER ROAD APARTMENTS   | 4/26/2020 |
| CC18478 | TARLTON MEADOWS WEST SECTION 3 PHASE 2A & B SECTION 4 PHASE 2A & B               | 4/27/2020 |
| CC18758 | 27 WEST JENKINS AVENUE   | 4/27/2020 |
| CC18764 | NORTHLAND GATE   | 4/27/2020 |
| CC18787 | NATIONWIDE CHILDRENS HOSPITAL RESEARCH BUILDING 4                                | 4/27/2020 |
| CC18797 | BUILDING 4 (NEW ALBANY)  | 4/27/2020 |
| CC18816 | FIELDHOUSE USA 1400 POLARIS PARKWAY  | 4/27/2020 |
| CC18689 | CONFLUENCE VILLAGE PUBLIC INFRASTRUCTURE DPS PROJECT 440105-100000               | 4/28/2020 |
| CC18690 | CONFLUENCE VILLAGE   | 4/28/2020 |
| CC18699 | SANITARY SEWER IMPROVEMENT PLAN W. STATE STREET AND MCDOWELL CIP 440104-100036   | 4/28/2020 |
| CC18827 | SANITARY SEWER IMPROVEMENT FOR RUSH ALLEY  | 4/28/2020 |
| CC18527 | CAPITAL KIA  | 5/4/2020  |
| CC18677 | HAYDEN RUN RETAIL  | 5/4/2020  |
| CC18777 | PARKS EDGE PHASE 3   | 5/4/2020  |
| CC18817 | EASTGATE COMMERCIAL PARK   | 5/4/2020  |
| E3500   | JAMES ROAD AT LIVINGSTON AVENUE  | 5/5/2020  |
| E3638   | EAST 11TH AVENUE   | 5/7/2020  |
| CC18678 | 95-113 EAST 11TH AVENUE  | 5/8/2020  |
| CC18704 | OHIO STATE INTERDISCIPLINARY HEALTH SCIENCES CENTER 1645 NEIL AVENUE             | 5/8/2020  |
| CC18742 | METROPOLITAN HOUSE   | 5/8/2020  |
| CC18804 | WEST CAMPUS INFRASTRUCTURE PHASE 1   | 5/8/2020  |
| CC18825 | RICKENBACKER GLOBAL LOGISTICS PARK RAIL 1566                                     | 5/8/2020  |
| CC18838 | VALLEY INTERIORS OFFICE ADDITION   | 5/8/2020  |
| CC18691 | CENTURY ACRES PUMP STATION AND FORCE MAIN  | 5/12/2020 |
| CC18759 | BAXTER HOUSE   | 5/13/2020 |
| CC18814 | ANCHOR BAPTIST CHURCH  | 5/13/2020 |
| CC18603 | ALL TRUCKS INC.  | 5/15/2020 |
| CC18832 | HOOVER FARMS SECTION 4 PART 1  | 5/15/2020 |
| CC18832 | HOOVER FARMS SECTION 4 PART 2  | 5/15/2020 |
| CC18770 | WORTHINGTON GATEWAY SANITARY SEWER EXTENSION                                     | 5/19/2020 |

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| E3565   | MORSE ROAD AND SUNBURY ROAD   | 5/19/2020 |
| E3608   | LONG STREET AT JEFFERSON AVENUE   | 5/19/2020 |
| E3688   | HOOVER FARMS SECTION 4, PARTS 1&2   | 5/19/2020 |
| CC18821 | COVER MY MEDS PHASE 2   | 5/22/2020 |
| CC18427 | AGLER/BERRELL BLUEPRINT LINDEN PROJECT CIP 650870-100703                        | 5/27/2020 |
| CC18831 | ALUM CREEK DRIVE & TOY ROAD SANITARY  | 5/27/2020 |
| E3611   | HAMILTON AVENUE (WEST)  | 5/27/2020 |
| CC18776 | PARKSIDE SECTION2   | 5/29/2020 |
| CC18788 | NATIONWIDE CHILDRENS HOSPITAL RESEARCH BUILDING 4                               | 5/29/2020 |
| CC18806 | CREEKSIDE PLACE   | 5/29/2020 |
| CC18820 | CROWN POINTE  | 5/29/2020 |
| CC18826 | CREW TRAINING FACILITY  | 5/29/2020 |
| CC18431 | QUARRY TRAILS DEVELOPMENT PHASE 1   | 6/3/2020  |
| CC18724 | COLUMBUS METROPOLITAN LIBRARY HILLTOP BRANCH ADDITION                           | 6/3/2020  |
| CC18743 | UNI CAR LOT   | 6/3/2020  |
| CC18774 | SAVVAS MADISON  | 6/3/2020  |
| CC18789 | CALDWELL AUTOMOTIVE   | 6/3/2020  |
| CC18800 | CAMPUS PARC   | 6/3/2020  |
| CC18849 | WARD & BURKE TUNNELING 1899 REFUGEE ROAD  | 6/3/2020  |
| E3623   | HAMILTON AVENUE AND BRIARWOOD AVENUE  | 6/3/2020  |
| CC18728 | COLUMBUS CREW TRAINING FACILITY   | 6/5/2020  |
| CC17423 | BEVELHYMER ROAD CHURCH  | 6/10/2020 |
| CC18845 | FOUNDERS PARK   | 6/11/2020 |
| CC18860 | CORNERSTONE VILLAGE   | 6/11/2020 |
| CC18899 | OSU AEROSPACE RESEARCH CENTER   | 6/11/2020 |
| CC18822 | OSU FRANK STANTON VET CLINIC  | 6/12/2020 |
| CC17646 | BLUEPRINT LINDEN OAKLAND PARK/MEDINA CIP 650870-100702                          | 6/15/2020 |
| CC18529 | JACKSON PIKE WASTE WATER TREATMENT PLANT STORM IMPROVEMENTS CIP 650258-100001   | 6/15/2020 |
| CC18744 | FRANKLIN INTERNATIONAL POLY WEST 174 HOSACK STREET                              | 6/16/2020 |
| CC18807 | NCH ORTHOPEDIC CENTER PARKING LOT MODIFICATIONS                                 | 6/16/2020 |
| CC18877 | GEER GAS  | 6/16/2020 |
| CC18679 | DUBLIN REHABILITATION INSTITUTE   | 6/17/2020 |
| CC18731 | LINWORTH BAPTIST CHURCH   | 6/23/2020 |
| CC18801 | MASON ANTHONY TRAINING ACADEMY  | 6/23/2020 |
| CC18850 | INN AT LIBRARY WAY (HILLIARD)   | 6/23/2020 |
| CC18879 | BANK OF AMERICA 1580 GEORGESVILLE ROAD  | 6/24/2020 |
| CC18862 | BEECH & SMITH'S MILL ROAD FUTURE DEVELOPMENT                                    | 6/25/2020 |
| CC18892 | SITE J INNOVATION CAMPUS WAY WEST   | 6/25/2020 |
| CC17842 | ARTANE-PARKWOOD INTEGRATED SOLUTIONS CIP NO. 650870-100704                      | 6/29/2020 |
| E3627   | SHOOK ROAD  | 6/29/2020 |
| CC18808 | DUBLIN PARK COMPACTOR ENCLOSURE   | 7/6/2020  |
| CC18868 | COVER MY MEDS OFFICE DEVELOPMENT PHASE 2  | 7/7/2020  |
| E3654   | JOHN STREET   | 7/7/2020  |
| CC18803 | BROADWOOD APARTMENTS (WHITEHALL)  | 7/9/2020  |
| E3698   | KENNY ROAD (WEST SIDE)  | 7/9/2020  |
| CC18661 | P&W ROOFING   | 7/10/2020 |
| E3509   | WILSON AVENUE, WILLIAMS ROAD, SOUTH HIGH STREET                                 | 7/14/2020 |
| E3529   | OPERATION SAFEWALKS CELEBRATE ONE SIDEWALK HILLTOP BELVEDERE MOUND TO SULLIVANT | 7/14/2020 |
| CC18876 | CORNERSTONE VILLAGE   | 7/15/2020 |
| CC18772 | SANITARY SEWERS FOR AIRBASE ROAD MADISON TOWNSHIP, PICKAWAY COUNTY              | 7/16/2020 |
| CC18766 | SOUTH HAMILTON ROAD RETAIL PROJECT  | 7/20/2020 |
| CC18870 | GERMAIN 3867 MORSE ROAD   | 7/20/2020 |
| CC18871 | PHILLIPS FARM SECTIONS 1 & 2  | 7/20/2020 |
| CC18885 | MEIJER GAS #058   | 7/20/2020 |
| CC18888 | BUILDING ADDITION 6450 LASALLE DRIVE  | 7/20/2020 |
| CC18907 | PRIVATE STORM SEWER FOR 32*48 PARKWOOD AVENUE                                   | 7/20/2020 |
| CC18925 | GROVEPORT LOGISTICS HUB PHASE 2 1280 LONDON GROVEPORT ROAD                      | 7/20/2020 |
| CC18199 | LOWER OLENTANGY TUNNEL CIP 650724-100000  | 7/21/2020 |
| CC18813 | SITE J  | 7/21/2020 |
| E3709   | KINNEAR ROAD  | 7/21/2020 |

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| CC18324 | CONTROLLED ENVIRONMENT FOOD RESEARCH PRODUCTION COMPLEX                       | 7/27/2020 |
| CC18635 | CONTROLLED ENVIRONMENT FOOD RESEARCH PRODUCTION COMPLEX                       | 7/27/2020 |
| CC18736 | LYRA DRIVE EXTENSION PHASE 1  | 7/27/2020 |
| CC18809 | GROVE CITY VILLAS (BEULAH PARK)(GROVE CITY)                                   | 7/27/2020 |
| CC18810 | OSU AMBULATORY FACILITY   | 7/27/2020 |
| CC18836 | ATCHESON PLACE LOFTS  | 7/27/2020 |
| CC18869 | SHEETZ ALUM CREEK DRIVE AND TOY ROAD  | 7/27/2020 |
| CC18913 | HAMILTON QUARTER STARBUCKS  | 7/27/2020 |
| CC18670 | SALTZGABER ROAD IMPROVEMENTS  | 7/29/2020 |
| CC18864 | WALNUT WOODS SECTION 1 & 2  | 7/30/2020 |
| A1869   | HINES ROAD VIC/ REFUGEE ROAD  | 8/4/2020  |
| CC18865 | MCCORD MIDDLE SCHOOL 1500 HAED ROAD   | 8/4/2020  |
| CC18895 | SOPHIE VILLAGE PART 1 & 2   | 8/4/2020  |
| CC18929 | EMMANUEL CHIN BAPTIST CHURCH PHASE 2  | 8/4/2020  |
| CC18703 | QUARRY TRAILS DEVELOPMENT PHASE 1 AND METROPARK                               | 8/6/2020  |
| CC18769 | KROGER FUEL STATION N593  | 8/6/2020  |
| CC18811 | INTERDISCIPLINARY RESEARCH FACILITY   | 8/6/2020  |
| CC18852 | COLUMBUS CREW MLS STADIUM   | 8/6/2020  |
| CC18905 | VALVOLINE INSTANT OIL CHANGE 3911 SOUTH HAMILTON ROAD                         | 8/6/2020  |
| CC18953 | HANOVER PARK PHASE 1  | 8/6/2020  |
| E3612   | LEHMAN ROAD BRIDGE REPLACEMENT  | 8/6/2020  |
| CC18917 | CHIPOTLE 3870 SOUTH HAMILTON ROAD   | 8/7/2020  |
| E3678   | PARKSIDE SECTION 2  | 8/7/2020  |
| CC18270 | NORMANDY RESIDENCES   | 8/11/2020 |
| CC18931 | WALCUTT APRTMENTS 4875 ROBERTS ROAD   | 8/11/2020 |
| CC18830 | NAO 5/6 1500 BEECH ROAD   | 8/13/2020 |
| E3519   | NORMANDY AVENUE NORTH OF EAST GAY STREET AND EAST OF NORTH 5TH AVENUE         | 8/17/2020 |
| CC18718 | LEGACY MAINTENANCE SERVICES 2475 SCIOTO HARPER DRIVE                          | 8/24/2020 |
| CC18746 | CKTC BUDDHIST TEMPLE  | 8/24/2020 |
| CC18756 | SANITARY SEWER IMPROVEMENTS LEHMAN PARK                                       | 8/24/2020 |
| CC18857 | STARLING PARKING GARAGE   | 8/24/2020 |
| CC18859 | GRANDVIEW CROSSING  | 8/24/2020 |
| CC18883 | TWIN VALLEY BEHAVIORAL HEALTHCARE HOSPITAL                                    | 8/24/2020 |
| CC18887 | PHILLIPS FARM PHASE 1 & 2   | 8/24/2020 |
| CC18933 | SCHUMAN'S MEATS PARKING ADDITION  | 8/24/2020 |
| CC18936 | WALCUTT APARTMENTS  | 8/24/2020 |
| E3486   | FRA-70/71-12.68/14.86 PROJECT 4R  | 8/24/2020 |
| CC18858 | TIM HORTONS 3711 FISHINGER BLVD.  | 8/26/2020 |
| CC18898 | WILLIAMS ROAD STORAGE BUILDING  | 8/26/2020 |
| CC18956 | EAST PARKING LOT 525 NELSON ROAD  | 8/26/2020 |
| E3562   | WESTERVILLE ROAD (EAST SIDE)  | 8/26/2020 |
| E3701   | AMBERFIELD AT BIG WALNUT SECTION 3  | 8/28/2020 |
| CC18793 | 1050 NORTH 4TH STREET   | 8/31/2020 |
| CC18842 | PRAIRIE TOWNSHIP SPORTS COMPLEX PHASE 2                                       | 8/31/2020 |
| CC18853 | CROWN POINTE  | 8/31/2020 |
| CC18866 | TIM HORTONS 1135 DUBLIN ROAD  | 8/31/2020 |
| CC18882 | TWIN VALLEY BEHAVIORAL HEALTHCARE HOSPITAL REPLACEMENT 2200 WEST BROAD STREET | 8/31/2020 |
| CC18914 | COLUMBUS IMPOUND LOT  | 8/31/2020 |
| CC18949 | NEW ALBANY AMPHITHEATER SANITARY SEWER ABANDONMENT PLAN                       | 8/31/2020 |
| E3664   | TRABUE ROAD   | 8/31/2020 |
| CC18141 | REAL TIME CONTROL ALUM CREEK STORM TANK CIP 650009-100001                     | 9/1/2020  |
| CC18198 | WEST ALBANY CROSSING  | 9/1/2020  |
| CC18873 | OSU AMBULATORY FACILITY   | 9/3/2020  |
| CC18861 | MANGO'S PLACE NEW ALBANY  | 9/9/2020  |
| CC18890 | PLEASANT VIEW MIDDLE SCHOOL   | 9/9/2020  |
| CC18922 | TURNBERRY FARMS SECTION 10  | 9/9/2020  |
| CC18937 | NATIONWIDE CHILDRENS HOSPITAL TIMKEN PARKING LOT EXPANSION                    | 9/9/2020  |
| CC18941 | JOHN GLENN COLUMBUS INTERNATIONAL AIRPORT CONRAC                              | 9/9/2020  |
| CC18763 | SANITARY SEWER IMPROVEMENTS FOR BLUESTONE SUBDIVISION                         | 9/15/2020 |
| CC18840 | UNIVERSITY BOULEVARD PHASE 2  | 9/15/2020 |

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| CC18369 | ABBIE TRAILS SELF STORAGE  | 9/17/2020  |
| E3679   | BASINGHALL ROAD  | 9/17/2020  |
| E3481   | LYRA DRIVE EXTENSION PHASE 1   | 9/18/2020  |
| E3660   | HAYDEN RUN RD (EAST SIDE)  | 9/18/2020  |
| CC18780 | PRIVATE STORM SEWERS FOR 1521 HARRISBURG PIKE                                    | 9/21/2020  |
| CC18848 | ARCHERS-DANIELS-MIDLAND COMPANY  | 9/21/2020  |
| CC18856 | OSU AMBULATORY FACILITY  | 9/21/2020  |
| CC18896 | ORANGE BARREL MEDIA SURFACE PARKING 243 NORTH HARTFORD AVENUE                    | 9/21/2020  |
| CC18942 | WENDYS 5970 NORTH HAMILTON ROAD  | 9/21/2020  |
| CC18959 | 32-48 PARKWOOD AVENUE SANITARY SEWER ABANONMENT PLAN                             | 9/21/2020  |
| CC18985 | DELILLIE OXGEN COMPANY   | 9/21/2020  |
| E3696   | WALNUT WOODS SECTION 1 & 2   | 9/21/2020  |
| CC18713 | BEACON COMMUNITIES-FRANKLIN MANOR SANITARY SEWER IMPROVEMENTS WEST PARK AVE SEWE | 9/25/2020  |
| CC18958 | WEXNER MEDICAL CENTER INPATIENT TOWER PRE-GRADE                                  | 9/25/2020  |
| E3681   | MORSE ROAD (SOUTH SIDE) VIC/O SUNBURY ROAD                                       | 9/28/2020  |
| E3584   | MCKINLEY AVENUE AND SOUDER AVENUE  | 9/29/2020  |
| CC18459 | BUCKEYE AUTO TECH STORAGE LOT  | 9/30/2020  |
| CC18785 | SEEDS ROAD DEVELOPMENT   | 9/30/2020  |
| CC18966 | HIGH WATER ALLEY   | 9/30/2020  |
| CC18799 | AUTUMN GROVE SECTION 4 (GROVE CITY)  | 10/1/2020  |
| CC18847 | BRIARFIELD SANITARY SEWER IMPROVEMENT PLAN (JEFFERSON TOWNSHIP)                  | 10/1/2020  |
| CC18963 | THE FARMS AT JEFFERSON PHASE 6   | 10/1/2020  |
| CC18894 | OSU WMC OUTPATIENT CARE DUBLIN   | 10/2/2020  |
| CC18951 | TAYLOR ROAD CONDOMINIUMS AND APARTMENTS  | 10/2/2020  |
| CC18730 | BOYS & GIRLS CLUBS 1012 CLEVELAND AVENUE   | 10/6/2020  |
| CC18794 | THE OHIO STATE UNIVERSITY NEWTON HALL  | 10/6/2020  |
| CC18833 | THE OHIO STATE UNIVERSITY NEWTON HALL RENOVATION AND ADDITION                    | 10/6/2020  |
| CC18834 | 220 NORTH ALGONQUIN AVENUE   | 10/6/2020  |
| CC18846 | CONTRACTOR LAYDOWN AREA  | 10/6/2020  |
| CC18855 | NATIONWIDE CHILDRENS HOSPITAL RESEARCH BUILDING 4 & PURPLE GARAGE                | 10/6/2020  |
| CC18863 | RICKENBACKER INTERMODAL 24" SANITARY SEWER EXTENSION CIP 440116-100000           | 10/6/2020  |
| CC18904 | SANITARY SEWER EXTENSION FOR 2895 SOUTH HIGH STREET                              | 10/6/2020  |
| CC18930 | BLACKLICK CREEK TRUNK SEWER PART 2B  | 10/6/2020  |
| CC18952 | GRAVITY 2.0  | 10/6/2020  |
| CC18970 | 1775 HILLIARD ROME ROAD  | 10/6/2020  |
| CC18979 | HOMESTEAD SENIOR LIVING  | 10/6/2020  |
| CC18723 | OLENTANGY TRAIL ARENA DISTRICT CONNECTOR   | 10/12/2020 |
| CC18903 | WINDMILLER POINTE APARTMENTS 15 SHIP MILL  | 10/12/2020 |
| CC18653 | PROJECT DILLY DILLY (OBETZ)  | 10/13/2020 |
| CC18700 | DANA G. (BUCK) RINEHART PUBLIC UTILITIES COMPLEX                                 | 10/13/2020 |
| CC18874 | MORRISON FARMS EAST SECTION 5  | 10/13/2020 |
| CC18893 | THE COTTAGES AT BROWN'S FARM   | 10/13/2020 |
| CC18991 | DCM7 DELIVERY STATION  | 10/13/2020 |
| E3586   | GRANDVIEW CROSSING OFFSITE IMPROVEMENTS  | 10/16/2020 |
| CC18962 | GATES JUNCTION   | 10/19/2020 |
| E3689   | SOUTH HAMILTON ROAD  | 10/19/2020 |
| E3707   | TURNBERRY FARMS SECTION 10   | 10/19/2020 |
| E3578   | PEDESTRIAN SAFETY IMPROVEMENTS TORONTO STREET                                    | 10/23/2020 |
| CC18792 | ALDI STORE #10   | 10/27/2020 |
| CC18919 | MARCIO KAUFFMAN DEVELOPMENT  | 10/27/2020 |
| CC18926 | ANDREW RESERVE   | 10/27/2020 |
| CC18995 | HOMESTEAD SENIOR LIVING  | 10/27/2020 |
| CC19018 | HERC RENTALS   | 10/27/2020 |
| CC18854 | DANA G. "BUCK" RINEHART PUBLIC UTILITIES COMPLEX                                 | 10/28/2020 |
| CC18897 | GRANT PARK REDEVLOPMENT PHASE IV EAST  | 10/28/2020 |
| E3671   | CLEVELAND AVENUE AND GIBBARD AVENUE FOR BOYS AND GIRLS CLUB                      | 10/28/2020 |
| CC18698 | SHOOK ROAD DRIVEWAY IMPROVEMENT PROJECT  | 10/30/2020 |
| CC18935 | OHIO STATE UNIVERSITY DODD PARKING GARAGE  | 10/30/2020 |
| CC18775 | AXIUM SANITARY SEWER EXTENSION 9005 SMITHS MILL ROAD                             | 11/2/2020  |
| CC18916 | KENNY ROAD -OLD HENDERSON ROAD STORM SEWER CIP 611723-100000                     | 11/3/2020  |

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Plan Approval List

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|---------|--|------------|
| CC18843 | AY MANUFACTURING, LTD.   | 11/4/2020  |
| CC18927 | ANDREW RESERVE   | 11/4/2020  |
| CC18978 | DOLLAR TREE 2391 SILVER DRIVE  | 11/4/2020  |
| CC18823 | SCIOTO PENNINSULA HOTEL  | 11/5/2020  |
| CC18839 | SCIOTO PENNINSULA OFFICE   | 11/5/2020  |
| CC18961 | STARLING PARKING GARAGE  | 11/5/2020  |
| E3527   | FRA-CR14-1.99 REFUGEE ROAD AT WINCHESTER PIKE                                    | 11/9/2020  |
| E3635   | HUDSON UTILITY   | 11/9/2020  |
| E3677   | SCIOTO PENINSULA ROADWAY IMPROVEMENTS PHASE 1                                    | 11/11/2020 |
| CC18504 | REHABILITATION DESIGN FOR CENTER LARGE DIAMETER CONDITION ASSESSMENT CIP 650725- | 11/13/2020 |
| CC18619 | FAITH LIFE CHURCH (NEW ALBANY)   | 11/13/2020 |
| CC18620 | FAITH LIFE CHURCH (NEW ALBANY)   | 11/13/2020 |
| E3699   | SOPHIE VILLAGE AT ABBIE TRAILS PARTS 1 & 2                                       | 11/13/2020 |
| CC18798 | THE BUBBLY CENTER  | 11/16/2020 |
| CC18906 | PROCESSING FACILITY AT 1225 BOLTONFIELD STREET                                   | 11/16/2020 |
| CC18939 | THE COURTYARDS AT MORSE CIRCLE (JEFFERSON TOWNSHIP/FRANKLIN COUNTY)              | 11/16/2020 |
| CC18939 | THE COURTYARDS AT MORSE CIRCLE   | 11/16/2020 |
| CC18950 | ALTA DRIVE STORAGE PHASE 1 AND 2   | 11/16/2020 |
| CC18993 | GATES JUNCTION   | 11/16/2020 |
| CC18996 | HAMILTON ROAD MULTI-FAMILY   | 11/16/2020 |
| CC18997 | HAMILTON ROAD MULTI-FAMILY   | 11/16/2020 |
| E3673   | SCIOTO DARBY RD & WALCUTT RD IMPS  | 11/17/2020 |
| CC18923 | WINDMILLER POINTE APARTMENTS   | 11/18/2020 |
| E3733   | E BROAD ST (N SIDE)  | 11/19/2020 |
| CC18364 | WEST ALBANY CROSSING   | 11/25/2020 |
| CC18878 | THE MEADOWS AT SHANNON LAKE SECTION 5 PART 1 & PART 2                            | 11/25/2020 |
| CC18968 | WARNER JUNCTION  | 11/25/2020 |
| CC19006 | THE COLUMBUS AND SOUTHERN OHIO ELECTRIC COMPANY SANITARY SEWER PLAN 2020         | 11/25/2020 |
| CC19017 | MOO MOO EXPRESS CAR WASH   | 11/25/2020 |
| CC19047 | THOMPSON ROAD APARTMENTS   | 11/25/2020 |
| CC18837 | HIDDEN MEADOWS (GROVE CITY)  | 12/3/2020  |
| CC18977 | COLUMBUS TEMPLE RENOVATION   | 12/3/2020  |
| CC19037 | LAND GRANT BEER GARDEN   | 12/3/2020  |
| E3640   | LONG ST W OF N GARFIELD AV TO E OF N MONROE AV                                   | 12/3/2020  |
| CC18983 | FRANKLIN MAIN RELOCATION PHASE 2 CIP 530161-100105                               | 12/7/2020  |
| E3734   | LIVINGSTON AVENUE AND KENNEDY DRIVE  | 12/8/2020  |
| E3702   | SAWMILL RD AT BANKER DR  | 12/10/2020 |
| CC19035 | THE FARMS AT JEFFERSON PHASE 7,8 & 9   | 12/11/2020 |
| CC18779 | THE OHIO STATE UNIVERSITY NEWTON HALL BUILDING RENOVATION AND ADDITION           | 12/16/2020 |
| CC19033 | MILLER TRANSPORTATION DRIVEWAY   | 12/16/2020 |
| E3666   | SIGNAL INSTALLATION HOCKING STREET AND HANOVER STREET                            | 12/17/2020 |
| E3547   | LIBRARY PARK NORTH, OAK STREET AND SOUTH 9TH STREET                              | 12/18/2020 |
| CC18998 | THE LANDINGS AT FREEDOM TRAIL 350 COUNTY LINE ROAD WEST                          | 12/21/2020 |
| CC18784 | TOWN SQUARE STATION  | 12/23/2020 |
| CC18889 | CHELSEA GLEN RETAIL  | 12/23/2020 |
| CC18967 | 530 EAST RICH STREET BUILDING ADDITION & UTILITY IMPROVEMENTS                    | 12/23/2020 |
| CC18988 | WATERSHED FACILITIES IMPROVEMENTS  | 12/23/2020 |
| CC19000 | FRANKLIN COUNTY CORRECTION CENTER-CONTINUATION PHASE                             | 12/23/2020 |
| CC19039 | JACKSON PIKE WASTEWATER TREATMENT PLANT COGENERATION FACILITY CIP 650250-100007  | 12/23/2020 |
| CC18971 | WEXNER MEDICAL CENTER INPATIENT HOSPITAL   | 12/30/2020 |
| CC19019 | RIGGINS RUN 2 APARTMENTS   | 12/30/2020 |
| CC19043 | CARMACK STORM SEWER EXTENSION  | 12/30/2020 |

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| PLAN NUMBER | PLAN NAME  | INSPECTION DATE |
|-------------|--|-----------------|
| CC16341     | Southland Self Storage - Phase II                | 1/3/2020        |
| CC14253     | Townes of West Albany Condominiums               | 1/3/2020        |
| CC15797     | Chase Mortgage - Parking Expansion               | 1/6/2020        |
| CC15854     | Olde Orchard Elementary School                   | 1/6/2020        |
| CC15067     | 17th Avenue Parking Lot                          | 1/6/2020        |
| CC15340     | Harvest Preparatory School Track & Field         | 1/8/2020        |
| CC16012     | Village At White Oaks Park II, LTD.              | 1/8/2020        |
| CC16578     | FST CNG Station                                  | 1/10/2020       |
| CC15647     | Masjid Omar Expansion                            | 1/10/2020       |
| CC16400     | High California Retail                           | 1/10/2020       |
| CC15820     | Chick-Fil-A                                      | 1/13/2020       |
| CC16577     | Truenorth Shell Service Station                  | 1/14/2020       |
| CC14655     | Chase Bank New Albany Rd. West                   | 1/14/2020       |
| CC14748     | National City Bank                               | 1/14/2020       |
| CC14902     | Midas Auto Service Experts                       | 1/14/2020       |
| CC14079     | The Shoppes at the Preserves                     | 1/14/2020       |
| CC16493     | Miracle Motor Mart                               | 1/14/2020       |
| CC14197     | Panda Express Chestnut Hill Commercial           | 1/14/2020       |
| CC16535     | The C.L. Companies Taco Bell                     | 1/15/2020       |
| CC16514     | MEDCARE  | 1/15/2020       |
| CC14022     | Hamilton Point Retail                            | 1/16/2020       |
| CC14017     | Albany Station Condominiums                      | 1/16/2020       |
| CC14022     | Hamilton Point Retail                            | 1/16/2020       |
| CC16691     | Kappa Kappa Gamma                                | 1/16/2020       |
| CC15443     | Warehouse Building Expansion                     | 1/16/2020       |
| CC14586     | United Dairy Farmers                             | 1/16/2020       |
| CC13909     | Longhorn Steakhouse                              | 1/17/2020       |
| CC14293     | Wendy's International, Inc.                      | 1/17/2020       |
| CC13955     | Fifth Third Bank                                 | 1/17/2020       |
| CC13820     | Arlington Hospitality Amerihost Inn & Suites     | 1/17/2020       |
| CC13842     | Ephesus Church Parking Lot                       | 1/17/2020       |
| CC14900     | Emmanuel Lutheran Church                         | 1/17/2020       |
| CC14054     | Long John Silvers / A&W and Pizza Hut            | 1/17/2020       |
| CC15503     | Grace Presbyterian Church                        | 1/21/2020       |
| CC14369     | Alkire Gate Apartments Phase 2                   | 1/21/2020       |
| CC16215     | Bethel United Presbyterian Church                | 1/21/2020       |
| CC16695     | Family Dollar Store                              | 1/22/2020       |
| CC14365     | White Castle Restaurant                          | 1/22/2020       |
| CC14431     | Huntington Bank                                  | 1/23/2020       |
| CC13911     | Clean Cat's Car Wash                             | 1/23/2020       |
| CC15617     | Atonement Lutheran Church                        | 1/23/2020       |
| CC14310     | Red Robin  | 1/23/2020       |
| CC14059     | Panda Express                                    | 1/23/2020       |
| CC14319     | Salvation Army - Worthington Woods Chapel        | 1/23/2020       |
| CC14644     | Gold's Gym North Hamilton Road                   | 1/23/2020       |
| CC14292     | New Orthodontocs Office                          | 1/23/2020       |
| CC13636     | NDC/NFI  | 1/23/2020       |
| CC14303     | Morrison Medical                                 | 1/23/2020       |
| CC13974     | Tim Hortons                                      | 1/23/2020       |
| CC13665     | Eastwood Villas / Carnegie Cove Retention Basin  | 1/23/2020       |
| CC14513     | Proposed Parking Facility 4784 North High Street | 1/23/2020       |
| CC14057     | East Broad Street Retail                         | 1/23/2020       |
| CC14470     | Buckeye Plaza                                    | 1/27/2020       |
| CC14504     | SICARAS  | 1/27/2020       |
| CC13727     | Polaris Neighborhood Center 2                    | 1/29/2020       |
| CC13642     | The Woods at Polaris                             | 1/29/2020       |
| CC14618     | Mount Carmel West                                | 1/29/2020       |
| CC15229     | The Shelly Company Building Addition             | 1/29/2020       |

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| PLAN NUMBER | PLAN NAME                              | INSPECTION DATE |
|-------------|--|-----------------|
| CC14159     | Capital Office Building                | 1/29/2020       |
| CC14374     | 815 West Broad Street                  | 1/29/2020       |
| CC13603     | Lazelle Road Retail Center             | 1/29/2020       |
| CC14053     | Dollar General Store                   | 1/29/2020       |
| CC14507     | Worley Terrace                         | 1/29/2020       |
| CC14849     | Homeless Families Foundation           | 1/29/2020       |
| CC13606     | Willow Brook Christian Homes           | 1/29/2020       |
| CC14479     | UDF - 1041 W Broad St.                 | 1/29/2020       |
| CC13981     | Greenlawn Realty                       | 1/29/2020       |
| CC13871     | Fifth Third Bank (Lazelle & Sancus)    | 1/30/2020       |
| CC14982     | W.L. Markers, Inc.                     | 1/30/2020       |
| CC13896     | Infinity General                       | 2/3/2020        |
| CC13201     | JVL Car Wash                           | 2/3/2020        |
| CC14207     | Second Shiloh Baptist Church           | 2/3/2020        |
| CC14487     | Pro Gutter & Drain                     | 2/3/2020        |
| CC14927     | Select Carrier Group                   | 2/3/2020        |
| CC14905     | Power of Prayer Church                 | 2/3/2020        |
| CC13765     | New Retail Store                       | 2/3/2020        |
| CC14065     | Rent a Flick Retail Center             | 2/3/2020        |
| CC15012     | Dollar General                         | 2/4/2020        |
| CC13578     | Bob Sumerel Tire                       | 2/5/2020        |
| CC14543     | Tire Discounters                       | 2/5/2020        |
| CC13773     | Scriptural Study Groups                | 2/5/2020        |
| CC13923     | Proposed Dent Solutions                | 2/5/2020        |
| CC13723     | Bridgestone/Firestone                  | 2/5/2020        |
| CC13961     | Dennis Hyundai Car Dealership          | 2/10/2020       |
| CC13629     | CVS Store #6147                        | 2/10/2020       |
| CC13678     | McConnell Health Center                | 2/10/2020       |
| CC13954     | Hanover Street Parking Lot             | 2/11/2020       |
| CC18235     | Grandview Heights Service Center       | 2/11/2020       |
| CC16270     | Tim Horton's Restaurant                | 2/11/2020       |
| CC14590     | North Bank Redevelopment               | 2/11/2020       |
| CC16189     | Certified Oil                          | 2/11/2020       |
| CC14499     | Liberty Place - Parking Lot            | 2/11/2020       |
| CC13822     | Frazier Office / Warehouse             | 2/11/2020       |
| CC14083     | Buggyworks West Nation Boulevard       | 2/11/2020       |
| CC13789     | GAMMA Columbus, LLC                    | 2/12/2020       |
| CC13856     | America's Floor Source(cc16373)        | 2/12/2020       |
| CC14860     | Sakura Restaurant                      | 2/12/2020       |
| CC14867     | Tim Donut U.S. Limited, Inc.           | 2/12/2020       |
| CC13875     | USF Distribution Center                | 2/12/2020       |
| CC13837     | Office Building                        | 2/14/2020       |
| CC13897     | Robinson Office/ Warehouse             | 2/14/2020       |
| CC13694     | Drayton Court Apartments               | 2/14/2020       |
| CC13753     | Gramercy Place Condo Phase II          | 2/18/2020       |
| CC11270     | Polaris Center Lyra Drive              | 2/18/2020       |
| CC13749     | Professional Truck Wash                | 2/18/2020       |
| CC17210     | Roberts Road Truck Wash                | 2/18/2020       |
| CC14558     | SAVE-A-LOT GROCERY                     | 2/19/2020       |
| CC13861     | Jenkins Terrace Replacement Facilities | 2/19/2020       |
| CC14203     | White Castle                           | 2/19/2020       |
| CC13846     | Wendy's International                  | 2/19/2020       |
| CC13591     | Family Dollar                          | 2/19/2020       |
| CC14373     | Salvation Army                         | 2/19/2020       |
| CC10156     | McDonald's Restaurant                  | 2/19/2020       |
| CC15324     | Medical and Professional Building      | 2/19/2020       |
| CC14285     | Alum Creek Retail Center               | 2/19/2020       |
| CC16709     | Station 29                             | 2/21/2020       |

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| PLAN NUMBER   | PLAN NAME   | INSPECTION DATE |
|---------------|---|-----------------|
| RP14282       | Green Hill Acres  | 2/21/2020       |
| CC13737       | Mail Sort, Inc. Building Addition                               | 2/21/2020       |
| CC13658       | White Castle  | 2/21/2020       |
| CC14296       | Compton Building, 1205-1207 Cleveland Avenue                    | 2/21/2020       |
| CC14037       | Family Dollar   | 2/21/2020       |
| CC13682       | Fire Station No. 18   | 2/21/2020       |
| CC17075       | 1047 Cleveland Ave  | 2/21/2020       |
|               | Street Improvements Hall Rd. & Galloway Rd.                     | 2/24/2020       |
| CC8625        | Regional Stormwater Management Rt Basin @ Alton-Darby Creek Rd  | 2/25/2020       |
| E2946         | South High Street at Scioto Downs                               | 2/25/2020       |
| E03069        | Sidewalk Improvements Whittier Street                           | 2/25/2020       |
| E03057        | E. Eleventh Avenue, Pearl Street To N. Grant Avenue             | 2/25/2020       |
| RP18207       | Lockbourne Road Stormwater System Improvements CIP772           | 2/25/2020       |
| E1692         | FRA-CR 122-4.14 Alum Creek Drive                                | 2/26/2020       |
| CC10113       | Regional Stormwater Management Rt Basin @ Westbrooke/Roberts Rd | 2/26/2020       |
| E2904         | Refugee Road-Chatterton Road at Noe-Bixby Road                  | 2/27/2020       |
| E1755         | McKinley Ave  | 2/27/2020       |
| D3876         | Winchester Lakes Section No. 1                                  | 2/27/2020       |
| D2720         | Lehnert Farm  | 2/27/2020       |
| E2319         | Taylor Station Road Widening (East Side)                        | 2/27/2020       |
|               | Hayden Run & Leppert Roads                                      | 2/27/2020       |
| E2137         | Morse Road Phase 2  | 2/27/2020       |
| E03322        | Improvements Of Port Rd. & George Page Jr. Rd.                  | 2/27/2020       |
| CC10705       | CIP925.1 Billingsley Road Detention Basin Improvements          | 2/28/2020       |
| CC14611       | GREENVIEW ESTATES DETENTION BASIN - CIP704                      | 2/28/2020       |
| D2551         | Southwest Airport Industrial Park (BoltonField)                 | 3/2/2020        |
| E2765         | Warner Road Phase 1   | 3/2/2020        |
| E2847         | Refugee Rd. Sidewalk/Shared Use Path                            | 3/2/2020        |
| D2839         | The Meadows Section 2 Storm/San                                 | 3/2/2020        |
| RP16788-16818 | Berliner Park Storm and Sanitary Sewer Improvements - CIP650742 | 3/2/2020        |
| E2710         | Alum Creek Drive & Rohr Road                                    | 3/3/2020        |
| E2637         | FRA-PARSONS/LIVINGSTON IMPROVEMENTS PID #86311 PART 1           | 3/5/2020        |
| E2526         | Karl Road Improvements  | 3/5/2020        |
| CC15476       | Mt. Carmel Health Center  | 3/5/2020        |
| CC16988       | First Unitarian Universalist Church                             | 3/5/2020        |
| CC13627       | Beechwold Place   | 3/5/2020        |
| RP18105       | Marion Road   | 3/6/2020        |
| CC13878       | The Reserve At Sawmill Park                                     | 3/6/2020        |
| CC16542       | New Albany Plaza/Proposed Bding and Parking Add                 | 3/9/2020        |
| CC16863       | Taco Bell   | 3/9/2020        |
| CC13922       | Creative Housing, Inc.  | 3/10/2020       |
| CC13826       | Hydro-Spray Car Wash  | 3/10/2020       |
| CC14407       | Linden Branch Library Parking Expansion                         | 3/11/2020       |
| CC16760       | Enterprise Rent-A-Car   | 3/11/2020       |
| CC14362       | Goo Goo Car Wash  | 3/11/2020       |
| CC12116       | World Peace Church  | 3/11/2020       |
| CC16824       | Kenlawn Park Improvements 2014                                  | 3/11/2020       |
| CC16272       | Ricart Ford Addition  | 3/12/2020       |
| CC13953       | Georgesville Retail Center                                      | 3/12/2020       |
| CC15897       | CNG Fueling Facility  | 3/12/2020       |
| CC13702       | Friendship Village Of Dublin                                    | 3/12/2020       |
| CC15817       | Taco Bell   | 3/12/2020       |
| CC13851       | National City Bank Holt Road                                    | 3/12/2020       |
| CC13844       | Arby's Restaurant   | 3/12/2020       |
| CC13823       | Restaurant Depot  | 3/12/2020       |
| CC15974       | Nationwide Childrens Hospital PLA                               | 3/19/2020       |
| CC16183       | Raising Canes   | 3/19/2020       |
| CC14393       | Hurricane Car Wash Systems                                      | 3/19/2020       |

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| PLAN NUMBER | PLAN NAME   | INSPECTION DATE |
|-------------|---|-----------------|
| CC13982     | Pentecoastal Triumphant Church                    | 3/19/2020       |
| CC14060     | Waffle House #495                                 | 3/19/2020       |
| CC16974     | Auto Body Collision & Glass                       | 3/19/2020       |
| CC13988     | First Service Federal Credit Union                | 3/19/2020       |
| CC13971     | First Impressions Collision                       | 3/19/2020       |
| CC16147     | Taco Bell   | 3/19/2020       |
| CC15224     | O'Reilly Auto Parts; Columbus, OH #3              | 3/19/2020       |
| CC16909     | Enterprise Rent-A-Car                             | 3/19/2020       |
| CC14043     | Dollar General                                    | 3/23/2020       |
| CC14094     | Fifth Third Bank                                  | 3/23/2020       |
| CC14052     | Buckee Storage Units                              | 3/23/2020       |
| CC14214     | Gender Road Office Park                           | 3/24/2020       |
| CC13918     | Advance Auto Parts                                | 3/24/2020       |
| CC14080     | Taco Bell   | 3/24/2020       |
| CC13674     | Blockbuster                                       | 3/24/2020       |
| CC14125     | Huntington Bank                                   | 3/24/2020       |
| CC14441     | Tim Donut U.S. Limited, Inc.                      | 3/25/2020       |
| CC14019     | Oak Street Office Storage Facility                | 3/25/2020       |
| CC14072     | Havertys at Polaris                               | 3/25/2020       |
| CC15466     | Cloverleaf Cold Storage Facility                  | 3/25/2020       |
| CC14086     | Mees Distributors, Inc Addition                   | 3/25/2020       |
| CC14667     | Auto-Quick Sales Lot                              | 3/26/2020       |
| CC14378     | New Birth Christian Ministry                      | 3/30/2020       |
| CC16532     | Dollar General Store                              | 3/30/2020       |
| CC15701     | Elim Manor Retirement Housing & Cottage Section 8 | 3/31/2020       |
| CC15699     | Elim Manor Retirement Housing & Cottages          | 3/31/2020       |
| CC18692     | Amerisourcebergen Drug Corp. Warehouse Addition   | 7/4/2020        |
| CC13874     | Lot 3 Eastport Business Park Cabot Properties Inc | 7/14/2020       |
| CC13595     | Lot 1 Eastport Business Park Mohawk Industries    | 7/14/2020       |
| CC14987     | Value Place Hotels                                | 7/21/2020       |
| CC11932     | Commodity Logistics 1500 London-Groveport Road    | 7/23/2020       |
| CC13306     | Lot 4B Eastport Business Park                     | 7/23/2020       |
| CC14239     | Cabot Properties Inc.                             | 7/25/2020       |
| CC16150     | Giant Eagle Third Avenue                          | 7/29/2020       |
| CC16143     | Henderson Road Development                        | 7/29/2020       |
| CC16210     | Germain Ford                                      | 7/30/2020       |
| CC15561     | Cypress Wesleyan Church Expansion                 | 8/3/2020        |
| CC16407     | Hampton Inn                                       | 8/3/2020        |
| CC16490     | Toyota West                                       | 8/5/2020        |
| CC16221     | McDonald's Rebuild                                | 8/5/2020        |
| CC16519     | The View On Fifth                                 | 8/6/2020        |
| CC13754     | Westgate Equipment Rental                         | 8/7/2020        |
| CC13584     | Noe Bixby Congregate Care                         | 8/10/2020       |
| CC13636     | NDC/NFI   | 8/10/2020       |
| CC14020     | Gelato Center                                     | 8/10/2020       |
| CC16680     | Hugh White Honda                                  | 8/13/2020       |
| CC16640     | Polaris Enclave Apartments                        | 8/13/2020       |
| CC16865     | Lifepoint Church                                  | 8/13/2020       |
| CC16689     | Grandview Village, Phase I                        | 8/16/2020       |
| CC17016     | Cardinal Self Storage-Smoky Row                   | 8/17/2020       |
| CC16997     | Rusty Bucket Restaurant                           | 8/19/2020       |
| CC17031     | 4921 Vulacn Avenue LLC                            | 8/19/2020       |
| CC16823     | Goodwill  | 8/19/2020       |
| CC16813     | Elliot House Multi-Family                         | 8/20/2020       |
| CC17077     | Boss Excavating & Grading INC.                    | 8/20/2020       |
| CC17324     | Valvoline Instant Oil Change                      | 8/25/2020       |
| CC15804     | Cedarwood Elementary School                       | 8/25/2020       |
| CC17494     | Wendy's Restaurant                                | 8/26/2020       |

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| PLAN NUMBER | PLAN NAME   | INSPECTION DATE |
|-------------|---|-----------------|
| CC17791     | Corner Bakery Cafe  | 8/26/2020       |
| CC17080     | Hayward Distributing  | 8/26/2020       |
| CC14308     | The Reserve at Preston Woods                                  | 8/28/2020       |
| CC15991     | The Reserve @ Preston Woods                                   | 8/28/2020       |
| CC13730     | Walgreens Store #9093   | 8/28/2020       |
| CC16948     | Rush Truck Centers  | 8/28/2020       |
| CC15697     | Commons at Livingston   | 8/28/2020       |
| CC14705     | Oakland Park Alternative Elementary School                    | 9/1/2020        |
| CC13418     | Darby Pointe  | 9/1/2020        |
| CC16881     | The Shops At Hilliard-Rome Road                               | 9/3/2020        |
| CC15278     | Whitney Young Condominiums                                    | 9/3/2020        |
| CC15987     | Union Hall Renovation & Addition Columbus State CC            | 9/3/2020        |
| CC13469     | River Highlands Condominiums                                  | 9/4/2020        |
| CC15796     | Arbors @ Turnberry  | 9/9/2020        |
| CC14092     | The Falls at Hayden Run, Phase I                              | 9/9/2020        |
| CC14573     | EICKHOLT DEVELOPMENT  | 9/9/2020        |
| CC15796     | Arbors @ Turnberry  | 9/9/2020        |
| CC15462     | Millenium Community School                                    | 9/9/2020        |
| CC15449     | Grace Christian Academy Middle School                         | 9/9/2020        |
| CC14576     | Wedgewood Middle School                                       | 9/9/2020        |
| CC15449     | Grace Christian Academy Middle School                         | 9/10/2020       |
| CC15854     | Olde Orchard Elementary School                                | 9/10/2020       |
| CC14533     | Walker Park   | 9/15/2020       |
| CC16033     | Alum Crest/Clearbrook 6-12 School                             | 9/15/2020       |
| CC15204     | Whirlpool (2 Owners)  | 9/16/2020       |
| CC14615     | Now Urban Active/Was Gold's Gym                               | 9/17/2020       |
| CC14634     | Tire Discounters - Gemini Palace                              | 9/17/2020       |
| E2807       | Monarch Greene  | 9/18/2020       |
| CC15872     | Starling Pre K-8 Grade School                                 | 9/18/2020       |
| CC15206     | O'Reilly Auto Parts   | 9/18/2020       |
| CC14013     | Walgreens Store #09138  | 9/21/2020       |
| CC16088     | North Fourth East Eighth                                      | 9/22/2020       |
| CC15325     | Mount Zion Church   | 9/22/2020       |
| CC13869     | Seniors At Hegemon  | 9/22/2020       |
| CC14857     | Fifth Street & Spring Street Accessory Parking Lots #43 & #44 | 9/23/2020       |
| CC15419     | Grandview Retail Center                                       | 9/23/2020       |
| CC15800     | Hilton Columbus Downtown                                      | 9/23/2020       |
| CC15103     | West Wishbone Commercial                                      | 9/24/2020       |
| CC15143     | The Hamptons Condominiums Phase 4                             | 9/24/2020       |
| CC15052     | Cornerstone Academy   | 9/24/2020       |
| CC15281     | The Farms at New Albany Park                                  | 9/24/2020       |
| CC15010     | VNAC Holdings Warehouse                                       | 9/24/2020       |
| CC14299     | Carmax - The Auto Superstore                                  | 9/28/2020       |
| CC16565     | Polaris Grand Apts (replacesCC14976)                          | 9/28/2020       |
| CC15926     | Private Storm Sewer for CVS Pharmacy Store #05060             | 9/29/2020       |
| CC16155     | Wat Buddha Samakidham   | 9/29/2020       |
| CC14874     | The Villas at Sugar Run (Phase 1)                             | 9/30/2020       |
| CC16205     | Columbus Walmart #2098  | 9/30/2020       |
| CC14270     | Chestnut Hill IV Buildings 5 & 6                              | 9/30/2020       |
| CC16525     | Prairie Township Community Recreation Center                  | 9/30/2020       |
| CC15282     | Hamilton II/Advance Auto Parts                                | 9/30/2020       |
| CC13845     | Chestnut Hill 3 Retail  | 9/30/2020       |
| CC16325     | The District  | 10/1/2020       |
| CC16072     | The Residences at Liberty Crossing                            | 10/2/2020       |
| CC15729     | Springhill Suites   | 10/2/2020       |
| CC16460     | Westgate Recreation Center Renovations                        | 10/2/2020       |
| CC14699     | Binns Elementary School                                       | 10/5/2020       |
| CC14003     | Krogers at Brewers Yard                                       | 10/5/2020       |

## 2020 Post-Construction BMP Inspection Summary

| PLAN NUMBER | PLAN NAME  | INSPECTION DATE |
|-------------|--|-----------------|
| CC16547     | Columbus VOA   | 10/5/2020       |
| CC15717     | Franklinton Senior   | 10/5/2020       |
| CC16945     | Remington Woods Phase 2  | 10/6/2020       |
| CC14730     | Thorntons  | 10/7/2020       |
| CC16843     | ABBIE COVE APARTMENTS Phase 2  | 10/7/2020       |
| CC16200     | Alum Creek SW Mitigation & Remed. Phase 2                                      | 10/7/2020       |
| CC16274     | Abbie Cove Apartments Phases 1 & 2   | 10/7/2020       |
| CC16411     | The Pines Phase 3  | 10/7/2020       |
| CC15259     | Gemini Place Towne Center  | 10/7/2020       |
| CC17168     | Beer Barrel Pizza And Grill  | 10/7/2020       |
| CC16891     | Edgehill Apartments  | 10/9/2020       |
| CC16950     | Columbus Public Library Parsons Avenue Branch                                  | 10/12/2020      |
| CC16795     | Lincoln Park Pool  | 10/12/2020      |
| CC16575     | Parsons Senior   | 10/12/2020      |
| CC15340     | Harvest Preparatory School Track & Field                                       | 10/12/2020      |
| CC16398     | Remington Woods  | 10/13/2020      |
| CC16698     | COC-Reeb Avenue Building Renovations   | 10/13/2020      |
| CC14833     | Berwick K-8 Alternative Elementary   | 10/13/2020      |
| CC17698     | At Home Store  | 10/13/2020      |
| E2222       | Lehman Meadows   | 10/13/2020      |
| CC14817     | Columbus Police Substation #14   | 10/15/2020      |
| CC13582     | The Preserve At Winchester Crossing  | 10/15/2020      |
| CC14709     | Fleet Management   | 10/15/2020      |
| CC16012     | Village At White Oaks Park II, LTD.  | 10/15/2020      |
| CC15313     | Aqua Spa Car Wash  | 10/16/2020      |
| CC16052     | The Benchmark  | 10/18/2020      |
| CC14780     | Scottwood 811 Project  | 10/20/2020      |
| CC16666     | Family Dollar Store  | 10/20/2020      |
| CC16742     | Speedway   | 10/21/2020      |
| CC14767     | Walgreens  | 10/21/2020      |
| CC14340     | Pentagon Medical Building  | 10/21/2020      |
| CC14253     | Townes of West Albany Condominiums   | 10/22/2020      |
| CC15602     | Coach House Residence  | 10/22/2020      |
| CC15067     | 17th Avenue Parking Lot  | 10/22/2020      |
| CC15797     | Chase Mortgage - Parking Expansion   | 10/27/2020      |
| CC14880     | Grange Insurance Headquarters Expansion  | 10/27/2020      |
| CC16900     | Brunk Apartments   | 10/27/2020      |
| CC16258     | Dublin Road Water Plant Treatment Cap Increase Detailed Design #1              | 10/28/2020      |
| CC14835     | East Pilgrim Elementary School   | 10/28/2020      |
| CC17192     | Watershed Roadway Improvements - Part 3  | 10/28/2020      |
| CC16954     | Hanford Village Park   | 10/28/2020      |
| CC16888     | 1065 Georgesville Rd.  | 10/28/2020      |
| CC17026     | Cols Rec & Parks Depart Driving Park COmmunity Center and Pool Imp Phase 1 & 2 | 10/28/2020      |
| CC13637     | Proposed Office Warehouse At Nicholas & Fiesta Dr                              | 10/30/2020      |
| CC16429     | Columbus Fire Station No. 2  | 11/2/2020       |
| CC14930     | New Engine House #10   | 11/2/2020       |
| CC14922     | Pomegranate  | 11/2/2020       |
| CC13614     | Chipotle Mexican Grill   | 11/3/2020       |
| CC16908     | Hilliard Green Park Improvements   | 11/4/2020       |
| CC16047     | Fort Hayes Infrastructure Improvements   | 11/4/2020       |
| CC15056     | Columbus State Community College 27-S Park Area Renovation                     | 11/4/2020       |
| CC15059     | Lincoln Theatre  | 11/4/2020       |
| CC16594     | Rite Rug Flooring (CC9870)   | 11/5/2020       |
| CC14925     | Advance Auto Parts   | 11/6/2020       |
| CC17096     | Sterling Paper   | 11/6/2020       |
| CC17153     | Creekside 20   | 11/6/2020       |
| CC14708     | Leawood Elementary School  | 11/10/2020      |
| CC16294     | Family Dollar  | 11/10/2020      |

## 2020 Post-Construction BMP Inspection Summary

| PLAN NUMBER | PLAN NAME                                    | INSPECTION DATE |
|-------------|--|-----------------|
| CC17269     | Popeyes                                      | 11/10/2020      |
| E2000       | Oldstone Crossing Section 2                  | 11/12/2020      |
| CC14388     | Plaza Properties Boulevard                   | 11/13/2020      |
| CC13863     | Tuttle Crossing Retail                       | 11/13/2020      |
| CC13876     | Avery Place                                  | 11/13/2020      |
| CC15331     | Four Points by Sheraton                      | 11/13/2020      |
| CC15102     | Speedway                                     | 11/13/2020      |
| CC14604     | The Annex                                    | 11/17/2020      |
| CC15277     | Walhalla Development                         | 11/17/2020      |
| CC14001     | U.S. Villages                                | 11/17/2020      |
| CC16138     | The Cleary Company                           | 11/17/2020      |
| CC14612     | Germain Mercedes/Cadillac Service            | 11/23/2020      |
| CC14643     | Safe Auto Insurance Company                  | 11/23/2020      |
| CC14312     | Carmax @ Easton                              | 11/24/2020      |
| CC13856     | America's Floor Source(cc16373)              | 11/24/2020      |
| CC16861     | Value Place Hotel - Easton                   | 11/24/2020      |
| CC14688     | Private Stormwater Sys for 499               | 12/2/2020       |
| CC14700     | TK Homes Site                                | 12/2/2020       |
| CC15816     | Airgas - Great Lakes, Inc.                   | 12/9/2020       |
| CC15636     | Turkey Hill #704                             | 12/9/2020       |
| CC15850     | Giant Eagle #6504                            | 12/9/2020       |
| CC16811     | Glenwood Recreation Center                   | 12/11/2020      |
| CC14969     | Burroughs Elementary School                  | 12/11/2020      |
| CC15934     | Raising Canes                                | 12/11/2020      |
| CC15856     | OPRS Conference Center Addition              | 12/11/2020      |
| CC15841     | Private storm, sewer, ponding & grading      | 12/11/2020      |
| CC13808     | Preserve At Albany Woods Section 1 & 2       | 12/15/2020      |
| CC16731     | Easton Pointe                                | 12/15/2020      |
| CC16979     | Office Building-3600 Stelzer Rd              | 12/15/2020      |
| CC15858     | Private Storm & Grading Plan - Redevelopment | 12/16/2020      |
| CC13800     | Columbus Distributing Office Expansion       | 12/18/2020      |
| CC16010     | Tim Hortons                                  | 12/18/2020      |
| CC16029     | New Albany Apartments                        | 12/23/2020      |
| CC15389     | The Villas at Sugar Run-Phase 2              | 12/23/2020      |
| CC16593     | Bolton Crossing Elementary School            | 12/23/2020      |
| CC16590     | Custom Sign Center                           | 12/23/2020      |
| CC14109     | Walgreens Store #09541                       | 12/23/2020      |
| CC14809     | Giant Eagle #6528 New Albany Road West       | 12/23/2020      |

**City of Columbus**  
**2020 Operation and Maintenance Facilities**

| <b>Tier I City Facilities - Sites subject to 40 CFR 122.26(b)(14)</b>                                   |  |
|---|--|
| <b>Facility Location</b>  | <b>Ohio EPA Facility Permit No.</b>  |
| <b>Refuse</b><br><b>Alum Creek Site</b><br>2100 Alum Creek Dr.<br>Columbus, OH 43207                    | 4GR00390*FG  |
| <b>Refuse</b><br><b>Georgesville Site</b><br>1550 Georgesville Rd.<br>Columbus, OH 43228                | 4GR00550*FG  |
| <b>Refuse</b><br><b>Morse Road Site</b><br>4260 Morse Rd.<br>Columbus, OH 43230                         | 4GR00549*FG  |
| <b>Southerly Wastewater Treatment Plant</b><br>6977 S. High St.<br>Lockbourne, OH 43137                 | 4GR00607*EG  |
| <b>Jackson Pike Wastewater Treatment Plant</b><br>2104 Jackson Pike<br>Columbus, OH 43223               | 4GR00606*EG  |
| <b>Compost Facility</b><br>7000 Jackson Pike<br>Lockbourne, OH 43137                                    | 4GR00644*EG  |
| <b>Police Helipad</b><br>2130 West Broad St.<br>Columbus, OH 43223                                      | 4GR00813*AG  |
| <b>Frank Road Landfill</b><br>2104 Jackson Pike<br>Columbus, OH 43223                                   | This site is a landfill that is in "closed" status with no ongoing operations. |
| <b>Fisher Road Landfill</b><br>Southwest corner of I-70 and I-270, north of Fisher Road<br>Columbus, OH | This site is a landfill that is in "closed" status with no ongoing operations. |

**City of Columbus**  
**2020 Operation and Maintenance Facilities**

| <b>Tier II City Facilities</b><br><b>Sites to develop P2 Practices per MS4 Permit</b>                                   |   |
|---|---|
| <b>Fleet Management<br/>Main Maintenance Facility</b><br>4211 Groves Road<br>Columbus, OH 43232                         | <b>Fire Station 1 and 9</b><br>300 North Fourth St.<br>Columbus, OH 43215 |
| <b>Fleet Management - CNG North</b><br>2333 Morse Rd.<br>Columbus, OH 43229   | <b>Fire Station 2</b><br>150 E. Fulton St.<br>Columbus, OH 43215          |
| <b>Fleet Management<br/>CNG Fueling Facility</b><br>5115 Krieger Ct<br>Columbus, OH 43228                               | <b>Fire Station 3</b><br>222 Greenlawn Ave.<br>Columbus, OH 43224         |
| <b>Big Run Park Maintenance Facility</b><br>4201 Clime Road<br>Columbus, OH 43228                                       | <b>Fire Station 4</b><br>3030 Winchester Pike<br>Columbus, OH 43232       |
| <b>Big Walnut Park Maintenance Facility</b><br>5000 E. Livingston Avenue<br>Columbus, OH 43227                          | <b>Fire Station 5</b><br>211 McNaughten<br>Columbus, OH 43213             |
| <b>Three Creeks Parks Maintenance Facility</b><br>3491 Watkins Rd.<br>Columbus, OH 43207                                | <b>Fire Station 6</b><br>5750 Maple Canyon Ave.<br>Columbus, OH 43229     |
| <b>Downtown / Gowdy Maintenance Facility</b><br>711 W. 3rd Avenue<br>Columbus, OH 43212                                 | <b>Fire Station 7</b><br>1425 Indianola Ave.<br>Columbus, OH 43201        |
| <b>Fairwood Parks Maintenance Facility</b><br>1250 Fairwood Avenue<br>Columbus, Ohio 43206                              | <b>Fire Station 8</b><br>1240 East Long St.<br>Columbus, OH 43201         |
| <b>Linden Parks Maintenance Facility</b><br>2071 Parkwood Ave.<br>Columbus, OH 43211                                    | <b>Fire Station 10</b><br>1096 West Broad St.<br>Columbus, OH 43222       |
| <b>Northeast Parks Maintenance Facility</b><br>3900 Westerville Rd.<br>Columbus, OH 43224                               | <b>Fire Station 11</b><br>2200 West Case Rd.<br>Columbus, OH 43235        |
| <b>Northwest Parks Maintenance Facility</b><br>1306 Hard Road<br>Columbus, Ohio 43235                                   | <b>Fire Station 12</b><br>3200 Sullivant Ave.<br>Columbus, OH 43204       |
| <b>Whetstone Park Maintenance and Park of<br/>Roses Horticultural</b><br>4015 Olentangy Boulevard<br>Columbus, OH 43214 | <b>Fire Station 13</b><br>309 Arcadia Ave.<br>Columbus, OH 43202          |
| <b>Forestry Municipal Nursery</b><br>6993 S. High Street<br>Columbus, OH 43137  | <b>Fire Station 14</b><br>1514 Parsons Ave.<br>Columbus, OH 43207         |
| <b>Maintenance Operation Complex</b><br>1533 Alum Industrial Drive W<br>Columbus, OH 43209                              | <b>Fire Station 15</b><br>1800 Livingston Ave.<br>Columbus, OH 43205      |

**City of Columbus**  
**2020 Operation and Maintenance Facilities**

| <b>Tier II City Facilities</b><br><b>Sites to develop P2 Practices per MS4 Permit</b>      |   |
|--|---|
| <b>Gardening Crew Maintenance Facility</b><br>1220 Deckenbach Road<br>Columbus, Ohio 43223 | <b>Fire Station 16</b><br>1130 East Weber Rd.<br>Columbus, OH 43211       |
| <b>Airport Golf Course</b><br>900 N. Hamilton Road<br>Columbus, OH 43230                   | <b>Fire Station 17</b><br>2250 West Broad St.<br>Columbus, OH 43204       |
| <b>Mentel Memorial Golf Course</b><br>6005 Alkire Road<br>Galloway, OH 43119               | <b>Fire Station 18</b><br>1630 Cleveland Ave.<br>Columbus, OH 43211       |
| <b>Champions Golf Course</b><br>3900 Westerville Road<br>Columbus, OH 43224                | <b>Fire Station 19</b><br>3601 North High St.<br>Columbus, OH 43214       |
| <b>Raymond Memorial Golf Course</b><br>3860 Trabue Road<br>Columbus, OH 43228              | <b>Fire Station 20</b><br>2646 East Fifth Ave.<br>Columbus, OH 43219      |
| <b>Turnberry Golf Course</b><br>1145 Clubhouse Lane<br>Pickerington, OH 43147              | <b>Fire Station 21</b><br>3294 East Main St.<br>Columbus, OH 43213        |
| <b>Kilbourne Run Sports Park</b><br>4625 Westerville Road<br>Westerville, OH 43231         | <b>Fire Station 22</b><br>3069 Parsons Ave.<br>Columbus, OH 43207         |
| <b>Lou Berliner Sports Park</b><br>325 Greenlawn Avenue<br>Columbus, OH 43223              | <b>Fire Station 23</b><br>4451 East Livingston Ave.<br>Columbus, OH 43227 |
| <b>Cooper Sports Park</b><br>5740 Cooper Road<br>Westerville, OH 43081                     | <b>Fire Station 24</b><br>1585 Morse Rd.<br>Columbus, OH 43229            |
| <b>Anheuser-Busch Sports Park</b><br>4990 Olentangy River Road<br>Columbus, OH 43214       | <b>Fire Station 25</b><br>739 West Third Ave.<br>Columbus, OH 43212       |
| <b>Traffic Engineering Facility</b><br>1820 E 17th Ave.<br>Columbus, OH 43219              | <b>Fire Station 26</b><br>5333 Fisher Rd.<br>Columbus, OH 43228           |
| <b>Transportation Main Yard</b><br>1850 E 25th Ave.<br>Columbus, OH 43219                  | <b>Fire Station 27</b><br>7560 Smoky Row Rd.<br>Columbus, OH 43065        |

**City of Columbus**  
**2020 Operation and Maintenance Facilities**

| <b>Tier II City Facilities</b><br><b>Sites to develop P2 Practices per MS4 Permit</b>                            |  |
|--|--|
| <b>Transportation Central Outpost</b><br>1355 McKinley Ave.<br>Columbus, OH 43222                                | <b>Fire Station 28</b><br>3240 McCutcheon Rd.<br>Columbus, OH 43219      |
| <b>Transportation Marion Road Outpost</b><br>2260 Lockbourne Rd.<br>Columbus, OH 43207                           | <b>Fire Station 29</b><br>5151 Little Turtle Way<br>Columbus, OH 43082   |
| <b>Transportation Roberts Road Outpost</b><br>4380 Currency Dr.<br>Columbus, OH 43228                            | <b>Fire Station 30</b><br>3555 Fishinger Rd.<br>Columbus, OH 43206       |
| <b>Transportation North Outpost</b><br>500 Scherers Court<br>Columbus, OH 43085                                  | <b>Fire Station 31</b><br>5303 Alkire Rd.<br>Columbus, OH 43228          |
| <b>Sewer Maintenance Operations Center</b><br>1250 Fairwood Avenue<br>Columbus OH 43206                          | <b>Fire Station 32</b><br>3675 Gender Rd.<br>Columbus, OH 43110          |
| <b>Grit Pad Facility</b><br>1388 Emig Road<br>Columbus, Ohio 43223   | <b>Fire Station 33</b><br>440 Lazelle Rd.<br>Columbus, OH 43081          |
| <b>Facilities @ 910 Dublin Road</b><br>910 Dublin Road<br>Columbus, OH 43215                                     | <b>Fire Station 34</b><br>5201 Wilcox Rd.<br>Columbus, OH 43016          |
| <b>Dublin Road Water Treatment Plant</b><br>940 Dublin Road<br>Columbus, OH 43215                                | <b>Fire Training</b><br>3639 Parson Ave.<br>Columbus, OH 43207           |
| <b>Hap Cremean Water Treatment Plant</b><br>4250 Morse Road<br>Columbus, OH 43230                                | <b>Police Mounted Unit</b><br>2609 McKinley Ave.<br>Columbus, OH 43204   |
| <b>Parsons Avenue Water Treatment Plant</b><br>5600 Parsons Avenue<br>Lockbourne, OH 43137                       | <b>Police Firing Range</b><br>2609 McKinley Ave.<br>Columbus, OH 43204   |
| <b>Divisions of Water and Power</b><br>3500/3568 Indianola Avenue<br>Columbus, OH 43214                          | <b>Police Impound Lot</b><br>2700 Impound Lot Road<br>Columbus, OH 43207 |
| <b>Watershed Management</b><br><b>Hoover Reservoir</b><br>7600 Sunbury Road,<br>Westerville, OH 43081            | <b>Police Headquarters</b><br>120 Marconi Blvd.<br>Columbus, OH 43215    |
| <b>Watershed Management</b><br><b>Griggs Reservoir</b><br>3155 Riverside Drive<br>Columbus, OH 43221             | <b>Columbus Pubic Health</b><br>240 Parsons Avenue<br>Columbus, OH       |
| <b>Watershed Management</b><br><b>Bellpointe Facility</b><br>4544 State Route 257 South<br>Ostrander, Ohio 43061 |  |

**City of Columbus  
Street Sweeper Inventory  
December 31, 2020**

| <b>Brass Tag</b> | <b>Make</b>        | <b>Model</b>    | <b>Type</b>      |
|------------------|--------------------|-----------------|------------------|
| 24367            | Elgin Pelican      | 3-Wheel Sweeper | Mechanical       |
| 24368            | Elgin Pelican      | 3-Wheel Sweeper | Mechanical       |
| 24369            | Elgin Pelican      | 3-Wheel Sweeper | Mechanical       |
| 24606            | Elgin Pelican      | 3-Wheel Sweeper | Mechanical       |
| 24607            | Elgin Pelican      | 3-Wheel Sweeper | Mechanical       |
| 24609            | Elgin Pelican      | 3-Wheel Sweeper | Mechanical       |
| 24642            | Elgin Pelican      | 3-Wheel Sweeper | Mechanical       |
| 24643            | Elgin Pelican      | 3-Wheel Sweeper | Mechanical       |
| 24650            | Elgin Pelican      | 3-Wheel Sweeper | Mechanical       |
| 24654            | Elgin Pelican      | 3-Wheel Sweeper | Mechanical       |
| 24655            | Elgin Pelican      | 3-Wheel Sweeper | Mechanical       |
| 24623            | Elgin Eagle        | 4-Wheel sweeper | Mechanical       |
| 24649            | Elgin Eagle        | 4-Wheel sweeper | Mechanical       |
| 24667            | Elgin Eagle        | 4-Wheel sweeper | Mechanical       |
| 24706            | Challenger (PM-10) | 4-Wheel sweeper | Mechanical       |
| 24707            | Challenger (PM-10) | 4-Wheel sweeper | Mechanical       |
| 24708            | Challenger (PM-10) | 4-Wheel sweeper | Mechanical       |
| 24709            | Challenger (PM-10) | 4-Wheel sweeper | Mechanical       |
| 24710            | Challenger (PM-10) | 4-Wheel sweeper | Mechanical       |
| 24711            | Challenger (PM-10) | 4-Wheel sweeper | Mechanical       |
| 24712            | Challenger (PM-10) | 4-Wheel sweeper | Mechanical       |
| 24713            | Challenger (PM-10) | 4-Wheel sweeper | Mechanical       |
| 27655            | Global M4 (PM-10)  | 4-Wheel sweeper | Mechanical       |
| 27773            | Global M3 (PM-10)  | 3-Wheel sweeper | Mechanical       |
| 27774            | Global M3 (PM-10)  | 3-Wheel sweeper | Mechanical       |
| 27629            | Tymco 500X (PM-10) | 4-Wheel sweeper | Regenerative Air |
| 28829            | Ravo 5i (PM-10)    | 4-Wheel sweeper | Vacuum Sweeper   |

2020 Category 1 Industries

| Company   | Site Address         | Site Zipcode | Inspection 2020 | Date of OEPA Notification | Category | Priority | Permit Status   |
|---|----------------------|--------------|-----------------|---------------------------|----------|----------|---|
| Sunrise Foods                                     | 2097 Corvair Blvd.   | 43207        |                 |                           | 1        | 2        | General Permit  |
| Columbus Pallet Recycling                         | 611 Marion Rd        | 43207        |                 |                           | 1        | 2        | General Permit eligible; Owner & OEPA notified            |
| Phoenix Recycling, Inc.                           | 659 Marion Rd        | 43207        |                 |                           | 1        | 2        | General Permit eligible; Owner & OEPA notified            |
| Cabbage Cases, Inc.                               | 1166 Steelwood Rd #C | 43212        |                 |                           | 1        | 1        | No Exposure Certification eligible; Owner & OEPA notified |
| M R S Industrial, Inc.                            | 2583 Harrison Rd     | 43204        |                 |                           | 1        | 1        | No Exposure Certification                                 |
| T Marzetti Company                                | 3838 Indianola Ave   | 43214        |                 |                           | 1        | 1        | General Permit  |
| CSX, Inc.   | 2600 Parsons Ave     | 43207        |                 |                           | 1        | 1        | General Permit  |
| T Marzetti Company - Allen Division               | 1709 Frank Rd        | 43223        |                 |                           | 1        | 1        | General Permit  |
| Pick-n-Pull                                       | 2716 Groveport Rd    | 43207        |                 |                           | 1        | 1        | General Permit  |
| Ace Iron & Metal                                  | 2515 Groveport Rd    | 43207        |                 |                           | 1        | 1        | General Permit  |
| Reliable Truck Parts                              | 1950 Refugee Rd.     | 43207        |                 |                           | 1        | 1        | General Permit  |
| Ace Iron & Metal                                  | 1662 Williams Rd     | 43207        |                 |                           | 1        | 1        | No Exposure Certification                                 |
| Damos Auto & Shipping                             | 4824 Fisher Rd.      | 43228        |                 |                           | 1        | 1        | General Permit  |
| Edison Automotive, Inc.                           | 1529 McKinley Ave    | 43222        |                 |                           | 1        | 1        | General Permit  |
| Jon Edwards Steel Company                         | 1777 McKinley Ave    | 43222        |                 |                           | 1        | 1        | General Permit  |
| JETCOAT   | 472 Brehl Ave        | 43223        |                 |                           | 1        | 1        | General Permit  |
| GREIF   | 3024 Charter St      | 43228        |                 |                           | 1        | 1        | No Exposure Certification eligible; Owner & OEPA notified |
| LCG Machine & Tool, Inc.                          | 2923 Grasmere Ave    | 43224        |                 |                           | 1        | 1        | No Exposure Certification eligible; Owner & OEPA notified |
| Vertex Refining                                   | 4001 E. 5th Ave.     | 43219        |                 |                           | 1        | 1        | General Permit  |
| Refuel Environmental Services LLC                 | 4280 Groves Rd       | 43232        | 2/12/2020       | 2/12/2020                 | 1        | 1        | No Exposure Certification                                 |
| National Lime & Stone Company                     | 4390 Fisher Rd       | 43228        | 3/3/2020        | 3/11/2020                 | 1        | 1        | General Permit  |
| Wheel Medic, Inc.                                 | 2971 Silver Dr       | 43224        | 9/18/2020       | 9/22/2020                 | 1        | 1        | No Exposure Certification eligible; Owner & OEPA notified |
| Appian Manufacturing Corporation                  | 2025 Camaro Dr       | 43207        | 11/10/2020      | 11/10/2020                | 1        | 1        | No Exposure Certification                                 |
| Industrial Aluminum & Bronze Foundry, Inc. (IABF) | 1890 McKinley Ave    | 43222        | 12/58/2020      | 12/8/2020                 | 1        | 1        | No Exposure Certification                                 |
| Prism Prints Inc /Mo Jo Sportsgear                | 5765 Westbourne Ave  | 43213        | 12/30/2020      | 12/30/2020                | 1        | 1        | No Exposure Certification                                 |
| Welch Packaging                                   | 4700 Alkire Rd       | 43228        |                 |                           | 1        | 1        | No Exposure Certification eligible; Owner & OEPA notified |
| Galaxy Metals                                     | 1559 McKinley Ave    | 43222        |                 |                           | 1        | 1        | General Permit eligible; Owner & OEPA notified            |
| Advance Industrial Manufacturing, Inc.            | 1996 Longwood Ave    | 43123        |                 |                           | 1        | 1        | General Permit  |
| Linde Gas North America                           | 1699 Feddern Ave     | 43123        |                 |                           | 1        | 1        | No Exposure Certification eligible; Owner & OEPA notified |
| Buckeye Body and Equipment                        | 939 E Starr Ave      | 43201        |                 |                           | 1        | 1        | No Exposure Certification                                 |
| Environmental Enterprises, Inc.                   | 1249 Essex Ave       | 43201        |                 |                           | 1        | 1        | No Exposure Certification                                 |
| New World Recycling, LLC                          | 1079 E 5th Ave       | 43201        |                 |                           | 1        | 1        | General Permit  |
| Buckeye Boxes, Inc.                               | 601 N Hague Ave      | 43204        |                 |                           | 1        | 1        | No Exposure Certification                                 |
| Buckeye Boxes, Inc. - Warehouse                   | 665 N Hague Ave      | 43204        |                 |                           | 1        | 1        | No Exposure Certification                                 |
| PHPK Technologies                                 | 2111 Builders Pl     | 43204        |                 |                           | 1        | 1        | No Exposure Certification                                 |
| The Tarrier Steel Company, Inc.                   | 1379 S 22nd ST       | 43206        |                 |                           | 1        | 1        | General Permit  |
| Bo-Mic Enterprises, Inc.                          | 715 Marion Rd        | 43207        |                 |                           | 1        | 1        | General Permit eligible; Owner & OEPA notified            |
| Ironfab, LLC                                      | 1771 Progress Ave    | 43207        |                 |                           | 1        | 1        | No Exposure Certification                                 |
| Arcelormittal Columbus, LLC                       | 1800 Watkins Rd      | 43207        |                 |                           | 1        | 1        | General Permit  |

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| BB Plastics Recycling              | 3300 Lockbourne Rd    | 43207        | 1/30/2020       |                           | 1        | 1        | No Exposure Certification |
| Buckeye Shapeform                  | 555 Marion Rd         | 43207        | 1/30/2020       |                           | 1        | 1        | No Exposure Certification |
| Central Ohio Oil, Inc.             | 795 Marion Rd         | 43207        |                 |                           | 1        | 1        | General Permit            |
| Forty Eight Solutions              | 2130 New World Drive  | 43207        |                 |                           | 1        | 1        | No Exposure Certification |
| Howard Industries, Inc.            | 1840 Progress Ave     | 43207        |                 |                           | 1        | 1        | No Exposure Certification |
| Hudson Meat Company                | 2320 S 7th St         | 43207        |                 |                           | 1        | 1        | No Exposure Certification |
| KGR Auto Salvage                   | 2020 Refugee Rd       | 43207        |                 |                           | 1        | 1        | General Permit            |
| Millwood, Inc.                     | 1886 Williams Rd      | 43207        |                 |                           | 1        | 1        | No Exposure Certification |
| Ohio E-Waste Recycling, Inc.       | 2050 Williams Rd      | 43207        |                 |                           | 1        | 1        | No Exposure Certification |
| Parsons Auto Parts, LLC            | 2250 Parsons Ave      | 43207        |                 |                           | 1        | 1        | General Permit            |
| South High Auto Parts              | 3040 S High St        | 43207        |                 |                           | 1        | 1        | General Permit            |
| Vitale Poultry Company             | 1415 Universal Road   | 43207        |                 |                           | 1        | 1        | No Exposure Certification |
| Ohio Fabrication & Welding         | 1465 Clara Ave        | 43211        |                 |                           | 1        | 1        | General Permit            |
| Banner Metals Group                | 1308 Holly Ave        | 43212        | 2/19/2020       |                           | 1        | 1        | No Exposure Certification |
| Geiger Excavating, Inc.            | 400 Morrison Rd       | 43213        |                 |                           | 1        | 1        | General Permit            |
| Hoof Hearted Brewery               | 850 N 4th St          | 43215        |                 |                           | 1        | 1        | No Exposure Certification |
| Jeni's Splendid Ice Cream          | 909 Michigan Ave      | 43215        |                 |                           | 1        | 1        | No Exposure Certification |
| A-Z Recycling                      | 1465 E 17th Ave       | 43219        |                 |                           | 1        | 1        | General Permit            |
| Calgon Carbon Corporation          | 835 N Cassady Ave     | 43219        |                 |                           | 1        | 1        | General Permit            |
| All City Auto Wrecking, Inc.       | 1441 Joyce Ave        | 43219        |                 |                           | 1        | 1        | General Permit            |
| Burton Metal Finishing, Inc.       | 1711 Woodland Ave     | 43219        |                 |                           | 1        | 1        | General Permit            |
| Green Auto Parts & Salvage         | 844 N Cassady Ave     | 43219        |                 |                           | 1        | 1        | TBD                       |
| Jax Wax, Inc.                      | 3150 Lamb Ave         | 43219        |                 |                           | 1        | 1        | No Exposure Certification |
| Metro Auto/Dublin Taxi             | 1555 - 1579 Joyce Ave | 43219        |                 |                           | 1        | 1        | General Permit            |
| RAP Management                     | 4569 E. 5th Avenue    | 43219        |                 |                           | 1        | 1        | General Permit            |
| Universal Auto Parts               | 1061 McKinley Ave     | 43222        |                 |                           | 1        | 1        | TBD                       |
| Able Pallet Manufacturing & Repair | 1271 Harmon Ave       | 43223        |                 |                           | 1        | 1        | General Permit            |
| Blackburn's Fabrication, Inc.      | 2467 Jackson Pike     | 43223        |                 |                           | 1        | 1        | General Permit            |
| Driveline 1                        | 1369 Frank Rd         | 43223        |                 |                           | 1        | 1        | No Exposure Certification |
| Roof to Road, LLC                  | 888 Frank Rd          | 43223        |                 |                           | 1        | 1        | TBD                       |
| Madmoon Craft Cidery               | 2138 Britains Lane    | 43224        |                 |                           | 1        | 1        | No Exposure Certification |
| Buckeye Recycling Center           | 3483 Fulton St        | 43227        |                 |                           | 1        | 1        | TBD                       |
| Cozmyk Enterprises, Inc.           | 3757 Courtright Ct    | 43227        |                 |                           | 1        | 1        | No Exposure Certification |
| McGlaughlin Oil Company            | 3750 E Livingston Ave | 43227        |                 |                           | 1        | 1        | General Permit            |
| Steer & Gear, Inc.                 | 3459 E Fulton St      | 43227        |                 |                           | 1        | 1        | No Exposure Certification |
| Steer & Gear, Inc.                 | 1000 Barnett Rd       | 43227        |                 |                           | 1        | 1        | No Exposure Certification |
| Parker Hannifin Corporation        | 3885 Gateway Blvd     | 43228        |                 |                           | 1        | 1        | No Exposure Certification |
| Simply Self Storage                | 4600 Fisher Rd        | 43228        |                 |                           | 1        | 1        | No Exposure Certification |
| Fournier Rubber & Supply Company   | 4849 Evanswood Dr     | 43229        |                 |                           | 1        | 1        | No Exposure Certification |

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| MS Energy of Central Ohio, LLC   | 946 Freeway Dr N                | 43229        |                 |                           | 1        | 1        | No Exposure Certification                                 |
| Patrick Manufacturing  | 5474 Byers Cir W                | 43229        |                 |                           | 1        | 1        | No Exposure Certification                                 |
| Columbus Micro System, Inc.  | 5087 Westerville Rd             | 43231        |                 |                           | 1        | 1        | No Exposure Certification                                 |
| Hamilton Road Materials  | 4100 Truro Station Rd           | 43232        |                 |                           | 1        | 1        | TBD   |
| Inteplast Pitt Plastics, Inc.  | 3980 Groves Rd                  | 43232        |                 |                           | 1        | 1        | General Permit  |
| Griffen Hollow Studios   | 4608 Indianola Ave. Suite E     | 43214        |                 |                           | 1        | 1        | TBD   |
| Budget Storage   | 3376 Refugee Rd                 | 43232        |                 |                           | 1        | 2        | TBD   |
| United States Postal Service   | 6316 Nicholas Dr                | 43235        |                 |                           | 1        | 2        | No Exposure Certification                                 |
| Environmental Enterprises, Inc.  | 645 E 8th Ave                   | 43201        |                 |                           | 1        | 2        | No Exposure Certification eligible; Owner & OEPA notified |
| J B Hunt Transport, Inc.   | 5435 Crosswind Dr               | 43228        |                 |                           | 1        | 2        | General Permit  |
| Signature Flight Support   | 4130 E. 5th Ave.                | 43219        |                 |                           | 1        | 2        | General Permit  |
| United Parcel Service -UPS Ground Freight Inc                          | 3400 Refugee Rd                 | 43232        |                 |                           | 1        | 2        | General Permit  |
| Express Container  | 1795 Feddern Ave                | 43123        |                 |                           | 1        | 2        | No Exposure Certification                                 |
| UPS Cartage Services, Inc.   | 1711 Georgesville Rd            | 43228        | 2/7/2020        | 2/10/2020                 | 1        | 2        | General Permit  |
| Advantage Tank Lines, LLC  | 500 Manor Park Dr               | 43228        | 2/13/2020       | 2/19/2020                 | 1        | 2        | General Permit  |
| Sygma Network, Inc.  | 2400 Harrison Rd                | 43204        | 2/13/2020       | 2/20/2020                 | 1        | 2        | General Permit  |
| Car-Go-Self Storage  | 3935 Westerville Rd             | 43224        | 2/27/2020       | 2/28/2020                 | 1        | 2        | No Exposure Certification                                 |
| USF Holland, Inc.  | 4800 Journal St                 | 43228        | 3/18/2020       | 3/30/2020                 | 1        | 2        | General Permit  |
| Ward Transport & Logistics   | 1601 McKinley Ave               | 43222        | 3/31/2020       | 3/31/2020                 | 1        | 2        | No Exposure Certification                                 |
| Allied Fabricating & Welding Company                                   | 5699 Chantry Dr                 | 43232        | 4/7/2020        | 4/30/2020                 | 1        | 2        | No Exposure Certification                                 |
| Berger Transfer & Storage, Inc.  | 1111 Milepost Dr                | 43228        | 4/16/2020       | 5/28/2020                 | 1        | 2        | No Exposure Certification eligible; Owner & OEPA notified |
| Peebles-Herzog, Inc.   | 50 Hayden Ave                   | 43222        |                 |                           | 1        | 2        | No Exposure Certification                                 |
| Lexington Intermodal   | 1585 Frebis Road                | 43206        |                 |                           | 1        | 2        | No Exposure Certification eligible; Owner & OEPA notified |
| PS Plastics, Inc.  | 2020 Britains Ln                | 43224        |                 |                           | 1        | 2        | No Exposure Certification                                 |
| Car-Go Self Storage  | 3613 Refugee Rd                 | 43232        |                 |                           | 1        | 2        | No Exposure Certification eligible; Owner & OEPA notified |
| Builders Trash Service   | 1575 Harmon Ave                 | 43223        |                 |                           | 1        | 2        | General Permit  |
| Central Ohio Transit Authority   | 1330 Fields Ave                 | 43201        |                 |                           | 1        | 2        | No Exposure Certification                                 |
| Central Ohio Transit Authority   | 1333 Fields Ave                 | 43201        |                 |                           | 1        | 2        | No Exposure Certification                                 |
| Republic Services, Inc. - Reynolds Road Transfer Station               | 805 Reynolds Ave                | 43201        |                 |                           | 1        | 2        | General Permit  |
| Rumpke Waste & Recycling   | 1191 Fields Ave                 | 43201        |                 |                           | 1        | 2        | General Permit  |
| Action Resources   | 1484 Williams Road              | 43207        |                 |                           | 1        | 2        | No Exposure Certification eligible; Owner & OEPA notified |
| Keystone Freight Corporation   | 2545 Parsons Ave                | 43207        |                 |                           | 1        | 2        | No Exposure Certification                                 |
| Local Waste Services, LLC  | 1300 S Columbus Airport Rd      | 43207        |                 |                           | 1        | 2        | TBD   |
| Royal Building Products - Formerly Exterior Portfolio, LLC North Plant | 1550 Universal Rd               | 43207        |                 |                           | 1        | 2        | General Permit  |
| Royal Building Products - Formerly Exterior Portfolio, LLC South Plant | 1441 Universal Rd               | 43207        |                 |                           | 1        | 2        | General Permit  |
| Spartan Logistics - Vehicle Maintenance Garage                         | 4025 Lockbourne Industrial Pkwy | 43207        |                 |                           | 1        | 2        | General Permit  |
| Tubelite Company, Inc.   | 1224 Refugee Ln                 | 43207        |                 |                           | 1        | 2        | No Exposure Certification                                 |
| American Limousine Service   | 1251 Alum Creek Dr              | 43209        |                 |                           | 1        | 2        | No Exposure Certification                                 |
| Amcor Plastic Products   | 444 McCormick Blvd              | 43213        |                 |                           | 1        | 2        | No Exposure Certification                                 |

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| Rolling Frito-Lay Sales, LP              | 6611 Broughton Ave           | 43213        |                 |                           | 1        | 2        | General Permit  |
| Ppafco, Inc.                             | 1096 Ridge St                | 43215        |                 |                           | 1        | 2        | No Exposure Certification                                 |
| Forward Air, Inc.                        | 6750 Port Rd                 | 43217        |                 |                           | 1        | 2        | No Exposure Certification                                 |
| ISP Chemicals, Inc.                      | 1979 Atlas St                | 43228        |                 |                           | 1        | 2        | General Permit  |
| Entrotech, Inc.                          | 1245 Kinneer Rd              | 43212        |                 |                           | 1        | 2        | No Exposure Certification                                 |
| Columbus Coach Transportation            | 3034 Lamb Ave.               | 43219        |                 |                           | 1        | 2        | No Exposure Certification eligible; Owner & OEPA notified |
| VAT, Inc. - Columbus Bus Compound        | 952 Brentnell Ave            | 43219        |                 |                           | 1        | 2        | General Permit  |
| BB Bradley Company                       | 2699 Scioto Pkwy             | 43221        | 2/13/2020       |                           | 1        | 2        | No Exposure Certification                                 |
| Engineered Profiles LLC                  | 2141 Fairwood Ave            | 43207        |                 |                           | 1        | 2        | General Permit  |
| Columbus Gasket and Supply Company       | 1875 Lone Eagle St           | 43228        |                 |                           | 1        | 2        | No Exposure Certification                                 |
| Commercial Works, Inc.                   | 1299 Boltonfield St          | 43228        |                 |                           | 1        | 2        | No Exposure Certification                                 |
| Junk King                                | 819 Phillipi Rd              | 43228        |                 |                           | 1        | 2        | No Exposure Certification                                 |
| The Mason and Dixon Lines, Inc.          | 2950 International St        | 43228        |                 |                           | 1        | 2        | TBD   |
| Great Value Storage                      | 5301 Tamarack Cir E          | 43229        |                 |                           | 1        | 2        | TBD   |
| Two Men and a Truck                      | 5083 Westerville Rd          | 43231        |                 |                           | 1        | 2        | No Exposure Certification                                 |
| MedFlight                                | 2827 W Dublin Granville Rd   | 43235        |                 |                           | 1        | 2        | General Permit  |
| Lakefront Lines, Inc.                    | 3152 E 17th Ave              | 43236        |                 |                           | 1        | 2        | No Exposure Certification                                 |
| Pasta Ditonis, Inc.                      | 733 N James Rd               | 43219        |                 |                           | 1        | 3        | No Exposure Certification eligible; Owner & OEPA notified |
| Universal Paper and Plastics             | 521 Marion Rd                | 43207        |                 |                           | 1        | 3        | TBD   |
| Key Finishes, LLC                        | 727 Harrison Dr              | 43204        |                 |                           | 1        | 3        | No Exposure Certification                                 |
| Cardinal Transportation Ltd              | 700 Harrison Drive           | 43204        |                 |                           | 1        | 3        | General Permit  |
| Wolf Composite Solutions                 | 3991 Fondorf Dr              | 43228        |                 |                           | 1        | 3        | No Exposure Certification                                 |
| Auddino's Italian Bakery                 | 1490 Clara Ave               | 43211        |                 |                           | 1        | 3        | No Exposure Certification                                 |
| Fastsigns                                | 205 E Broad St               | 43215        |                 |                           | 1        | 3        | No Exposure Certification                                 |
| Clark Graphics, Inc.                     | 1550 N Wilson Rd             | 43204        |                 |                           | 1        | 3        | No Exposure Certification                                 |
| Fellers, Inc.                            | 3777 Business Park Dr, Ste D | 43204        |                 |                           | 1        | 3        | No Exposure Certification                                 |
| Uncle Chuck's Printing and Signs         | 2541 W Broad St              | 43204        |                 |                           | 1        | 3        | No Exposure Certification                                 |
| McGraw-Hill Education (Polaris Facility) | 8787 Orion Pl                | 43240        |                 |                           | 1        | 3        | No Exposure Certification                                 |
| Public Storage                           | 2655 Billingsley Rd          | 43235        |                 |                           | 1        | 3        | No Exposure Certification                                 |
| Studio AMG, LLC                          | 6344 Nicholas Dr             | 43235        |                 |                           | 1        | 3        | No Exposure Certification                                 |
| Brothers Drake Meadery                   | 26 E 5th Ave                 | 43201        |                 |                           | 1        | 3        | No Exposure Certification eligible; Owner & OEPA notified |
| North High Brewing                       | 1125 Cleveland Ave           | 43201        |                 |                           | 1        | 3        | No Exposure Certification                                 |
| Sherwin-Williams Company                 | 2121 New World Dr            | 43207        |                 |                           | 1        | 3        | General Permit  |
| Budget Storage                           | 6805 Commerce Court Dr       | 43004        |                 |                           | 1        | 3        | No Exposure Certification                                 |
| English Bay Batter, Inc.                 | 2241 Citygate Dr             | 43219        |                 |                           | 1        | 3        | No Exposure Certification                                 |
| Metamateria                              | 870 Kaderly Drive            | 43228        |                 |                           | 1        | 3        | No Exposure Certification eligible; Owner & OEPA notified |
| Extra Space Storage                      | 2087 S Hamilton Rd           | 43232        |                 |                           | 1        | 3        | No Exposure Certification                                 |
| Extra Space Storage                      | 3015 W Dublin Granville Rd   | 43235        |                 |                           | 1        | 3        | No Exposure Certification                                 |
| Briskheat Corp.                          | 4800 Hilton Corporate Dr.    | 43232        |                 |                           | 1        | 3        | No Exposure Certification                                 |

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| City of Columbus Police Heliport              | 2130 W Broad Street        | 43223        |                 |                           | 1        | 3        | General Permit  |
| Magnum Products                               | 3939 E. 5th St.            | 43219        |                 |                           | 1        | 3        | General Permit  |
| Bell Optical                                  | 3671 Interchange Rd        | 43204        |                 |                           | 1        | 3        | No Exposure Certification                                 |
| Network Global Logistics                      | 1500 Commodity Blvd        | 43137        |                 |                           | 1        | 3        | TBD   |
| Tri Village Self Storage                      | 5235 Avery Run Rd.         | 43016        |                 |                           | 1        | 3        | No Exposure Certification                                 |
| IRG Realty Advisors, LLC                      | 4545 Fisher Rd.            | 43228        |                 |                           | 1        | 3        | No Exposure Certification                                 |
| Access Corporation                            | 2612 Walcutt Road          | 43026        | 1/13/2020       | 1/14/2020                 | 1        | 3        | No Exposure Certification eligible; Owner & OEPA notified |
| Jordan Manwaring (Extra Space Storage)        | 2929 Dublin Rd             | 43026        | 1/13/2020       | 1/14/2020                 | 1        | 3        | No Exposure Certification                                 |
| Access Corporation                            | 2500 Charter St            | 43228        | 1/13/2020       | 1/14/2020                 | 1        | 3        | No Exposure Certification eligible; Owner & OEPA notified |
| B & G Tool Company                            | 4832 Kenny Rd              | 43220        | 1/15/2020       | 1/16/2020                 | 1        | 3        | No Exposure Certification eligible; Owner & OEPA notified |
| CubeSmart Self Storage                        | 5252 Nike Dr               | 43026        | 1/28/2020       | 1/30/2020                 | 1        | 3        | No Exposure Certification                                 |
| Snyder Brick & Block                          | 3180 Valleyview Dr         | 43201        | 1/24/2020       | 1/30/2020                 | 1        | 3        | General Permit  |
| Wild Ohio Brewing                             | 2025 S. High               | 43207        | 1/29/2020       | 1/30/2020                 | 1        | 3        | No Exposure Certification                                 |
| CubeSmart Self Storage                        | 3391 S High St             | 43207        | 2/5/2020        | 2/6/2020                  | 1        | 3        | No Exposure Certification                                 |
| Able Printing Company                         | 1325 Holly Ave             | 43212        | 2/5/2020        | 2/6/2020                  | 1        | 3        | No Exposure Certification                                 |
| Pretentious Barrel House                      | 745 Taylor                 | 43219        | 2/11/2020       | 2/20/2020                 | 1        | 3        | No Exposure Certification                                 |
| Public Storage                                | 4511 Eastland Dr           | 43232        | 2/21/2020       | 2/21/2020                 | 1        | 3        | No Exposure Certification eligible; Owner & OEPA notified |
| Public Storage                                | 5275 Gender Rd             | 43110        | 3/10/2020       | 3/10/2020                 | 1        | 3        | No Exposure Certification                                 |
| Extra Space Storage                           | 4616 Kenny Rd              | 43220        | 3/24/2020       | 3/24/2020                 | 1        | 3        | No Exposure Certification                                 |
| Extra Space Storage                           | 2160 Innis Road            | 43224        | 3/24/2020       | 3/24/2020                 | 1        | 3        | No Exposure Certification                                 |
| Sterling Process Engineering & Services, Inc. | 333 McCormick Blvd         | 43213        | 10/2/2020       | 10/2/2020                 | 1        | 3        | No Exposure Certification                                 |
| The ScareFactory, Inc.                        | 350-C McCormick Blvd       | 43213        | 10/2/2020       | 10/2/2020                 | 1        | 3        | No Exposure Certification                                 |
| Essilor of America                            | 2400 Spiegel Dr.           | 43125        | 11/25/2020      | 11/25/2020                | 1        | 3        | No Exposure Certification                                 |
| Industrial Pattern & Manufacturing Company    | 899 N 20th St              | 43219        | 12/8/2020       | 12/8/2020                 | 1        | 3        | No Exposure Certification                                 |
| Beckman XMO                                   | 376 Morrison Rd, Ste D     | 43213        | 12/30/2020      | 12/30/2020                | 1        | 3        | No Exposure Certification                                 |
| The Ink Well                                  | 1939 E Dublin Granville Rd | 43229        |                 |                           | 1        | 3        | No Exposure Certification eligible; Owner & OEPA notified |
| Printpro, Inc.                                | 760 Busch Ct               | 43229        |                 |                           | 1        | 3        | No Exposure Certification eligible; Owner & OEPA notified |
| Mid-Ohio Electric Company                     | 1170 McKinley Ave          | 43222        |                 |                           | 1        | 3        | No Exposure Certification                                 |
| CubeSmart Self Storage                        | 1531 Georgesville Rd       | 43228        |                 |                           | 1        | 3        | No Exposure Certification eligible; Owner & OEPA notified |
| Yazaki North America                          | 5353 Fisher Rd             | 43228        |                 |                           | 1        | 3        | No Exposure Certification eligible; Owner & OEPA notified |
| Simply Self Storage                           | 810 E Cooke Rd             | 43214        |                 |                           | 1        | 3        | No Exposure Certification                                 |
| Public Storage                                | 4600 Kenny Rd              | 43220        |                 |                           | 1        | 3        | No Exposure Certification                                 |
| Catering By Design                            | 6465 Busch Blvd            | 43229        |                 |                           | 1        | 3        | No Exposure Certification                                 |
| The Flag Lady's Flag Store                    | 4567 N High St             | 43214        |                 |                           | 1        | 3        | No Exposure Certification                                 |
| Uncle Bob's Self Storage                      | 851 W Henderson Rd         | 43214        |                 |                           | 1        | 3        | No Exposure Certification                                 |
| Storage Express                               | 5621 Chatterton Rd         | 43232        |                 |                           | 1        | 3        | No Exposure Certification eligible; Owner & OEPA notified |
| Rickly Hydrological Company, Inc.             | 1700 Joyce Ave             | 43219        |                 |                           | 1        | 3        | No Exposure Certification                                 |
| Great Value Storage                           | 9984 S Old State Rd        | 43035        |                 |                           | 1        | 3        | No Exposure Certification                                 |
| Alliance Data Systems Corporation             | 6939 Americana Pkwy        | 43068        |                 |                           | 1        | 3        | No Exposure Certification                                 |

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| Great Value Storage                      | 7200 Tussing Road      | 43068        |                 |                           | 1        | 3        | No Exposure Certification                                 |
| Simply Self Storage                      | 7304 Tussing Rd        | 43068        |                 |                           | 1        | 3        | No Exposure Certification                                 |
| Public Storage                           | 7535 Alta View Blvd    | 43085        |                 |                           | 1        | 3        | No Exposure Certification                                 |
| Advance Apex Companies                   | 2375 Harrisburg Pike   | 43123        |                 |                           | 1        | 3        | No Exposure Certification                                 |
| Nifco, Inc.                              | 2435 Spiegel Dr        | 43125        |                 |                           | 1        | 3        | No Exposure Certification                                 |
| Camelot Cellars                          | 958 N High St          | 43201        |                 |                           | 1        | 3        | No Exposure Certification                                 |
| Middle West Spirits                      | 470 E. Starr           | 43201        |                 |                           | 1        | 3        | No Exposure Certification eligible; Owner & OEPA notified |
| Signage Consultants, Inc.                | 870 E 5th Ave          | 43201        |                 |                           | 1        | 3        | No Exposure Certification                                 |
| Rambling House Soda                      | 2632 N High St, Unit A | 43202        |                 |                           | 1        | 3        | No Exposure Certification                                 |
| Extra Space Storage                      | 191 N Wilson Rd        | 43204        |                 |                           | 1        | 3        | No Exposure Certification                                 |
| Landon Vault Co.                         | 1477 Frebis Ave        | 43206        |                 |                           | 1        | 3        | General Permit  |
| Allied Sign Company                      | 818 Marion Rd          | 43207        |                 |                           | 1        | 3        | No Exposure Certification                                 |
| Boss Display Corporation                 | 1975 Galaxie St        | 43207        |                 |                           | 1        | 3        | No Exposure Certification                                 |
| Cloverleaf Cold Storage                  | 2350 New World Dr      | 43207        |                 |                           | 1        | 3        | No Exposure Certification                                 |
| Franklin International, Inc.             | 2020 Bruck St          | 43207        |                 |                           | 1        | 3        | General Permit  |
| Old Trail Printing Company               | 100 Fornoff Rd         | 43207        |                 |                           | 1        | 3        | No Exposure Certification                                 |
| RJM Stamping Company                     | 1641 Universal Rd      | 43207        |                 |                           | 1        | 3        | No Exposure Certification                                 |
| Upright Press                            | 2060 S High St         | 43207        |                 |                           | 1        | 3        | No Exposure Certification                                 |
| Battery Shop of Columbus                 | 1410 E. 17th Ave       | 43211        |                 |                           | 1        | 3        | General Permit  |
| Specialty Services Cabinetry             | 1382 Ohlen Ave         | 43211        |                 |                           | 1        | 3        | No Exposure Certification                                 |
| American Orthopedics, Inc.               | 1151 W 5th Ave         | 43212        | 2/19/2020       |                           | 1        | 3        | No Exposure Certification                                 |
| Beaumont American Inc.                   | 1473 Showcase Dr       | 43212        | 2/19/2020       |                           | 1        | 3        | No Exposure Certification                                 |
| Bowman Industries, Inc.                  | 857 King Ave           | 43212        |                 |                           | 1        | 3        | General Permit  |
| Affordable Granite                       | 5664 Westbourne Ave    | 43213        |                 |                           | 1        | 3        | No Exposure Certification                                 |
| Cap & Associates, Inc.                   | 445 McCormick Blvd     | 43213        | 10/2/2020       |                           | 1        | 3        | No Exposure Certification                                 |
| Premier CounterTop Sales & Service, LLC  | 5767 Westbourne Ave    | 43213        |                 |                           | 1        | 3        | No Exposure Certification                                 |
| Commonhouse Ales                         | 535 Short St           | 43215        |                 |                           | 1        | 3        | General Permit  |
| Elevator Brewing Company                 | 165 N 4th St           | 43215        |                 |                           | 1        | 3        | No Exposure Certification                                 |
| Gordon Biersch                           | 401 N Front St         | 43215        |                 |                           | 1        | 3        | No Exposure Certification                                 |
| Via Vecchia Winery                       | 486 S Front St         | 43215        |                 |                           | 1        | 3        | No Exposure Certification                                 |
| Urban Express Charter/PDQ Transportation | 1640 E 5th Ave         | 43219        |                 |                           | 1        | 3        | General Permit  |
| Columbus Glass Block                     | 3091 E 14th Ave        | 43219        |                 |                           | 1        | 3        | No Exposure Certification                                 |
| Jet Container Company                    | 1033 Brentnell Avenue  | 43219        |                 |                           | 1        | 3        | No Exposure Certification                                 |
| Lehner Signs, Inc.                       | 2983 Switzer Ave       | 43219        |                 |                           | 1        | 3        | No Exposure Certification                                 |
| Meyer Machine Tool Company               | 3434 E 7th Ave         | 43219        |                 |                           | 1        | 3        | No Exposure Certification                                 |
| Robey Tool & Machine                     | 1593 E 5th Ave         | 43219        |                 |                           | 1        | 3        | No Exposure Certification                                 |
| Somewhere in Particular                  | 5055 Dieker Road       | 43220        |                 |                           | 1        | 3        | No Exposure Certification                                 |
| LSI ADL Technology                       | 2727 Scioto Pkwy       | 43221        |                 |                           | 1        | 3        | No Exposure Certification                                 |
| Morrison Sign Company, Inc.              | 2757 Scioto Pkwy       | 43221        |                 |                           | 1        | 3        | No Exposure Certification                                 |

2020 Category 1 Industries

| Company                            | Site Address               | Site Zipcode | Inspection 2020 | Date of OEPA Notification | Category | Priority | Permit Status             |
|------------------------------------|----------------------------|--------------|-----------------|---------------------------|----------|----------|---------------------------|
| Stone Center, LLC                  | 1736 McKinley Ave          | 43222        |                 |                           | 1        | 3        | TBD                       |
| Swan Freedom                       | 1320 McKinley Ave, Suite A | 43222        |                 |                           | 1        | 3        | No Exposure Certification |
| Trio Insulated Glass, Inc.         | 1094 McKinley Ave          | 43222        |                 |                           | 1        | 3        | No Exposure Certification |
| Concept Wear                       | 950 Oakland Park Ave       | 43224        |                 |                           | 1        | 3        | No Exposure Certification |
| Mr. Meatball Italian food Products | 3716 Cleveland Ave         | 43224        |                 |                           | 1        | 3        | No Exposure Certification |
| Vellus Products Inc.               | 6490 Fiesta Drive          | 43225        |                 |                           | 1        | 3        | No Exposure Certification |
| CubeSmart                          | 4061 Roberts Rd            | 43228        |                 |                           | 1        | 3        | TBD                       |
| CubeSmart Self Storage             | 5411 W Broad St            | 43228        |                 |                           | 1        | 3        | No Exposure Certification |
| Dublin Road Mini Storage, LLC      | 2087 Dublin Rd             | 43228        |                 |                           | 1        | 3        | No Exposure Certification |
| Engineered Marble, Inc.            | 4064 Fisher Rd             | 43228        |                 |                           | 1        | 3        | No Exposure Certification |
| MBM Ohio                           | 4300 Diplomacy Dr          | 43228        |                 |                           | 1        | 3        | No Exposure Certification |
| Medcare Ambulance                  | 3699 Paragon Drive         | 43228        |                 |                           | 1        | 3        | No Exposure Certification |
| Mont Granite, Inc.                 | 2365 Setterlin Dr          | 43228        |                 |                           | 1        | 3        | No Exposure Certification |
| North Shore Stone, Inc.            | 915 Manor Park Dr          | 43228        |                 |                           | 1        | 3        | General Permit            |
| Omnitech Electronics, Inc.         | 5090 Trabue Rd             | 43228        |                 |                           | 1        | 3        | No Exposure Certification |
| Alvito Custom Imprints             | 726 E Lincoln Ave          | 43229        |                 |                           | 1        | 3        | No Exposure Certification |
| Life Storage                       | 4735 Evanswood Dr          | 43229        |                 |                           | 1        | 3        | No Exposure Certification |
| Zaftig Brewing                     | 7020A Huntley Road         | 43229        |                 |                           | 1        | 3        | No Exposure Certification |
| Great Value Storage                | 5199 Westerville Rd        | 43230        |                 |                           | 1        | 3        | No Exposure Certification |
| Cube Smart                         | 3344 Morse Rd              | 43231        |                 |                           | 1        | 3        | No Exposure Certification |
| Mobile-Shop Company, LLC           | 5089 Westerville Rd        | 43231        |                 |                           | 1        | 3        | TBD                       |
| Extra Space Storage                | 2148 Cloverleaf Dr E       | 43232        |                 |                           | 1        | 3        | No Exposure Certification |
| Kyron Tool & Machine Company, Inc. | 2900 Banwick Rd            | 43232        |                 |                           | 1        | 3        | No Exposure Certification |
| United Converting                  | 3960 Groves Rd, Unit B     | 43232        |                 |                           | 1        | 3        | No Exposure Certification |

2020 Category 2 Industries

| Company   | Site Address                     | Site Zipcode | Inspection 2020 | Date of OEPA Notification | Category | Priority | Permit Status             |
|---|----------------------------------|--------------|-----------------|---------------------------|----------|----------|---------------------------|
| G-Cor Automotive Corporation Surplus                          | 2025 Corvair Ave                 | 43207        |                 |                           | 2        | 1        | No Exposure Certification |
| Trulite Glass and Aluminum Solutions                          | 2395 Setterlin Rd                | 43228        |                 |                           | 2        | 1        | No Exposure Certification |
| Scriptel Corporation  | 2178 Dividend Dr                 | 43228        |                 |                           | 2        | 1        | No Exposure Certification |
| Yenkin-Majestic Paint Corporation                             | 1920 Leonard Ave                 | 43219        |                 |                           | 2        | 1        | General Permit            |
| Decker Construction Company                                   | 3040 McKinley Ave                | 43204        |                 |                           | 2        | 1        | General Permit            |
| ContainerPort Group, Inc.                                     | 2400 Creekway Dr                 | 43207        |                 |                           | 2        | 1        | General Permit            |
| Green Earth Recycling   | 2932 Brice Rd, Bldg #9           | 43109        |                 |                           | 2        | 1        | General Permit            |
| Skeeles Manufacturing, Inc.                                   | 4040 Fondorf Dr                  | 43228        | 1/14/2020       | 1/14/2020                 | 2        | 1        | No Exposure Certification |
| Atlapac Corporation   | 2901 E 4th Ave                   | 43219        | 1/16/2020       | 1/16/2020                 | 2        | 1        | No Exposure Certification |
| Scholz & Ey Engravers, Inc.                                   | 1558 Parsons Ave                 | 43207        | 1/22/2020       | 1/22/2020                 | 2        | 1        | No Exposure Certification |
| Goodale Auto-Truck Parts Co., Inc.                            | 1100 E 5th Ave                   | 43201        | 2/11/2020       | 2/20/2020                 | 2        | 1        | No Exposure Certification |
| Accurate IT Services  | 3854 Fisher Road                 | 43228        | 3/5/2020        | 3/5/2020                  | 2        | 1        | No Exposure Certification |
| Alro Steel Corp   | 555 Hilliard Rome Rd             | 43228        | 3/12/2020       | 3/13/2020                 | 2        | 1        | No Exposure Certification |
| Wolf Metals, Inc.   | 1625 W Mound St                  | 43223        | 3/31/2020       | 3/31/2020                 | 2        | 1        | No Exposure Certification |
| EFCO Corporation  | 3900 Zane Trace Dr               | 43228        | 3/31/2020       | 4/1/2020                  | 2        | 1        | No Exposure Certification |
| Pactiv, LLC   | 1999 Dividend Dr                 | 43228        | 4/8/2020        | 4/30/2020                 | 2        | 1        | No Exposure Certification |
| Pressure Connections Corporation                              | 610 Claycraft Rd                 | 43230        | 4/7/2020        | 4/30/2020                 | 2        | 1        | No Exposure Certification |
| Ball Metal Food Container Corporation                         | 2690 Charter St                  | 43228        | 4/16/2020       | 5/28/2020                 | 2        | 1        | No Exposure Certification |
| Buckeye Metal Works, Inc.                                     | 3240 Petzinger Rd                | 43232        |                 |                           | 2        | 1        | No Exposure Certification |
| VanDyke Custom Iron, LLC                                      | 311 Outerbelt St                 | 43213        |                 |                           | 2        | 1        | No Exposure Certification |
| T Marzetti Co (R&D Technical Services)                        | 3900 Indianola Ave               | 43214        |                 |                           | 2        | 1        | No Exposure Certification |
| Phillips Oil Company  | 1877 McKinley Ave                | 43222        |                 |                           | 2        | 1        | No Exposure Certification |
| Action Group, Inc.  | 411 Reynoldsburg New Albany Rd N | 43004        |                 |                           | 2        | 1        | No Exposure Certification |
| Tubular Techniques Corporation                                | 3025 Scioto Darby Executive Ct   | 43026        |                 |                           | 2        | 1        | No Exposure Certification |
| Farber Specialty Vehicles, Inc.                               | 7052 Americana Pkwy              | 43068        |                 |                           | 2        | 1        | No Exposure Certification |
| Microweld Engineering, Inc.                                   | 7451 Oakmeadows Dr               | 43085        |                 |                           | 2        | 1        | No Exposure Certification |
| Vertiv North America  | 1050 Dearborn Dr                 | 43085        |                 |                           | 2        | 1        | General Permit            |
| Worthington Industries, Inc./Worthington Cylinder Corporation | 1085/1205 Dearborn Dr            | 43085        |                 |                           | 2        | 1        | General Permit            |
| Worthington Steel Company                                     | 1127 Dearborn Dr                 | 43085        |                 |                           | 2        | 1        | No Exposure Certification |
| Buck Equipment, Inc.  | 1720 Feddern Ave                 | 43123        |                 |                           | 2        | 1        | No Exposure Certification |
| RelaDyne - Oil Distributing Company                           | 2181 Hardy Parkway St            | 43123        |                 |                           | 2        | 1        | General Permit            |
| Container Management Company, LLC                             | 1200 Corrugated Way              | 43201        |                 |                           | 2        | 1        | No Exposure Certification |
| All Foreign Used Auto Parts, Inc.                             | 500 N Wilson Rd                  | 43204        |                 |                           | 2        | 1        | General Permit            |
| Columbus Roof Trusses, Inc.                                   | 2525 Fisher Rd                   | 43204        |                 |                           | 2        | 1        | No Exposure Certification |
| Custom Sign Center  | 400 N Wilson Rd                  | 43204        |                 |                           | 2        | 1        | No Exposure Certification |
| Hite Parts Exchange, Inc.                                     | 2235 McKinley Ave                | 43204        |                 |                           | 2        | 1        | No Exposure Certification |
| Jones Lumber & Millwork Co.                                   | 57 N Sylvan Ave                  | 43204        |                 |                           | 2        | 1        | No Exposure Certification |
| Milspin   | 665 Hague Ave                    | 43204        |                 |                           | 2        | 1        | No Exposure Certification |
| Wasem Packaging and Crating Service (Evdon Corporation)       | 2591 Harrison Rd                 | 43204        |                 |                           | 2        | 1        | No Exposure Certification |

2020 Category 2 Industries

| Company                                 | Site Address                         | Site Zipcode | Inspection 2020 | Date of OEPA Notification | Category | Priority | Permit Status             |
|---|--------------------------------------|--------------|-----------------|---------------------------|----------|----------|---------------------------|
| Mills Metal Finishing, Inc.             | 1967-1977 McAllister Ave             | 43205        |                 |                           | 2        | 1        | No Exposure Certification |
| Style-Rite Aluminum Awnings             | 572 S Nelson Rd, #N                  | 43205        |                 |                           | 2        | 1        | No Exposure Certification |
| Superior Welding Company                | 906 S Nelson Rd                      | 43205        |                 |                           | 2        | 1        | No Exposure Certification |
| Capitol Waste & Recycling Services, LLC | 321 Dering Ave                       | 43207        |                 |                           | 2        | 1        | General Permit            |
| Columbus Auto Shredding/U Part It       | 2181 Alum Creek Dr & 2338 Refugee Rd | 43207        |                 |                           | 2        | 1        | General Permit            |
| Ohio Mulch Supply                       | 2140 Advance Ave                     | 43207        |                 |                           | 2        | 1        | General Permit            |
| PSC Metals, Inc.                        | 2205 Parsons Ave                     | 43207        |                 |                           | 2        | 1        | General Permit            |
| Superior Die Tool & Machine Company     | 2301 Fairwood Ave                    | 43207        |                 |                           | 2        | 1        | General Permit            |
| Materials Science International, Inc.   | 1660 Georgesville Rd                 | 43228        |                 |                           | 2        | 1        | No Exposure Certification |
| Acrodyne Manufacturing Company          | 41 Kingston Ave                      | 43207        |                 |                           | 2        | 1        | No Exposure Certification |
| Benchmark by Kingspan                   | 720 Marion Rd                        | 43207        |                 |                           | 2        | 1        | No Exposure Certification |
| Cumberlander Refuse, LLC                | 1972 S Champion Ave                  | 43207        | 1/17/2020       |                           | 2        | 1        | No Exposure Certification |
| Dell Fixtures, Inc.                     | 321 Dering Ave                       | 43207        |                 |                           | 2        | 1        | No Exposure Certification |
| G-Cor Automotive Corporation            | 2100 Refugee Rd                      | 43207        |                 |                           | 2        | 1        | General Permit            |
| Georgia-Pacific Chemicals, LLC          | 1975 Watkins Rd                      | 43207        |                 |                           | 2        | 1        | General Permit            |
| Hamilton Tanks, LLC                     | 2200 Refugee Rd                      | 43207        |                 |                           | 2        | 1        | General Permit            |
| Hirschvogel, Inc.                       | 2230 S 3rd St                        | 43207        |                 |                           | 2        | 1        | General Permit            |
| I H Schlezinger, Inc.                   | 2040 S Parsons Ave                   | 43207        |                 |                           | 2        | 1        | No Exposure Certification |
| Kaffenbarger Truck Equipment Company    | 2310 Refugee Rd                      | 43207        |                 |                           | 2        | 1        | No Exposure Certification |
| Lamit Industries, Inc.                  | 710 Marion Rd                        | 43207        |                 |                           | 2        | 1        | No Exposure Certification |
| Nelson Company                          | 1951 Galaxie St                      | 43207        |                 |                           | 2        | 1        | No Exposure Certification |
| Ohio Wire Form & Spring Company         | 2270 S High St                       | 43207        |                 |                           | 2        | 1        | No Exposure Certification |
| Quadra-Tech, Inc.                       | 864 E Jenkins Ave                    | 43207        |                 |                           | 2        | 1        | No Exposure Certification |
| Select Seating Group                    | 862 E Jenkins Ave                    | 43207        |                 |                           | 2        | 1        | No Exposure Certification |
| Smith Dodson Lumber & Millwork          | 200 Colton Rd                        | 43207        |                 |                           | 2        | 1        | No Exposure Certification |
| Spillman Company                        | 1701 Moler Rd                        | 43207        |                 |                           | 2        | 1        | General Permit            |
| Superior Die Tool & Machine Company     | 1405 Marion Rd                       | 43207        |                 |                           | 2        | 1        | General Permit            |
| United McGill Corporation               | 1779 Refugee Rd                      | 43207        |                 |                           | 2        | 1        | No Exposure Certification |
| United Security Seals, Inc.             | 2000 Fairwood Ave                    | 43207        |                 |                           | 2        | 1        | No Exposure Certification |
| V & S Columbus Galvanizing, LLC         | 987 Buckeye Park Rd                  | 43207        |                 |                           | 2        | 1        | General Permit            |
| Fortin Ironworks, Inc.                  | 1132 W 3rd Ave                       | 43212        |                 |                           | 2        | 1        | No Exposure Certification |
| Fortin Ironworks, Inc.                  | 944 W 5th Ave                        | 43212        |                 |                           | 2        | 1        | No Exposure Certification |
| Glenn Avenue Soap Company               | 1166 W 5th Ave                       | 43212        |                 |                           | 2        | 1        | No Exposure Certification |
| Graffiti Foods, Inc.                    | 333 Outerbelt St                     | 43213        |                 |                           | 2        | 1        | No Exposure Certification |
| Jacobi Carbons, Inc.                    | 432 McCormick Blvd                   | 43213        |                 |                           | 2        | 1        | No Exposure Certification |
| Glockner Oil Company, Inc.              | 2144 John Glenn Ave, Ste B           | 43217        |                 |                           | 2        | 1        | No Exposure Certification |
| Abbott Nutrition                        | 3300 Stelzer Rd                      | 43219        |                 |                           | 2        | 1        | No Exposure Certification |
| PSC Metals, Inc.                        | 1283 Joyce Ave                       | 43219        |                 |                           | 2        | 1        | General Permit            |
| Resale Technologies                     | 3065 E. 14th Ave.                    | 43219        |                 |                           | 2        | 1        | No Exposure Certification |

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| Company                                       | Site Address           | Site Zipcode | Inspection 2020 | Date of OEPA Notification | Category | Priority | Permit Status             |
|---|------------------------|--------------|-----------------|---------------------------|----------|----------|---------------------------|
| Bodycote Thermal Processing, Inc.             | 1515 Universal Rd      | 43207        |                 |                           | 2        | 1        | No Exposure Certification |
| COW Industries, Inc.                          | 1875 Progress Ave      | 43207        |                 |                           | 2        | 1        | No Exposure Certification |
| WestRock                                      | 1015 Marion Rd         | 43207        |                 |                           | 2        | 1        | General Permit            |
| Syscom Advanced Materials, Inc.               | 1255 Kinnear Rd, Ste 5 | 43212        |                 |                           | 2        | 1        | No Exposure Certification |
| Columbus Powder Coating                       | 876 N 20th St          | 43219        |                 |                           | 2        | 1        | No Exposure Certification |
| I. H. Schlezinger, Inc.                       | 1041 Joyce Ave         | 43219        |                 |                           | 2        | 1        | General Permit            |
| Karn Meats, Inc.                              | 922 Taylor Ave         | 43219        |                 |                           | 2        | 1        | No Exposure Certification |
| Lambert Sheet Metal, Inc.                     | 3776 E 5th Ave         | 43219        |                 |                           | 2        | 1        | No Exposure Certification |
| Masser Metals & Recycling                     | 3103 Lamb Ave          | 43219        |                 |                           | 2        | 1        | General Permit            |
| McGlennon Metal Products, Inc.                | 940 N 20TH St          | 43219        |                 |                           | 2        | 1        | No Exposure Certification |
| Ohio Anodizing Company, Inc.                  | 915 N 20th St          | 43219        |                 |                           | 2        | 1        | No Exposure Certification |
| Panacea Products Corporation                  | 1825 Joyce Ave         | 43219        |                 |                           | 2        | 1        | No Exposure Certification |
| Pinnacle Metal Products, Inc.                 | 1701 Woodland Ave      | 43219        |                 |                           | 2        | 1        | No Exposure Certification |
| United Alloys & Metals, Inc.                  | 1177 Joyce Ave         | 43219        |                 |                           | 2        | 1        | No Exposure Certification |
| Uni-Facs                                      | 1241 McKinley Ave      | 43222        |                 |                           | 2        | 1        | No Exposure Certification |
| Clean Water Ltd.                              | 2480 Jackson Pike      | 43223        |                 |                           | 2        | 1        | No Exposure Certification |
| Peter K. Case                                 | 994 Frank Rd           | 43223        |                 |                           | 2        | 1        | No Exposure Certification |
| Thurn's Specialty Meats                       | 530 Greenlawn Ave      | 43223        |                 |                           | 2        | 1        | No Exposure Certification |
| Team Industrial Services, Inc.                | 3005 Silver Dr         | 43224        |                 |                           | 2        | 1        | No Exposure Certification |
| Defabco, Inc.                                 | 3765 E Livingston Ave  | 43227        |                 |                           | 2        | 1        | No Exposure Certification |
| AY Manufacturing Ltd                          | 5200 Crosswind Dr      | 43228        |                 |                           | 2        | 1        | No Exposure Certification |
| Birchwood Foods, Inc.                         | 1821 Dividend Dr       | 43228        |                 |                           | 2        | 1        | General Permit            |
| Core Molding Technologies, Inc.               | 800 Manor Park Dr      | 43228        |                 |                           | 2        | 1        | General Permit            |
| Ezzo Sausage Company                          | 683 Manor Park Dr      | 43228        | 1/30/2020       |                           | 2        | 1        | No Exposure Certification |
| Pactiv LLC                                    | 2120 Westbelt Dr       | 43228        |                 |                           | 2        | 1        | General Permit            |
| Royal Paper Stock Company                     | 1300 Norton Rd         | 43228        |                 |                           | 2        | 1        | No Exposure Certification |
| Transmet Corporation                          | 4290 Perimeter Dr      | 43228        |                 |                           | 2        | 1        | No Exposure Certification |
| XPO Logistics Con-way Freight                 | 2625 Westbelt Dr       | 43228        |                 |                           | 2        | 1        | General Permit            |
| MW Industries, Inc. - Capital Spring Division | 2000 Jetway Blvd       | 43219        |                 |                           | 2        | 1        | No Exposure Certification |
| Evans Adhesive Corporation Ltd.               | 925 Old Henderson Rd   | 43220        |                 |                           | 2        | 1        | No Exposure Certification |
| GFS Chemicals, Inc.                           | 851 McKinley Ave       | 43222        |                 |                           | 2        | 1        | General Permit            |
| Quality Bakery Company                        | 50 N Glenwood Ave      | 43222        |                 |                           | 2        | 1        | No Exposure Certification |
| Herman Falter Packing Company                 | 384 Greenlawn Ave      | 43223        |                 |                           | 2        | 1        | No Exposure Certification |
| Aerospace Lubricants, Inc.                    | 1600 Georgesville Rd   | 43228        |                 |                           | 2        | 1        | No Exposure Certification |
| Bonded Chemicals, Inc.                        | 2645 Charter St        | 43228        |                 |                           | 2        | 1        | No Exposure Certification |
| Champion Strapping Products                   | 1819 Walcutt Rd        | 43228        |                 |                           | 2        | 1        | No Exposure Certification |
| ConAgra Foods, Inc. (Arden Mills)             | 4200 Sullivant Ave     | 43228        |                 |                           | 2        | 1        | General Permit            |
| CSX Intermodal                                | 2351 Westbelt Dr       | 43228        |                 |                           | 2        | 1        | General Permit            |
| Environmental Reclaim, LLC                    | 3900 Sullivant Ave     | 43228        |                 |                           | 2        | 1        | No Exposure Certification |

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| Company   | Site Address                       | Site Zipcode | Inspection 2020 | Date of OEPA Notification | Category | Priority | Permit Status             |
|---|------------------------------------|--------------|-----------------|---------------------------|----------|----------|---------------------------|
| Mars Petcare, Inc.                                  | 5115 Fisher Rd                     | 43228        |                 |                           | 2        | 1        | General Permit            |
| Ohio Label, Inc.                                    | 5005 Transamerica Dr               | 43228        |                 |                           | 2        | 1        | No Exposure Certification |
| Panacea Products Corporation                        | 2711 International St              | 43228        |                 |                           | 2        | 1        | No Exposure Certification |
| Plastic packaging Technologies                      | 4041 Roberts Rd                    | 43228        |                 |                           | 2        | 1        | No Exposure Certification |
| SCI Engineered Materials, Inc.                      | 2839 Charter St                    | 43228        |                 |                           | 2        | 1        | No Exposure Certification |
| Simpson Strong-Tie Company, Inc.                    | 2600 International St              | 43228        |                 |                           | 2        | 1        | No Exposure Certification |
| NovoTec Recycling, LLC                              | 3960 Groves Rd                     | 43232        |                 |                           | 2        | 1        | General Permit            |
| Amazon.com Services                                 | 3800 Lockbourne Industrial Parkway | 43207        |                 |                           | 2        | 1        | No Exposure Certification |
| Certified Oil, Inc.                                 | 949 King Ave                       | 43212        |                 |                           | 2        | 1        | TBD                       |
| Norfolk Southern Corporation                        | 2450 Fairwood Ave                  | 43207        |                 |                           | 2        | 2        | General Permit            |
| Rosati Windows                                      | 4200 Roberts Rd                    | 43228        |                 |                           | 2        | 2        | No Exposure Certification |
| Dura-Belt, Inc.                                     | 3119 Scioto Darby Executive Ct     | 43026        |                 |                           | 2        | 2        | No Exposure Certification |
| International Bulk Services (Watco Companies)       | 5075 Fisher Rd                     | 43228        |                 |                           | 2        | 2        | No Exposure Certification |
| Envoy Air, Inc.                                     | 4100 E 5th Ave, Hanger 7           | 43219        |                 |                           | 2        | 2        | No Exposure Certification |
| Knight Transportation, Inc.                         | 4275 Westward Ave                  | 43228        |                 |                           | 2        | 2        | General Permit            |
| COTA  | 1333 Fields Ave                    | 43201        |                 |                           | 2        | 2        | No Exposure Certification |
| Dynamex, Inc. (TF Fine Mile, LLC)                   | 3840 Twin Creeks Dr                | 43204        |                 |                           | 2        | 2        | No Exposure Certification |
| All-State Belting LLC                               | 6951 Alan Schwartzwalder St.       | 43217        |                 |                           | 2        | 2        | No Exposure Certification |
| Pitt Ohio Express, LLC                              | 2101 Hardy Parkway St              | 43123        |                 |                           | 2        | 2        | General Permit            |
| FST Logistics, Inc.                                 | 5400 Renner Rd                     | 43228        |                 |                           | 2        | 2        | No Exposure Certification |
| Great Value Storage                                 | 1330 Georgesville Rd               | 43228        | 1/14/2020       | 1/14/2020                 | 2        | 2        | No Exposure Certification |
| City of Columbus Alum Creek Transfer Station        | 2100 Alum Creek Dr                 | 43207        |                 | 1/16/2020                 | 2        | 2        | General Permit            |
| City of Columbus Georgesville Road Transfer Station | 1550 Goergesville Rd               | 43228        |                 | 1/16/2020                 | 2        | 2        | General Permit            |
| City of Columbus Morse Road Transfer Station        | 4260 Morse Rd                      | 43230        |                 | 1/16/2020                 | 2        | 2        | General Permit            |
| Central Ohio Transit Authority                      | 1600 McKinley Ave                  | 43222        | 2/27/2020       | 2/28/2020                 | 2        | 2        | No Exposure Certification |
| Columbus Distributing Company                       | 4949 Freeway Dr E                  | 43229        | 3/4/2020        | 3/4/2020                  | 2        | 2        | No Exposure Certification |
| FedEx Ship Center (FedEx Express - OSUA)            | 2424 Citygate Dr                   | 43219        | 3/25/2020       | 3/25/2020                 | 2        | 2        | No Exposure Certification |
| Heidelberg Distributing Company                     | 3801 Parkwest Dr                   | 43228        | 3/26/2020       | 3/27/2020                 | 2        | 2        | No Exposure Certification |
| Premier Office Movers, LLC                          | 3915 Zane Trace Dr                 | 43228        | 3/31/2020       | 4/1/2020                  | 2        | 2        | No Exposure Certification |
| YRC Freight, Inc.                                   | 5400 Fisher Rd                     | 43228        | 4/8/2020        | 4/30/2020                 | 2        | 2        | No Exposure Certification |
| J & R Schugel Trucking, Inc.                        | 4630 Journal St                    | 43228        | 9/29/2020       | 9/29/2020                 | 2        | 2        | No Exposure Certification |
| Ohio State University Airport                       | 2160 W Case Rd                     | 43017        |                 |                           | 2        | 2        | General Permit            |
| Precision Polymers, Inc.                            | 6219 Americana Pkwy                | 43068        |                 |                           | 2        | 2        | No Exposure Certification |
| Leaders Moving & Storage Company                    | 7455 Alta View Blvd                | 43085        |                 |                           | 2        | 2        | No Exposure Certification |
| Possible Plastics, Inc.                             | 1620 Feddern Ave, Bldg B           | 43123        |                 |                           | 2        | 2        | No Exposure Certification |
| Allied Custom Molded Products, Inc.                 | 1240 Essex Ave                     | 43201        |                 |                           | 2        | 2        | No Exposure Certification |
| Quality Service Products                            | 528 E Hudson St                    | 43202        |                 |                           | 2        | 2        | No Exposure Certification |
| LV Trucking, Inc.                                   | 2440 Harrison Rd                   | 43204        |                 |                           | 2        | 2        | No Exposure Certification |
| S&T Truck & Auto Service, Inc.                      | 3150 Valleyview Dr, #8             | 43204        |                 |                           | 2        | 2        | No Exposure Certification |

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| Company  | Site Address          | Site Zipcode | Inspection 2020 | Date of OEPA Notification | Category | Priority | Permit Status             |
|--|-----------------------|--------------|-----------------|---------------------------|----------|----------|---------------------------|
| Arch Express Transportation  | 1637 E Livingston Ave | 43205        |                 |                           | 2        | 2        | No Exposure Certification |
| Columbus Green Cab, Inc.   | 1989 Camaro Ave       | 43207        |                 |                           | 2        | 2        | No Exposure Certification |
| Freedom Transport, Inc.  | 1879 Federal Pkwy     | 43207        |                 |                           | 2        | 2        | No Exposure Certification |
| Jones Fuel Company   | 350 Frank Rd          | 43207        |                 |                           | 2        | 2        | General Permit            |
| Old Dominion Freight Line, Inc.  | 2885 Alum Creek Dr    | 43207        |                 |                           | 2        | 2        | General Permit            |
| Transflo Terminal Services, Inc.   | 3100 Lockbourne Rd    | 43207        |                 |                           | 2        | 2        | General Permit            |
| NAPA Transportation Inc  | 1484 Williams Road    | 43207        |                 |                           | 2        | 2        | No Exposure Certification |
| Stericycle, Inc.   | 2341 Lockbourne Rd    | 43207        |                 |                           | 2        | 2        | No Exposure Certification |
| Guardian Relocation  | 1570 Integrity Dr E   | 43209        |                 |                           | 2        | 2        | No Exposure Certification |
| Ohio Foam Corporation  | 1513 Alum Creek Dr    | 43209        |                 |                           | 2        | 2        | No Exposure Certification |
| Signature Cabinetry, Inc.  | 1285 Alum Creek Dr    | 43209        |                 |                           | 2        | 2        | No Exposure Certification |
| Greyhound Lines, Inc.  | 111 E Town St         | 43215        |                 |                           | 2        | 2        | General Permit            |
| Wolf's Ridge Brewing   | 215 N 4th St          | 43215        |                 |                           | 2        | 2        | No Exposure Certification |
| United States Postal Service   | 850 Twin Rivers Dr    | 43216        |                 |                           | 2        | 2        | No Exposure Certification |
| United States Postal Service   | 2323 Citygate Dr      | 43218        |                 |                           | 2        | 2        | No Exposure Certification |
| ABF Freight System, Inc.   | 1720 Joyce Ave        | 43219        |                 |                           | 2        | 2        | General Permit            |
| Hi-Lite Plastic Products   | 3760 E 5th Ave        | 43219        |                 |                           | 2        | 2        | No Exposure Certification |
| Plaskolite, Inc.   | 1770 Joyce Ave        | 43219        |                 |                           | 2        | 2        | General Permit            |
| Plastic Suppliers, Inc.  | 2400 Marilyn Park Ln  | 43219        |                 |                           | 2        | 2        | General Permit            |
| Amatech Polycel, LLC   | 1633 Woodland Ave     | 43219        |                 |                           | 2        | 2        | No Exposure Certification |
| Consolidated Container Company (CCC) LP/Ohio State Facility/AKA Ohio State | 1917 Joyce Ave        | 43219        |                 |                           | 2        | 2        | General Permit            |
| A&R Transport, Inc.  | 1230 Harmon Ave       | 43223        |                 |                           | 2        | 2        | General Permit            |
| Republic Services  | 933 Frank Road        | 43223        |                 |                           | 2        | 2        | General Permit            |
| Strawser Construction, Inc.  | 1595 Frank Rd         | 43223        |                 |                           | 2        | 2        | General Permit            |
| Andrews Moving And Storage   | 2500 Charter St       | 43228        |                 |                           | 2        | 2        | No Exposure Certification |
| Crete Carrier Corporation  | 5400 Crosswind Dr     | 43228        |                 |                           | 2        | 2        | General Permit            |
| Hogan Truck Leasing, Inc.  | 2550 Westbelt Dr      | 43228        |                 |                           | 2        | 2        | General Permit            |
| Planes Commercial Services   | 2131 Dividend Dr      | 43228        |                 |                           | 2        | 2        | No Exposure Certification |
| Saia LTL Freight   | 1717 Krieger St       | 43228        |                 |                           | 2        | 2        | General Permit            |
| Swift Transportation Company   | 4141 Parkwest Dr      | 43228        |                 |                           | 2        | 2        | General Permit            |
| United Parcel Service-UPS Trabue   | 5101 Trabue Rd        | 43228        |                 |                           | 2        | 2        | General Permit            |
| Bolton Field   | 2000 Norton Rd        | 43228        |                 |                           | 2        | 2        | General Permit            |
| FedEx Ship Center (FedEx Express -CMHA)                                    | 2850 International St | 43228        |                 |                           | 2        | 2        | No Exposure Certification |
| FST Logistics, Inc.  | 2040 Atlas St         | 43228        |                 |                           | 2        | 2        | No Exposure Certification |
| Genpak, LLC  | 845 Kaderly Dr        | 43228        |                 |                           | 2        | 2        | General Permit            |
| Planes Commercial Services   | 2000 Dividend Dr      | 43228        |                 |                           | 2        | 2        | No Exposure Certification |
| W W Transport, Inc.  | 405 Commerce Sq       | 43228        |                 |                           | 2        | 2        | No Exposure Certification |
| Savko Plastic Pipe & Fittings  | 683 E Lincoln Ave     | 43229        |                 |                           | 2        | 2        | No Exposure Certification |
| Central Transport, Inc.  | 2450 Sobeck Rd        | 43232        |                 |                           | 2        | 2        | General Permit            |

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| Ernst Concrete  | 4252 Truro Station Rd          | 43232        |                 |                           | 2        | 2        | General Permit  |
| Sentek Corporation  | 1300 Memory Lane North         | 43209        |                 |                           | 2        | 3        | No Exposure Certification                                 |
| Heartland Express, Inc.                                       | 1800 Lone Eagle St             | 43228        |                 |                           | 2        | 3        | No Exposure Certification                                 |
| Car-Go-Self Storage (Sandilan Management Corporation)         | 490 N Hamilton Rd              | 43219        |                 |                           | 2        | 3        | No Exposure Certification                                 |
| Distinctive Surfaces, Inc.                                    | 5158 Sinclair Rd               | 43229        |                 |                           | 2        | 3        | No Exposure Certification                                 |
| Dura-Belt, Inc.   | 2909 Scioto Darby Executive Ct | 43026        |                 |                           | 2        | 3        | No Exposure Certification                                 |
| Columbus Brewing Company                                      | 2555 Harrison Rd               | 43204        |                 |                           | 2        | 3        | No Exposure Certification                                 |
| Modlich Stoneworks, Inc.                                      | 2255 Harper Rd                 | 43204        |                 |                           | 2        | 3        | No Exposure Certification                                 |
| Weldon A Div of Akron Brass Company                           | 3656 Paragon Dr                | 43228        |                 |                           | 2        | 3        | No Exposure Certification                                 |
| Seekirk, Inc.   | 2420 Scioto Harper Dr          | 43204        |                 |                           | 2        | 3        | No Exposure Certification                                 |
| Sideswipe Brewing   | 2419 Scioto Harper Dr          | 43204        |                 |                           | 2        | 3        | No Exposure Certification                                 |
| Worldwide Flight Services, Inc.                               | 4760 E 5th Ave                 | 43219        |                 |                           | 2        | 3        | No Exposure Certification                                 |
| Mobile Mini, Inc.   | 871 Buckeye Park Rd            | 43207        |                 |                           | 2        | 3        | No Exposure Certification                                 |
| FedEx Office Print & Ship Center                              | 8733 Sancus Blvd               | 43240        |                 |                           | 2        | 3        | No Exposure Certification                                 |
| La Voz Hispana Newspaper                                      | 3552 Sullivant Ave             | 43204        |                 |                           | 2        | 3        | No Exposure Certification                                 |
| Extra Space Storage   | 5660 W Broad St                | 43228        |                 |                           | 2        | 3        | No Exposure Certification                                 |
| Signature Wines   | 3816 April Ln                  | 43227        |                 |                           | 2        | 3        | No Exposure Certification                                 |
| Beck & Orr Corporation  | 3097 W Broad St                | 43204        |                 |                           | 2        | 3        | No Exposure Certification                                 |
| Casino Self Storage   | 480 Exchange Dr                | 43228        |                 |                           | 2        | 3        | No Exposure Certification                                 |
| U-Haul of Worthington   | 7510 Worthington Galena Road   | 43085        |                 |                           | 2        | 3        | No Exposure Certification                                 |
| U-Haul of Worthington   | 7472 Reliance St               | 43085        |                 |                           | 2        | 3        | No Exposure Certification                                 |
| Worthington Machine Technology (Worthington Industries, Inc.) | 1055 Dearborn Dr               | 43085        |                 |                           | 2        | 3        | No Exposure Certification                                 |
| Prime Now LLC   | 4401 Equity Drive              | 43228        | 1/3/2020        | 1/6/2020                  | 2        | 3        | No Exposure Certification                                 |
| FedEx Office Print & Ship Center                              | 5800 Frantz Rd                 | 43016        | 1/13/2020       | 1/18/2020                 | 2        | 3        | No Exposure Certification                                 |
| Fastsigns   | 2829 Festival Ln               | 43017        | 1/13/2020       | 1/18/2020                 | 2        | 3        | No Exposure Certification                                 |
| JIT Company, Inc.   | 2180 Venus Dr                  | 43026        | 1/28/2020       | 1/30/2020                 | 2        | 3        | No Exposure Certification eligible; Owner & OEPA notified |
| Lee's RV & Boat Storage                                       | 4200 Scioto Darby Creek Rd     | 43026        | 1/28/2020       | 1/30/2020                 | 2        | 3        | No Exposure Certification                                 |
| Watkins Printing Company                                      | 1401 E 17th Ave                | 43211        | 2/5/2020        | 2/6/2020                  | 2        | 3        | No Exposure Certification                                 |
| Beckenhorst Press, Inc.                                       | 960 Old Henderson Rd           | 43220        | 2/13/2020       | 2/13/2020                 | 2        | 3        | No Exposure Certification                                 |
| Capital Prosthetic and Orthotic, Inc.                         | 4678 Larwell Dr                | 43220        | 2/13/2020       | 2/13/2020                 | 2        | 3        | No Exposure Certification                                 |
| C. Krueger's Finest Baked Goods                               | 6845 Commerce Court Drive      | 43004        | 2/19/2020       | 2/20/2020                 | 2        | 3        | No Exposure Certification                                 |
| Five Star Store It  | 4111 Groves Rd                 | 43232        | 2/21/2020       | 2/21/2020                 | 2        | 3        | No Exposure Certification                                 |
| Columbus Controls, Inc.                                       | 3573 Johnny Appleseed Ct       | 43231        | 2/25/2020       | 2/25/2020                 | 2        | 3        | No Exposure Certification                                 |
| Middle West Spirits   | 1230 Courtland Ave             | 43201        | 2/26/2020       | 2/26/2020                 | 2        | 3        | No Exposure Certification                                 |
| Campus Printing   | 2415 N High St                 | 43202        | 2/26/2020       | 2/26/2020                 | 2        | 3        | No Exposure Certification                                 |
| Lineage Brewing   | 2971 N High St                 | 43202        | 2/26/2020       | 2/26/2020                 | 2        | 3        | No Exposure Certification                                 |
| Frank Brunckhorst Company, LLC                                | 2225 Spiegel Dr                | 43125        | 3/10/2020       | 3/10/2020                 | 2        | 3        | No Exposure Certification                                 |
| Michael Neer (American Isostatic Presses, Inc.)               | 1205 S Columbus Airport Rd     | 43207        | 3/10/2020       | 3/10/2020                 | 2        | 3        | No Exposure Certification                                 |
| Anthony Thomas Candy Company                                  | 1777 Arlingate Ln              | 43228        | 3/11/2020       | 3/13/2020                 | 2        | 3        | No Exposure Certification                                 |

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| ITC Manufacturing, LLC                         | 845 E Markison Ave       | 43207        | 3/12/2020       | 3/17/2020                 | 2        | 3        | No Exposure Certification |
| Honeywell International, Inc.                  | 2080 Arlingate Ln        | 43228        | 3/17/2020       | 3/20/2020                 | 2        | 3        | No Exposure Certification |
| The Glass Block Warehouse                      | 750 Kaderly Dr           | 43228        | 3/24/2020       | 3/24/2020                 | 2        | 3        | No Exposure Certification |
| FedEx Office Print & Ship Center               | 4516 Kenny Rd            | 43220        | 3/25/2020       | 3/25/2020                 | 2        | 3        | No Exposure Certification |
| Best Supply, Inc.                              | 1885 O'Brien Rd          | 43228        | 9/29/2020       | 9/29/2020                 | 2        | 3        | No Exposure Certification |
| Wyandotte Winery, LLC                          | 4640 Wyandotte Dr        | 43230        | 10/8/2020       | 10/15/2020                | 2        | 3        | No Exposure Certification |
| Uncle Bob's Self Storage #724                  | 6460 E Broad St          | 43213        |                 |                           | 2        | 3        | No Exposure Certification |
| T Marzetti Co                                  | 3770 Indianola Ave       | 43214        |                 |                           | 2        | 3        | No Exposure Certification |
| Kenwel Printers Inc                            | 4272 Indianola Ave       | 43214        |                 |                           | 2        | 3        | No Exposure Certification |
| Magnetic Springs Water Company                 | 1917 Joyce Ave           | 43219        |                 |                           | 2        | 3        | No Exposure Certification |
| R&J Bardon Printing & Graphics, Inc.           | 4676 Larwell Dr          | 43220        |                 |                           | 2        | 3        | No Exposure Certification |
| Regal Springs Company                          | 2140 Eakin Rd            | 43223        |                 |                           | 2        | 3        | No Exposure Certification |
| Barley's Brewing Company                       | 467 N High St            | 43215        |                 |                           | 2        | 3        | No Exposure Certification |
| Capital City Awning                            | 577 N 4th St             | 43215        |                 |                           | 2        | 3        | No Exposure Certification |
| Art Brands, LLC                                | 225 Business Center Dr   | 43004        |                 |                           | 2        | 3        | No Exposure Certification |
| American Kenda Rubber Industrial Company Ltd   | 7095 Americana Pkwy      | 43068        |                 |                           | 2        | 3        | No Exposure Certification |
| Daifuku America Corporation                    | 6700 Tussing Rd          | 43068        |                 |                           | 2        | 3        | No Exposure Certification |
| PXP OHIO                                       | 6800 Tussing Rd          | 43068        |                 |                           | 2        | 3        | No Exposure Certification |
| Public Storage                                 | 5711 Westerville Rd      | 43081        |                 |                           | 2        | 3        | No Exposure Certification |
| Ametek Solidstate Controls, Inc.               | 875 Dearborn Dr          | 43085        |                 |                           | 2        | 3        | No Exposure Certification |
| Haman Midwest                                  | 7525 Pingue Dr           | 43085        |                 |                           | 2        | 3        | No Exposure Certification |
| Mettler-Toledo, Inc.                           | 1150 Dearborn Dr         | 43085        |                 |                           | 2        | 3        | No Exposure Certification |
| Tecsis, LP                                     | 771-F Dearborn Park Ln   | 43085        |                 |                           | 2        | 3        | No Exposure Certification |
| Boehm, Inc.                                    | 2050 Hardy Parkway St    | 43123        |                 |                           | 2        | 3        | No Exposure Certification |
| C.H. Bradshaw Company                          | 2004 Hendrix Dr          | 43123        |                 |                           | 2        | 3        | No Exposure Certification |
| Blue Line Foodservice Distribution             | 2250 Spiegel Dr, Ste P   | 43125        |                 |                           | 2        | 3        | No Exposure Certification |
| CEVA Logistics                                 | 2727 London Groveport Rd | 43125        |                 |                           | 2        | 3        | No Exposure Certification |
| Jacobson Companies                             | 2450 Spiegel Dr, Ste A   | 43125        |                 |                           | 2        | 3        | No Exposure Certification |
| Petsmart Distribution Center                   | 6499 Adelaide Ct         | 43125        |                 |                           | 2        | 3        | No Exposure Certification |
| City of Columbus Compost Facility              | 7000 Jackson Pike        | 43137        |                 |                           | 2        | 3        | General Permit            |
| City of Columbus Southerly WWTP                | 6977 S High St           | 43137        |                 |                           | 2        | 3        | General Permit            |
| Whirlpool Corporation                          | 6241 Shook Rd            | 43137        |                 |                           | 2        | 3        | No Exposure Certification |
| Rogue Fitness                                  | 545 E 5th Ave            | 43201        |                 |                           | 2        | 3        | No Exposure Certification |
| The Seventh Son Brewing Company                | 1101 N 4th St            | 43201        |                 |                           | 2        | 3        | No Exposure Certification |
| Amazon, LLC                                    | 3563 Interchange Rd      | 43204        |                 |                           | 2        | 3        | No Exposure Certification |
| Bexley Pen Company, Inc.                       | 2840 Fisher Rd # B       | 43204        |                 |                           | 2        | 3        | No Exposure Certification |
| Casino Self Storage                            | 3300 W Broad St          | 43204        |                 |                           | 2        | 3        | No Exposure Certification |
| Columbus Instruments International Corporation | 950 N Hague Ave          | 43204        |                 |                           | 2        | 3        | No Exposure Certification |
| Custom Sign Center                             | 3200 Valleyview Dr       | 43204        |                 |                           | 2        | 3        | No Exposure Certification |

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| Dick Cold Storage                                    | 3080/3100 Valleyview Dr    | 43204        |                 |                           | 2        | 3        | General Permit            |
| G2 Print Plus  | 3787 Interchange Rd        | 43204        |                 |                           | 2        | 3        | No Exposure Certification |
| Harper Engraving & Printing Company                  | 2626 Fisher Rd             | 43204        |                 |                           | 2        | 3        | No Exposure Certification |
| Pengwyn  | 2550 W 5th Ave             | 43204        |                 |                           | 2        | 3        | No Exposure Certification |
| Redhawk Global, LLC                                  | 2642 Fisher Rd, Ste B      | 43204        |                 |                           | 2        | 3        | No Exposure Certification |
| Vectra, Inc.   | 3950 Business Park Dr      | 43204        |                 |                           | 2        | 3        | No Exposure Certification |
| U-Haul Moving & Storage                              | 1211 Parsons Ave           | 43206        |                 |                           | 2        | 3        | No Exposure Certification |
| Blacco Splicing & Rigging Loft, Inc.                 | 1976 Alum Creek Dr         | 43207        |                 |                           | 2        | 3        | No Exposure Certification |
| Columbus Cold Storage                                | 2159 Lockbourne Rd         | 43207        |                 |                           | 2        | 3        | General Permit            |
| ODW Logistics, Inc.                                  | 1580 Williams Rd           | 43207        |                 |                           | 2        | 3        | General Permit            |
| Oh! Chips  | 894 Scott St               | 43207        |                 |                           | 2        | 3        | No Exposure Certification |
| Terminal Warehouse, Inc.                             | 1658 Williams Rd           | 43207        |                 |                           | 2        | 3        | General Permit            |
| The N. Wasserstrom and Sons/Amtekco Industries, Inc. | 2300 Lockbourne Rd         | 43207        |                 |                           | 2        | 3        | General Permit            |
| Baise Quality Printing                               | 695 Koebel Ave             | 43207        |                 |                           | 2        | 3        | No Exposure Certification |
| Cardinal Container Corporation                       | 3700 Lockbourne Rd         | 43207        |                 |                           | 2        | 3        | No Exposure Certification |
| Coca-Cola Refreshments                               | 2455 Watkins Rd            | 43207        |                 |                           | 2        | 3        | No Exposure Certification |
| Columbus Machine Works, Inc.                         | 2491 Fairwood Ave, Ste 200 | 43207        |                 |                           | 2        | 3        | No Exposure Certification |
| Scioto Ready Mix                                     | 1500 Williams Rd           | 43207        |                 |                           | 2        | 3        | General Permit            |
| Simply Self Storage                                  | 3171 S High St             | 43207        |                 |                           | 2        | 3        | No Exposure Certification |
| The Stone & Granite Company                          | 1300 Refugee Ln            | 43207        |                 |                           | 2        | 3        | No Exposure Certification |
| TKS Industrial Company                               | 1939 Refugee Rd            | 43207        |                 |                           | 2        | 3        | No Exposure Certification |
| Conn's Potato Chip Company, Inc.                     | 1271 Alum Creek Dr         | 43209        |                 |                           | 2        | 3        | No Exposure Certification |
| Akzo Nobel Coatings, Inc.                            | 1313 Windsor Ave           | 43211        |                 |                           | 2        | 3        | General Permit            |
| Gateway Self Storage                                 | 750 E 11th Ave             | 43211        |                 |                           | 2        | 3        | No Exposure Certification |
| Grandon Manufacturing Company, Inc.                  | 530 Dow Ave                | 43211        |                 |                           | 2        | 3        | No Exposure Certification |
| Chester A Smith, Inc. Marble & Granite               | 1330 Norton Ave            | 43212        | 9/22/2020       |                           | 2        | 3        | No Exposure Certification |
| Fred D Pfening Company                               | 1075 W 5th Ave             | 43212        |                 |                           | 2        | 3        | No Exposure Certification |
| Fred D Pfening Company                               | 1372 Oxley Rd              | 43212        |                 |                           | 2        | 3        | No Exposure Certification |
| Knotty Pine Brewing                                  | 1765 W 3rd Ave             | 43212        |                 |                           | 2        | 3        | No Exposure Certification |
| Stor-All Self Storage                                | 824 W 5th Ave              | 43212        |                 |                           | 2        | 3        | No Exposure Certification |
| Tritex Corporation                                   | 1390 Holly Ave             | 43212        |                 |                           | 2        | 3        | No Exposure Certification |
| Watershed Distillery, LLC                            | 1145 Chesapeake Ave, Ste D | 43212        | 9/22/2020       |                           | 2        | 3        | No Exposure Certification |
| NFI Distribution (National Freight Industries, Inc.) | 200 McCormick Blvd         | 43213        |                 |                           | 2        | 3        | No Exposure Certification |
| Glass Axis   | 610 W Town St              | 43215        |                 |                           | 2        | 3        | No Exposure Certification |
| Land Grant Brewing Company                           | 424 W Town St              | 43215        |                 |                           | 2        | 3        | No Exposure Certification |
| Lang Stone Company, Inc.                             | 707 Short St               | 43215        |                 |                           | 2        | 3        | No Exposure Certification |
| SafeWhit, Inc.                                       | 1275 Kinnear Rd, Ste 258   | 43215        |                 |                           | 2        | 3        | No Exposure Certification |
| Smokehouse Brewing Company                           | 1130 Dublin Rd             | 43215        |                 |                           | 2        | 3        | No Exposure Certification |
| Hyperlogistics Group, Inc.                           | 9301 Intermodal Ct N       | 43217        |                 |                           | 2        | 3        | No Exposure Certification |

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| Aqua Science, Inc.                       | 1877 E 17th Ave          | 43219        |                 |                           | 2        | 3        | No Exposure Certification |
| Marcy Enterprises, Inc.                  | 2977 Lamb Ave            | 43219        |                 |                           | 2        | 3        | No Exposure Certification |
| Rimrock Corporation                      | 1700 Jetway Blvd         | 43219        |                 |                           | 2        | 3        | No Exposure Certification |
| The Kingswood Company                    | 3065 Switzer Ave         | 43219        |                 |                           | 2        | 3        | No Exposure Certification |
| Carfagna's Italian Foods, LLC            | 3518 Johnny Appleseed Ct | 43231        |                 |                           | 2        | 3        | No Exposure Certification |
| Advanced Fuel Systems, Inc.              | 841 Alton Ave, Ste B     | 43219        |                 |                           | 2        | 3        | No Exposure Certification |
| Candle With A Cause                      | 659 N James Rd           | 43219        |                 |                           | 2        | 3        | No Exposure Certification |
| Coalescence, LLC                         | 3455 Millennium Ct       | 43219        |                 |                           | 2        | 3        | No Exposure Certification |
| Columbus Glass & Mirror, Inc.            | 3034 Lamb Ave            | 43219        |                 |                           | 2        | 3        | No Exposure Certification |
| Columbus Sign Company                    | 1515 E 5th Ave           | 43219        |                 |                           | 2        | 3        | No Exposure Certification |
| Dr. Pepper Snapple Group                 | 950 Stelzer Rd           | 43219        |                 |                           | 2        | 3        | No Exposure Certification |
| Harrop Industries, Inc.                  | 3470 E 5th Ave           | 43219        |                 |                           | 2        | 3        | No Exposure Certification |
| Hopkins Printing                         | 2246 Citygate Dr         | 43219        |                 |                           | 2        | 3        | No Exposure Certification |
| Lang Stone Company, Inc.                 | 4099 E 5th Ave           | 43219        |                 |                           | 2        | 3        | No Exposure Certification |
| Norse Dairy Systems                      | 1740 E 17th Ave          | 43219        |                 |                           | 2        | 3        | No Exposure Certification |
| Screen Printing Showhouse, Inc.          | 853 N Nelson Rd          | 43219        |                 |                           | 2        | 3        | No Exposure Certification |
| Steelmasters of Columbus, Inc.           | 660 Concrea Rd           | 43219        |                 |                           | 2        | 3        | No Exposure Certification |
| Allied Mineral Products, Inc.            | 2700 Scioto Pkwy         | 43221        |                 |                           | 2        | 3        | General Permit            |
| City of Columbus Jackson Pike WWTP       | 2104 Jackson Pike        | 43223        |                 |                           | 2        | 3        | General Permit            |
| Ernst Concrete                           | 711 A Stimmel Rd         | 43223        |                 |                           | 2        | 3        | General Permit            |
| Machine Arts Company                     | 663 Harmon Plaza         | 43223        |                 |                           | 2        | 3        | No Exposure Certification |
| Signature Store Services                 | 541 Dana Ave             | 43223        |                 |                           | 2        | 3        | No Exposure Certification |
| Traxler Custom Printing                  | 3029 Silver Drive        | 43224        |                 |                           | 2        | 3        | No Exposure Certification |
| Digico Imaging, Inc.                     | 3487 E Fulton St         | 43227        |                 |                           | 2        | 3        | No Exposure Certification |
| Impress                                  | 3559 E Fulton St         | 43227        |                 |                           | 2        | 3        | No Exposure Certification |
| Tranz Lights, Inc.                       | 3492 E Fulton St         | 43227        |                 |                           | 2        | 3        | No Exposure Certification |
| Composite Trade Printing                 | 1757 Westbelt            | 43228        |                 |                           | 2        | 3        | No Exposure Certification |
| Ernst Concrete, Inc.                     | 569 N Wilson Rd          | 43228        |                 |                           | 2        | 3        | General Permit            |
| Generals Books & Blue & Gray Magazine    | 522 Norton Rd            | 43228        |                 |                           | 2        | 3        | No Exposure Certification |
| Hikma Pharmaceuticals                    | 1809 Wilson Rd           | 43228        |                 |                           | 2        | 3        | No Exposure Certification |
| Quad Graphics, Inc.                      | 4051 Fondorf Dr          | 43228        |                 |                           | 2        | 3        | No Exposure Certification |
| Storage Express Management, LLC          | 1162 Norton Rd           | 43228        |                 |                           | 2        | 3        | No Exposure Certification |
| SupplyOne, Inc.                          | 5339 Fisher Rd           | 43228        |                 |                           | 2        | 3        | No Exposure Certification |
| Tarrier Foods Corporation                | 2700 International St    | 43228        |                 |                           | 2        | 3        | No Exposure Certification |
| Weldon A Division of Akron Brass Company | 1736 Westbelt Dr         | 43228        |                 |                           | 2        | 3        | No Exposure Certification |
| West Side Transport                      | 1929 Lone Eagle St       | 43228        |                 |                           | 2        | 3        | No Exposure Certification |
| Anheuser Busch, Inc.                     | 700 Schrock Rd           | 43229        |                 |                           | 2        | 3        | General Permit            |
| G & J Pepsi-Cola Bottlers, Inc.          | 1241 Gibbard Ave         | 43219        |                 |                           | 2        | 3        | General Permit            |
| Accurate Manufacturing Company           | 1940 Lone Eagle St       | 43228        |                 |                           | 2        | 3        | No Exposure Certification |

2020 Category 2 Industries

| Company   | Site Address          | Site Zipcode | Inspection 2020 | Date of OEPA Notification | Category | Priority | Permit Status             |
|---|-----------------------|--------------|-----------------|---------------------------|----------|----------|---------------------------|
| AHMF, Inc.                                      | 2245 Wilson Rd        | 43228        |                 |                           | 2        | 3        | No Exposure Certification |
| American Furukawa, Inc.                         | 2181 International St | 43228        |                 |                           | 2        | 3        | No Exposure Certification |
| American LED-gible, Inc.                        | 1776 Lone Eagle St    | 43228        |                 |                           | 2        | 3        | No Exposure Certification |
| Auld Technologies, LLC                          | 2030 Dividend Dr      | 43228        |                 |                           | 2        | 3        | No Exposure Certification |
| Big Lots Stores, Inc.                           | 500 Phillipi Rd       | 43228        |                 |                           | 2        | 3        | No Exposure Certification |
| Dancor, Inc.                                    | 2155 Dublin Rd        | 43228        |                 |                           | 2        | 3        | No Exposure Certification |
| Dee Printing, Inc.                              | 4999 Transamerica Dr  | 43228        |                 |                           | 2        | 3        | No Exposure Certification |
| FST Logistics, Inc.                             | 1727 Georgesville Rd  | 43228        |                 |                           | 2        | 3        | No Exposure Certification |
| Interline Brands, Inc.                          | 2375 International St | 43228        |                 |                           | 2        | 3        | No Exposure Certification |
| Interstate Cold Storage, Inc. - Columbus I      | 4350 Roberts Rd       | 43228        | 1/22/2020       |                           | 2        | 3        | No Exposure Certification |
| Interstate Cold Storage, Inc. - Columbus II     | 2400 Setterlin Dr     | 43228        | 1/22/2020       |                           | 2        | 3        | No Exposure Certification |
| Mac Tools                                       | 4380 Old Roberts Rd   | 43228        |                 |                           | 2        | 3        | No Exposure Certification |
| Mars Petcare, Inc.                              | 5303 Fisher Rd        | 43228        |                 |                           | 2        | 3        | No Exposure Certification |
| Monesi Trucking and Equipment Repair, Inc.      | 1715 Atlas St         | 43228        |                 |                           | 2        | 3        | No Exposure Certification |
| Morrison Medical Ltd.                           | 3735 Paragon Dr       | 43228        |                 |                           | 2        | 3        | No Exposure Certification |
| Noise Suppression Technologies, Inc.            | 4182 Fisher Rd        | 43228        |                 |                           | 2        | 3        | No Exposure Certification |
| Pactiv Corporation                              | 2781 Westbelt Dr      | 43228        |                 |                           | 2        | 3        | No Exposure Certification |
| The Columbus Dispatch                           | 5300 Crosswind Dr     | 43228        |                 |                           | 2        | 3        | No Exposure Certification |
| TRAC (Tri-Modal Service, Inc.)                  | 2001 Walcutt Rd       | 43228        |                 |                           | 2        | 3        | No Exposure Certification |
| Westbelt Storage                                | 4445 Old Roberts Rd   | 43228        |                 |                           | 2        | 3        | No Exposure Certification |
| Wilsonart International, Inc.                   | 2500 International St | 43228        |                 |                           | 2        | 3        | No Exposure Certification |
| Public Storage                                  | 6401 Busch Blvd       | 43229        |                 |                           | 2        | 3        | No Exposure Certification |
| Public Storage                                  | 4990 Sinclair Rd      | 43229        |                 |                           | 2        | 3        | No Exposure Certification |
| Public Storage                                  | 6750 Ambleside Dr     | 43229        |                 |                           | 2        | 3        | No Exposure Certification |
| ShadeTree Cool Living, LLC                      | 6317 Busch Blvd       | 43229        |                 |                           | 2        | 3        | No Exposure Certification |
| Public Storage                                  | 4060 Morse Rd         | 43230        |                 |                           | 2        | 3        | No Exposure Certification |
| Anderson Aluminum Corporation                   | 2816 Morse Rd         | 43231        |                 |                           | 2        | 3        | No Exposure Certification |
| Public Storage                                  | 2719 Morse Rd         | 43231        |                 |                           | 2        | 3        | No Exposure Certification |
| Quality Rubber Stamp, Inc.                      | 3314 Refugee Rd       | 43232        |                 |                           | 2        | 3        | No Exposure Certification |
| Specialty Printing & Processing                 | 4670 Groves Rd        | 43232        |                 |                           | 2        | 3        | No Exposure Certification |
| Calhoon Graphics, Inc. D.B.A. Quickprint Centre | 1350 W 5th Ave        | 43212        | 3/5/2020        |                           | 2        | 3        | No Exposure Certification |

# Holistic Effects of Green Infrastructure Implementation in the Clintonville Neighborhood of Columbus Ohio: 2020 Interim Report

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Blueprint Columbus Monitoring

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## **Executive Summary**

Left unchecked, increasing imperviousness in a watershed causes flooding and impacts receiving waters, causing erosion, loss of habitat, and increases in pollutant load. Before the 1970s, urban developments were drained with storm sewers but were often built with few stormwater controls. Aging infrastructure in these neighborhoods, which includes the Clintonville neighborhood in Columbus, Ohio, are one cause of sanitary sewer overflows (SSOs).

The Blueprint Columbus project is an innovative effort by the City of Columbus to eliminate SSOs through four pillars: (1) installing of green infrastructure to reduce stormwater runoff, (2) disconnecting downspouts, (3) installing sump pumps, and (4) lining sanitary sewer laterals to prevent infiltration and inflow. The effort is currently centered in Clintonville but will be expanded to other neighborhoods of the city.

This report details holistic hydrologic and water quality monitoring activities undertaken by Ohio State University between 2016 and 2020 to quantify and compare conditions prior to and after the installation of green infrastructure in this neighborhood. This volume of the final report represents interim findings for the research related to the hydrologic, water quality, and public health impacts of stormwater, which will not be fully completed until 2022. The four pillars of Blueprint were not online long enough in any of the three treatment sewersheds to evaluate their collective impact; this will be undertaken in future reports.

Six sewersheds in Clintonville were identified for long-term stormwater monitoring. Since initial monitoring began in 2016, one sewershed has served as a control (Beechwold) for the experiment (i.e., it did not receive any of the four pillars of Blueprint), while three sewersheds (Cooke-Glenmont, Indian Springs, and Blenheim) received varying intensities of green

infrastructure retrofits, sump pump installations, downspout disconnections, and sanitary sewer lateral lining. Monitoring began at two additional sewersheds where GI retrofits are not planned (Starrett and Whetstone) in 2019, which will serve as additional controls for the study.

Imperviousness within the six monitored sewersheds ranged from a minimum of 30.9% (Cooke-Glenmont) to a maximum of 44.6% (Blenheim), while the control sewersheds were 34.7-38.2% impervious. The Indian Springs sewershed was 75% residential, 8% commercial, and 17% institutional, differing substantially from the other five sewersheds which were, at minimum, 82% residential.

Rainfall and runoff were measured in each sewershed. Runoff was measured in a single storm sewer outfall draining the entire sewershed. Flow-proportional, composite water quality samples were obtained during wet weather events. Stormwater samples were analyzed for nutrient, sediment (TSS), *E. coli*, and metals concentrations and then utilized in conjunction with measured runoff volume to determine pollutant loading.

Across the six sewersheds, hydrologic data were collected for between 268 and 279 storms over the 52-month monitoring period between 2016-2020. Before the Blueprint Columbus project commenced (i.e., the pre-retrofit period), the four originally monitored sewersheds transmitted between one-fifth and one-third of rainfall as runoff (runoff coefficients between 0.18 and 0.33). Runoff coefficients increased during the post-GI phase in the Indian Springs and Cooke-Glenmont sewersheds as well as the control, Beechwold, likely due to precipitation patterns during an extremely wet 2018 (the wettest year on record in Columbus, OH) and early 2019. These runoff coefficients were modestly lower than other residential catchments with similar characteristics in the literature. The runoff coefficient of Indian Springs increased in the

post-Blueprint phase due to additional stormwater volumes conveyed to the sewershed outfall following the completion of the remaining Blueprint pillars in the sewershed.

Slight increases (0.01-0.07) in runoff thresholds, or the rainfall depth required to observe incipient runoff at the sewershed outlet, were observed in treatment sewersheds, indicative of the depressional storage added to the sewersheds with the installation of GI. Runoff depths during the post-Blueprint phase were significantly decreased by 3% in the Indian Springs sewershed compared to the control, Beechwold; however, statistically significant differences in runoff depth were not observed in the remaining treatment sewersheds. Significant peak flow reduction was observed in the Blenheim (85%) and Cooke-Glenmont (53%) sewersheds. Progress made toward completion of the remaining Blueprint pillars was evident in additional runoff conveyed to the outfalls of Cooke-Glenmont and Indian Springs. Results from Blenheim are influenced by a relatively small number of events sampled in the post-GI phase (n=26), wherein the Blenheim wetland received a portion of the flows from the Blenheim sewershed. Additional data collected in 2021-2022 are expected to provide greater certainty to Blenheim's hydrologic outcomes.

Across the six sewersheds, 83 to 135 storm events were sampled for water quality between 2016-2020. Apart from two outliers for nitrate (and therefore TN) at Beechwold and Cooke-Glenmont, nutrient, metals, and TSS concentrations and loads during the pre-retrofit period were within the range of residential runoff from past studies in North Carolina, Connecticut, and from 39 residential watersheds in the National Urban Runoff Program (NURP). Though statistical significance varied between sewersheds and pollutants, significant increases in pollutants exported from the treatment sewersheds following the installation of GI were *never* observed. Significant orthophosphate concentration and load reductions were only observed at Indian Springs, the only sewershed with permeable pavement retrofits. Reductions in TSS and cadmium

concentrations were similar (within a margin of 5%) to the percent of the sewershed imperviousness treated by GI. Clear annual load reductions for almost all water quality parameters were observed. These results demonstrate the pollutant removal effectiveness of the GI installed in these sewersheds compared to the control. Major takeaways of the hydrologic and water quality monitoring to date are presented in Table 1.

**Table 1: Summary of statistically significant changes in hydrologic and water quality parameters in the treatment sewersheds between project phases.**

|               | Parameter    | Blenheim                                | Cooke-Glenmont   | Indian Springs  |  |
|---------------|--------------|---|--|---|--|
|               |              | Pre-GI →<br>Post-GI                     | Pre-GI* →<br>Post-GI   | Pre-GI →<br>Post-GI   | Pre-GI →<br>Post-Blueprint   |
| Hydrology     | Runoff Depth | -                                       | -  | -   | 3% ↓   |
|               | Peak Flow    | 85% ↓                                   | 53% ↓  | -   | -  |
| Water Quality | Nitrogen     | <b>Conc:</b><br>TAN: 69% ↓              | <b>Conc:</b><br>TAN: 66% ↓<br>OrgN: 22% ↓                                    | <b>Conc:</b><br>OrgN: 3% ↑<br><br><b>Load:</b><br>TKN: 20% ↓<br>OrgN: 2% ↓<br>TN: 17% ↓ | <b>Conc:</b><br>TAN: 25% ↓<br>TKN: 24% ↓<br>OrgN: 16% ↓<br><br><b>Load:</b><br>NO <sub>3</sub> : 23% ↑ |
|               | Phosphorus   | <b>Conc:</b><br>PBP: 72% ↓<br>TP: 36% ↓ | -  | <b>Load:</b><br>TP: 28% ↓   | <b>Conc:</b><br>OP: 42% ↓<br>PBP: 62% ↓<br>TP: 60% ↓   |
|               | TSS          | -                                       | <b>Conc:</b><br>TSS: 62% ↓<br><br><b>Load:</b><br>TSS: 78% ↓                 | <b>Conc:</b><br>TSS: 68% ↓<br><br><b>Load:</b><br>TSS: 60% ↓                            | <b>Conc:</b><br>TSS: 76% ↓<br><br><b>Load:</b><br>TSS: 65% ↓   |
|               | Heavy Metals | <b>Conc:</b><br>Zn: 50% ↓               | <b>Conc:</b><br>Cd: 63% ↓<br>Cr: 4% ↓<br>Cu: 36% ↓<br>Ni: 35% ↓<br>Pb: 50% ↓ | <b>Conc:</b><br>Cd: 70% ↓<br>Ni: 14% ↓  | <b>Conc:</b><br>Cd: 50% ↓<br>Cr: 55% ↓<br>Cu: 34% ↓<br>Pb: 68% ↓<br>Zn: 41% ↓                          |

\*Pre-GI phase includes data collected during both pre-retrofit and construction of GI periods.

The mean *E. coli* concentrations for the monitored sewersheds ranged from a minimum of  $4.89 \times 10^4$  CFU/100mL (Blenheim) to  $1.51 \times 10^6$  CFU/100mL (Cooke-Glenmont) and exceeded US EPA criteria for recreational waters (126 CFU/mL) at all six sewershed outfalls in 2019. Significant differences in *E. coli* concentrations were not observed between the six monitored sewersheds, nor did they vary by season or the presence (or absence) of green infrastructure. Human and canine sources were identified by microbial source tracking (MST) as major sources of fecal contamination in all six sewersheds monitored in 2019. However, marker concentrations (excluding those from human sources) did not significantly differ between control and treatment sewersheds. Findings herein and in the literature support the conclusion of previous reports that there is possible presence of enteric pathogens in both stormwater and receiving waters. Antibiotic resistance genes were present in samples collected from all six sewershed outfalls in 2019 but were not significantly different in sewersheds with GI compared to those where GI was not implemented.

## Introduction

Urbanization and suburbanization result in the construction of impervious surfaces, mass grading, soil compaction, and removal of vegetative cover. These impacts reduce the combined effects of canopy interception, evapotranspiration, and infiltration in a watershed, resulting in an imbalance in the natural hydrologic processes (Shuster et al. 2005). The consequence is increased stormwater runoff volumes traveling faster over hardened impervious surfaces, leading to instability in receiving streams, bed and bank erosion, loss of in-stream habitat, and imbalances in sediment transport (Walsh et al. 2005; Violin et al. 2011; Tillinghast et al., 2011; ten Veldhuis and Schleiss 2017). Furthermore, these increased volumes of stormwater runoff often carry higher pollutant loads from urbanized areas than other land uses (Line and White 2007; Line and White 2015; Chen et al. 2016). The severity of impacts to receiving streams varies and is dependent on the percentage of imperviousness in the watershed, topography, soils, vegetation, and other local factors (Bell et al. 2016). Ten percent imperviousness in a watershed is generally accepted as the threshold for negative consequences to streams (Schueler et al. 2009).

To ameliorate some of these impacts, engineers design stormwater control measures (SCMs) to detain, retain, infiltrate, and evapotranspire stormwater, reducing the rate and volume of flow discharged to receiving streams (Moore et al. 2017). Novel treatment technologies such as bioretention and permeable pavement often focus on reducing runoff volume. These SCMs are central to Low Impact Development (LID) strategies which aim to more closely mimic pre-development hydrology (Dietz 2007). Recent studies in Ohio have shown that bioretention and permeable pavement can substantially reduce runoff volumes even when constructed in clay soils (Winston et al. 2016b; Winston et al. 2018; Tirpak et al. 2021). Additionally, these SCMs often

employ sedimentation, filtration, adsorption, and biological processes to sequester or remove pollutants from stormwater (Davis et al. 2009; Winston et al. 2016a). Many studies of single SCMs have shown that if designed, installed, and maintained adequately, they function to reduce pollutant load to receiving streams, helping to meet total maximum daily load (TMDL) goals and reduce stream impairment.

A growing body of literature supports the use of LID with distributed SCMs in greenfield developments (Dietz and Clausen 2008; Line et al. 2012; Wilson et al. 2014). Implementation of LID in a residential development in Connecticut resulted in runoff volumes and peak flow rates 2.5 and 3.0 times lower than an adjacent traditionally drained residential development. The runoff coefficient (ratio of rainfall to runoff) for a commercial LID site was 0.02, while an adjacent commercial development drained by a dry pond had a runoff coefficient of 0.49 (Wilson et al. 2014). Total nitrogen (TN), total phosphorus (TP), and total suspended solids (TSS) pollutant load from a LID development was 23-92% less than an adjacent conventionally drained residential development (Line and White 2015). However, installing GI as part of new developments is substantially simpler, cheaper, and more effective than retrofitting GI into existing developments, since open space is limited, and existing utilities abound.

A study by Shuster and Rhea (2013) conducted in Cincinnati, Ohio, showed that voluntary retrofitting of rain barrels and rain gardens on residential parcels imparted a small but significant decrease in catchment-scale runoff volume. Modeling studies have shown that minor to vast differences in runoff reduction (10-70%) may be achieved when retrofitting SCMs depending on the type and scale of SCM implementation (Wright et al. 2016). Very few studies have evaluated the effects of a retrofitted network of LID SCMs in the municipal right-of-way. Page et al. (2015a, 2015b) conducted a study in Wilmington, NC to evaluate a control street and a nearby

retrofitted street with bioretention, permeable pavement, and high flow rate tree filters. When compared to the control catchment, runoff depth decreased by an average of 52% and pollutant load of nutrients, sediment, and metals decreased by 50-90%.

While the effects of urbanization on a watershed are well cataloged, there are relatively few studies that have quantified how targeted retrofitting of GI affects watershed-scale hydrology and water quality. The goal of this research is to quantify the holistic impacts of green infrastructure implementation in the Clintonville neighborhood of Columbus, Ohio as part of the Blueprint Columbus project. This volume documents findings related to stormwater hydrology, water quality, and public health implications following the implementation of SCMs in the City of Columbus' rights-of-way.

## **Project Overview**

Much of the City of Columbus has separated sewer systems. Sanitary sewer overflows (SSOs) remain a concern due to infiltration and inflow from leaky sewer pipes and porous utility trenches, causing capacity exceedance during rain events. In 2016, 127 SSO discharge events occurred across the remaining 34 SSO outfalls in Columbus (City of Columbus 2017a). These represent a significant public health risk (Liao et al. 2016) and the City of Columbus is under a USEPA consent decree to eliminate SSOs and combined sewer overflows (CSOs) within its jurisdiction. In response, the City of Columbus constructed the Olentangy-Scioto interceptor sewer to contain the CSOs and has evaluated the use of traditional grey measures (sewer lining and up-sizing pipes) to prevent SSOs. A cost-benefit analysis showed higher costs for traditional grey (\$2.5 billion) than green infrastructure measures (\$1.8 billion) to control SSOs, but with potential co-benefits (e.g., urban habitat, stormwater control, air quality, carbon sequestration,

housing values, and beautification) provided by the green infrastructure (Bolund and Hunhammar 1999; Arcadis 2015).

Given this potential net benefit with lower cost, the City of Columbus developed the Blueprint Columbus project as its long-term control plan for SSOs. Blueprint Columbus is a multi-pronged approach that includes the implementation of GI SCMs (i.e., bioretention, permeable pavement, and a constructed wetland), lining of sewer laterals, disconnection of roof downspouts to SCMs, and a voluntary sump pump program (Figure 1). It represents an unprecedented effort by the City of Columbus to retrofit a network of green infrastructure across the city to address numerous goals. The results of this report provide information to determine preliminary impacts of Blueprint Columbus on runoff quantity and quality (City of Columbus 2017b). This will inform future decisions about SSO control strategies, providing the city with data to produce a more accurate and comprehensive cost-benefit analysis. It will also guide the expansion of Blueprint Columbus to fulfill the city's USEPA consent decree to reduce SSOs in neighborhoods beyond Clintonville.



**Figure 1. Four pillars of the Blueprint Columbus project.**

## Methods

### *Stormwater Runoff Hydrology and Water Quality*

#### *Description of Monitored Sewersheds*

Six sewersheds in the Clintonville neighborhood of Columbus, Ohio were monitored to characterize runoff hydrology and water quality. There were very few preexisting SCMs within this neighborhood to treat and dissipate stormwater prior to the onset of the Blueprint Columbus project. The City of Columbus has installed green infrastructure (GI or GSI), disconnected downspouts, installed sump pumps, and lined sewer laterals in an effort to prevent sanitary sewer overflows (SSOs) in the Blenheim (also referred to as Blenheim-Glencoe), Cooke-Glenmont, and Indian Springs sections of the neighborhood (Figure 1, Figure 2, and Figure 24). The majority of the Beechwold area of the neighborhood was not retrofitted with GI (only 2% of the

watershed is treated by GI on a single street) and it served as the primary control in the experiment. In 2019, monitoring commenced in two additional control sewersheds, Whetstone and Starrett, selected based on their proximity to the original four sewersheds, where monitoring began in 2016. Like Beechwold, both the Whetstone and Starrett sewersheds are not scheduled to be retrofitted with GI or other Blueprint pillars. In addition, monitoring was conducted at a constructed wetland (Blenheim wetland), which was completed in 2019 and received runoff from a portion of the Blenheim sewershed.



**Figure 2. Boundaries of the six sewersheds monitored in this study. Distribution of green infrastructure (GI), monitoring locations, and land use within each sewershed also shown. Remaining area within each sewershed not identified as Commercial or Institutional is Residential land use.**

Except for commercial and institutional land use, Clintonville is a primarily residential neighborhood developed between 1910 and 1950. Six glacial ravines run east to west through Clintonville and eventually convey stormwater to the Olentangy River. Clintonville is drained with a system of separated storm sewers which generally outfall to the ravines. The Cooke-Glenmont, Indian Springs, and Blenheim sewersheds drain to Overbrook ravine while the Beechwold sewershed drains to the Beechwold ravine. Starrett and Whetstone both discharge directly to the Olentangy River. The soils in the sewersheds are primarily mapped as silt loams in the Cardington and Bennington soil series. While the development patterns differ to some extent (Figure 25 to Figure 30), the neighborhood consists primarily of small lot, single family residential (Table 2).

**Table 2. Land use in the six monitored sewersheds in Clintonville.**

| Sewershed      | Area (ac) | Land Use (ac) |            |               | Land Use (%) |            |               |
|----------------|-----------|---------------|------------|---------------|--------------|------------|---------------|
|                |           | Residential   | Commercial | Institutional | Residential  | Commercial | Institutional |
| Beechwold      | 275.5     | 263.6         | 10.0       | 2.0           | 95.7         | 3.6        | 0.7           |
| Blenheim       | 151.4     | 134.2         | 7.4        | 9.9           | 88.6         | 4.9        | 6.5           |
| Cooke-Glenmont | 28.5      | 28.5          | 0          | 0             | 100          | 0          | 0             |
| Indian Springs | 118       | 89.3          | 9.0        | 20.5          | 75.0         | 7.6        | 17.4          |
| Starrett       | 55        | 55            | 0          | 0             | 100          | 0          | 0             |
| Whetstone      | 56        | 46            | 0          | 10            | 82.1         | 0          | 17.9          |

Stormwater monitoring of three treatment sewersheds began in 2016 prior to installation of GI. These sewersheds then had differing levels of GI implementation; qualitatively, Cooke-Glenmont has the lowest number of GI practices, followed Indian Springs, where a moderate number of practices were installed, and Blenheim, where the greatest number of GI practices were implemented. This facilitates comparisons of how GI density affects runoff quantity and quality at the sewershed scale. Because establishment of the Whetstone and Starrett sewershed monitoring locations occurred after GI implementation in the treatment sewersheds commenced,

they were excluded from all pre- versus post-GI performance analyses (i.e., only the Beechwold sewershed was used as a control). Instead, annual assessments of runoff hydrology will rely on all three control sewersheds, beginning in this report. Future reports may include annual water quality analyses comparing the full suite of treatment and control sewersheds.

Sewersheds were selected for monitoring based on the following criteria: (1) land use within the sewershed was representative of land use in the greater Clintonville area, (2) ease of access to the sewer outfall and safety of sampling staff, (3) ease of installation of monitoring equipment in and near the outfall, (4) reasonable sun exposure for solar panels to charge batteries to power the automated samplers, (5) expected hydrologic data quality based on downstream impediments to flow, and (6) willingness of adjacent landowner(s) to host monitoring equipment on their property.

The Cooke-Glenmont and Starrett sewersheds consisted entirely of residential land use, while Beechwold, Blenheim, and Whetstone were comprised of 96%, 89%, and 82% residential land use, respectively (Figure 2 and Table 2). Institutional land use (e.g., schools, libraries, and community centers) made up <1%, 6.5% and 17.9% of Beechwold, Blenheim, and Whetstone, respectively. The Indian Springs sewershed was comprised of 75% residential, 8% commercial, and 17% institutional land uses. Beechwold (276 acres) had nearly double the drainage area of the next largest sewershed (Blenheim), while the Cooke-Glenmont sewershed covered just 29 acres. The sewer outfalls for Beechwold, Blenheim, Indian Springs, Cooke-Glenmont, Starrett, and Whetstone were 54-inch diameter, 3 by 3 ft square, 42-inch diameter, and 18-inch diameter, 42- inch diameter, and 24-inch diameter concrete outfalls, respectively.

Impervious surfaces reduce infiltration and evapotranspiration in a watershed and are key factors in determining quantity (Shuster et al. 2005) and quality (Carle et al. 2005) of stormwater

runoff and the subsequent health of receiving water bodies (Schiff and Benoit 2007; Schueler et al. 2009). Imperviousness within the six monitored sewersheds ranged from a minimum of 30.9% (Cooke-Glenmont; see Figure 27 in Appendix B) to a maximum of 44.6% (Blenheim; see Figure 28 in Appendix B) (Table 3). The neighborhoods in Clintonville were comprised of approximately 40% impervious cover, similar to the imperviousness of the Beechwold (38.2%), Starrett (34.7%), and Whetstone (35.3%) sewersheds (Figure 25) (City of Columbus 2009). Roofs, roads, and driveways represented most of the impervious cover in all sewersheds. In each of the sewersheds, rooftops comprised approximately 40% of the total impervious area (TIA), while roads and driveways represented 20-30% and 15-25% of TIA, respectively. Sidewalks and parking lots represented <10% of the TIA in each sewershed, except for parking lots in Indian Springs and Whetstone (Figure 26), which were 17.5% and 22% of their TIA, respectively. Because the downspouts and driveways in Clintonville often directly discharge to the street, most of the TIA was directly connected to the sewer system. Pervious areas in the sewersheds were primarily residential yards and sporting fields; very few undisturbed natural or forested areas existed outside the ravines (Figure 25, Figure 26, Figure 27, Figure 28).

**Table 3. Impervious surface types within each monitored sewershed.**

| <b>Sewershed</b> | <b>Units</b>    | <b>Area</b> | <b>Imperviousness</b> | <b>Roof Area</b> | <b>Road Area</b> | <b>Sidewalks</b> | <b>Driveways</b> | <b>Parking Lots</b> | <b>Pervious</b> |
|------------------|-----------------|-------------|-----------------------|------------------|------------------|------------------|------------------|---------------------|-----------------|
| Beechwold        | acres           | 275.5       | 105.3                 | 41.8             | 30.4             | 5.8              | 22.9             | 4.5                 | 170.2           |
|                  | % of total area | -           | 38.2                  | 15.2             | 11.0             | 2.1              | 8.3              | 1.6                 | 61.8            |
| Blenheim         | acres           | 151.4       | 67.4                  | 25.3             | 15.0             | 7.2              | 15.0             | 4.8                 | 84.0            |
|                  | % of total area | -           | 44.5                  | 16.7             | 9.9              | 4.8              | 9.9              | 3.2                 | 55.5            |
| Cooke-Glenmont   | acres           | 28.5        | 8.8                   | 3.6              | 2.6              | 0.3              | 2.3              | 0.0                 | 19.7            |
|                  | % of total area | -           | 30.9                  | 12.5             | 9.3              | 1.2              | 8.0              | 0.0                 | 69.1            |
| Indian Springs   | acres           | 118         | 47.6                  | 18.5             | 10.1             | 3.1              | 7.5              | 8.3                 | 70.4            |
|                  | % of total area | -           | 40.3                  | 15.7             | 8.6              | 2.7              | 6.4              | 7.0                 | 59.7            |
| Starrett         | acres           | 55          | 19.1                  | 7.2              | 6.8              | 0.7              | 4.4              | 0.0                 | 35.9            |
|                  | % of total area | -           | 34.7                  | 13.1             | 12.4             | 1.3              | 8                | 0.0                 | 65.3            |
| Whetstone        | acres           | 46          | 16.2                  | 5.0              | 1.1              | 0.9              | 5.6              | 3.6                 | 29.8            |
|                  | % of total area | -           | 35.3                  | 10.9             | 2.4              | 2.0              | 12.2             | 7.8                 | 64.7            |

### *Project Timelines*

Each sewershed was monitored during a pre-retrofit phase to establish baseline hydrologic response and runoff quality. Blueprint Columbus was then implemented in two phases: (1) the GI construction phase sometimes followed by a respite in construction, and (2) downspout redirections, sanitary sewer lateral lining, and sump pump installations. A consistent monitoring scheme was employed before, during, and after all construction activities.

The number of bioretention cells (BRCs), downspout disconnections, sewer laterals lined, and sump pumps implemented in the monitored sewersheds are presented in Table 4. Between 22% and 44% of the treatment sewershed areas were drained through GI. Though fewer in number, the bioretention cells in Cooke-Glenmont had larger surface areas than those in Blenheim or Indian Springs. By the end of 2020, substantial progress was made to line sewer laterals and disconnect downspouts in the Cooke-Glenmont and Indian Springs sewersheds;

however, these Blueprint pillars were only implemented in a portion of the Blenheim sewershed at the time of report preparation.

**Table 4. Monitored Blueprint sewersheds with the number of implemented practices for each pillar of the Blueprint project as of December 2020.**

| <b>SEWERSHED*</b>          | <b>DESIGN STYLE</b> | <b>NO. OF BRCs</b> | <b>% AREA TREATED BY GI</b> | <b>HOMES WITH DISCONN. DOWNSPOUTS</b> | <b>SEWER LATERAL S LINED</b> | <b>SUMP PUMPS INSTALLED</b> |
|----------------------------|---------------------|--------------------|-----------------------------|---------------------------------------|------------------------------|-----------------------------|
| <b>BEECHWOLD (CONTROL)</b> | Bump-Outs           | 10                 | 2%                          | 0                                     | 0                            | 0                           |
| <b>BLENHEIM</b>            | In-Lawn             | 163                | 44%                         | 33                                    | 502                          | Beginning 2021              |
| <b>COOKE-GLENMONT</b>      | Regional, In-Lawn   | 3                  | 31%                         | 60                                    | 262                          | 0                           |
| <b>INDIAN SPRINGS</b>      | Bump-Out, In-Lawn   | 32                 | 22%                         | 349                                   | 447                          | 234                         |

\*The Whetstone and Starrett control sewersheds did not receive any retrofits associated with the Blueprint Columbus project.

Timelines illustrating the progress of the Blueprint Columbus project in the treatment sewersheds are shown in Figure 3. Phases of the Blueprint Columbus project were used to assess the effects of Blueprint Columbus on sewershed hydrology and water quality. Generally, data were categorized into the following periods: (1) pre-retrofit, (2) construction, (3) post-GI, and (4) post-Blueprint. The pre-retrofit and the first phase of construction were combined for water quality analysis for the Cooke-Glenmont sewershed. As the first water quality sample was not collected until September 29, 2016, the combination of these project phases extended the three months of pre-retrofit data at Cooke-Glenmont to one year of baseline data (referred to as the “baseline” period) used to compare changes in the water quality resulting from GI installed in the sewershed. This allowed the impacts of seasonal changes in water quality to be captured in the pre-retrofit dataset. The combination of these project phases was further justified because no significant differences in total suspended solids or heavy metals, which are commonly associated with construction activities, were observed between the pre-retrofit and construction phases at Cooke-Glenmont. In all other cases, data collected during GI construction phases were not

utilized in the analysis herein and were generally not different from pre-retrofit periods. Further analysis of these data is expected in future reports. The post-GI and post-Blueprint periods represented periods of GI implementation along versus the completion of the four Blueprint pillars, respectively.

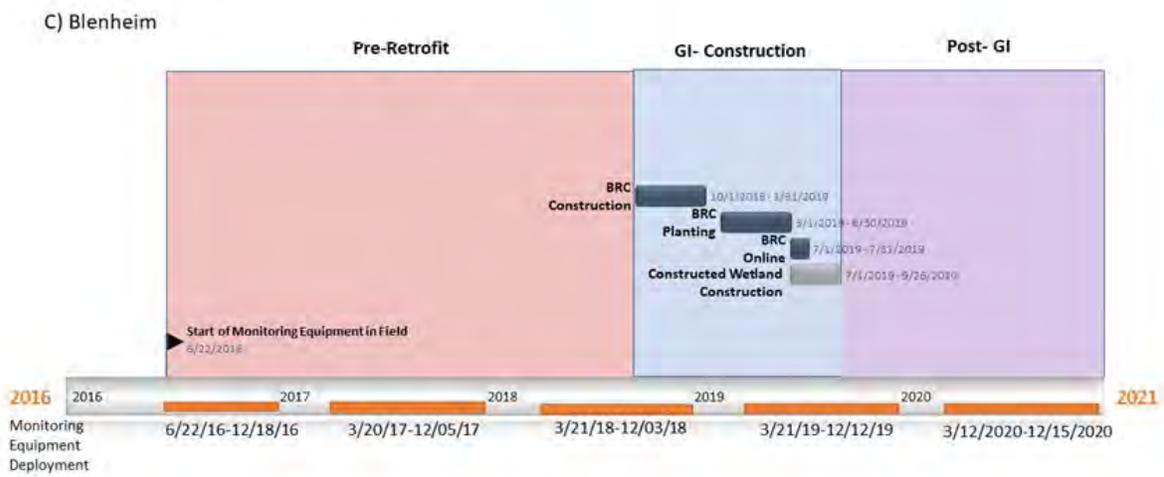
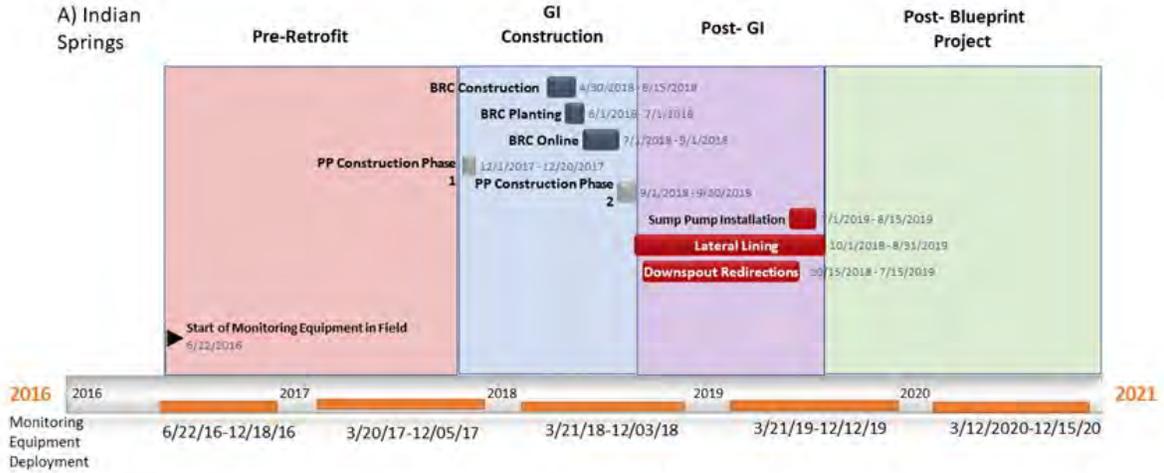


Figure 3. Project timelines of treatment sewersheds during the monitoring period.

The GI construction phase encompassed the three phases of GI retrofits: construction, planting, and establishment. The GI implemented in Indian Springs and Blenheim also included other technologies which complemented the BRCs. In Indian Springs, permeable pavements were constructed on five streets or alleys in the sewershed. In Blenheim, a constructed wetland (hereafter: Blenheim wetland) was installed and fed from a diversion control upstream of the existing sewershed outfall. During the establishment phase, runoff was routed away from the BRCs to provide a period for plants to establish (Figure 4). Breaks between the construction of GI and completion of remaining Blueprint pillars caused the duration of the post-GI period to vary greatly (8-40 months) between the treatment sewersheds. The additional Blueprint pillars were often implemented over several weeks to months, without constant construction occurring in the sewersheds. As of December 2020, Indian Springs was the only treatment sewershed where all Blueprint pillars were fully completed (Figure 3).



**Figure 4. Bioretention cell with sandbag blocking the inlet and the same cell after sandbag was removed and runoff from street was routed into the practice. Blocking of the inlet structures prevented high-intensity runoff events from entering the practice immediately following planting to allow juvenile plants to become established in the bioretention media. An additional erosion control practice downstream of the inlet weir was added after the sandbag was removed.**

As of the time of report preparation, sufficient data have been collected to make statistical inferences about changes in runoff quantity and quality following the implementation of GI in

the Blenheim, Cooke-Glenmont, and Indian Springs sewersheds using Beechwold as a control. However, analyses following the completion of Blueprint activities were limited to the Indian Springs sewershed. Continued data collection in 2021-2022 will support expanded post-Blueprint analyses in each of the treatment sewersheds in future reports.

### *Data Collection*

A single rain gage cluster, consisting of a tipping bucket and a manual rain gage attached to a 6-ft tall wooden post, was installed in five of the six monitored sewersheds (a suitable location for a rain gage in the Starrett sewershed could not be identified; Figure 5). Rainfall data were collected using 0.01-inch resolution Davis Rain Collector tipping bucket rain gages (Davis Instruments, Hayward, California) and stored on Hobo Pendant data loggers (Onset Computer Corporation, Bourne, Massachusetts). Rainfall data were stored on a 1-minute interval and downloaded to a field laptop every three weeks. Readings from manual rain gages (Productive Alternatives, Fergus Falls, Minnesota) were observed after each rainfall event to re-calibrate sampler pacing. Rain gage clusters were installed in locations free from overhead obstructions.



**Figure 5. Rain gage cluster (left), sample intake (clear plastic) and area velocity meter (black) in the Cooke-Glenmont outfall (center), and automated sampler at Beechwold (right).**

The six sewersheds and the Blenheim wetland were instrumented to quantify hydrology during baseflow and stormflow and obtain representative samples of stormwater quality. Instrumentation was installed at outfalls draining each sewershed such that the total runoff discharged from each sewershed could be quantified (Figure 5). An ISCO 750 area velocity

meter (AVM; Teledyne Isco, Lincoln, Nebraska) was mounted to the bottom of the Beechwold, Starrett, Whetstone, Blenheim wetland (at both the inlet and outlet), and Cooke-Glenmont culverts and measured velocity and depth of flow. These sensors measure velocity by emitting a continuous ultrasonic wave that bounces off particles and bubbles in the flow. The frequency shift in the returned signal (i.e., the Doppler Effect) is used to determine the average flow velocity. An internal pressure transducer in the AVM measures flow depth. These measurements, along with the known cross-section of the outfall, were used by ISCO 6712 samplers to determine flow rate on 1-minute intervals. At Blenheim and Indian Springs, AVMs transmitted measurements to ISCO 2150 flow modules. These data were stored in ISCO 2100 sample interface modules and were used to trigger sample aliquots obtained by ISCO 3700 series samplers. Hydrologic data were downloaded every three weeks to a field laptop.

Runoff volume-proportional, composite stormflow samples were collected by either ISCO 6712 or 3700 series samplers (Figure 5). Flow rates were integrated with time to determine stormwater volume and trigger sample aliquots. Aliquots were paced such that up to a 2-inch rainfall event could be effectively sampled; the runoff volume needed to trigger each aliquot was varied frequently based upon measured runoff volume and associated rainfall depth at a monitoring site. While flow from the Cooke-Glenmont, Starrett, and Whetstone outfalls was ephemeral, the Beechwold, Blenheim, and Indian Springs outfalls had baseflow during inter-event periods. For outfalls with baseflow, an enable trigger based on flow depth was set to ensure the sampler did not consider baseflow volume in the volumetric trigger for aliquot collection. Within each sampler, aliquots were composited in a single 18.9L bottle and thus characterized pollutant event mean concentrations (EMC).

All composite samples were composed of a minimum of five and a maximum of 50, 350 mL aliquots describing greater than 80% of the pollutograph (U.S. EPA 2002). All samples were collected within 24 hours of the cessation of rainfall. Sample strainers (Figure 5) were used to remove gross solids from the samples and were located where flow was well-mixed.

Data were collected during the 52-month period from June 2016 to December 2020. Rainfall, hydrologic, and water quality data were not collected from December 19, 2016 through March 19, 2017, December 6, 2017 through March 20, 2018, December 4, 2018 through March 20, 2019 through December 13, 2019, and after December 15<sup>th</sup>, 2020 to prevent damage to monitoring equipment and/or collection of unreliable data due to winter weather conditions.

### *Simulated Storm Methods*

Simulated storm tests were conducted to quantify bioretention cell performance under semi-controlled conditions. Thus far, tests have focused on hydrologic performance of the bioretention cells, investigating parameters such as runoff volume reduction and alteration of hydrograph timing. Tests were conducted between 2018 and 2020 on bioretention cells in three sewersheds in Clintonville (i.e., Cooke-Glenmont, Indian Springs, and Schreyer-Springs). Simulated storm testing procedures varied depending on the surface area of the bioretention cell (Table 5). Bioretention cells with surface areas greater than 200 ft<sup>2</sup> required the use of a fire hydrant, while those less than 200 ft<sup>2</sup> were tested using a 400-gallon tank. Between 2018-2020, a total of thirty-five tests at ten bioretention cells were performed. Due to unexpected infiltration to the sanitary or storm sewer and issues with equipment used to measure flow, analysis was performed on a subset of 33 simulated storm events. Beginning in 2021, efforts will focus on replicating testing for the previously tested bioretention cells as well as testing an additional 3 BRCs located in the Blenheim sewershed (Table 5).

**Table 5. Description of bioretention cells characterized using simulated storm testing.**

| <b>Clintonville Project Area</b> | <b>Bioretention Cell Location</b>                               | <b>Bioretention Cell Configuration</b> | <b>Surface Area (ft<sup>2</sup>)</b> | <b>Test Method</b> | <b>Candidate for Water Quality Testing</b> | <b>No. of Tests Completed</b> |
|----------------------------------|---|--|--------------------------------------|--------------------|--|-------------------------------|
| Blenheim                         | 220 Blenheim Road, midway between Foster Street and Sharon Ave. | In-Lawn                                | 96                                   | Tank               | Yes  | 0                             |
| Blenheim                         | 146 Glencoe Rd., midway between Foster and E. Torrence Rd.      | In-Lawn                                | 144                                  | Tank               | Yes  | 0                             |
| Blenheim                         | SE corner of Acton and Granden                                  | In-Lawn                                | 184                                  | Tank               | Yes  | 0                             |
| Cooke-Glenmont                   | Glenmont Pl.  | In-Lawn                                | 303                                  | Tank               | Yes  | 0                             |
| Cooke-Glenmont                   | 192 Glenmont Ave.   | Bump Out                               | 195                                  | Hydrant            | No   | 3                             |
| Cooke-Glenmont                   | 107 Glenmont Ave., between N. High St. and Foster St.           | Bump Out                               | 393                                  | Hydrant            | No   | 3                             |
| Cooke-Glenmont                   | 92 Glenmont Ave.  | Bump Out                               | 194                                  | Hydrant            | No   | 3                             |
| Schreyer-Springs                 | 4290 Fair Oaks Dr.  | In-Lawn                                | 263                                  | Tank               | Yes  | 4                             |
| Schreyer-Springs                 | 4287 Colerain Dr.   | In-Lawn                                | 262                                  | Tank               | Yes  | 4                             |
| Schreyer-Springs                 | 4286 Colerain Dr. Dr.   | In-Lawn                                | 208                                  | Tank               | Yes  | 2                             |
| Indian Springs                   | Intersection of Shields Place and E. Shreyer Pl.                | In-Lawn                                | 85.1                                 | Tank               | Yes  | 5                             |
| Indian Springs                   | 144 Schreyer  | In-Lawn                                | 64                                   | Tank               | Yes  | 2                             |
| Indian Springs                   | 270 Village Dr  | Bump Out                               | 156.2                                | Tank               | Yes  | 4                             |
| Indian Springs                   | 240 Village Dr  | Bump Out                               | 156.2                                | Tank               | Yes  | 2                             |

For bioretention cells with a surface area less than 200 ft<sup>2</sup>, a 400-gallon tank was filled from a fire hydrant. A 2-inch hose was then attached to a bung at the bottom of the tank and was oriented to discharge into the bioretention cell inlet. The ball valve on the 2-inch orifice was opened fully and the tank drained via gravity into the bioretention cell. Flow rates from the tank

were measured at three- to five-minute intervals by timing the amount of time it took to fill a 5-gallon bucket from the tank. Drainage from the bioretention underdrain was measured at 2-minute intervals using a stopwatch and a graduated two-liter water pan. Inflow and outflow hydrographs were produced using recorded flow data, and volume reduction, peak flow mitigation, and changes in hydrograph timing were determined for each simulated storm.

Beginning in spring 2021, water quality testing will also be conducted during each simulated storm for smaller bioretention cells (i.e., surface area less than 200 ft<sup>2</sup>) using water dosed with sediment and nutrients to reflect the water quality of local stormwater runoff. After the tank is filled with water, a submersible pump and mixer will be used to suspend and fully mix sediment (local soil from the area), phosphorus (added in the forms of glycine and sodium phosphate), and nitrogen (added as sodium nitrate) in the synthetic stormwater. The target concentrations of these pollutants in the synthetic stormwater solution are based on the median values present in water quality samples collected between 2016-2019 in Clintonville (Table 6). The pollutant concentrations present in these samples were compared against median values presented in the National Stormwater Quality database to ensure the synthetic blend is representative of typical residential runoff quality (Pitt 2015). Water quality samples will be collected on a volume-proportional basis at the inlet and outlet of each bioretention cell. These will be analyzed by the City of Columbus laboratory for concentrations of total Kjeldahl nitrogen (TKN), nitrate (NO<sub>3</sub>), nitrite (NO<sub>2</sub>), total ammoniacal nitrogen (e.g., the amount of ammonia in a sample, TAN), total phosphorus (TP), orthophosphate (OP), and total suspended solids (TSS). Pollutant load reductions will also be calculated and for this analysis.

**Table 6. Synthetic stormwater pollutant concentrations for future water quality simulated storm sampling**

| <b>Pollutant</b>  | <b>Recommended<br/>Concentration (mg/L)</b> |
|-------------------|---|
| TKN               | 1.44  |
| NO <sub>2-3</sub> | 0.55  |
| TAN               | 0.26  |
| TP                | 0.26  |
| OP                | 0.10  |
| TSS               | 142   |

For bioretention cells with surface areas greater than 200 ft<sup>2</sup>, the 400-gallon tests have often resulted in complete abstraction (i.e., no flow from the underdrain) of runoff. Therefore, flow was sourced from a fire hydrant using a 3-inch diameter regulated flexible hose discharging into the inlet of each bioretention cell. Inflow from the hydrant was monitored on 30-second intervals using a mechanical flow meter and aggregated into 5-minute intervals. Underdrain flow was measured using methods described for smaller bioretention cells. These larger bioretention cells will not be tested for water quality performance due to the large volumes of chemicals required for synthetic stormwater mixing and the difficulty in mixing pollutants into large volumes of water discharged from a fire hydrant.

### *Laboratory Methods*

Following the cessation of rainfall, each monitoring location was visited in succession to obtain samples and transport them to the City of Columbus laboratory for analysis, an approximately 4-hour effort. Composite samples collected in each ISCO were shaken vigorously to resuspend solids and were then subsampled into laboratory sample bottles (Table 7). Composite samples were divided among a pre-acidified 500mL plastic bottle for cadmium (Cd), chromium (Cr), copper (Cu), lead (Pb), nickel (Ni), zinc (Zn), and hardness analysis, a 500mL pre-acidified bottle for TAN, TKN, and NO<sub>2</sub> analysis, a 500mL bottle for alkalinity, NO<sub>3</sub>, and

TSS analysis, a 1L autoclaved bottle for *E. coli* and fecal coliform analysis, and a 50mL bottle (following field filtration through a Whatman Puradisc 0.45  $\mu\text{m}$  filter) for OP analysis.

**Table 7. Sample collection, preservation, and laboratory testing methods as well as method detection limits (MDL) for pollutants analyzed herein.**

| Parameter                   | Laboratory Method                                     | Sampling Method | Container | Preservation                                 | MDL (mg/L)             |
|-----------------------------|---|-----------------|-----------|--|------------------------|
| TKN                         | EPA Method 351.21                                     | Composite       | Plastic   | H <sub>2</sub> SO <sub>4</sub> (<2 pH), <4°C | 0.078                  |
| NO <sub>2</sub>             | EPA Method 353.2                                      | Composite       | Plastic   | H <sub>2</sub> SO <sub>4</sub> (<2 pH), <4°C | 0.018                  |
| NO <sub>3</sub>             | EPA Method 353.2                                      | Composite       | Plastic   | <4°C   | 0.043                  |
| TN                          | Calculated as TKN + NO <sub>2</sub> + NO <sub>3</sub> | Composite       | Plastic   | NA   | NA                     |
| TAN <sup>1</sup>            | EPA Method 350.1                                      | Composite       | Plastic   | H <sub>2</sub> SO <sub>4</sub> (<2 pH), <4°C | 0.0031                 |
| ON                          | Calculated as TKN-TAN                                 | Composite       | Plastic   | NA   | NA                     |
| OP                          | EPA Method 365.2                                      | Composite       | Plastic   | <4°C   | 0.01                   |
| PBP                         | Calculated as TP-OP                                   | Composite       | Plastic   | NA   | NA                     |
| TP                          | EPA Method 365.2                                      | Composite       | Plastic   | <4°C   | 0.1                    |
| TSS                         | Standard Methods 2540D2                               | Composite       | Plastic   | <4°C   | 2                      |
| Total Alkalinity            | Standard Methods 2320                                 | Composite       | Plastic   | <4°C   | 6.61                   |
| Hardness                    | Standard Methods 4500-SiO <sub>2</sub> D              | Composite       | Plastic   | HNO <sub>3</sub> (<2 pH), <4°C               | 0.027                  |
| Cyanide <sup>2</sup>        | EPA Method 335.4                                      | Grab            | Glass     | 4-6 pellets NaOH                             | 0.0019                 |
| Oil and Grease <sup>2</sup> | Standard Methods 2130 B                               | Grab            | Glass     | H <sub>2</sub> SO <sub>4</sub> (<2 pH), <4°C | 0.15                   |
| COD <sup>2</sup>            | EPA Method 410.3                                      | Composite       | Plastic   | H <sub>2</sub> SO <sub>4</sub> (<2 pH), <4°C | 5.9                    |
| cBOD, 5 day <sup>2</sup>    | Standard Methods 5210B                                | Composite       | Plastic   | <4°C   | 0.59                   |
| BOD, 5 day <sup>2</sup>     | Standard Methods 5210A                                | Composite       | Plastic   | <4°C   | 0.31                   |
| Parameter                   | Laboratory Method                                     | Sampling Method | Container | Preservation                                 | MDL                    |
| E. coli                     | EPA Method 1603                                       | Composite       | Plastic   | <4°C   | 1 CFU/100mL            |
| Microbial source tracking   | Quantitative PCR                                      | Composite       | Plastic   | -80°C  | 5 gene copies/reaction |
| Microbiome                  | Metagenomics  | Composite       | Plastic   | -80°C  | 10 read count          |
| Resistome                   | Metagenomics  | Composite       | Plastic   | -80°C  | read count             |
| Virulence gene              | Metagenomics  | Composite       | Plastic   | -80°C  | 10 read count          |
| Parameter                   | Laboratory Method                                     | Sampling Method | Container | Preservation                                 | MDL (µg/L)             |
| Cd                          |   | Composite       | Plastic   |  | 0.013                  |
| Cr                          |   | Composite       | Plastic   |  | 0.036                  |
| Cu                          |   | Composite       | Plastic   |  | 0.26                   |
| Pb                          | EPA 200.8   | Composite       | Plastic   | HNO <sub>3</sub> (<2 pH), <4°C               | 0.0086                 |
| Ni                          |   | Composite       | Plastic   |  | 0.025                  |
| Zn                          |   | Composite       | Plastic   |  | 0.7                    |

<sup>1</sup>TAN is equal to the laboratory reported NH<sub>3</sub> (ammonia) concentration.

<sup>2</sup>Samples obtained once per quarter for NPDES compliance.

Once per quarter, additional sample volume was taken from the 18.9L composite bottle and preserved as necessary for chemical oxygen demand (COD), biochemical oxygen demand (BOD), and carbonaceous biochemical oxygen demand (cBOD) to meet the National Pollutant Discharge Elimination System (NPDES) permit requirements for the City of Columbus (Table 7). During NPDES sampling, grab samples of runoff were taken from the outfalls into a 250mL amber glass bottle preserved with sodium hydroxide for cyanide analysis and into a 1L amber glass bottle preserved with sulfuric acid for oil and grease analysis. A spot measurement of runoff temperature and dissolved oxygen was taken at the same time as the grab samples using a YSI Pro 1020 instrument (YSI Incorporated, Yellow Springs, OH). Grab samples, runoff temperature, and dissolved oxygen measurements were obtained during the first two hours of a qualifying NPDES storm event.

All water quality samples were immediately placed on ice and chilled to less than 4°C during transit to the City of Columbus laboratory, located approximately 10 miles from the sampling sites. Total nitrogen (TN), organic nitrogen (ON or OrgN), and particle-bound phosphorus (PBP) were calculated using methods in Table 7. Nitrate-nitrate (NO<sub>2-3</sub>) concentrations were calculated as the sum of nitrate and nitrite concentrations for each sampled event. Samples were analyzed using either U.S. EPA (1983) or American Public Health Association (APHA et al. 2012) methods.

### *Data Analysis*

Storm events were separated using the following criteria: a minimum antecedent dry period (ADP) of six hours and a minimum rainfall depth of 0.1 inches. Summary statistics for each rainfall event were developed, including depth (in), duration (hrs), average intensity (in/hr), peak intensity (maximum over any 5-minute duration, in/hr), and ADP (days). Certain rainfall events

were disqualified from the hydrologic data set because: (1) equipment failure caused loss of data, (2) corresponding rainfall data were missing, or (3) data were overwritten due to the length of time between data downloads.

Hydrologic measurements obtained using the AVMs were used to quantify runoff timing, volume, and rate. Runoff volume was determined by integrating under the hydrograph, while peak flow rate was determined as the instantaneous 1-minute maximum flow rate that occurred during the flow duration. When baseflow was not reached before a follow-on event, runoff volume from the first event may be included in the follow-on event, resulting in additional variability in runoff volume generated from a given rainfall depth. The baseflow rate before and after the runoff event was used to remove expected baseflow volume and flow rate from stormflow calculations. Runoff volume and peak flow rate were then normalized by sewershed area to allow for direct comparison between the sewersheds. Following completion of construction activities, diversion of flow to the Blenheim wetland began in early 2020. Thus, results from 2020 represent the summation of flow from the Blenheim culvert and the Blenheim wetland outlet, which will continue for analysis of future data. Runoff and rainfall depth were separately summed across all qualifying hydrologic events; the quotient of these metrics results in the runoff coefficient ( $C_R$ ) for the sewershed. The timing of the beginning, peak, and end of runoff was utilized to determine the runoff duration and time to peak for each event. Runoff thresholds ( $RO_T$ ), the rainfall depth at which incipient runoff is generated, were determined as the x-intercept of plots of runoff depth versus rainfall depth.

Because monitoring at the Whetstone and Starrett control sewersheds has only been performed since 2019, the water quality analyses in this report focus on the three treatment sewersheds using Beechwold as a control. Summary statistics for pollutant concentrations were

determined using EMCs from the monitored outfalls. These included the range, mean, median, and standard deviation. They were determined for each year of the monitoring period as well as by phase of the Blueprint project, referred to as calibration (i.e., pre-GI or baseline periods) and treatment (i.e., post-GI or post-Blueprint) phases in the presentation of water quality results. Side-by-side boxplots and exceedance probability plots of pollutant concentrations were created to examine differences in water quality (Appendix D). Pollutant concentrations from the Clintonville sewersheds were compared against those from previous studies documenting residential runoff quality. They were also compared to data collected from 2007-2017 from thirteen different residential sewershed outfalls in Columbus, Ohio, monitored as part of the NPDES monitoring requirements for the City of Columbus. Observed changes in pollutant concentrations and loads discharged from the sewersheds due to GI implementation were compared to other residential studies quantifying the effects of retrofitted GI.

In a few cases (i.e., two times at Beechwold and once at Cooke-Glenmont), two water quality samples were obtained during a single storm event due to rainfall depth exceeding the 2-inch maximum that the samplers were programmed to monitor. Thus, sites were visited twice, once during and once after the event, to obtain samples. When this occurred, a flow volume weighted average concentration was used in the data analysis. Because of the short ADP (six hours) used to separate rainfall events, two to six samples at each site represented the water quality of multiple hydrologic events. This occurred when the flow had not returned to baseflow before the onset of the next rainfall event, causing the samplers to combine two storms within the composite bottle. In these cases, the separate hydrologic events were combined for pollutant concentration and load analysis.

A value of one-half the detection limit was substituted for EMCs below the method detection limit (MDL; Antweiler and Taylor 2008). The only analyte which was frequently (i.e., greater than half sampled events) at concentrations below detection limit (BDL) was cyanide, which was BDL for all sampled events except for one at Beechwold, Blenheim, and Cooke-Glenmont, and two at Indian Springs. Analytes exhibiting a moderate amount of BDL concentrations (i.e., 10-30% of sampled events) were: BOD at Beechwold (n=20 storms, 10% BDL) and Cooke-Glenmont (n=19, 15.8% BDL); cBOD at Beechwold (n=19, 26.3% BDL), Blenheim (n=14, 21.4% BDL), and Cooke-Glenmont (n=18, 11.1% BDL); NO<sub>2</sub> at all four sewersheds (Beechwold n=92, 25.0% BDL; Blenheim n=49, 18.4% BDL; Cooke-Glenmont n=76, 23.7% BDL; and Indian Springs n=82, 24.4% BDL); OP at Indian Springs (n=75, 14.7% BDL); TP at Beechwold (n=126, 11.1% BDL), Blenheim (n=72, 12.5% BDL), and Indian Springs (n=104, 27.9% BDL); TAN at Beechwold (n=126, 19.3% BDL) and Cooke-Glenmont (n=105, 12.4%); TSS at all four sewersheds (Beechwold n=124, 13.7% BDL; Blenheim n=68, 11.7% BDL; Cooke-Glenmont n=103, 11.7% BDL; Indian Springs n=97, 27.8% BDL); and Cd at Beechwold (n=125, 11.2% BDL), Blenheim (n=71, 11.3% BDL), and Indian Springs (n=100, 19.0% BDL). For all other analytes, BDL concentrations were observed for fewer than 10% of sampled storm events. All concentrations above MDL were analyzed without transformation.

Pollutant loads at each monitoring location were determined as the product of pollutant EMC and runoff volume on a storm-by-storm basis. Pollutant loads were reported on a sewershed area-normalized basis and were calculated using the following equation:

$$L_{I,j} = 2.205 \times 10^{-6} \times \frac{EMC_{I,j} \times V_j}{A_{WS}} \quad (1)$$

where  $L_{I,j}$  is the load of pollutant I (lb/ac) for storm event j,  $EMC_{I,j}$  is the event mean concentration of pollutant I (mg/L) for storm event j,  $V_j$  is the runoff volume (L) for storm event

$j$  measured after discounting baseflow,  $A_{WS}$  is the sewershed area (ac), and the constant converts from milligrams to pounds. Pollutant loads were tabulated and presented in boxplots for comparison among the various Blueprint phases (Appendix D).

Annual loading ( $L_a$ , lb/ac/yr) was estimated by accounting for storms not sampled for water quality. The ratio of long-term (i.e., 30 years) average annual rainfall depth for Columbus, Ohio ( $RF_{LTA}$ ; in/yr) to total rainfall depth sampled for water quality ( $RF_{SAMP}$ ; in) was utilized to scale the annual loading (Equation 2); thus, we assume that the sampled storm events are representative of the overall population of runoff volume and pollutant concentration. The annual loading ( $L_a$ , lb/ac/yr) was also normalized by sewershed area:

$$L_a = 2.205 \times 10^{-6} \times \frac{\sum_{i=1}^n (EMC_{i,j} \times V_j) \times RF_{MP}}{A_{WS} \times d_{MP} \times RF_{SAMP}} \quad (2)$$

where  $n$  is the number of sampled storm events. To determine the effects of different event depths on annual load, bins of event depth were created and the load within each bin was summed. This load was then scaled by the ratio of the total rainfall depth to the total sampled rainfall depth within each bin to estimate the total load by event depth bin. Annual loading was calculated by project phase by considering each project phase separately to allow for comparison between baseline, pre-GI, post-GI, and post-Blueprint phases.

Among the four monitored sewersheds included in the pre-retrofit versus post-GI (or post-Blueprint) analyses, comparisons between rainfall characteristics, sewershed area-normalized runoff volume and peak flow rate, pollutant concentration, and pollutant load were made to identify statistically significant differences. Hydrology and water quality data were log transformed, after which the histograms and residual plots were visually inspected for normality. The Shapiro-Wilk test was also used to check for normality of model residuals. Analysis of covariance (ANCOVA) was used to compare treatment to control sewersheds when model

residuals were normally distributed, demonstrated homoscedasticity, and showed no multicollinearity. Significant differences in regression slopes or intercepts indicated whether meaningful differences in runoff hydrology or water quality occurred in the sewershed with the installation of GI. This method controls for seasonal, temporal, and other variability by using a control sewershed and allows for confidence in the conclusion that observed changes in a given parameter were due to the implementation of GI ( $\pm$  other Blueprint pillars) alone. No statistical analyses were performed on water quality data lacking an adequate sample size required to meet model assumptions. Percent changes in pollutant concentration and load were calculated and reported using least squares means (LSM) analysis:

$$Change (\%) = \left( \frac{10^{\bar{Y}_{Post}}}{10^{\bar{Y}_{Pre}}} - 1 \right) \times 100 \quad (3)$$

where  $\bar{Y}_{Post}$  is the treatment sewershed LSM during the post-GI or post-Blueprint phases, and  $\bar{Y}_{Pre}$  is the treatment sewershed LSM during the pre-GI or baseline phase. Conversely, the percent difference between annual load by project phase is simply reported as percent change (since annual load is a single value, not a distribution that can be statistically tested).

All data analysis was completed using R statistical software version 3.4.2 (R Core Team 2018). Except where noted, a criterion of 95% confidence ( $\alpha=0.05$ ) was used.

### ***Public Health Impacts***

To determine the potential public health impacts of stormwater discharged from the outfalls of the Indian Springs, Blenheim, Cooke-Glenmont, and Beechwold sewersheds, *E. coli*, molecular, and metagenomics analyses were utilized. Stormwater samples (500mL per site) were obtained using automated samplers and runoff-volume proportional, composite methods as previously described. *E. coli* concentrations were determined as a fecal indicator or predictor of gastrointestinal illness associated with exposure to fecal matter and were analyzed through

December 2020. Microbial source tracking (MST) was performed on data collected between 2017-2019 to identify sources of fecal bacteria [human, dog, ruminants (e.g., deer), birds (e.g., pigeon, geese)] in the stormwater. The MST procedure has not yet been applied to 2020 stormwater samples due to time and equipment constraints and the ongoing COVID-19 pandemic. Samples collected in 2020 were held at -80°C, will be analyzed in 2021 reported in subsequent annual reports. A metagenomic approach was also used to investigate the holistic spectrum of microorganisms (microbiome) and profile of antibiotic resistant bacteria and genes (resistome) present in the stormwater.

#### *E. coli Quantification*

Quantification of *E. coli* was performed following the membrane filtration technique (EPA Method 1603) within six hours of sample collection. For each sample, 50 mL of 1/100, 1/1000, and 1/10000 dilutions were prepared using a sterile 1× PBS solution in duplicate and filtered through 0.45 µm nitrocellulose membrane filters (Cat. No. HAWG047S6, Millipore Sigma) using a vacuum. The filter membranes were placed on modified mTEC agar (Becton) and incubated for 2 hrs at 35°C and then at 44.5°C for 20 hrs in aerobic conditions. After incubation, the number of *E. coli* colonies on each plate was counted and the mean numbers of colony forming units (CFU) per 100 mL were determined.

#### *DNA Extraction for Molecular Analyses*

For quantitative polymerase chain reaction (PCR) analysis, including MST, antibiotic resistance bacteria, and pathogenic bacteria, 100 mL of the collected water samples were filtered using sterile 0.22 µm membrane filters (Cat. No. GTTP04700, Millipore Sigma) in triplicate. Microbial DNA was extracted from the membrane filters using a Bead Ruptor (Omni International) followed by a Dneasy PowerSoil kit (Cat. No. 12888-100, QIAGEN) according to

instructions provided by the manufacturer. The final DNA eluent was 100  $\mu\text{L}$  per sample.

Quality and quantity of extracted DNA were determined using Nanodrop 2000C (ThermoFisher) and the mean concentration of extracted DNA was 25  $\text{ng}/\mu\text{L}$ . The DNA was stored in  $-20^{\circ}\text{C}$  for further analysis.

### *qPCR Assays*

To identify the major source(s) of fecal bacteria, fecal contamination, and antibiotic resistant bacteria (tetracycline resistance as a representative) in stormwater samples, primer sets of universal, ruminant-, human-, dog-, and bird-specific genetic markers and *tetQ* gene were used (Gorham et al. 2017; Healy-Profítós et al. 2016; Kildare et al., 2007). All experiments were conducted in duplicate using CFX96, the touch real-time PCR detection system (Bio-rad). The total volume of qPCR mixture was 20  $\mu\text{L}$  containing 2  $\mu\text{L}$  DNA template [TaqMan Universal PCR Master Mix (Applied Biosystems), 500 nM primers, and 250 nM Probe. SYBR Green qPCR analysis was used for *tetQ* (Nikolich et al., 1994). The total volume of qPCR mixture was 20  $\mu\text{L}$  including 2  $\mu\text{L}$  DNA template [SYBR Green PCR Master Mix (Applied Biosystems)], and 500 nM primers. A mixture of all PCR reagents with nuclease-free water was used as a negative control for each PCR reaction. The PCR cycling conditions were composed of an initial cycle at  $50^{\circ}\text{C}$  for 2 min and  $95^{\circ}\text{C}$  for 10 min, followed by 40 cycles of denaturation at  $95^{\circ}\text{C}$  for 15 s, annealing and extension under proper conditions, followed by reference conditions. After amplification, melting curve analysis (SYBR analysis only) was performed by heating samples to  $95^{\circ}\text{C}$  for 30 s, cooling them to  $62^{\circ}\text{C}$  for 1 min, and then heating them to  $95^{\circ}\text{C}$  at a rate of  $0.2^{\circ}\text{C}/\text{s}$ .

### *ddPCR Assays*

To quantify and identify sources of fecal pollution in stormwater samples, MST methods were used to target host-specific genetic markers present in hosts' gut microbiome. Universal (targeting general fecal bacteria), ruminant-, human-, dog-, and bird-specific genetic markers of fecal bacteria were tested using droplet digital PCR (ddPCR) assays. Antibiotic resistance genes (ARGs) were quantified (e.g., tetracycline, sulfonamide, and carbapenem resistance genes) because fecal contamination from human and animal sources was prevalent. Antibiotic resistance spread is a public health concern, and it is important to quantify whether stormwater plays a role in transmitting ARGs via contamination coming from sewers. All experiments were conducted using a ddPCR detection system by targeting tetracycline resistant gene (*tetQ*), sulfonamide resistant gene (*sul1*), and carbapenem resistant gene (KPC).

### *Whole Genome Shotgun Metagenomic Analysis*

A library was prepared for comparison with Nextera DNA library prep kit (Illumina) results. Whole genome shotgun metagenomic analysis was conducted using Hiseq 4000 systems (Illumina). Raw sequencing reads were obtained and analyzed with the CosmosID bioinformatics software package (CosmosID Inc., Rockville, MD) following methods described in previous studies (Ottensen et al., 2016, Ponnusamy et al., 2016, Hasan et al., 2014, Lax et al., 2014). Identifications were achieved at the species (> 97% similarity), subspecies, and/or strain levels and the relative abundance of each organism was quantified.

## Results

### *Stormwater Runoff Hydrology and Water Quality*

#### *Observed Rainfall Events*

Between 268 and 279 rainfall events were observed in the four sewersheds (i.e., Beechwold, Blenheim, Cooke-Glenmont, and Indian Springs) monitored during the 52-month period between June 2016 – December 2020. Of these, 257, 225, 243, and 222 represented qualifying hydrologic events at the Beechwold, Blenheim, Cooke-Glenmont, and Indian Springs sewershed outfalls, respectively, representing 80-93% of the observed rainfall events. Average rainfall depths for all observed events were 0.58-0.60 inches, and those for the qualifying hydrologic events ranged from 0.56-0.62 inches.

At the Beechwold, Blenheim, Cooke-Glenmont, and Indian Springs outfalls, 135, 83, 113, and 112 storm events were sampled for water quality between 2016-2020, respectively. Storm events sampled for water quality represented between 67.6-101.7 inches, or approximately 42-64%, of the 159.2-162.6 inches of total rainfall that occurred at the four sewersheds during the monitoring period. The median event depth for sampled storms ranged between 0.76-0.86 inches in the four sewersheds, slightly greater than the average observed event of 0.58-0.60 inches. This is attributed to the lack of sufficient sample volume in the composite bottle for laboratory analysis for events smaller than 0.20 inches. The median peak rainfall intensity for sampled storms, which ranged between 1.02-1.25 in/hr across the sewersheds, was similar to the median peak intensity recorded for all observed storms (1.03-1.10 in/hr). The median ADP for sampled events (3.7-5.4 days) was similar to the median ADPs determined from all observed events in the four sewersheds (4.9-5.3 days). The Wilcoxon rank sum test showed significant differences existed between observed and sampled storms for rainfall depth ( $p < 0.001$ ), but no significant differences existed for peak rainfall intensity or ADP. From these results, we can conclude that

the sampled storm events were representative of the overall distribution of storms observed in the four sewersheds during the monitoring period.

Results from Kruskal-Wallis k-sample tests showed that rainfall characteristics (i.e., rainfall depth, average intensity, peak 5-minute intensity, ADP, and rainfall duration) did not significantly differ between the four sewersheds ( $p > 0.82$  in all cases; Table 8 and Table 9) (Kruskal & Wallis, 1952). Thus, while the depth of some of the largest events varied across Clintonville, the rainfall characteristics across the entire population of events were not different. This result was expected since the maximum distance between any of the rain gages was 1.15 miles.

Rainfall depth and ADP did not significantly differ across seasons within any sewershed. However, significant seasonality in peak and average rainfall intensity and storm duration was observed; peak rainfall intensities were generally greater in the summer than in fall and spring ( $p < 0.001$ ), and average rainfall intensities were generally greater in summer than in fall ( $p < 0.001$ ). This is likely due to convective thunderstorms that occur in the Columbus area during the summer season (Fritsch et al. 1986). No significant differences were observed in rainfall depth, average intensity, peak intensity, ADP, and rainfall duration across project phases.

**Table 8. Rainfall characteristics in the treatment sewersheds by project period.**

|  | Blenheim       |                         |                          | Cooke-Glenmont |                         |                          | Indian Springs |                         |                          |                        |
|--|----------------|-------------------------|--------------------------|----------------|-------------------------|--------------------------|----------------|-------------------------|--------------------------|------------------------|
|  | Project Period |                         |                          | Project Period |                         |                          | Project Period |                         |                          |                        |
|  | Pre-Retrofit   | GSI Construction Period | Post-GSI Retrofit Period | Pre-Retrofit   | GSI Construction Period | Post-GSI Retrofit Period | Pre-Retrofit   | GSI Construction Period | Post-GSI Retrofit Period | Post-Blueprint Project |
| Number of Monitored Events                   | 141            | 43                      | 88                       | 39             | 32                      | 208                      | 87             | 52                      | 48                       | 83                     |
| Total Precipitation (in)                     | 90.6           | 24.3                    | 47.7                     | 21.7           | 18.8                    | 120.7                    | 49.0           | 36.9                    | 26.6                     | 46.6                   |
| Median Rainfall Depth (in)                   | 0.46           | 0.39                    | 0.33                     | 0.29           | 0.46                    | 0.36                     | 0.42           | 0.45                    | 0.48                     | 0.34                   |
| Median Peak Intensity (in/hr)                | 0.99           | 0.67                    | 1.41                     | 0.75           | 0.90                    | 0.60                     | 0.54           | 0.87                    | 0.48                     | 0.96                   |
| Median ADP (d)                               | 2.86           | 3.68                    | 4.23                     | 3.06           | 2.79                    | 3.18                     | 2.84           | 3.11                    | 2.97                     | 3.49                   |
| Number of Storm Events >0.75 in              | 35             | 12                      | 20                       | 10             | 9                       | 51                       | 22             | 15                      | 12                       | 20                     |
| 90 <sup>th</sup> Percentile Storm Depth (in) | 1.54           | 1.14                    | 1.35                     | 1.10           | 1.64                    | 1.17                     | 1.49           | 1.78                    | 1.15                     | 1.55                   |

**Table 9. Statistical testing using the Kruskal-Wallis test for rainfall parameters by project phase.**

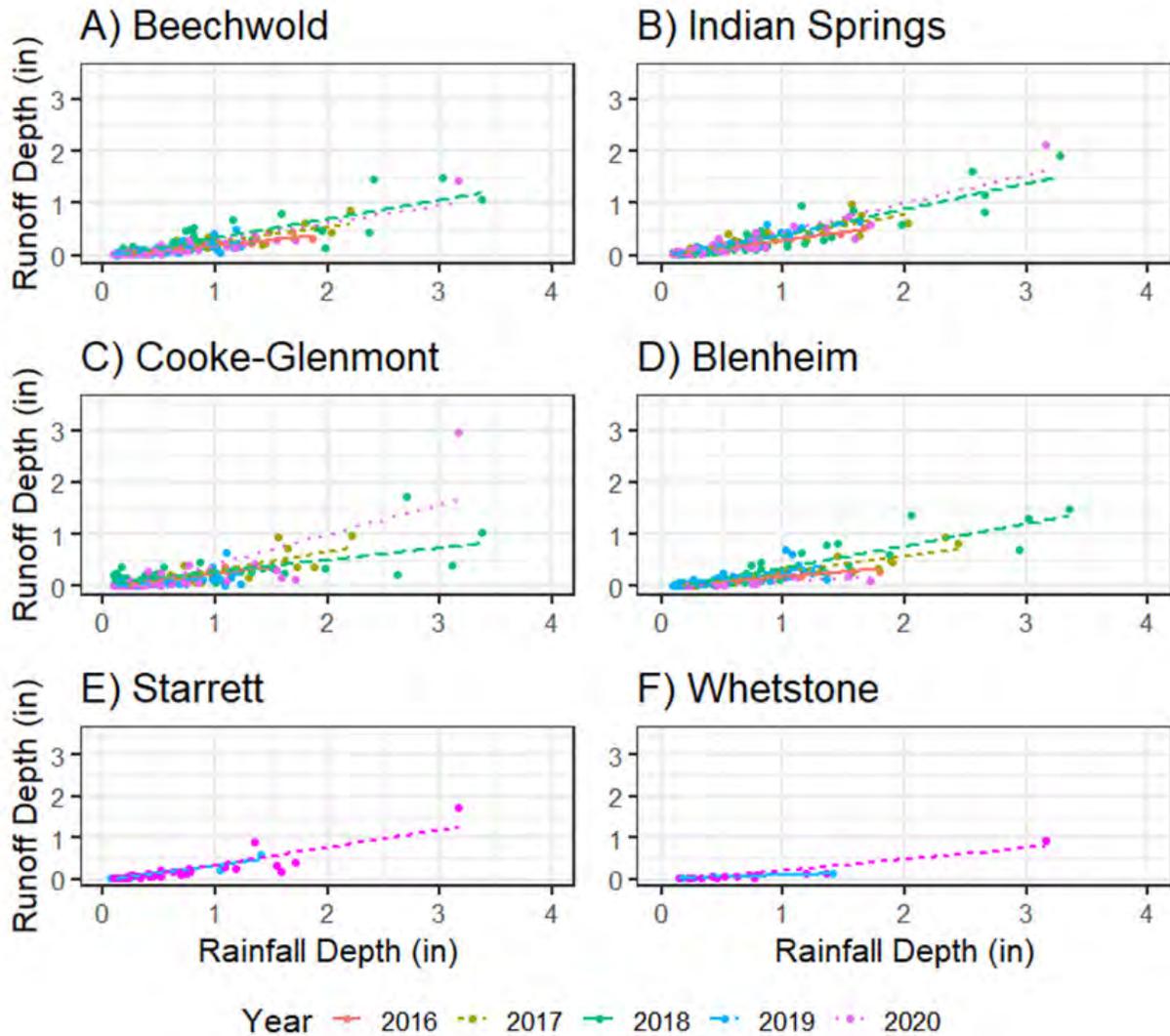
| Sewershed      | Phase          | Rainfall Depth (in) |             | Average Rainfall Intensity (in/hr) |              |
|----------------|----------------|---------------------|-------------|------------------------------------|--------------|
|                |                | Median              | Mean ± SD   | Median                             | Mean ± SD    |
| Blenheim       | Pre-GSI        | 0.44                | 0.64 ± 0.62 | 0.08                               | 0.22 ± 0.31  |
|                | Post-GSI       | 0.29                | 0.54 ± 0.73 | 0.06                               | 0.017 ± 0.32 |
| Cooke-Glenmont | Pre-GSI        | 0.37                | 0.56 ± 0.51 | 0.10                               | 0.22 ± 0.32  |
|                | Post-GSI       | 0.38                | 0.58 ± 0.66 | 0.07                               | 0.20 ± 0.36  |
| Indian Springs | Pre-GSI        | 0.37                | 0.58 ± 0.55 | 0.07                               | 0.20 ± 0.31  |
|                | Post-GSI       | 0.43                | 0.56 ± 0.56 | 0.06                               | 0.22 ± 0.50  |
|                | Post-Blueprint | 0.31                | 0.55 ± 0.72 | 0.06                               | 0.17 ± 0.32  |

## ***Hydrology***

### *Annual Trends*

#### *Rainfall-Runoff Response*

Runoff generation from the four sewersheds monitored from 2016-2020 was linearly related to rainfall depth ( $0.51 < R^2 < 0.98$ ) across the qualifying hydrologic events (Figure 6). Data collected from the recently added Whetstone and Starrett sewersheds support this trend, though more data is required to develop robust linear models. The slope of each line was primarily related to rainfall characteristics observed during each phase. Data collected in 2016 and 2017 indicate that the four sewersheds responded similarly across a range of rainfall depths, with regression slopes ranging between 0.27 (Beechwold) and 0.37 (Indian Springs), suggesting that between one-quarter and one-half of rainfall was transmitted as runoff in the sewersheds before GI retrofits were implemented. Similar results were reported by Hood et al. (2007), who observed slopes of 0.21 and 0.37 for regression lines between rainfall and runoff depths from two residential developments in Connecticut.

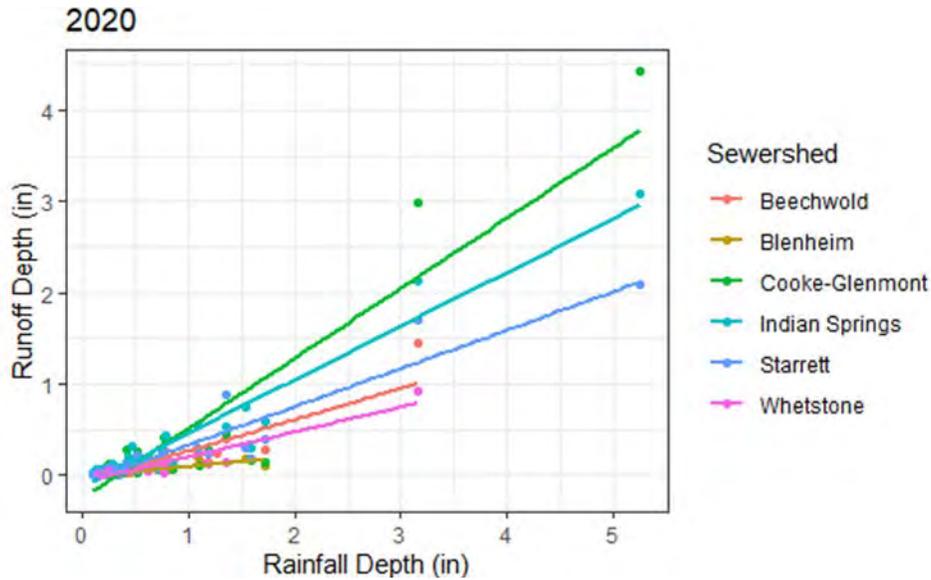


**Figure 6: Plots of rainfall-runoff responses by year in the six monitored sewersheds.**

The monitoring period for the four original sewersheds (i.e., 2016-2020) included 2018, the wettest year on record for the Greater Columbus area. The effects of this rainfall are evident in data from both the Beechwold and Blenheim sewersheds, where the steepest slopes in rainfall-runoff regressions were observed. Similar runoff generation patterns were observed for both the Blenheim and Indian Springs sewersheds until 2020, a surprising result since Blenheim is comprised of a greater percentage of imperviousness compared to Indian Springs (Table 3). However, Indian Springs has a greater percentage of commercial and institutional development;

thus, the additional runoff generated per sewershed area may be due to the highly connected nature of the imperviousness often observed in these land uses (Booth and Jackson, 1997). Unsurprisingly, the lowest slope in the rainfall-runoff response was observed in Cooke-Glenmont, which is characterized by relatively low-density residential land use and the lowest percentage imperviousness (Figure 6).

Results from data collected in 2020 differed compared to findings from the first four years of the monitoring period (Figure 7). By the end of 2020, 95-100% of the Blueprint pillars were completed in the Cooke-Glenmont and Indian Springs sewersheds (Figure 3). The additional pillars are expected to increase the volume of stormwater reaching the sewer compared to previous conditions, where stormwater may have entered sanitary sewers through infiltration and inflow, among other diversion pathways. As a result, the rainfall-runoff response in 2020 in both Cooke-Glenmont and Indian Springs was higher than the three control sewersheds which received no sanitary sewer lateral lining, sump pump installation, or downspout redirection. This is likely attributable to the completion of construction activities related to the Blueprint Columbus project and the increased volume of runoff directed to the outfall in these sewersheds. Conversely, progress on completion of the remaining Blueprint pillars in the Blenheim sewershed (expected completion summer 2021) was not sufficient to yield a similar increase the rainfall-runoff response of the sewershed compared to the control sewersheds. Additionally, a substantial portion of flow from the Blenheim outfall began being diverted to the Blenheim wetland, which may have been under-estimated due to equipment failures that occurred at both the Blenheim culvert and Blenheim wetland outlet in 2020. Future data collection will allow this analysis to be more robust in future reports.



**Figure 7: Rainfall-runoff responses observed in the six monitored sewersheds in 2020.**

### Runoff Coefficient

Runoff coefficients ( $C_R$ ) for the monitored sewersheds are presented in Table 10. Many factors impact the runoff coefficient of a watershed, with increases in soil compaction, percent imperviousness, and slope as well as decreases in vegetated cover causing increases in  $C_R$  (Leopold 1991; Line and White 2002). Runoff coefficients from the six sewersheds in Clintonville varied from 0.15 to 0.33 prior to the installation of GI, on the lower end of previously reported values for typical single-family residential areas (0.30-0.50; Dunne and Leopold, 1978). They were, however, similar to two residential neighborhoods in Waterford, CT (0.19-0.24; Hood et al. 2007). Line and White (2007) found  $C_R$  of 0.55 for residential development on moderate slopes and in clayey soils. Infiltration and inflow into sanitary sewers and porous trenches around pipes in Clintonville could result in storage or secondary (unmonitored) outlets for stormwater, potentially reducing the  $C_R$  derived from data collected at the sewershed outfall. Additionally, since roads and parking lots represented only about one-third of the TIA in the Clintonville sewersheds, the differences could be attributed to a lower amount of directly connected imperviousness compared to other studies (Table 3). Finally, parts of

Clintonville were developed nearly a century ago; the elapsed time since the initial development of the area may have allowed for the development of a soil profile dissimilar to the typical compacted urban soils (Carmen et al. 2016), allowing for proportionately greater infiltration in the silt loam soils mapped in the neighborhood than expected.

**Table 10. Runoff coefficients ( $C_R$ ) for the Clintonville sewersheds prior to the addition of GI and previously reported values in the literature.**

| <b>Sewershed or Reference</b> | <b>Runoff Coefficient</b> | <b>Percent Impervious</b> | <b>Primary Land Use</b>             | <b>Soil Texture</b> | <b>Drainage Area (mi<sup>2</sup>)</b> | <b>Location</b>   |
|-------------------------------|---------------------------|---------------------------|-------------------------------------|---------------------|---------------------------------------|-------------------|
| Beechwold                     | 0.22                      | 38.2                      | Residential                         | Silt Loam           | 0.43                                  | Columbus, OH      |
| Blenheim                      | 0.23                      | 44.5                      | Residential                         | Silt Loam           | 0.24                                  | Columbus, OH      |
| Cooke-Glenmont                | 0.27                      | 30.9                      | Residential                         | Silt Loam           | 0.05                                  | Columbus, OH      |
| Indian Springs                | 0.36                      | 40.3                      | Residential                         | Silt Loam           | 0.18                                  | Columbus, OH      |
| Starrett                      | 0.29                      | 34.7                      | Residential                         | Silt Loam           | 0.09                                  | Columbus, OH      |
| Whetstone                     | 0.15                      | 35.3                      | Residential                         | Silt Loam           | 0.07                                  | Columbus, OH      |
| Page et al (2015b)            | 0.38                      | 60                        | Residential                         | Sandy               | 0.002                                 | Wilmington, NC    |
| Line and White (2007)         | 0.55                      | 53                        | Mixed Use                           | Clayey              | 0.015                                 | Raleigh, NC       |
| Leopold (1991)                | 0.35                      | 40                        | No data                             | No data             | 0.25                                  | San Francisco, CA |
| Leopold (1991)                | 0.18                      | 27                        | No data                             | No data             | 1.17                                  | San Francisco, CA |
| Barrett et al. (1998)         | 0.4                       | 37.6                      | Commercial/High Density Residential | No data             | 0.04                                  | Austin, TX        |
| Hood et al. (2007)            | 0.19                      | 29                        | Residential                         | Sandy Loam          | 0.021                                 | Waterford, CT     |
| Hood et al. (2007)            | 0.24                      | 32                        | Residential                         | Sandy Loam          | 0.008                                 | Waterford, CT     |

Runoff coefficients can also vary annually depending on precipitation patterns or development in the sewershed in a given year (Table 11). Similar, increasing trends in  $C_R$  were observed in the four sewersheds monitored between 2016-2018 as the number of monitored

storm events and quantity of annual rainfall increased (from a partially monitored year in 2016 to the record rainfall experienced in 2018). However, divergent patterns were evident in 2019. Active construction in the Indian Springs and Blenheim sewersheds likely accounted for observed increases in  $C_R$ , while lack of construction in the Cooke-Glenmont sewershed resulted in an approximately 50% reduction, similar to that observed in the control sewershed, Beechwold (Figure 3; Table 11). Trends in  $C_R$  in 2020 also reflected the progress made toward completing the remaining Blueprint pillars in the Indian Springs (100% complete) and Cooke-Glenmont (95% complete). Similar to changes in rainfall-runoff responses, the influx of runoff previously diverted to various pathways (e.g., infiltration and inflow into sanitary sewers) likely explain the increase in  $C_R$  in these sewersheds compared to previous years. The low number of events with reliable data from Blenheim in 2020 (11 of the 40 total events) is likely responsible for the very low  $C_R$  observed for Blenheim in 2020. Future data from the Blenheim wetland will continue to be paired with outflow from the Blenheim outfall to provide a more accurate  $C_R$  for the Blenheim sewershed in future reports.

**Table 11: Yearly comparisons of Runoff Coefficients ( $C_R$ ) for all six monitored sewersheds.**

| <b>Year</b> | <b>Beechwold</b> | <b>Blenheim</b> | <b>Indian Springs</b> | <b>Cooke-Glenmont</b> | <b>Starrett</b> | <b>Whetstone*</b> |
|-------------|------------------|-----------------|-----------------------|-----------------------|-----------------|-------------------|
| 2016        | 0.16             | 0.18            | 0.27                  | 0.20                  | -               | -                 |
| 2017        | 0.24             | 0.24            | 0.35                  | 0.26                  | -               | -                 |
| 2018        | 0.31             | 0.32            | 0.35                  | 0.30                  | -               | -                 |
| 2019        | 0.16             | 0.26            | 0.36                  | 0.15                  | 0.27            | 0.09              |
| 2020        | 0.19             | 0.09            | 0.40                  | 0.35                  | 0.29            | 0.16              |
| Overall     | 0.22             | 0.23            | 0.36                  | 0.27                  | 0.29            | 0.15              |

\*Equipment failure resulted in approximately 50% fewer storm events captured at Whetstone in 2020 compared to the other sewersheds.

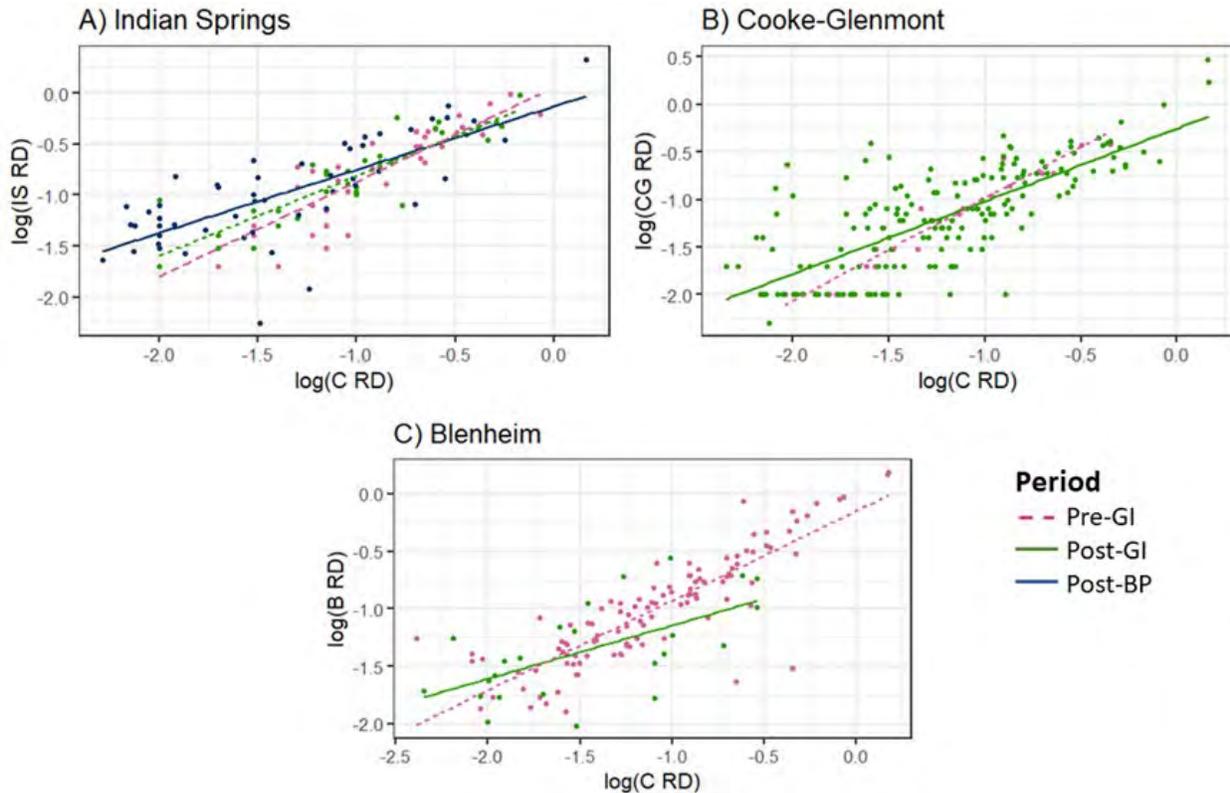
## *Pre- vs. Post-GI/Blueprint*

### *Runoff Depth*

Runoff depth in the Indian Springs sewershed significantly decreased by 3% in the post-Blueprint phase compared to the control (Table 12). Given the statistical power of this analysis, this reduction can be directly attributed to Blueprint Columbus efforts in the sewershed. The 61% reduction in runoff depth observed at Blenheim is likely due to the low number of storms (n=26) in the post-GI phase. Runoff depth increased by 28% and 6% in the Cooke-Glenmont and Indian Springs sewersheds, respectively, between the pre- and post-GI phase. However, these changes were not significantly different from increases in runoff depth observed in the control sewershed during the same time periods. This result may also have been influenced by the record rainfall experienced in Columbus in 2018. Differences in model intercepts between the pre- and post-GI project phases were observed in all treatment sewersheds (Table 12; Figure 8), indicative of the depressional storage added to the sewersheds with the installation of GI.

Table 12. ANCOVA analyses of runoff depths for each treatment sewershed compared to the control (CNT) between project phases. Statistically significant differences between the percentage change of the LSM at the treatment sewershed compared to the control LSM percent change, which can be attributed to the changes in the treatment sewershed, are indicated by  $p < 0.05$ .

|                         | Pre-GI               |                |                         |                         | Post-GI        |               |                         |                | ANCOVA Results |                   |              |
|-------------------------|----------------------|----------------|-------------------------|-------------------------|----------------|---------------|-------------------------|----------------|----------------|-------------------|--------------|
| Hydrologic Parameter    | Indian Springs       | LSM            | Regression Equations    | R <sup>2</sup>          | Indian Springs | LSM           | Regression Equations    | R <sup>2</sup> | Slope p-value  | Intercept p-value | % LSM Change |
| Runoff Depth (in)       | n=56                 | 0.20           | IS= 0.0602+ 0.9284(CNT) | 0.84                    | n=37           | 0.214         | IS= -0.0352+ 0.773(CNT) | 0.80           | 0.213          | <b>0.030</b>      | 6.1          |
| Mean                    | 0.20                 |                |                         |                         | 0.21           |               |                         |                |                |                   |              |
| Median                  | 0.12                 |                |                         |                         | 0.13           |               |                         |                |                |                   |              |
|                         | Cooke-Glenmont       | LSM            | Regression Equations    | R <sup>2</sup>          | Cooke-Glenmont | LSM           | Regression Equations    | R <sup>2</sup> | Slope p-value  | Intercept p-value | %LSM Change  |
| Runoff Depth (in)       | n=22                 | 0.10           | CG= 0.0928+ 1.078(CNT)  | 0.93                    | n=175          | 0.14          | CG= -0.2583+ 0.758(CNT) | 0.56           | 0.524          | <b>0.001</b>      | 27.9         |
| Mean                    | 0.10                 |                |                         |                         | 0.14           |               |                         |                |                |                   |              |
| Median                  | 0.05                 |                |                         |                         | 0.07           |               |                         |                |                |                   |              |
|                         | Blenheim             | LSM            | Regression Equations    | R <sup>2</sup>          | Blenheim       | LSM           | Regression Equations    | R <sup>2</sup> | Slope p-value  | Intercept p-value | %LSM Change  |
| Runoff Depth (in)       | n=106                | 0.19           | B= -0.1464+ 0.7796(CNT) | 0.72                    | n=26           | 0.07          | B= -0.6797+ 0.4639(CNT) | 0.38           | 0.136          | <b>0.005</b>      | -61.1        |
| Mean                    | 0.19                 |                |                         |                         | 0.07           |               |                         |                |                |                   |              |
| Median                  | 0.10                 |                |                         |                         | 0.04           |               |                         |                |                |                   |              |
| Post- Blueprint Project |                      |                |                         |                         |                |               |                         |                |                |                   |              |
|                         | Hydrologic Parameter | Indian Springs | LSM                     | Regression Equations    | R <sup>2</sup> | Slope p-value | Intercept p-value       | % LSM Change   |                |                   |              |
|                         | Runoff Depth (in)    | n=53           | 0.20                    | IS= -0.1349+ 0.614(CNT) | 0.54           | <b>0.001</b>  | <b>0.027</b>            | <b>-3.1</b>    |                |                   |              |
|                         | Mean                 | 0.20           |                         |                         |                |               |                         |                |                |                   |              |
|                         | Median               | 0.09           |                         |                         |                |               |                         |                |                |                   |              |



**Figure 8. Runoff depth (RD) relationships for the treatment sewersheds and control (Beechwold) during the various project periods. Note that runoff depths are log transformed. Changes in slope indicate differences in the runoff depth relationship between the control and treatment sewershed between the pre-GI and post-GI (or post-Blueprint) project phases.**

Significant differences in regression slopes were only observed at Indian Springs during the post-Blueprint phase, indicative of changes in runoff generation patterns within the sewershed. This finding reflects the increased runoff volumes conveyed to the outfall following the completion of the Blueprint project pillars in the Indian Springs sewershed. Larger runoff depths were discharged from the sewershed during smaller rain events relative to both the control and to data collected from the outfall in previous project phases, illustrating the additional water redirected to the outfall from downspout disconnection, lateral lining, and sump pumps installed in the sewershed (Table 4). However, a lack of larger storms captured during the post-Blueprint period to-date appear to confound these trends, as regression models for each project phase at Indian Springs intersect as runoff depths increase. Because changes to runoff volumes following

the completion of the Blueprint pillars would be expected across all storm events, regression results are likely being disproportionately skewed by a small number of events (Figure 8). Future data collected from the Indian Springs sewershed is expected to resolve trends observed in model results for smaller rain events.

### Runoff Threshold

Runoff thresholds were calculated for combinations of each of the three treatment sewersheds and project phases and ranged from 0.03-0.18 in (Table 13). The  $RO_T$  in the control sewershed (Beechwold) was determined for each project phase after separating the data based on the dates of phase completion in each treatment sewershed (Figure 3). Page et al. (2015b) and Hood et al. (2007) reported similar  $RO_T$  for residential neighborhoods in Wilmington, NC (0.13 in) and Waterford, CT (0.11 in), respectively, to those herein. Between the pre- and post-GI period, an increase in the  $RO_T$  was observed in the treatment sewersheds, indicating that a greater rainfall depth was required for runoff to occur in these sewersheds. Conversely, the  $RO_T$  in the control sewershed, Beechwold, decreased between the pre- and post-GI phases of the Indian Springs and Blenheim sewersheds. This can be attributed to the addition of depression storage volume provided by the GI and the progress made toward completion of the additional Blueprint pillars (in Indian Springs), while changes in rainfall characteristics during the post-GI phase likely contributed to decreased  $RO_T$  in the control sewershed. Results for Blenheim may be skewed by a small sample size in the post-GI period at Blenheim ( $n=26$ ), which is expected to increase dramatically in the coming years. Data collected from monitoring efforts and presented in future final reports will demonstrate the combined effect of GI and the additional Blueprint project pillars on  $RO_T$  in the treatment sewersheds compared to the project control.

**Table 13. Runoff thresholds (RO<sub>T</sub>) (inches) for each treatment sewershed compared to the control (Beechwold) for the various project phases.**

| <b>Project Phase</b> | <b>Blenheim</b> | <b>Control (Blenheim)</b> | <b>Cooke-Glenmont</b> | <b>Control (CG)</b> | <b>Indian Springs</b> | <b>Control (IS)</b> |
|----------------------|-----------------|---------------------------|-----------------------|---------------------|-----------------------|---------------------|
| Pre-Retrofit         | 0.06            | 0.18                      | 0.03                  | 0.09                | 0.04                  | 0.15                |
| Post-GI              | 0.07            | 0.06                      | 0.04                  | 0.14                | 0.06                  | 0.07                |
| Post-Blueprint       | -               | -                         | -                     | -                   | 0.11                  | 0.09                |

*Runoff Coefficient*

Changes to C<sub>R</sub> between the pre- and post-GI phases in the treatment sewersheds were similar to those observed in the control sewershed (Table 14). This was particularly true for the sewersheds where GI was operational for longer durations (i.e., Cooke-Glenmont and Indian Springs), where the differences in the change in C<sub>R</sub> from pre-retrofit to post-GI between the treatment sewershed and the control were 0.08 and 0.07, respectively. Negative changes in C<sub>R</sub> between the phases indicate that less runoff was generated from the sewershed per unit rainfall depth. The post-GI phases in the Cooke-Glenmont and Indian Springs sewersheds included much of 2018, the wettest year on record in Columbus, which could explain the increase in C<sub>R</sub> observed for these sewersheds between the project phases. The C<sub>R</sub> for the Indian Springs sewershed increased during the post-Blueprint period while the control sewershed concurrently decreased. As with RO<sub>T</sub>, this discrepancy could be also due to the completion of other pillars of the Blueprint Columbus project in the Indian Springs area, which would add water into the storm sewer system that may have been previously routed to other pathways. Results for the Blenheim sewershed were likely skewed by the runoff volumes diverted to the Blenheim wetland beginning in late 2019 and the small sample size of data collected from this sewershed. Future data collected at Blenheim is expected to confirm trends in the other treatment sewersheds.

**Table 14. Comparison of runoff coefficient ( $C_R$ ) for the three treatment sewersheds to the control sewershed (Beechwold) during the project phases. Changes in  $C_R$  are relative to the pre-Retrofit period.**

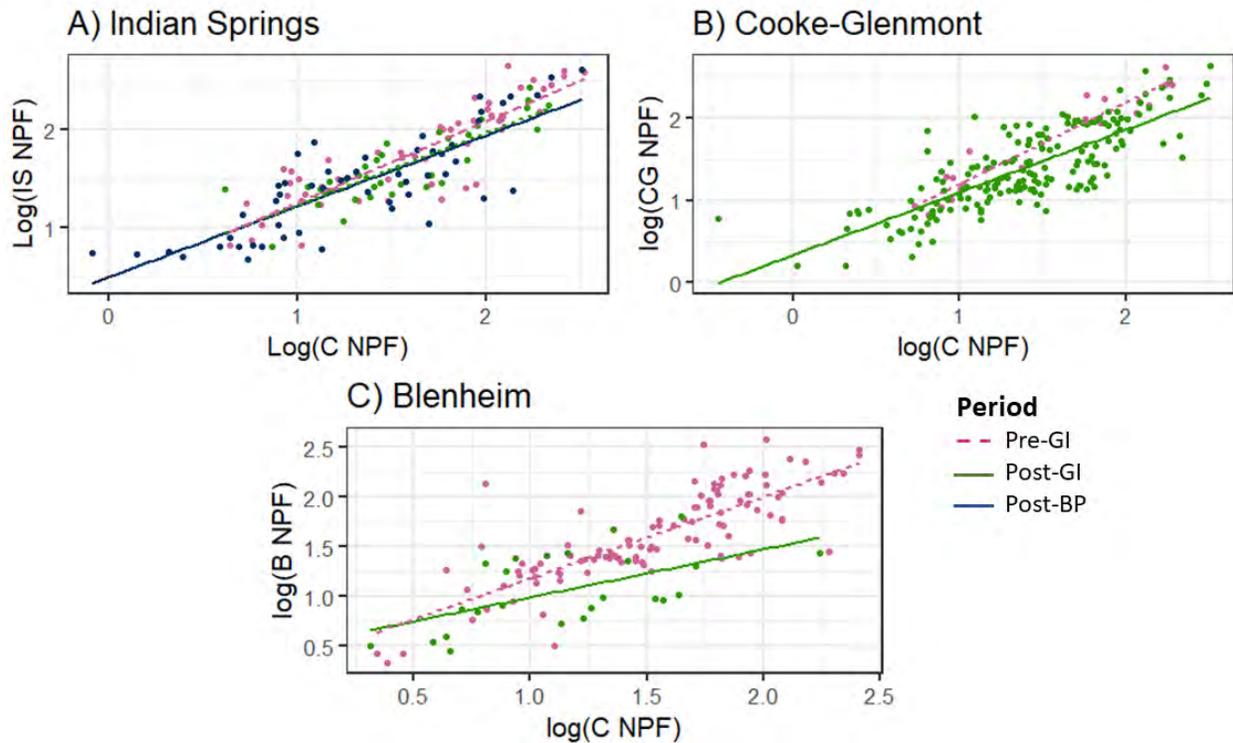
| Sewershed                | Pre-Retrofit | Post-GI |              | Post- Blueprint |              |
|--------------------------|--------------|---------|--------------|-----------------|--------------|
|                          | $C_R$        | $C_R$   | $\Delta C_R$ | $C_R$           | $\Delta C_R$ |
| Blenheim                 | 0.26         | 0.13    | -0.13        | -               | -            |
| Control (Blenheim)       | 0.23         | 0.16    | -0.07        | -               | -            |
| Cooke-Glenmont           | 0.20         | 0.28    | 0.08         | -               | -            |
| Control (Cooke-Glenmont) | 0.18         | 0.23    | 0.05         | -               | -            |
| Indian Springs           | 0.33         | 0.40    | 0.07         | 0.39            | 0.06         |
| Control (Indian Springs) | 0.20         | 0.29    | 0.09         | 0.16            | -0.04        |

#### Normalized Peak Runoff Flow Rate

The peak rainfall intensity was explored as a predictor of peak flow rate in the sewersheds. Sewershed area-normalized peak discharge (in/hr), also known as areal peak discharge, was plotted against peak rainfall intensity (Figure 9). A linear relationship explained approximately  $70\pm 8\%$  of the variance in the peak flow rates across the four sewersheds for the pre-retrofit period. The variability of the normalized peak flow rates increased following GI implementation in the treatment sewersheds. Weaker linear relationships and greater standard deviations between the sewersheds were observed in the post-GI and post-Blueprint phases ( $63\pm 10\%$ ), potentially influenced by the smaller datasets corresponding to these periods. The greatest increase in variability was observed in the Cooke-Glenmont sewershed. Not only did Cooke-Glenmont have four times the number of storm events in the post-GI period ( $n=175$ ), but many of these storm events occurred in 2018 (the wettest year on record in Columbus), while storms occurring in 2019 and 2020 had higher intensities and rainfall depths.

The primary design objective driving the size of the bioretention cells in Clintonville were TSS reductions, as opposed to peak flow mitigation. The post-GI phase in the Cooke-Glenmont

sewershed included 51 storm events greater than 0.75 inches, corresponding to over 29% of the monitored storms exceeding the design storm event depth. These events could result in a partial bypass of the bioretention cells, conveying runoff directly into the storm sewer and effectively returning the response of the sewershed to the patterns exhibited in the pre-GI project phase.



**Figure 9.** Area normalized peak flow (NPF), also referred to as areal peak discharge (in/hr), in the treatment sewersheds compared to the control (Beechwold). Note that data from the monitored sewersheds have been log transformed. Changes in slope indicate differences in the normalized peak flow relationship between the control and treatment sewershed between the pre-GI and post-GI (or post-Blueprint) project phases.

The two sewersheds with the largest drainage areas (Beechwold and Blenheim) had comparatively lower normalized peak flow rates than the remaining sewersheds (Table 15). Indian Springs had significantly greater normalized peak discharge than Beechwold ( $p < 0.01$ ), again perhaps owing to several clusters of dense imperviousness in Indian Springs (Figure 26). The response of Cooke-Glenmont, which was similar to that for Indian Springs, was unexpected, considering it is characterized by the lowest imperviousness of the treatment sewersheds in the study (Table 3). However, because Cooke-Glenmont has the smallest sewershed area, the effects

of travel time and soil storage on the hydrograph are less pronounced. Holding other factors constant, less dampening of peak flow rates will occur as the area of the sewershed becomes smaller (Goodrich et al. 1997; Moody and Martin 2001).

**Table 15. ANCOVA analyses of area normalized peak flow (in/hr) for treatment sewersheds compared to the control (CNT) between project phases. Statistically significant differences between the percentage change of the LSM at the treatment sewershed compared to the control LSM percent change, which can be attributed to the changes in the treatment sewershed, are indicated by  $p < 0.05$ .**

|                                   | Pre-GI                            |       |                         |                | Post- GI       |                         |                         |                | ANCOVA Results    |                   |              |
|-----------------------------------|-----------------------------------|-------|-------------------------|----------------|----------------|-------------------------|-------------------------|----------------|-------------------|-------------------|--------------|
| Hydrologic Parameter              | Indian Springs                    | LSM   | Regression Equations    | R <sup>2</sup> | Indian Springs | LSM                     | Regression Equations    | R <sup>2</sup> | Slope p-value     | Intercept p-value | % LSM Change |
| Normalized Peak Flow Rate (in/hr) | n=56                              | 0.013 | IS= 0.4217+ 0.834(CNT)  | 0.78           | n=37           | 0.008                   | IS= 0.4868+ 0.7432(CNT) | 0.71           | 0.143             | <b>0.000</b>      | -41.0        |
| Mean                              | 0.013                             |       |                         |                | 0.008          |                         |                         |                |                   |                   |              |
| Median                            | 0.007                             |       |                         |                | 0.004          |                         |                         |                |                   |                   |              |
|                                   | Cooke-Glenmont                    | LSM   | Regression Equations    | R <sup>2</sup> | Cooke-Glenmont | LSM                     | Regression Equations    | R <sup>2</sup> | Slope p-value     | Intercept p-value | % LSM Change |
| Normalized Peak Flow Rate (in/hr) | n=22                              | 0.013 | CG= 0.2051+ 0.9945(CNT) | 0.92           | n=175          | 0.006                   | CG=0.3354+ 0.7631(CNT)  | 0.6            | <b>0.002</b>      | <b>0.000</b>      | <b>-52.6</b> |
| Mean                              | 0.013                             |       |                         |                | 0.006          |                         |                         |                |                   |                   |              |
| Median                            | 0.008                             |       |                         |                | 0.003          |                         |                         |                |                   |                   |              |
|                                   | Blenheim                          | LSM   | Regression Equations    | R <sup>2</sup> | Blenheim       | LSM                     | Regression Equations    | R <sup>2</sup> | Slope p-value     | Intercept p-value | % LSM Change |
| Normalized Peak Flow Rate (in/hr) | n=106                             | 0.009 | B= 0.3596+ 0.8238(CNT)  | 0.66           | n=26           | 0.002                   | B= 0.5069+ 0.4839(CNT)  | 0.34           | <b>0.000</b>      | <b>0.000</b>      | <b>-76.6</b> |
| Mean                              | 0.009                             |       |                         |                | 0.002          |                         |                         |                |                   |                   |              |
| Median                            | 0.004                             |       |                         |                | 0.001          |                         |                         |                |                   |                   |              |
| Post- Blueprint Project           |                                   |       |                         |                |                |                         |                         |                |                   |                   |              |
|                                   | Hydrologic Parameter              |       |                         | Indian Springs | LSM            | Regression Equations    | R <sup>2</sup>          | Slope p-value  | Intercept p-value | % LSM Change      |              |
|                                   | Normalized Peak Flow Rate (in/hr) |       |                         | n=53           | 0.008          | IS= 0.4917+ 0.7272(CNT) | 0.68                    | 0.076          | <b>0.000</b>      | -43.3             |              |
|                                   | Mean                              |       |                         | 0.008          |                |                         |                         |                |                   |                   |              |
|                                   | Median                            |       |                         | 0.003          |                |                         |                         |                |                   |                   |              |

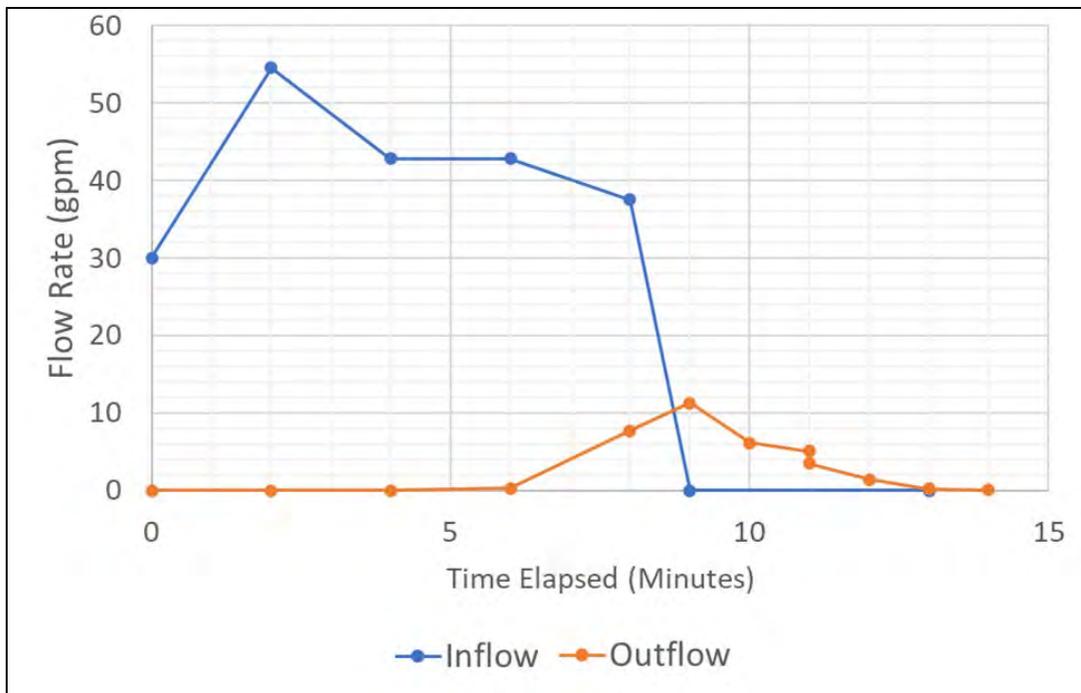
Significant differences were observed in slopes of the linear models between the pre- and post-GI phases in Cooke-Glenmont and Blenheim compared to the control (Table 15). Areal peak discharge was significantly reduced in the Cooke-Glenmont and Blenheim sewersheds by 53% and 85%, respectively, between the pre- and post-GI phases. Though not statistically different from changes in peak flow observed in the control sewershed during similar phases, reductions of 41% and 43% occurred in the Indian Springs sewershed in the post-GI and post-Blueprint phases, respectively. The significant differences in the intercepts of the models points to different flow rates that would be expected at lower rainfall intensities. Models of the treatment sewersheds point toward higher flow rates during lower intensity rain events compared to their responses in the pre-GI phase. Hunt et al. (2012) reported that peak flow mitigation from individual bioretention cells was directly related to the amount of storage volume and infiltration rates of the practices. These critical aspects of bioretention cells are determined during the design phase based on objectives such as capturing runoff from a design storm event depth (0.75 inches). Storm events exceeding the storage capacity set by design (and as-built) parameters of these practices contribute runoff directly to sewer systems at high flow rates during higher intensity, larger storm events, even with GI installed in the sewersheds. Because these factors may vary across each of the bioretention cells installed in the sewersheds, this may explain why peak flow mitigation may or may not be seen at the sewershed scale.

### *Simulated Storm Testing*

Simulated storm testing was performed in the Cooke-Glenmont, Indian Springs, and Schreyer Springs sewersheds over the course of two days in 2018, three days in 2019, and five days in 2020. In 2018, short-circuiting was observed at one cell and the other two cells produced

no outflow (i.e., water was completely captured). The seven tests performed in 2019 were conducted at four BRCs, while the 24 tests performed in 2020 were performed at 13 BRCs.

A comparison of inflow and outflow hydrographs for a simulated storm test completed in August 2020 in Indian Springs is presented in Figure 10. Test results indicate that the BRC reduced runoff volumes by approximately 86%. Outflow duration was lengthened compared to inflow duration, evident in the tails of the outflow hydrograph in Figure 10. This points to both runoff reduction and an increase in lag time, two metrics commonly used to evaluate BRC performance (Hunt et al. 2008; Schlea et al. 2014). The same BRC was tested in August of 2019 as well when volume reductions were approximately 70%. The 2019 test occurred after an ADP of less than 2 days, compared to the nearly 5 days of dry weather preceding the test performed in 2020. Thus, it is likely that antecedent conditions contributed to the differences in volume and peak flow reductions observed between the tests. Similar results were observed for tests performed at other BRCs in the Indian Springs area. The high peak flow reductions for the simulated storm tests are likely a function of inflow being gravity fed from the tank. The peak flow thus occurs at the onset of the hydrograph when the soil is driest and most apt to accept stormwater. This consistent inflow pattern, paired with high infiltration rates of the media, likely contribute to the similar lag times observed across the BRCs included in simulated testing.



**Figure 10. Inflow and outflow hydrographs from simulated storm testing performed at a bioretention cell in the Indian Springs sewershed (270 Village Dr). The increase in inflow rate between 0 and 2 minutes reflects the full opening of the valve after the test began, which more commonly occurred immediately after tests commenced.**

Summary statistics from simulated storm testing completed in 2018-2020 are presented in Table 16. Results from all simulated storm testing performed to-date can be found in Appendix C. Data from simulated storm testing was analyzed based on year, project area, and BRC design (i.e., whether the cell was installed in the right-of-way (ROW) or as a curb bump-out which extended into the roadside parking area). Mean volume reductions from testing performed to-date (69%) were similar to those reported by Schlea et al. (2014) for BRCs in Westerville, Ohio.

**Table 16. Summary statistics for simulated storm testing in 2018-2020.**

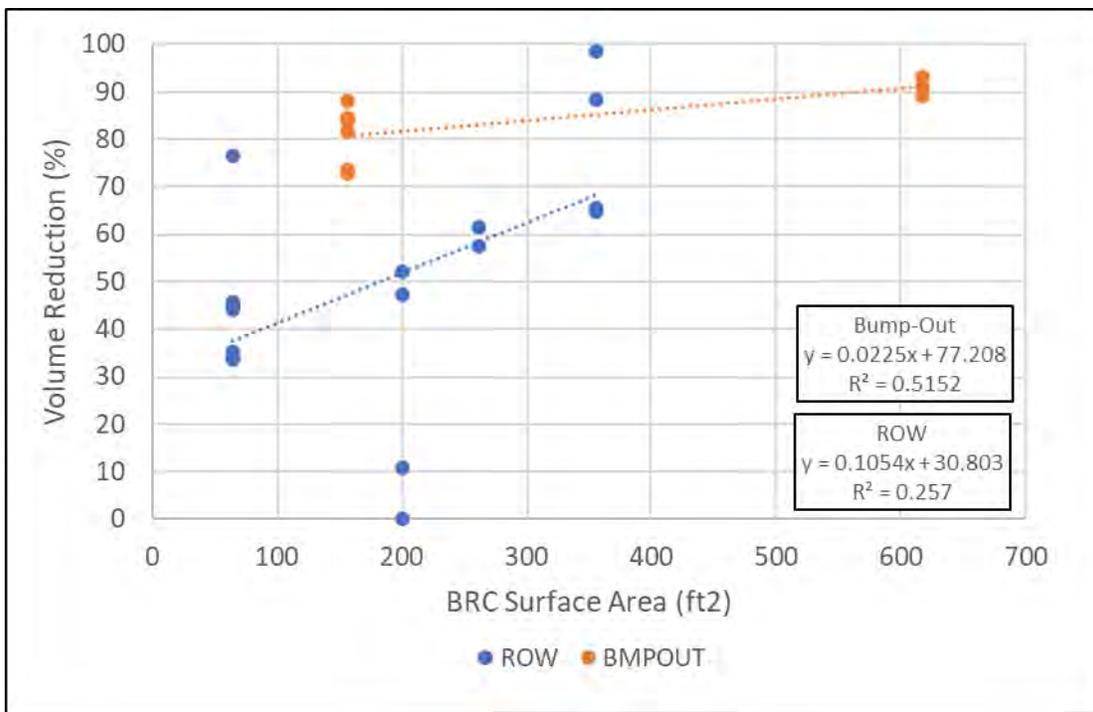
| Dataset<br>(number of tests)   | Volume Reduction (%) |          | Peak Flow Reduction (%) |          | Lag Time (min) |          |
|--------------------------------|----------------------|----------|-------------------------|----------|----------------|----------|
|                                | Mean                 | St. Dev. | Mean                    | St. Dev. | Mean           | St. Dev. |
| All Tests (33)                 | 69.3                 | 26.1     | 80.1                    | 14.5     | 7.9            | 2.6      |
| 2018 Tests (2)                 | 39                   | 7.1      | 66.5                    | 9.2      | 10             | 4.2      |
| 2019 Tests (7)                 | 63.9                 | 28.4     | 74.3                    | 9.1      | 9.1            | 2.5      |
| 2020 Tests (24)                | 73.3                 | 23.9     | 83.0                    | 15.2     | 7.4            | 2.4      |
| Indian Springs BRCs<br>(12)    | 65.0                 | 27.0     | 71.0                    | 15.3     | 7.1            | 2.2      |
| Cooke-Glenmont<br>BRCs (9)     | 84.2                 | 7.7      | 93.2                    | 2.9      | 7.6            | 2.7      |
| Schreyer-Springs<br>BRCs (10)  | 60.7                 | 30.4     | 80.2                    | 10.4     | 9.4            | 2.8      |
| ROW BRCs* (17)                 | 53.8                 | 25.0     | 72.2                    | 13.4     | 8.5            | 2.9      |
| BumpOut BRCs <sup>+</sup> (14) | 89.0                 | 8.9      | 89.0                    | 9.9      | 5.3            | 2.9      |

The highest volume and peak flow reductions (84% and 93%, respectively) were observed during testing of BRCs in the Cooke-Glenmont sewershed (Table 15), all of which were bump-outs. A mean volume reduction of 65% was observed from tests performed on a mix of ROW and bump-out BRCs in the Indian Springs sewershed. Conversely, the lowest volume reductions (mean reduction of 60%) were observed in the Schreyer-Springs sewershed, where only ROW-style BRCs were included in testing. This trend was confirmed by the comparison of ROW versus bump-out BRCs, which suggests that bioretention design style results in a difference of over 35% (Table 16).

A possible explanation for the higher volume reductions observed from the bump-out BRC is the proximity to subsurface infrastructure (e.g., utility lines, sanitary and storm sewers) which may provide preferential hydrologic pathways for water percolating through the BRCs that bypass the underdrain. This would lead to less drainage through the underdrain, yielding larger volume and flow reductions based on our methods of simulated storm testing. Further, the lower standard deviations across testing in the bump-out BRCs compared to ROW BRCs indicate these results were consistent across a range of ADP and other factors that could

influence test results. That said, we did look for preferential pathways during testing, and none were directly observed in the data set reported in Table 15.

Regression analysis was performed to model the effects of BRC surface area and design on volume reduction (Figure 11). Based on data collected to-date, models indicate a positive linear relationship between BRC surface area and volume reduction and confirm trends in volume reduction based on BRC design type. However, additional data are needed to improve model accuracy and perform tests for statistical significance between the BRC design types.



**Figure 11: Volume reduction as a function of bioretention cell (BRC) surface area for practices constructed in the right-of-way (ROW) or as bump-outs (BMPOUT) into roadside parking areas.**

Simulated storm testing will expand in 2021; however, difficulties have been documented regarding the duration of simulated storm testing in some areas. Barriers encountered during testing to-date include: (1) connections between the BRCs in the Blenheim sewershed to the sewer systems are located in the middle of the road, where paving delayed testing until November 2020, and (2) bioretention underdrains in several of the sewersheds, namely

Overbrook-Chatham, Morse-Dominion, and portions of the Schreyer-Shields sewershed, are connected to the bottom of the catch basin via a smooth connection (i.e., no drop between the outlet pipe and the sewer network), making traditional outflow measurements infeasible. Due to these challenges, it was determined that testing in the Blenheim sewershed would be delayed until 2021; further, no simulated storm testing will be performed in the Overbrook-Chatham and Morse-Dominion sewersheds.

## ***Water Quality***

### *Nitrogen Species*

Summary statistics of the concentrations and storm event loads of various nitrogen species present in samples collected during the 2016-2020 monitoring period are presented in Figure 31 through Figure 36 (Appendix D). ON made up 84-91% of TKN at each site, and nitrate was 37-51% of TN. Aqueous phase nitrogen (i.e., TAN plus  $\text{NO}_{2-3}$ ) made up 44-67% of TN.

The median TAN concentrations at Blenheim and Cooke-Glenmont were significantly reduced by 69.4% and 65.5%, respectively, following the installation of GI (Table 17). At Indian Springs, a non-significant 60.5% reduction in median TAN concentration was observed between the pre- versus post-GI phases; however, there was a significant 25% reduction between median concentrations between the pre-GI and post-Blueprint phases. No significant difference in TAN storm event loading was observed between any phases in all treatment sewersheds. Aerobic environments within bioretention media promote nitrification, where TAN is biologically oxidized to  $\text{NO}_2$  and further oxidized to  $\text{NO}_3$  (Hunt et al. 2012; Wang et al. 2017; Osman et al. 2019). The significant reduction in median TAN concentration and increase in median  $\text{NO}_3$  concentration (by 20.8%; not significant) supports the occurrence of nitrification within bioretention at Cooke-Glenmont. A non-significant 17% increase in TAN storm event loading at Indian Springs between the pre-GI and post-Blueprint phases is further evidence of nitrification

with the installation of GI. Data from a number of studies summarized in the International Stormwater BMP Database (ISBMPD) support the occurrence of nitrification in individual bioretention cells, with the median  $\text{NO}_3$  concentration increasing from 0.35 mg/L to 0.48 mg/L in bioretention cells (Clary & Jones, 2016). Other sewershed-scale studies also demonstrated nitrification in GI, with TAN concentrations and storm event loads decreasing 19-71%, and concurrent  $\text{NO}_3$  concentrations and storm event loads increasing by up to 100% (Bedan & Clausen, 2009; Page et al., 2015a). Beyond bioretention, permeable pavements also allow for nitrification due to the aerobic environment in the pavement subsurface (Collins et al., 2010; Tota-Maharaj & Scholz, 2010).

**Table 17: Summary statistics for concentrations and storm event loads of nitrogen species between calibration and treatment phases at Blenheim (Blen; pre- versus post-GI), Cooke-Glenmont (CG; baseline versus post-GI), and Indian Springs (IS; pre-GI versus post-GI and pre-GI versus post-Blueprint (BP)). Interpretations were based on ANCOVA analyses.**

| Pollutant | Site       | Calibration Phase |                |                  | Treatment Phase |                |                  | Statistical Results |         |                    |
|-----------|------------|-------------------|----------------|------------------|-----------------|----------------|------------------|---------------------|---------|--------------------|
|           |            | n                 | Control Median | Treatment Median | n               | Control Median | Treatment Median | LSM % Difference    | p-value | Interpretation     |
| TAN       | Blen       | 37                | 0.09           | 0.08             | 7               | 0.04           | 0.03             | -69.4               | 0.046*  | Pre-GI>Post-GI     |
|           | CG         | 20                | 0.11           | 0.12             | 66              | 0.05           | 0.05             | -65.5               | 0.025   | Baseline>Post-GI   |
|           | IS Post-GI | 22                | 0.09           | 0.19             | 18              | 0.05           | 0.07             | -60.5               | 0.525   | No sig. difference |
|           | IS Post-BP |                   |                |                  | 24              | 0.04           | 0.13             | -25                 | 0.002   | Pre-GI>Post-BP     |
| TKN       | Blen       | 34                | 0.96           | 1.1              | 7               | 1.1            | 0.89             | -21.4               | 0.148   | No sig. difference |
|           | CG         | 18                | 1.25           | 1.54             | 63              | 0.99           | 1.2              | -11.5               | 0.578   | No sig. difference |
|           | IS Post-GI | 21                | 0.94           | 1.1              | 16              | 1.06           | 1                | -16.5               | 0.199   | No sig. difference |
|           | IS Post-BP |                   |                |                  | 25              | 1.20           | 0.94             | -23.7               | 0.036   | Pre-GI>post-BP     |
| OrgN      | Blen       | 32                | 0.91           | 0.97             | 7               | 1.01           | 0.84             | -16.4               | 0.286   | No sig. difference |
|           | CG         | 15                | 1.11           | 1.44             | 60              | 0.93           | 1.16             | -21.5               | 0.038   | Baseline>Post-GI   |
|           | IS Post-GI | 18                | 1.09           | 0.89             | 16              | 1.00           | 0.82             | 3.1                 | 0.015   | Pre-GI<Post-GI     |
|           | IS Post-BP |                   |                |                  | 24              | 1.06           | 0.78             | -16.1               | 0.008   | Pre-GI>Post-BP     |
| Nitrate   | Blen       | 20                | 0.62           | 0.89             | 6               | 0.34           | 0.59             | -8.4                | 0.041*  | No sig. difference |
|           | CG         | 10                | 0.63           | 0.58             | 49              | 0.63           | 0.72             | 20.8                | 0.359   | No sig. difference |
|           | IS Post-GI | 13                | 0.56           | 0.99             | 16              | 0.81           | 0.82             | -22.7               | 0.036*  | No sig. difference |
|           | IS Post-BP |                   |                |                  | 22              | 0.45           | 1.1              | -10.1               | 0.033*  | No sig. difference |
| Nitrite   | Blen       | 20                | 0.0315         | 0.0248           | 6               | 0.014          | 0.015            | -34.6               | 0.41    | No sig. difference |
|           | CG         | 11                | 0.04           | 0.043            | 50              | 0.019          | 0.020            | -52.6               | 0.055   | No sig. difference |
|           | IS Post-GI | 13                | 0.038          | 0.039            | 16              | 0.022          | 0.020            | -30.9               | 0.145   | No sig. difference |
|           | IS Post-BP |                   |                |                  | 22              | 0.014          | 0.014            | -43.6               | 0.092   | No sig. difference |
| TN        | Blen       | 35                | 1.6            | 1.52             | 7               | 1.37           | 1.49             | 4.0                 | 0.543   | No sig. difference |
|           | CG         | 17                | 1.7            | 2.35             | 63              | 1.62           | 1.87             | -9.1                | 0.321   | No sig. difference |
|           | IS Post-GI | 21                | 1.74           | 1.91             | 18              | 1.94           | 1.81             | -24.1               | 0.061   | No sig. difference |
|           | IS Post-BP |                   |                |                  | 25              | 1.76           | 2.03             | -15.4               | 0.13    | No sig. difference |

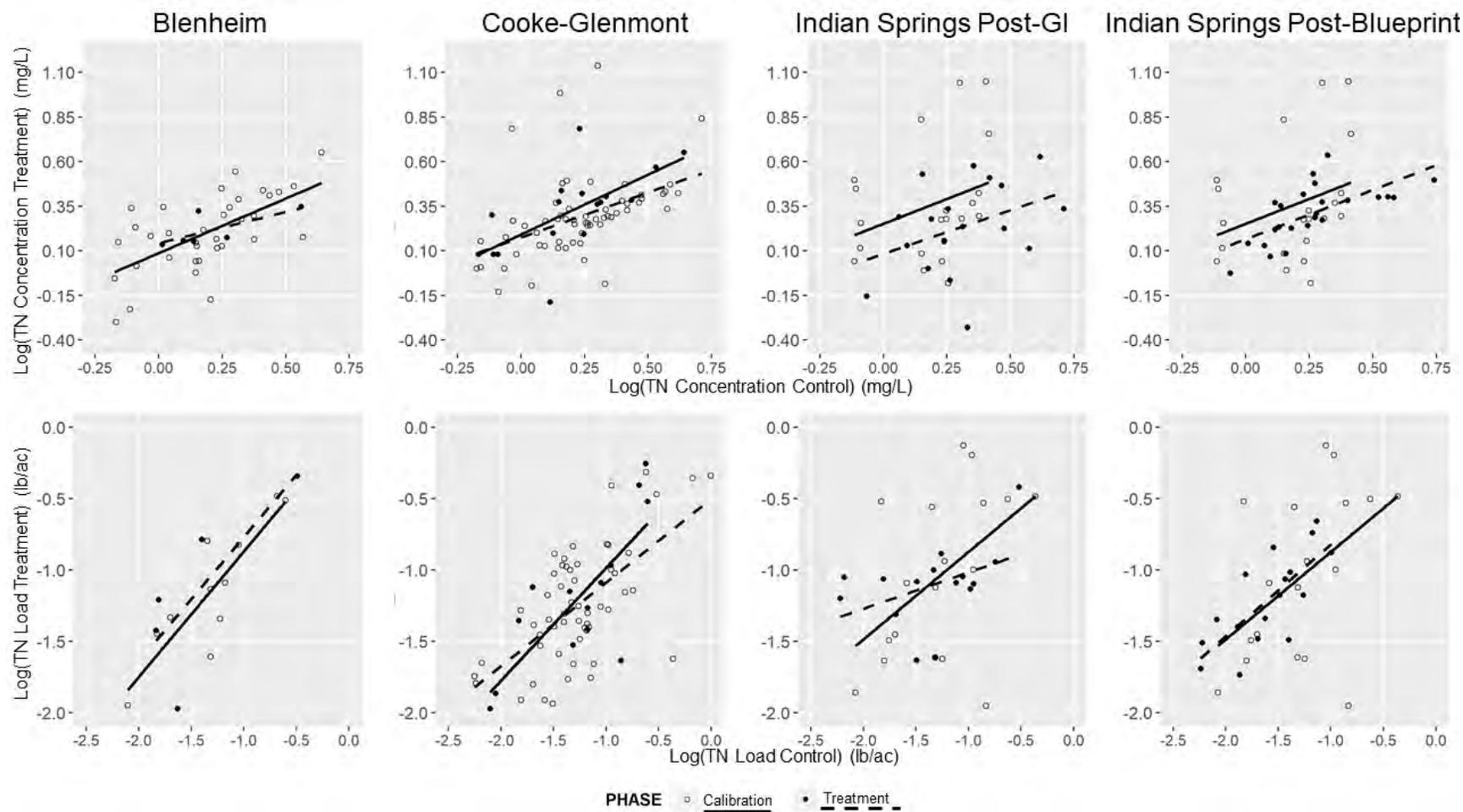
|              |            |            |         |         |         |         |         |         |       |                    |                    |
|--------------|------------|------------|---------|---------|---------|---------|---------|---------|-------|--------------------|--------------------|
| Load (lb/ac) | TAN        | Blen       | 13      | 4.2E-03 | 7.7E-03 | 6       | 9.3E-04 | 6.4E-04 | -84.1 | 0.086              | No sig. difference |
|              |            | CG         | 16      | 4.4E-03 | 4.5E-03 | 64      | 1.6E-03 | 1.4E-03 | -72.7 | 0.097              | No sig. difference |
|              |            | IS Post-GI | 19      | 2.5E-03 | 6.9E-03 | 16      | 1.9E-03 | 4.3E-03 | -47.1 | 0.669              | No sig. difference |
|              |            | IS Post-BP |         |         |         | 17      | 1.2E-03 | 4.7E-03 | 17    | 0.131              | No sig. difference |
|              | TKN        | Blen       | 12      | 3.4E-02 | 4.6E-02 | 6       | 1.9E-02 | 2.9E-02 | -35.7 | 0.546              | No sig. difference |
|              |            | CG         | 15      | 4.5E-02 | 3.4E-02 | 61      | 3.2E-02 | 3.3E-02 | -22.9 | 0.789              | No sig. difference |
|              |            | IS Post-GI | 19      | 4.4E-02 | 6.5E-02 | 14      | 4.0E-02 | 5.0E-02 | -19.9 | 0.03               | Pre-GI>Post-GI     |
|              |            | IS Post-BP |         |         |         | 18      | 2.4E-02 | 3.8E-02 | -3.23 | 0.48               | No sig. difference |
|              | OrgN       | Blen       | 10      | 3.2E-02 | 4.3E-02 | 6       | 1.7E-02 | 2.7E-02 | -43.9 | 0.8                | No sig. difference |
|              |            | CG         | 13      | 3.9E-02 | 3.7E-02 | 58      | 3.0E-02 | 3.3E-02 | -29.1 | 0.14               | No sig. difference |
|              |            | IS Post-GI | 17      | 3.7E-02 | 3.0E-02 | 14      | 3.7E-02 | 4.4E-02 | -2.4  | 0.013              | Pre-GI>Post-GI     |
|              |            | IS Post-BP |         |         |         | 17      | 2.3E-02 | 3.4E-02 | 11.2  | 0.342              | No sig. difference |
|              | Nitrate    | Blen       | 6       | 1.6E-02 | 1.8E-02 | 6       | 5.6E-03 | 1.9E-02 | 4.4   | 0.599              | No sig. difference |
|              |            | CG         | 9       | 3.3E-02 | 1.3E-02 | 47      | 1.6E-02 | 1.7E-02 | 16.2  | 0.43               | No sig. difference |
|              |            | IS Post-GI | 13      | 1.1E-02 | 1.5E-02 | 14      | 1.6E-02 | 2.6E-02 | -3.0  | 0.989              | No sig. difference |
|              |            | IS Post-BP |         |         |         | 15      | 8.9E-03 | 4.0E-02 | 22.7  | 0.033              | Pre-GI<Post-BP     |
| Nitrite      | Blen       | 6          | 9.3E-04 | 8.5E-04 | 6       | 2.9E-04 | 5.0E-04 | -55     | 0.393 | No sig. difference |                    |
|              | CG         | 10         | 1.5E-03 | 1.1E-03 | 48      | 6.3E-04 | 5.6E-04 | -58.7   | 0.229 | No sig. difference |                    |
|              | IS Post-GI | 13         | 1.0E-03 | 9.3E-04 | 14      | 4.5E-04 | 9.6E-04 | -16.7   | 0.855 | No sig. difference |                    |
|              | IS Post-BP |            |         |         | 15      | 3.0E-04 | 5.3E-04 | -12.4   | 0.567 | No sig. difference |                    |
| TN           | Blen       | 12         | 4.8E-02 | 5.9E-02 | 6       | 2.6E-02 | 4.8E-02 | -18.1   | 0.968 | No sig. difference |                    |
|              | CG         | 14         | 6.7E-02 | 6.2E-02 | 62      | 4.8E-02 | 4.7E-02 | -27.4   | 0.451 | No sig. difference |                    |
|              | IS Post-GI | 19         | 4.9E-02 | 8.1E-02 | 16      | 5.2E-02 | 8.2E-02 | -16.8   | 0.029 | Pre-GI>Post-BP     |                    |
|              | IS Post-BP |            |         |         | 18      | 3.1E-02 | 6.7E-02 | -8.8    | 0.336 | No sig. difference |                    |

\*Normality of model residuals confirmed visually.

Effective removal of dissolved nitrogen forms, especially  $\text{NO}_3$ , is made difficult by the aerobic environment characteristic of many GI practices (Lopez-Ponnada et al., 2020; Muerdter et al., 2019). An internal water storage (IWS) zone or other restrictions to drainage is often needed to promote anaerobic conditions and subsequent denitrification in bioretention cells (Page et al., 2015a). Denitrification, the conversion of  $\text{NO}_3$  to nitrogen gas, is a bacterially mediated process that occurs in bioretention media under anoxic conditions (Hsieh et al., 2007). Though minor, plant uptake can also serve as a  $\text{NO}_3$  removal pathway (Collins, et al., 2010). Non-significant reductions in  $\text{NO}_2$  and  $\text{NO}_3$  concentrations and storm event loads were observed in some instances at Blenheim and Indian Springs. Despite this, it is anticipated that  $\text{NO}_3$  uptake by the bioretention cells in the treatment sewersheds will improve as the plant roots and microbial communities in these systems become more established (Hopkinson & Giblin, 2008).

TKN storm event loads decreased significantly (by 19.9%, respectively) at Indian Springs following the installation of GI. Other sewersheds demonstrated substantial, but not significant reductions for TKN concentration (11.5-21.4%) and storm event loads (22.9-35.7%) (Table 17). Median TKN effluent concentrations of 1.39 and 1.00 mg/L for single bioretention cells and permeable pavements were reported in the ISBMPD, respectively (Clary & Jones, 2016); thus, further TKN reduction beyond concentrations observed for post-GI phases herein (0.89-1.20 mg/L) is unlikely. Page et al. (2015a) reported TKN concentrations decreased by 62% to a post-construction EMC of 0.45 mg/L following the implementation of GI in the sewershed. Thus, given the level of imperviousness treated by GI (66.5-69.7%) and low influent EMCs observed herein, additional TKN removal by GI in the treatment sewersheds is unlikely.

Since OrgN comprised 84-91% of TKN, the magnitude of OrgN reductions were similar to those of TKN (Table 17). OrgN concentration reductions were significant for Cooke-Glenmont (21.5%) and Indian Springs (16.1%) with the installation of GI and subsequent Blueprint pillars (Figure 12). A significant 2.4% decrease in storm event OrgN loads between the pre-GI and post-GI phases was observed at Indian Springs. Previous research confirms the role of GI in OrgN removal in the Indian Springs sewershed. Particulate ON removal has been shown to occur in bioretention and permeable pavement primarily through sedimentation and filtration processes (Li & Davis, 2014; Winston et al., 2016a).



**Figure 12: ANCOVA analysis for TN concentration and storm event load at all three treatment sites in relationship to the control (Beechwold). Calibration phase includes pre-GI at Blenheim and Indian Springs and baseline at Cooke-Glenmont. Treatment phase includes post-GI for all plots except the rightmost column, where it is post-Blueprint.**

No significant differences in TN concentration were observed in any treatment sewershed following the installation of GI. The median TN storm event load was significantly reduced by 16.8% between the pre- and post-GI phases at Indian Springs (Table 17; Figure 12). Stormwater runoff attenuation provided by bioretention and N conversions within GI are responsible for the observed TN storm event load reduction at Cooke-Glenmont. TN reduction has been observed in bioretention, where median TN concentrations in the ISBMPD were reduced from 1.24 to 1.04 mg/L (Clary & Jones, 2016). Since median TN concentrations during the post-GI phase (1.49, 1.88, 1.81 mg/L for Blenheim, Cooke-Glenmont, and Indian Springs, respectively) were higher than those reported in the ISBMPD, further TN reduction is possible, perhaps through the use of IWS zones, bioretention media amendments, or through additional bioretention implementation to treat a greater percentage of the sewersheds. Nitrification, sedimentation, and filtration were the main mechanisms of TN conversion and reduction in treatment sewersheds; TAN was converted to NO<sub>3</sub> in the aerobic soil media, and TKN was removed as particulates settled or were filtered by the bioretention cells. Permeable pavement provided additional opportunities for filtration to contribute to TN reductions at Indian Springs.

### *Phosphorus Species*

Summary statistics of the concentrations of various phosphorus species present in samples collected during the 2016-2020 monitoring period are presented in Table 18 and Figure 37 through Figure 39 (Appendix D). Sources of phosphorus in residential watersheds include erosion, which mobilizes phosphorus-rich sediments, atmospheric deposition, human and animal wastes, relic phosphorus in soil from fertilizers, and starter fertilizer (P was eliminated from commercially available lawn fertilizer in Ohio in 2013).

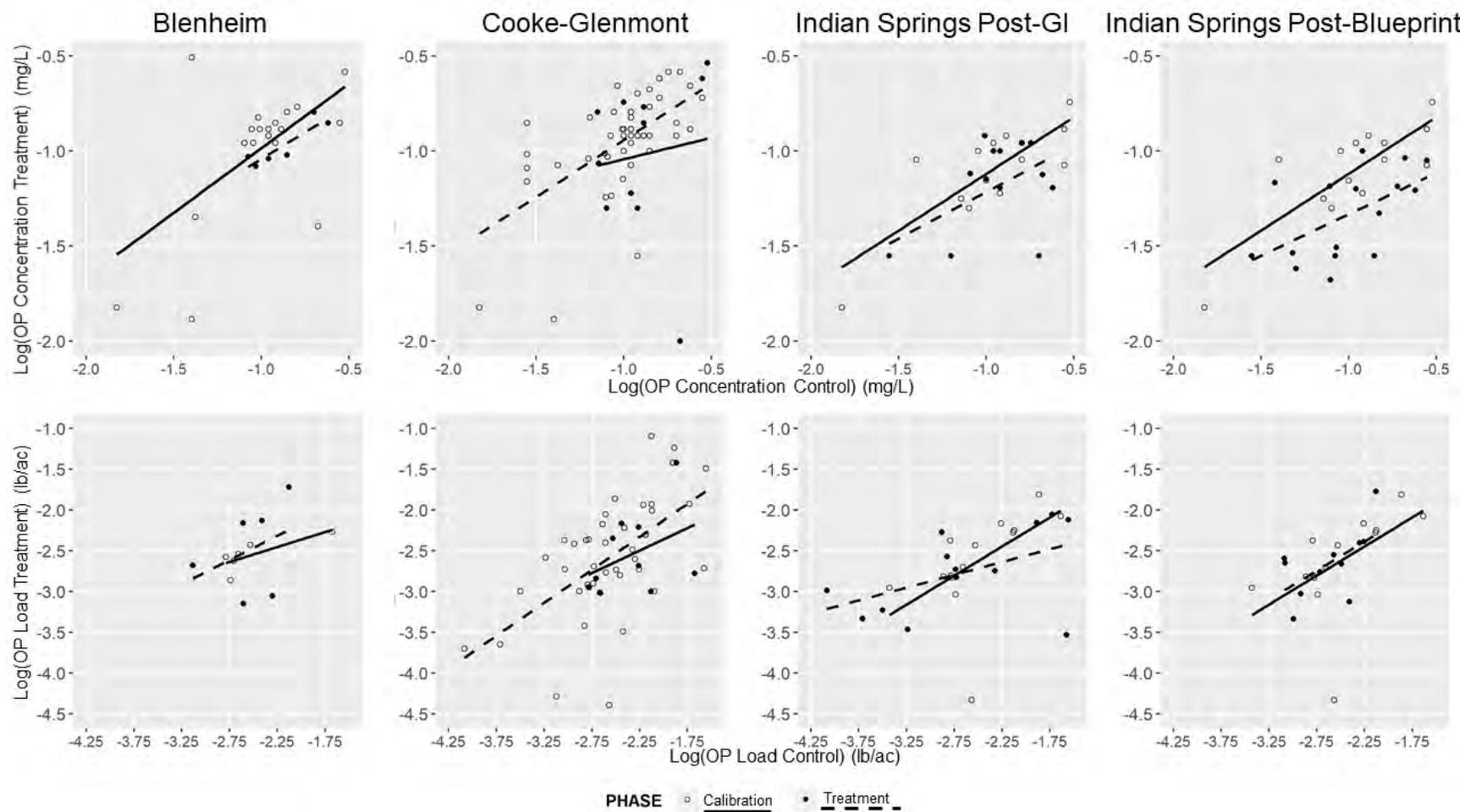
**Table 18: Summary statistics for concentrations and storm event loads of phosphorus species (OP is orthophosphate, PBP is particle bound phosphorus, and TP is total phosphorus) between calibration and treatment phases at Blenheim (Blen; pre- versus post-GI), Cooke-Glenmont (CG; baseline versus post-GI), and Indian Springs (IS; pre-GI versus post-GI and pre-GI versus post-Blueprint (BP)). Interpretations were based on ANCOVA analyses.**

| Pollutant            | Site | Calibration Phase |                |                  | Treatment Phase |                |                  | Statistical Results |         |                |                    |
|----------------------|------|-------------------|----------------|------------------|-----------------|----------------|------------------|---------------------|---------|----------------|--------------------|
|                      |      | n                 | Control Median | Treatment Median | n               | Control Median | Treatment Median | LSM % Difference    | p-value | Interpretation |                    |
| Concentration (mg/L) | OP   | Blen              | 20             | 0.11             | 0.13            | 6              | 0.12             | 0.09                | 5.4     | 0.584          | No sig. difference |
|                      |      | CG                | 11             | 0.12             | 0.14            | 45             | 0.11             | 0.12                | 20.8    | 0.118          | No sig. difference |
|                      |      | IS Post-GI        | 14             | 0.11             | 0.09            | 15             | 0.11             | 0.07                | -25.2   | 0.174          | No sig. difference |
|                      |      | IS Post-BP        |                |                  |                 | 16             | 0.1              | 0.05                | -41.9   | 0.003*         | Pre-GI>Post-BP     |
|                      | PBP  | Blen              | 28             | 0.18             | 0.15            | 5              | 0.09             | 0.06                | -71.5   | 0.028          | Pre-GI>Post-GI     |
|                      |      | CG                | 19             | 0.21             | 0.23            | 54             | 0.13             | 0.18                | -43.3   | 0.123          | No sig. difference |
|                      |      | IS Post-GI        | 19             | 0.15             | 0.2             | 14             | 0.11             | 0.06                | -66.5   | 0.053          | No sig. difference |
|                      |      | IS Post-BP        |                |                  |                 | 20             | 0.15             | 0.08                | -61.9   | 0.014*         | Pre-GI>Post-BP     |
|                      | TP   | Blen              | 37             | 0.17             | 0.18            | 7              | 0.23             | 0.15                | -35.8   | 0.024*         | Pre-GI>Post-GI     |
|                      |      | CG                | 20             | 0.26             | 0.32            | 66             | 0.19             | 0.22                | -27.7   | 0.288          | No sig. difference |
|                      |      | IS Post-GI        | 22             | 0.24             | 0.2             | 18             | 0.23             | 0.11                | -47.4   | 0.008          | No sig. difference |
|                      |      | IS Post-BP        |                |                  |                 | 25             | 0.23             | 0.08                | -60     | 4.61E-05*      | Pre-GI>Post-BP     |
| Load (lb/ac)         | OP   | Blen              | 6              | 2.1E-03          | 2.8E-03         | 6              | 3.1E-03          | 3.8E-03             | 17.2    | 0.755          | No sig. difference |
|                      |      | CG                | 10             | 4.5E-03          | 1.9E-03         | 43             | 2.7E-03          | 2.6E-03             | 1.8     | 0.435          | No sig. difference |
|                      |      | IS Post-GI        | 14             | 2.4E-03          | 2.7E-03         | 13             | 1.8E-03          | 1.8E-03             | -27.1   | 0.729          | No sig. difference |
|                      |      | IS Post-BP        |                |                  |                 | 11             | 2.7E-03          | 2.2E-03             | -6.0    | 0.751          | No sig. difference |
|                      | PBP  | Blen              | 11             | 3.1E-03          | 4.4E-03         | 5              | 1.4E-03          | 8.6E-04             | -82.1   | 0.352          | No sig. difference |
|                      |      | CG                | 14             | 5.7E-03          | 7.0E-03         | 51             | 4.3E-03          | 4.1E-03             | -55.2   | 0.139          | No sig. difference |
|                      |      | IS Post-GI        | 15             | 6.6E-03          | 8.6E-03         | 12             | 4.2E-03          | 3.4E-03             | -40.7   | 0.531          | No sig. difference |
|                      |      | IS Post-BP        |                |                  |                 | 15             | 2.5E-03          | 3.4E-03             | -13.8   | 0.917          | No sig. difference |
|                      | TP   | Blen              | 12             | 4.8E-03          | 6.6E-03         | 6              | 5.0E-03          | 5.4E-03             | -37.5   | 0.305          | No sig. difference |
|                      |      | CG                | 15             | 6.9E-03          | 8.2E-03         | 64             | 5.6E-03          | 5.9E-03             | -41.9   | 0.367          | No sig. difference |
|                      |      | IS Post-GI        | 18             | 5.9E-03          | 7.5E-03         | 16             | 6.9E-03          | 8.5E-03             | -27.8   | 0.539          | Pre-GI>Post-GI     |
|                      |      | IS Post-BP        |                |                  |                 | 18             | 3.6E-03          | 3.7E-03             | -36.6   | 0.693          | No sig. difference |

\*Normality of model residuals confirmed visually.

Orthophosphate (OP), the most biologically available form of phosphorus that causes eutrophication in natural water bodies (Correll, 1998), accounted for 34-59% of TP at each sewershed. Although not significant, OP concentrations and storm event loads increased by 5.4% and 17.2% at Blenheim, and 20.8% and 1.8% at Cooke-Glenmont with the installation of GI (Table 18, Appendix D – Figure 37). Studies documented in the ISBMPD generally report increases of OP within bioretention, with median influent and effluent concentrations of 0.02 to 0.27 mg/L, respectively (Clary & Jones, 2016). Phosphorus export has also been observed in bioretention column studies (Bratieres et al., 2008; Palmer et al., 2013) and field-scale studies of street-side bioretention (Chapman & Horner, 2010) in urban areas and has been tied to leaching from organic matter, typically from compost used in bioretention media mixes (Hurley et al., 2017; Tirpak et al. 2021). OP concentration increases have also been attributed to lawn clippings and decomposition of organic matter in bioretention (Passeport et al., 2009).

OP storm event loads at Cooke-Glenmont during the post-GI phase showed no significant difference from the control sewershed (Beechwold). Conversely, OP concentrations and storm event loads decreased by 25.2% and 27.1%, respectively, with the installation of GI at Indian Springs, and 41.9% ( $p < 0.005$ ) and 6.0% with the completion of the other Blueprint pillars (Table 18; Figure 13). A distinguishing feature compared to the other treatment sewersheds, types of GI installed in the Indian Springs sewershed included permeable pavements, which have been tied to OP removal. Drake et al. (2014) found that OP concentrations were reduced in a permeable pavement practice employing permeable interlocking concrete pavement by 26–35%. Braswell et al. (2018) also observed effective treatment of OP, with significant reductions in concentration of 71%.



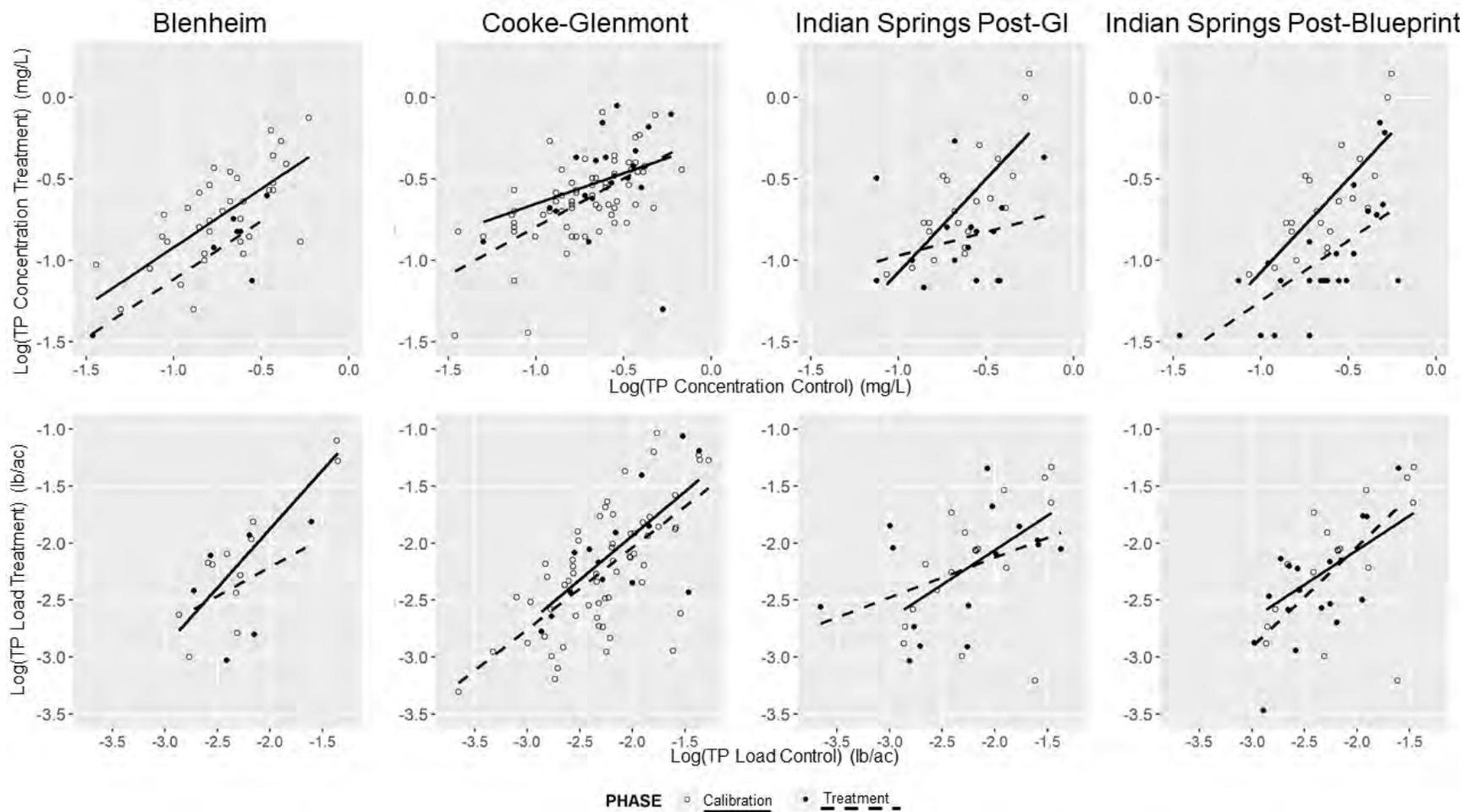
**Figure 13: ANCOVA analysis for OP concentration and storm event load at all three treatment sites in relationship to the control (Beechwald). Calibration phase includes pre-GI at Blenheim and Indian Springs and baseline at Cooke-Glenmont. Treatment phase includes post-GI for all plots except the rightmost column, where it is post-Blueprint.**

In addition to the OP reductions due to permeable pavement, additional OP reduction was likely caused by sorption to silt, clay, and organic matter and vegetative uptake within the bioretention practices (Davis et al., 2006; Roy-Poirier et al., 2010). Since the same bioretention media was utilized in all treatment sewersheds and phosphorus-containing fertilizers are prohibited in Ohio, the OP increases at Blenheim and Cooke-Glenmont and significant decrease at Indian Springs may also be related to differences in the age of the bioretention cells in the sewersheds. Previous studies have not only demonstrated higher OP leaching rates from aged compost, but also different leaching trends with exposure to repeated storm events (Mullane et al., 2015; Hurley et al., 2017). While this study supports the call for further research in dissolved nutrient leaching from compost in GI over time, it is evident that including permeable pavement in the GI installed at Indian Springs contributed to significant reduction in OP concentrations.

Median PBP concentrations were significantly reduced by 71.5% between the pre-GI than the post-GI phase at Blenheim, and by 61.9% between the pre-GI than the post-Blueprint phase at Indian Springs (Table 18). However, no significant differences in PBP storm event load were observed in the treatment sewersheds. Observed PBP reductions in the treatment sewersheds were attributed to sedimentation, filtration, and volume reduction within the bioretention cells and permeable pavements (Roy-Poirier et al., 2010; Winston, et al., 2016a; Tirpak et al. 2020).

Median TP concentrations and storm event loads significantly decreased by 35.8% and 37.5%, respectively, following the installation of GI at Blenheim, and by 60.0% and 36.6% (not significant for storm event loading here) in the post-Blueprint phase at Indian Springs (Table 18; Figure 14). However, the median TP storm event load at Indian Springs was reduced in the post-GI phase only (by 27.8%). Since a non-significant reduction in median TP concentration and storm event load was observed at Indian Springs in the post-GI project phase, PBP reduction

likely offset the marginal OP increases in the sewershed. Previous residential and commercial GI studies demonstrated TP concentration and load reductions in the range of 29-72% (Line et al., 2012; Page et al., 2015a). Reductions observed herein were likely due to a combination of adsorption of dissolved phosphorus and sedimentation of particulate phosphorus in bioretention (Hsieh & Davis, 2005; Roy-Poirier et al., 2010a).



**Figure 14: ANCOVA analysis for TP concentration and storm event load at all three treatment sites in relationship to the control (Beechwald). Calibration phase includes pre-GI at Blenheim and Indian Springs and baseline at Cooke-Glenmont. Treatment phase includes post-GI for all plots except the rightmost column, where it is post-Blueprint.**

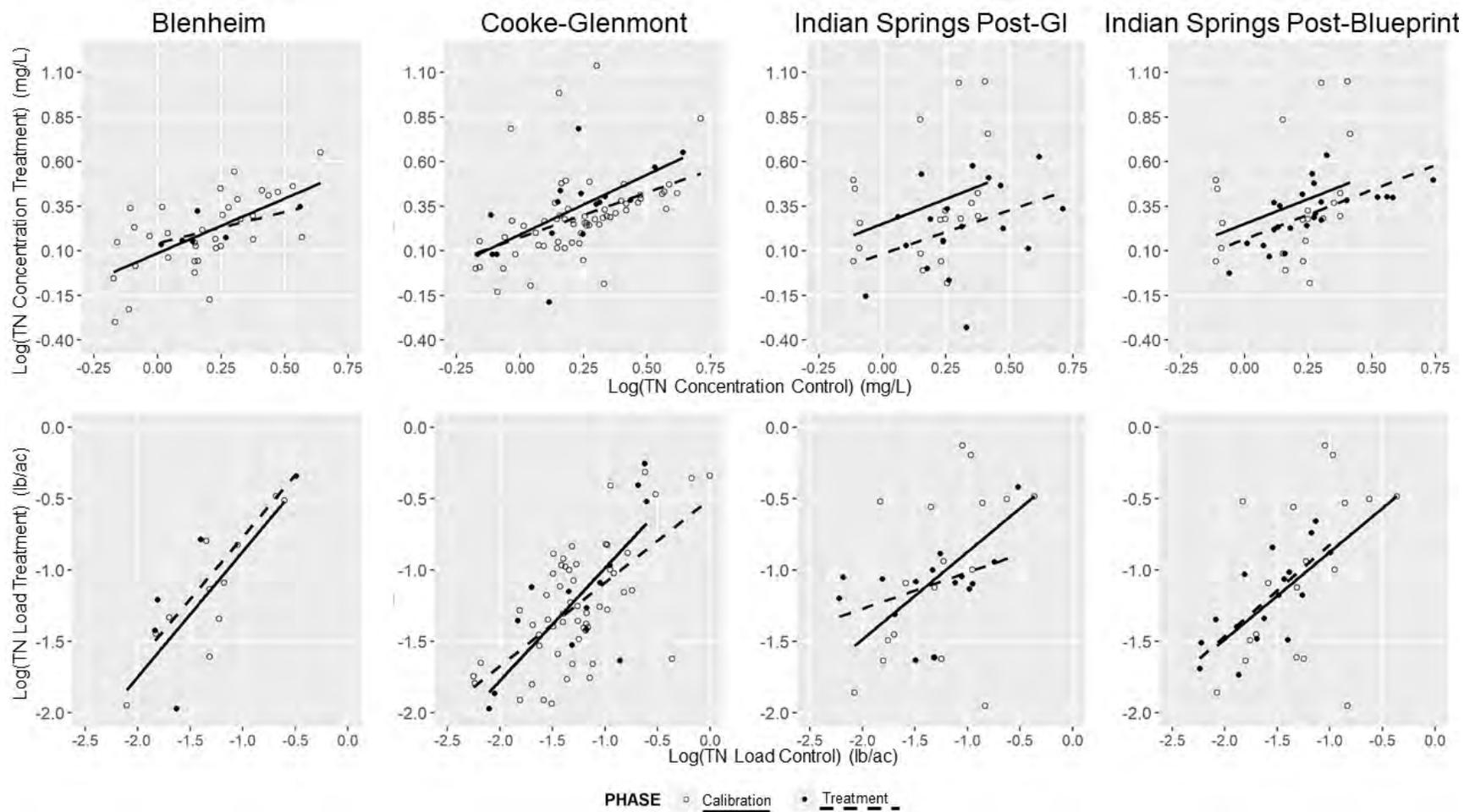
### *Total Suspended Solids*

Summary statistics of the concentrations and loads of TSS collected during the 2016-2020 monitoring period are presented in Table 19 and Figure 40 (Appendix D). Median TSS concentrations and loads decreased by 62.1% and 78.3%, respectively at Cooke-Glenmont following the installation of GI, which treated 66.5% of the imperviousness area in the sewershed (Table 19; Figure 15). ANCOVA analysis for this sewershed revealed that while the difference in intercepts was not significant, regression slopes were significantly different between the baseline and post-GI periods for TSS storm event loads ( $p < 0.001$ ). In fact, every ANCOVA analysis performed for TSS concentration and storm event load, except for storm event loads in the post-Blueprint phase at Indian Springs, showed a similar pattern. This indicates that differences in TSS observed could be related to variations in sediment export from the treatment sewersheds for different rainfall characteristics.

**Table 19: Summary statistics for concentrations and storm event loads of TSS between calibration and treatment phases at Blenheim (Blen; pre- versus post-GI), Cooke-Glenmont (CG; baseline versus post-GI), and Indian Springs (IS; pre-GI versus post-GI and pre-GI versus post-Blueprint (BP)). Interpretations were based on ANCOVA analyses.**

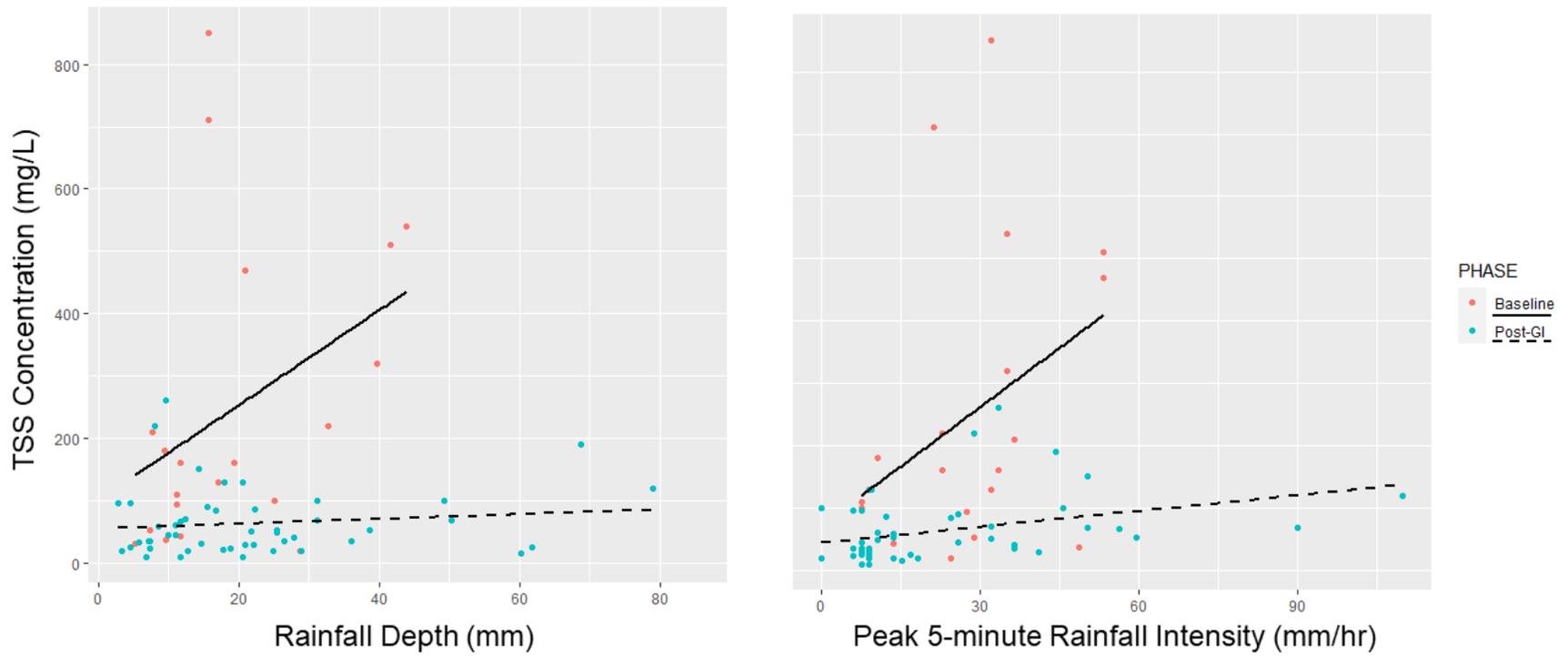
| Pollutant            | Site | Calibration Phase |                |                  | Treatment Phase |                |                  | Statistical Results |         |                |                    |
|----------------------|------|-------------------|----------------|------------------|-----------------|----------------|------------------|---------------------|---------|----------------|--------------------|
|                      |      | n                 | Control Median | Treatment Median | n               | Control Median | Treatment Median | LSM % Difference    | p-value | Interpretation |                    |
| Concentration (mg/L) | TSS  | Blen              | 34             | 63.5             | 62.8            | 7              | 43               | 44                  | -37.6   | 0.571          | No sig. difference |
|                      |      | CG                | 19             | 74               | 160             | 65             | 43               | 48                  | -62.1   | 0.001*         | Baseline>Post-GI   |
|                      |      | IS Post-GI        | 18             | 50.75            | 83.28           | 18             | 30               | 20                  | -67.7   | 0.009          | Pre-GI>Post-GI     |
|                      |      | IS Post-BP        |                |                  |                 | 25             | 39               | 16                  | -76.2   | 3.12E-05       | Pre-GI>Post-BP     |
| Load (lb/ac)         | TSS  | Blen              | 11             | 1.85             | 1.96            | 6              | 0.63             | 1.37                | -50.4   | 0.826          | No sig. difference |
|                      |      | CG                | 14             | 2.88             | 5.77            | 63             | 1.41             | 1.22                | -78.3   | 0.006          | Pre-GI>Post-GI     |
|                      |      | IS Post-GI        | 15             | 1.85             | 3.34            | 16             | 1.19             | 1.28                | -59.5   | 0.15           | No sig. difference |
|                      |      | IS Post-BP        |                |                  |                 | 18             | 0.83             | 0.58                | -64.9   | 0.037          | Pre-GI>Post-BP     |

\*Normality of model residuals confirmed visually.



**Figure 15: ANCOVA analysis for TSS concentration and storm event load at all three treatment sites in relationship to the control (Beechwold). Calibration phase includes pre-GI at Blenheim and Indian Springs and baseline at Cooke-Glenmont. Treatment phase includes post-GI for all plots except for the rightmost column, where it is post-Blueprint.**

Similar TSS generation was observed for smaller depth, low peak-intensity storm events during the baseline and post-GI phases (Figure 16). Storm events with these characteristics often mobilize less sediment, so further TSS reduction through GI is unlikely. Meanwhile, GI substantially reduced TSS concentrations for larger depth, higher peak-intensity storm events when influent concentrations were higher. TSS concentrations decreased 67.7% between the pre- and post-GI phases at Indian Springs, when 69.7% of the impervious area in the sewershed was treated by GI. In this study, reductions in TSS concentrations closely paralleled the sewershed imperviousness treated by GI. Median TSS concentrations decreased from 83 to 20 mg/L and storm event TSS loads decreased by 59.5% with the installation of GI in the Indian Springs sewershed (Table 19). Median TSS concentrations during the post-GI phase at both treatment sewersheds (48 and 20 mg/L for Cooke-Glenmont and Indian Springs, respectively) were larger than those reported by the ISBMPD for effluent from single bioretention cells and permeable pavement (10.0 and 26.0, respectively; Clary & Jones, 2016). This implies further TSS reduction is possible through greater GI implementation targeting treatment of a greater percentage of the sewersheds, though the 20% TSS reduction goal that the City of Columbus set has been easily exceeded. This was observed between the Post-GI and Post-Blueprint phases, where the median TSS concentration decreased to 16 mg/L.



**Figure 16: Total suspended solids (TSS) and rainfall depth, peak 5-minute rainfall intensity for baseline and post-GI phases at Cooke-Glenmont.**

Bioretention cells effectively decrease TSS concentrations through sedimentation and filtration, at times by several orders of magnitude (Trowsdale & Simcock, 2011). In addition to bioretention, permeable pavement at Indian Springs contributed to the decrease in TSS concentration through filtration (Brown et al., 2009). Other residential and commercial GI studies reported significant differences in TSS concentration; Page et al (2015) reported an 82% decrease in TSS, from 54 to 7 mg/L, and Line et al. (2012) reported a 97% decrease, from 244 to 8 mg/L. Coupled with previous research, the data presented herein support the conclusion that the percent TSS concentration reduction in residential sewersheds is similar to the percent of the sewershed imperviousness treated by GI (within a margin of 5%). This information is valuable to engineers and regulators as they try to meet local TSS concentration regulations.

Blenheim is not discussed herein because only seven storms were sampled during the post-GI phase. If these trends continue, future years will reveal the percent TSS concentration reduction is within a margin of 5% of the imperviousness treated by GI at Blenheim.

### *Heavy Metals*

Summary statistics of the concentrations of heavy metals present in samples collected during the 2016-2020 monitoring period are presented in Table 20 and Figure 49 through Figure 54 (Appendix D). Percent heavy metal concentration and storm event load reductions with the installation of GI in the treatment sewersheds followed the order: Pb > Cd > Zn > Cu > Cr > Ni. Whereas none of the heavy metal storm event loadings were significant between project phases, heavy metal concentrations significantly decreased in concentration on several occasions. At Blenheim, the median concentration of Zn significantly decreased by 49.9% following the installation of GI. At Cooke-Glenmont, the median concentrations of Cd, Cr, Cu, Ni, and Pb significantly decreased (by 63.3%, 4.2%, 36.3%, 35.3%, and 49.7%, respectively) between the baseline and post-GI

phases. At Indian Springs, the median concentration of Cd (69.6%) and Ni (14.2%) significantly decreased with the installation of GI; once the remaining Blueprint pillars were complete, the concentrations of all the previously mentioned heavy metals aside from Ni significantly decreased.

**Table 20: Summary statistics for concentrations and storm event loads of TSS between calibration and treatment phases at Blenheim (Blen; pre- versus post-GI), Cooke-Glenmont (CG; baseline versus post-GI), and Indian Springs (IS; pre-GI versus post-GI and pre-GI versus post-Blueprint (BP)). Interpretations were based on ANCOVA analyses.**

| Pollutant | Site       | Calibration Phase |                |                  | Treatment Phase |                |                  | Statistical Results |           |                    |
|-----------|------------|-------------------|----------------|------------------|-----------------|----------------|------------------|---------------------|-----------|--------------------|
|           |            | n                 | Control Median | Treatment Median | n               | Control Median | Treatment Median | LSM % Difference    | p-value   | Interpretation     |
| Cd        | Blen       | 37                | 0.099          | 0.089            | 6               | 0.051          | 0.0614           | -12.6               | 0.958     | No sig. difference |
|           | CG         | 19                | 0.12           | 0.2              | 65              | 0.062          | 0.078            | -63.3               | 0.004     | Baseline>Post-GI   |
|           | IS Post-GI | 20                | 0.105          | 0.115            | 17              | 0.066          | 0.041            | -69.6               | 0.006*    | Pre-GI>Post-GI     |
|           | IS Post-BP |                   |                |                  | 25              | 0.062          | 0.068            | -50.2               | 0.015*    | Pre-GI>Post-BP     |
| Cr        | Blen       | 37                | 3.7            | 3                | 7               | 5.1            | 2.1              | -38.2               | 0.149     | No sig. difference |
|           | CG         | 19                | 3.4            | 1.9              | 65              | 3.3            | 1.7              | -4.2                | 0.002     | Baseline>Post-GI   |
|           | IS Post-GI | 20                | 3.4            | 2.45             | 17              | 3              | 1.9              | -24.7               | 0.25      | No sig. difference |
|           | IS Post-BP |                   |                |                  | 25              | 2.4            | 1.2              | -54.7               | 5.94E-05* | Pre-GI>Post-BP     |
| Cu        | Blen       | 37                | 11.1           | 10.3             | 7               | 8.7            | 7.2              | -34.9               | 0.052     | No sig. difference |
|           | CG         | 19                | 11.3           | 15.35            | 65              | 8.1            | 9.7              | -36.3               | 0.005     | Baseline>Post-GI   |
|           | IS Post-GI | 20                | 11.74          | 12.38            | 17              | 6.4            | 7.8              | -37                 | 0.325     | No sig. difference |
|           | IS Post-BP |                   |                |                  | 25              | 9.5            | 8.9              | -34.3               | 0.031*    | Pre-GI>Post-BP     |
| Ni        | Blen       | 37                | 2.4            | 3.6              | 7               | 1.8            | 3.2              | -8.9                | 0.802     | No sig. difference |
|           | CG         | 19                | 2.65           | 7.7              | 65              | 2.3            | 5                | -35.3               | 0         | Baseline>Post-GI   |
|           | IS Post-GI | 20                | 2.45           | 4.2              | 17              | 2.6            | 2.7              | -14.2               | 0.030*    | Pre-GI>Post-GI     |
|           | IS Post-BP |                   |                |                  | 25              | 2.3            | 3.2              | -8.2                | 0.507     | No sig. difference |
| Pb        | Blen       | 37                | 5.8            | 7.8              | 7               | 3.8            | 5                | -44.1               | 0.05      | No sig. difference |
|           | CG         | 19                | 6.7            | 9.4              | 65              | 4.8            | 4                | -49.7               | 0.008*    | Baseline>Post-GI   |
|           | IS Post-GI | 20                | 5.8            | 4.7              | 17              | 4.1            | 2.3              | -58.3               | 0.052     | No sig. difference |
|           | IS Post-BP |                   |                |                  | 25              | 4.7            | 1.7              | -67.5               | 9.24E-06  | Pre-GI>Post-BP     |
| Zn        | Blen       | 37                | 61.8           | 50               | 7               | 50.1           | 34               | -49.9               | 0.003     | Pre-GI>Post-GI     |
|           | CG         | 19                | 70.6           | 50               | 65              | 39.3           | 33.1             | -22.8               | 0.441     | No sig. difference |
|           | IS Post-GI | 20                | 68.35          | 54.77            | 17              | 30.4           | 24.8             | -45.5               | 0.603     | No sig. difference |
|           | IS Post-BP |                   |                |                  | 25              | 49.2           | 36.1             | -40.7               | 0.013     | Pre-GI>Post-BP     |

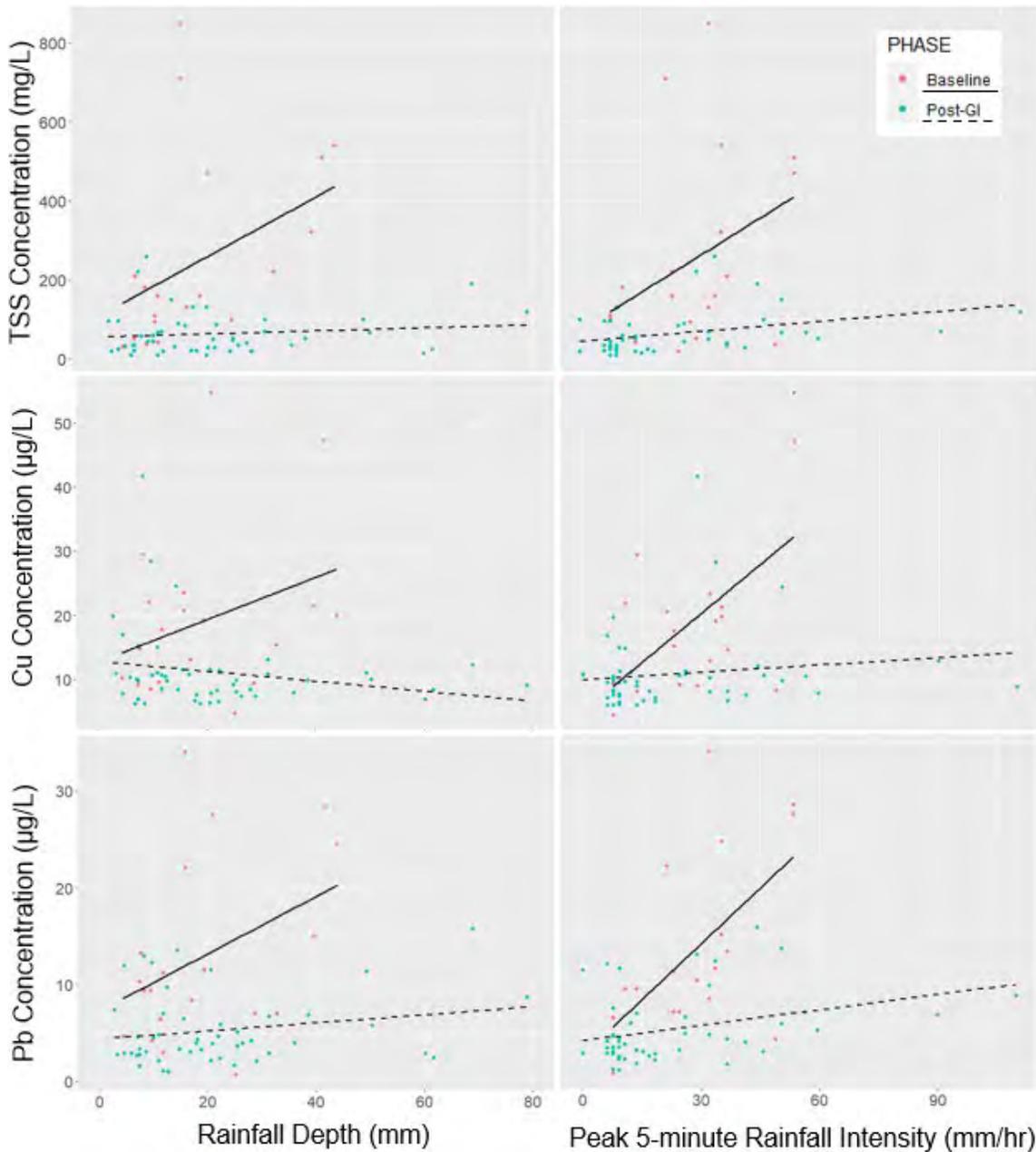
|              |            |            |         |         |         |         |         |         |       |                    |                    |
|--------------|------------|------------|---------|---------|---------|---------|---------|---------|-------|--------------------|--------------------|
| Load (lb/ac) | Cd         | Blen       | 13      | 2.6E-06 | 4.4E-06 | 6       | 8.0E-07 | 1.8E-06 | -58.5 | 0.645              | No sig. difference |
|              |            | CG         | 16      | 5.5E-06 | 5.1E-06 | 63      | 2.0E-06 | 1.8E-06 | -68.5 | 0.107              | No sig. difference |
|              |            | IS Post-GI | 17      | 2.6E-06 | 3.9E-06 | 15      | 1.9E-06 | 1.6E-06 | -63.3 | 0.108              | No sig. difference |
|              |            | IS Post-BP |         |         |         | 18      | 1.1E-06 | 2.2E-06 | -29.5 | 0.456              | No sig. difference |
|              | Cr         | Blen       | 13      | 5.8E-05 | 7.7E-05 | 6       | 5.1E-05 | 1.2E-04 | -7.5  | 0.434              | No sig. difference |
|              |            | CG         | 16      | 7.2E-05 | 5.1E-05 | 63      | 1.0E-04 | 5.8E-05 | -13.2 | 0.441              | No sig. difference |
|              |            | IS Post-GI | 17      | 5.8E-05 | 9.0E-05 | 15      | 6.6E-05 | 1.1E-04 | -8.6  | 0.911              | No sig. difference |
|              |            | IS Post-BP |         |         |         | 18      | 5.6E-05 | 3.3E-05 | -46.6 | 0.376              | No sig. difference |
|              | Cu         | Blen       | 13      | 2.5E-04 | 4.1E-04 | 6       | 1.4E-04 | 2.9E-04 | -42.3 | 0.304              | No sig. difference |
|              |            | CG         | 16      | 3.8E-04 | 4.0E-04 | 63      | 2.8E-04 | 2.8E-04 | -41   | 0.242              | No sig. difference |
|              |            | IS Post-GI | 17      | 3.3E-04 | 4.5E-04 | 15      | 2.1E-04 | 4.6E-04 | -21.3 | 0.596              | No sig. difference |
|              |            | IS Post-BP |         |         |         | 18      | 1.5E-04 | 3.0E-04 | -16.4 | 0.698              | No sig. difference |
|              | Ni         | Blen       | 13      | 4.1E-05 | 9.7E-05 | 6       | 3.4E-05 | 1.3E-04 | 2.6   | 0.662              | No sig. difference |
|              |            | CG         | 16      | 1.1E-04 | 2.1E-04 | 63      | 7.4E-05 | 1.6E-04 | -43   | 0.068              | No sig. difference |
|              |            | IS Post-GI | 17      | 6.3E-05 | 1.7E-04 | 15      | 5.5E-05 | 1.5E-04 | -14.2 | 0.907              | No sig. difference |
|              |            | IS Post-BP |         |         |         | 18      | 4.9E-05 | 1.3E-04 | -8.24 | 0.173              | No sig. difference |
|              | Pb         | Blen       | 13      | 1.5E-04 | 2.9E-04 | 6       | 5.6E-05 | 1.6E-04 | -48.5 | 0.218              | No sig. difference |
|              |            | CG         | 16      | 2.1E-04 | 2.5E-04 | 63      | 1.7E-04 | 1.2E-04 | -53.5 | 0.103              | No sig. difference |
|              |            | IS Post-GI | 17      | 1.7E-04 | 2.0E-04 | 15      | 1.2E-04 | 1.4E-04 | -58.3 | 0.322              | No sig. difference |
|              |            | IS Post-BP |         |         |         | 18      | 9.7E-05 | 5.0E-05 | -67.5 | 0.26               | No sig. difference |
| Zn           | Blen       | 13         | 1.4E-03 | 1.5E-03 | 6       | 7.4E-04 | 5.1E-04 | -61.1   | 0.089 | No sig. difference |                    |
|              | CG         | 16         | 2.1E-03 | 1.2E-03 | 63      | 1.2E-03 | 1.1E-03 | -27.7   | 0.763 | No sig. difference |                    |
|              | IS Post-GI | 17         | 1.4E-03 | 2.2E-03 | 15      | 9.1E-04 | 1.9E-03 | -32.5   | 0.622 | No sig. difference |                    |
|              | IS Post-BP |            |         |         | 18      | 7.5E-04 | 1.1E-03 | -21.2   | 0.402 | No sig. difference |                    |

\*Normality of model residuals confirmed visually.

Heavy metals are present in dissolved, colloidal, and particulate forms (Guéguen & Dominik, 2003). In urban stormwater runoff, Pb and Cr are highly particulate bound, while Ni is related to particles and organic matter. Zn can adsorb to sediment and colloids in stormwater but is mostly associated with dissolved solids, whereas Cd and Cu are largely related to dissolved solids and colloidal materials (Makepeace et al., 1995; Maniquiz-Redillas & Kim, 2016). Birch and Rochford (2010) found that heavy metals in stormwater are primarily particulate bound, ranking their affinity for particulate form as: Pb>Zn>Cu>Cr>Cd>Ni. In urban areas, street runoff demonstrated the highest percentage of heavy metals, Cd, Cu, Pb, and Zn in the particulate form (72-97%), followed by yard (71-95%) and roof runoff (9-87%; Gromaire-Mertz et al., 1999). Since heavy metals are highly particulate-bound, it has been suggested that indirect metal pollutant load can be deduced from TSS measurements in some cases (Hallberg et al., 2007). In the cases of heavy metal analytes studied herein, Cd and Pb concentration reductions following the installation of GI trended closely with TSS reductions (Table 19; Table 20). Like TSS, the percent Cd concentration reduction in treatment sewersheds was similar to the percent of the sewershed imperviousness treated by GI (within a margin of 5%).

The median Pb concentrations significantly decreased by 49.7% and 58.3% at Cooke-Glenmont with the installation of GI and in the post-Blueprint phase at Indian Springs, respectively (Table 20). Although just outside the threshold of significance ( $p = 0.05$  and  $0.052$ ), substantial reductions in median Pb concentrations were observed at Blenheim (44.1%) and Indian Springs after the installation of GI (58.3%). Pb EMCs substantially decreased with the installation of GI for larger depth, high peak intensity storm events, indicating the influence of rainfall characteristics on Pb mobilization in the sewersheds (Figure 17). Substantial, yet non-significant reductions in Pb storm event load were observed at all treatment sites in the post-GI

(48.5-58.3%) and post-Blueprint phases (67.5%). Substantial Pb EMC reductions were also reported by the ISBMPD, where 89.9% and 83.0% reductions were observed as runoff passed through bioretention and permeable pavement, respectively.



**Figure 17: Total suspended solids (TSS), Cu, and Pb concentration plotted against rainfall depth and peak 5-minute rainfall intensity for baseline and post-GI phases at Cooke-Glenmont. Bioretention in the sewershed mitigated pollutant concentrations for larger storm events with high peak 5-minute rainfall intensities.**

Given 23.6-30.1% of the sewershed area and 66.5-69.7% of the sewershed imperviousness was treated by GI at Cooke-Glenmont and Indian Springs, respectively, and median Pb EMCs were reduced by approximately 50%, substantial Pb removal via sedimentation must have occurred in GI. This is feasible due to the high affinity of Pb to bind to particulates compared to other metals studied herein (e.g., 95 and 97% particulate bound in roof and yard runoff, respectively; Birch & Rochford, 2010; Gromaire-Mertz et al., 1999). Other studies of residential GI demonstrated significant, 67-89% Pb EMC reductions with the installation of GI (Bedan & Clausen 2009; Page et al., 2015a). Laboratory bioretention studies demonstrated 95-97% Pb EMC reductions (Hsieh & Davis, 2005; Sun & Davis, 2007). Past permeable pavement studies demonstrated 79-92% reductions in Pb EMCs (Braswell, Winston, & Hunt, 2018; Scholz & Grabowiecki, 2007). This implies high rates of Pb removal were consistent across various settings and types of GI. The significant loading decrease observed at Cooke-Glenmont was likely due to both concentration and runoff volume reductions provided by GI in the sewershed.

Significant reductions in median Cd EMCs of 63.3 and 69.6% were observed at Cooke-Glenmont and Indian Springs, respectively, between the pre-GI and post-GI phases. Conversely, median Cd concentrations were reduced by just 12.6% (not significant) at Blenheim with the adoption of GI. Median Cd EMCs during the post-GI phase of 0.06, 0.08, 0.04  $\mu\text{g/L}$  for Blenheim, Cooke-Glenmont, and Indian Springs, respectively, were similar to the 0.07  $\mu\text{g/L}$  reported by the ISBMPD for effluent from a single bioretention cell (Clary & Jones, 2016), thus perhaps approaching an irreducible effluent concentration. As observed in Blenheim, data summarized in the ISBMPD also indicates non-significant reductions in total Cd EMCs from both permeable pavements and bioretention cells. Among all heavy metals, median Cd EMCs were most similar to the detection limit of 0.013  $\mu\text{g/L}$ , where 19.0% of samples were below the

detection limit at Indian Springs. This may be due to the residential land use of the sewersheds, where major sources of Cd would be limited except to intersections where brake wear, and thus hotspots of Cd deposition, occurs (McKenzie et al., 2009; Singh et al., 2011).

While EMC differences were significant, load reductions of Cd at each treatment sewershed were not significantly different; the median Cd event load at Cooke-Glenmont was reduced by 68.5% and by 63.3% at Indian Springs in the post-GI phase (non-significant; Table 20). Cd EMCs and loads in these sewersheds exhibited the second-highest percent removal efficiency of all heavy metals examined herein. A laboratory bioretention evaluation reported Cd exhibiting the highest percentage removal efficiency (>95-98%) among heavy metal analytes studied (Cd, Pb, and Zn; Sun & Davis, 2007). Another bioretention laboratory study using various types of soil media reported 90-99% Cd removal efficiencies (Wang et al., 2016). This study found that filtration was the primary removal mechanism, as much of accumulation occurred in the surface layer. Cd has a moderate affinity for suspended solids and is found in dissolved and colloidal state in urban stormwater runoff (Makepeace et al., 1995; Maniquiz-Redillas & Kim, 2016; Prestes et al., 2006). Bioretention media has a high cation exchange capacity, and Cd species present in stormwater runoff have high binding and sorption affinities (Loganathan et al., 2012; Muthanna et al., 2007). This means Cd readily binds to clay, silt, and organic matter particles within GI, facilitating its removal from runoff (Naidu et al., 1997).

Median Zn EMCs were reduced by 49.9% between the pre- and post-GI phases at Blenheim and by 40.7% in the post-Blueprint phase at Indian Springs (Table 20). Median Zn storm event loads decreased by 27.7% at Cooke-Glenmont and 32.5% at Indian Springs in the post-GI phase (and by 21.2% for the post-Blueprint phase at Indian Springs). Compared to these sewershed-scale results, studies of single bioretention cells and permeable pavements summarized in the

ISBMPD indicate median reductions in Zn EMCs of 75.9 and 75.6%, respectively (Clary & Jones, 2016). This disparity with single practices is likely due to the percent of the watershed treated. At Cooke-Glenmont and Indian Springs, only 30.1 and 23.1% of the sewershed, and 66.5 and 69.7% of the sewershed imperviousness, respectively, was treated by GI. Non-treated areas of the sewershed may act as a source of Zn, which is generated from galvanized roofs, gutters, plumbing, and automobile traffic (Brown & Peake, 2006; Müller et al., 2020; Singh et al., 2011). Other residential studies reported Zn EMC reductions (76-77%) if a larger percentage of the watershed was treated by GI (up to 91%; Page et al., 2015a; Bedan & Clausen 2009). Another plausible explanation for these results is the nature of Zn in urban runoff. While Zn can be particulate-bound, it is largely related to dissolved solids in stormwater (Makepeace et al., 1995). Compared with Pb and Cu, Zn has the lowest competitive metal sorption (Gülbaz et al., 2015; Jalali & Moradi, 2013). A combination of sewershed and Zn characteristics likely contributed to the lack of significance in Zn reductions between the project phases.

Median Cu EMCs at Cooke-Glenmont and Indian Springs were significantly decreased by 36.3% and 34.3% in the post-GI and post-Blueprint phases, respectively. Substantial, but non-significant decreases in median Cu EMC (34.9-37%) were also observed at Blenheim and Indian Springs in the post-GI phase. These values were all similar to the 38.0% and 35.8% reductions in median Cu EMCs reported in the ISBMPD for single bioretention cells and permeable pavement, respectively (Clary & Jones, 2016). Cu in stormwater runoff is preferentially bound to particulate matter to a greater extent than Cd and Cr, demonstrating a moderate (48%) affinity for TSS (Birch & Rochford, 2010; Prestes et al., 2006). Dissolved Cu in stormwater has been shown to have the highest competitive sorption among the heavy metals discussed herein (Jalali & Moradi, 2013). Other residential studies also credited high Cu reductions to both sorption and

sedimentation in GI (Page et al., 2015a; J. Wang et al., 2017). Meanwhile, other studies demonstrated 31-62% Cu EMC reductions with the installation of GI (H. Li & Davis, 2009; Page et al., 2015a). These reductions were comparable to the results presented herein, meaning GI is capable of treating Cu EMCs in large sewersheds (>10 ha). Given only 30.1% of Cooke-Glenmont was treated by GI, and that laboratory bioretention studies reported Cu EMC reductions in the range of 87-98% (Davis et al., 2001; Sun & Davis, 2007), excellent Cu removal occurred for the density of GI installed in this sewershed.

Median Cr EMCs of 1.9 and 1.7 µg/L, respectively, were observed in the Cooke-Glenmont sewershed during the Baseline and post-GI phases, respectively (Table 20). Likewise, median Cr EMCs of 2.5 and 1.9 µg/L were observed in the Indian Springs sewershed during the pre- and post-GI phases, respectively. These EMCs were all less than the median effluent Cr EMCs for bioretention (2.50 µg/L) and permeable pavement (4.28 µg/L) reported in the ISBMPD (Clary & Jones, 2016). This implies low concentrations of Cr originally existed at Cooke-Glenmont and Indian Springs, so further reductions through GI practices were not likely. Significant reductions occurred at Indian Springs post-Blueprint (54.7%) and Cooke-Glenmont post-GI (4.2%). Whereas a bioretention field study in Maryland demonstrated effective Cr load reductions through both runoff volume attenuation and concentration reductions (Li & Davis, 2009), only significant concentration reductions were observed in Clintonville.

Significant reductions in median Ni EMCs of 35.3 and 14.2% were observed at Cooke-Glenmont and Indian Springs, respectively, in the post-GI phase. Reductions in median Ni storm event loads were not significant in any of the treatment sewersheds. The ISBMPD also reported non-significant difference in Ni EMCs for bioretention, but a significant 52.4% reduction as runoff passed through permeable pavement (Clary & Jones, 2016). Given the difference between

the median Ni EMC in the post-GI phase at Indian Springs (2.70 µg/L) and the effluent Ni EMC reported by the ISBMPD based on studies of permeable pavements (1.76 µg/L), improved Ni performance in the sewershed may be possible. Like Zn, the observed treatment performance may be attributed to Ni characteristics. Studies have demonstrated that Ni has the lowest affinity for particulate binding compared to the other heavy metals presented herein (Birch & Rochford, 2010), so sedimentation was a less likely contributor to removal.

### *Annual Pollutant Loading*

Annual pollutant load reductions for the monitored sewersheds between the project phases are shown in Table 21. Annual loads of nitrogen species at Blenheim, Cooke-Glenmont, and Indian Springs were reduced from 21-86%, 44-79%, and 59-74%, respectively, following the installation of GI (Table 21). Of all nitrogen species, TAN decreased the most in the Cooke-Glenmont sewershed (79%), where NO<sub>2-3</sub> decreased by the lowest amount (only 44%), which is likely attributable to nitrification occurring in the GI. The magnitude of annual load reductions decreased between the post-GI and post-Blueprint phases at Indian Springs, indicative of the increased volume of water routed to the GI in the post-Blueprint phase.

**Table 21: Annual pollutant load (lb/ac/yr) for monitored sewersheds by project phase. Percent differences are relative to annual loads in the pre-GI phase in each sewershed.**

| Pollutant         | Beechwold | Blenheim |          |        | Cooke-Glenmont |          |        | Indian Springs |          |       |          |       |
|-------------------|-----------|----------|----------|--------|----------------|----------|--------|----------------|----------|-------|----------|-------|
|                   | Control   | Pre-GI   | Post-GI  | % Diff | Baseline       | Post-GI  | % Diff | Pre-GI         | Post-GI  | %Diff | Post-BP  | %Diff |
| TAN               | 0.40      | 1.08     | 0.16     | -86    | 1.98           | 0.41     | -79    | 1.95           | 0.59     | -70   | 1.71     | -12   |
| TKN               | 4.07      | 7.95     | 4.81     | -40    | 18.3           | 7.71     | -58    | 14.8           | 5.93     | -60   | 10.2     | -31   |
| NO <sub>2-3</sub> | 3.85      | 11.63    | 4.24     | -64    | 8.72           | 4.87     | -44    | 22.22          | 5.79     | -74   | 8.59     | -61   |
| OrgN              | 3.75      | 6.9      | 4.65     | -33    | 17.88          | 7.53     | -58    | 13.35          | 5.16     | -61   | 8.48     | -36   |
| TN                | 6.28      | 11.49    | 9.13     | -21    | 23.94          | 9.88     | -59    | 21.37          | 8.7      | -59   | 17.18    | -20   |
| OP                | 0.57      | 1.95     | 0.52     | -73    | 1.23           | 1.04     | -16    | 0.81           | 0.35     | -57   | 0.41     | -49   |
| PBP               | 0.52      | 1.32     | 0.38     | -72    | 3.71           | 0.85     | -77    | 3.04           | 1.08     | -65   | 0.74     | -76   |
| TP                | 0.66      | 1.51     | 0.78     | -48    | 4.4            | 1.29     | -71    | 3.12           | 0.88     | -72   | 0.88     | -72   |
| TSS               | 418       | 795      | 257      | -68    | 3360           | 412      | -88    | 3723           | 192      | -95   | 389      | -90   |
| Cd                | 3.48E-04  | 9.93E-04 | 3.58E-04 | -64    | 2.43E-03       | 5.05E-04 | -79    | 2.15E-03       | 2.14E-04 | -90   | 6.48E-04 | -70   |
| Cr                | 1.28E-02  | 2.96E-02 | 2.32E-02 | -22    | 2.39E-02       | 1.17E-02 | -51    | 3.45E-02       | 1.21E-02 | -65   | 1.45E-02 | -58   |
| Cu                | 3.24E-02  | 8.03E-02 | 4.39E-02 | -45    | 2.07E-01       | 5.17E-02 | -75    | 1.43E-01       | 4.42E-02 | -69   | 9.27E-02 | -35   |
| Ni                | 9.21E-03  | 3.30E-02 | 2.22E-02 | -33    | 9.48E-02       | 2.66E-02 | -72    | 4.87E-02       | 1.86E-02 | -62   | 2.65E-02 | -46   |
| Pb                | 2.38E-02  | 9.66E-02 | 2.94E-02 | -70    | 1.47E-01       | 3.12E-02 | -79    | 1.41E-01       | 1.52E-02 | -89   | 3.32E-02 | -76   |
| Zn                | 0.16      | 0.36     | 0.18     | -49    | 0.53           | 0.19     | -64    | 0.69           | 0.24     | -66   | 0.38     | -44   |
| Hardness          | 312       | 927      | 514      | -45    | 1360           | 532      | -61    | 1567           | 684      | -56   | 1044     | -33   |
| Alkalinity        | 193       | 510      | 371      | -27    | 830            | 344      | -59    | 890            | 500      | -44   | 636      | -29   |

Unlike the increases in OP concentrations and loads observed at Cooke-Glenmont (Table 18), the annual OP load at Cooke-Glenmont decreased by 16% between the pre- and post-GI phases; however, this was the smallest reduction observed during the monitoring period (Table 21). Meanwhile, PBP annual loads decreased by 65-77% across the treated sewersheds, showing evidence of sedimentation and particulate removal associated with GI implementation. TP annual load decreased by 48, 71, and 72% at Blenheim, Cooke-Glenmont, and Indian Springs, respectively. Interestingly, no difference was observed in annual TP loads between the post-GI and post-Blueprint phases at Indian Springs. Annual loads of TSS were reduced by 68, 88, and 95% in the post-GI phase at Blenheim, Cooke-Glenmont, and Indian Springs, respectively, supporting the occurrence of particulate removal (i.e., TKN/OrgN and PBP) via filtration and sedimentation following the installation of GI in these sewersheds.

Reductions in annual loads of heavy metals ranged from 22-70% at Blenheim, 51-79% at Cooke-Glenmont, and 62-90% at Indian Springs (Table 21). Similar to storm event loads, Pb and Cd had the highest annual load reductions following the installation of GI.

## ***Public Health Impacts***

### *Overall*

During the 2016-2020 monitoring period, 155 total water samples were tested for molecular analyses and *E. coli* concentrations from the four original sewersheds (i.e., Beechwold, Cooke-Glenmont, Blenheim, Indian Springs) and the control sewersheds (i.e., Starrett and Whetstone High School) added in 2019. *E. coli* concentrations were compared by project phase and year for all samples (n = 155) at the four original sewersheds, while MST, antibiotic resistance bacteria, and pathogenic bacteria results are presented based on analysis of samples collected in 2019 (n = 63) from all six sites due to time and equipment constraints

because of the ongoing COVID-19 pandemic. Of these 63 samples, six samples were taken as a dry weather samples, and were excluded from subsequent statistical analyses.

*E. coli*

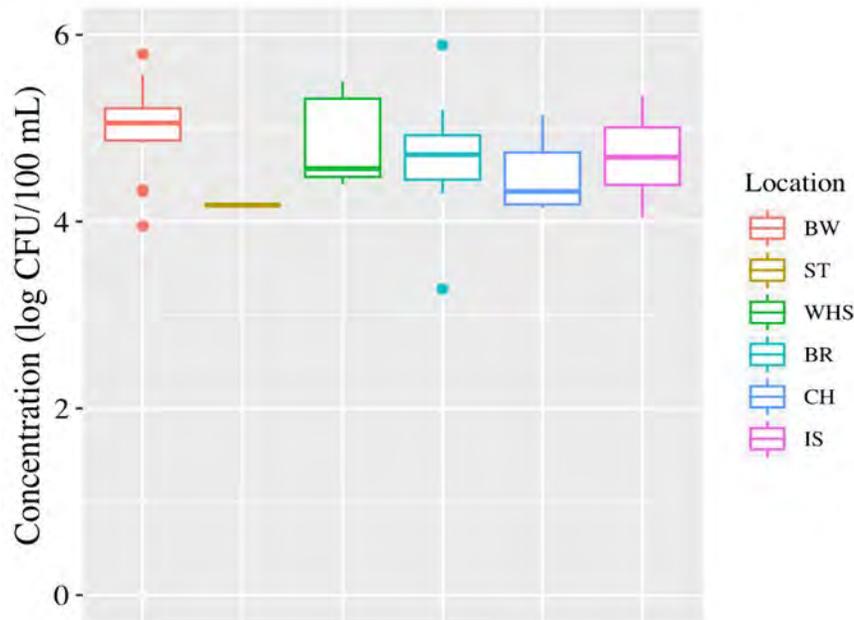
*E. coli* presence in water is an indication of fecal pollution and the possibility of enteric pathogen contamination. The number of *E. coli* samples collected during each of the project phases from the original sewersheds during the 2016-2020 monitoring period is shown in Table 22. Summary statistics from samples collected from all six sewersheds in 2019 are presented in Table 23. The mean *E. coli* concentration from samples collected across all six sewersheds in 2019 was  $7.8 \times 10^5$  CFU/100 mL. *E. coli* concentrations for all samples were above the US EPA criteria for recreational water (126 CFU/100mL) at all sites in 2019. Boxplots illustrating the distribution of *E. coli* samples from the six sewersheds are presented in Figure 18, while plots of *E. coli* concentration by project phase and year for the original sewersheds along with summary statistics are shown in Figure 48 (Appendix D). Results of ANCOVA analyses revealed *E. coli* concentrations in the treatment sewersheds did not differ significantly by project phase (data not shown). This result was likely influenced by the small number of samples collected in many project phases (Table 22).

**Table 22: Number of *E. coli* samples collected from the original sewersheds between 2016-2020.**

| <b>Study site</b> | <b>Phase</b>   | <b>Sample number</b> |
|-------------------|----------------|----------------------|
| Beechwold         | Control        | 54                   |
| Cooke-Glenmont    | Baseline       | 5                    |
|                   | Post-GI        | 34                   |
| Blenheim-Glencoe  | Pre-GSI        | 12                   |
|                   | Post-GSI       | 8                    |
| Indian Springs    | Pre-GSI        | 6                    |
|                   | Post-GSI       | 10                   |
|                   | Post-Blueprint | 26                   |

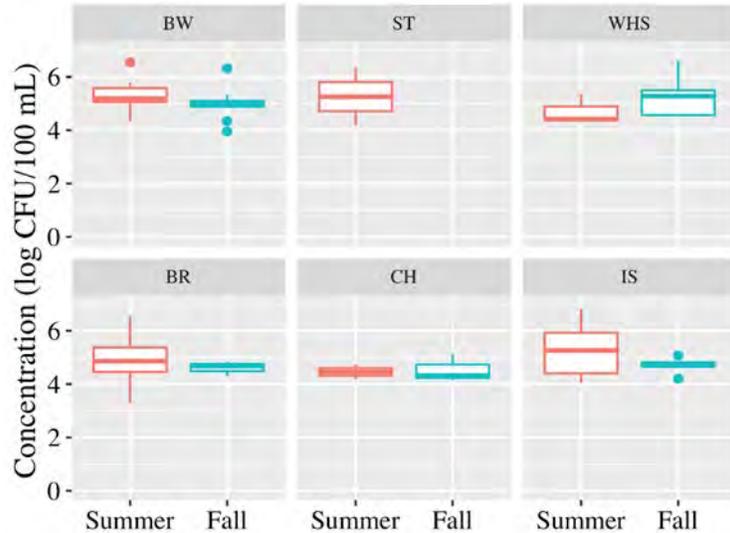
**Table 23: Concentrations of *E. coli* (log CFU/100 mL) and summary statistics for each site.**

| Location  | BW                 | CG                 | BG                 | IS                 | ST                 | WHS                | Total              |
|-----------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| n         | 19                 | 13                 | 6                  | 13                 | 3                  | 9                  | 63                 |
| Site type | Control            | GI                 | GI                 | GI                 | GI                 | Control            |                    |
| Min       | $9.00 \times 10^3$ | $1.90 \times 10^3$ | $1.40 \times 10^4$ | $1.10 \times 10^4$ | $1.50 \times 10^4$ | $2.50 \times 10^4$ | $1.90 \times 10^3$ |
| Max       | $3.50 \times 10^6$ | $1.32 \times 10^7$ | $1.39 \times 10^5$ | $6.71 \times 10^6$ | $2.22 \times 10^6$ | $4.34 \times 10^6$ | $1.32 \times 10^7$ |
| Range     | $3.94 \times 10^6$ | $1.32 \times 10^7$ | $1.25 \times 10^5$ | $6.70 \times 10^6$ | $2.21 \times 10^6$ | $4.32 \times 10^6$ | $1.32 \times 10^7$ |
| Mean      | $4.46 \times 10^5$ | $1.51 \times 10^6$ | $4.89 \times 10^4$ | $8.94 \times 10^5$ | $1.12 \times 10^6$ | $6.49 \times 10^5$ | $7.80 \times 10^5$ |
| St. Dev.  | $8.99 \times 10^5$ | $3.82 \times 10^6$ | $5.31 \times 10^4$ | $2.05 \times 10^6$ | $1.56 \times 10^6$ | $1.50 \times 10^6$ | $2.11 \times 10^6$ |



**Figure 18: Mean concentration of *E. coli* (log<sub>10</sub> CFU/100 mL) for each location in 2019.**

Spearman’s correlation tests were performed to identify potential differences in *E. coli* concentrations by site, between seasons, and between treatment and control sewersheds. However, results indicated that *E. coli* concentrations did not significantly differ between the monitored sewersheds or between seasons (seasonal differences from samples collected in 2019 are shown in Figure 19). Further tests revealed no significant differences between the treatment and control sewersheds (data not shown).



**Figure 19: Mean concentration of *E. coli* (log<sub>10</sub> CFU/100 mL) for each location by season in 2019.**

### *MST and Antibiotic Resistance Gene Prevalence*

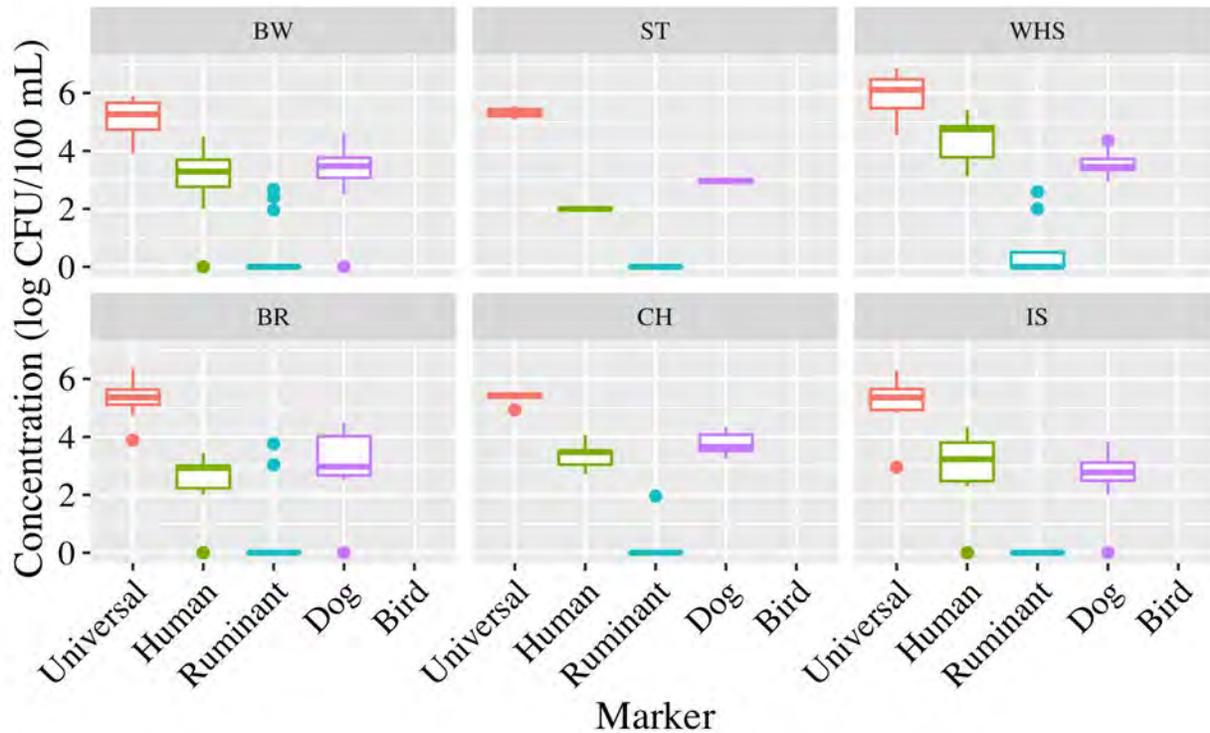
To determine the potential public health impacts of stormwater discharged from the sewersheds, MST was performed to identify major sources of fecal contamination (e.g., human, dog, ruminants) as well as the quantification of antibiotic resistance genes (e.g., KPC, Tetracycline). Due to the COVID-19 pandemic and limitations in acquiring appropriate reagents and materials in time, bird-specific fecal contamination (e.g., geese) and sulfonamide antibiotic resistance quantifications were not completed.

The MST results demonstrate that various levels of fecal contamination from different sources are prevalent at each site (Table 24, Figure 20). Overall, fecal contamination is highly prevalent at each site, correlating appropriately with the previous *E. coli* results. Universal fecal bacteria concentrations on average are the highest represented source of fecal contamination, with the level of  $\sim 10^5$  gene copies/100 mL. The highest concentration was observed at the control site Whetstone High School, although all sites exhibited high concentrations. Human fecal contamination was also high, with a mean of  $\sim 10^4$  gene copies/100 mL across all sites. Mean canine-specific fecal bacteria concentrations were  $\sim 10^3$  gene copies/100 mL. Interestingly,

the average ruminant-specific fecal bacteria concentration was  $\sim 10^2$  gene copies/100 mL, but two of the six sites (one treatment and one control sewershed) showed no ruminant-specific fecal contamination. Starrett had the lowest concentrations for each of these MST markers compared to all other monitoring sites. However, this may reflect the low number of samples taken ( $n=3$ ) throughout the year compared to the other sites. On average, Whetstone High School had the highest concentrations of fecal contamination. MST results indicate that all sites have high fecal contamination with major sources including humans and canines.

**Table 24: Summary of average MST marker concentrations (gene copies (GC)/100 mL) at each site.**

| <b>GC/100mL</b> | <b>BW</b>          | <b>CG</b>          | <b>BG</b>          | <b>IS</b>          | <b>ST</b>          | <b>WHS</b>         | <b>Overall</b>     |
|-----------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| Universal       | $2.64 \times 10^5$ | $5.37 \times 10^5$ | $2.04 \times 10^5$ | $4.06 \times 10^5$ | $1.61 \times 10^5$ | $2.62 \times 10^6$ | $6.76 \times 10^5$ |
| Human           | $4.62 \times 10^3$ | $7.67 \times 10^2$ | $3.88 \times 10^3$ | $6.38 \times 10^3$ | $1.00 \times 10^2$ | $6.70 \times 10^4$ | $1.27 \times 10^4$ |
| Ruminant        | $4.26 \times 10^1$ | $5.31 \times 10^2$ | $0.65 \times 10^0$ | $0.00 \times 10^0$ | $0.00 \times 10^0$ | $5.44 \times 10^1$ | $1.33 \times 10^2$ |
| Canine          | $5.43 \times 10^3$ | $6.44 \times 10^3$ | $7.17 \times 10^3$ | $1.19 \times 10^3$ | $6.33 \times 10^2$ | $8.37 \times 10^3$ | $5.12 \times 10^3$ |

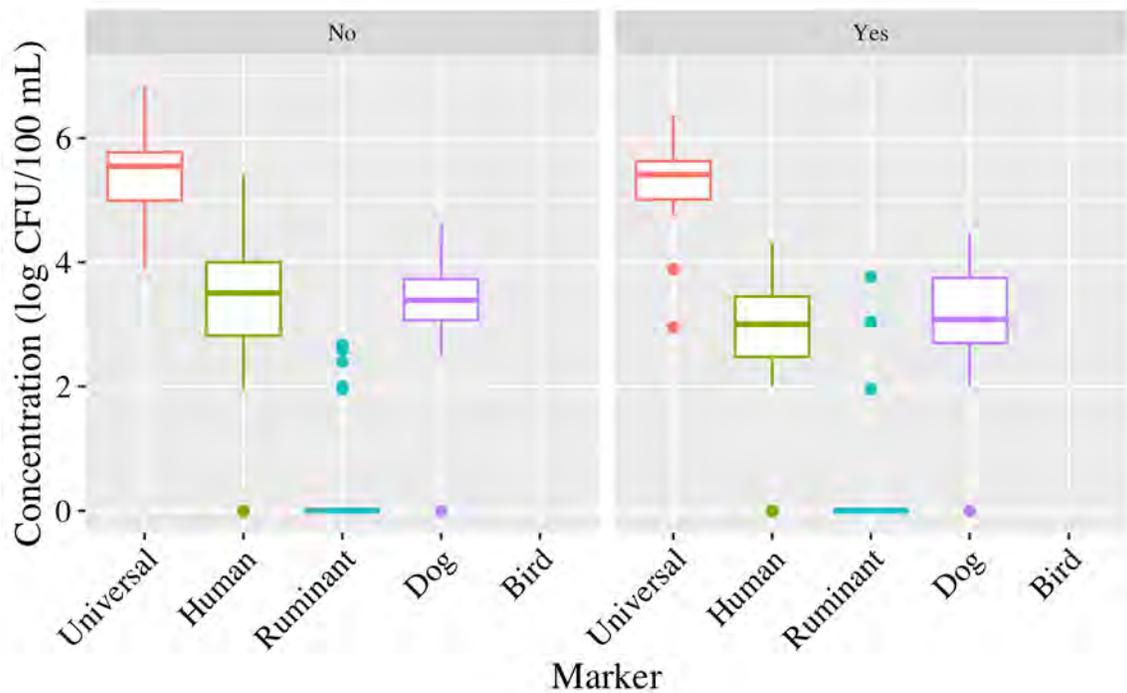


**Figure 20: Comparison of concentrations of five MST markers (log<sub>10</sub> CFU/100 mL) for each sewershed outfall in 2019.**

Statistically significant results were identified during non-parametric correlation tests. The human-specific fecal bacteria marker exhibited the most prominent correlations, with statistical significance shown when individual sites were compared, as well as control vs. GI sites ( $p < 0.05$ ). When a pairwise t-test was used to compare each individual site, the most significantly different sites were Whetstone High School and Cooke-Glenmont. However, Whetstone High School seemed to differ from all other sites. Cooke-Glenmont and Blenheim-Glencoe displayed the most seasonal differences in human fecal contamination ( $p < 0.05$ ). For all other markers and seasonal comparisons, no significance was observed.

Major sources of fecal contamination found at all sites were from human and canine sources. Human fecal contamination is the most significantly correlated across the sites, and when comparing treatment versus control sites. Ruminant (e.g., deer) fecal contamination was the

lowest among the MST marker concentrations (Figure 21). Excluding human fecal markers, the control site marker concentrations were not significantly different to the treatment sites. Due to the high prevalence of fecal contamination at almost all sites (based on all fecal markers), it was concluded that there is the possible presence of enteric pathogens in the stormwater and downstream water bodies, a finding also supported by analyses in previous annual reports.

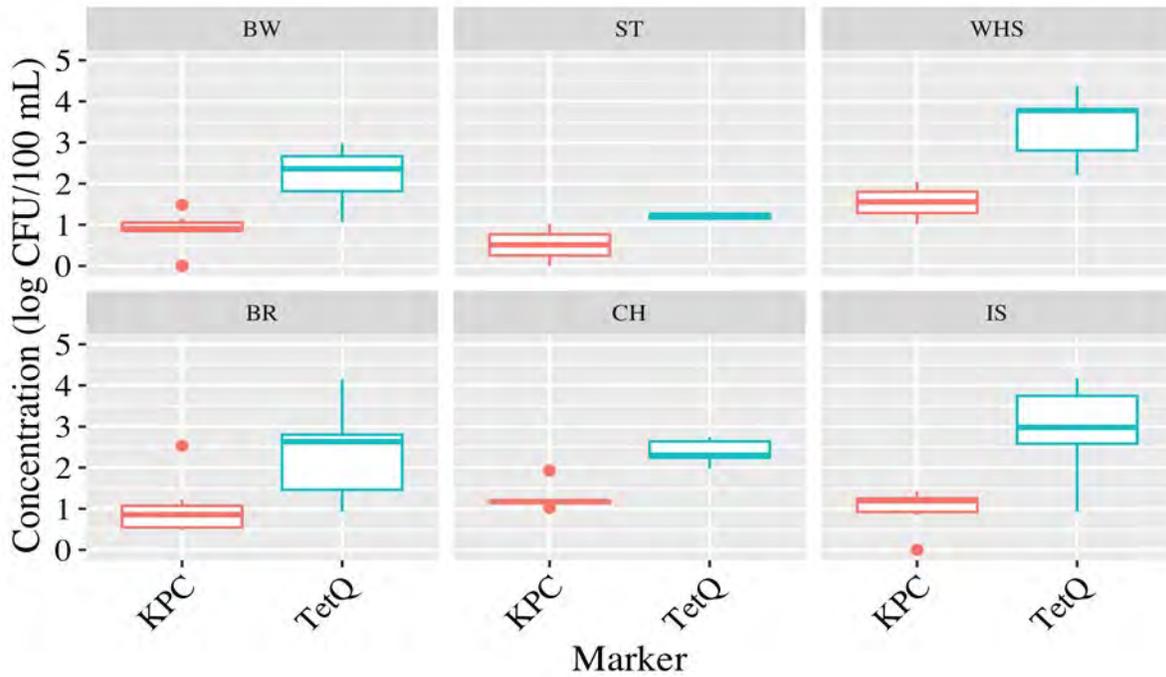


**Figure 21: Summary of mean concentrations of five host-specific fecal bacteria markers (log<sub>10</sub> CFU/100 mL) between sites with (“Yes”) and without (“No”) GI in 2019.**

The mean concentrations of the antibiotic resistance genes KPC and TetQ were  $2.26 \times 10^1$  and  $2.16 \times 10^3$  gene copies/100 mL, respectively (Table 25; Figure 22). Due to the COVID-19 pandemic and limited ability to order and delay in receiving supplies, *sul1* was not quantified. All sites showed positive presence for each of the tested antibiotic resistance genes.

**Table 25: Summary of average antibiotic resistance (gene copies (GC)/100 mL) from each site.**

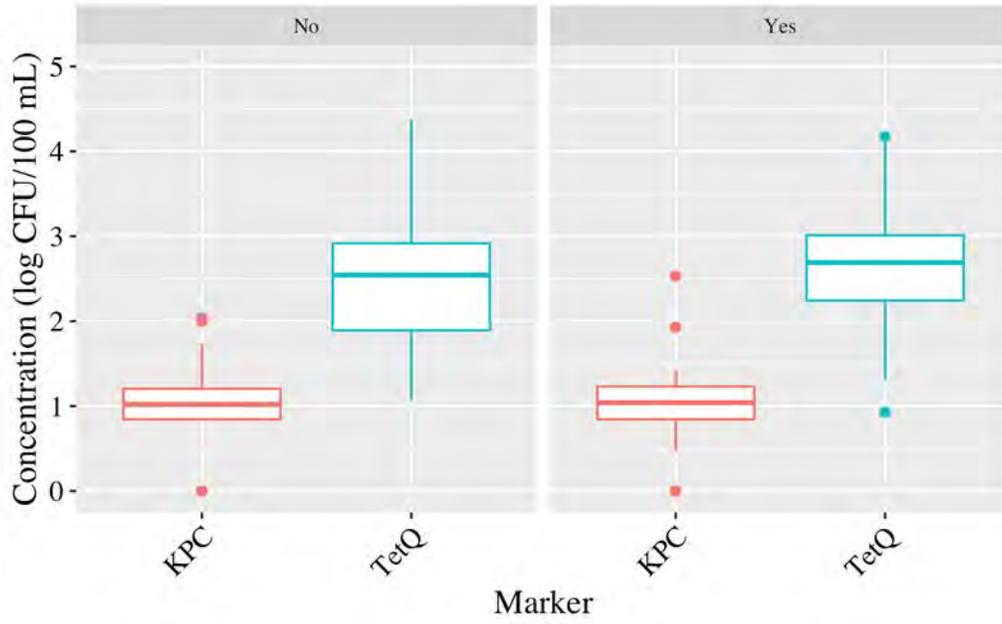
| GC/100 mL    | BW                 | CG                 | BG                 | IS                 | ST                 | WHS                | Overall            |
|--------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| KPC          | $8.75 \times 10^0$ | $3.55 \times 10^1$ | $2.80 \times 10^1$ | $1.39 \times 10^1$ | $5.25 \times 10^0$ | $4.81 \times 10^1$ | $2.26 \times 10^1$ |
| Sulfonamide  | -                  | -                  | -                  | -                  | -                  | -                  | -                  |
| Tetracycline | $3.26 \times 10^2$ | $1.52 \times 10^3$ | $2.93 \times 10^2$ | $3.94 \times 10^3$ | $1.68 \times 10^1$ | $6.29 \times 10^3$ | $2.16 \times 10^3$ |



**Figure 22: Summary of mean concentration of two antibiotic resistance genes (log<sub>10</sub> CFU/100 mL) for each location in 2019.**

The concentration of both genes exhibited highly significant correlations between monitoring locations ( $p < 0.005$ ). Interestingly, when pairwise t-tests were conducted, the most significantly different groups were the two control sites, Beechwold and Whetstone High School. Beechwold was the only sewershed that showed significant differences in antibiotic resistance genes across seasons ( $p < 0.05$ ). No significant differences were found when comparing control versus treatment sites.

Following previous assessments, antibiotic resistance genes were present at all sites (Figure 23). Tetracycline concentrations were higher than KPC across each site over all seasons. Antibiotic resistance gene concentrations at control and treatment sites were similar.



**Figure 23: Comparison of mean concentrations of two antibiotic resistance genes (log<sub>10</sub> CFU/100 mL) between with (“Yes”) and without (“No”) green infrastructure implementation in 2019.**

## Conclusions

This report details holistic hydrologic and water quality monitoring activities undertaken by Ohio State University to quantify and compare the effects of installing green infrastructure in the Clintonville neighborhood of Columbus, Ohio, over the 2016-2020 period. This final report represents interim findings for the research as a whole, which will not be fully completed until 2022. The four pillars of Blueprint were online for sufficient time to evaluate their collective impact in only the Indian Springs sewershed; this will be undertaken in future reports for the remaining treatment sewersheds.

The following conclusions were drawn from data collected from 2016-2020:

- (1) Runoff generation patterns remained similar in the monitored sewersheds before and after the installation of GI. Runoff depths during the post-Blueprint phase were significantly decreased by 3% in the Indian Springs sewershed compared to the control, Beechwold. Runoff thresholds, or the rainfall depth at which incipient runoff is generated, increased by 0.01 inch in the Blenheim and Cooke-Glenmont sewersheds (to 0.07 in from 0.06 in) in the post-GI phase and by 0.07 (to 0.11 in) in the Indian Springs sewershed in the post-Blueprint phase. Changes in runoff coefficients, the quotient of runoff depth to rainfall depth, were mixed following the installation of GI; the wettest year on record in Columbus (2018), which occurred during the monitoring period following the construction of GI, as well as the completion of other pillars of the Blueprint Columbus project (i.e., lateral lining, downspout disconnection, and sump pump installation), which introduced additional water into the Indian Springs sewershed, likely influenced these results. Area-normalized peak runoff flow rates were significantly reduced following the installation of GI in the Cooke-Glenmont (53%) and Blenheim (85%) sewersheds. Peak

flow reductions at Indian Springs were not statistically different from the control; this result was attributed to the high amount of directly connected impervious area in the Indian Springs sewershed compared to the other treatment sewersheds.

(2) A total of 33 simulated storm tests were completed on a variety of BRCs in three Blueprint project areas in the Clintonville neighborhood. Results indicate a difference in hydrological function depending on bioretention design; mean volume reductions were 35% higher in bump-out-style practices compared to systems installed in the right-of-way. Results were attributed to subsurface infrastructure (e.g., sanitary and storm sewer lines) underlying bump-out bioretention cells, which may have provided preferential pathways for flow to bypass underdrains. Peak flow rate reductions and lag-to-peaks were similar across all tests, attributed to the consistent hydrograph produced by gravity-fed inflow from the water tank used in testing.

(3) Eighty-three to 135 storm events were sampled for water quality in each sewershed. Though statistical significance varied between sewersheds and pollutants, significant increases in pollutants exported from the treatment sewersheds following the installation of GI were never observed. Reductions in OP concentrations and loads were limited to Indian Springs, attributed to the permeable pavement installed in the sewershed. Reductions in TSS and Cd concentration were similar (within a margin of 5%) to the percent of the sewershed imperviousness treated by GI. Significant concentration reductions were observed for most heavy metals at Cooke-Glenmont and Indian Springs; however, heavy metal storm event loads never significantly decreased. This is likely due to data size, and significant reductions in heavy metal storm event loads are expected in future reports. There are clear annual load reductions for almost all water quality

parameters. These results demonstrate the pollutant removal effectiveness of the GI installed in these areas compared to the control sewershed.

- (4) The mean *E. coli* concentrations for the monitored sewersheds ranged from a minimum of  $4.89 \times 10^4$  CFU/100mL (Blenheim-Glencoe) to  $1.51 \times 10^6$  CFU/100mL (Cooke-Glenmont) in 2019. *E. coli* concentrations at all sites exceeded US EPA criteria for recreational waters (126 CFU/mL) for all samples collected in 2019. Further, *E. coli* concentrations discharged from the sewersheds did not significantly vary by season or sewershed, nor were they affected by the presence (or absence) of green infrastructure. Human and canine sources were identified by microbial source tracking (MST) as major sources of fecal contamination in all six sewersheds monitored in 2019. However, excluding human fecal markers, marker concentrations did not significantly differ between control and treatment sewersheds. Findings in 2019 support the conclusion of previous annual reports that there is possible presence of enteric pathogens in both stormwater and downstream waters. Antibiotic resistance genes were present in samples collected from all six sewersheds in 2019. Concentrations of tetracycline resistant gene were higher than carbapenem resistant gene at all sites, a trend that did not exhibit seasonal variation. Antibiotic resistance gene concentrations were not significantly different in sewersheds where green infrastructure was installed compared to control (i.e., no GI) sewersheds.

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# Appendix A: Green Infrastructure Retrofits in the Clintonville Neighborhood

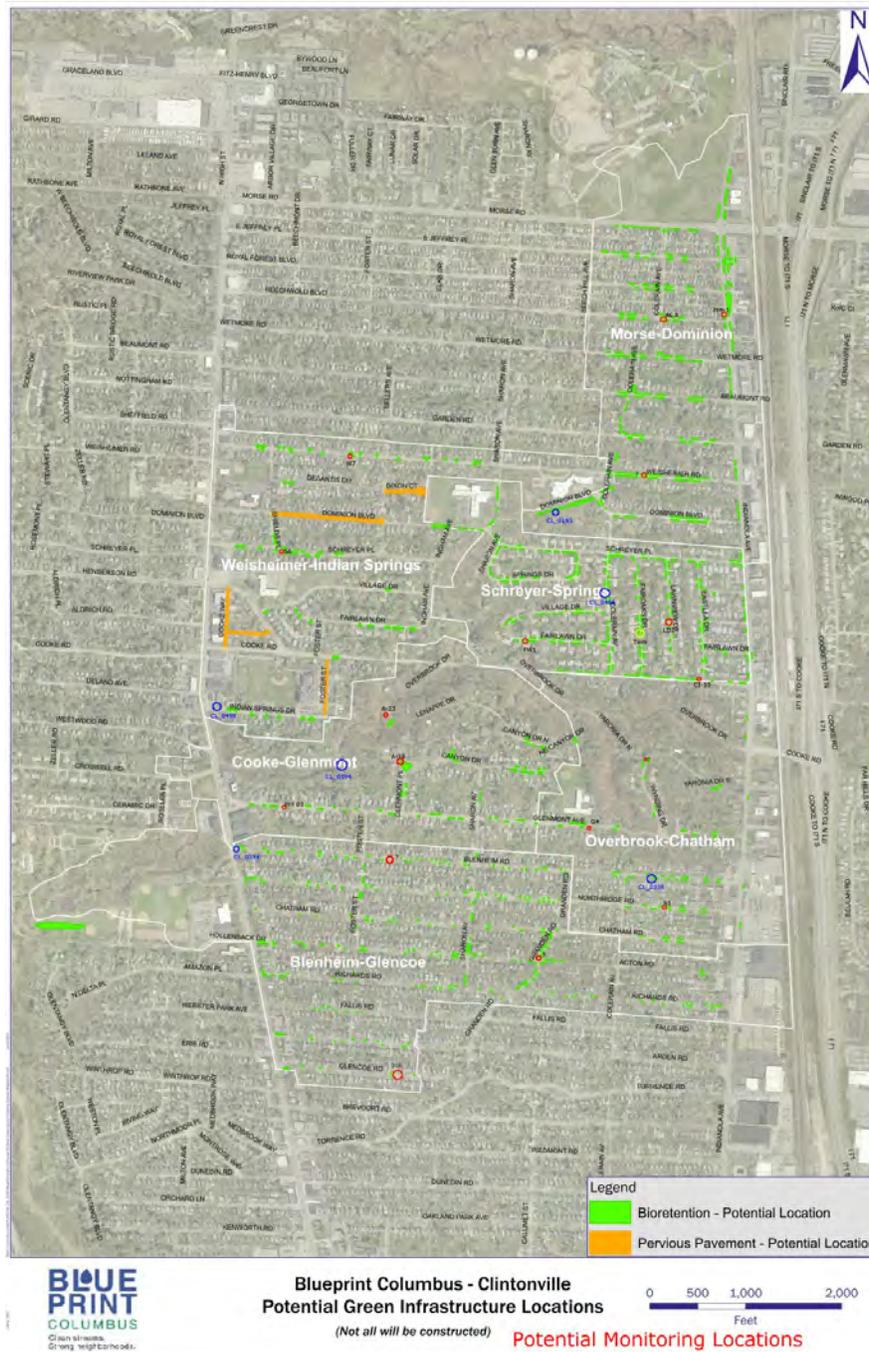


Figure 24. Locations of bioretention (green) and permeable pavement (orange) retrofits planned for the Clintonville neighborhood. The areas of Clintonville being monitored are outlined in blue (control sewershed) and white (green infrastructure retrofits).

## Appendix B: GIS Analysis to Identify Different Impervious Surface Types in Each Sewershed

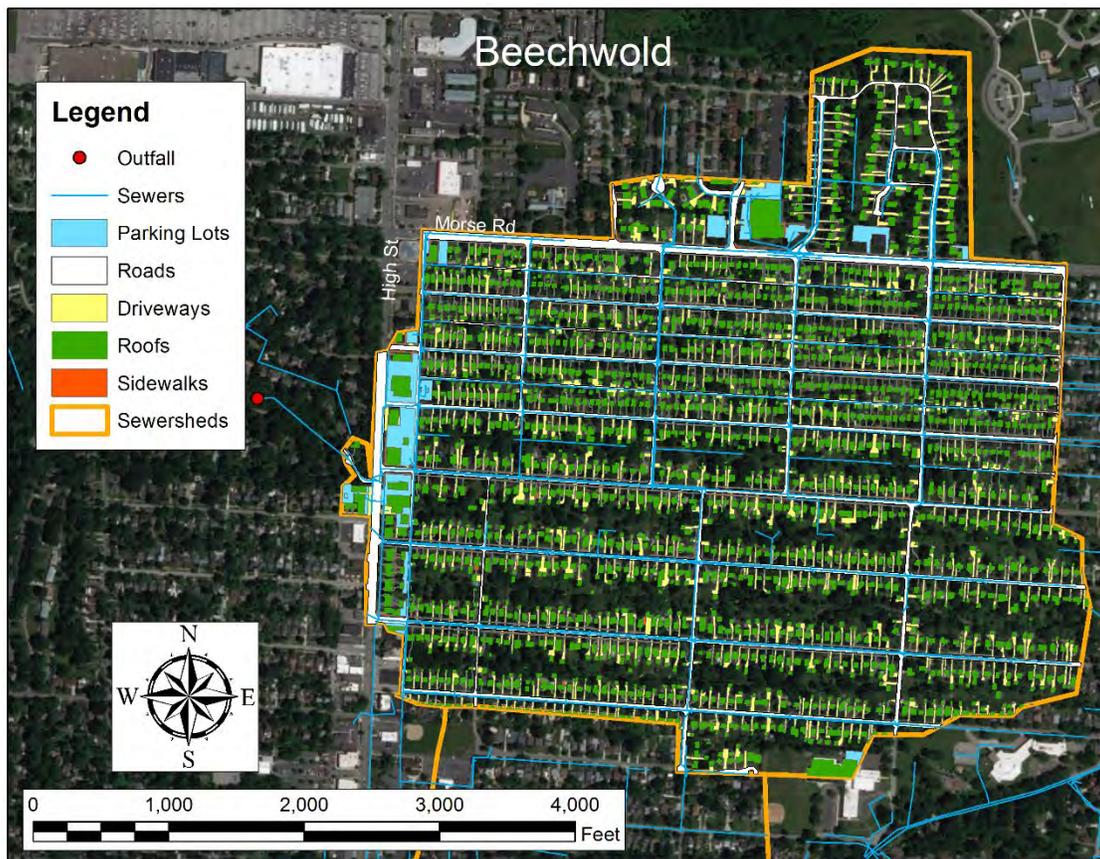


Figure 25. Map showing impervious surface types in the Beechwold sewershed. Pervious areas in the sewershed are not highlighted with color.

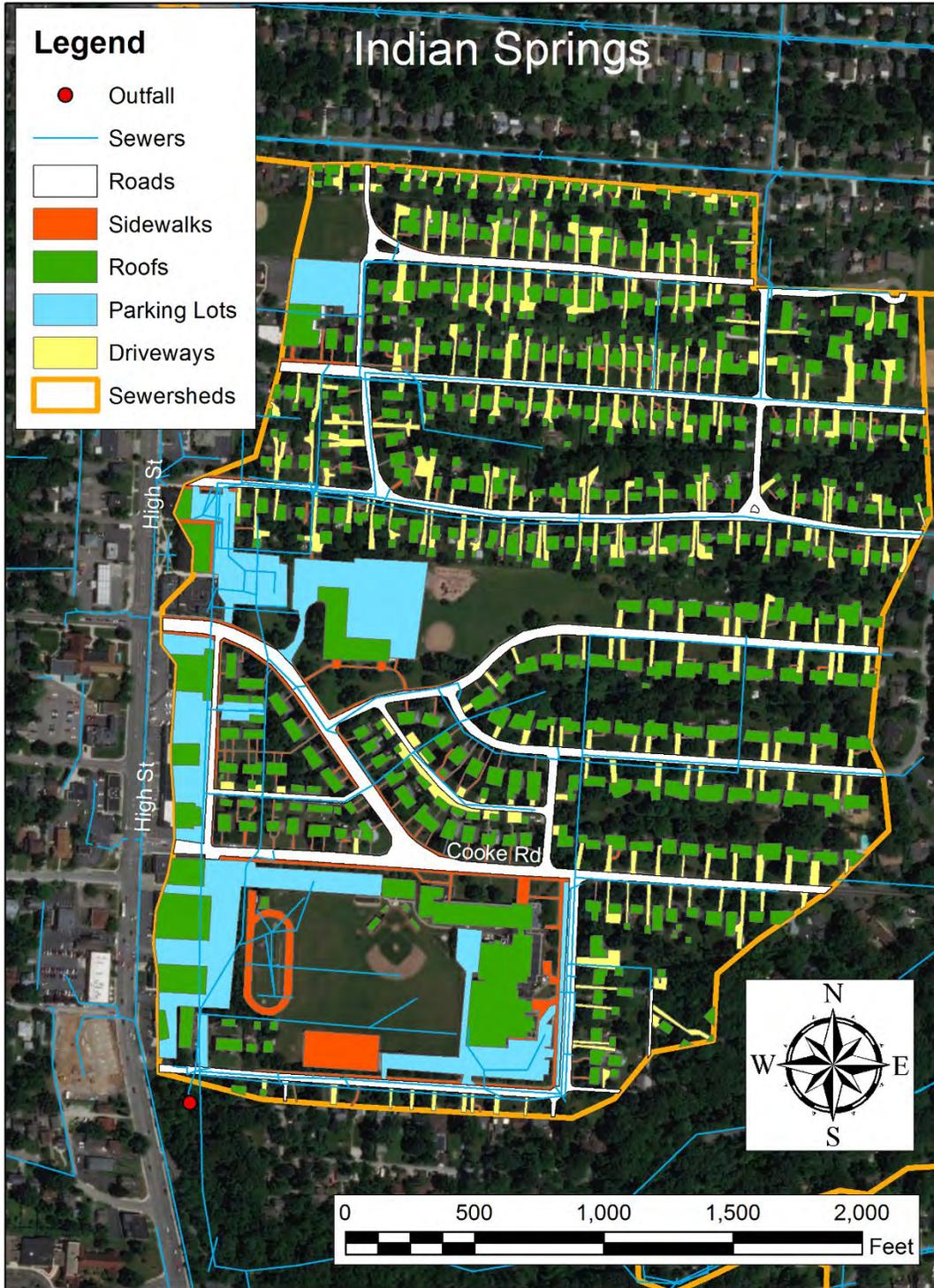
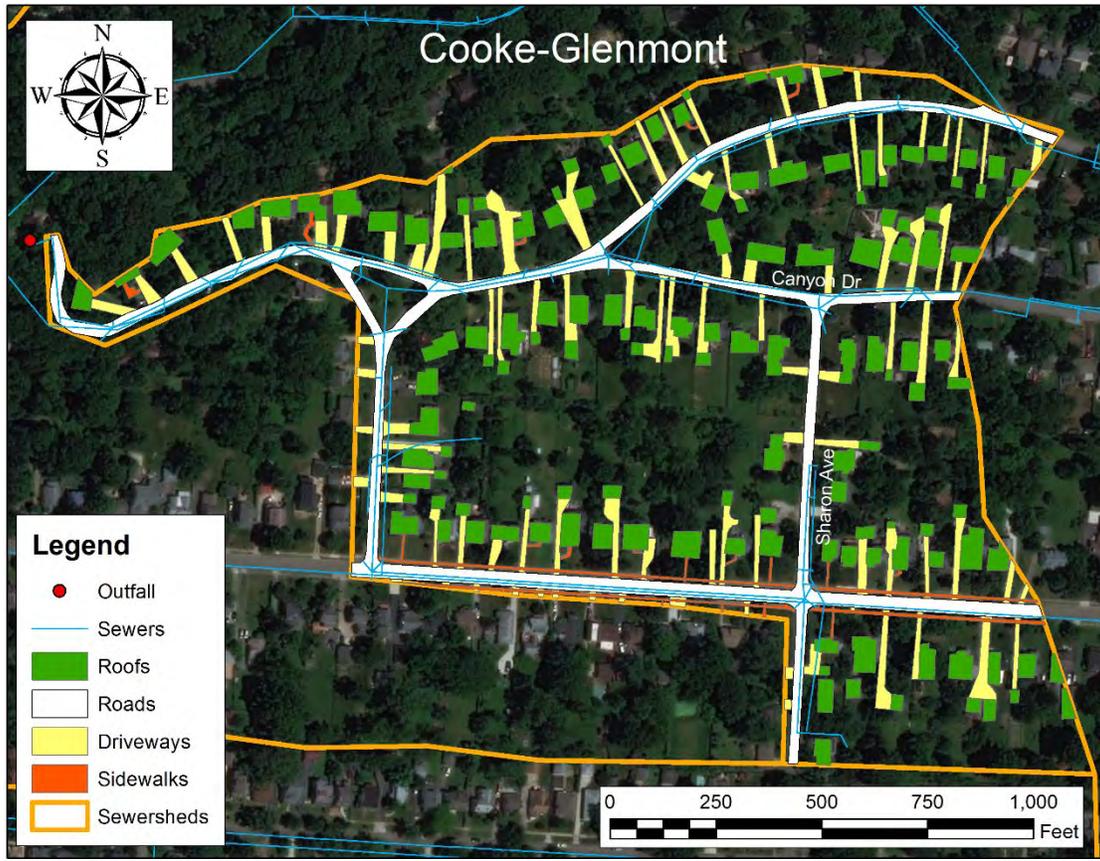
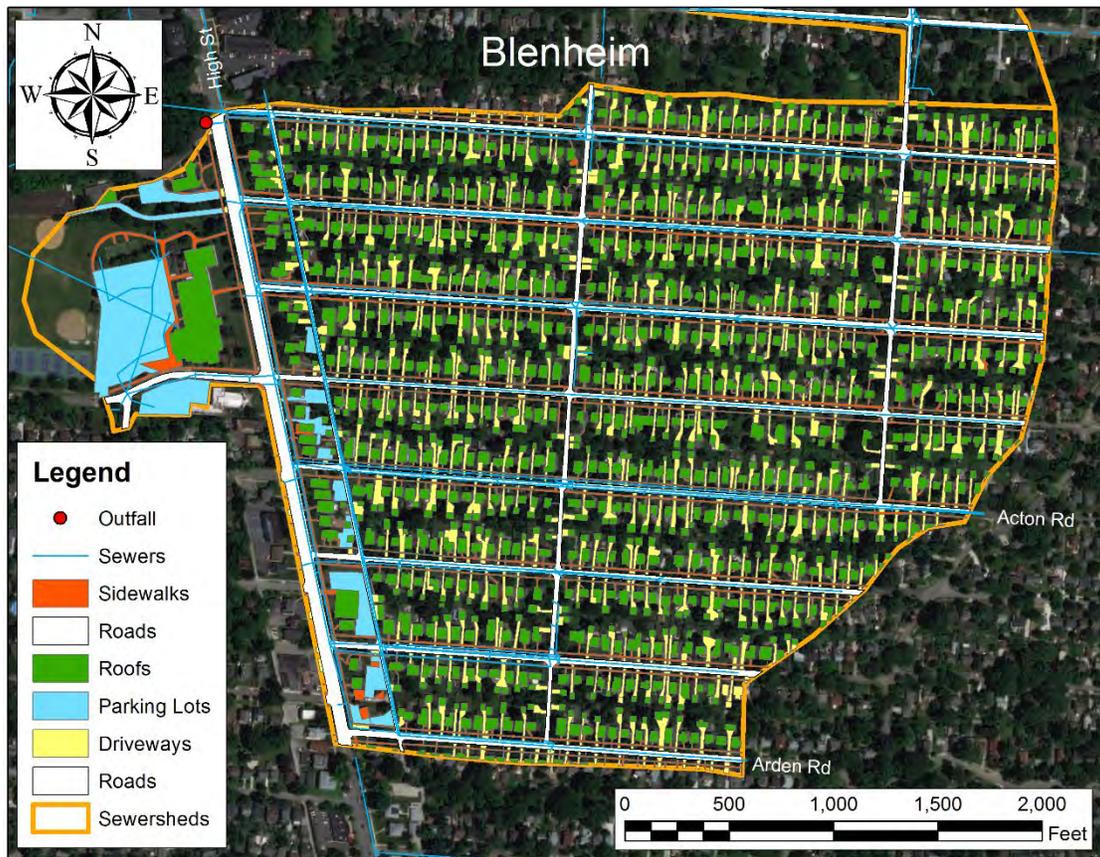


Figure 26. Map showing impervious surface types in the Indian Springs sewershed. Pervious areas in the sewershed are not highlighted with color.



**Figure 27. Map showing impervious surface types in the Cooke-Glenmont sewershed. Pervious areas in the sewershed are not highlighted with color.**



**Figure 28. Map showing impervious surface types in the Blenheim sewershed. Pervious areas in the sewershed are not highlighted with color.**



Figure 29. Map showing impervious surface types in the Starrett sewershed. Pervious areas in the sewershed are not highlighted with color.

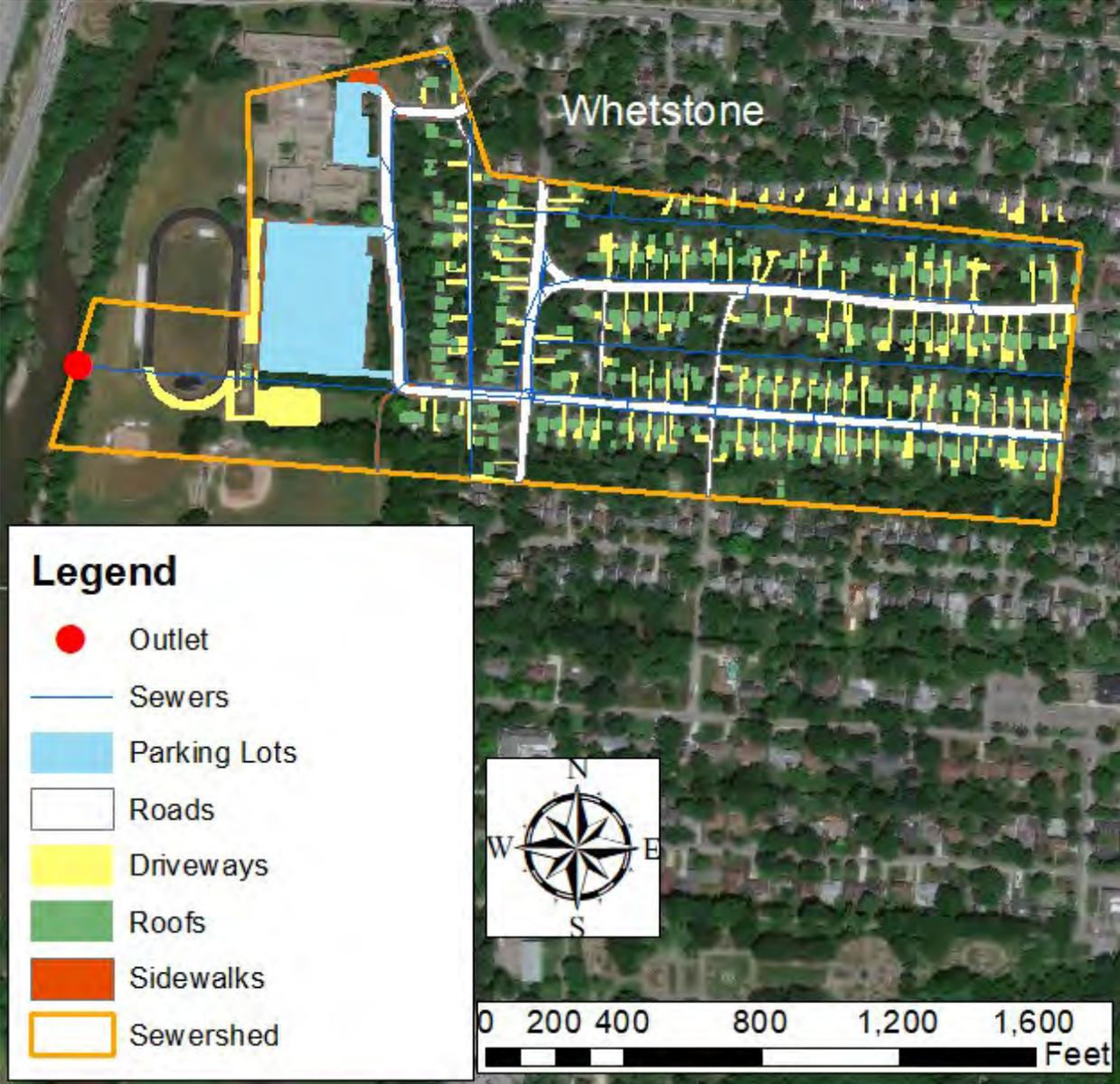
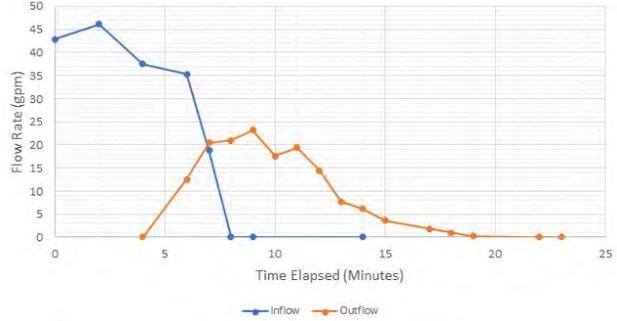


Figure 30. Map showing impervious surface types in the Whetstone sewershed. Pervious areas in the sewershed are not highlighted with color.

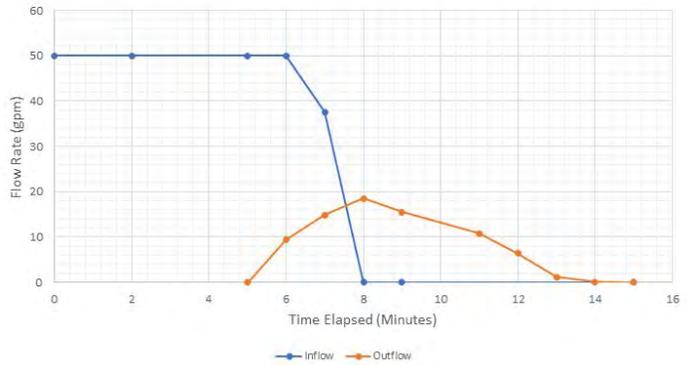
# Appendix C: Results of Simulated Storm Testing

94 E. Schreyer Pl. / Corner of Schreyer and Shields



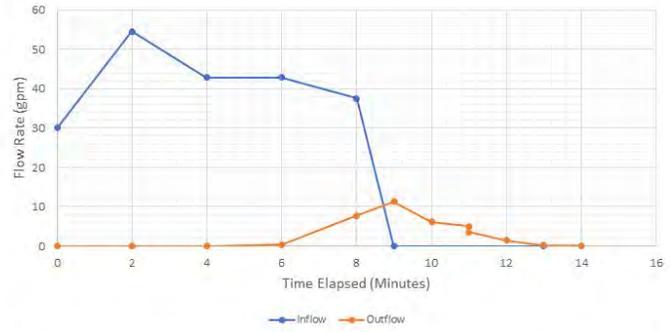
| Testing Date | Volume Red. (%) | Peak Flow Red. (%) | Lag Time (min) | ADP (days) |
|--------------|-----------------|--------------------|----------------|------------|
| 7/24/2018    | 44              | 73                 | 7              | 3          |
| 10/30/2018   | 34              | 60                 | 13             | 2          |
| 8/15/2019    | 46              | 62                 | 6              | 2          |
| 8/20/2020    | 34              | 50                 | 6              | 5          |
| 9/30/2020    | 45              | 53                 | 6              | 2          |

144 E. Schreyer Pl.



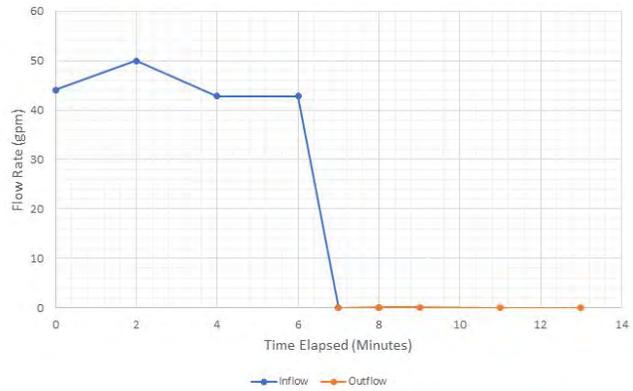
| Testing Date | Volume Red. (%) | Peak Flow Red. (%) | Lag Time (min) | ADP (days) |
|--------------|-----------------|--------------------|----------------|------------|
| 8/20/2020    | 34              | 50                 | 6              | 5          |
| 9/30/2020    | 45              | 53                 | 6              | 2          |

270 Village Dr



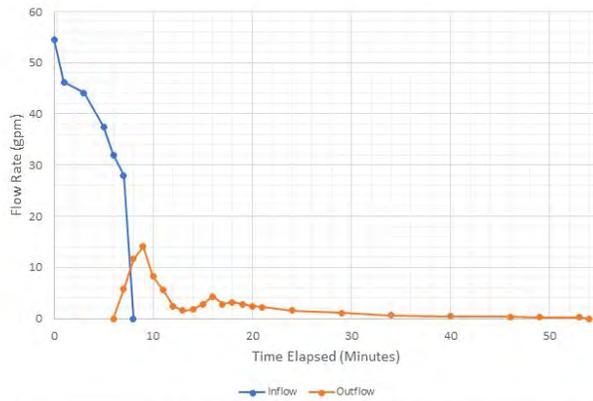
| Test Date | Volume Red. (%) | Peak Flow Red. (%) | Lag Time (min) | ADP (days) |
|-----------|-----------------|--------------------|----------------|------------|
| 5/8/2019  | 90              | 73                 | 10             | 4          |
| 8/15/2019 | 70              | 73                 | 6              | 2          |
| 8/20/2020 | 86              | 77                 | 6              | 5          |
| 9/30/2020 | 85              | 74                 | 7              | 2          |

240 Village Dr



| Test Date | Volume Red. (%) | Peak Flow Red. (%) | Lag Time (min) | ADP (days) |
|-----------|-----------------|--------------------|----------------|------------|
| 8/20/2020 | 99              | 100                | 5              | 5          |
| 9/30/2020 | 99              | 100                | 8              | 2          |

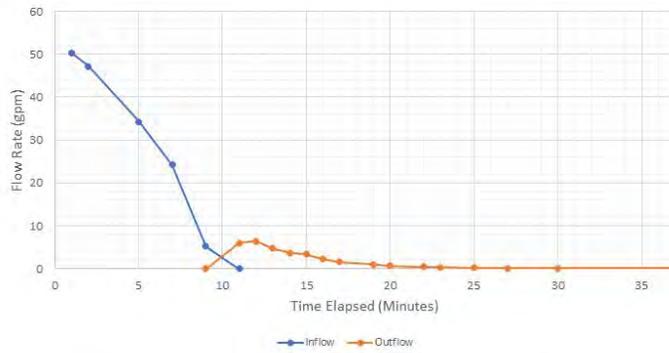
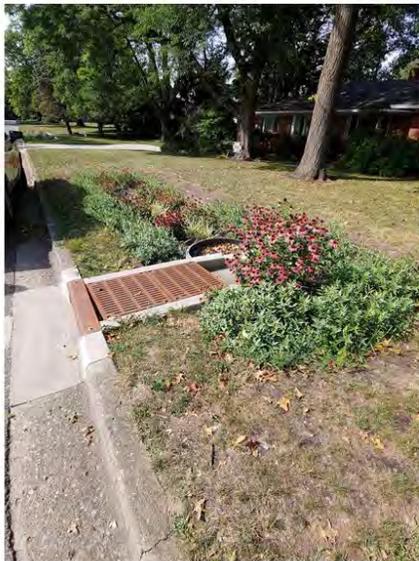
4290 Fair Oaks Dr



| Test Date  | Volume Red. (%) | Peak Flow Red. (%) | Lag Time (min) | ADP (days) |
|------------|-----------------|--------------------|----------------|------------|
| 5/8/2019   | 16*             | 72                 | 9              | 0          |
| 10/24/2019 | 47              | 86                 | 13             | 3          |
| 8/20/2020  | 52              | 74                 | 7              | 5          |
| 9/30/2020  | 11              | 79                 | 7              | 2          |

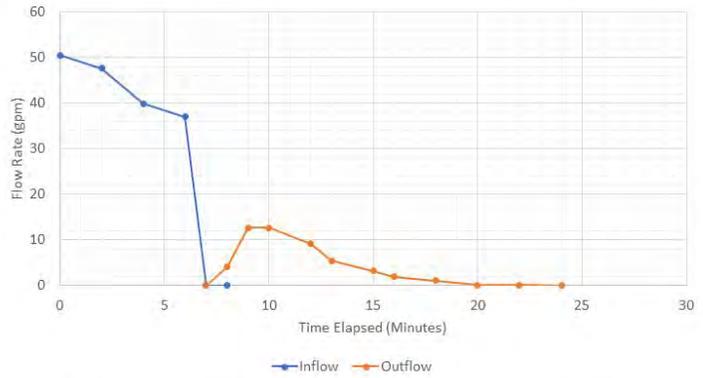
\*Note: Test was performed approximately 1-hr after a previous test, which was halted when it was discovered a blockage in the underdrain that was subsequently removed.

4287 Colerain Ave



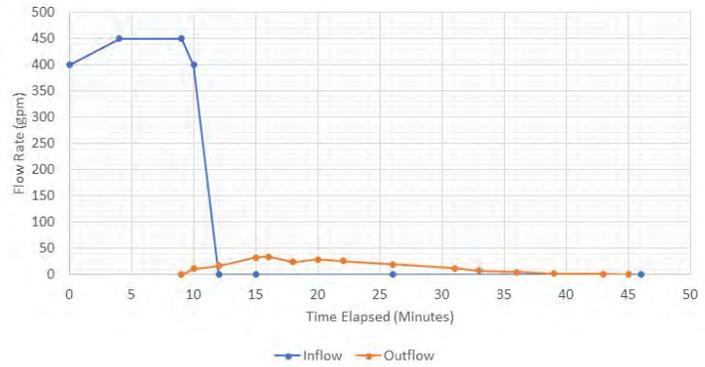
| Test Date  | Volume Red. (%) | Peak Flow Red. (%) | Lag Time (min) | ADP (days) |
|------------|-----------------|--------------------|----------------|------------|
| 5/8/2019   | 65              | 68                 | 11             | 4          |
| 10/24/2019 | 65              | 87                 | 9              | 3          |
| 8/20/2020  | 99              | 99                 | 14             | 5          |
| 9/30/2020  | 88              | 93                 | 11             | 2          |

Across from 4268 Colerain Ave



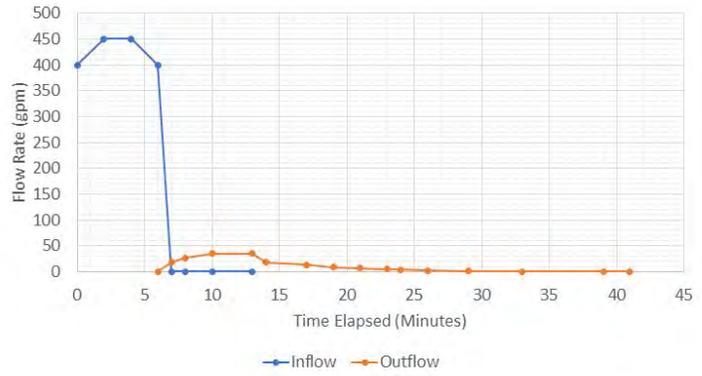
| Test Date | Volume Red. (%) | Peak Flow Red. (%) | Lag Time (min) | ADP (days) |
|-----------|-----------------|--------------------|----------------|------------|
| 8/20/2020 | 57              | 69                 | 6              | 5          |
| 9/30/2020 | 62              | 75                 | 7              | 2          |

45 Glenmont Ave



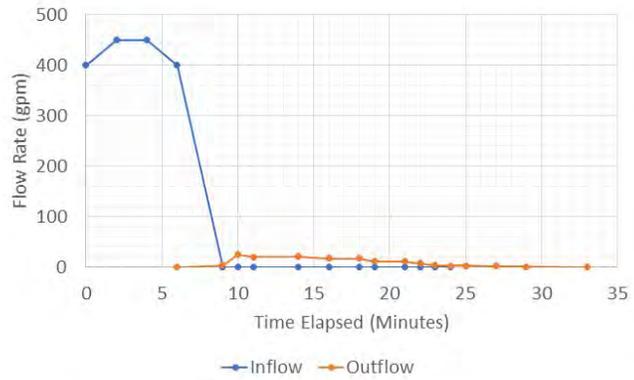
| Test Date  | Volume Red. (%) | Peak Flow Red. (%) | Lag Time (min) | ADP (days) |
|------------|-----------------|--------------------|----------------|------------|
| 9/24/2020  | 84              | 92                 | 8              | 9          |
| 10/15/2020 | 88              | 95                 | 9              | 3          |
| 11/5/2020  | 85              | 93                 | 10             | 8          |

107 Glenmont Ave



| Test Date  | Volume Red. (%) | Peak Flow Red. (%) | Lag Time (min) | ADP (days) |
|------------|-----------------|--------------------|----------------|------------|
| 9/24/2020  | 81.7            | 94.7               | 3              | 9          |
| 10/15/2020 | 72.8            | 92.3               | 6              | 3          |
| 11/5/2020  | 73.5            | 86.5               | 6              | 8          |

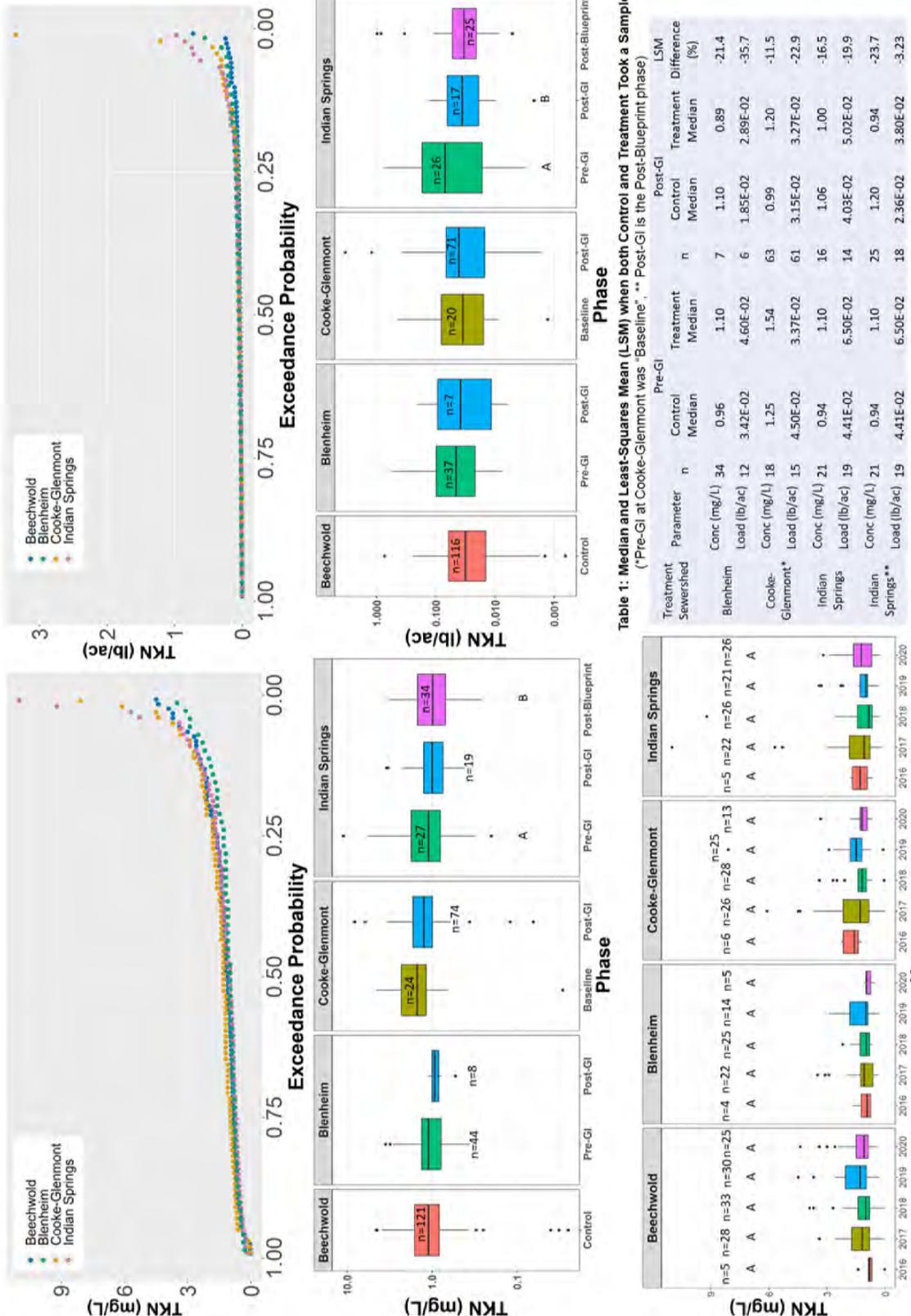
192 Glenmont Ave



| Testing Date | Volume Red. (%) | Peak Flow Red. (%) | Lag Time (min) | ADP (days) |
|--------------|-----------------|--------------------|----------------|------------|
| 9/24/2020    | 81.7            | 94.7               | 3              | 9          |
| 10/15/2020   | 72.8            | 92.3               | 6              | 3          |
| 11/5/2020    | 73.5            | 86.5               | 6              | 8          |

## **Appendix D: Graphical and Tabular Analysis of Pollutant Concentration and Load**

Note: Table 2 in each of the following figures contains interpretations comparing project phase (pre- versus post-GSI or pre-GI versus post-Blueprint)) are a result of ANCOVA analysis, interpretations comparing sewersheds (Treatment versus Control) are a result of paired t-test analysis for the post-GSI phase, and “-” indicate too few data to produce the adequate linear relationship required for analysis.



**Table 1: Median and Least-Squares Mean (LSM) when both Control and Treatment Took a Sample**  
 (\*Pre-GI at Cooke-Glenmont was "Baseline", \*\* Post-GI is the Post-Blueprint phase)

| Treatment Sewershed | Parameter    | n  | Pre-GI         |                  | Post-GI        |                  | LSM Difference (%) |       |
|---------------------|--------------|----|----------------|------------------|----------------|------------------|--------------------|-------|
|                     |              |    | Control Median | Treatment Median | Control Median | Treatment Median |                    |       |
| Blenheim            | Conc (mg/L)  | 34 | 0.96           | 1.10             | 1.10           | 0.89             | -21.4              |       |
|                     | Load (lb/ac) | 12 | 3.42E-02       | 4.60E-02         | 6              | 1.85E-02         | 2.89E-02           | -35.7 |
| Cooke-Glenmont*     | Conc (mg/L)  | 18 | 1.25           | 1.54             | 63             | 0.99             | 1.20               | -11.5 |
|                     | Load (lb/ac) | 15 | 4.50E-02       | 3.37E-02         | 61             | 3.15E-02         | 3.27E-02           | -22.9 |
| Indian Springs      | Conc (mg/L)  | 21 | 0.94           | 1.10             | 16             | 1.06             | 1.00               | -16.5 |
|                     | Load (lb/ac) | 19 | 4.41E-02       | 6.50E-02         | 14             | 4.03E-02         | 5.02E-02           | -19.9 |
| Indian Springs**    | Conc (mg/L)  | 21 | 0.94           | 1.10             | 25             | 1.20             | 0.94               | -23.7 |
|                     | Load (lb/ac) | 19 | 4.41E-02       | 6.50E-02         | 18             | 2.36E-02         | 3.80E-02           | -3.23 |

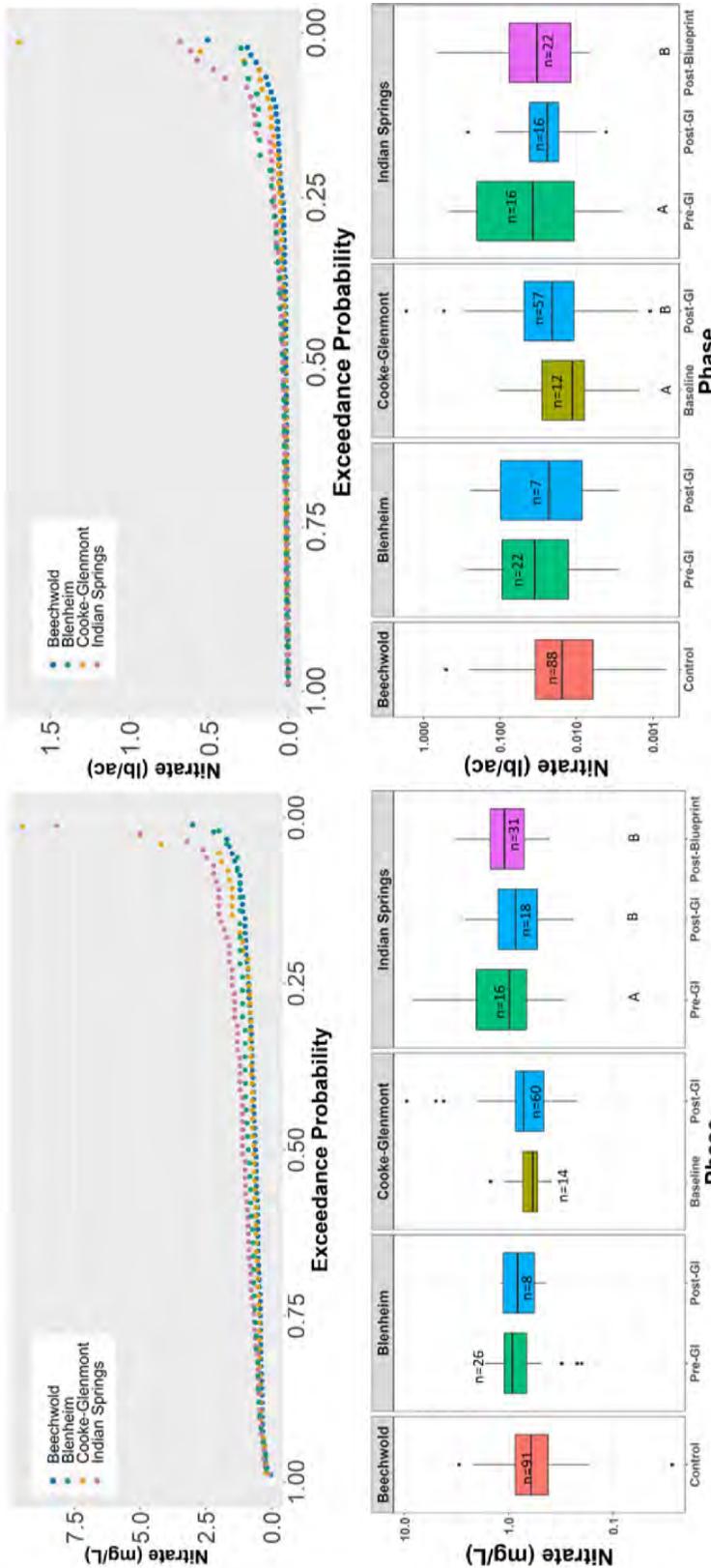
**Table 3: Statistics by Project Phase for all Sampled Events**

| Treatment Sewershed | Parameter | n   | Concentration (mg/L) |      |     | Load (lb/ac) |     |          | Mean+/SD |          |                 |
|---------------------|-----------|-----|----------------------|------|-----|--------------|-----|----------|----------|----------|-----------------|
|                     |           |     | Min                  | Med  | Max | Min          | Med | Max      |          |          |                 |
| Beechwood           | Conc      | 121 | 0.025                | 1.1  | 4.5 | 1.37+/-0.864 | 116 | 6.43E-04 | 3.15E-02 | 7.31E-01 | 0.0534+/-0.0814 |
|                     | Load      | 44  | 0.36                 | 1.1  | 3.5 | 1.21+/-0.679 | 37  | 7.52E-03 | 4.54E-02 | 5.54E-01 | 0.0796+/-0.103  |
|                     | Conc      | 8   | 0.53                 | 0.93 | 1.1 | 0.89+/-0.177 | 7   | 6.00E-03 | 3.83E-02 | 2.05E-01 | 0.0668+/-0.0726 |
| Blenheim            | Conc      | 24  | 0.029                | 1.5  | 4.5 | 1.81+/-1.13  | 20  | 1.28E-03 | 3.48E-02 | 4.44E-01 | 0.0887+/-0.121  |
|                     | Load      | 74  | 0.064                | 1.25 | 8.1 | 1.52+/-1.15  | 71  | 1.62E-03 | 4.06E-02 | 3.35E+00 | 0.126+/-0.419   |
|                     | Conc      | 27  | 0.2                  | 1.1  | 11  | 1.86+/-2.25  | 26  | 3.09E-03 | 7.02E-02 | 7.46E-01 | 0.131+/-0.194   |
| Cooke-Glenmont      | Conc      | 19  | 0.41                 | 1    | 3.4 | 1.23+/-0.844 | 17  | 2.19E-03 | 3.61E-02 | 1.30E-01 | 0.0466+/-0.037  |
|                     | Load      | 34  | 0.26                 | 0.98 | 3.2 | 1.24+/-0.734 | 25  | 5.10E-03 | 3.32E-02 | 9.76E-01 | 0.118+/-0.248   |
|                     | Conc      | 19  | 0.41                 | 1    | 3.4 | 1.23+/-0.844 | 17  | 2.19E-03 | 3.61E-02 | 1.30E-01 | 0.0466+/-0.037  |

**Table 2: Statistical Results and Interpretation**

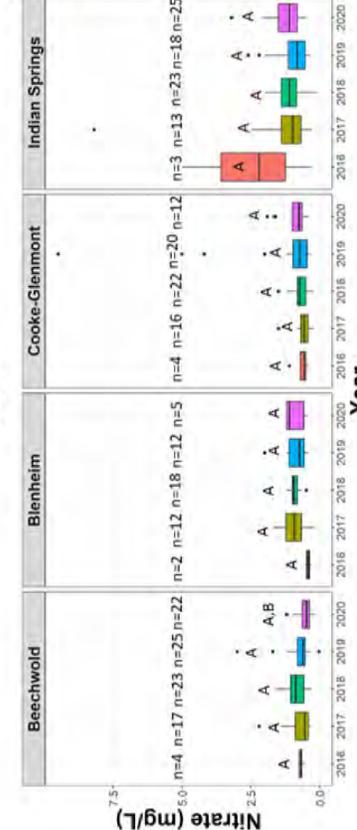
| Treatment Sewershed | Parameter              | ANCOVA type | p-value            | Interpretation |
|---------------------|------------------------|-------------|--------------------|----------------|
| Blenheim            | Conc (mg/L) intercept  | 0.148       | No sig. difference |                |
|                     | Load (lb/ac) intercept | 0.546       | No sig. difference |                |
| Cooke-Glenmont      | Conc (mg/L) intercept  | 0.578       | No sig. difference |                |
|                     | Load (lb/ac) intercept | 0.789       | No sig. difference |                |
| Indian Springs      | Conc (mg/L) intercept  | 0.199       | No sig. difference |                |
|                     | Load (lb/ac) slope     | 0.030       | Pre-GI>Post-GI     |                |
| Indian Springs      | Conc (mg/L) intercept  | 0.036       | Pre-GI>post-BP     |                |
|                     | Load (lb/ac) intercept | 0.480       | No sig. difference |                |

Figure 31. Summary statistics of TKN in water quality samples collected from Clintonville sewersheds and results of analyses comparing project phases. Significant differences ( $p < 0.05$ ), determined from Kruskal-Wallis/Dunn's test with Bonferroni corrections, are represented by different letters in box plots. Asterisk denotes differences were significant at  $p < 0.1$ .



**Table 1: Median and Least-Squares Mean (LSM) when both Control and Treatment Took a Sample**  
 (\*Pre-GI at Cooke-Glenmont was "Baseline", \*\* Post-GI is the Post-Blueprint phase)

| Treatment Sewershed | Parameter    | n  | Pre-GI         |                  | Post-GI        |                  | Treatment Difference (%) | LSM |
|---------------------|--------------|----|----------------|------------------|----------------|------------------|--------------------------|-----|
|                     |              |    | Control Median | Treatment Median | Control Median | Treatment Median |                          |     |
| Blenheim            | Conc (mg/L)  | 20 | 0.62           | 0.89             | 0.34           | 0.59             | -8.4                     |     |
|                     | Load (lb/ac) | 6  | 1.61E-02       | 1.81E-02         | 5.62E-03       | 1.88E-02         | 4.4                      |     |
| Cooke-Glenmont      | Conc (mg/L)  | 10 | 0.63           | 0.58             | 0.63           | 0.72             | 20.8                     |     |
|                     | Load (lb/ac) | 9  | 3.34E-02       | 1.28E-02         | 1.64E-02       | 1.71E-02         | 16.2                     |     |
| Indian Springs      | Conc (mg/L)  | 13 | 0.56           | 0.99             | 0.81           | 0.82             | -22.7                    |     |
|                     | Load (lb/ac) | 13 | 1.06E-02       | 1.49E-02         | 1.59E-02       | 2.56E-02         | -3.0                     |     |
| Indian Springs**    | Conc (mg/L)  | 13 | 0.56           | 0.99             | 0.45           | 1.10             | -10.1                    |     |
|                     | Load (lb/ac) | 13 | 1.06E-02       | 1.49E-02         | 8.94E-03       | 3.96E-02         | 22.7                     |     |



**Table 3: Statistics by Project Phase for all Sampled Events**

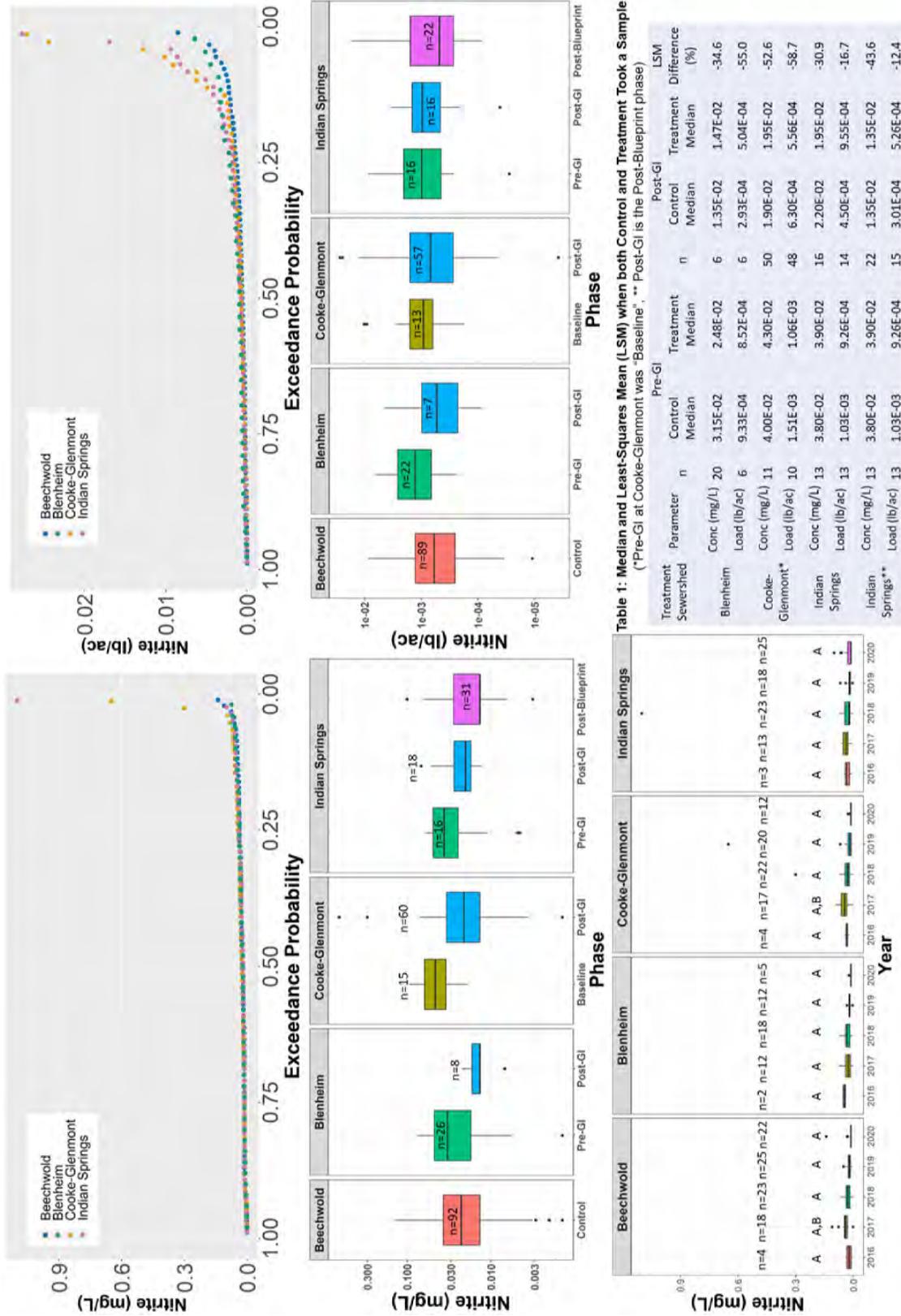
| Treatment Sewershed | Parameter    | n  | Concentration (mg/L) |       |     | Load (lb/ac)    |     |          | Mean +/- SD |          |                   |
|---------------------|--------------|----|----------------------|-------|-----|-----------------|-----|----------|-------------|----------|-------------------|
|                     |              |    | Min                  | Med   | Max | Min             | Med | Max      |             |          |                   |
| Beechwald           | Conc (mg/L)  | 91 | 0.027                | 0.61  | 3   | 0.712 +/- 0.433 | 88  | 6.65E-04 | 1.54E-02    | 5.06E-01 | 0.0378 +/- 0.0704 |
|                     | Load (lb/ac) | 26 | 0.2                  | 0.92  | 1.7 | 0.874 +/- 0.357 | 22  | 2.77E-03 | 3.54E-02    | 2.71E-01 | 0.0684 +/- 0.0774 |
| Blenheim            | Conc (mg/L)  | 8  | 0.44                 | 0.855 | 1.2 | 0.845 +/- 0.332 | 7   | 2.77E-03 | 2.28E-02    | 2.46E-01 | 0.07 +/- 0.0887   |
|                     | Load (lb/ac) | 14 | 0.39                 | 0.585 | 1.5 | 0.734 +/- 0.366 | 12  | 1.51E-03 | 1.14E-02    | 1.04E-01 | 0.029 +/- 0.0358  |
| Cooke-Glenmont      | Conc (mg/L)  | 60 | 0.22                 | 0.72  | 9.5 | 1.02 +/- 1.37   | 57  | 1.08E-03 | 2.07E-02    | 1.67E+00 | 0.0777 +/- 0.23   |
|                     | Load (lb/ac) | 16 | 0.29                 | 0.99  | 8.2 | 1.79 +/- 2.07   | 16  | 2.54E-03 | 4.26E-02    | 4.67E-01 | 0.103 +/- 0.13    |
| Indian Springs      | Conc (mg/L)  | 18 | 0.24                 | 0.86  | 2.6 | 0.987 +/- 0.636 | 16  | 4.09E-03 | 2.40E-02    | 2.61E-01 | 0.0481 +/- 0.0647 |
|                     | Load (lb/ac) | 31 | 0.41                 | 1.1   | 3.2 | 1.18 +/- 0.619  | 22  | 6.68E-03 | 3.29E-02    | 6.65E-01 | 0.09 +/- 0.173    |

**Table 2: Statistical Results and Interpretation**

| Treatment Sewershed | Parameter    | ANCOVA type | p-value | Interpretation     |
|---------------------|--------------|-------------|---------|--------------------|
| Blenheim            | Conc (mg/L)  | slope       | 0.041*  | No sig. difference |
|                     | Load (lb/ac) | intercept   | 0.599   | No sig. difference |
| Cooke-Glenmont      | Conc (mg/L)  | intercept   | 0.359   | No sig. difference |
|                     | Load (lb/ac) | intercept   | 0.430   | No sig. difference |
| Indian Springs      | Conc (mg/L)  | slope       | 0.036*  | Pre-GI > Post-GI   |
|                     | Load (lb/ac) | intercept   | 0.989   | No sig. difference |
| Indian Springs      | Conc (mg/L)  | slope       | 0.033*  | Pre-GI > Post-BP   |
|                     | Load (lb/ac) | intercept   | 0.033   | Pre-GI < Post-BP   |

\*model residuals were not normally distributed

Figure 32. Summary statistics of Nitrate in water quality samples collected from Clintonville sewersheds and results of analyses comparing project phases. Significant differences ( $p < 0.05$ ), determined from Kruskal-Wallis/Dunn's test with Bonferroni corrections, are represented by different letters in box plots. Asterisk denotes differences were significant at  $p < 0.1$ .



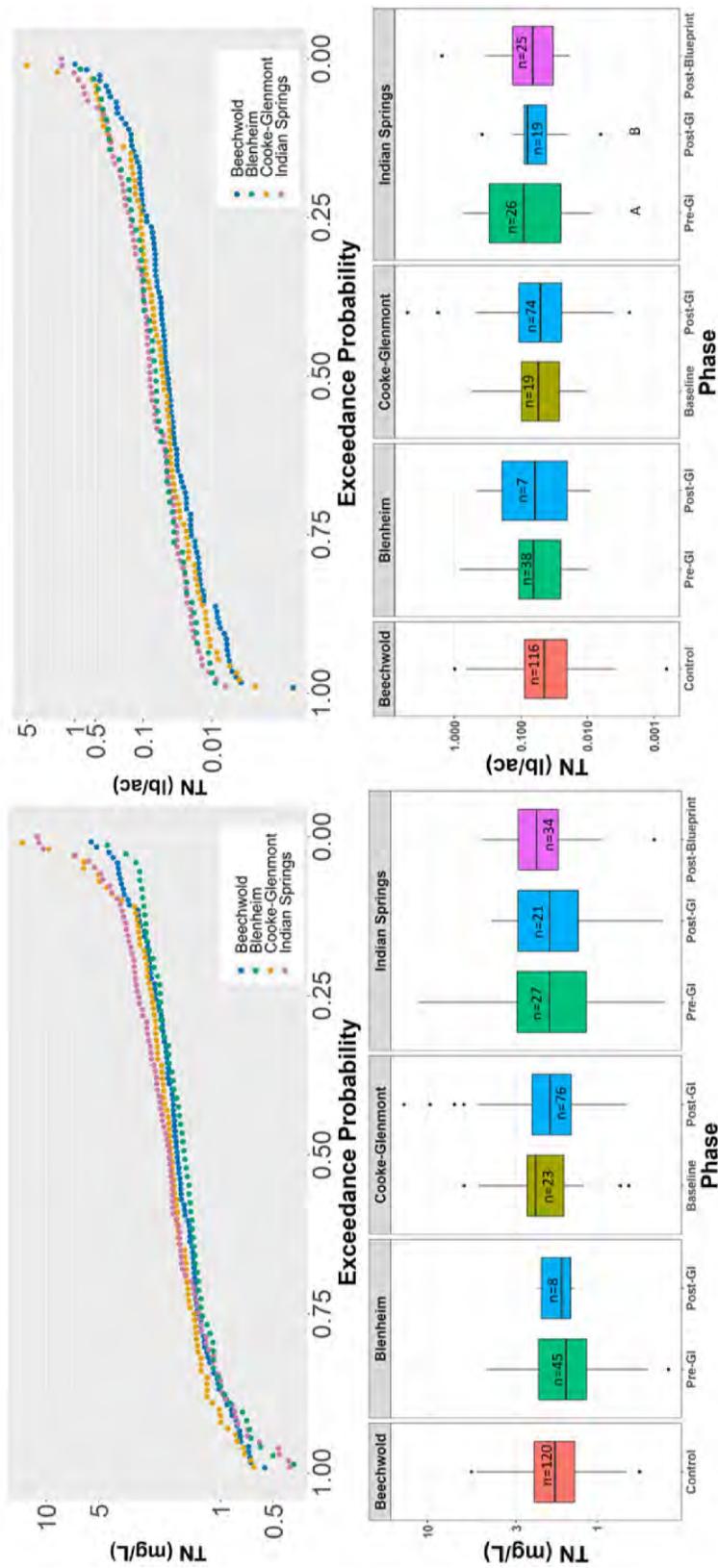
**Table 3: Statistics by Project Phase for all Sampled Events**

| Treatment Sewershed | Parameter    | n  | Concentration (mg/L) |        |       | Load (lb/ac)    |     |          | Mean+/SD |          |                   |
|---------------------|--------------|----|----------------------|--------|-------|-----------------|-----|----------|----------|----------|-------------------|
|                     |              |    | Min                  | Med    | Max   | Min             | Med | Max      |          |          |                   |
| Beechwald           | Conc (mg/L)  | 92 | 0.0014               | 0.0225 | 0.14  | 0.0276+/-0.0211 | 89  | 1.09E-05 | 5.92E-04 | 8.50E-03 | 0.00105+/-0.00137 |
|                     | Load (lb/ac) | 26 | 0.0014               | 0.033  | 0.075 | 0.0332+/-0.0205 | 22  | 2.35E-04 | 1.29E-03 | 6.46E-03 | 0.00183+/-0.00161 |
| Blenheim            | Conc (mg/L)  | 8  | 0.0068               | 0.0135 | 0.022 | 0.0147+/-0.0045 | 7   | 8.50E-05 | 5.30E-04 | 4.52E-03 | 0.00111+/-0.00156 |
|                     | Load (lb/ac) | 15 | 0.019                | 0.046  | 0.094 | 0.0488+/-0.0216 | 13  | 1.79E-04 | 9.07E-04 | 1.02E-02 | 0.00233+/-0.00332 |
| Cooke-Glenmont      | Conc (mg/L)  | 60 | 0.0014               | 0.021  | 0.05  | 0.0393+/-0.0892 | 57  | 3.78E-06 | 6.89E-04 | 2.71E-02 | 0.00212+/-0.00499 |
|                     | Load (lb/ac) | 16 | 0.0045               | 0.036  | 0.061 | 0.0344+/-0.018  | 16  | 2.78E-05 | 9.79E-04 | 8.59E-03 | 0.00194+/-0.00249 |
| Indian Springs      | Conc (mg/L)  | 18 | 0.013                | 0.02   | 0.068 | 0.0253+/-0.0143 | 16  | 4.09E-05 | 9.57E-04 | 3.44E-03 | 0.0011+/-0.000912 |
|                     | Load (lb/ac) | 31 | 0.00315              | 0.0135 | 0.1   | 0.023+/-0.0202  | 22  | 8.41E-05 | 4.78E-04 | 1.69E-02 | 0.00198+/-0.00393 |

**Table 2: Statistical Results and Interpretation**

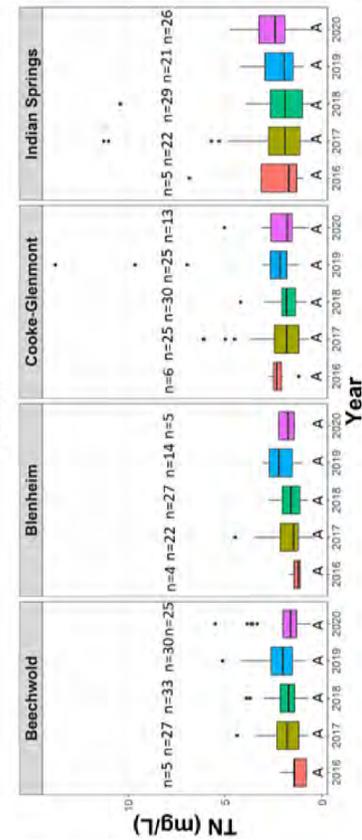
| Treatment Sewershed | Parameter    | ANCOVA type | p-value | interpretation     |
|---------------------|--------------|-------------|---------|--------------------|
| Blenheim            | Conc (mg/L)  | intercept   | 0.410   | No sig. difference |
|                     | Load (lb/ac) | intercept   | 0.393   | No sig. difference |
| Cooke-Glenmont      | Conc (mg/L)  | intercept   | 0.055   | No sig. difference |
|                     | Load (lb/ac) | intercept   | 0.229   | No sig. difference |
| Indian Springs      | Conc (mg/L)  | intercept   | 0.145   | No sig. difference |
|                     | Load (lb/ac) | intercept   | 0.855   | No sig. difference |
| Indian Springs      | Conc (mg/L)  | intercept   | 0.092   | No sig. difference |
|                     | Load (lb/ac) | intercept   | 0.567   | No sig. difference |

Figure 33. Summary statistics of Nitrite in water quality samples collected from Clintonville sewersheds and results of analyses comparing project phases. Significant differences ( $p < 0.05$ ), determined from Kruskal-Wallis/Dunn's test with Bonferroni corrections, are represented by different letters in box plots. Asterisk denotes differences were significant at  $p < 0.1$ .



**Table 1: Median and Least-Squares Mean (LSM) when both Control and Treatment Took a Sample**  
 (\*Pre-GI at Cooke-Glenmont was "Baseline", \*\* Post-GI is the Post-Treatment phase)

| Treatment Sewershed | Parameter    | n  | Pre-GI         |                  | Post-GI        |                  | LSM Difference (%) |
|---------------------|--------------|----|----------------|------------------|----------------|------------------|--------------------|
|                     |              |    | Control Median | Treatment Median | Control Median | Treatment Median |                    |
| Blenheim            | Conc (mg/L)  | 35 | 1.60           | 1.52             | 7              | 1.37             | 4.0                |
|                     | Load (lb/ac) | 12 | 4.84E-02       | 5.85E-02         | 6              | 2.59E-02         | 4.82E-02           |
| Cooke-Glenmont*     | Conc (mg/L)  | 17 | 1.70           | 2.35             | 63             | 1.62             | 1.87               |
|                     | Load (lb/ac) | 14 | 6.66E-02       | 6.19E-02         | 62             | 4.75E-02         | 4.71E-02           |
| Indian Springs      | Conc (mg/L)  | 21 | 1.74           | 1.91             | 18             | 1.94             | 1.81               |
|                     | Load (lb/ac) | 19 | 4.85E-02       | 8.10E-02         | 16             | 5.18E-02         | 8.21E-02           |
| Indian Springs**    | Conc (mg/L)  | 21 | 1.74           | 1.91             | 25             | 1.76             | 2.03               |
|                     | Load (lb/ac) | 19 | 4.85E-02       | 8.10E-02         | 18             | 3.06E-02         | 6.67E-02           |



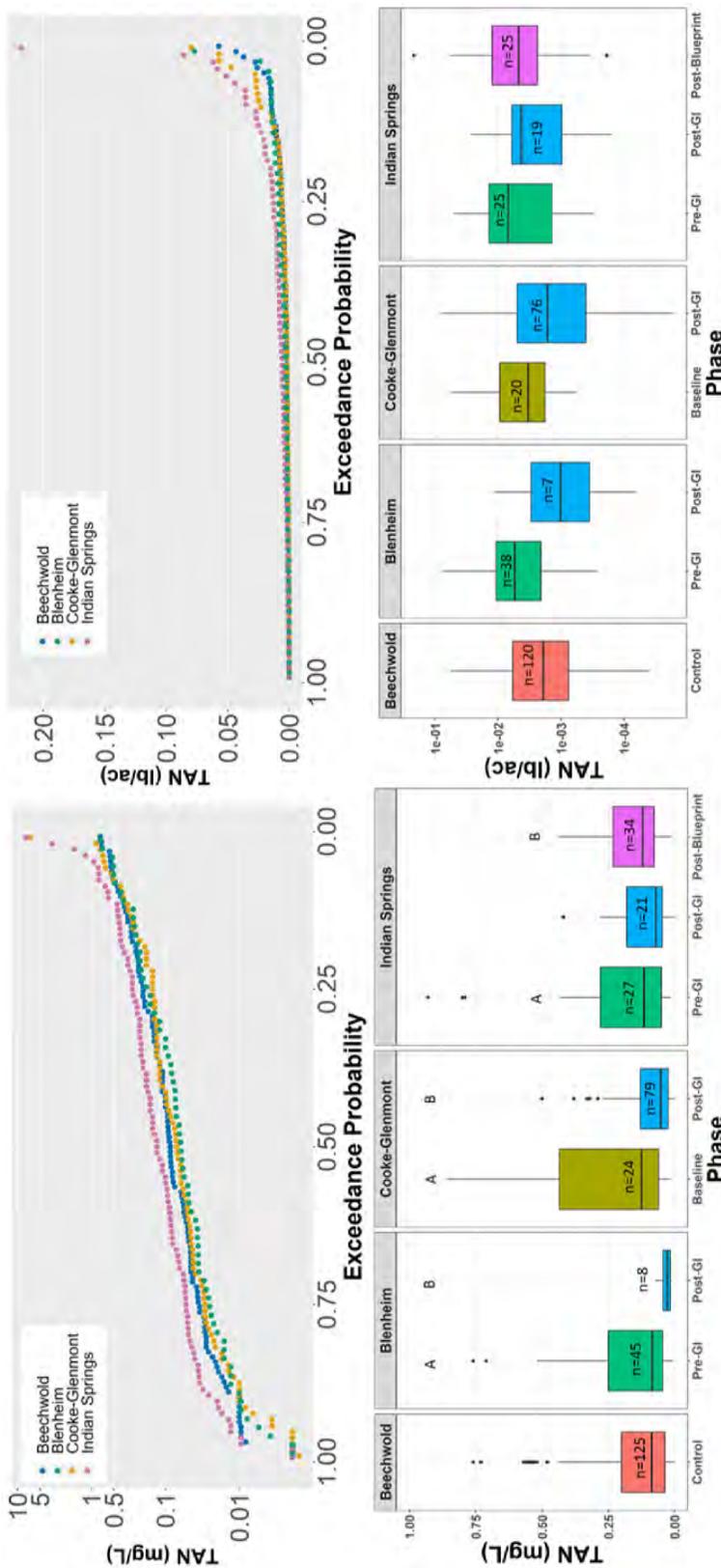
**Table 3: Statistics by Project Phase for all Sampled Events**

| Treatment Sewershed | Parameter    | n   | Concentration (mg/L) |        | Load (lb/ac) |              |     |          |          | Mean+/-SD |                 |
|---------------------|--------------|-----|----------------------|--------|--------------|--------------|-----|----------|----------|-----------|-----------------|
|                     |              |     | Min                  | Med    | Max          | Mean+/-SD    | n   | Min      | Med      |           | Max             |
| Blenheim            | Conc (mg/L)  | 120 | 0.56                 | 1.7715 | 5.51         | 1.94+/-0.939 | 116 | 6.43E-04 | 4.41E-02 | 9.88E-01  | 0.0829+/-0.131  |
|                     | Load (lb/ac) | 45  | 0.38                 | 1.521  | 4.475        | 1.71+/-0.824 | 38  | 9.99E-03 | 6.44E-02 | 8.29E-01  | 0.118+/-0.159   |
| Cooke-Glenmont      | Conc (mg/L)  | 8   | 1.3635               | 1.6163 | 2.222        | 1.75+/-0.376 | 7   | 8.97E-03 | 6.18E-02 | 4.56E-01  | 0.138+/-0.162   |
|                     | Load (lb/ac) | 23  | 0.65                 | 2.3    | 6.083        | 2.36+/-1.34  | 19  | 1.06E-02 | 5.43E-02 | 5.56E-01  | 0.113+/-0.149   |
| Indian Springs      | Conc (mg/L)  | 76  | 0.67                 | 1.8886 | 13.75        | 2.31+/-1.9   | 74  | 2.32E-03 | 5.10E-02 | 5.04E+00  | 0.182+/-0.616   |
|                     | Load (lb/ac) | 27  | 0.4                  | 1.9    | 11.24        | 2.94+/-2.85  | 26  | 8.56E-03 | 9.08E-02 | 7.46E-01  | 0.195+/-0.227   |
| Indian Springs      | Conc (mg/L)  | 21  | 0.41                 | 1.897  | 4.228        | 1.98+/-1.09  | 19  | 6.32E-03 | 7.99E-02 | 3.82E-01  | 0.0831+/-0.0799 |
|                     | Load (lb/ac) | 34  | 0.46                 | 2.2725 | 4.746        | 2.34+/-0.964 | 25  | 1.84E-02 | 6.67E-02 | 1.55E+00  | 0.199+/-0.41    |

**Table 2: Statistical Results and Interpretation**

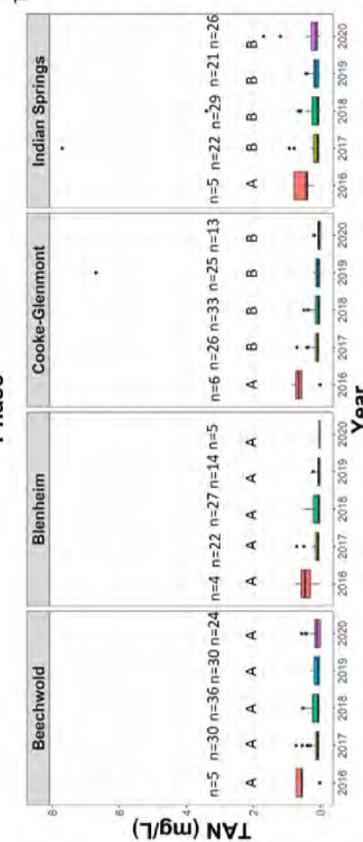
| Treatment Sewershed | Parameter              | ANCOVA type | p-value            | Interpretation |
|---------------------|------------------------|-------------|--------------------|----------------|
| Blenheim            | Conc (mg/L) intercept  | 0.543       | No sig. difference |                |
|                     | Load (lb/ac) intercept | 0.968       | No sig. difference |                |
| Cooke-Glenmont      | Conc (mg/L) intercept  | 0.321       | No sig. difference |                |
|                     | Load (lb/ac) intercept | 0.451       | No sig. difference |                |
| Indian Springs      | Conc (mg/L) intercept  | 0.061       | No sig. difference |                |
|                     | Load (lb/ac) slope     | 0.029       | Pre-GI>Post-GI     |                |
| Indian Springs      | Conc (mg/L) intercept  | 0.130       | No sig. difference |                |
|                     | Load (lb/ac) intercept | 0.336       | No sig. difference |                |

Figure 34. Summary statistics of TN in water quality samples collected from Clintonville sewersheds and results of analyses comparing project phases. Significant differences ( $p < 0.05$ ), determined from Kruskal-Wallis/Dunn's test with Bonferroni corrections, are represented by different letters in box plots. Asterisk denotes differences were significant at  $p < 0.1$ .



**Table 1: Median and Least-Squares Mean (LSM) when both Control and Treatment Took a Sample**  
 (\*Pre-GI at Cooke-Glenmont was "Baseline", \*\* Post-GI is the Post-Blueprint phase)

| Treatment Sewershed | Parameter    | Pre-GI         |    | Post-GI          |    | LSM              |                |       |
|---------------------|--------------|----------------|----|------------------|----|------------------|----------------|-------|
|                     |              | Control Median | n  | Treatment Median | n  | Treatment Median | Difference (%) |       |
| Blenheim            | Conc (mg/L)  | 0.09           | 37 | 0.09             | 7  | 0.04             | 0.03           | -69.4 |
|                     | Load (lb/ac) | 4.15E-03       | 13 | 7.72E-03         | 6  | 9.26E-04         | 6.40E-04       | -84.1 |
| Cooke-Glenmont*     | Conc (mg/L)  | 0.11           | 20 | 0.12             | 66 | 0.05             | 0.05           | -65.5 |
|                     | Load (lb/ac) | 4.42E-03       | 16 | 4.47E-03         | 64 | 1.59E-03         | 1.38E-03       | -72.7 |
| Indian Springs      | Conc (mg/L)  | 0.09           | 22 | 0.09             | 18 | 0.05             | 0.07           | -60.5 |
|                     | Load (lb/ac) | 2.48E-03       | 19 | 6.92E-03         | 16 | 1.86E-03         | 4.33E-03       | -47.1 |
| Indian Springs**    | Conc (mg/L)  | 0.09           | 22 | 0.19             | 24 | 0.04             | 0.13           | -25   |
|                     | Load (lb/ac) | 2.48E-03       | 19 | 6.92E-03         | 17 | 1.20E-03         | 4.65E-03       | -25   |



**Table 2: Statistical Results and Interpretation**

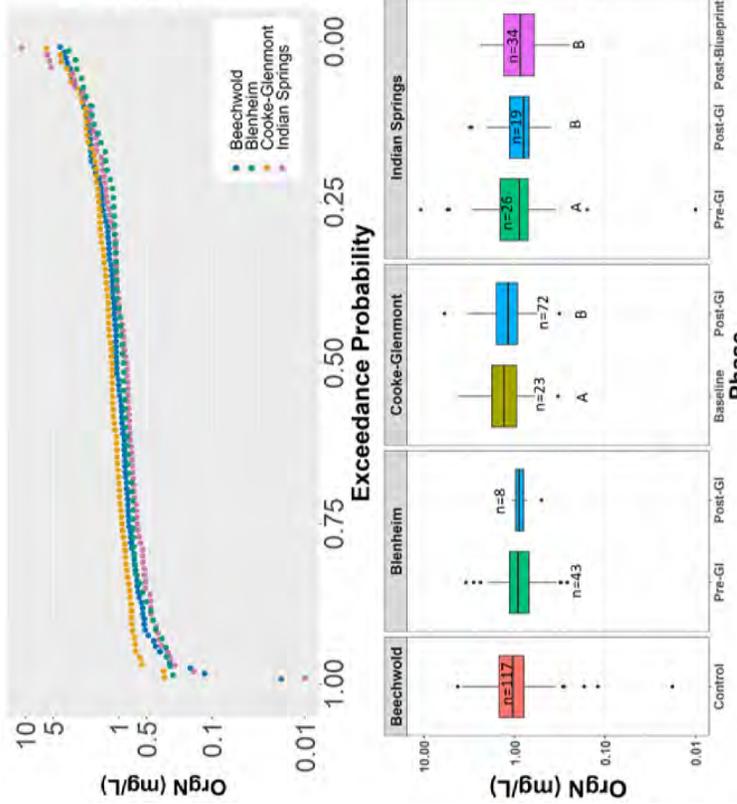
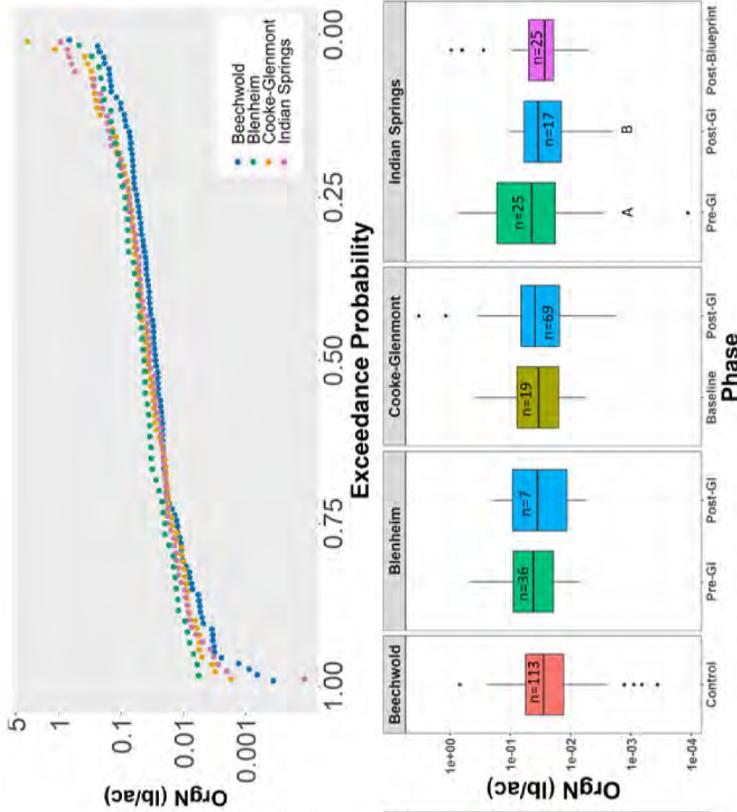
| Treatment Sewershed | Parameter    | ANCOVA type | p-value | Interpretation     |
|---------------------|--------------|-------------|---------|--------------------|
| Blenheim            | Conc (mg/L)  | intercept   | 0.046*  | Pre-GI>Post-GI     |
|                     | Load (lb/ac) | slope       | 0.086   | No sig. difference |
| Cooke-Glenmont      | Conc (mg/L)  | slope       | 0.025   | Baseline>Post-GI   |
|                     | Load (lb/ac) | intercept   | 0.097   | No sig. difference |
| Indian Springs      | Conc (mg/L)  | intercept   | 0.525   | No sig. difference |
|                     | Load (lb/ac) | intercept   | 0.669   | No sig. difference |
| Indian Springs      | Conc (mg/L)  | slope       | 0.002   | Pre-GI>Post-BP     |
|                     | Load (lb/ac) | intercept   | 0.131   | No sig. difference |

\*model residuals were not normally distributed

**Table 3: Statistics by Project Phase for all Sampled Events**

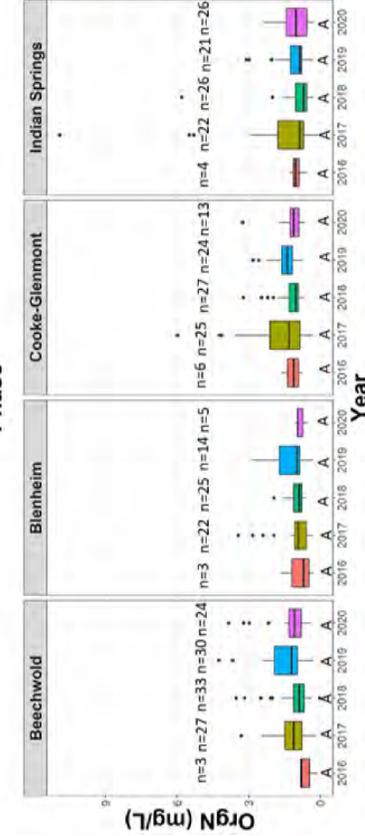
| Concentration (mg/L) | Load (lb/ac) |       |       |        |         |
|----------------------|--------------|-------|-------|--------|---------|
|                      | Min          | Med   | Mean  | Max    | Mean/SD |
| Conc                 | 0.0155       | 0.056 | 6.7   | 0.175  | 0.75    |
| Load                 | 0.0019       | 0.086 | 0.76  | 0.148  | 0.168   |
| Conc                 | 0.0055       | 0.084 | 0.76  | 0.175  | 0.191   |
| Load                 | 0.01         | 0.027 | 0.074 | 0.0328 | 0.0225  |
| Conc                 | 0.017        | 0.125 | 0.86  | 0.268  | 0.275   |
| Load                 | 0.00155      | 0.056 | 6.7   | 0.175  | 0.75    |
| Conc                 | 0.014        | 0.13  | 7.7   | 0.52   | 1.46    |
| Load                 | 0.0019       | 0.071 | 0.42  | 0.121  | 0.108   |
| Conc                 | 0.0095       | 0.13  | 1.7   | 0.236  | 0.337   |
| Load                 | 0.00155      | 0.056 | 6.7   | 0.175  | 0.75    |
| Conc                 | 0.0019       | 0.086 | 0.76  | 0.148  | 0.168   |
| Load                 | 0.01         | 0.027 | 0.074 | 0.0328 | 0.0225  |
| Conc                 | 0.017        | 0.125 | 0.86  | 0.268  | 0.275   |
| Load                 | 0.00155      | 0.056 | 6.7   | 0.175  | 0.75    |
| Conc                 | 0.014        | 0.13  | 7.7   | 0.52   | 1.46    |
| Load                 | 0.0019       | 0.071 | 0.42  | 0.121  | 0.108   |
| Conc                 | 0.0095       | 0.13  | 1.7   | 0.236  | 0.337   |
| Load                 | 0.00155      | 0.056 | 6.7   | 0.175  | 0.75    |

Figure 35. Summary statistics of TAN in water quality samples collected from Clintonville sewersheds and results of analyses comparing project phases. Significant differences ( $p < 0.05$ ), determined from Kruskal-Wallis/Dunn's test with Bonferroni corrections, are represented by different letters in box plots. Asterisk denotes differences were significant at  $p < 0.1$ .



**Table 1: Median and Least-Squares Mean (LSM) when both Control and Treatment Took a Sample**  
 (\*Pre-GI at Cooke-Glenmont was 'Baseline', \*\* Post-GI is the Post-Blueprint phase)

| Treatment Sewershed | Parameter    | n  | Pre-GI   |          | Post-GI |          | LSM Difference (%) |
|---------------------|--------------|----|----------|----------|---------|----------|--------------------|
|                     |              |    | Median   | Mean     | Median  | Mean     |                    |
| Blenheim            | Conc (mg/L)  | 32 | 0.91     | 0.97     | 7       | 1.01     | 0.84               |
|                     | Load (lb/ac) | 10 | 3.16E-02 | 4.30E-02 | 6       | 1.68E-02 | 2.74E-02           |
| Cooke-Glenmont*     | Conc (mg/L)  | 15 | 1.11     | 1.44     | 60      | 0.93     | 1.16               |
|                     | Load (lb/ac) | 13 | 3.93E-02 | 3.67E-02 | 58      | 3.01E-02 | 3.27E-02           |
| Indian Springs      | Conc (mg/L)  | 18 | 1.09     | 0.89     | 16      | 1.00     | 0.82               |
|                     | Load (lb/ac) | 17 | 3.70E-02 | 2.95E-02 | 14      | 3.69E-02 | 4.39E-02           |
| Indian Springs**    | Conc (mg/L)  | 18 | 1.09     | 0.89     | 24      | 1.06     | 0.78               |
|                     | Load (lb/ac) | 17 | 3.70E-02 | 2.95E-02 | 17      | 2.27E-02 | 3.39E-02           |



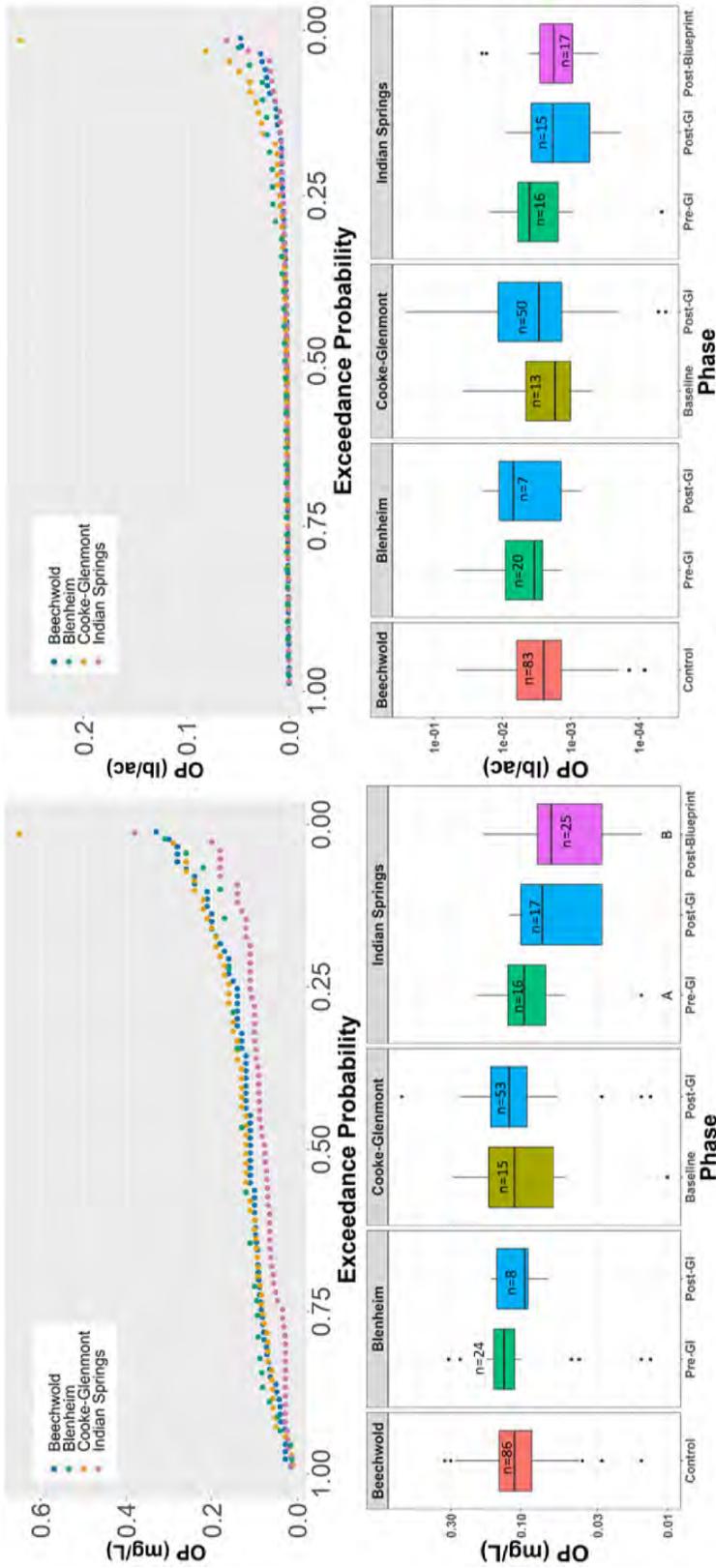
**Table 3: Statistics by Project Phase for all Sampled Events**

| Treatment Sewershed | Parameter    | n   | Concentration (mg/L) |        | n   | Load (lb/ac) |          | Mean+/SD |
|---------------------|--------------|-----|----------------------|--------|-----|--------------|----------|----------|
|                     |              |     | Min                  | Med    |     | Min          | Max      |          |
| Blenheim            | Conc (mg/L)  | 117 | 0.018                | 1.05   | 113 | 3.62E-04     | 2.81E-02 | 6.88E-01 |
|                     | Load (lb/ac) | 43  | 0.26                 | 0.9122 | 36  | 6.94E-03     | 4.17E-02 | 4.77E-01 |
| Cooke-Glenmont      | Conc (mg/L)  | 8   | 0.504                | 0.894  | 7   | 5.69E-03     | 3.51E-02 | 1.94E-01 |
|                     | Load (lb/ac) | 23  | 0.33                 | 1.302  | 19  | 5.59E-03     | 3.43E-02 | 3.87E-01 |
| Indian Springs      | Conc (mg/L)  | 72  | 0.321                | 1.175  | 69  | 1.73E-03     | 3.89E-02 | 3.27E-01 |
|                     | Load (lb/ac) | 26  | 0.01                 | 0.89   | 25  | 1.14E-04     | 4.41E-02 | 7.40E-01 |
| Indian Springs      | Conc (mg/L)  | 19  | 0.393                | 0.79   | 17  | 2.00E-03     | 3.46E-02 | 1.03E-01 |
|                     | Load (lb/ac) | 34  | 0.2505               | 0.8645 | 25  | 4.92E-03     | 2.66E-02 | 9.50E-01 |

**Table 2: Statistical Results and Interpretation**

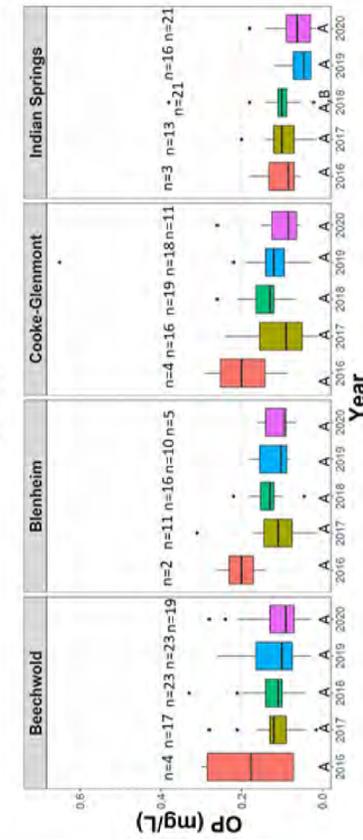
| Treatment Sewershed | Parameter              | ANCOVA type | p-value            | Interpretation |
|---------------------|------------------------|-------------|--------------------|----------------|
| Blenheim            | Conc (mg/L) intercept  | 0.286       | No sig. difference |                |
|                     | Load (lb/ac) intercept | 0.800       | No sig. difference |                |
| Cooke-Glenmont      | Conc (mg/L) intercept  | 0.038       | Baseline>Post-GI   |                |
|                     | Load (lb/ac) intercept | 0.140       | No sig. difference |                |
| Indian Springs      | Conc (mg/L) slope      | 0.015       | Pre-GI>Post-GI     |                |
|                     | Load (lb/ac) slope     | 0.013       | Pre-GI>Post-GI     |                |
| Indian Springs      | Conc (mg/L) slope      | 0.008       | Pre-GI>Post-BP     |                |
|                     | Load (lb/ac) intercept | 0.342       | No sig. difference |                |

Figure 36. Summary statistics of OrgN in water quality samples collected from Clintonville sewersheds and results of analyses comparing project phases. Significant differences ( $p < 0.05$ ), determined from Kruskal-Wallis/Dunn's test with Bonferroni corrections, are represented by different letters in box plots. Asterisk denotes differences were significant at  $p < 0.1$ .



**Table 1: Median and Least-Squares Mean (LSM) when both Control and Treatment Took a Sample**  
 (\*Pre-GI at Cooke-Glenmont was "Baseline", \*\* Post-GI is the Post-Blueprint phase)

| Treatment Sewserved | Parameter    | n  | Pre-GI         |                  | Post-GI        |                  | LSM Difference (%) |
|---------------------|--------------|----|----------------|------------------|----------------|------------------|--------------------|
|                     |              |    | Control Median | Treatment Median | Control Median | Treatment Median |                    |
| Blenheim            | Conc (mg/L)  | 20 | 0.11           | 0.13             | 0.12           | 0.09             | 5.4                |
|                     | Load (lb/ac) | 6  | 2.08E-03       | 2.76E-03         | 3.12E-03       | 3.80E-03         | 17.2               |
| Cooke-Glenmont*     | Conc (mg/L)  | 11 | 0.12           | 0.14             | 0.11           | 0.12             | 20.8               |
|                     | Load (lb/ac) | 10 | 4.47E-03       | 1.86E-03         | 2.70E-03       | 2.61E-03         | 1.8                |
| Indian Springs      | Conc (mg/L)  | 14 | 0.11           | 0.09             | 0.11           | 0.07             | -25.2              |
|                     | Load (lb/ac) | 14 | 2.43E-03       | 2.71E-03         | 1.84E-03       | 1.80E-03         | -27.1              |
| Indian Springs**    | Conc (mg/L)  | 14 | 0.11           | 0.09             | 0.10           | 0.05             | -41.9              |
|                     | Load (lb/ac) | 14 | 2.43E-03       | 2.71E-03         | 2.68E-03       | 2.24E-03         | -5.98              |



**Table 3: Statistics by Project Phase for all Sampled Events**

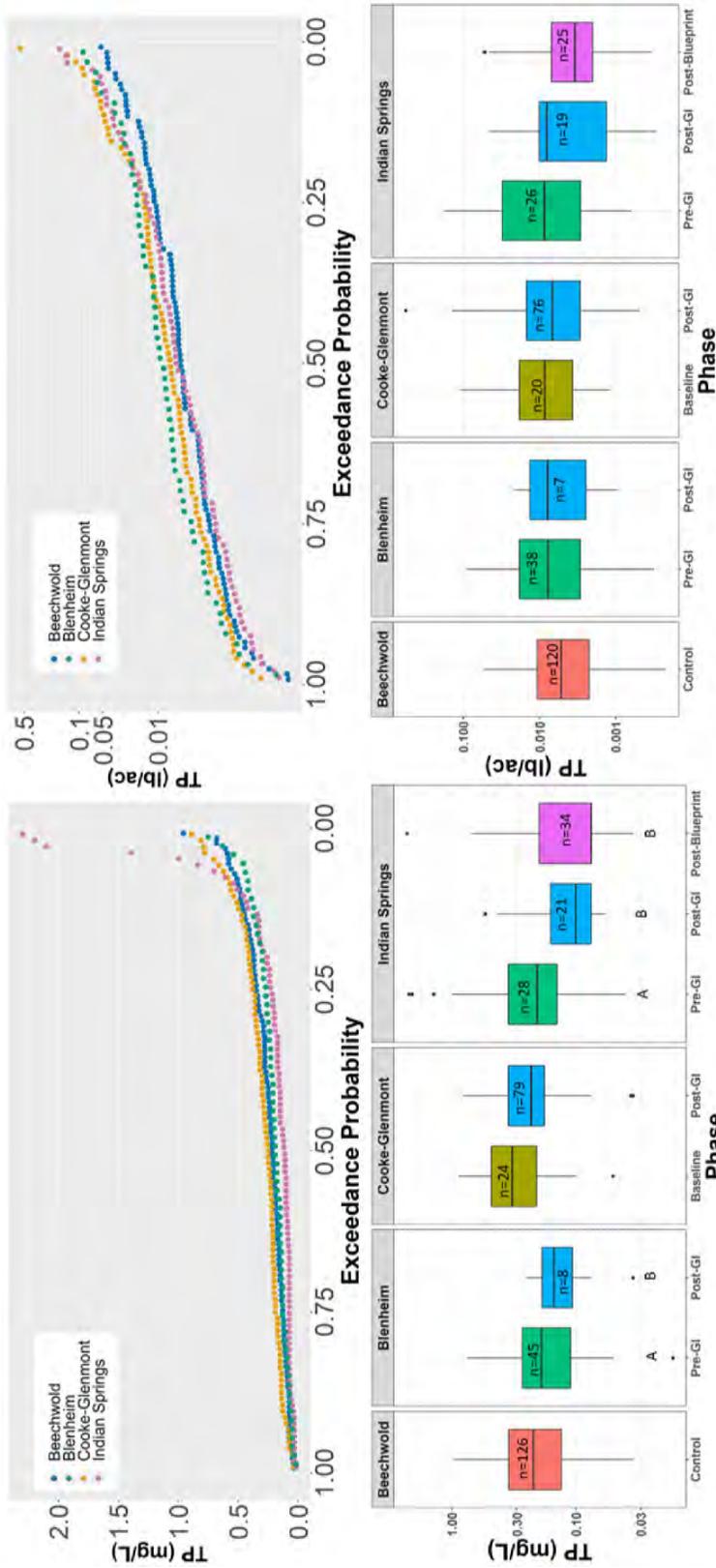
| Treatment Sewserved | Parameter    | n  | Concentration (mg/L) |       |      | Load (lb/ac)    |     |          |          |          |                   |
|---------------------|--------------|----|----------------------|-------|------|-----------------|-----|----------|----------|----------|-------------------|
|                     |              |    | Min                  | Med   | Max  | Min             | Med | Max      |          |          |                   |
| Blenheim            | Conc (mg/L)  | 24 | 0.015                | 0.11  | 0.33 | 0.123+/-0.0674  | 83  | 8.25E-05 | 2.47E-03 | 4.72E-02 | 0.00579+/-0.00887 |
|                     | Load (lb/ac) | 8  | 0.013                | 0.13  | 0.31 | 0.128+/-0.0658  | 20  | 1.33E-03 | 3.40E-03 | 4.93E-02 | 0.00924+/-0.0122  |
| Cooke-Glenmont      | Conc (mg/L)  | 15 | 0.065                | 0.094 | 0.16 | 0.111+/-0.0369  | 7   | 7.09E-04 | 6.88E-03 | 1.91E-02 | 0.00763+/-0.00743 |
|                     | Load (lb/ac) | 15 | 0.01                 | 0.11  | 0.29 | 0.122+/-0.078   | 13  | 4.78E-04 | 1.67E-03 | 3.80E-02 | 0.00523+/-0.0101  |
| Indian Springs      | Conc (mg/L)  | 53 | 0.013                | 0.12  | 0.65 | 0.137+/-0.0934  | 50  | 4.05E-05 | 2.93E-03 | 2.61E-01 | 0.0151+/-0.0391   |
|                     | Load (lb/ac) | 16 | 0.015                | 0.095 | 0.2  | 0.1+/-0.0477    | 15  | 4.64E-05 | 3.95E-03 | 1.54E-02 | 0.00477+/-0.00445 |
| Post-Blueprint      | Conc (mg/L)  | 17 | 0.028                | 0.071 | 0.12 | 0.0676+/-0.0341 | 16  | 1.81E-04 | 1.80E-03 | 8.84E-02 | 0.00278+/-0.00293 |
|                     | Load (lb/ac) | 25 | 0.015                | 0.062 | 0.18 | 0.0615+/-0.0411 | 17  | 3.95E-04 | 1.75E-03 | 1.95E-02 | 0.00369+/-0.0056  |

**Table 2: Statistical Results and Interpretation**

| Treatment Sewserved | Parameter              | ANCOVA type | p-value | interpretation     |
|---------------------|------------------------|-------------|---------|--------------------|
| Blenheim            | Conc (mg/L) intercept  | intercept   | 0.584   | No sig. difference |
|                     | Load (lb/ac) intercept | intercept   | 0.755   | No sig. difference |
| Cooke-Glenmont      | Conc (mg/L) intercept  | intercept   | 0.118   | No sig. difference |
|                     | Load (lb/ac) intercept | intercept   | 0.435   | No sig. difference |
| Indian Springs      | Conc (mg/L) intercept  | intercept   | 0.174   | No sig. difference |
|                     | Load (lb/ac) intercept | intercept   | 0.729   | No sig. difference |
| Post-Blueprint      | Conc (mg/L) intercept  | intercept   | 0.003*  | Pre-GI>Post-BP     |
|                     | Load (lb/ac) intercept | intercept   | 0.751   | No sig. difference |

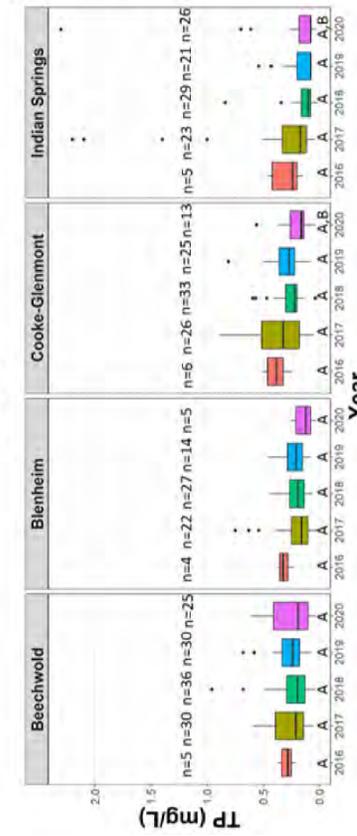
\*model residuals were not normally distributed

Figure 37. Summary statistics of OP in water quality samples collected from Clintonville sewersheds and results of analyses comparing project phases. Significant differences ( $p < 0.05$ ), determined from Kruskal-Wallis/Dunn's test with Bonferroni corrections, are represented by different letters in box plots. Asterisk denotes differences were significant at  $p < 0.1$ .



**Table 1: Median and Least-Squares Mean (LSM) when both Control and Treatment Took a Sample**  
 (\*Pre-GI at Cooke-Glenmont was "Baseline", \*\* Post-GI is the Post-Blueprint phase)

| Treatment Sewershed | Parameter    | Pre-GI      |              | Post-GI     |              | LSM Difference (%) |       |
|---------------------|--------------|-------------|--------------|-------------|--------------|--------------------|-------|
|                     |              | Conc (mg/L) | Load (lb/ac) | Conc (mg/L) | Load (lb/ac) | Median             | Mean  |
| Blenheim            | Conc (mg/L)  | 37          | 0.17         | 0.18        | 0.23         | 0.15               | -35.8 |
|                     | Load (lb/ac) | 12          | 4.82E-03     | 6.58E-03    | 4.96E-03     | 5.42E-03           | -37.5 |
| Cooke-Glenmont*     | Conc (mg/L)  | 20          | 0.26         | 0.32        | 0.19         | 0.22               | -27.7 |
|                     | Load (lb/ac) | 15          | 6.92E-03     | 8.24E-03    | 5.60E-03     | 5.89E-03           | -41.9 |
| Indian Springs      | Conc (mg/L)  | 22          | 0.24         | 0.20        | 0.23         | 0.11               | -47.4 |
|                     | Load (lb/ac) | 18          | 5.85E-03     | 7.46E-03    | 6.94E-03     | 8.45E-03           | -27.8 |
| Indian Springs**    | Conc (mg/L)  | 22          | 0.24         | 0.20        | 0.23         | 0.08               | -60   |
|                     | Load (lb/ac) | 18          | 5.85E-03     | 7.46E-03    | 3.60E-03     | 3.67E-03           | -36.6 |



**Table 3: Statistics by Project Phase for all Sampled Events**

| Site           | Phase          | Concentration (mg/L) |        |       |      | Load (lb/ac) |          |          |          |
|----------------|----------------|----------------------|--------|-------|------|--------------|----------|----------|----------|
|                |                | n                    | Min    | Med   | Max  | n            | Min      | Med      | Max      |
| Beechwald      | Control        | 126                  | 0.0345 | 0.22  | 0.96 | 120          | 2.21E-04 | 5.18E-03 | 5.32E-02 |
|                | Pre-GSI        | 45                   | 0.0165 | 0.19  | 0.75 | 38           | 3.17E-04 | 7.64E-03 | 8.93E-02 |
| Blenheim       | Post-GSI       | 8                    | 0.0345 | 0.15  | 0.25 | 7            | 9.35E-04 | 7.74E-03 | 2.14E-02 |
|                | Baseline       | 24                   | 0.05   | 0.325 | 0.89 | 20           | 1.18E-03 | 8.52E-03 | 1.10E-01 |
| Cooke-Glenmont | Post-GSI       | 79                   | 0.0345 | 0.23  | 0.81 | 76           | 4.92E-04 | 6.76E-03 | 5.62E-01 |
|                | Pre-GSI        | 28                   | 0.045  | 0.205 | 2.2  | 26           | 6.18E-04 | 8.63E-03 | 1.78E-01 |
| Indian Springs | Post-GSI       | 21                   | 0.057  | 0.1   | 0.54 | 19           | 2.92E-04 | 8.02E-03 | 4.51E-02 |
|                | Post-Blueprint | 34                   | 0.0345 | 0.075 | 2.3  | 25           | 3.39E-04 | 3.42E-03 | 5.23E-02 |

**Table 2: Statistical Results and Interpretation**

| Treatment Sewershed | Parameter    | ANCOVA type | p-value   | Interpretation     |
|---------------------|--------------|-------------|-----------|--------------------|
| Blenheim            | Conc (mg/L)  | intercept   | 0.024*    | Pre-GI>Post-GI     |
|                     | Load (lb/ac) | intercept   | 0.305     | No sig. difference |
| Cooke-Glenmont      | Conc (mg/L)  | intercept   | 0.288     | No sig. difference |
|                     | Load (lb/ac) | intercept   | 0.367     | No sig. difference |
| Indian Springs      | Conc (mg/L)  | slope       | 0.008     | No sig. difference |
|                     | Load (lb/ac) | intercept   | 0.539     | Pre-GI>Post-GI     |
| Indian Springs      | Conc (mg/L)  | intercept   | 4.61E-05* | Pre-GI>Post-BP     |
|                     | Load (lb/ac) | intercept   | 0.693     | No sig. difference |

\*model residuals were not normally distributed

Figure 38. Summary statistics of TP in water quality samples collected from Clintonville sewersheds and results of analyses comparing project phases. Significant differences ( $p < 0.05$ ), determined from Kruskal-Wallis/Dunn's test with Bonferroni corrections, are represented by different letters in box plots. Asterisk denotes differences were significant at  $p < 0.1$ .

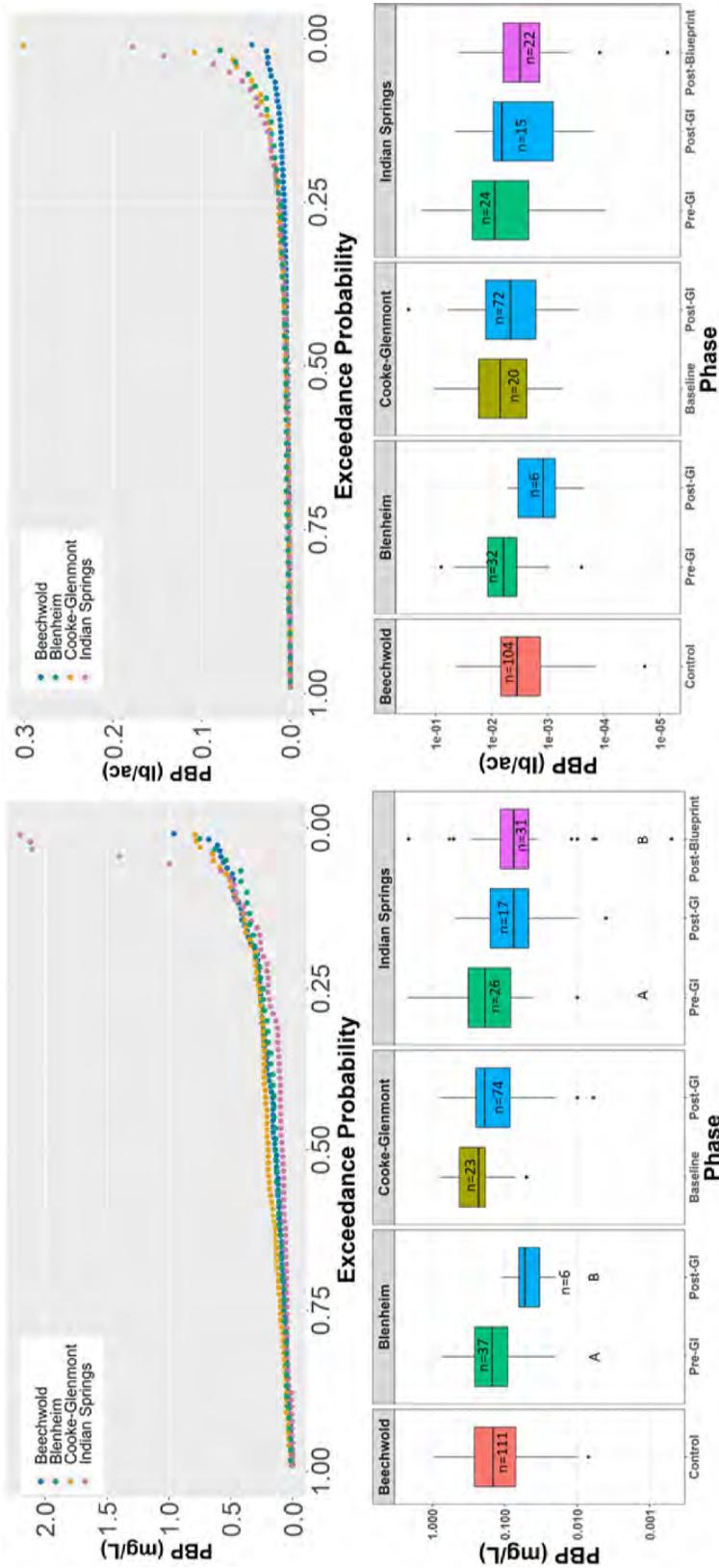


Table 1: Median and Least-Squares Mean (LSM) when both Control and Treatment Took a Sample (\*Pre-GI at Cooke-Glenmont was "Baseline", \*\* Post-GI is the Post-Blueprint phase)

| Treatment Sewershed | Parameter    | n  | Pre-GI      |              | Post-GI     |              | LSM Difference (%) |
|---------------------|--------------|----|-------------|--------------|-------------|--------------|--------------------|
|                     |              |    | Conc (mg/L) | Load (lb/ac) | Conc (mg/L) | Load (lb/ac) |                    |
| Blenheim            | Conc (mg/L)  | 28 | 0.18        | 0.15         | 0.09        | 0.06         | -71.5              |
|                     | Load (lb/ac) | 11 | 3.05E-03    | 4.35E-03     | 1.36E-03    | 8.60E-04     | -82.1              |
| Cooke-Glenmont*     | Conc (mg/L)  | 19 | 0.21        | 0.23         | 0.13        | 0.18         | -43.3              |
|                     | Load (lb/ac) | 14 | 5.67E-03    | 7.00E-03     | 4.30E-03    | 4.07E-03     | -55.2              |
| Indian Springs      | Conc (mg/L)  | 19 | 0.15        | 0.20         | 0.11        | 0.06         | -66.5              |
|                     | Load (lb/ac) | 15 | 6.64E-03    | 8.56E-03     | 4.23E-03    | 3.36E-03     | -40.7              |
| Indian Springs**    | Conc (mg/L)  | 19 | 0.15        | 0.20         | 0.15        | 0.08         | -61.9              |
|                     | Load (lb/ac) | 15 | 6.64E-03    | 8.56E-03     | 2.50E-03    | 3.42E-03     | -13.8              |

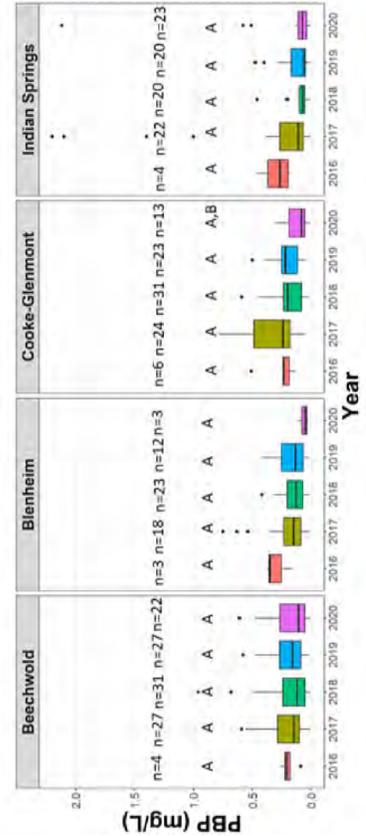


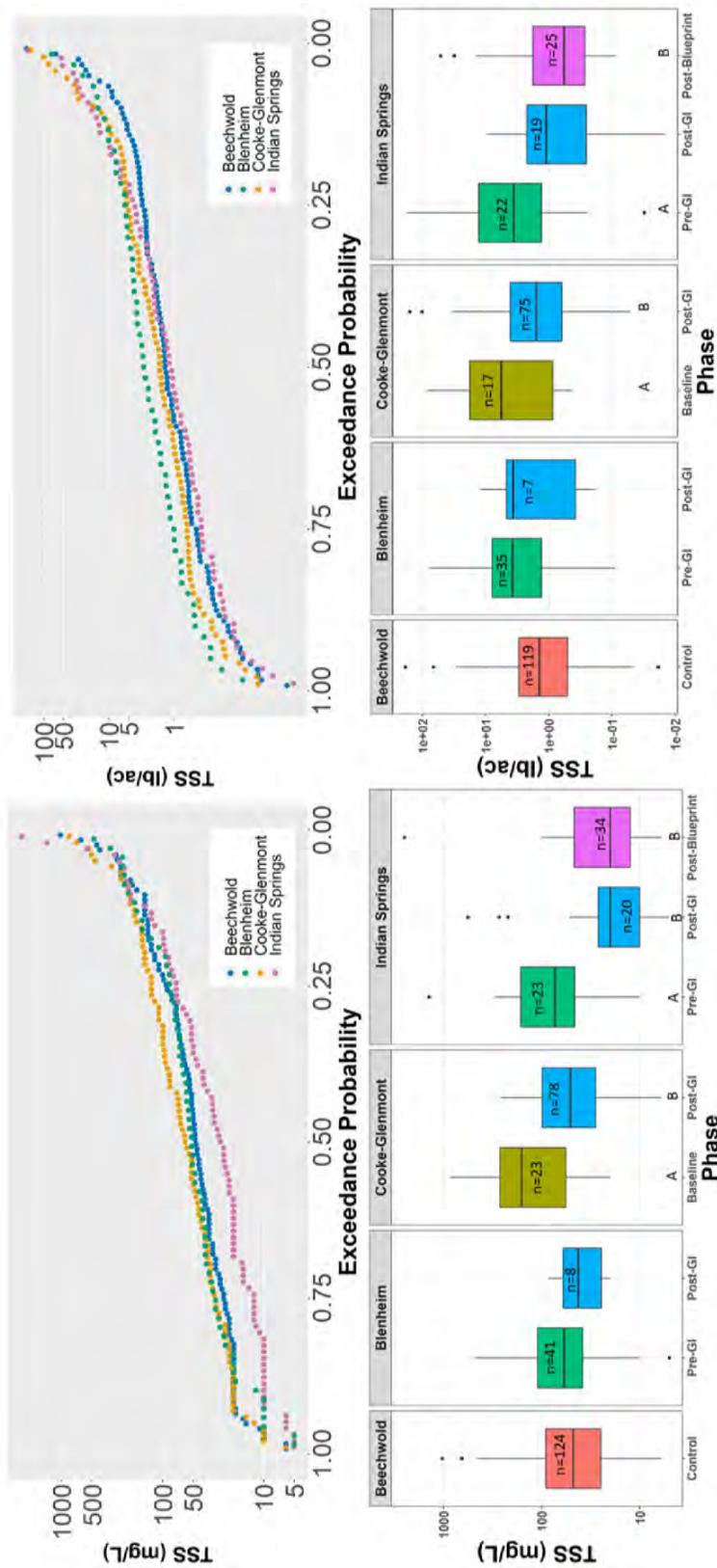
Table 2: Statistical Results and Interpretation

| Treatment Sewershed | Parameter    | ANCOVA type | p-value | Interpretation     |
|---------------------|--------------|-------------|---------|--------------------|
| Blenheim            | Conc (mg/L)  | intercept   | 0.028   | Pre-GI>Post-GI     |
|                     | Load (lb/ac) | intercept   | 0.352   | No sig. difference |
| Cooke-Glenmont      | Conc (mg/L)  | intercept   | 0.123   | No sig. difference |
|                     | Load (lb/ac) | intercept   | 0.139   | No sig. difference |
| Indian Springs      | Conc (mg/L)  | intercept   | 0.053   | No sig. difference |
|                     | Load (lb/ac) | intercept   | 0.531   | No sig. difference |
| Indian Springs      | Conc (mg/L)  | intercept   | 0.014*  | Pre-GI>Post-BP     |
|                     | Load (lb/ac) | intercept   | 0.917   | No sig. difference |

Table 3: Statistics by Project Phase for all Sampled Events

| Site           | Phase          | Concentration (mg/L) |          |        |       |                 |     | Load (lb/ac) |          |          |                   |  |  |
|----------------|----------------|----------------------|----------|--------|-------|-----------------|-----|--------------|----------|----------|-------------------|--|--|
|                |                | n                    | Min      | Med    | Max   | Mean+/-SD       | n   | Min          | Med      | Max      | Mean+/-SD         |  |  |
| Beechwood      | Control        | 111                  | 0.007    | 0.145  | 0.96  | 0.195+/-0.174   | 104 | 1.86E-05     | 3.51E-03 | 4.32E-02 | 0.00574+/-0.00692 |  |  |
|                | Pre-GSI        | 37                   | 0.02     | 0.15   | 0.75  | 0.2+/-0.165     | 32  | 2.49E-04     | 6.18E-03 | 7.92E-02 | 0.0125+/-0.0165   |  |  |
| Blenheim       | Post-GSI       | 6                    | 0.02     | 0.0525 | 0.11  | 0.0552+/-0.0319 | 6   | 2.26E-04     | 1.28E-03 | 5.10E-03 | 0.00214+/-0.00205 |  |  |
|                | Baseline       | 23                   | 0.05     | 0.23   | 0.79  | 0.312+/-0.217   | 20  | 5.44E-04     | 7.00E-03 | 1.08E-01 | 0.0187+/-0.028    |  |  |
| Cooke-Glenmont | Post-GSI       | 74                   | 0.006    | 0.19   | 0.78  | 0.196+/-0.146   | 72  | 2.93E-04     | 4.62E-03 | 3.01E-01 | 0.0128+/-0.0361   |  |  |
|                | Pre-GSI        | 26                   | 0.01     | 0.187  | 2.2   | 0.396+/-0.601   | 24  | 9.22E-05     | 8.72E-03 | 1.78E-01 | 0.0262+/-0.045    |  |  |
| Indian Springs | Post-GSI       | 17                   | 0.004    | 0.075  | 0.476 | 0.125+/-0.134   | 15  | 1.51E-04     | 6.52E-03 | 4.51E-02 | 0.00818+/-0.0117  |  |  |
|                | Post-Blueprint | 31                   | 5.00E-04 | 0.075  | 2.12  | 0.173+/-0.385   | 22  | 7.27E-06     | 3.12E-03 | 3.80E-02 | 0.00777+/-0.011   |  |  |

Figure 39. Summary statistics of PBP in water quality samples collected from Clintonville sewersheds and results of analyses comparing project phases. Significant differences ( $p < 0.05$ ), determined from Kruskal-Wallis/Dunn's test with Bonferroni corrections, are represented by different letters in box plots. Asterisk denotes differences were significant at  $p < 0.1$ .



**Table 1: Median and Least-Squares Mean (LSM) when both Control and Treatment Took a Sample**  
 (\*Pre-GI at Cooke-Glenmont was "Baseline", \*\* Post-GI is the Post-Blueprint phase)

| Treatment Served | Parameter    | Pre-GI         |                  | Post-GI        |                  | n  | LSM Difference (%) |
|------------------|--------------|----------------|------------------|----------------|------------------|----|--------------------|
|                  |              | Control Median | Treatment Median | Control Median | Treatment Median |    |                    |
| Blenheim         | Conc (mg/L)  | 34             | 63.5             | 43.0           | 44.0             | 7  | -37.6              |
|                  | Load (lb/ac) | 11             | 1.85             | 0.63           | 1.37             | 6  | -50.4              |
| Cooke-Glenmont*  | Conc (mg/L)  | 19             | 74.0             | 43.0           | 48.0             | 65 | -62.1              |
|                  | Load (lb/ac) | 14             | 2.88             | 1.41           | 1.22             | 63 | -78.3              |
| Indian Springs   | Conc (mg/L)  | 18             | 50.8             | 30.0           | 20.0             | 18 | -67.7              |
|                  | Load (lb/ac) | 15             | 1.85             | 1.19           | 1.28             | 16 | -59.5              |
| Indian Springs** | Conc (mg/L)  | 18             | 50.8             | 39.0           | 16.0             | 25 | -76.2              |
|                  | Load (lb/ac) | 15             | 1.85             | 0.83           | 0.58             | 18 | -64.9              |

**Table 2: Statistical Results and Interpretation**

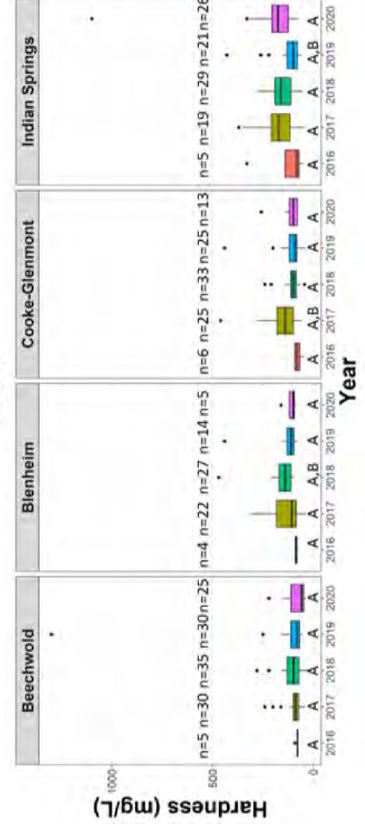
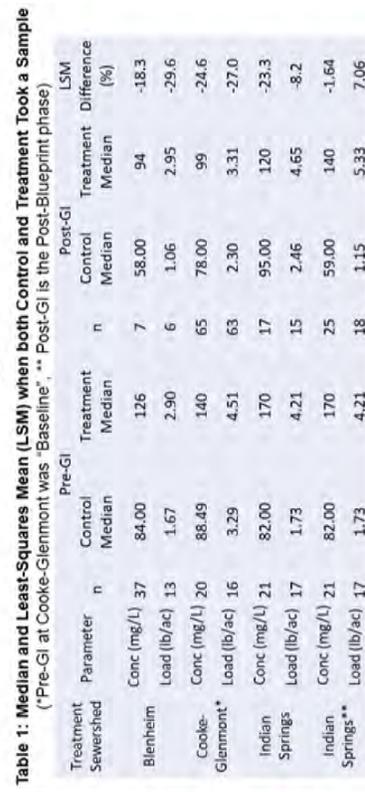
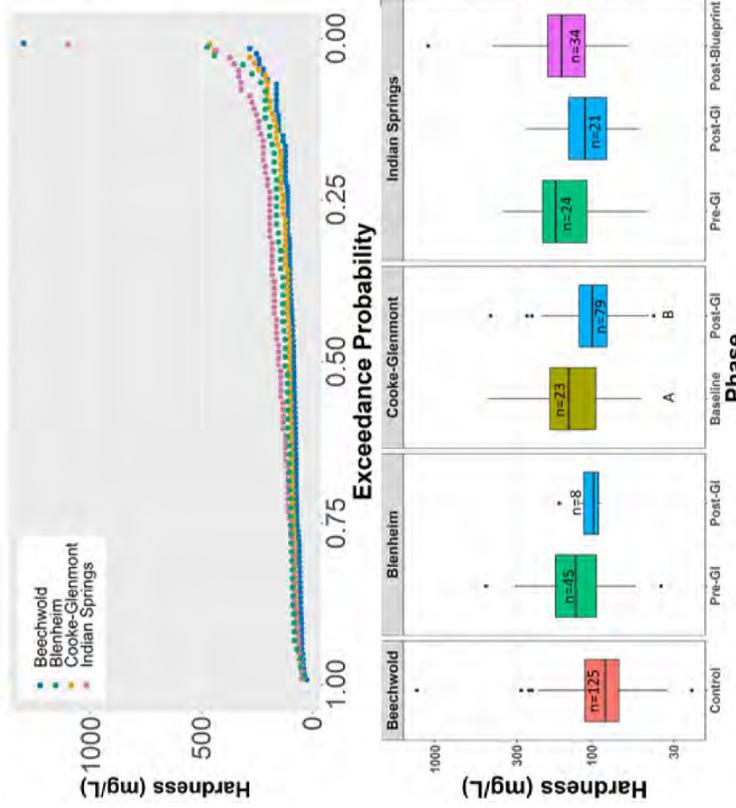
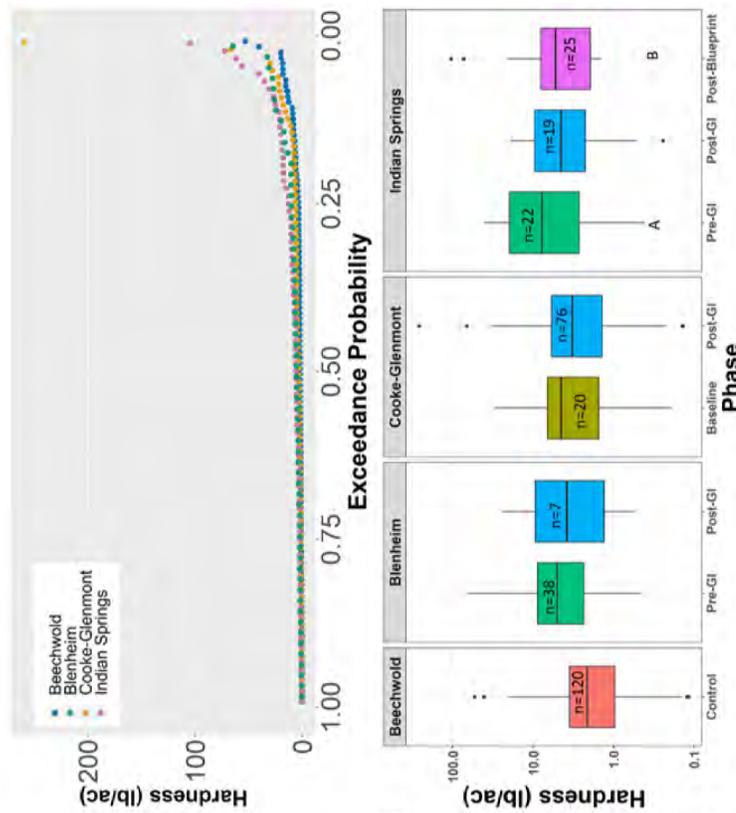
| Treatment Served | Parameter    | ANCOVA type | p-value  | Interpretation     |
|------------------|--------------|-------------|----------|--------------------|
| Blenheim         | Conc (mg/L)  | intercept   | 0.571    | No sig. difference |
|                  | Load (lb/ac) | intercept   | 0.826    | No sig. difference |
| Cooke-Glenmont   | Conc (mg/L)  | intercept   | 0.001*   | Baseline>Post-GI   |
|                  | Load (lb/ac) | intercept   | 0.006    | Pre-GI>Post-GI     |
| Indian Springs   | Conc (mg/L)  | intercept   | 0.009    | Pre-GI>Post-GI     |
|                  | Load (lb/ac) | intercept   | 0.150    | No sig. difference |
| Indian Springs   | Conc (mg/L)  | intercept   | 3.12E-05 | Pre-GI>Post-BP     |
|                  | Load (lb/ac) | slope       | 0.037    | Pre-GI>Post-BP     |

\*model residuals were not normally distributed

**Table 3: Statistics by Project Phase for all Sampled Events**

| Site           | Phase          | Concentration (mg/L) |     |      |        |             | Load (lb/ac) |          |          |        |             |
|----------------|----------------|----------------------|-----|------|--------|-------------|--------------|----------|----------|--------|-------------|
|                |                | n                    | Min | Med  | Max    | Mean+/-SD   | n            | Min      | Med      | Max    | Mean+/-SD   |
| Beechworld     | Control        | 124                  | 6   | 47.5 | 1028.5 | 85.1+/-126  | 119          | 1.86E-02 | 1.40E+00 | 185.18 | 4.82+/-18.3 |
|                | Pre-GSI        | 41                   | 5   | 59   | 480    | 97.4+/-98.6 | 35           | 8.94E-02 | 3.79E+00 | 77.01  | 7.88+/-14.1 |
| Blenheim       | Post-GSI       | 8                    | 20  | 42.5 | 86     | 45.8+/-23.5 | 7            | 1.87E-01 | 3.70E+00 | 11.91  | 3.72+/-4.17 |
|                | Baseline       | 23                   | 20  | 160  | 850    | 228+/-233   | 17           | 4.22E-01 | 5.65E+00 | 85.09  | 16.6+/-25.7 |
| Cooke-Glenmont | Post-GSI       | 78                   | 6   | 51   | 260    | 70.6+/-58.1 | 75           | 5.16E-02 | 1.56E+00 | 159.03 | 6.61+/-21.8 |
|                | Pre-GSI        | 23                   | 10  | 73   | 1400   | 160+/-282   | 22           | 3.09E-02 | 3.58E+00 | 177.63 | 15.8+/-37.6 |
| Indian Springs | Post-GSI       | 20                   | 5   | 20   | 560    | 69+/-135    | 19           | 1.46E-02 | 1.10E+00 | 9.74   | 2.01+/-2.55 |
|                | Post-Blueprint | 34                   | 6   | 20   | 2500   | 104+/-424   | 25           | 8.72E-02 | 5.70E+01 | 51.57  | 4.8+/-11.8  |

**Figure 40. Summary statistics of TSS in water quality samples collected from Clintonville sewersheds and results of analyses comparing project phases. Significant differences ( $p < 0.05$ ), determined from Kruskal-Wallis/Dunn's test with Bonferroni corrections, are represented by different letters in box plots. Asterisk denotes differences were significant at  $p < 0.1$ .**



**Table 1: Median and Least-Squares Mean (LSM) when both Control and Treatment Took a Sample**  
 (\*Pre-GI at Cooke-Glenmont was "Baseline", \*\* Post-GI is the Post-Blueprint phase)

| Treatment Sewsershed | Parameter    | n  | Pre-GI      |              | Post-GI     |              | LSM    |                |
|----------------------|--------------|----|-------------|--------------|-------------|--------------|--------|----------------|
|                      |              |    | Conc (mg/L) | Load (lb/ac) | Conc (mg/L) | Load (lb/ac) | Median | Difference (%) |
| Blenheim             | Conc (mg/L)  | 37 | 84.00       | 126          | 7           | 58.00        | 94     | -18.3          |
|                      | Load (lb/ac) | 13 | 1.67        | 2.90         | 6           | 1.06         | 2.95   | -29.6          |
| Cooke-Glenmont*      | Conc (mg/L)  | 20 | 88.49       | 140          | 65          | 78.00        | 99     | -24.6          |
|                      | Load (lb/ac) | 16 | 3.29        | 4.51         | 63          | 2.30         | 3.31   | -27.0          |
| Indian Springs       | Conc (mg/L)  | 21 | 82.00       | 170          | 17          | 95.00        | 120    | -23.3          |
|                      | Load (lb/ac) | 17 | 1.73        | 4.21         | 15          | 2.46         | 4.65   | -8.2           |
| Indian Springs**     | Conc (mg/L)  | 21 | 82.00       | 170          | 25          | 59.00        | 140    | -1.64          |
|                      | Load (lb/ac) | 17 | 1.73        | 4.21         | 18          | 1.15         | 5.33   | 7.06           |

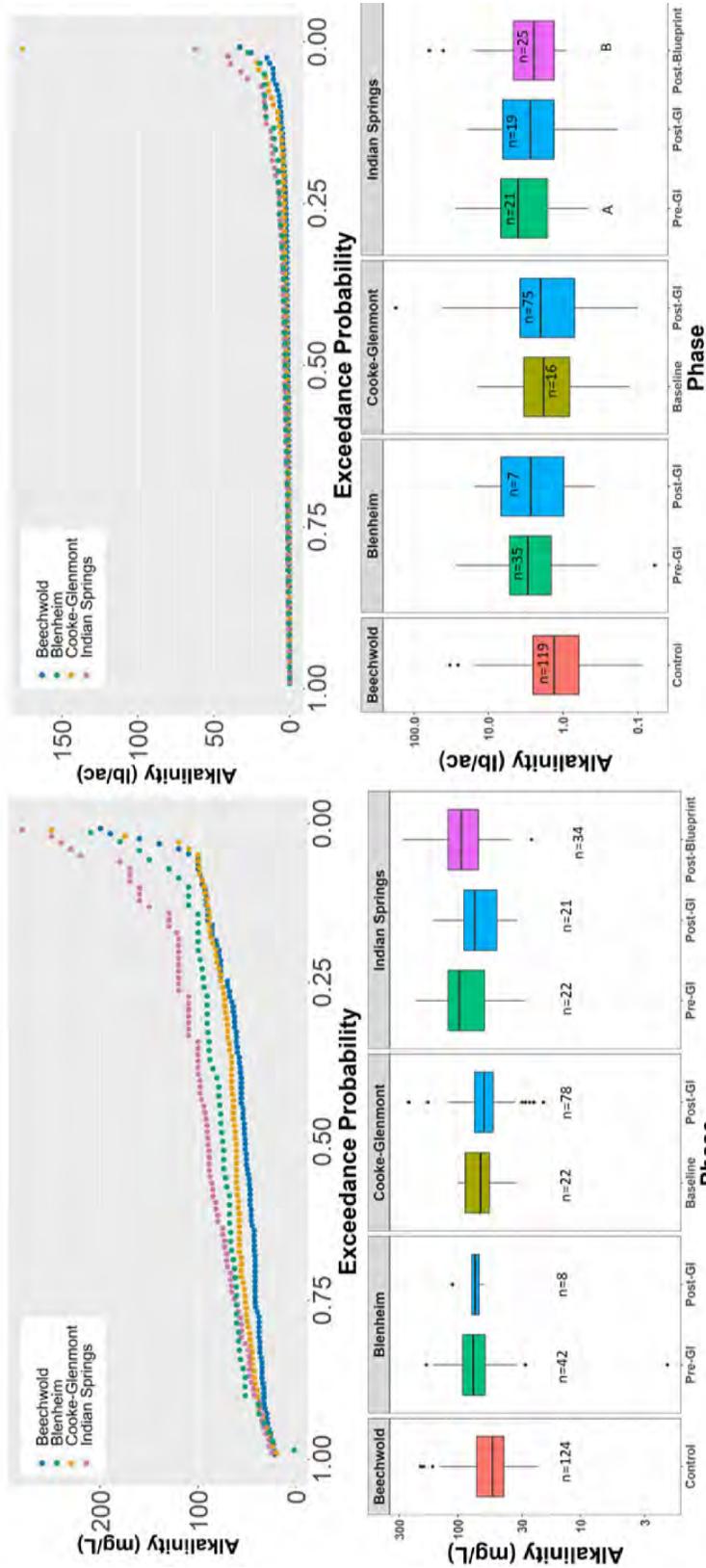
**Table 2: Statistics by Project Phase for all Sampled Events**

| Treatment Sewsershed | Parameter    | n   | Concentration (mg/L) |     |      | Load (lb/ac) |     |      |      |        |             |
|----------------------|--------------|-----|----------------------|-----|------|--------------|-----|------|------|--------|-------------|
|                      |              |     | Min                  | Med | Max  | Min          | Med | Max  |      |        |             |
| Beechworld           | Conc (mg/L)  | 125 | 23                   | 82  | 1300 | 104+/-117    | 120 | 0.12 | 2.12 | 53.17  | 4.28+/-7.17 |
|                      | Load (lb/ac) | 45  | 36                   | 126 | 470  | 143+/-76.8   | 38  | 0.45 | 5.01 | 64.69  | 9.17+/-12.4 |
|                      | Phase        |     |                      |     |      |              |     |      |      |        |             |
| Blenheim             | Conc (mg/L)  | 8   | 86                   | 97  | 160  | 106+/-24.7   | 7   | 0.54 | 3.78 | 24.64  | 7.25+/-8.53 |
|                      | Load (lb/ac) | 23  | 48                   | 140 | 460  | 152+/-86.9   | 20  | 0.19 | 4.54 | 30.03  | 6.36+/-7.58 |
|                      | Phase        |     |                      |     |      |              |     |      |      |        |             |
| Cooke-Glenmont       | Conc (mg/L)  | 79  | 40                   | 99  | 440  | 108+/-53.4   | 76  | 0.14 | 3.25 | 258.86 | 9.21+/-30.5 |
|                      | Load (lb/ac) | 24  | 44                   | 170 | 370  | 172+/-93.9   | 22  | 0.41 | 7.93 | 40.60  | 12+/-12.2   |
|                      | Phase        |     |                      |     |      |              |     |      |      |        |             |
| Indian Springs       | Conc (mg/L)  | 21  | 50                   | 110 | 260  | 116+/-54.4   | 19  | 0.24 | 4.52 | 18.97  | 6.79+/-6.55 |
|                      | Load (lb/ac) | 34  | 59                   | 155 | 1100 | 189+/-180    | 25  | 1.41 | 5.28 | 104.52 | 12.4+/-23.9 |
|                      | Phase        |     |                      |     |      |              |     |      |      |        |             |

**Table 3: Statistical Results and Interpretation**

| Treatment Sewsershed | Parameter    | ANCOVA type | p-value | Interpretation     |
|----------------------|--------------|-------------|---------|--------------------|
| Blenheim             | Conc (mg/L)  | intercept   | 0.404   | No sig. difference |
|                      | Load (lb/ac) | intercept   | 0.968   | No sig. difference |
| Cooke-Glenmont       | Conc (mg/L)  | intercept   | 0.006   | Baseline>Post-GI   |
|                      | Load (lb/ac) | intercept   | 0.482   | No sig. difference |
| Indian Springs       | Conc (mg/L)  | intercept   | 0.134   | No sig. difference |
|                      | Load (lb/ac) | intercept   | 0.920   | No sig. difference |
| Indian Springs       | Conc (mg/L)  | intercept   | 0.728   | No sig. difference |
|                      | Load (lb/ac) | intercept   | 0.021   | Pre-GI<Post-BP     |

**Figure 41. Summary statistics of Hardness in water quality samples collected from Clintonville sewersheds and results of analyses comparing project phases. Significant differences ( $p < 0.05$ ), determined from Kruskal-Wallis/Dunn's test with Bonferroni corrections, are represented by different letters in box plots. Asterisk denotes differences were significant at  $p < 0.1$ .**



**Table 1: Median and Least-Squares Mean (LSM) when both Control and Treatment Took a Sample**  
 (\*Pre-GI at Cooke-Glenmont was "Baseline", \*\* Post-GI is the Post-Blueprint phase)

| Treatment Sewershed | Parameter    | n  | Pre-GI         |                  | Post-GI        |                  | LSM Difference (%) |       |
|---------------------|--------------|----|----------------|------------------|----------------|------------------|--------------------|-------|
|                     |              |    | Control Median | Treatment Median | Control Median | Treatment Median |                    |       |
| Blenheim            | Conc (mg/L)  | 34 | 51             | 75.99            | 7              | 48               | 71                 | -1.3  |
|                     | Load (lb/ac) | 11 | 0.85           | 1.59             | 6              | 0.89             | 2.21               | -16.0 |
| Cooke-Glenmont*     | Conc (mg/L)  | 16 | 52.99          | 64               | 66             | 53               | 61                 | -3.1  |
|                     | Load (lb/ac) | 13 | 1.95           | 2.23             | 64             | 1.66             | 1.87               | -0.8  |
| Indian Springs      | Conc (mg/L)  | 16 | 56.99          | 95.39            | 18             | 65.97            | 73.99              | -20.4 |
|                     | Load (lb/ac) | 15 | 3.89           | 2.16             | 16             | 1.96             | 2.91               | -10.3 |
| Indian Springs**    | Conc (mg/L)  | 16 | 56.99          | 95.39            | 25             | 43               | 89                 | 0.68  |
|                     | Load (lb/ac) | 15 | 3.89           | 2.16             | 18             | 0.8              | 2.99               | 6.19  |

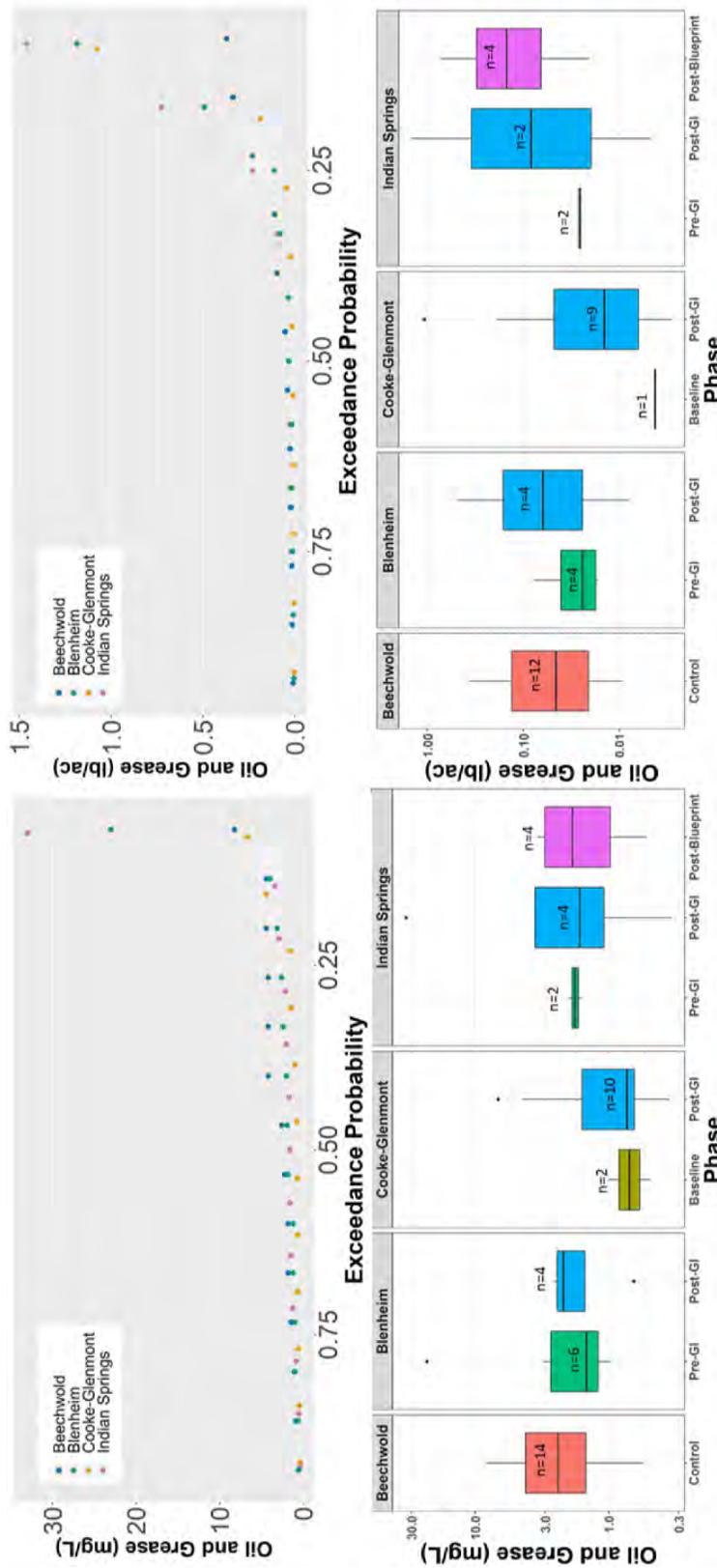
**Table 2: Statistical Results and Interpretation**

| Treatment Sewershed | Parameter    | ANCOVA type | p-value | Interpretation     |
|---------------------|--------------|-------------|---------|--------------------|
| Blenheim            | Conc (mg/L)  | intercept   | 0.819   | No sig. difference |
|                     | Load (lb/ac) | intercept   | 0.788   | No sig. difference |
| Cooke-Glenmont      | Conc (mg/L)  | intercept   | 0.657   | No sig. difference |
|                     | Load (lb/ac) | intercept   | 0.949   | No sig. difference |
| Indian Springs      | Conc (mg/L)  | intercept   | 0.099   | No sig. difference |
|                     | Load (lb/ac) | intercept   | 0.922   | No sig. difference |
| Indian Springs      | Conc (mg/L)  | intercept   | 0.386   | No sig. difference |
|                     | Load (lb/ac) | intercept   | 0.015   | Pre-GI < Post-BP   |

**Table 3: Statistics by Project Phase for all Sampled Events**

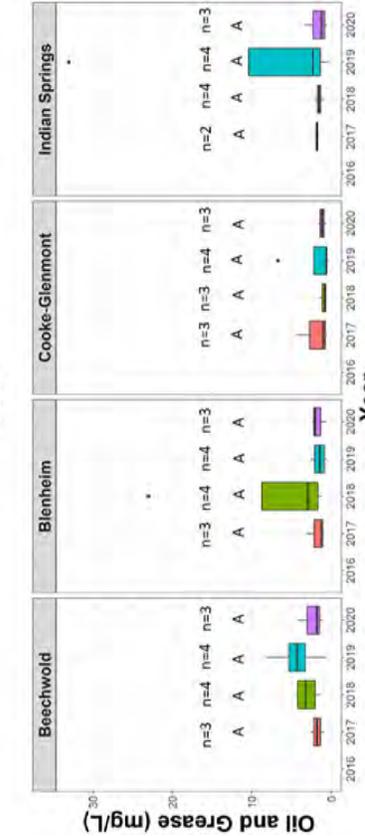
| Site           | Phase          | Concentration (mg/L) |      |      |     | Load (lb/ac) |     |      |      |        |
|----------------|----------------|----------------------|------|------|-----|--------------|-----|------|------|--------|
|                |                | n                    | Min  | Med  | Max | n            | Min | Med  | Max  |        |
| Beechwald      | Control        | 124                  | 22   | 52   | 200 | 59.6+/-29.9  | 119 | 0.09 | 1.31 | 33.04  |
|                | Pre-GSI        | 42                   | 1.95 | 74.5 | 180 | 79.3+/-34.7  | 35  | 0.06 | 2.97 | 27.42  |
|                | Post-GSI       | 8                    | 61   | 72.5 | 110 | 75.1+/-15.3  | 7   | 0.38 | 2.71 | 15.61  |
| Cooke-Glenmont | Baseline       | 22                   | 33   | 65   | 99  | 68.7+/-20    | 16  | 0.13 | 1.86 | 13.95  |
|                | Post-GSI       | 78                   | 20   | 61   | 250 | 66.2+/-31.2  | 75  | 0.10 | 2.00 | 175.58 |
|                | Pre-GSI        | 22                   | 28   | 97   | 220 | 102+/-51.1   | 21  | 0.46 | 4.03 | 27.91  |
| Indian Springs | Post-GSI       | 21                   | 33   | 73   | 160 | 75.8+/-36.5  | 19  | 0.18 | 2.76 | 18.97  |
|                | Pre-GSI        | 34                   | 25   | 93.5 | 280 | 107+/-61.4   | 25  | 0.90 | 2.45 | 62.02  |
|                | Post-Blueprint | 34                   | 25   | 93.5 | 280 | 107+/-61.4   | 25  | 0.90 | 2.45 | 62.02  |

Figure 42. Summary statistics of Alkalinity in water quality samples collected from Clintonville sewersheds and results of analyses comparing project phases. Significant differences ( $p < 0.05$ ), determined from Kruskal-Wallis/Dunn's test with Bonferroni corrections, are represented by different letters in box plots. Asterisk denotes differences were significant at  $p < 0.1$ .



**Table 1: Median and Least-Squares Mean (LSM) when both Control and Treatment Took a Sample**  
 (\*Pre-GI at Cooke-Glenmont was "Baseline", \*\* Post-GI is the Post-Blueprint phase)

| Treatment Sewershed | Parameter    | n | Control Median | Pre-GI Median | Post-GI Median | Post-Blueprint Median | Treatment Difference (%) | LSM   |
|---------------------|--------------|---|----------------|---------------|----------------|-----------------------|--------------------------|-------|
| Blenheim            | Conc (mg/L)  | 4 | 1.99           | 1.26          | 1.2            | 2.75                  | 2.19089                  | -29.1 |
|                     | Load (lb/ac) | 1 | 1.34E-02       | 1.34E-02      | 1.76E-02       | 4.57E-02              | 6.26E-02                 | 254.9 |
| Cooke-Glenmont*     | Conc (mg/L)  | 2 | 1.26           | 1.34E-02      | 0.70           | 3.30                  | 0.73                     | 60.3  |
|                     | Load (lb/ac) | 1 | 1.34E-02       | 1.34E-02      | 4.19E-03       | 7.08E-02              | 1.15E-02                 | 438.4 |
| Indian Springs      | Conc (mg/L)  | 2 | 2.16           | 1.94E-02      | 1.79           | 2.48                  | 1.65                     | 31.4  |
|                     | Load (lb/ac) | 2 | 1.94E-02       | 1.94E-02      | 2.57E-02       | 0.19                  | 0.08                     | 221.1 |
| Indian Springs**    | Conc (mg/L)  | 2 | 2.16           | 1.94E-02      | 1.79           | 2.75                  | 1.87                     | -12   |
|                     | Load (lb/ac) | 2 | 1.94E-02       | 1.94E-02      | 2.57E-02       | 4.57E-02              | 1.49E-01                 | 422   |



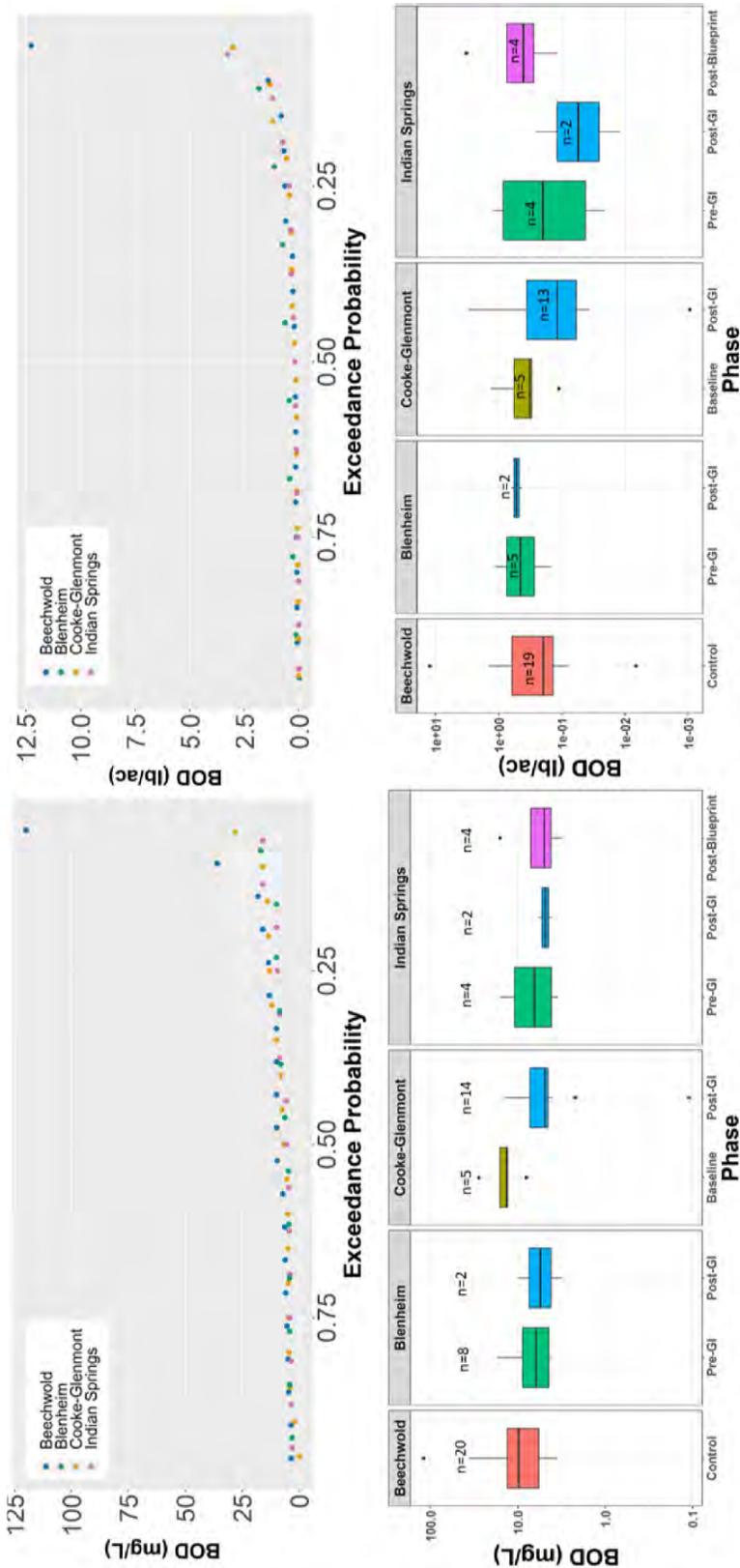
**Table 2: Statistical Results and Interpretation**

| Treatment Sewershed | Parameter    | ANCOVA type | p-value | Interpretation     |
|---------------------|--------------|-------------|---------|--------------------|
| Blenheim            | Conc (mg/L)  | intercept   | 0.607   | No sig. difference |
|                     | Load (lb/ac) | NA          | NA      | No sig. difference |
| Cooke-Glenmont      | Conc (mg/L)  | intercept   | 0.842   | No sig. difference |
|                     | Load (lb/ac) | NA          | NA      | No sig. difference |
| Indian Springs      | Conc (mg/L)  | intercept   | 0.829   | No sig. difference |
|                     | Load (lb/ac) | NA          | NA      | No sig. difference |
| Indian Springs      | Conc (mg/L)  | intercept   | 0.795   | No sig. difference |
|                     | Load (lb/ac) | intercept   | 0.765   | No sig. difference |

**Table 3: Statistics by Project Phase for all Sampled Events**

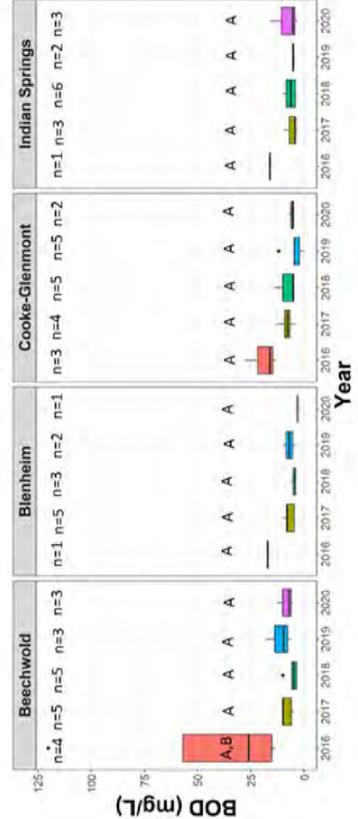
| Site           | Phase          | Concentration (mg/L) |      |       |             | Load (lb/ac)  |     |          |             |          |                  |
|----------------|----------------|----------------------|------|-------|-------------|---------------|-----|----------|-------------|----------|------------------|
|                |                | Min                  | Med  | Max   | Mean +/- SD | Min           | Med | Max      | Mean +/- SD |          |                  |
| Beechworld     | Control        | 14                   | 0.55 | 2.4   | 8.2         | 3+/-2.07      | 12  | 9.08E-03 | 4.60E-02    | 3.71E-01 | 0.111+/-0.13     |
|                | Pre-GSI        | 6                    | 0.97 | 1.5   | 2.3         | 5.21+/-8.75   | 4   | 1.68E-02 | 2.51E-02    | 7.82E-02 | 0.0363+/-0.0289  |
| Blenheim       | Post-GSI       | 4                    | 0.65 | 2.2   | 2.6         | 1.91+/-0.878  | 4   | 7.89E-03 | 7.34E-02    | 4.99E-01 | 0.162+/-0.225    |
|                | Pre-GSI        | 2                    | 0.49 | 0.745 | 1           | 0.745+/-0.361 | 1   | 4.19E-03 | 4.19E-03    | 4.19E-03 | 0.00419+/-NA     |
| Cooke-Glenmont | Post-GSI       | 10                   | 0.35 | 0.73  | 6.7         | 1.79+/-2.09   | 9   | 2.83E-03 | 1.42E-02    | 1.08E+00 | 0.153+/-0.352    |
|                | Pre-GSI        | 2                    | 1.6  | 1.8   | 2           | 1.8+/-0.283   | 2   | 2.46E-02 | 2.58E-02    | 2.69E-02 | 0.0258+/-0.00164 |
| Indian Springs | Post-GSI       | 4                    | 0.34 | 1.65  | 3.3         | 9.16+/-15.9   | 2   | 4.68E-03 | 7.33E-01    | 1.46E+00 | 0.733+/-1.03     |
|                | Post-Blueprint | 4                    | 0.52 | 2.05  | 3.4         | 2+/-1.37      | 4   | 2.03E-02 | 1.64E-01    | 7.26E-01 | 0.268+/-0.317    |

Figure 43. Summary statistics of Oil and Grease in water quality samples collected from Clintonville sewersheds and results of analyses comparing project phases. Significant differences ( $p < 0.05$ ), determined from Kruskal-Wallis/Dunn's test with Bonferroni corrections, are represented by different letters in box plots. Asterisk denotes differences were significant at  $p < 0.1$ .



**Table 1: Median and Least-Squares Mean (LSM) when both Control and Treatment Took a Sample**  
 (\*Pre-GI at Cooke-Glenmont was "Baseline", \*\* Post-GI is the Post-Blueprint phase)

| Treatment Sewershed | Parameter    | n | Control Median | Pre-GI Median | Treatment Median | Post-GI Median | LSM Difference (%) |
|---------------------|--------------|---|----------------|---------------|------------------|----------------|--------------------|
| Blenheim            | Conc (mg/L)  | 6 | 7.71           | 0.17          | 8.25             | 11.38          | -28.8              |
|                     | Load (lb/ac) | 3 | 0.17           | 13.50         | 0.45             | 0.38           | 23.8               |
| Cooke-Glenmont*     | Conc (mg/L)  | 5 | 0.60           | 13.50         | 13.50            | 7.20           | -57.6              |
|                     | Load (lb/ac) | 5 | 10.00          | 0.32          | 0.32             | 0.16           | -56.2              |
| Indian Springs      | Conc (mg/L)  | 4 | 0.17           | 10.00         | 6.50             | 6.05           | -29.6              |
|                     | Load (lb/ac) | 3 | 10.00          | 0.17          | 0.05             | 0.34           | -41.5              |
| Indian Springs**    | Conc (mg/L)  | 4 | 0.17           | 10.00         | 6.50             | 9.67           | -14.4              |
|                     | Load (lb/ac) | 3 | 0.17           | 0.05          | 0.05             | 0.25           | 434                |



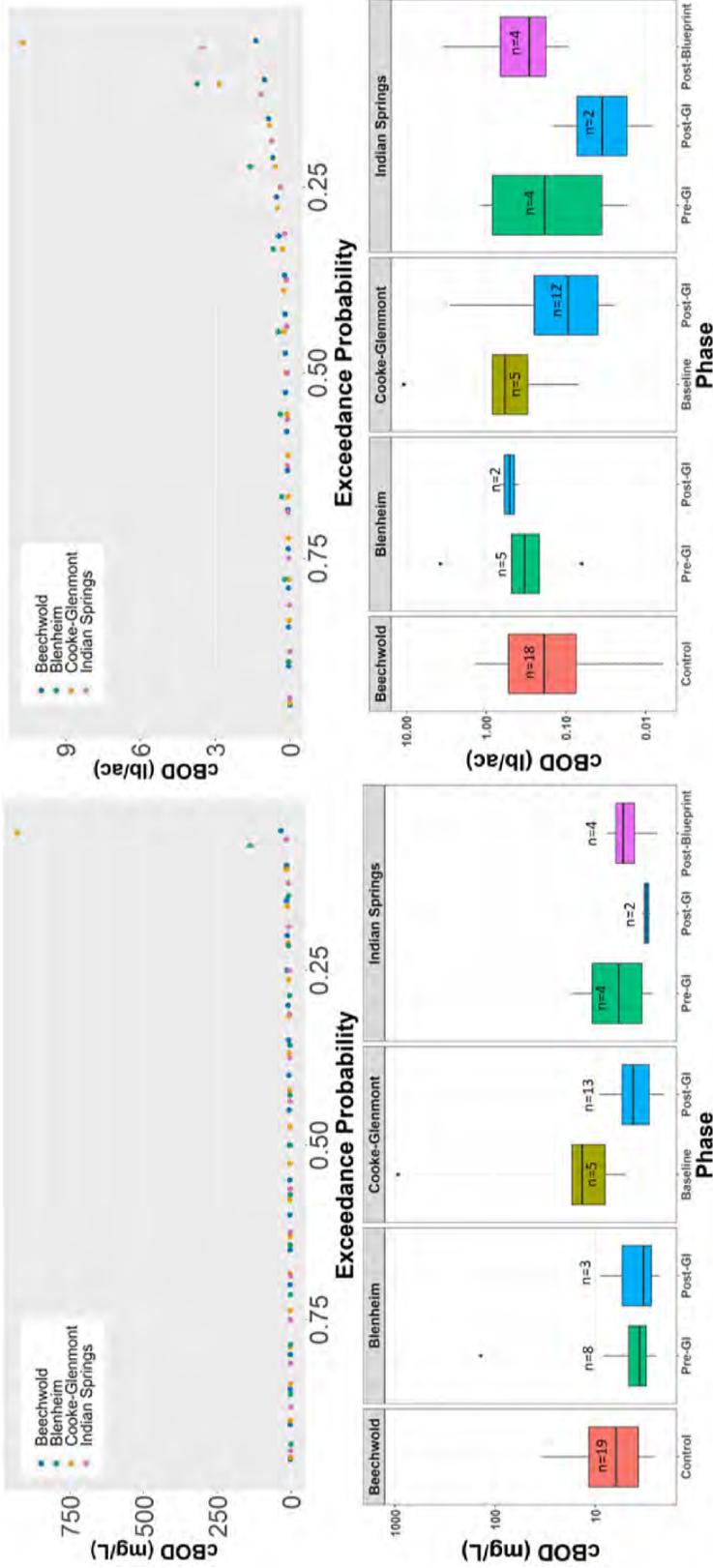
**Table 2: Statistical Results and Interpretation**

| Treatment Sewershed | Parameter    | ANCOVA type | p-value | Interpretation     |
|---------------------|--------------|-------------|---------|--------------------|
| Blenheim            | Conc (mg/L)  | intercept   | 0.006*  | No sig. difference |
|                     | Load (lb/ac) | intercept   | 0.806   | No sig. difference |
| Cooke-Glenmont      | Conc (mg/L)  | intercept   | 0.027*  | No sig. difference |
|                     | Load (lb/ac) | intercept   | 0.499   | No sig. difference |
| Indian Springs      | Conc (mg/L)  | intercept   | 0.707   | No sig. difference |
|                     | Load (lb/ac) | intercept   | 0.923   | No sig. difference |
| Post-GI             | Conc (mg/L)  | intercept   | 0.651   | No sig. difference |
|                     | Load (lb/ac) | intercept   | 0.288   | No sig. difference |

**Table 3: Statistics by Project Phase for all Sampled Events**

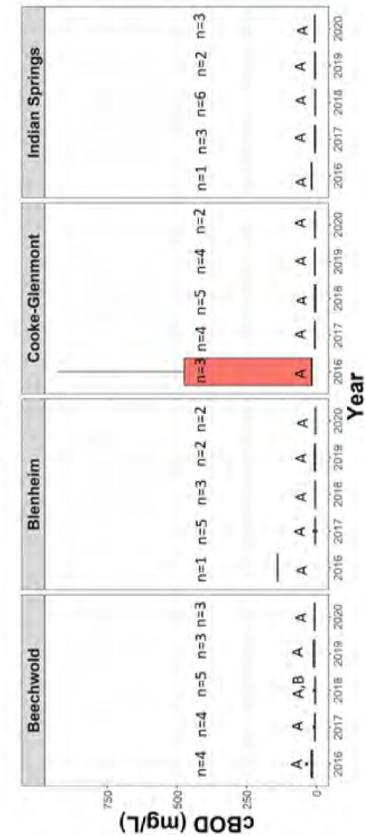
| Concentration (mg/L) | Load (lb/ac) |     |     |          |             |
|----------------------|--------------|-----|-----|----------|-------------|
|                      | Min          | Med | Max | Mean+/SD |             |
| Beechwood            | n            | 20  | 3.6 | 9.75     | 120         |
|                      | Min          | 4.1 | 6.4 | 17       | 15.7+/-25.6 |
|                      | Med          | 4.1 | 6.4 | 17       | 7.62+/-4.42 |
|                      | Max          | 2   | 3.1 | 6.55     | 10          |
| Blenheim             | n            | 5   | 8   | 13.5     | 28          |
|                      | Min          | 4   | 3.4 | 7        | 15.7+/-7.46 |
|                      | Med          | 4   | 3.4 | 7        | 6.12+/-3.72 |
|                      | Max          | 2   | 4.1 | 4.95     | 5.8         |
| Cooke-Glenmont       | n            | 4   | 3.1 | 5        | 16          |
|                      | Min          | 4   | 3.1 | 5        | 8.35+/-5.78 |
|                      | Med          | 4   | 3.1 | 5        | 4.95+/-1.2  |
|                      | Max          | 2   | 4.1 | 4.95     | 5.8         |
| Indian Springs       | n            | 4   | 3.1 | 5        | 16          |
|                      | Min          | 4   | 3.1 | 5        | 7.28+/-5.89 |
|                      | Med          | 4   | 3.1 | 5        | 4.12        |
|                      | Max          | 2   | 4.1 | 4.95     | 5.8         |

**Figure 44. Summary statistics of BOD in water quality samples collected from Clintonville sewersheds and results of analyses comparing project phases. Significant differences ( $p < 0.05$ ), determined from Kruskal-Wallis/Dunn's test with Bonferroni corrections, are represented by different letters in box plots. Asterisk denotes differences were significant at  $p < 0.1$ .**



**Table 1: Median and Least-Squares Mean (LSM) when both Control and Treatment Took a Sample**  
 (\*Pre-GI at Cooke-Glenmont was "Baseline", \*\* Post-GI is the Post-Blueprint phase)

| Treatment Sewershed | Parameter    | n | Pre-GI      |              | Post-GI     |              | LSM Difference (%) |        |
|---------------------|--------------|---|-------------|--------------|-------------|--------------|--------------------|--------|
|                     |              |   | Conc (mg/L) | Load (lb/ac) | Conc (mg/L) | Load (lb/ac) | Median             | Median |
| Blenheim            | Conc (mg/L)  | 6 | 4.65        | 3.65         | 2           | 9.96         | 5.42               | -23.5  |
|                     | Load (lb/ac) | 2 | 0.16        | 0.14         | 2           | 0.33         | 0.51               | 252.0  |
| Cooke-Glenmont*     | Conc (mg/L)  | 5 | 13.50       | 13.50        | 7           | 6.20         | 4.20               | -82.5  |
|                     | Load (lb/ac) | 4 | 0.56        | 0.69         | 7           | 0.14         | 0.07               | -84.8  |
| Indian Springs      | Conc (mg/L)  | 3 | 7.80        | 3.70         | 2           | 4.15         | 3.09               | -44.3  |
|                     | Load (lb/ac) | 2 | 0.25        | 0.03         | 2           | 0.24         | 0.04               | 27.3   |
| Indian Springs**    | Conc (mg/L)  | 3 | 7.80        | 3.70         | 4           | 7.87         | 5.28               | -14    |
|                     | Load (lb/ac) | 2 | 0.25        | 0.03         | 4           | 0.21         | 0.29               | 137.5  |



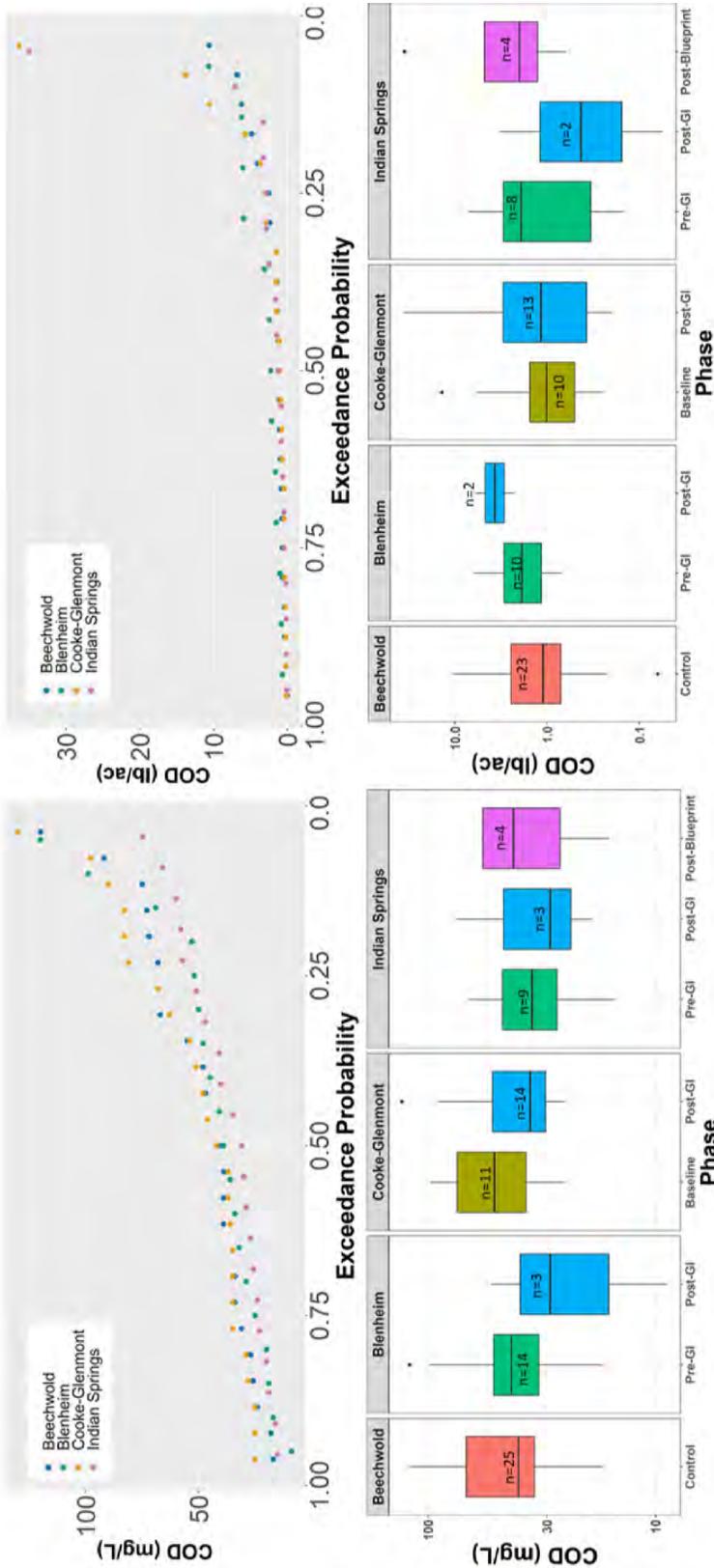
**Table 2: Statistical Results and Interpretation**

| Treatment Sewershed | Parameter    | ANCOVA type | p-value | interpretation     |
|---------------------|--------------|-------------|---------|--------------------|
| Blenheim            | Conc (mg/L)  | intercept   | 0.072   | No sig. difference |
|                     | Load (lb/ac) | NA          | NA      | -                  |
| Cooke-Glenmont      | Conc (mg/L)  | intercept   | 0.114   | No sig. difference |
|                     | Load (lb/ac) | intercept   | 0.270   | No sig. difference |
| Indian Springs      | Conc (mg/L)  | intercept   | 0.281   | No sig. difference |
|                     | Load (lb/ac) | NA          | NA      | -                  |
| Indian Springs      | Conc (mg/L)  | intercept   | 0.904   | No sig. difference |
|                     | Load (lb/ac) | intercept   | 0.122   | No sig. difference |

**Table 3: Statistics by Project Phase for all Sampled Events**

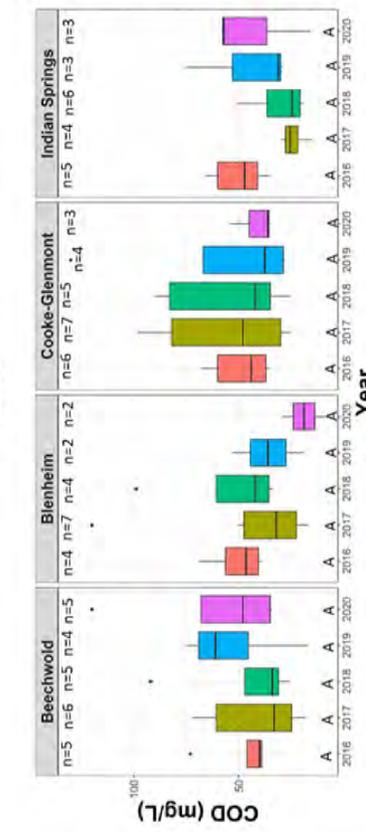
| Concentration (mg/L) | Load (lb/ac) |      |      |             |             |               |      |      |      |                |                  |
|----------------------|--------------|------|------|-------------|-------------|---------------|------|------|------|----------------|------------------|
|                      | Min          | Med  | Max  | Mean +/- SD |             |               |      |      |      |                |                  |
| Beechworld           | n            | 19   | 2.6  | 6.2         | 34.5        | 8.75 +/- 7.66 | 18   | 0.01 | 0.19 | 1.38           | 0.352 +/- 0.398  |
|                      | Min          | 2.45 | 3.65 | 140         | 21 +/- 48.1 | 5             | 0.06 | 0.33 | 3.74 | 0.965 +/- 1.56 |                  |
|                      | Med          | 3    | 2.3  | 3.3         | 8.9         | 4.83 +/- 3.56 | 2    | 0.38 | 0.53 | 0.68           | 0.53 +/- 0.208   |
|                      | Max          | 5    | 5    | 13.5        | 930         | 195 +/- 411   | 5    | 0.07 | 0.58 | 10.74          | 2.5 +/- 4.61     |
| Blenheim             | n            | 13   | 2.1  | 4.2         | 9.2         | 4.74 +/- 2.18 | 12   | 0.02 | 0.10 | 2.83           | 0.367 +/- 0.79   |
|                      | Min          | 4    | 2.7  | 6.45        | 17          | 8.15 +/- 6.56 | 4    | 0.02 | 0.40 | 1.17           | 0.495 +/- 0.562  |
|                      | Med          | 2    | 2.8  | 3.1         | 3.4         | 3.1 +/- 0.424 | 2    | 0.01 | 0.08 | 0.15           | 0.0794 +/- 0.101 |
|                      | Max          | 4    | 2.4  | 5.3         | 7.7         | 5.18 +/- 2.21 | 4    | 0.09 | 0.30 | 3.51           | 1.05 +/- 1.64    |

Figure 45. Summary statistics of cBOD in water quality samples collected from Clintonville sewersheds and results of analyses comparing project phases. Significant differences ( $p < 0.05$ ), determined from Kruskal-Wallis/Dunn's test with Bonferroni corrections, are represented by different letters in box plots. Asterisk denotes differences were significant at  $p < 0.1$ .



**Table 1: Median and Least-Squares Mean (LSM) when both Control and Treatment Took a Sample**  
 (\*Pre-GI at Cooke-Glenmont was 'Baseline', \*\* Post-GI is the Post-Blueprint phase)

| Treatment Sewershed | Parameter    | n  | Pre-GI         |                  | Post-GI        |                  | LSM        |     |
|---------------------|--------------|----|----------------|------------------|----------------|------------------|------------|-----|
|                     |              |    | Control Median | Treatment Median | Control Median | Treatment Median | Difference | (%) |
| Blenheim            | Conc (mg/L)  | 11 | 39.00          | 48.00            | 94.87          | 39.20            | -17.7      |     |
|                     | Load (lb/ac) | 6  | 0.87           | 1.27             | 3.14           | 3.68             | 142.3      |     |
| Cooke-Glenmont*     | Conc (mg/L)  | 8  | 42.90          | 49.48            | 60.70          | 40.12            | -8.8       |     |
|                     | Load (lb/ac) | 7  | 1.09           | 0.95             | 1.18           | 1.10             | 28.7       |     |
| Indian Springs      | Conc (mg/L)  | 7  | 39.00          | 35.00            | 26.00          | 29.00            | 4.5        |     |
|                     | Load (lb/ac) | 6  | 0.76           | 1.08             | 2.15           | 0.43             | -47.6      |     |
| Indian Springs**    | Conc (mg/L)  | 7  | 39.00          | 35.00            | 71.41          | 42.04            | 8.2        |     |
|                     | Load (lb/ac) | 6  | 0.76           | 1.08             | 1.19           | 2.00             | 273        |     |



**Table 3: Statistics by Project Phase for all Sampled Events**

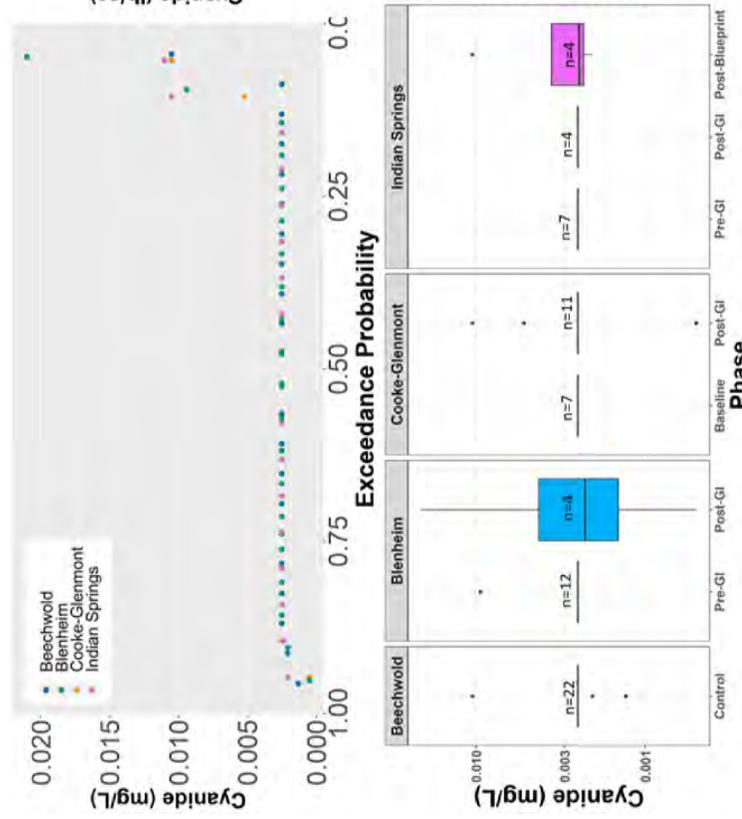
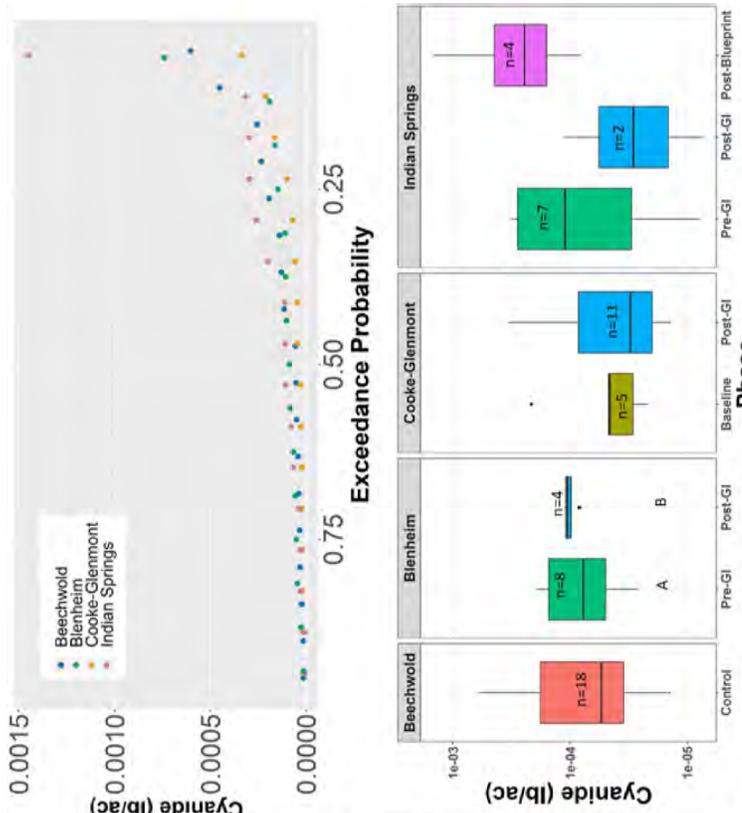
| Site           | Phase          | Concentration (mg/L) |      |      |     | Load (lb/ac) |     |      |      |       |
|----------------|----------------|----------------------|------|------|-----|--------------|-----|------|------|-------|
|                |                | n                    | Min  | Med  | Max | n            | Min | Med  | Max  |       |
| Beechwood      | Control        | 25                   | 17   | 40   | 120 | 49.4+/-24.8  | 23  | 0.06 | 1.11 | 10.61 |
|                | Pre-GSI        | 14                   | 17   | 43   | 120 | 49.4+/-29.2  | 10  | 0.70 | 1.91 | 6.22  |
|                | Post-GSI       | 3                    | 8.85 | 29   | 53  | 30.3+/-22.1  | 2   | 2.28 | 4.12 | 5.95  |
| Blenheim       | Baseline       | 11                   | 25   | 51   | 98  | 56.9+/-23.5  | 10  | 0.24 | 1.02 | 13.85 |
|                | Pre-GSI        | 14                   | 25   | 35.5 | 130 | 49.5+/-30.7  | 13  | 0.20 | 1.16 | 36.41 |
|                | Post-GSI       | 9                    | 15   | 35   | 66  | 38.3+/-16.9  | 8   | 0.15 | 2.05 | 7.10  |
| Cooke-Glenmont | Pre-GSI        | 3                    | 19   | 29   | 75  | 41+/-29.9    | 2   | 0.06 | 1.69 | 3.32  |
|                | Post-GSI       | 4                    | 16   | 44   | 58  | 40.5+/-20.6  | 4   | 0.62 | 2.04 | 35.08 |
|                | Post-Blueprint | 4                    | 16   | 44   | 58  | 40.5+/-20.6  | 4   | 0.62 | 2.04 | 35.08 |

**Table 2: Statistical Results and Interpretation**

| Treatment Sewershed | Parameter    | ANCOVA type | p-value | Interpretation     |
|---------------------|--------------|-------------|---------|--------------------|
| Blenheim            | Conc (mg/L)  | intercept   | 0.035*  | No sig. difference |
|                     | Load (lb/ac) | intercept   | 0.492   | No sig. difference |
| Cooke-Glenmont      | Conc (mg/L)  | intercept   | 0.333   | No sig. difference |
|                     | Load (lb/ac) | intercept   | 0.896   | No sig. difference |
| Indian Springs      | Conc (mg/L)  | intercept   | 0.574   | No sig. difference |
|                     | Load (lb/ac) | intercept   | 0.799   | No sig. difference |
| Indian Springs      | Conc (mg/L)  | intercept   | 0.134   | No sig. difference |
|                     | Load (lb/ac) | intercept   | 0.367   | No sig. difference |

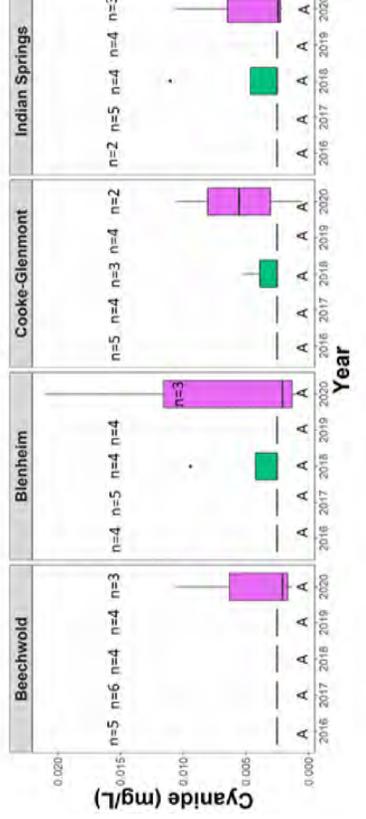
\*model residuals were not normally distributed

Figure 46. Summary statistics of COD in water quality samples collected from Clintonville sewersheds and results of analyses comparing project phases. Significant differences ( $p < 0.05$ ), determined from Kruskal-Wallis/Dunn's test with Bonferroni corrections, are represented by different letters in box plots. Asterisk denotes differences were significant at  $p < 0.1$ .



**Table 1: Median and Least-Squares Mean (LSM) when both Control and Treatment Took a Sample**  
 (\*Pre-GI at Cooke-Glenmont was "Baseline", \*\* Post-GI is the Post-Blueprint phase)

| Treatment Sewershed | Parameter    | Pre-GI         |                  | Post-GI        |                  | LSM Difference (%) |
|---------------------|--------------|----------------|------------------|----------------|------------------|--------------------|
|                     |              | Control Median | Treatment Median | Control Median | Treatment Median |                    |
| Blenheim            | Conc (mg/L)  | 2.50E-03       | 2.50E-03         | 2.26E-03       | 2.26E-03         | 8.3                |
| Blenheim            | Load (lb/ac) | 4              | 4.47E-05         | 4              | 7.54E-05         | 35.9               |
| Cooke-Glenmont*     | Conc (mg/L)  | 5              | 2.50E-03         | 10             | 2.50E-03         | 5.7                |
| Cooke-Glenmont*     | Load (lb/ac) | 3              | 2.89E-05         | 8              | 4.76E-05         | 52.8               |
| Indian Springs      | Conc (mg/L)  | 6              | 2.50E-03         | 4              | 2.50E-03         | 0.0                |
| Indian Springs      | Load (lb/ac) | 5              | 5.26E-05         | 2              | 1.42E-04         | -37.4              |
| Indian Springs**    | Conc (mg/L)  | 6              | 2.50E-03         | 4              | 2.26E-03         | 34.8               |
| Indian Springs**    | Load (lb/ac) | 5              | 5.26E-05         | 4              | 7.54E-05         | 533                |



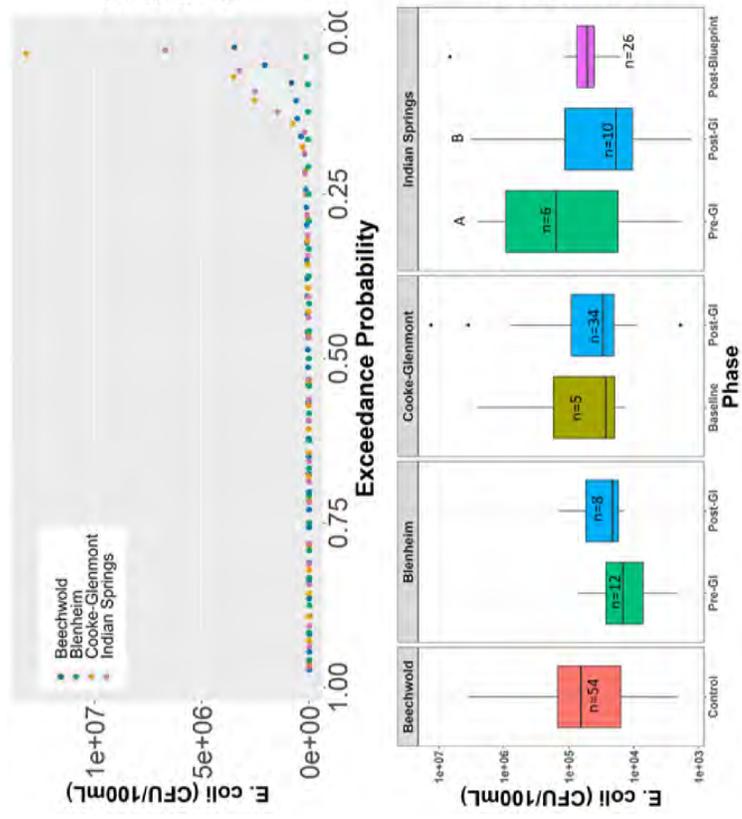
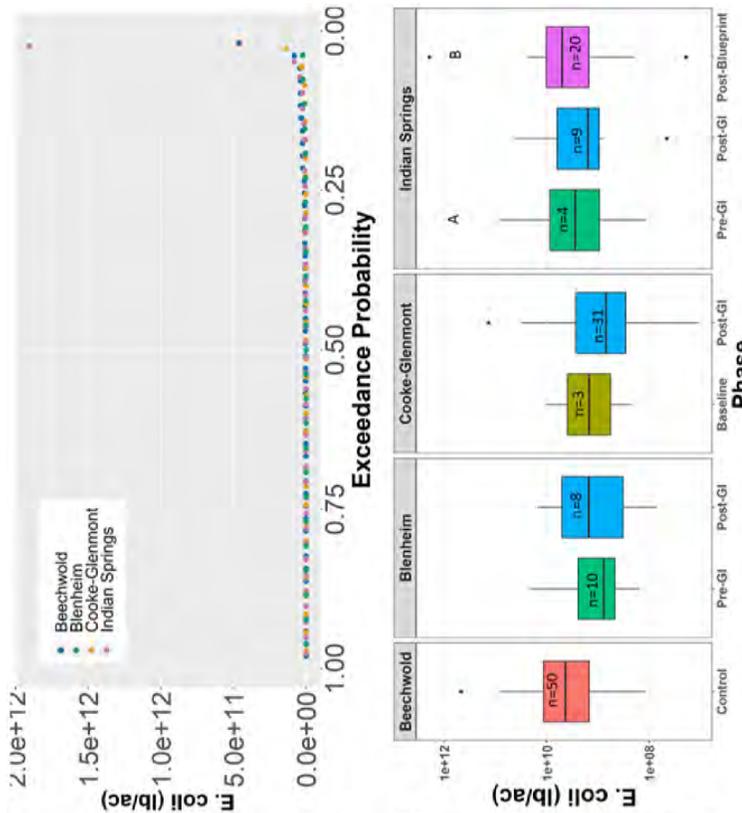
**Table 3: Statistics by Project Phase for all Sampled Events**

| Concentration (mg/L) | Control |        |        | Pre-GI            |                   |                  | Post-GI    |                   |            | Post-Blueprint |            |                  |
|----------------------|---------|--------|--------|-------------------|-------------------|------------------|------------|-------------------|------------|----------------|------------|------------------|
|                      | Min     | Med    | Max    | Min               | Med               | Max              | Min        | Med               | Max        | Min            | Med        | Max              |
| Mean+/-SD            | 0.00013 | 0.0025 | 0.0105 | 0.00279+/-0.00174 | 0.00308+/-0.00199 | 0.00651+/-0.0097 | 0.0025+/-0 | 0.00329+/-0.00262 | 0.0025+/-0 | 0.0025+/-0     | 0.0025+/-0 | 0.00436+/-0.0041 |
| n                    | 22      | 12     | 4      | 7                 | 11                | 7                | 4          | 4                 | 4          | 4              | 4          | 4                |

**Table 2: Statistical Results and Interpretation**

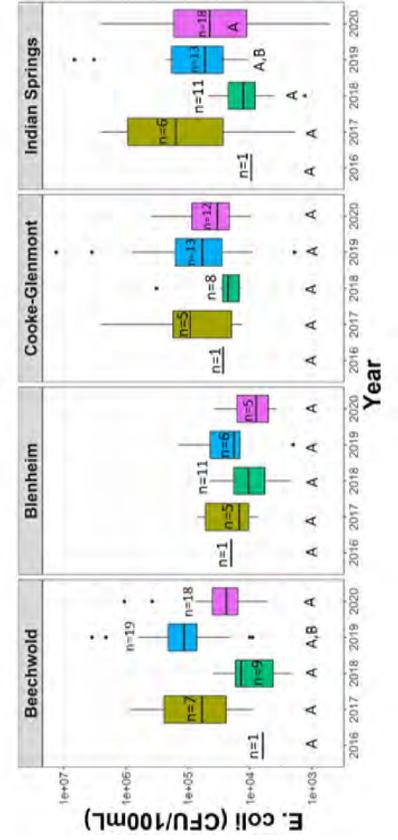
| Treatment Sewershed | Parameter    | ANCOVA type | p-value | Interpretation     |
|---------------------|--------------|-------------|---------|--------------------|
| Blenheim            | Conc (mg/L)  | NA          | NA      | No sig. difference |
|                     | Load (lb/ac) | slope       | 0.044   | Pre-GI<Post-GI     |
| Cooke-Glenmont      | Conc (mg/L)  | NA          | NA      | No sig. difference |
|                     | Load (lb/ac) | intercept   | 0.487   | No sig. difference |
| Indian Springs      | Conc (mg/L)  | NA          | NA      | No sig. difference |
|                     | Load (lb/ac) | intercept   | 0.885   | No sig. difference |
| Indian Springs      | Conc (mg/L)  | NA          | NA      | No sig. difference |
|                     | Load (lb/ac) | intercept   | 0.098   | No sig. difference |

Figure 47. Summary statistics of Cyanide in water quality samples collected from Clintonville sewersheds and results of analyses comparing project phases. Significant differences ( $p < 0.05$ ), determined from Kruskal-Wallis/Dunn's test with Bonferroni corrections, are represented by different letters in box plots. Asterisk denotes differences were significant at  $p < 0.1$ .



**Table 1: Median and Least-Squares Mean (LSM) when both Control and Treatment Took a Sample**  
 (\*Pre-GI at Cooke-Glenmont was 'Baseline', \*\* Post-GI is the Post-Blueprint phase)

| Treatment Sewershed | Parameter        | n | Pre-GI         |             | Post-GI          |               | LSM               |                |
|---------------------|------------------|---|----------------|-------------|------------------|---------------|-------------------|----------------|
|                     |                  |   | Control Median | Control Max | Treatment Median | Treatment Max | Difference Median | Difference Max |
| Blenheim            | Conc (CFU/100mL) | 9 | 2.00E+04       | 2.00E+04    | 1.98E+04         | 2.31E+04      | 1.40E+04          | -22.0          |
| Blenheim            | Load (lb/ac)     | 3 | 2.68E+09       | 2.68E+09    | 5.02E+08         | 5.38E+09      | 8.82E+08          | 11.2           |
| Cooke-Glenmont*     | Conc (CFU/100mL) | 5 | 5.90E+04       | 5.90E+04    | 2.69E+04         | 2.38E+04      | 2.73E+04          | -48.0          |
| Cooke-Glenmont*     | Load (lb/ac)     | 3 | 2.40E+10       | 2.40E+10    | 1.47E+09         | 6.33E+09      | 6.4E+08           | -60.4          |
| Indian Springs      | Conc (CFU/100mL) | 5 | 5.90E+04       | 5.90E+04    | 2.24E+05         | 4.15E+04      | 1.19E+04          | -92.9          |
| Indian Springs      | Load (lb/ac)     | 4 | 8.03E+09       | 8.03E+09    | 2.76E+09         | 2.32E+10      | 1.58E+09          | -45.0          |
| Indian Springs**    | Conc (CFU/100mL) | 5 | 5.90E+04       | 5.90E+04    | 2.24E+05         | 3.30E+04      | 4.80E+04          | -81.4          |
| Indian Springs**    | Load (lb/ac)     | 3 | 2.68E+09       | 2.68E+09    | 4.01E+09         | 5.92E+09      | 6.00E+09          | 43.3           |



**Table 2: Statistical Results and Interpretation**

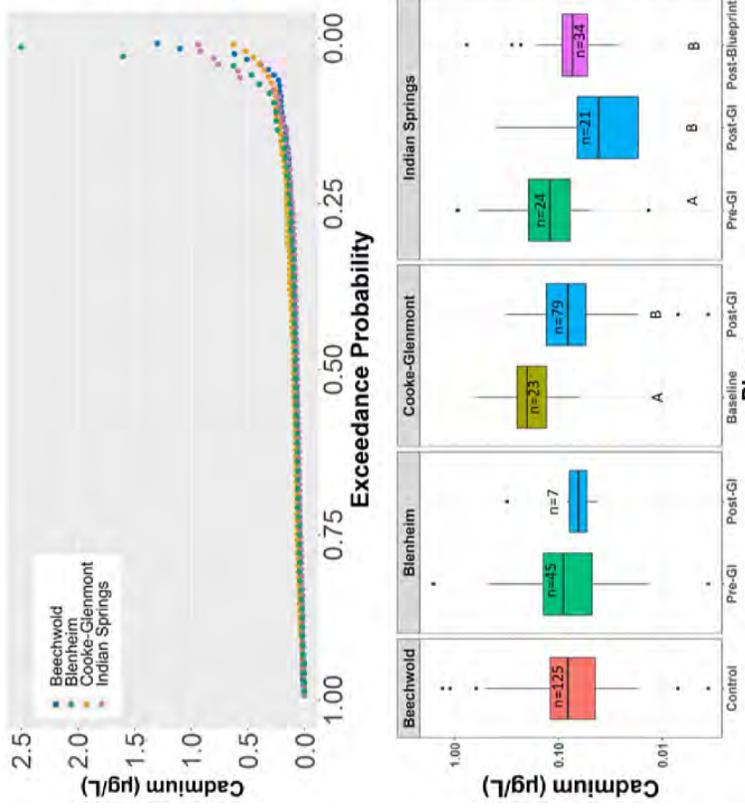
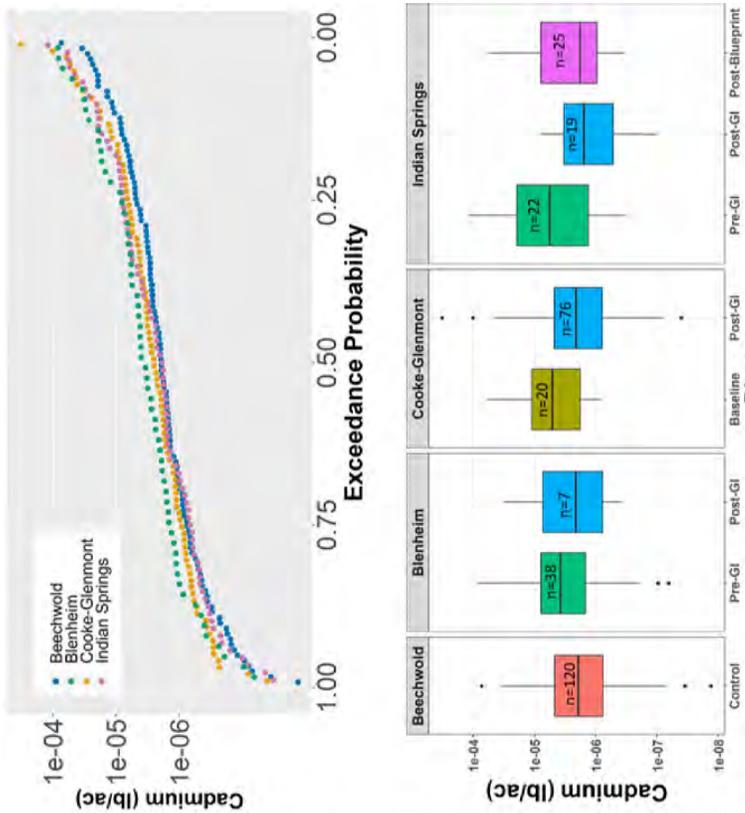
| Treatment Sewershed | Parameter | ANCOVA type | p-value | Interpretation     |
|---------------------|-----------|-------------|---------|--------------------|
| Blenheim            | Conc      | intercept   | 0.315   | No sig. difference |
|                     | Load      | intercept   | 0.897   | No sig. difference |
| Cooke-Glenmont      | Conc      | intercept   | 0.434   | No sig. difference |
|                     | Load      | intercept   | 0.461   | No sig. difference |
| Indian Springs      | Conc      | intercept   | 0.004*  | Pre-GI>Post-GI     |
|                     | Load      | intercept   | 0.185   | No sig. difference |
| Indian Springs      | Conc      | intercept   | 0.101   | No sig. difference |
|                     | Load      | slope       | 0.002*  | Pre-GI<Post-BP     |

\*model residuals were not normally distributed

**Table 3: Statistics by Project Phase for all Sampled Events**

| Site           | Phase          | Concentration (CFU/100mL) |       |         |                  | Load (lb/ac)      |          |          |          |                     |                     |
|----------------|----------------|---------------------------|-------|---------|------------------|-------------------|----------|----------|----------|---------------------|---------------------|
|                |                | Min                       | Med   | Max     | n                | Min               | Med      | Max      | Mean+/SD |                     |                     |
| Beechwood      | Control        | 2100                      | 31300 | 3500000 | 2150000+/-568000 | 50                | 1.18E+08 | 4.27E+09 | 4.63E+11 | 1.97E+10+/-6.58E+10 |                     |
|                | Pre-GSI        | 12                        | 2150  | 14634   | 70000            | 225000+/-21500    | 10       | 1.53E+08 | 7.96E+08 | 2.10E+10            | 3.19E+09+/-6.36E+09 |
|                | Post-GSI       | 8                         | 3700  | 15150   | 139000           | 306000+/-45100    | 8        | 7.03E+07 | 1.72E+09 | 1.49E+10            | 4.1E+09+/-5.41E+09  |
| Cooke-Glenmont | Baseline       | 5                         | 13400 | 26900   | 2559000          | 558000+/-112000   | 3        | 2.17E+08 | 1.47E+09 | 1.03E+10            | 3.99E+09+/-5.47E+09 |
|                | Post-GSI       | 34                        | 1900  | 29500   | 13200000         | 2770000+/-2310000 | 31       | 1.09E+07 | 7.05E+08 | 1.37E+11            | 7E+09+/-2.48E+10    |
| Indian Springs | Pre-GSI        | 6                         | 1890  | 166500  | 2528000          | 728000+/-1050000  | 4        | 1.15E+08 | 2.95E+09 | 8.27E+10            | 2.22E+10+/-4.04E+10 |
|                | Post-GSI       | 10                        | 1300  | 19950   | 3250000          | 3750000+/-1010000 | 9        | 4.55E+07 | 1.58E+09 | 4.07E+10            | 8.13E+09+/-1.32E+10 |
| Post-Blueprint | Pre-GI         | 26                        | 500   | 49000   | 6710000          | 4570000+/-1380000 | 20       | 1.91E+07 | 5.07E+09 | 1.91E+12            | 1.01E+11+/-4.25E+11 |
|                | Post-Blueprint | 26                        | 500   | 49000   | 6710000          | 4570000+/-1380000 | 20       | 1.91E+07 | 5.07E+09 | 1.91E+12            | 1.01E+11+/-4.25E+11 |

**Figure 48. Summary statistics of *E. coli* in water quality samples collected from Clintonville sewersheds and results of analyses comparing project phases. Significant differences ( $p<0.05$ ), determined from Kruskal-Wallis/Dunn's test with Bonferroni corrections, are represented by different letters in box plots. Asterisk denotes differences were significant at  $p<0.1$ .**



**Table 1: Median and Least-Squares Mean (LSM) when both Control and Treatment Took a Sample**  
 (\*Pre-GI at Cooke-Glenmont was "Baseline", \*\* Post-GI is the Post-Blueprint phase)

| Treatment Sewershed | Parameter    | n  | Pre-GI         |                  | Post-GI        |                  | LSM Difference (%) |
|---------------------|--------------|----|----------------|------------------|----------------|------------------|--------------------|
|                     |              |    | Control Median | Treatment Median | Control Median | Treatment Median |                    |
| Blenheim            | Conc (µg/L)  | 37 | 9.90E-02       | 8.90E-02         | 5.10E-02       | 6.14E-02         | -12.6              |
|                     | Load (lb/ac) | 13 | 2.64E-06       | 4.35E-06         | 8.01E-07       | 1.77E-06         | -58.5              |
| Cooke-Glenmont*     | Conc (µg/L)  | 19 | 1.20E-01       | 2.00E-01         | 6.20E-02       | 7.80E-02         | -63.3              |
|                     | Load (lb/ac) | 16 | 5.45E-06       | 5.09E-06         | 1.98E-06       | 1.76E-06         | -68.5              |
| Indian Springs      | Conc (µg/L)  | 20 | 1.05E-01       | 1.15E-01         | 6.60E-02       | 4.10E-02         | -69.6              |
|                     | Load (lb/ac) | 17 | 2.64E-06       | 3.89E-06         | 1.90E-06       | 1.62E-06         | -63.3              |
| Indian Springs**    | Conc (µg/L)  | 20 | 1.05E-01       | 1.15E-01         | 6.20E-02       | 6.80E-02         | -50.2              |
|                     | Load (lb/ac) | 17 | 2.64E-06       | 3.89E-06         | 1.11E-06       | 2.20E-06         | -29.5              |

**Table 2: Statistical Results and Interpretation**

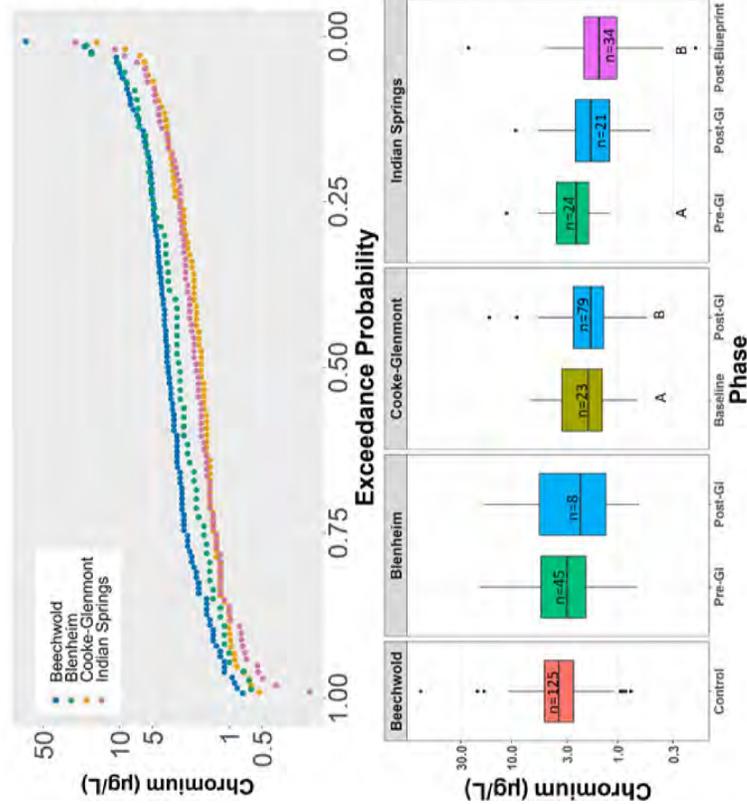
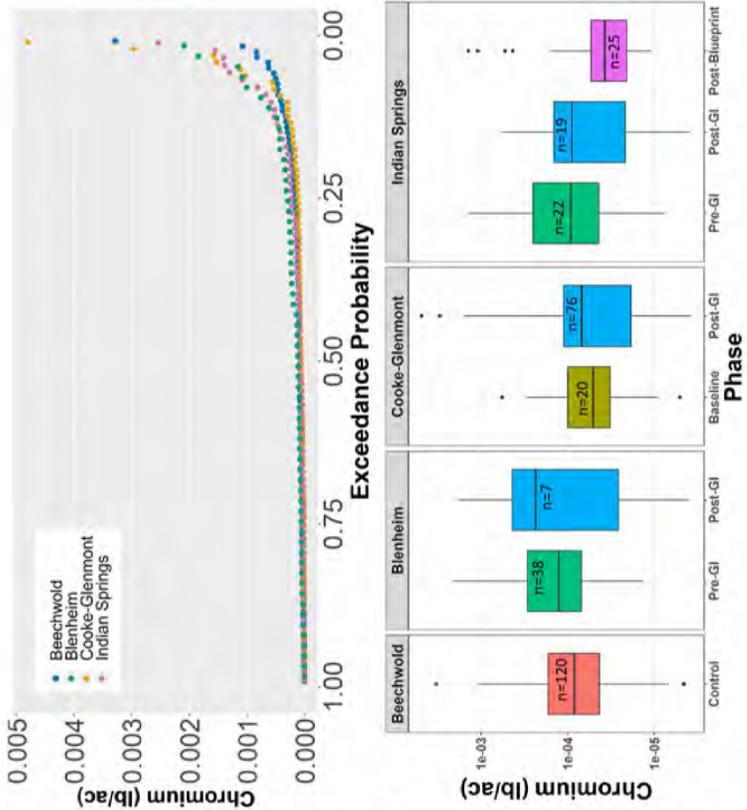
| Treatment Sewershed | Parameter    | ANCOVA type | p-value | Interpretation        |
|---------------------|--------------|-------------|---------|-----------------------|
| Blenheim            | Conc (µg/L)  | intercept   | 0.958   | No sig. difference    |
|                     | Load (lb/ac) | intercept   | 0.645   | No sig. difference    |
| Cooke-Glenmont      | Conc (µg/L)  | intercept   | 0.004   | Baselines>Post-GI     |
|                     | Load (lb/ac) | intercept   | 0.107   | No sig. difference    |
| Indian Springs      | Conc (µg/L)  | slope       | 0.006*  | Pre-GI>Post-GI        |
|                     | Load (lb/ac) | intercept   | 0.108   | No sig. difference    |
| Indian Springs      | Conc (µg/L)  | slope       | 0.015*  | Pre-GI>Post-Blueprint |
|                     | Load (lb/ac) | intercept   | 0.456   | No sig. difference    |

\*model residuals were not normally distributed

**Table 3: Statistics by Project Phase for all Sampled Events**

| Site           | Phase          | Concentration (µg/L) |        |       |      |               | Load (lb/ac) |          |          |          |                   |
|----------------|----------------|----------------------|--------|-------|------|---------------|--------------|----------|----------|----------|-------------------|
|                |                | n                    | Min    | Med   | Max  | Mean±SD       | n            | Min      | Med      | Max      | Mean±SD           |
| Beechwood      | Control        | 125                  | 0.0036 | 0.081 | 1.3  | 0.116±0.165   | 120          | 1.30E-08 | 1.92E-06 | 7.31E-05 | 4.69E-06±8.8E-06  |
|                | Pre-GSI        | 45                   | 0.0036 | 0.089 | 1.6  | 0.14±0.243    | 38           | 6.44E-08 | 3.76E-06 | 8.32E-05 | 1.07E-05±1.98E-05 |
|                | Post-GSI       | 7                    | 0.042  | 0.064 | 0.31 | 0.0971±0.0949 | 7            | 3.74E-07 | 2.10E-06 | 3.16E-05 | 8.01E-06±1.19E-05 |
| Cooke-Glenmont | Baseline       | 23                   | 0.063  | 0.2   | 0.63 | 0.228±0.15    | 20           | 8.31E-07 | 5.11E-06 | 6.01E-05 | 1.21E-05±1.72E-05 |
|                | Post-GSI       | 79                   | 0.0036 | 0.081 | 0.32 | 0.0968±0.0646 | 76           | 3.98E-08 | 2.09E-06 | 3.21E-04 | 1.04E-05±3.88E-05 |
|                | Pre-GI         | 24                   | 0.0135 | 0.12  | 0.94 | 0.218±0.26    | 22           | 3.24E-07 | 6.69E-06 | 1.19E-04 | 1.62E-05±2.7E-05  |
| Indian Springs | Post-GSI       | 21                   | 0.017  | 0.041 | 0.4  | 0.0648±0.085  | 19           | 9.93E-08 | 1.55E-06 | 7.95E-06 | 2.3E-06±2.25E-06  |
|                | Post-Blueprint | 34                   | 0.027  | 0.073 | 0.76 | 0.103±0.128   | 25           | 3.47E-07 | 1.80E-06 | 5.64E-05 | 7.65E-06±1.38E-05 |

Figure 49. Summary statistics of Cadmium in water quality samples collected from Clintonville sewersheds and results of analyses comparing project phases. Significant differences ( $p < 0.05$ ), determined from Kruskal-Wallis/Dunn's test with Bonferroni corrections, are represented by different letters in box plots. Asterisk denotes differences were significant at  $p < 0.1$ .



**Table 1: Median and Least-Squares Mean (LSM) when both Control and Treatment Took a Sample**  
 (\*Pre-GI at Cooke-Glenmont was 'Baseline', \*\* Post-GI is the Post-Blueprint phase)

| Treatment Sewershed | Parameter    | n  | Control Median | Pre-GI Median | Treatment Median | n  | Control Median | Post-GI Median | LSM Difference (%) |
|---------------------|--------------|----|----------------|---------------|------------------|----|----------------|----------------|--------------------|
| Blenheim            | Conc (µg/L)  | 37 | 3.70           | 3.40          | 3.00             | 7  | 5.10           | 2.10           | -38.2              |
|                     | Load (lb/ac) | 13 | 5.76E-05       | 7.20E-05      | 7.74E-05         | 6  | 5.13E-05       | 1.19E-04       | -7.5               |
| Cooke-Glenmont*     | Conc (µg/L)  | 19 | 3.40           | 7.20E-05      | 1.90             | 65 | 3.30           | 1.70           | -4.2               |
|                     | Load (lb/ac) | 16 | 7.20E-05       | 3.40          | 5.06E-05         | 63 | 1.04E-04       | 5.80E-05       | -13.2              |
| Indian Springs      | Conc (µg/L)  | 20 | 3.40           | 3.40          | 2.45             | 17 | 3.00           | 1.90           | -24.7              |
|                     | Load (lb/ac) | 17 | 5.76E-05       | 3.40          | 9.00E-05         | 15 | 6.59E-05       | 1.12E-04       | -8.6               |
| Indian Springs**    | Conc (µg/L)  | 20 | 3.40           | 3.40          | 2.45             | 25 | 2.40           | 1.20           | -54.7              |
|                     | Load (lb/ac) | 17 | 5.76E-05       | 3.40          | 9.00E-05         | 18 | 5.56E-05       | 3.29E-05       | -46.6              |

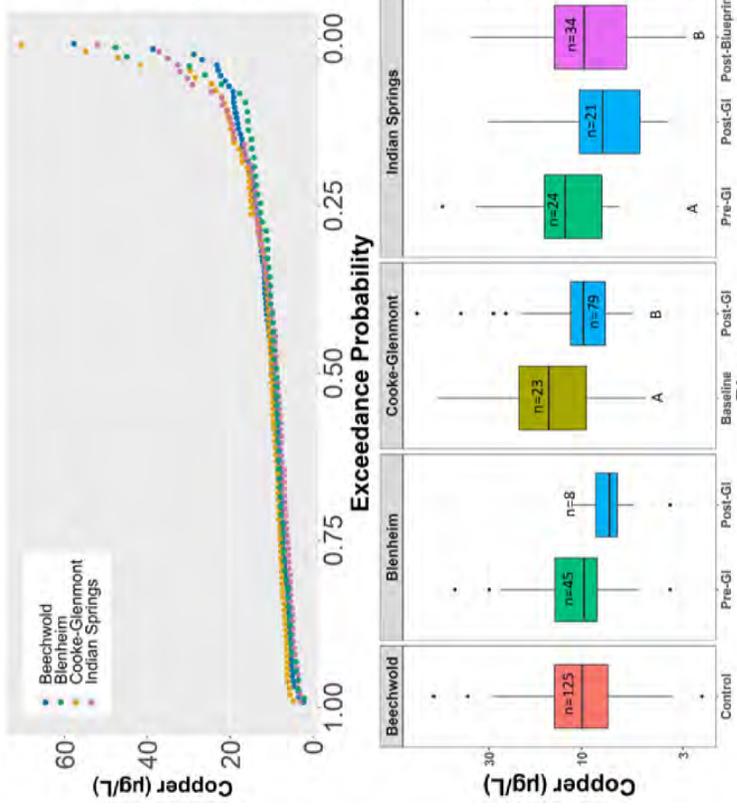
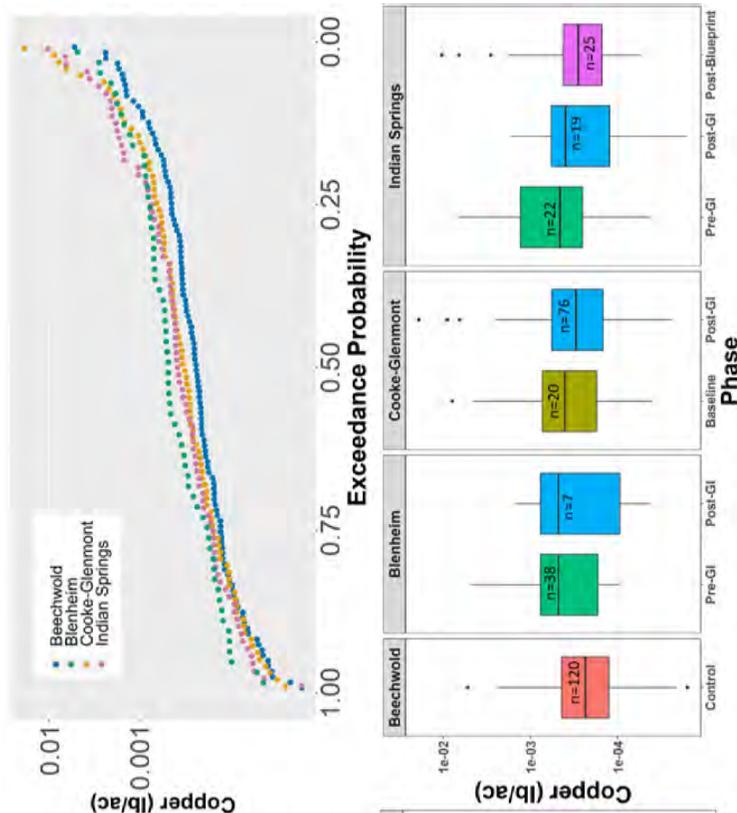
**Table 2: Statistical Results and Interpretation**

| Treatment Sewershed | Parameter    | ANOVA type | p-value   | Interpretation        |
|---------------------|--------------|------------|-----------|-----------------------|
| Blenheim            | Load (lb/ac) | intercept  | 0.149     | No sig. difference    |
|                     | Conc (µg/L)  | slope      | 0.434     | No sig. difference    |
| Cooke-Glenmont      | Load (lb/ac) | intercept  | 0.002     | Baseline>Post-GI      |
|                     | Conc (µg/L)  | intercept  | 0.441     | No sig. difference    |
| Indian Springs      | Load (lb/ac) | intercept  | 0.250     | No sig. difference    |
|                     | Conc (µg/L)  | intercept  | 0.911     | No sig. difference    |
| Indian Springs      | Load (lb/ac) | intercept  | 5.94E-05* | Pre-GI>Post-Blueprint |
|                     | Conc (µg/L)  | intercept  | 0.376     | No sig. difference    |

**Table 3: Statistics by Project Phase for all Sampled Events**

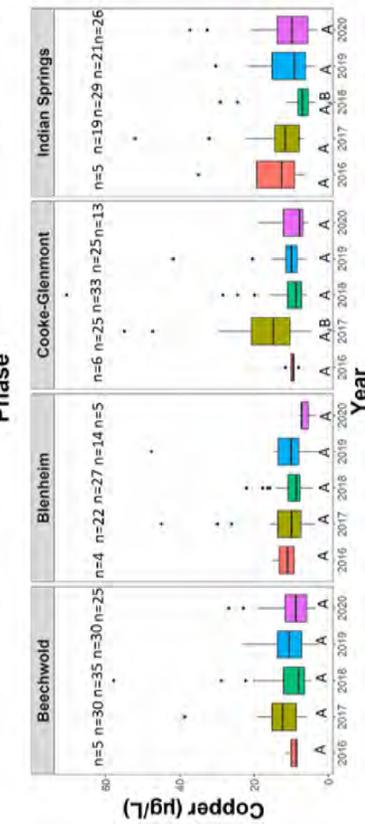
| Site           | Phase          | Concentration (µg/L) |       |      | Load (lb/ac) |           |     |          |          |          |                   |
|----------------|----------------|----------------------|-------|------|--------------|-----------|-----|----------|----------|----------|-------------------|
|                |                | n                    | Min   | Max  | Mean±SD      | Min       | Max |          |          |          |                   |
| Beechwood      | Control        | 125                  | 0.75  | 3.6  | 72           | 4.68±6.74 | 120 | 4.52E-06 | 8.26E-05 | 3.29E-03 | 0.000173±0.00034  |
|                | Pre-GSI        | 45                   | 0.66  | 3    | 20           | 4.15±3.28 | 38  | 1.32E-05 | 1.26E-04 | 2.09E-03 | 0.000294±0.000419 |
| Blenheim       | Post-GSI       | 8                    | 0.63  | 2.25 | 18.1         | 4.53±5.78 | 7   | 3.97E-06 | 2.32E-04 | 1.85E-03 | 0.000432±0.00065  |
|                | Baseline       | 23                   | 0.65  | 1.9  | 6.6          | 2.5±1.7   | 20  | 5.05E-06 | 5.06E-05 | 5.67E-04 | 0.000109±0.000141 |
| Cooke-Glenmont | Post-GSI       | 79                   | 0.53  | 1.8  | 16.2         | 2.35±2.06 | 76  | 3.75E-06 | 6.82E-05 | 4.82E-03 | 0.000245±0.000689 |
|                | Pre-GSI        | 24                   | 1.2   | 2.45 | 11.1         | 3.09±2.1  | 22  | 7.42E-06 | 9.10E-05 | 1.41E-03 | 0.000246±0.000342 |
| Indian Springs | Post-GSI       | 21                   | 0.49  | 1.8  | 9.1          | 2.23±1.92 | 19  | 3.80E-06 | 8.80E-05 | 5.80E-04 | 0.00012±0.00014   |
|                | Post-Blueprint | 34                   | 0.185 | 1.5  | 25.4         | 2.34±4.2  | 25  | 1.08E-05 | 3.68E-05 | 1.39E-03 | 0.000171±0.000349 |

**Figure 50. Summary statistics of Chromium in water quality samples collected from Clintonville sewersheds and results of analyses comparing project phases. Significant differences ( $p < 0.05$ ), determined from Kruskal-Wallis/Dunn's test with Bonferroni corrections, are represented by different letters in box plots. Asterisk denotes differences were significant at  $p < 0.1$ .**



**Table 1: Median and Least-Squares Mean (LSM) when both Control and Treatment Took a Sample**  
 (\*Pre-GI at Cooke-Glenmont was 'Baseline', \*\* Post-GI is the Post-Blueprint phase)

| Treatment Sewershed | Parameter    | n  | Pre-GI         |                  | n  | Post-GI        |                  | LSM Difference (%) |
|---------------------|--------------|----|----------------|------------------|----|----------------|------------------|--------------------|
|                     |              |    | Control Median | Treatment Median |    | Control Median | Treatment Median |                    |
| Blenheim            | Conc (µg/L)  | 37 | 11.10          | 10.30            | 7  | 8.70           | 7.20             | -34.9              |
|                     | Load (lb/ac) | 13 | 2.48E-04       | 4.05E-04         | 6  | 1.39E-04       | 2.91E-04         | -42.3              |
| Cooke-Glenmont*     | Conc (µg/L)  | 19 | 11.30          | 15.35            | 65 | 8.10           | 9.70             | -36.3              |
|                     | Load (lb/ac) | 16 | 3.81E-04       | 4.01E-04         | 63 | 2.80E-04       | 2.83E-04         | -41.0              |
| Indian Springs      | Conc (µg/L)  | 20 | 11.74          | 12.38            | 17 | 6.40           | 7.80             | -37.0              |
|                     | Load (lb/ac) | 17 | 3.30E-04       | 4.47E-04         | 15 | 2.08E-04       | 4.59E-04         | -21.3              |
| Indian Springs**    | Conc (µg/L)  | 20 | 11.74          | 12.38            | 25 | 9.50           | 8.90             | -34.3              |
|                     | Load (lb/ac) | 17 | 3.30E-04       | 4.47E-04         | 18 | 1.51E-04       | 3.03E-04         | -16.4              |



**Table 3: Statistics by Project Phase for all Sampled Events**

| Treatment Sewershed | Parameter    | n  | Concentration (µg/L) |       | n    | Load (lb/ac) |     | Mean+/SD | Max      | Mean+/SD |                     |
|---------------------|--------------|----|----------------------|-------|------|--------------|-----|----------|----------|----------|---------------------|
|                     |              |    | Min                  | Med   |      | Min          | Med |          |          |          |                     |
| Blenheim            | Conc (µg/L)  | 37 | 2.4                  | 9.9   | 57   | 11.4+/-7.04  | 120 | 1.58E-05 | 2.35E-04 | 5.25E-03 | 0.000428+/-0.000631 |
|                     | Load (lb/ac) | 13 | 3.5                  | 9.7   | 45   | 12+/-7.26    | 38  | 9.48E-05 | 4.76E-04 | 4.87E-03 | 0.000777+/-0.000966 |
| Cooke-Glenmont      | Conc (µg/L)  | 19 | 3.5                  | 7.2   | 11.1 | 7.45+/-2.44  | 7   | 4.21E-05 | 4.77E-04 | 1.48E-03 | 0.000537+/-0.000518 |
|                     | Load (lb/ac) | 16 | 4.7                  | 14.8  | 54.9 | 17.9+/-12.2  | 20  | 3.96E-05 | 4.01E-04 | 7.89E-03 | 0.00103+/-0.00189   |
| Indian Springs      | Conc (µg/L)  | 20 | 5.5                  | 9.8   | 70.5 | 11.6+/-8.7   | 76  | 2.39E-05 | 2.98E-04 | 1.90E-02 | 0.000889+/-0.00246  |
|                     | Load (lb/ac) | 17 | 6.4                  | 12.15 | 52.1 | 15.1+/-10.9  | 22  | 4.14E-05 | 4.57E-04 | 6.61E-03 | 0.00102+/-0.00144   |
| Indian Springs**    | Conc (µg/L)  | 20 | 3.6                  | 7.8   | 30.3 | 9.59+/-6.78  | 19  | 1.58E-05 | 3.94E-04 | 1.68E-03 | 0.000444+/-0.000398 |
|                     | Load (lb/ac) | 17 | 2.9                  | 9.7   | 37.2 | 11.5+/-7.64  | 25  | 5.31E-05 | 2.80E-04 | 1.03E-02 | 0.00111+/-0.00235   |

**Table 2: Statistical Results and Interpretation**

| Treatment Sewershed | Parameter              | ANCOVA type | p-value            | Interpretation |
|---------------------|------------------------|-------------|--------------------|----------------|
| Blenheim            | Conc (µg/L) intercept  | 0.052       | No sig. difference |                |
|                     | Load (lb/ac) intercept | 0.304       | No sig. difference |                |
| Cooke-Glenmont      | Conc (µg/L) slope      | 0.005       | Baseline>Post-GI   |                |
|                     | Load (lb/ac) intercept | 0.242       | No sig. difference |                |
| Indian Springs      | Conc (µg/L) intercept  | 0.325       | No sig. difference |                |
|                     | Load (lb/ac) intercept | 0.596       | No sig. difference |                |
| Post-Blueprint      | Conc (µg/L) intercept  | 0.031*      | Pre-GI>Post-BP     |                |
|                     | Load (lb/ac) intercept | 0.698       | No sig. difference |                |

\*model residuals were not normally distributed

Figure 51. Summary statistics of Copper in water quality samples collected from Clintonville sewersheds and results of analyses comparing project phases. Significant differences ( $p < 0.05$ ), determined from Kruskal-Wallis/Dunn's test with Bonferroni corrections, are represented by different letters in box plots. Asterisk denotes differences were significant at  $p < 0.1$ .

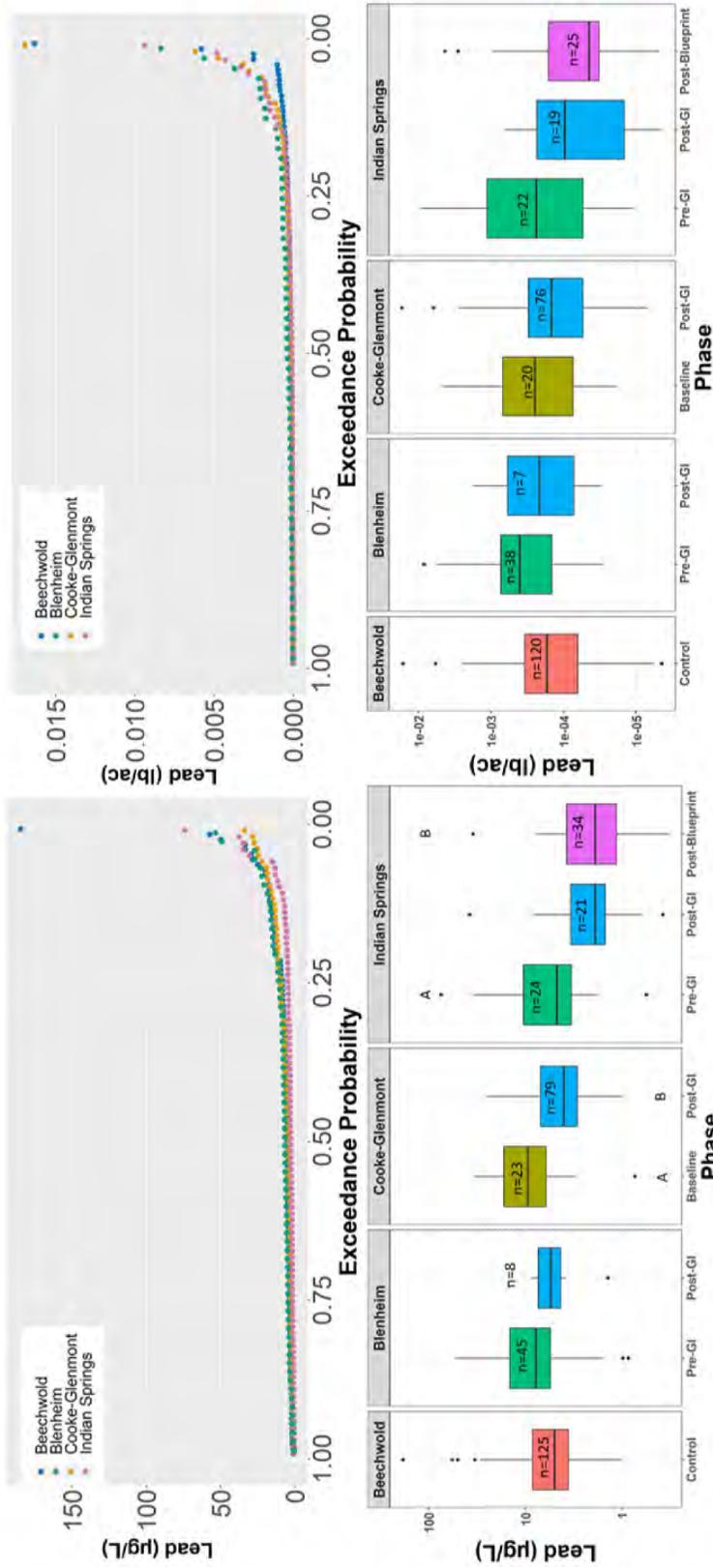


Table 1: Median and Least-Squares Mean (LSM) when both Control and Treatment Took a Sample (\*Pre-GI at Cooke-Glenmont was "Baseline", \*\* Post-GI is the Post-Blueprint phase)

| Treatment Sewershed | Parameter    | n  | Pre-GI      |              | Post-GI     |              | n        | Post-Blueprint |              | LSM Difference (%) |
|---------------------|--------------|----|-------------|--------------|-------------|--------------|----------|----------------|--------------|--------------------|
|                     |              |    | Conc (µg/L) | Load (lb/ac) | Conc (µg/L) | Load (lb/ac) |          | Conc (µg/L)    | Load (lb/ac) |                    |
| Blenheim            | Conc (µg/L)  | 37 | 5.80        | 7.80         | 5.80        | 7            | 3.80     | 5.00           | -44.1        |                    |
|                     | Load (lb/ac) | 13 | 1.48E-04    | 2.92E-04     | 1.48E-04    | 6            | 5.61E-05 | 1.56E-04       | -48.5        |                    |
| Cooke-Glenmont*     | Conc (µg/L)  | 19 | 6.70        | 9.40         | 6.70        | 65           | 4.80     | 4.00           | -49.7        |                    |
|                     | Load (lb/ac) | 16 | 2.09E-04    | 2.47E-04     | 2.09E-04    | 63           | 1.71E-04 | 1.16E-04       | -53.5        |                    |
| Indian Springs      | Conc (µg/L)  | 20 | 5.80        | 4.70         | 5.80        | 17           | 4.10     | 2.30           | -58.3        |                    |
|                     | Load (lb/ac) | 17 | 1.73E-04    | 1.99E-04     | 1.73E-04    | 15           | 1.22E-04 | 1.39E-04       | -50.5        |                    |
| Indian Springs**    | Conc (µg/L)  | 20 | 5.80        | 4.70         | 5.80        | 25           | 4.70     | 1.70           | -67.5        |                    |
|                     | Load (lb/ac) | 17 | 1.73E-04    | 1.99E-04     | 1.73E-04    | 18           | 9.72E-05 | 4.97E-05       | -53.7        |                    |

Table 2: Statistical Results and Interpretation

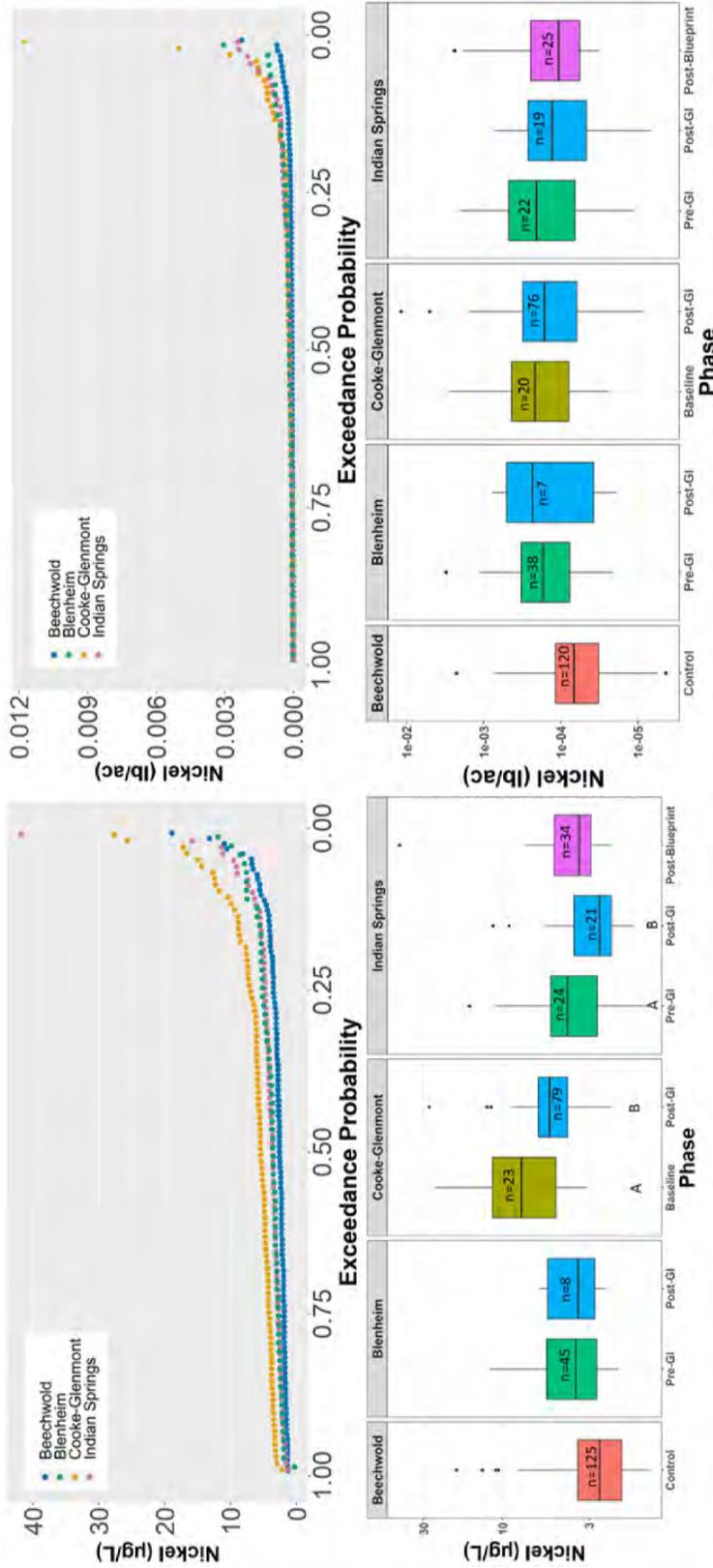
| Treatment Sewershed | Parameter    | ANOVA type | p-value  | Interpretation     |
|---------------------|--------------|------------|----------|--------------------|
| Blenheim            | Conc (µg/L)  | slope      | 0.050    | No sig. difference |
|                     | Load (lb/ac) | intercept  | 0.218    | No sig. difference |
| Cooke-Glenmont      | Conc (µg/L)  | slope      | 0.008*   | Baseline>Post-GI   |
|                     | Load (lb/ac) | intercept  | 0.103    | No sig. difference |
| Indian Springs      | Conc (µg/L)  | intercept  | 0.052    | No sig. difference |
|                     | Load (lb/ac) | intercept  | 0.322    | No sig. difference |
| Indian Springs      | Conc (µg/L)  | intercept  | 9.24E-06 | Pre-GI>Post-BP     |
|                     | Load (lb/ac) | intercept  | 0.260    | No sig. difference |

\*model residuals were not normally distributed

Table 3: Statistics by Project Phase for all Sampled Events

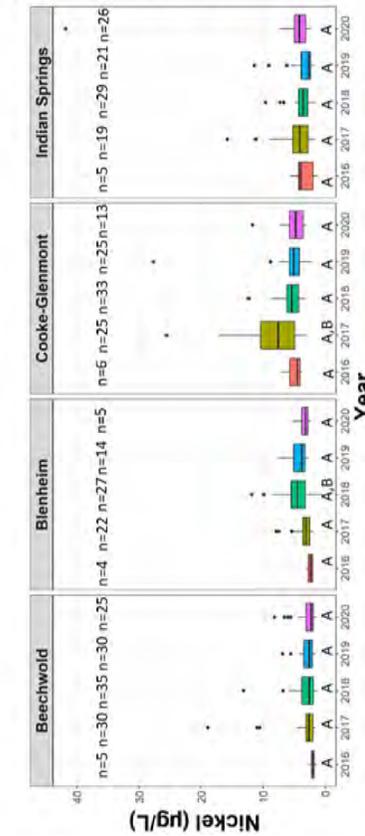
| Site           | Phase          | Concentration (µg/L) |     |      |           | Load (lb/ac) |          |          |          |                     |
|----------------|----------------|----------------------|-----|------|-----------|--------------|----------|----------|----------|---------------------|
|                |                | Min                  | Med | Max  | Mean±SD   | n            | Min      | Med      | Max      | Mean±SD             |
| Beechworld     | Control        | 1                    | 5   | 185  | 9.53±18   | 120          | 4.46E-06 | 1.69E-04 | 1.64E-02 | 0.000451±/0.000159  |
|                | Pre-GSI        | 0.86                 | 7.8 | 53.4 | 11.4±10.8 | 38           | 2.86E-05 | 4.01E-04 | 8.38E-03 | 0.000937±/0.000166  |
| Blenheim       | Post-GSI       | 1.4                  | 5.5 | 8.7  | 5.54±2.36 | 7            | 2.96E-05 | 2.15E-04 | 1.79E-03 | 0.000489±/0.000063  |
|                | Baseline       | 0.74                 | 9.4 | 34   | 12.4±9.18 | 20           | 1.83E-05 | 2.47E-04 | 4.74E-03 | 0.000763±/0.000124  |
| Cooke-Glenmont | Post-GSI       | 0.99                 | 4   | 25.3 | 5.88±4.78 | 76           | 6.89E-06 | 1.48E-04 | 1.70E-02 | 0.000587±/0.000207  |
|                | Pre-GSI        | 0.56                 | 4.7 | 74.2 | 10.6±16   | 22           | 1.11E-05 | 2.43E-04 | 9.41E-03 | 0.00102±/0.000207   |
| Indian Springs | Post-GSI       | 0.38                 | 1.9 | 37.7 | 4.05±7.9  | 19           | 4.38E-06 | 9.63E-05 | 6.45E-04 | 0.000158±/0.0000174 |
|                | Post-Blueprint | 0.33                 | 1.9 | 34.7 | 3.6±5.86  | 25           | 4.80E-06 | 4.49E-05 | 4.32E-03 | 0.000405±/0.0001    |

Figure 52. Summary statistics of Lead in water quality samples collected from Clintonville sewersheds and results of analyses comparing project phases. Significant differences ( $p < 0.05$ ), determined from Kruskal-Wallis/Dunn's test with Bonferroni corrections, are represented by different letters in box plots. Asterisk denotes differences were significant at  $p < 0.1$ .



**Table 1: Median and Least-Squares Mean (LSM) when both Control and Treatment Took a Sample**  
 (\*Pre-GI at Cooke-Glenmont was "Baseline", \*\* Post-GI is the Post-Blueprint phase)

| Treatment Sewershed | Parameter    | Pre-GI      |    | Post-GI     |    | LSM Difference (%) |
|---------------------|--------------|-------------|----|-------------|----|--------------------|
|                     |              | Conc (µg/L) | n  | Conc (µg/L) | n  |                    |
| Blenheim            | Conc         | 2.40        | 37 | 3.60        | 7  | 1.80               |
|                     | Load (lb/ac) | 4.10E-05    | 13 | 9.68E-05    | 6  | 3.35E-05           |
| Cooke-Glenmont*     | Conc         | 2.65        | 19 | 7.70        | 65 | 2.30               |
|                     | Load (lb/ac) | 1.05E-04    | 16 | 2.14E-04    | 63 | 7.40E-05           |
| Indian Springs      | Conc         | 2.45        | 20 | 4.20        | 17 | 2.60               |
|                     | Load (lb/ac) | 6.28E-05    | 17 | 1.72E-04    | 15 | 5.46E-05           |
| Indian Springs**    | Conc         | 2.45        | 20 | 4.20        | 25 | 2.30               |
|                     | Load (lb/ac) | 6.28E-05    | 17 | 1.72E-04    | 18 | 4.85E-05           |



**Table 2: Statistics by Project Phase for all Sampled Events**

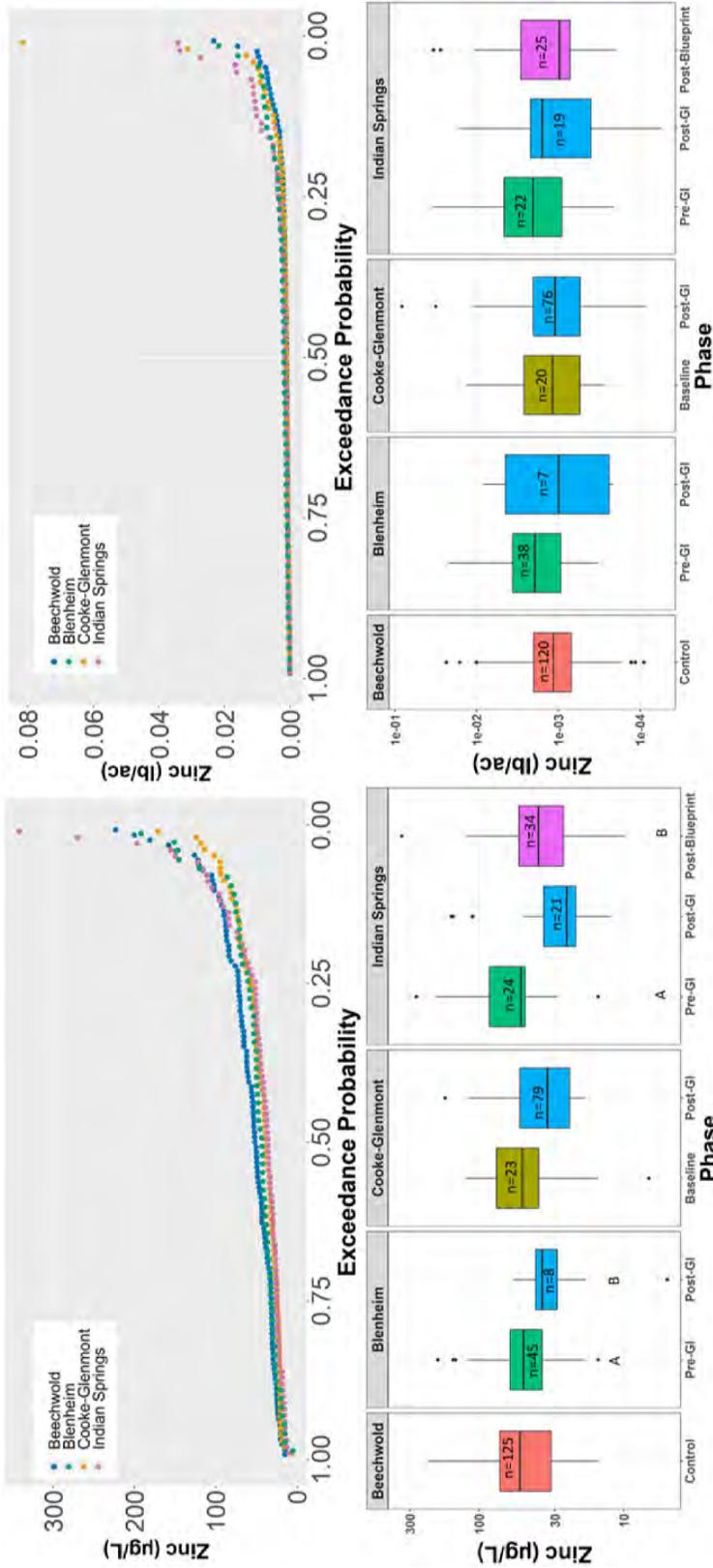
| Treatment Sewershed | Parameter | Concentration (µg/L) |      |      | Load (lb/ac) |          |          |
|---------------------|-----------|----------------------|------|------|--------------|----------|----------|
|                     |           | Min                  | Med  | Max  | Min          | Med      | Max      |
| Blenheim            | Conc      | 1.3                  | 2.6  | 18.9 | 3.16E-06     | 6.76E-05 | 2.28E-03 |
|                     | Load      | 2                    | 3.6  | 11.9 | 4.38E-05     | 1.71E-04 | 3.05E-03 |
| Cooke-Glenmont      | Conc      | 2.4                  | 3.5  | 6    | 3.95E-05     | 2.32E-04 | 7.80E-04 |
|                     | Load      | 3.1                  | 7.7  | 25.6 | 9.22E-05     | 2.15E-04 | 2.79E-03 |
| Indian Springs      | Conc      | 2.2                  | 5.2  | 27.7 | 5.67E-05     | 1.63E-04 | 1.17E-02 |
|                     | Load      | 1.3                  | 4.05 | 15.8 | 4.73E-05     | 2.09E-04 | 2.00E-03 |
| Indian Springs      | Conc      | 1.6                  | 2.6  | 11.4 | 3.54E-05     | 1.28E-04 | 7.17E-04 |
|                     | Load      | 2.2                  | 3.45 | 41.8 | 4.96E-05     | 1.07E-04 | 2.37E-03 |

**Table 3: Statistical Results and Interpretation**

| Treatment Sewershed | Parameter    | ANCOVA type | p-value | Interpretation     |
|---------------------|--------------|-------------|---------|--------------------|
| Blenheim            | Conc (µg/L)  | intercept   | 0.802   | No sig. difference |
|                     | Load (lb/ac) | intercept   | 0.662   | No sig. difference |
| Cooke-Glenmont      | Conc (µg/L)  | intercept   | 0.000   | Baseline>Post-GI   |
|                     | Load (lb/ac) | intercept   | 0.068   | No sig. difference |
| Indian Springs      | Conc (µg/L)  | slope       | 0.030*  | Pre-GI>Post-GI     |
|                     | Load (lb/ac) | intercept   | 0.907   | No sig. difference |
| Indian Springs      | Conc (µg/L)  | intercept   | 0.507   | No sig. difference |
|                     | Load (lb/ac) | intercept   | 0.173   | No sig. difference |

\*model residuals were not normally distributed

Figure 53. Summary statistics of Nickel in water quality samples collected from Clintonville sewersheds and results of analyses comparing project phases. Significant differences ( $p < 0.05$ ), determined from Kruskal-Wallis/Dunn's test with Bonferroni corrections, are represented by different letters in box plots. Asterisk denotes differences were significant at  $p < 0.1$ .



**Table 1: Median and Least-Squares Mean (LSM) when both Control and Treatment Took a Sample**  
 (\*Pre-GI at Cooke-Glenmont was "Baseline", \*\* Post-GI is the Post-Blueprint phase)

| Treatment Sewershed | Parameter    | n  | Pre-GI   |          | Post-GI  |       | Difference (%) |
|---------------------|--------------|----|----------|----------|----------|-------|----------------|
|                     |              |    | Median   | Mean     | Median   | Mean  |                |
| Blenheim            | Conc (ug/L)  | 37 | 61.80    | 50.10    | 34.00    | 49.9  |                |
|                     | Load (lb/ac) | 13 | 1.37E-03 | 1.50E-03 | 7.42E-04 | -61.1 |                |
| Cooke-Glenmont*     | Conc (ug/L)  | 19 | 70.60    | 39.30    | 33.10    | -22.8 |                |
|                     | Load (lb/ac) | 16 | 2.09E-03 | 1.17E-03 | 1.24E-03 | -27.7 |                |
| Indian Springs      | Conc (ug/L)  | 20 | 68.35    | 30.40    | 24.80    | -45.5 |                |
|                     | Load (lb/ac) | 17 | 1.39E-03 | 2.21E-03 | 1.88E-03 | -32.5 |                |
| Indian Springs**    | Conc (ug/L)  | 20 | 68.35    | 49.20    | 36.10    | -40.7 |                |
|                     | Load (lb/ac) | 17 | 1.39E-03 | 2.21E-03 | 1.05E-03 | -21.2 |                |

**Table 2: Statistics by Project Phase for all Sampled Events**

| Treatment Sewershed | Parameter    | n   | Concentration (ug/L) |      | Load (lb/ac) |             |
|---------------------|--------------|-----|----------------------|------|--------------|-------------|
|                     |              |     | Min                  | Med  | Min          | Med         |
| Blenheim            | Conc (ug/L)  | 125 | 14.9                 | 51.8 | 223          | 59.1+/-36.2 |
|                     | Load (lb/ac) | 45  | 15                   | 49.3 | 192          | 56.7+/-35   |
| Cooke-Glenmont      | Conc (ug/L)  | 8   | 5                    | 36.6 | 58           | 33.8+/-16.1 |
|                     | Load (lb/ac) | 23  | 6.7                  | 50   | 124          | 57.5+/-30.6 |
| Indian Springs      | Conc (ug/L)  | 79  | 18.4                 | 33.5 | 171          | 42.4+/-26   |
|                     | Load (lb/ac) | 24  | 15                   | 51.5 | 270          | 71.5+/-56.4 |
| Indian Springs      | Conc (ug/L)  | 21  | 12.2                 | 24.8 | 155          | 45.4+/-44.6 |
|                     | Load (lb/ac) | 34  | 9.8                  | 39   | 342          | 52.9+/-57.5 |

**Table 3: Statistical Results and Interpretation**

| Treatment Sewershed | Parameter    | ANCOVA type | p-value | Interpretation     |
|---------------------|--------------|-------------|---------|--------------------|
| Blenheim            | Conc (ug/L)  | intercept   | 0.003   | Pre-GI>Post-GI     |
|                     | Load (lb/ac) | intercept   | 0.089   | No sig. difference |
| Cooke-Glenmont      | Conc (ug/L)  | intercept   | 0.441   | No sig. difference |
|                     | Load (lb/ac) | intercept   | 0.763   | No sig. difference |
| Indian Springs      | Conc (ug/L)  | intercept   | 0.603   | No sig. difference |
|                     | Load (lb/ac) | intercept   | 0.622   | No sig. difference |
| Indian Springs      | Conc (ug/L)  | intercept   | 0.013   | Pre-GI>Post-BP     |
|                     | Load (lb/ac) | intercept   | 0.402   | No sig. difference |

**Figure 54. Summary statistics of Zinc in water quality samples collected from Clintonville sewersheds and results of analyses comparing project phases. Significant differences ( $p < 0.05$ ), determined from Kruskal-Wallis/Dunn's test with Bonferroni corrections, are represented by different letters in box plots. Asterisk denotes differences were significant at  $p < 0.1$**