ANNE ARUNDEL COUNTY
ILLICIT DISCHARGE DETECTION AND ELIMINATION PROGRAM REPORT: JULY 2021 – JUNE 2022 (Fiscal Year 2022)

Prepared for

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TABLE OF CONTENTS

LIST OF TABLES

Table No. **Page**

1.0 INTRODUCTION

As required in Anne Arundel County's National Pollutant Discharge Elimination System (NPDES) stormwater discharge permit (Permit No. 20-DP-3316, MD0068306), the County is required to investigate and eliminate pollutant sources contributing to the Municipal Separate Storm Sewer System (MS4) from within the County's permit administration area. The purpose of the County's Illicit Discharge Detection and Elimination (IDDE) Program is to identify and eliminate non-permitted, non-stormwater discharges, and potential pollutant sources to the MS4 and to surface water. These discharges can be hazardous to public health, harmful to aquatic life in receiving waters, and damaging to water quality. Dry weather screening is performed on County MS4 outfalls that are identified in a specific target area of the County each year. The field screening includes an outfall assessment, dry weather discharge assessment, infrastructure condition assessment, and an upland pollution assessment.

Anne Arundel County's Bureau of Watershed Protection and Restoration (BWPR) designated KCI Technologies, Inc. (KCI) as the consultant on contract to conduct IDDE outfall inspections for the County during the Fiscal Year (FY) 2022 reporting period (July 1, 2021 to June 30, 2022). As stipulated by permit conditions, KCI screened a minimum of 150 outfalls within the County's NPDES permit administration area within the County's target screening area for FY2022. KCI adhered to Anne Arundel County Bureau of Watershed Protection and Restoration's Illicit Discharge Detection and Elimination Standard Operating Procedures (SOP) for Consultants and BWPR Staff (KCI 2021) for the outfall field screenings. According to the established protocols, KCI inspectors noted outfall attributes, infrastructure conditions, and evidence of dry weather flows, if present, at all outfalls selected as target sites, as defined below. If dry weather discharge was present, inspectors documented conditions relevant to the discharge and prepared to collect and test the effluent for a defined set of chemical constituents. If test results or visual observations indicated potential illicit connections, the crew investigated the drainage network contributing to the outfall and the surrounding areas to identify any possible sources of pollution, including any upland pollution sources. The crews also committed to a return visit to the outfall within 4-24 hours to re-test for the parameters that had values exceeding criteria for the initial test. If the second inspection also indicated test results out of the acceptable ranges, KCI staff alerted County personnel via a written report of the findings and called the County's Environmental Hotline. After results are determined to be outside of acceptable ranges, the field crew followed the storm drain system upstream to attempt to identify the upland source of contaminant(s). County staff then continued the process with appropriate measures to abate violations.

For the 2022 reporting period, KCI targeted 165 outfalls for field screening following Anne Arundel County Bureau of Watershed Protection and Restoration's Illicit Discharge Detection and Elimination Standard Operating Procedures (SOP) for Consultants and BWPR Staff (KCI 2021). Priority outfalls for selection were those that were 12" or greater in pipe diameter and predominantly drain commercial and industrial areas located within a geographical target area boundary predetermined by the County and KCI. This ensured that the screened outfalls were located within the target areas of the County that have the highest potential for pollution. The County aims for approximately 75% of the total number of screened outfalls to drain commercial/industrial land uses. In addition to the criteria above, outfalls with suspected or

known violations from the last reporting year were prioritized for this year. The 165 targeted sites were located in North-eastern Anne Arundel County, constrained by MD Route 100, Interstate 97, and MD Route 2 and including areas in the vicinity of Baltimore-Washington International Airport, such as Hanover, Ferndale, Linthicum Heights, and Brooklyn Park.

2.0 IDDE SCREENING METHODS

2.1 FIELD SCREENING/OUTFALL ASSESSMENT

Per Anne Arundel County's protocols (KCI 2021), a two-person KCI field team performed outfall inspections after a minimum of 72 hours of dry weather (defined as periods with less than 0.1 inches of total rainfall). Each outfall was inspected for the following: signs of physical deterioration (cracking, separation, or disintegration of infrastructure); verification of outfall configuration, dimensions, and position; and any evidence of dry-weather discharge. A digital photograph was taken at every inspected outfall. Outfall dimensions and flow measurements were recorded in the field using a tape measure in inches.

In addition to the outfall's attributes and condition, the outfalls were also inspected for the following physical parameters: deposits and staining, algal growth, vegetative condition, odors present, erosion, floatables, color and clarity of discharge. Deposits and staining can indicate previous illicit discharges and may require further investigation. Algal growth may indicate the presence of nutrients or sewage in the discharge and may require further investigation. Vegetative growth could be indicative of excessive nutrients if there is excessive growth, or the presence of a chemical if growth is inhibited. Any odors that were detected out of ordinary required further investigation. In addition, erosion was assessed within 25 feet of the outfall.

2.2 DRY WEATHER DISCHARGE

If outfalls were found to be flowing during inspection, the discharge was tested using a Hach Storm Drain Test Kit for chlorine, detergents, copper, and phenols, a Hanna Medium Range Ammonia Colorimeter test kit was used to test for ammonia-nitrogen, and a Hanna Low Range Fluoride Colorimeter was used to test for fluorides. Temperature and pH were measured at the time of sample collection with a Hach Pocket Pro probe. Results of the inspections were recorded within ArcCollector and Survey123.

If the discharge had a concentration above the threshold limit for chlorine, phenols, copper, detergents, fluorides, or ammonia, inspectors revisited the site and retested after 4 hours, but within 24 hours, to verify the result. *Dry Weather Flow and Illicit Discharges in Maryland Storm Drain Systems* (MDE, 1997) provides threshold concentrations for these constituents. Measurements above the threshold (on both tests) are considered indicative of an illicit discharge. The thresholds followed are listed below:

Table 2.1 – Illicit Discharges Threshold Limits

Constituents	Threshold Value (ppm)
Phenol	0.17
Chlorine	0.4
Copper	0.21
Detergents	0.5
Fluoride	0.75
Ammonia	1.0

An appropriate range for pH is 6.5 to 8.5. Since areas with coastal plain geography can have naturally acidic groundwater conditions, recordings of pH values between 5.0 and 6.5 were not considered illicit if all other parameters were within acceptable limits. Areas of coastal plain geography can also show characteristically high prevalence of iron flocculent bacteria that feed on the naturally occurring iron in groundwater. Iron flocculent can foul the water sample due to the suspended material and a bacterial sheen. Significant iron flocculent bacteria within a tested dry weather discharge can cause the ammonia results to be elevated and can be considered the source if all other parameters are within acceptable limits and no other sources are found in the upstream network.

If the discharge was determined to be illicit, the field team followed the storm drain system upstream to attempt to identify the source of the pollutant. In order to track illicit discharges in the storm drain system, staff followed the flow path through the network using storm drain mapping. If a discharge source was identified, or if the source could not be definitively determined but the illicit discharge was actively occurring, the field team immediately contacted the County's Environmental Hotline to report the violation and request appropriate action. If the discharge was determined not to be illicit, a source was still tracked with the findings recorded in ArcCollector and Survey123. For any outfalls containing a possible illicit connection, a concise, site-specific Illicit Discharge report was prepared and sent to the County Permit Coordinator and IDDE Project manager within 5 working days of the discovery.

2.3 INFRASTRUCTURE MAINTENANCE AND REPAIR

Inspections adhered to section 3 of Anne Arundel County Bureau of Watershed Protection and Restoration's Illicit Discharge Detection and Elimination Standard Operating Procedures (SOP) for Consultants and BWPR Staff (KCI 2021). Field crews assessed the structural condition at each outfall by inspecting the pipe and surrounding area at the outfall. Common issues identified included concrete spalling and cracking, metal corrosion, pipe and structure separations, excess debris, and/or sediment, scour holes, and erosion. All outfalls with structural issues were documented using Survey123.

For any outfalls with immediate physical maintenance needs, a concise, site-specific Infrastructure Condition report with photographs was prepared and sent to the County Permit Coordinator and IDDE Project Manager within 5 working days after the discovery. Each report contained the County Outfall number, location, a written description of the site and identified issues, location map with labeled streets and identifying features on an aerial photo, and site photographs documenting the conditions at the site.

2.4 UPLAND POLLUTION

For discharges that were either non-detectable at the outfall, do not drain to a closed storm drain system at any accessible commercial and industrial areas, or were originating from properties owned by the County not subject to the Maryland General Permit for Stormwater Discharge from Industrial Facilities within the targeted area, upland pollutant sources were identified when possible. All documented industrial and commercial areas in the targeted area of the County were identified to be inspected. If an upland pollutant source was identified, then a

point feature was created in ArcCollector and a Survey123 form was filled out. In addition, when upland pollutant sources were identified, a site-specific Upland Pollutant Source Report with photographs and locational information was prepared and sent to the County Permit Coordinator and IDDE Project Manager within five (5) working days of the discovery.

3.0 RESULTS

3.1 OUTFALL SCREENING

KCI staff inspected a total of 150 outfalls during the reporting period of July 2021 to June 2022. The inspections were conducted in October 2021, November 2021, December 2021, and January 2022. A map of the 150 outfall inspections and Industrial/Commercial target areas can be found in Appendix E.

The results show that, of the 150 sites, thirty-one (31) sites had enough flow to collect a sample. No detectable concentrations of phenols or copper were recorded at the outfalls where flow was sampled. One (1) outfall contained chlorine below the threshold concentration, and six (6) outfalls contained ammonia below the threshold concentration. Four (4) outfalls were found to contain illicit discharges during the reporting period. A chemical summary can be found in the Table below. Site-specific reports for all four of these outfalls can be found in Appendix A.

Table 3.1 – Summary Of Potential Illicit Discharges Identified During FY2022

Outfall	Date of Test	Chlorine (mg/L)	Copper (mg/L)	Phenols (mg/L)	Detergents (mg/L)	Ammonia (mg/L)	Fluoride (mg/L)	pH
K02O001	10/13/21	0.0	0.0	0.0	0.0	0.34	**1.6**	6.9
G06O006	11/10/21	0.0	0.0	0.0	**0.65**	0.55	0.73	**9.4**
J07O019	11/18/21	0.0	0.0	0.0	**0.9**	0.26	0.0	8.3
J03O006	12/02/21	*	*	*	*	*	*	*

Bold = exceeds action criteria threshold

* Unable to test discharge due to thick blue dye substance – illicit discharge was evident without testing.

K02O001

While completing outfall inspections, the KCI field team discovered a potential water quality issue between 715 and 719 Evelyn Avenue in Linthicum Heights. Outfall K02O001 had standing water, but flow was found in upstream structures and traced to a small HDPE pipe between the two addresses listed above. A high fluoride reading was taken, as well as a high ammonia result. The ammonia was most likely a result of the iron flocculent bacteria present. A follow up inspection was completed the following day and a fluoride reading still showed results above the threshold.

G06O006

The KCI field team discovered a potential water quality issue at an Amazon warehouse at Outfall G06O006. The discharge was visibly discolored a pale brown and slightly turbid with pH and detergent levels above the threshold and elevated ammonia and fluoride levels. A leaking fire hydrant was found nearby in the drainage area and thought to be the source of the discharge. A follow up inspection found the hydrant no longer leaking and no discharge flowing from the Outfall.

J07O019

Outfall J07O019 was found to be actively flowing by the KCI field team and visibly showed what appeared to be an oil sheen. The discharge tested above the threshold value for detergents. After completing an investigation, it was discovered equipment washing was actively occurring in the drainage area of this outfall. A follow up visit later in the day resulted in no equipment washing and no discharge occurring.

J03O006

KCI field team inspected Outfall J03O006 and discovered standing water with extensive contamination by a bright blue substance unknown at the time. An investigation lead to the discovery of a trash compactor at C Care USA being used to discard what inspectors believe to be blue dye among various other cosmetics, which were allowed to drain into the unprotected trench drain beneath it. Pallets stained with the thick blue dye were also observed outside. When the team completed a follow up inspection, they discovered flowing water with extensive suds at the Outfall. The flow was determined to be resulting from residual snow melt, and the suds appeared to be coming from the same trash compactor. The upland pollution of the compactor had caused soapy liquids to overflow and leak into the trench drain.

3.2 INFRASTRUCTURE CONDITIONS

Significant maintenance needs of stormwater infrastructure were noted at three (3) outfalls. Site-specific reports for the outfalls experiencing significant infrastructure issues are detailed below and can be found in Appendix B.

Table 3.2 – Infrastructure Repair And Maintenance Report Summary For FY2022

Location	Town	Outfall ID	Inspection Date	Issue
7267 Park Circle Drive	Hanover	G05O002	12/15/21	Exposed pipe and erosion
618-620 Shipley Road	Linthicum Heights	J04O024	12/16/21	Erosion below gabion wall
7251 National Drive	Hanover	G06O015	03/01/22	Erosion immediately downstream of endwall

7267 Park Circle Drive – Outfall G05O002

KCI identified a damaged storm drain structure, and an undermined and exposed pipe behind 7267 Park Circle Drive in Hanover, Maryland. Outfall G05O002 is located near the entrance of 7271 Park Circle Drive. The outfall itself was structurally fine and was found to be flowing, but upon attempting to trace the source of flow upstream of the outfall, the erosion was discovered. Inspectors could not definitively confirm whether the exposed structures were connected to the same system leading to this outfall. The flow contained no detected pollutants and was determined to likely be groundwater intrusion.

618-620 Shipley Road – Outfall J04O024

KCI identified erosion past a gabion wall downstream of outfall J04O024. The outfall itself, located between the addresses 618 and 620 Shipley Rd in Linthicum Heights, was structurally acceptable and was not found to be flowing. The erosion does not appear at

this time to be a risk to property or infrastructure.

7251 National Drive – Outfall G06O015
KCI identified erosion downstream of outfall G06O015. The outfall itself was structurally intact, however, it is being undermined by erosion that is occurring immediately downstream of the endwall / concreate flume.

3.3 COMMERCIAL AND INDUSTRIAL FACILITY INSPECTIONS

A total of 251 commercial and industrial property polygons were visually surveyed in the reporting year. One hundred sixty-nine (169) of the identified commercial/industrial polygons represented commercial land uses, and eighty-two (82) represented industrial land uses. A map of the visually surveyed commercial and industrial target areas can be found in Appendix E. During July 2021 – June 2022, there were twelve (12) cases of upland pollution related to water quality that were reported to BWPR. Each report was investigated and resolved using Anne Arundel County staff, MDE, and other state agencies. A summary of the findings is listed below with the site-specific reports found in Appendix C.

Table 3.3 – Summary Of Upland Pollutant Source Findings For FY2022

Address	Town	Business Name	Inspection Date	Issue
601 N Hammonds Ferry Rd	Linthicum Heights	Pohlman Plumbing	10/13/21	Evidence of vehicle wash down
7251 Standard Dr.	Hanover	Sudano's Produce	12/22/21	Evidence of vehicle wash down
7240 Standard Dr.	Hanover	Concrete Polishing & Prep Solutions	03/01/22	White staining to storm drain inlet
6045 Belle Grove Rd.	Brooklyn	Quality Landscaping	01/13/22	Evidence of vehicle and equipment wash down
6051 Olson Rd.	Brooklyn Park	Baltimore Storage Lots	01/14/22	Unidentified solid blue deposit on ground
5908 Ritchie Hwy.	Brooklyn	Dr. Car Wash	01/14/22	Active vehicle detailing operations
810 Nursery Rd.	Linthicum Heights	Nursery Road Plaza	03/01/22	Uncovered kitchen grease drums and staining
700 Evelyn Ave. Unit C	Linthicum Heights	HYDE Products	03/01/22	Unidentified white substance deposited

Table 3.3 – Summary Of Upland Pollutant Source Findings For FY2022				
Address	**Town**	**Business Name**	**Inspection Date**	**Issue**
				on pavement
832 Oregon Ave.	Linthicum Heights	Freestate Ambulance	03/01/22	Evidence of vehicle washing
832 Oregon Ave.	Linthicum Heights	Lighting Maintenance Inc.	03/01/22	Waste oil actively leaking from container
7210 Preston Gateway Dr.	Hanover	Coca Cola	03/01/22	Excessive staining on pavement
979 Corporate Blvd	Linthicum Heights	C Care	01/14/22	Suds coming from compactor

Pohlman Plumbing

KCI inspectors discovered a potential water quality issue near Pohlman Plumbing in Linthicum Heights. Outfall K02O016 is located downstream from Pohlman Plumbing and was found wet with no active discharge out of the pipe. There was, however, a collection of suds and a strong scent of detergent at the pipe. There was no flowing water to sample at the time of inspection, but an upland investigation was performed to

Sudanos Produce

KCI inspectors discovered evidence of what appeared to be vehicle washing at Sudano's Produce at 7251 Standard Dr in Hanover. At the time of inspection, no active washing was observed, but water was seen tracking across the pavement in the direction of the storm drain.

Concrete Polishing & Prep Solutions

KCI inspectors discovered white staining on the pavement at Concrete Polishing & Prep Solutions located at 7240 Standard Drive in Hanover, Maryland while performing commercial industrial inspections. Inspectors followed the white staining and found it to lead to a storm drain inlet. The source of staining could not be definitively determined at the time of inspection but is believed to be residue from equipment washing activity.

Quality Landscaping

KCI inspectors discovered vehicle and equipment washing at Quality Landscaping located at 6045 Belle Grove Rd in Brooklyn while performing commercial industrial inspections. At the time of inspection, active washing was occurring, and soapy water was seen leaving the area and into the storm drain system.

Baltimore Storage Units

The KCI field team discovered an unidentifiable blue substance deposit on the ground at Baltimore Storage Lots located at 6051 Olson Rd in Brooklyn Park. At the time of inspection, the substance appeared to be chalk-like or otherwise sediment-like in consistency, and it did not appear to be a liquid.

Dr Car Wash
The KCI field team discovered employees detailing vehicles at Dr. Car Wash located at 5908 Ritchie Hwy in Brooklyn. At the time of inspection, inspectors observed active detailing work out of cover, allowing car-cleaning products to drip onto the pavement and be exposed to rainfall.

Nursery Road Plaza
KCI inspectors discovered uncovered kitchen grease drums and staining on the pavement behind Nursery Road Plaza located at 810 Nursery Rd, Linthicum Heights. Waste kitchen grease drums are being stored without cover and could potentially be leaking based on the staining around their location. Staining can also be seen tracking to a stormwater facility through a curb cut opening.

HYDE Products
KCI inspectors discovered white staining on the pavement at HYDE Products located at 700 Evelyn Ave, Linthicum Heights, Maryland. The white substance could not be definitively identified at the time of inspection but seemed to be originating from inside the building and is assumed to be concrete-related due to the nature of the business.

Freestate Ambulance
On March 1st, 2022, KCI Technologies discovered car washing equipment outdoors at Freestate Ambulance located at 832 Oregon Ave UNIT K, Linthicum Heights, Maryland. At the time of inspection, no active washing was observed.

Lighting Maintenance Inc
The KCI field team discovered oil leaking from a waste oil container at Lighting Maintenance Inc. located at 832 Oregon Ave., Linthicum Heights. At the time of inspection, oil appeared to be leaking from a container labeled “Oil Waste Container” on top of a trailer. Oil was flowing from that location and if not stopped and cleaned up appropriately, will eventually hit the storm drain system. Inspectors immediately notified the Environmental Hotline for further follow up.

Coca Cola
KCI inspectors discovered extensive pavement staining at the Coca Cola facility located at 7210 Preston Gateway Dr, Hanover, Maryland. The stains appear to be coming from a roll-off and multiple vehicles and equipment in the parking lot. There was no active discharge occurring; however, the staining entering a storm drain inlet indicates there may have been discharge previously.

C Care USA
The KCI field team completed a follow up inspection on C Care USA on January 14th, 2022 after finding an illicit discharge in December 2021. The field team discovered flowing water with extensive suds at the Outfall. The flow was determined to be resulting from residual snow melt, and the suds appeared to be coming from the same trash compactor as the source of the illicit discharge, where soapy liquids were overflowing and leaking into the trench drain.

3.4 COUNTY-OWNED PROPERTIES

KCI inspectors additionally screened four (4) County-owned properties located within the target area for FY2022. BWPR and on-site staff accompanied KCI inspectors for each inspection; therefore, conditions were documented but no reports filed for any potential violations discovered.

Table 3.4 – Summary Of County-Owned Property Inspection Findings For FY2022

Address	Town	Business Name	Inspection Date	Issue
5100 Ritchie Hwy.	Brooklyn Park	Brooklyn Park Volunteer Fire Company	11/08/21	Vehicle wash down into storm drain
309 S. Camp Meade Rd.	Linthicum Heights	Linthicum Volunteer Fire Company	11/08/21	No violations observed
1367 Dorsey Rd.	Hanover	Harmans-Dorsey Fire Department	11/08/21	Washing vehicles and grills into storm drain
939 Hammonds Ln.	Brooklyn	Northern District Police Station	11/08/21	Windshield wash stored outdoors without containment

3.5 SPECIAL INVESTIGATION

In May 2022, Anne Arundel County requested a specific site visit to the Riviera Beach neighborhood of Pasadena. Concerns were reported to the County Council of a dump truck parking in a residential neighborhood off Neptune Drive and washing oil/grease/dirt/etc. off the truck and into the unprotected storm drain. KCI inspectors made three site visits to this location at various times of the afternoon/evening and were unable to document evidence of the described washing. Conditions at the site showed evidence of sidewalk construction work at many street corners, as well as some heavy vehicles and equipment in the neighborhood that appeared to be associated with this work. Despite the presence of work vehicles that could have fit the description, no dry weather flow into the storm drain was documented and therefore no flow to County infrastructure that could constitute an illicit discharge.

Nine outfalls (N08O010, N08O011, N08O016, N08O017, N08O018, N08O019, N08O020, N08O024, and N08O038) were re-inspected in October and December 2021 to help determine if any illicit connections exist in this portion of the Marley Creek Watershed which is experiencing excessive bacteria levels. These outfalls are all located behind the Marley Station Mall. Based on the inspection findings, outfalls N08O011, N08O017, N08O019, N08O020, N08O024, and N08O038 either had no flow or standing water was present and a sample was unable to be collected. At outfalls N08O010, N08O016, and N08O018 a sample was collected and analyzed. None of the results confirmed an illicit connection is present at these outfalls since all tested parameters were either not detectable or below threshold concentrations.

4.0 SUMMARY

To assist with Anne Arundel County's Illicit Discharge Detection and Elimination program and to fulfill the requirements of the County's NPDES permit requirements, KCI inspected 150 outfalls and visually assessed 251 commercial and industrial property polygons for the 2022 reporting year. The table below summarizes the findings of the 150 outfalls inspected based on the observations made. Thirty-six (36) outfalls were found to be totally or partially submerged or contained standing water with no flow. Algae were found at nine (9) outfalls. Other than the outfalls listed in Table 3.1, all of the outfalls had acceptable clarity, color, and odor. Several outfalls contained trash and/or sediment deposition. Moderate erosion was occurring at eleven (11) outfalls and severe erosion was occurring at another six (6) outfalls. As mentioned above, there were four potential illicit discharges detected, three structural repair and maintenance reports submitted, and eleven upland pollutant reports submitted.

Table 4.1 – Summary Of Outfall Conditions And Observations Made During The FY2022 Field Screening.

Condition	Number of Outfalls
Observable Flow	31
Phenol Present	0
Chlorine Present	1
Detergents Present	2
Copper Present	0
Ammonia Present	6
Fluoride Present	25
Excessive Vegetation	0
Algae Growth	9
Floatables Present	41
Sediment Deposits	51
Other Deposits	17
Moderate Erosion	11
Severe Erosion	6
Odor Present	3

5.0 ENFORCEMENT ACTIONS

Table 5.1 details all illicit discharge, upland pollution, and infrastructure concerns arising from the permit-required dry-weather screening of outfalls and routine visual surveys of commercial and industrial drainage areas during the reporting year. As is presented in Table 5.1, significant findings from the FY2022 field investigations were sent to the responsible authorities for action. Site-specific reports of potential illicit connections and upland pollutant sources (e.g., leaking or overflowing dumpsters) identified during the investigations for the FY2022 reporting period were referred to either the County's Department of Inspections and Permits (I&P) or the Department of Health. Structural issues identified during the reporting period were forwarded to the County's Stormwater Infrastructure Program (SIP) to determine ownership of the infrastructure; then, SIP or I&P addressed the problems based on whether the infrastructure was publicly or privately owned, respectively.

Occasionally, complex cases from prior reporting periods were not resolved in time for a particular year's summary report; such cases are typically reported as unresolved. Table 5.2 contains details of FY2022 enforcement actions taken on previously unresolved IDDE program cases.

In FY2022 I&P responded to an additional 28 complaints related to potential illicit discharges. Details of these complaints and County staff actions are provided in Appendix D, which contains inspection compliance database reports from the I&P Case Manager Complaint Tracking System for illicit connections, upland pollutant sources, or environmental hotline complaints relevant to this report. These reports detail County efforts taken to investigate and remediate the complaints.

Table 5.1. - FY2022 IDDE Program Investigative Activities and Follow-Up Actions.					
ILLICIT DISCHARGES					
Survey Date	**I&P Compliance Database ID**	**Outfall/Site Address**	**Issue**	**Response**	**Status**
October 13, 2021	E-2021-588	Outfall K02O001 715 & 719 Evelyn Ave Linthicum Heights, MD 21090	On October 13th, 2021, while performing illicit discharge inspections for Anne Arundel County, KCI Technologies, Inc. discovered a potential water quality issue between 715 and 719 Evelyn Ave in Linthicum Heights. Outfall K02O001 itself had standing water, but flow was found in upstream structures and was traced as far as a small HDPE pipe between those two houses. A reading of 1.6 mg/L was recorded on the fluorides test of the collected sample, well above the 0.75 mg/L threshold. A reading of 0.34 was recorded on the ammonia test which was attributed to iron flocculent bacteria. A follow-up test the next day produced a lower concentration of fluorides, but still above the threshold. No concentrations of any other constituents were detected. A definitive source of flow could not be located, but due to the presence of an adjacent water line and fluorides being the constituent of concern, it is possible the flow is due to drinking water transmission loss. This was immediately reported to the Bureau of Utilities for follow up.	**10-14-2021:** Report received by BWPR **10-19-2021:** Report forwarded to I&P for further investigation. **10-20-2021:** Investigated by I&P. Inspector located the HDPE pipe and also noticed two HDPE cleanouts in the now filled in ditch (converted ditch to flower bed) in front of 719 Evelyn Ave. Inspector suspects that the HDPE pipe is an underdrain for the flower bed so that storm water can continue to be conveyed even though the ditch is now filled in. Inspector suspects that the high levels of fluoride could be from faulty equipment from third party testing group or from the fertilizer used on the lawn at 719 Evelyn Ave. Inspector does not have access to testing equipment for fluoride. Inspector will try to contact the owner of 719 Evelyn Ave to discuss the pipe. **10-28-2021:** Follow-up inspection by I&P. Observed soapy discharge at HDPE pipe. Inspector took water sample that which tested above action level for detergents. This also confirms the washing machine detergent smell the water had. Inspector will continue to investigate. Inspector left name and number for owner of 719 Evelyn Ave to call.	**Revisit in FY2023**

ILLICIT DISCHARGES					
Survey Date	**I&P Compliance Database ID**	**Outfall/Site Address**	**Issue**	**Response**	**Status**
	E-2021-588 *cont.*			**11-3-2021:** Inspector spoke with the owner of 719 Evelyn Ave. Owner stated that the HDPE pipe is simply an underdrain/continuation of the culvert. The owner installed the HDPE pipe when they filled the ditch in front of the house in. It is not connected to any piping from the house. Inspector spoke with the owner of 721 Evelyn Ave on 11/3 about a small corrugated pipe coming from their house to the ditch. The owner stated that this pipe was sump pump only. The owner (721 Evelyn Ave) also sent the inspector a picture showing that the washer was connected to the sewer system. Inspector will continue to monitor the site. May not be able to locate the source of the illicit discharge. **11-29-2021:** Inspector has visited site several times since 11/3 and has not observed any discharge from HDPE pipe. No illicit source can be found. **CASE CLOSED**	

ILLICIT DISCHARGES					
Survey Date	**I&P Compliance Database ID**	**Outfall/Site Address**	**Issue**	**Response**	**Status**
November 10, 2021		Outfall G06O006 7021 Dorsey Rd, Hanover, MD 21076	On November 10th, 2021, while performing illicit discharge inspections for Anne Arundel County, KCI Technologies, Inc. discovered a potential water quality issue at the Amazon warehouse located at 7021 Dorsey Road in Hanover. Outfall G06O006 was found to be flowing, with discernible flow traced up into the parking lot of the facility. The flow sample was visibly discolored a pale brown and was slightly turbid. Readings of 9.4 on the pH test and 0.65 mg/L on the detergents test were recorded in the collected sample, above the respective thresholds of 8.5 and 0.5 mg/L. Elevated readings of 0.55 mg/L and 0.73 mg/L were also recorded on the ammonia and fluorides tests, respectively. The small drainage area was investigated and a leaking fire hydrant into a nearby inlet was discovered. This was immediately reported to the Bureau of Utilities for follow-up, and the potentially illicit flow was immediately reported to the Environmental Hotline. A follow-up visit the next day, November 11th, found the outfall wet but no longer visibly flowing, and the leaking fire hydrant apparently repaired or otherwise addressed. No water sample was able to be collected or tested on this visit. It is the opinion of inspectors that the source of the flowing water could be traced directly to the now-addressed leaking fire hydrant, but the source of the recorded pollutants remains unclear. A perforated PVC pipe from an unknown source enters an inlet upstream, but was not found to be flowing. A construction staging area with port-a-johns is located in this drainage area. This site should be monitored for potential vehicle or other washing activities, or unprotected release of cleaning products into the storm drain, which is then later mobilized by stormwater.	**11-15-2021:** Report received by BWPR **11-15-2021:** Report forwarded to I&P for further investigation. **11-15-2021:** Investigated by I&P. Inspector observed no discharge at the outfall. Hydrant was observed to not be leaking. Inspector spoke at length with facilities manager about illicit discharge. Facilities manager stated that no detergent-like substances are kept in the warehouse and felt that maybe an employee emptied something into the stormdrain. Facilities manager stated that he would remind employees to not allow illicit substances to enter the stormdrain. **CASE CLOSED**	**Revisit in FY2023**

ILLICIT DISCHARGES					
Survey Date	**I&P Compliance Database ID**	**Outfall/Site Address**	**Issue**	**Response**	**Status**
November 18, 2021	E-2021-634	Outfall J07O019 530 McCormick Dr, Glen Burnie, MD 21061	On November 18th, 2021, while performing illicit discharge inspections for Anne Arundel County, KCI Technologies, Inc. discovered a potential water quality issue at the SaLUT-TLB business located at 530 McCormick Drive in Glen Burnie. Outfall J07O019 was found to be flowing, with discernible flow traced up to behind the business. The flow sample visibly had what appeared to be an oil sheen but otherwise clear. A Reading of 0.9 mg/L on the detergents test was recorded in the collected sample, above the threshold of 0.5 mg/L. The source of flow was apparent after following the storm drain system to find active washing of equipment occurring behind this business. The dirty wash water was flowing into the third upstream inlet resulting in discharge at the outfall. The detergent spike is attributed to the soaps used to wash the equipment. This was immediately reported to the Environmental Hotline for follow-up. A follow-up visit occurred later the same day, and found the outfall to still have standing water but no flow from upstream, and the equipment washing had ceased. No water sample was able to be collected or tested on this visit. It is the opinion of inspectors that the source of the flowing water was directly linked to the now concluded equipment washing and the source of pollutant was due to the cleaning products used while washing the equipment.	**11-22-2021:** Report received by BWPR **11-30-2021:** Report forwarded to I&P for further investigation. **11-30-2021:** Investigated by I&P. At the time of the inspection there was no flow at the outfall or the inlets leading to the outfall. The small pool of water at the outfall was clean looking (no oil sheen or discoloration). No active washing or evidence of washing was observed. **12-1-2021:** Follow up inspection by I&P. A water sample was collected at that time to test for detergents. The test result was 0.1 mg/L, which is below the action level. No active washing or evidence of washing was observed. The inspector will place a call to the company that was seen washing equipment to instruct them on proper washing practices. **CASE CLOSED**	**Revisit in FY2023**

ILLICIT DISCHARGES					
Survey Date	**I&P Compliance Database ID**	**Outfall/Site Address**	**Issue**	**Response**	**Status**
December 2, 2021	E-2021-642	Outfall J03O006 979 Corporate Blvd, Linthicum Heights, MD 21090	On December 2nd, 2021, while performing illicit discharge inspections for Anne Arundel County, KCI Technologies, Inc. discovered a water quality issue at the inflow to a pond located behind 971 Corporate Blvd in Linthicum Heights. Outfall J03O006 was found to have standing water with extensive contamination by a bright blue substance unknown at the time of original inspection. There was no flow from upstream to this outfall at the time of inspection. No attempt to sample the standing water was made because the evidence of pollution was clear to inspectors and the water was also dyed blue, risking doing the same to our testing equipment. Inspectors observed impacts of the polluted water on avian wildlife, leaving their feathers oily and rendering them unable to fly. Upon investigation of the upstream drainage area, inspectors discovered a thick blue substance staining the storm drain system, which led to the loading dock area of C Care USA at 979 Corporate Blvd in Linthicum Heights. In this loading dock there is a trash compactor into which it appears that full bottles of blue hair dye are compacted and allowed to leak out into the trench drain below unprotected. Pallets stained with thick dye were also found unprotected outdoors behind the building. The conditions at the outfall were immediately reported to the Environmental Hotline on discovery, and inspectors followed up with the Bureau of Inspections and Permits when the source of the pollution was found.	**12-2-2021:** Report received by BWPR **12-2-2021:** Report forwarded to I&P for investigation **12-2-2021:** Investigated by I&P. Inspector observed blue discharge in the SWM pond behind 971 Corporate Blvd. The inspector spoke to Michael Wilson (plant manager) from C-Care about the blue discharge. Michael Wilson said that the product is used in hair dye and that there was a small spill in the warehouse on 11/30/2021. C-Care had contracted ACE Environmental to begin spill cleanup. **12-3-2021:** I&P reported the issue to MDE. Thomas Johnson from MDE responded to the issue. An on-site meeting was held with Michael Wilson (C-Care), Thomas Johnson (MDE Environmental Compliance Specialist), and ACE Environmental. MDE investigated the illicit discharge and stated the proper procedure for cleanup per the MSDS. **12-3-2021 – 12-5-2021:** ACE Environmental continued spill cleanup and flushing/cleaning of stormdrain system from C-Care facility to SMW pond outfall.	**RESOLVED** **Revisit in FY23**

ILLICIT DISCHARGES					
Survey Date	**I&P Compliance Database ID**	**Outfall/Site Address**	**Issue**	**Response**	**Status**
	E-2021-642 *cont.*			**12-6-2021:** Follow up inspection by I&P. The water at the inflow was still slightly blue but is appeared the area was cleaned up. Inspector is waiting for a response from MDE about the cleanup that took place. **12-9-2021:** MDE issued a non-compliance report out to the C-Care team on 12/9/2021. The C-Care team acknowledged the report. Inspector is still waiting for MDE to comment on the cleanup effort that took place. **12-13-2021:** Follow-up by I&P. The water at the inflow area looked to be free of the blue product. MDE has not responded on the cleanup effort. Case is being closed. **CASE CLOSED**	

EROSION AND STRUCTURAL ISSUES					
Survey Date	**I&P Compliance Database ID**	**Outfall/Site Address**	**Issue**	**Response**	**Status**
December 15, 2021		Outfall ID G05O002 7267 Park Circle Dr, Hanover, Maryland 21076	On December 15th, 2021, while performing illicit discharge inspections for Anne Arundel County, KCI Technologies, Inc. discovered severe erosion, damaged storm drain structures, and undermined and exposed pipe behind 7267 Park Circle Dr in Hanover, Maryland. Outfall G05O002 is located near the entrance of 7271 Park Circle Dr. The outfall itself was structurally fine and was found to be flowing, but upon attempting to trace the source of flow upstream of the outfall, the erosion was found. Inspectors did not definitively determine whether the exposed pipe was connected to the same system leading to this outfall. The flow contained no detected pollutants and was determined to likely be groundwater intrusion.	**12-17-2021:** Report received by BWPR **12-21-2021:** Report forwarded to SIP for investigation. **12-28-2021:** SIP responded that both issues identified by KCI are associated with an unraveling system that SIP has been aware of for many years. SIP stated that this is the location of a storm drain system that was installed ~50 years ago in association with the now-inactive railroad network. The storm drain system involved significant altering of the historic drainage, including the construction of 20-30' tall railroad embankments with very tall inlet structures. Since that time the system has largely failed. SIP does not currently see reason to re-establish the system. In 2021 work was performed upstream of the culvert under Race Rd, to remove sediment from the system and re-construct a connection and D-inlet to the larger system leading into the culvert. SIP also worked upstream to install a series of step pools and check dams in an attempt to help intercept the sediment and raise the stream bed in a few areas. **2-22-2022**: BWPR project engineers will review for the next round (FY2024) of potential projects. SIP does not see any need for additional work at the culvert outfall at this time. **CASE CLOSED**	**RESOLVED**

EROSION AND STRUCTURAL ISSUES					
Survey Date	**I&P Compliance Database ID**	**Outfall/Site Address**	**Issue**	**Response**	**Status**
December 16, 2021		J04O024 618-620 Shipley Road Linthicum Heights, MD	On December 16th, 2021, while performing illicit discharge inspections for Anne Arundel County, KCI Technologies, Inc. discovered erosion past a gabion wall downstream of outfall J04O024. The outfall itself, located between the addresses 618 and 620 Shipley Rd in Linthicum Heights, was structurally fine and was not found to be flowing. The erosion does not appear at this time to be a risk to property or infrastructure.	**12-16-2021:** Report received by BWPR **12-21-2021:** Report forwarded to SIP for investigation. **8-3-2021:** SIP and SIP's contractor will be evaluating the need for repairs in August 2022. **CASE OPEN**	**UNRESOLVED**
March 1, 2022		Outfall G06O015 7251 National Dr, Hanover, MD 21076	On March 1st , 2022, while performing illicit discharge inspections for Anne Arundel County, KCI Technologies, Inc. confirmed severe erosion at the outfall G06O015. The outfall itself, located across the road from 7251 National Dr, Hanover, Maryland, was structurally intact but is being undermined by erosion immediately downstream of the endwall and concrete flume.	**3-3-2022:** Report received by BWPR **3-4-2022:** Report forwarded to SIP for investigation. **4-26-2022:** Update from SIP states that SIP will investigate and add to project list for completion in early FY23. **CASE OPEN**	**UNRESOLVED**

UPLAND POLLUTION					
Survey Date	**I&P Compliance Database ID**	**Outfall/Site Address**	**Issue**	**Response**	**Status**
October 13, 2021	E-2021-587	K02O016 601 Hammonds Ferry Road, Linthicum Heights, MD 21090	On October 13th, 2021, while performing illicit discharge inspections for Anne Arundel County, KCI Technologies, Inc. discovered a potential water quality issue near Pohlman Plumbing in Linthicum Heights. Outfall K02O016 is located downstream from Pohlman Plumbing and was found wet with no active discharge out of the pipe. There was, however, a collection of suds and a strong scent of detergent at the pipe. There was no flowing water to sample at the time of inspection, but an upland investigation was performed to determine the source of detergents. Evidence of previous washing of commercial vehicles was found in the vicinity of Pohlman Plumbing at 601 N Hammonds Ferry Rd and was documented.	**10-14-2021:** Report received by BWPR **10-19-2021:** Report forwarded to I&P for further investigation. **10-20-2021:** Investigated by I&P. No soapy discharge was observed; no active vehicle washing or evidence of washing observed. Inspector spoke with property management company and instructed them to send a letter to each tenant explaining that washing of vehicles is prohibited in the parking lot. Inspector will monitor outfall for a few weeks. **10-28-2021:** Follow up inspection by I&P. There was no car washing taking place and no soapy water coming from the outfall. **11-01-2021:** Follow up inspection by I&P. There was no car washing taking place and no soapy water coming from the outfall. Property manager requested permitted commercial vehicle washing procedures; which was provided by inspector. **CASE CLOSED**	**Revisit in FY2023**

UPLAND POLLUTION					
Survey Date	**I&P Compliance Database ID**	**Outfall/Site Address**	**Issue**	**Response**	**Status**
December 22, 2022	E-2021-666	7251 Standard Dr. Hanover, MD 21076	On December 22nd, 2021, while performing commercial industrial inspections for Anne Arundel County, KCI Technologies, Inc. discovered evidence of what appeared to be vehicle washing at Sudano's Produce at 7251 Standard Dr in Hanover. At the time of inspection, no active washing was observed, but water was seen tracking across the pavement in the direction of the storm drain. The Environmental Hotline was notified immediately on discovery for follow up.	**1-3-2022:** Report received by BWPR **1-3-2022:** Report forwarded to I&P for investigation 1-5-2022: Investigated by I&P. Inspector talked with facilities manager at 7251 Standard Dr. (Sudano's Produce). No vehicle washing observed at the time of investigation. Facilities manager stated that they send out their vehicles to get washed off-site. Facilities manager stated that they only wash dumpster area of parking lot. Facilities manager was made aware that the washing of the parking lot is not permitted. **CASE CLOSED**	**RESOLVED**
January 13, 2022	E-2022-57	6045 Belle Grove Rd. Brooklyn, MD 21225	On January 13th, 2022, while performing commercial/industrial inspections for Anne Arundel County, KCI Technologies, Inc. discovered vehicle and equipment washing at Quality Landscaping located at 6045 Belle Grove Rd in Brooklyn. At the time of inspection, active washing was occurring, and soapy water was seen leaving the area and into the storm drain system. This was reported to the environmental hotline on discovery for follow up.	**1-13-2022:** Report received by BWPR **1-14-2022:** Report forwarded to I&P for investigation. **1-14-2022:** Investigated by I&P. Inspector At the time of inspection no truck washing was observed. Inspector spoke with owner from Quality Landscaping. Owner was handed KCI report of site washing. Owner was informed that commercial washing at this site is a violation of article 16. Will follow up after a snow event to see if truck washing resumes. **1-31-2022:** Follow-up investigation by I&P (after a snow event). No washing observed at time of inspection. Will close out complaint. **CASE CLOSED**	**Revisit in FY2023**

UPLAND POLLUTION					
Survey Date	**I&P Compliance Database ID**	**Outfall/Site Address**	**Issue**	**Response**	**Status**
January 14, 2022	E-2022-21	5908 Ritchie Hwy, Brooklyn, MD 21225	On January 14th, 2022, while performing commercial/industrial inspections for Anne Arundel County, KCI Technologies, Inc. discovered employees performing detailing on vehicles at Dr. Car Wash located at 5908 Ritchie Hwy in Brooklyn. At the time of inspection, inspectors observed active detailing work out of cover, allowing car-cleaning products to drip onto the pavement and be exposed to rainfall. The Environmental Hotline was notified immediately on discovery for follow up.	**1-13-2022:** Report received by BWPR **1-14-2022:** Report forwarded to I&P for investigation. **1-18-2022:** Investigated by I&P. Inspector spoke with the owner of Dr.Wash and reiterated that no detergents are allowed to drip onto pavement of parking lot. Will close out complaint. **CASE CLOSED**	**RESOLVED**
January 14, 2022	E-2022-23	6051 Olson Rd, Brooklyn Park, MD 21225	On January 14th, 2022, while performing commercial/industrial inspections for Anne Arundel County, KCI Technologies, Inc. discovered an unidentifiable blue substance deposit on the ground at Baltimore Storage Lots located at 6051 Olson Rd in Brooklyn Park. At the time of inspection, the substance appeared to be chalk-like or otherwise sediment-like in consistency, and it did not appear to be a liquid.	**1-14-2022:** Report received by BWPR **1-14-2022:** Report forwarded to I&P for investigation. **1-18-2022:** Investigated by I&P. . Inspector spoke with owner of Atlantic Maintenance, who informed inspector that the blue substance was water based paint used for painting parking lots. Label for paint confirmed it was water based. Will close out complaint. **CASE CLOSED**	**RESOLVED**

UPLAND POLLUTION					
Survey Date	**I&P Compliance Database ID**	**Outfall/Site Address**	**Issue**	**Response**	**Status**
January 14, 2022	E-2022-49	979 Corporate Blvd, Linthicum Heights, MD 21090	On January 14th, 2022, while performing illicit discharge inspections for Anne Arundel County, KCI Technologies, Inc. discovered a water quality issue at the inflow to a pond located behind 971 Corporate Blvd in Linthicum Heights. Inspectors found Outfall J03O006 to have flowing water with extensive suds in the standing water at the time of inspection. Flow from the outfall was determined to be from residual snowmelt. No sample was taken due to precipitation within the prior 72 hours. Upon investigation of the upstream drainage area, including the loading dock area of C Care USA at 979 Corporate Blvd in Linthicum Heights, flagged due to previous pollution issues (see I&P Compliance Database ID E-2021-642 in the "Illicit Discharges" section of this table), inspectors observed a trash compactor from which it appears soapy liquids overflow and/or leak into the trench drain below unprotected. The conditions at the outfall were immediately reported to the Environmental Hotline on discovery.	**1-14-2022:** Report received by BWPR **1-14-2022:** Report forwarded to I&P for investigation. **1-18-2022:** Investigated by I&P. Inspector found evidence of poor house cleaning measures at trash compactor located at south rear of 979 Corporate Blvd. Inspector spoke with employees of C Care USA about compactor area and informed them of KCI's findings. Inspector did not observe any evidence of detergent in stream area and pond area. **2-11-2022**: I&P staff met on site with MDE staff to inspect site. Dumpster area inspected first, evidence of beauty products dried/caked on to the underside of the trash compactor, empty product bottle(s), slot drain compacted with sediment. No clean-up measures by C Care regarding the dumpster area since two illicit discharge incidents. Slot drain had evidence of suds and standing water/fluids. SWM inlets checked on-site and no visible evidence of suds or staining from prior blue dye spill (see E-2021-642). SWM inlets opened and checked by the entire inspection team. No evidence of suds/detergent or blue dye residual. Team met with C Care Plant Safety Manager and Plant Manager. MDE will be working with them on Industrial 12-SW permit compliance requirements and requested proof of Ace Environmental work completed for clean-up efforts.	**RESOLVED** **Re-visit in FY23**

UPLAND POLLUTION					
Survey Date	**I&P Compliance Database ID**	**Outfall/Site Address**	**Issue**	**Response**	**Status**
	E-2022-49 *cont.*			MDE will be conducting separate 12-SW inspection visit. This visit is in follow-up to the recent suds/detergent discharge incident and blue dye prior incident. Team walked to inspect (2) outfalls in the PWED. AACO took (2) additional samples (1) at each outfall for detergent and pH testing. Both outfalls had very small trace visual evidence of suds. Absorbent pigs installed at 2nd outfall will need to be removed/replaced by Ace Environmental. Team walked to inspect the unnamed tributary to Patuxent River adjacent to outfalls / SWM pond. Trace visible evidence of suds on the surface of water were observed under tree overhangs. MDE will be handling further investigations and enforcement actions on case **7-18-2022:** Update from MDE states that MDE is working with violator to gain compliance with 12-SW permit. **CASE CLOSED**	
March 1, 2022		810 Nursery Rd, Linthicum Heights, MD 21090	On March 1st, 2022, while performing commercial industrial inspections for Anne Arundel County, KCI Technologies, Inc. discovered uncovered kitchen grease drums and staining on the pavement behind Nursery Road Plaza located at 810 Nursery Rd, Linthicum Heights. Waste kitchen grease drums are being stored without cover and appear to be leaking based on the staining around their location. Staining can also be seen tracking to a stormwater facility through a curb cut opening.	**3-3-2022:** Report received by BWPR **3-4-2022:** Report forwarded to HD for investigation. **3-10-2022:** Investigated by HD. Inspector spoke to the business owner about getting the area and container cleaned. Owner stated that a new grease container will be ordered. HD will re-inspect on 4/14. **4-19-2022:** Re-inspected by HD. Inspector reported that the area is clean and no violations exist. A new grease storage container is on order from Valley Protein.	**RESOLVED**

UPLAND POLLUTION					
Survey Date	**I&P Compliance Database ID**	**Outfall/Site Address**	**Issue**	**Response**	**Status**
March 1, 2022	E-2022-78	7240 Standard Drive Hanover, MD 21076	On March 1st, 2022, while performing commercial industrial inspections for Anne Arundel County, KCI Technologies, Inc. discovered white staining on the pavement at Concrete Polishing & Prep Solutions located at 7240 Standard Drive in Hanover, Maryland. Inspectors followed the white staining and found it to lead to a storm drain inlet. The source of staining could not be definitively determined at the time of inspection, but is believed to be residue from equipment washing activity.	**3-3-2022:** Report received by BWPR **3-4-2022:** Report forwarded to I&P for investigation. **3-7-2022:** Investigated by I&P. Inspector spoke with property/business owner about white staining in parking lot area, who said substance was concrete dust residue from rinsing off of equipment. Business owner stated that no longer wash equipment on-site. Will attach KCI report and pictures of cleaned parking lot. Will close out complaint. **CASE CLOSED**	**RESOLVED**
March 1, 2022	E-2022-89	832 Oregon Ave UNIT K Linthicum Heights, MD 21090	On March 1st, 2022, while performing commercial industrial inspections for Anne Arundel County, KCI Technologies, Inc. discovered car washing equipment at Freestate Ambulance located at 832 Oregon Ave UNIT K, Linthicum Heights, Maryland. At the time of inspection, no active washing was observed.	**3-3-2022:** Report received by BWPR **3-4-2022:** Report forwarded to I&P for investigation. **3-7-2022:** Investigated by I&P. Inspector did not observe vehicle washing being performed at time of inspection. Inspector spoke with Operations Manager from Freestate Ambulance and informed him that commercial car washing is not permitted at this site. Inspector emailed info pertaining to the MDE code and Article 16 of the Anne Arundel County Code. **CASE CLOSED**	**RESOLVED**

UPLAND POLLUTION					
Survey Date	**I&P Compliance Database ID**	**Outfall/Site Address**	**Issue**	**Response**	**Status**
March 1, 2022	E-2022-80	7210 Preston Gateway Dr, Hanover, MD 21090	On March 1st, 2022, while performing commercial industrial inspections for Anne Arundel County, KCI Technologies, Inc. discovered excessive pavement staining at the Coca Cola facility located at 7210 Preston Gateway Dr, Hanover, Maryland. The stains appear to be coming from a roll-off and multiple vehicles and equipment in the parking lot. There was no active discharge occurring, however, the staining entering a storm drain inlet indicates it may have discharged previously.	**3-3-2022:** Report received by BWPR **3-4-2022:** Report forwarded to I&P for investigation. **3-7-2022:** Investigated by I&P. Inspector observed evidence of staining in northwest trash compactor. Inspector spoke with Sr Manager Logistics Operations for Coca Cola. Who explained that the substance is soda residue. KCI report was sent to the HD for further investigation. **3-22-2022:** Investigated by HD. Inspector did not observe any accumulations of rubbish or garbage, any unsanitary conditions, or unapproved discharges which would be a violation of the Property Maintenance Code. **CASE CLOSED**	**RESOLVED**
March 1, 2022	E-2022-81	700 Evelyn Ave UNIT C Linthicum Heights, MD 21090	On March 1st, 2022, while performing commercial industrial inspections for Anne Arundel County, KCI Technologies, Inc. discovered white staining on the pavement at HYDE Products located at 700 Evelyn Ave, Linthicum Heights, Maryland. The white substance could not be definitively identified at the time of inspection, but seems to be originating from inside the building and is assumed to be concrete-related due to the nature of the business.	**3-3-2022:** Report received by BWPR **3-4-2022:** Report forwarded to I&P and HD for investigation. **3-7-2022:** Investigated by I&P. Inspector located possible concrete disposal area coming from two inch pipe. Complaint was sent to Health Dept. Will follow up after Health Dept. investigation. **3-22-2022:** Investigated by HD. Inspector did not observe any accumulations of rubbish or garbage, any unsanitary conditions, or unapproved discharges which would be a violation of the Property Maintenance Code. **CASE CLOSED**	**RESOLVED**

UPLAND POLLUTION					
Survey Date	**I&P Compliance Database ID**	**Outfall/Site Address**	**Issue**	**Response**	**Status**
March 1, 2022	E-2022-79	832 Oregon Ave, Linthicum Heights, MD 21090	On March 1st, 2022, while performing commercial industrial inspections for Anne Arundel County, KCI Technologies, Inc. discovered oil leaking from a waste oil container at Lighting Maintenance Inc. located at 832 Oregon Ave., Linthicum Heights. At the time of inspection, oil appeared to be leaking from a container labeled "Oil Waste Container" on top of a trailer. Oil was flowing from that location and if not stopped and cleaned up appropriately, will eventually hit the storm drain system. Inspectors immediately notified the Environmental Hotline for further follow up.	**3-3-2022:** Report received by BWPR **3-4-2022:** Report forwarded to I&P for investigation. **3-7-2022:** Investigated by I&P. Inspector spoke with employee from Merritt Management Companies. Oil leak was from hydraulic lift that was leaking on trailer. Maintenance crew was on sight applying absorbent to where oil leak had occurred. Maintenance crew swept up absorbent and trailer with hydraulic lift was hauled off-site. Will close out complaint. **CASE CLOSED**	**RESOLVED**

Table 5.2. Ongoing Investigative Actions from Previous Reporting Years.					
EROSION AND STRUCTURAL ISSUES					
Survey Date	**I&P Compliance Database ID**	**Outfall/Site Address**	**Issue**	**Response**	**Status**
9-16-2020		313 Hospital Dr, Glen Burnie, MD 21061	Outfall M08O024 is located in the North Arundel Health And Rehabilitation Center property near the southwest corner of the building. This outfall is experiencing cracking and spalling and is resulting in significant downstream erosion. The outfall looks to be at the same elevation as the land upstream towards the building, but the downstream area us much lower in elevation, and the flow falls a significant distance before continuing downstream. Rip rap is present in the discharge area, but previous erosion looks to have already affected this outfall.	**6-29-2021:** Received by BWPR from Limnotech. **7-1-2021:** Forwarded to SIP for further investigation. **12-29-2021:** Update from SIP - Site visit to be completed in Jan '22 so a cost estimate for repairs may be obtained. Scope, cost & scheduling of repair work yet to be determined. This outfall/system is privately owned but maintained by AACO. **4-25-2022:** Cost estimate has been received from County's contractor. Repair work likely to begin in fall 2022. **06-28-2022:** Update on project status by SIP states that a pre-construction meeting has been scheduled. **CASE OPEN**	**UNRESOLVED**
9-16-2020		7549 Solley Rd, Glen Burnie, MD 21060	Outfall Q05O007 is located at the Orchard Beach Fire Co. 11. The outfall is in good structural condition (i.e. no apparently damage) however excessive sedimentation blocks approx. 80% of the pipe thereby severely restricting flow	**6-29-2021:** Received by BWPR from Limnotech. **7-1-2021:** Forwarded to SIP for further investigation. **12-29-2021:** Repairs completed in December 2021. **CASE CLOSED**	**RESOLVED**

EROSION AND STRUCTURAL ISSUES					
Survey Date	**I&P Compliance Database ID**	**Outfall/Site Address**	**Issue**	**Response**	**Status**
9-22-2020		830 Pasadena Rd, Pasadena, MD 21122	Outfall Q10O015 is located at Lake Waterford Park; at the eastern edge of Lake Waterford near Baltimore Annapolis Blvd. The outfall is slightly flattened such that it is artificially wider than it is tall. Structural condition is not likely to restrict flow.	**6-29-2021:** Received by BWPR from Limnotech. **7-1-2021:** Forwarded to SIP for further investigation. **12-29-2021:** Update from SIP - Site visit to be completed in Jan '22 so a cost estimate for repairs may be obtained. Scope, cost & scheduling of repair work yet to be determined. It may be determined that this system may is maintained by MDOT/SHA upon further review & research. **4-25-2022:** SIP determined that the outfall is submerged and that no work will be undertaken. **CASE CLOSED**	**RESOLVED**
9-23-2020		415 Maxwell Frye Rd Millersville, MD 21108	Outfall M11O047 is located in the rear of the Fire Department Training Division. This outfall was located behind a fence and was inaccessible, but the outfall was visible and showed some signs of cracking.	**6-29-2021:** Received by BWPR from Limnotech. **7-1-2021:** Forwarded to SIP for further investigation. **04-25-2022:** SIP stated that extensive repairs to this outfall were completed in May 2020. No further repairs are necessary. **CASE CLOSED**	**RESOLVED**

EROSION AND STRUCTURAL ISSUES					
Survey Date	**I&P Compliance Database ID**	**Outfall/Site Address**	**Issue**	**Response**	**Status**
9-23-2020		8060 Crainmont Dr, Glen Burnie, MD 21061	Outfall L09O012 is located in a residential area of Glen Burnie between Kramer Ct and Green Orchard Rd. Severe erosion has occurred surrounding Outfall L09O012 and downstream. The pipe has broken and the end section of the outfall collapsed.	**6-29-2021:** Received by BWPR from Limnotech. **7-1-2021:** Forwarded to SIP for further investigation. **1-10-2022:** Work has begun on the restoration/retrofit of this outfall and the associated system. **1-14-2022:** Outfall restoration rehab retrofit and d.s. channel/ditch work completed. **CASE CLOSED**	**RESOLVED**
10-2-2020		370 Shore Acres Rd, Arnold, MD 21012	Outfall U16O014 is located near Shore Acres Road in in the rear of the Providence Center property. No immediate concerns were identified, but the concrete on the top of the outfall has evidence of some cracking and there is significant sediment and debris downstream of the pipe. This sediment and debris is not clogging the pipe completely and does allow flow, but is restricting flow within the outfall structure.	**6-29-2021:** Received by BWPR from Limnotech. **7-1-2021:** Forwarded to SIP for further investigation. **04-26-2022:** No immediate concerns were identified by SIP. Crack at concrete end section is not affecting the functionality of the system. Sediment and debris has collected downstream but is allowing the water to flow. SIP has requested maintenance to clear the area around the outfall for easy access and to monitor in the future. **CASE CLOSED**	**RESOLVED**
10-5-2020		7896 Tall Pines Ct, Glen Burnie, MD 21061	Outfall M09O060 is located within 'The Forest Apartments' complex. The outfall structure is currently stable but its overall condition has been previous degraded. There is evidence of collapsed pipe and severe downstream erosion (3-6 ft) is present.	**6-29-2021:** Received by BWPR from Limnotech. **7-1-2021:** Forwarded to SIP for further investigation. **1-20-2022:** A cost estimate for repairs was received by the County's contractor. **1-27-2022:** Outfall retrofit completed. **CASE CLOSED**	**RESOLVED**

EROSION AND STRUCTURAL ISSUES					
Survey Date	**I&P Compliance Database ID**	**Outfall/Site Address**	**Issue**	**Response**	**Status**
10-5-2020		8203 Cloverleaf Dr. Millersville, MD 21108	Outfall L10O007 is located near the intersection of Four Leaf Clover Drive and Cloverleaf Drive. The outfall and its structure are in poor condition. Concrete and metal are both damaged and significant sedimentation is present. Although outfall compression and sedimentation are expected to restrict flow is was not entirely blocked at the time of LimnoTech visit. Similarly, although the stabilizing and trash trap structure just downstream of Outfall L10O007 is damaged, it appears to still retain some (suboptimal) functionality. A neighboring outfall (L10O01) is eroded but appears stable.	**6-29-2021:** Received by BWPR from Limnotech. **7-1-2021:** Forwarded to SIP for further investigation. **4-25-2022:** County's contractor to provide cost estimate for outfall retrofit **7-6-2022:** SIP awaiting cost estimate from County's contractor. **CASE OPEN**	**UNRESOLVED**
10-6-2020		325 Kimwood Rd Arnold, MD 21012	Outfall T15O059 is located in a residential area off of College Parkway in Arnold, Maryland. The outfall pipe is in good structural condition however the reinforced flow path downstream of Outfall T15O059 has collapsed and severe erosion is present downstream.	**6-29-2021:** Received by BWPR from Limnotech. **7-1-2021:** Forwarded to SIP for further investigation. **12-15-2021:** Repairs in progress **4-26-2022:** Repair/retrofit has been completed – installation of a series of stone step pools in the eroded channel and outside the outfall, removal of a section of undermined concrete swale and replacement with a stone step pool, injected grout under the rest of the undermined concrete swale, and lined the pipes under College Parkway. **CASE CLOSED**	**RESOLVED**
11-24-2020		305 College Pkwy Arnold, MD 21012	Outfall T15O001 is located at Future Care – Chesapeake, a residential rehabilitation facility. The outfall, which drains to a stormwater pond, has collapsed. A result significant amount of outfall sedimentation and downstream erosion has occurred.	**6-29-2021:** Received by BWPR from Limnotech. **7-1-2021:** Forwarded to SIP for further investigation. **12-15-2021:** SIP informed BWPR that the pond outfall is private infrastructure. **CASE CLOSED**	**RESOLVED**

EROSION AND STRUCTURAL ISSUES					
Survey Date	**I&P Compliance Database ID**	**Outfall/Site Address**	**Issue**	**Response**	**Status**
4-20-2021		198 Laurel Race Track Rd Laurel, MD 20725	Outfall A11O006 is located at the Laurel Race Track just north of Fort Meade Road. Although the outfall was submerged and was not visible to LimnoTech staff on the day of their visit, significant amounts of leaf litter and small debris suggest that the outfall is heavily sedimented. The concrete of the outfall structure is spalling. Note: Although not visible, LimnoTech staff assumed that Outfall A11O006 is present based upon the presence of the outfall structure. LimnoTech also looked inside the only inlet that is supposedly connect to this outfall. Standing water and debris were present but LimnoTech could not confirm there a pipe connecting inlet and outfall. LimnoTech did notice a pipe coming in (which was not part of the reference GIS layer) from the direction of the Laurel Race Track (about 90 degrees from the direction of the outfall). LimnoTech also noted a storm water pond across the street from the inlet. Based upon recent development surrounding this outfall it seems plausible that the infrastructure here may have been changed and that this outfall may be defunct.	**6-29-2021:** Received by BWPR from Limnotech. **7-1-2021:** Forwarded to SIP for further investigation. **12-15-2021:** SIP informed BWPR that the pond outfall is private infrastructure. **CASE CLOSED**	**RESOLVED**

EROSION AND STRUCTURAL ISSUES					
Survey Date	**I&P Compliance Database ID**	**Outfall/Site Address**	**Issue**	**Response**	**Status**
September 16, 2019		O20O010 2567 Golfers Ridge Rd Parole, MD	While investigating target outfalls for the County's Illicit Discharge Detection and Elimination (IDDE) program, a Versar team found signs of collapsed infrastructure at outfall O20O010. The team gained access to the outfall via a golf cart path near Golfers Ridge Road (the path was a feature with the Heritage Harbour Golf Course). The team investigated the site at 10:45 a.m. on Monday, September 16. At the site, there was evidence of ground subsidence or headcutting approximately 12 feet up-network from the outfall. The end section at the outfall appeared to be displaced in a lower and slightly rotated position relative to the adjacent pipe. The team surmised that the two conditions were related, and that the subsidence had facilitated erosion that led to undercutting and loss of support at the outfall.	**9-18-2019:** Report received from Versar by WPRP. **9-26-2019:** Referred to SIP. **10-3-2019:** Investigated by SIP. Repairs placed in SIP's project list. Repair estimated to be completed within 6-12 months. **6-22-2021:** Update on project status by SIP states infrastructure is programmed tentatively for repair within next 10-16 months. **6-14-2021:** Update on project status by SIP states that repairs remain in project backlog. Tentative completion by end of FY22. **01-20-2022:** Repair work completed. 8' of pipe was removed and replaced and a stone apron was installed at the outfall. **CASE CLOSED**	**RESOLVED**

EROSION AND STRUCTURAL ISSUES					
Survey Date	**I&P Compliance Database ID**	**Outfall/Site Address**	**Issue**	**Response**	**Status**
September 26, 2019		N20O020 2650 Quiet Water Cove Edgewater, MD	While investigating target outfalls for the County's Illicit Discharge Detection and Elimination (IDDE) program, a Versar team found signs of collapsed infrastructure at outfall N20O020. The team investigated the site at 11:00 p.m. on Thursday, September 26. At the site, there was evidence that the pipe and headwall had completely detached from the adjacent inlet, N20I004. The team documented that erosion had removed supporting soil from the sides and base of the original configuration. The team investigated the contributing pipe network and found that a pipe entering the network from the northeast (outfall N02O009) was oriented to discharge directly on top of a concrete cap of an inlet, N20I083. The team surmised that the flows from this disconnected outfall may have contributed to the erosion that had occurred approximately 140 feet down-gradient, in addition to overland flows.	**10-1-2019:** Report received from Versar by WPRP. **10-1-2019:** Referred to SIP. **7-2-2021:** As of the end of FY2020, SIP is currently reviewing repair options for this outfall. **6-14-2021:** Update on project status by SIP states that work will tentatively begin in late summer 2021 on either day-lighting a portion of this pipe and installing an SPSC system or just stabilizing the outfall. **12-15-2021:** Update on project status by SIP states that repairs remain in project backlog **4-26-2022:** Update on project status by SIP states that repair options are still being evaluated; Will look to complete early FY23. **7-12-2022:** Update on project status from SIP states that cost proposals for various remediation approaches have been received, with one more proposal forthcoming. Project completion expected by end of FY23. **CASE OPEN**	**UNRESOLVED**

EROSION AND STRUCTURAL ISSUES					
Survey Date	**I&P Compliance Database ID**	**Outfall/Site Address**	**Issue**	**Response**	**Status**
June 2, 2020		M23O004 703 Gettysburg Court, Davidsonville, MD	While investigating target outfalls for the County's Illicit Discharge Detection and Elimination (IDDE) program, a Versar team found signs of collapsed infrastructure at outfall M23O004. The team investigated the site at 12:45 p.m. on Tuesday, June 2. At the site, the team found that the endwall and terminal six feet of the connected pipe had dislocated from the pipe network. The team found evidence of significant erosion in the vicinity of the outfall and surmised that the pipe system collapsed due to the loss of structural support. The team noted the pipe system that remained intact appeared to be functioning adequately to convey stormwater. The team also found a dislocated manhole cover up-network of the outfall; the manhole number was M23M013.	**6-4-2020:** Report received by WPRP from Versar. **6-4-2020:** Report forwarded to SIP for further investigation. **6-22-2020:** SIP project updates states that infrastructure is programmed tentatively for repair within next 10-16 months. **6-14-2021:** Update on project status by SIP. SIP is awaiting a cost estimate for this work for tentative completion in FY22. **12-15-2021:** Update on project status by SIP states that repairs remain in project backlog **04-26-2022:** Update on project status by SIP states that repairs anticipated by early FY23. **06-28-2022:** Update on project status by SIP states that outfall stabilization work scheduled for July/August 2022. **CASE OPEN**	**UNRESOLVED**

EROSION AND STRUCTURAL ISSUES					
Survey Date	**I&P Compliance Database ID**	**Outfall/Site Address**	**Issue**	**Response**	**Status**
June 2, 2020		L23O001 1043 Sugar Maple Drive, Davidsonville, MD	While investigating target outfalls for the County's Illicit Discharge Detection and Elimination (IDDE) program, a Versar team found signs of eroded support for stormwater infrastructure and evidence of a possibly compromised pipe network at outfall L23O001. The team investigated the site at 10:40 a.m. on Tuesday, June 2. At the site, the team found signs of significant erosion behind the endwall and along the connected pipe of the stormwater conveyance system. The team documented water flowing along underneath the endwall and emerging beneath the structure; the team surmised that the water was discharging from the stormwater network, and was thus evidence of a compromise in the pipe system up-network of the outfall.	**6-4-2020:** Report received by WPRP from Versar. **6-4-2020:** Report forwarded to SIP for further investigation. **6-22-2020:** SIP project updates states that infrastructure is programmed tentatively for repair within next 6-12 months. **6-14-2021:** Update on project status by SIP. SIP aims to assign this work to their contractor in early FY22. **12-2-2021:** Project completed. **CASE CLOSED**	**RESOLVED**

UPLAND POLLUTION					
Survey Date	**I&P Compliance Database ID**	**Outfall/Site Address**	**Issue**	**Response**	**Status**
9-23-2020		7990 Crain Hwy Glen Burnie, MD	While conducting visual surveys of upland commercial areas, LimnoTech staff identified a possible pollution "hotspot" behind Gabe's discount store, citing improper bulk solid storage concerns. The team investigated the site at 3:20 pm on September 23, 2020. Behind the store the LimnoTech team identified bulk cardboard storage that was deteriorating and potentially entering the nearby catch basin. This location also had minor trash from an enclosed dumpster, as well as pallet storage.	**9-28-2020:** Received by BWPR from Limnotech. **9-29-2020:** Forwarded to Health Department for further investigation. **12-27-2020:** Investigated by Health Department. Notice of violation issued, reinspection pending. **2-2-2021:** Follow up inspection by Health Dept. Violations not corrected. Civil citation issued. **7-1-2021:** Citation has not been responded to; violations still exist. **8-1-2021:** Follow-up inspection by Health Dept. Violations were corrected and citation was voided. **CASE CLOSED**	**RESOLVED**

I&P applies a progressive approach to enforcement regarding illicit discharges. In general, Phase I enforcement begins with coordination with MDE, as applicable, for joint investigation. If the violator has an active 12-SW permit, MDE takes over full enforcement authority. If no 12-SW permit is active, I&P will issue a Correction Notice to violator to address violation within timeframe specific to type of incident. If violation still exists upon follow-up inspection, I&P will issue a Notice of Non-Compliance, again with an incident-specific timeframe for remediation. If violation has still not been addressed, I&P may issue a citation based on County Code Class A, B, or C fines schedule. If there is no compliance with Phase I enforcement actions, I&P will proceed with Phase II enforcement, which entails the issuance of a violation notice via certified mail. If there is no compliance with Phase II enforcement, I&P will proceed with Phase III enforcement, which entails sending the case file to the Office of Law for further legal action.

The Anne Arundel County Department of Health may choose to issue civil citations for violations of the Anne Arundel County Property Maintenance Code regarding rubbish, garbage, or sanitation. Before the issuance of a citation, property owners are issued a written warning in the form of a Notice of Violation, giving the property owner 30 days to correct the violations before legal action is taken. If violations are not corrected following the issuance of a Notice of Violations, a citation may be issued. After a citation is issued, it is attempted to be served by a third-party server. Upon service, the property owner has 20 days to pay the fine and correct the violation, or 15 days to elect - via written response - to stand trial. After 20 days have passed since the initial inspection, the property is re-inspected for compliance. If the citation was unable to be served, the property is re-inspected immediately after receiving notice it was unable to be served. If violations remain at that point, the Department of Health may file for injunction. Once a citation or injunction is referred to the Office of Law, the property is re-inspected every 30 days until the trial date or until the violation is corrected. No civil citations were issued by the Department of Health in FY2022 for violations stemming from IDDE-related surveys.

6.0 REFERENCES

Maryland Department of the Environment. 1997. Dry Weather Flow and Illicit Discharges in Maryland Storm Drain Systems.

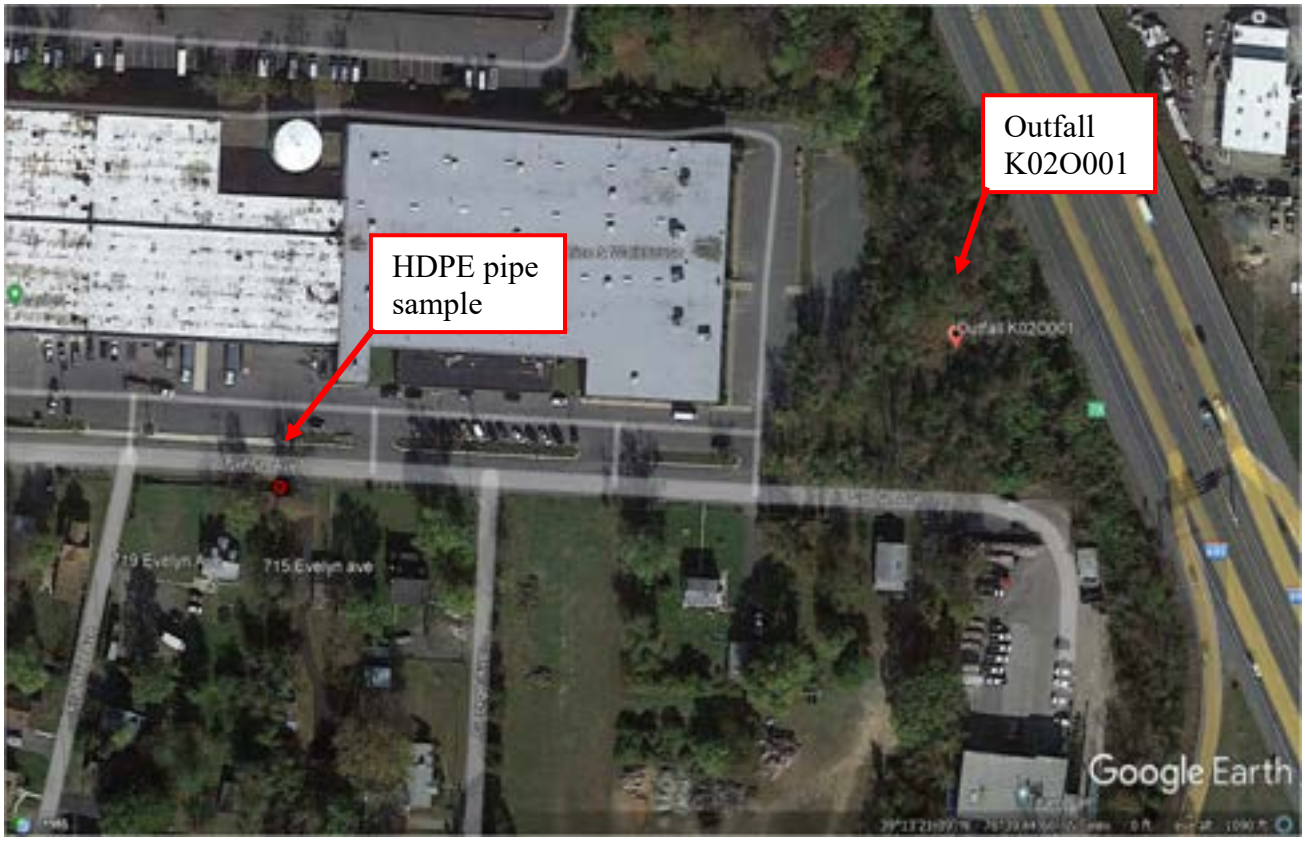
KCI, Inc. 2021. Anne Arundel County Bureau of Watershed Protection and Restoration's Illicit Discharge Detection and Elimination Standard Operating Procedures (SOP) for Consultants and BWPR Staff. Prepared by KCI Technologies, Inc., Sparks, MD, for Anne Arundel County, MD, BWPR.

APPENDIX A | ILLICIT DISCHARGE REPORTS SUBMITTED BY KCI TO ANNE ARUNDEL COUNTY

Anne Arundel County Systematic IDDE Outfall Screening
Illicit Discharge Report
Evelyn Avenue

On October 13th, 2021, while performing illicit discharge inspections for Anne Arundel County, KCI Technologies, Inc. discovered a potential water quality issue between 715 and 719 Evelyn Ave in Linthicum Heights. Outfall K02O001 itself had standing water, but flow was found in upstream structures and was traced as far as a small HDPE pipe between those two houses. A reading of 1.6 mg/L was recorded on the fluorides test of the collected sample, well above the 0.75 mg/L threshold. A reading of 0.34 was recorded on the ammonia test which was attributed to iron flocculent bacteria. A follow-up test the next day produced a lower concentration of fluorides, but still above the threshold. No concentrations of any other constituents were detected. A definitive source of flow could not be located, but due to the presence of an adjacent water line and fluorides being the constituent of concern, it is possible the flow is due to drinking water transmission loss. This was immediately reported to the Bureau of Utilities for follow up.

LOCATION: 715 & 719 Evelyn Ave, Linthicum Heights, MD 21090



10/13/2021 Inspection – HDPE pipe where sample was taken. Upstream from outfall K02O001.

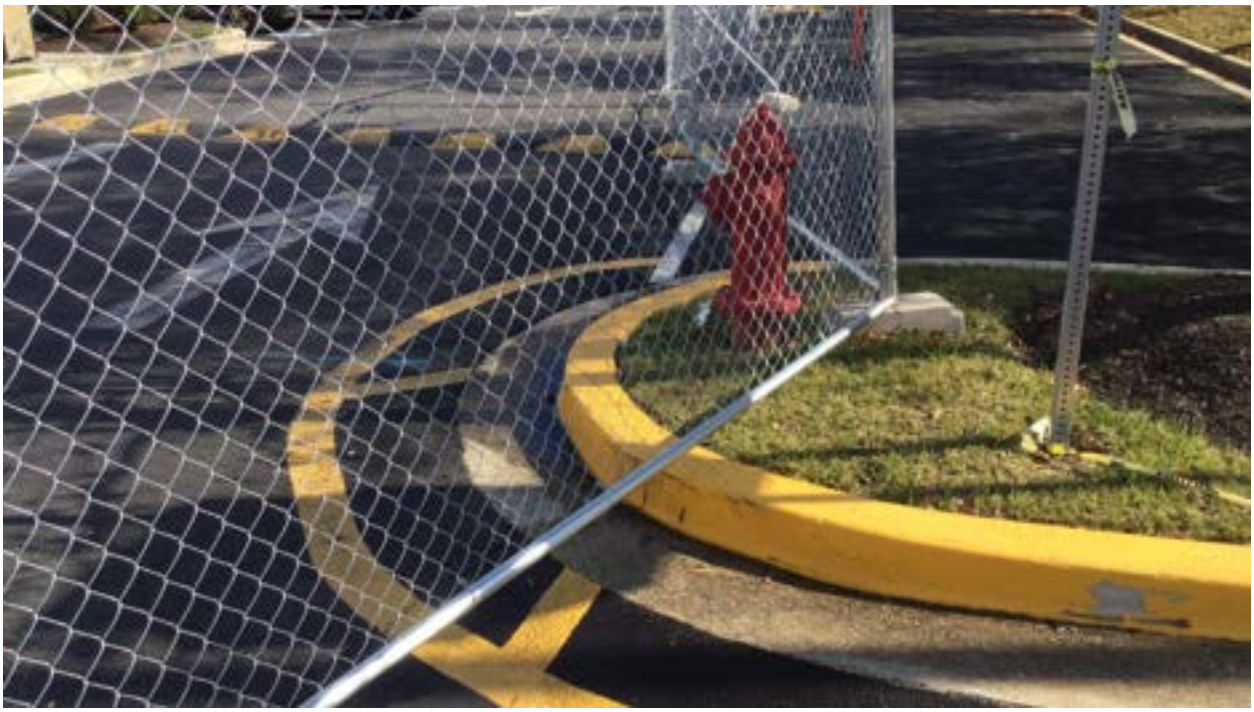
Anne Arundel County Systematic IDDE Outfall Screening
Illicit Discharge Report
Amazon – Dorsey Road

On November 10th, 2021, while performing illicit discharge inspections for Anne Arundel County, KCI Technologies, Inc. discovered a potential water quality issue at the Amazon warehouse located at 7021 Dorsey Road in Hanover. Outfall G06O006 was found to be flowing, with discernible flow traced up into the parking lot of the facility. The flow sample was visibly discolored a pale brown and was slightly turbid. Readings of 9.4 on the pH test and 0.65 mg/L on the detergents test were recorded in the collected sample, above the respective thresholds of 8.5 and 0.5 mg/L. Elevated readings of 0.55 mg/L and 0.73 mg/L were also recorded on the ammonia and fluorides tests, respectively. The small drainage area was investigated and a leaking fire hydrant into a nearby inlet was discovered. This was immediately reported to the Bureau of Utilities for follow-up, and the potentially illicit flow was immediately reported to the Environmental Hotline. A follow-up visit the next day, November 11th, found the outfall wet but no longer visibly flowing, and the leaking fire hydrant apparently repaired or otherwise addressed. No water sample was able to be collected or tested on this visit. It is the opinion of inspectors that the source of the flowing water could be traced directly to the now-addressed leaking fire hydrant, but the source of the recorded pollutants remains unclear. A perforated PVC pipe from an unknown source enters an inlet upstream, but was not found to be flowing. A construction staging area with port-a-johns is located in this drainage area. This site should be monitored for potential vehicle or other washing activities, or unprotected release of cleaning products into the storm drain, which is then later mobilized by stormwater.

LOCATION: 7021 Dorsey Rd, Hanover, MD 21076

11/10/2021 Inspection – Overview of outfall G06O006.

11/10/2021 Inspection – Downstream of outfall G06O006, showing visible flow.



11/10/2021 Inspection – Leaking fire hydrant into storm drain.

11/10/2021 Inspection – Leaking fire hydrant into storm drain.

11/10/2021 Inspection – PVC pipe from unknown source in upstream inlet.

11/11/2021 Follow-Up Inspection – Downstream of outfall G06O006, no longer flowing.

11/11/2021 Follow-Up Inspection – Fire hydrant no longer leaking.

11/11/2021 Follow-Up Inspection – Fire hydrant no longer leaking.

Anne Arundel County Systematic IDDE Outfall Screening
Illicit Discharge Report
SaLUT-TLB – McCormick Drive

On November 18th, 2021, while performing illicit discharge inspections for Anne Arundel County, KCI Technologies, Inc. discovered a potential water quality issue at the SaLUT-TLB business located at 530 McCormick Drive in Glen Burnie. Outfall J07O019 was found to be flowing, with discernible flow traced up to behind the business. The flow sample visibly had what appeared to be an oil sheen but otherwise clear. A Reading of 0.9 mg/L on the detergents test was recorded in the collected sample, above the threshold of 0.5 mg/L. The source of flow was apparent after following the storm drain system to find active washing of equipment occurring behind this business. The dirty wash water was flowing into the third upstream inlet resulting in discharge at the outfall. The detergent spike is attributed to the soaps used to wash the equipment. This was immediately reported to the Environmental Hotline for follow-up. A follow-up visit occurred later the same day, and found the outfall to still have standing water but no flow from upstream, and the equipment washing had ceased. No water sample was able to be collected or tested on this visit. It is the opinion of inspectors that the source of the flowing water was directly linked to the now concluded equipment washing and the source of pollutant was due to the cleaning products used while washing the equipment.

LOCATION: 530 McCormick Dr, Glen Burnie, MD 21061

11/18/2021 Inspection – Overview of outfall J07O019.

11/18/2021 Inspection – Downstream of outfall J07O019

11/18/2021 Inspection – Active equipment washing.

11/18/2021 Follow-Up Inspection – Overview of outfall J07O019, standing water remains.

11/18/2021 Follow-Up Inspection – Equipment washing has ceased.

Anne Arundel County Systematic IDDE Outfall Screening
Illicit Discharge Report
C Care USA – Corporate Blvd

On December 2nd, 2021, while performing illicit discharge inspections for Anne Arundel County, KCI Technologies, Inc. discovered a water quality issue at the inflow to a pond located behind 971 Corporate Blvd in Linthicum Heights. Outfall J03O006 was found to have standing water with extensive contamination by a bright blue substance unknown at the time of original inspection. There was no flow from upstream to this outfall at the time of inspection. No attempt to sample the standing water was made because the evidence of pollution was clear to inspectors and the water was also dyed blue, risking doing the same to our testing equipment. Inspectors observed impacts of the polluted water on avian wildlife, leaving their feathers oily and rendering them unable to fly. Upon investigation of the upstream drainage area, inspectors discovered a thick blue substance staining the storm drain system, which led to the loading dock area of C Care USA at 979 Corporate Blvd in Linthicum Heights. In this loading dock there is a trash compactor into which it appears that full bottles of blue hair dye are compacted and allowed to leak out into the trench drain below unprotected. Pallets stained with thick dye were also found unprotected outdoors behind the building. The conditions at the outfall were immediately reported to the Environmental Hotline on discovery, and inspectors followed up with the Bureau of Inspections and Permits when the source of the pollution was found.

LOCATION: 979 Corporate Blvd, Linthicum Heights, MD 21090


971 Corporate Blvd, Linthicum Heights 21090
Outfall J03O006
This appears to be a pre-cast structure above ground that is not online.
This storm drain mapping is not correct. This outfall does not appear to exist, and the drain system from C Care USA ties into the system to Outfall J03O006
979 Corporate Blvd, Linthicum Heights 21090
Pallets stained with dye stored uncovered
Trash compactor leaking blue dye

12/2/2021 Inspection – Overview of outfall J03O006.

12/2/2021 Inspection – Slightly downstream of outfall J03O006

12/2/2021 Inspection – Thick blue staining is present throughout the upstream storm drain system.

12/2/2021 Inspection – Trash compactor in the loading dock of C Care USA, showing dye and potentially additional substances leaking into the trench drain below.

12/2/2021 Inspection – Cosmetics bottles with residue outside on the loading dock.

12/2/2021 Inspection – Manhole immediately downstream of trench drain, showing thick blue staining.

12/2/2021 Inspection – Pallets with dye stored exposed to rainfall.

APPENDIX B | INFRASTRUCTURE CONDITION REPORTS SUBMITTED BY KCI TO ANNE ARUNDEL COUNTY

Anne Arundel County Systematic IDDE Outfall Screening
Infrastructure Condition Report
7267 Park Circle Dr

On December 15th, 2021, while performing illicit discharge inspections for Anne Arundel County, KCI Technologies, Inc. discovered severe erosion, damaged storm drain structures, and undermined and exposed pipe behind 7267 Park Circle Dr in Hanover, Maryland. Outfall G05O002 is located near the entrance of 7271 Park Circle Dr. The outfall itself was structurally fine and was found to be flowing, but upon attempting to trace the source of flow upstream of the outfall, the erosion was found. Inspectors did not definitively determine whether the exposed pipe was connected to the same system leading to this outfall. The flow contained no detected pollutants and was determined to likely be groundwater intrusion.

LOCATION: 7267 Park Circle Dr, Hanover, Maryland 21076

Inspection 12/15/2021 – Location of severe erosion and exposed pipe.

Inspection 12/15/2021 – Location of severe erosion and exposed pipe.

Inspection 12/15/2021 – Location of severe erosion and exposed pipe.

Anne Arundel County Systematic IDDE Outfall Screening
Infrastructure Condition Report
618-620 Shipley Road

On December 16th, 2021, while performing illicit discharge inspections for Anne Arundel County, KCI Technologies, Inc. discovered erosion past a gabion wall downstream of outfall J04O024. The outfall itself, located between the addresses 618 and 620 Shipley Rd in Linthicum Heights, was structurally fine and was not found to be flowing. The erosion does not appear at this time to be a risk to property or infrastructure.

LOCATION: 618-620 Shipley Rd, Linthicum Heights, MD 21090

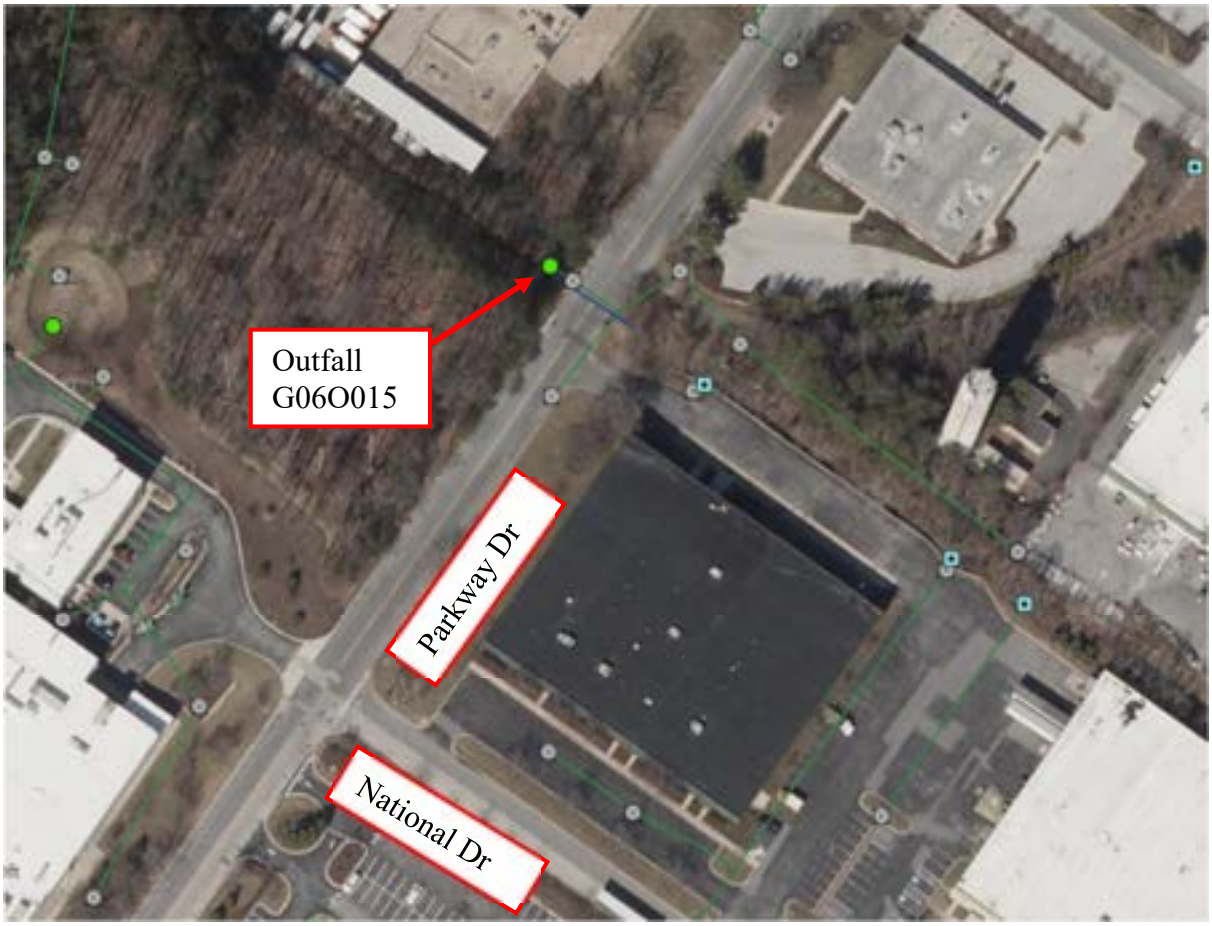
Inspection 12/16/2021 – Overview of outfall J04O024.

Inspection 12/16/2021 – Location of scouring erosion downstream of outfall, past gabion wall.

Anne Arundel County Systematic IDDE Outfall Screening
Infrastructure Condition Report
Outfall G06O015 - Parkway Dr

On March 1st, 2022, while performing illicit discharge inspections for Anne Arundel County, KCI Technologies, Inc. confirmed severe erosion at the outfall G06O015. The outfall itself, located across the road from 7251 National Dr, Hanover, Maryland, was structurally intact but is being undermined by erosion immediately downstream of the endwall and concrete flume.

LOCATION: 7251 National Dr, Hanover, MD 21076



Inspection 3/1/2022 – Overview of outfall G06O015 and erosion.

3/1/2022 Inspection – Location of erosion slightly downstream from outfall.

APPENDIX C | UPLAND POLLUTION SOURCE REPORTS SUBMITTED BY KCI TO ANNE ARUNDEL COUNTY

Anne Arundel County Systematic IDDE Outfall Screening
Upland Pollution Report
C Care USA – Corporate Blvd

On January 14th, 2022, while performing a follow up inspection to an illicit discharge for Anne Arundel County, KCI Technologies, Inc. discovered a water quality issue at the inflow to a pond located behind 971 Corporate Blvd in Linthicum Heights. Inspectors found Outfall J03O006 to have flowing water with extensive suds in the standing water at the time of inspection. Flow from the outfall was determined to be from residual snowmelt as no dry time had occurred prior to the inspection. Upon investigation of the upstream drainage area, including the loading dock area of C Care USA at 979 Corporate Blvd in Linthicum Heights, flagged due to previous pollution issues, inspectors observed a trash compactor from which it appears soapy liquids overflow and/or leak into the trench drain below unprotected. The conditions at the outfall were immediately reported to the Environmental Hotline on discovery.

LOCATION: 979 Corporate Blvd, Linthicum Heights, MD 21090


971 Corporate Blvd,
Linthicum Heights 21090
Outfall
J03O006
This appears to be
a pre-cast structure
above ground that
is not online.
This storm drain mapping is not correct. This outfall does not appear to exist, and the drain system from C Care USA ties into the system to Outfall J03O006
979 Corporate Blvd,
Linthicum Heights 21090
Trash compactor
and soapy liquids

01/14/2022 Inspection – Suds in standing water at outfall J03O006.

01/14/2022 Inspection – Suds downstream of outfall J03O006.

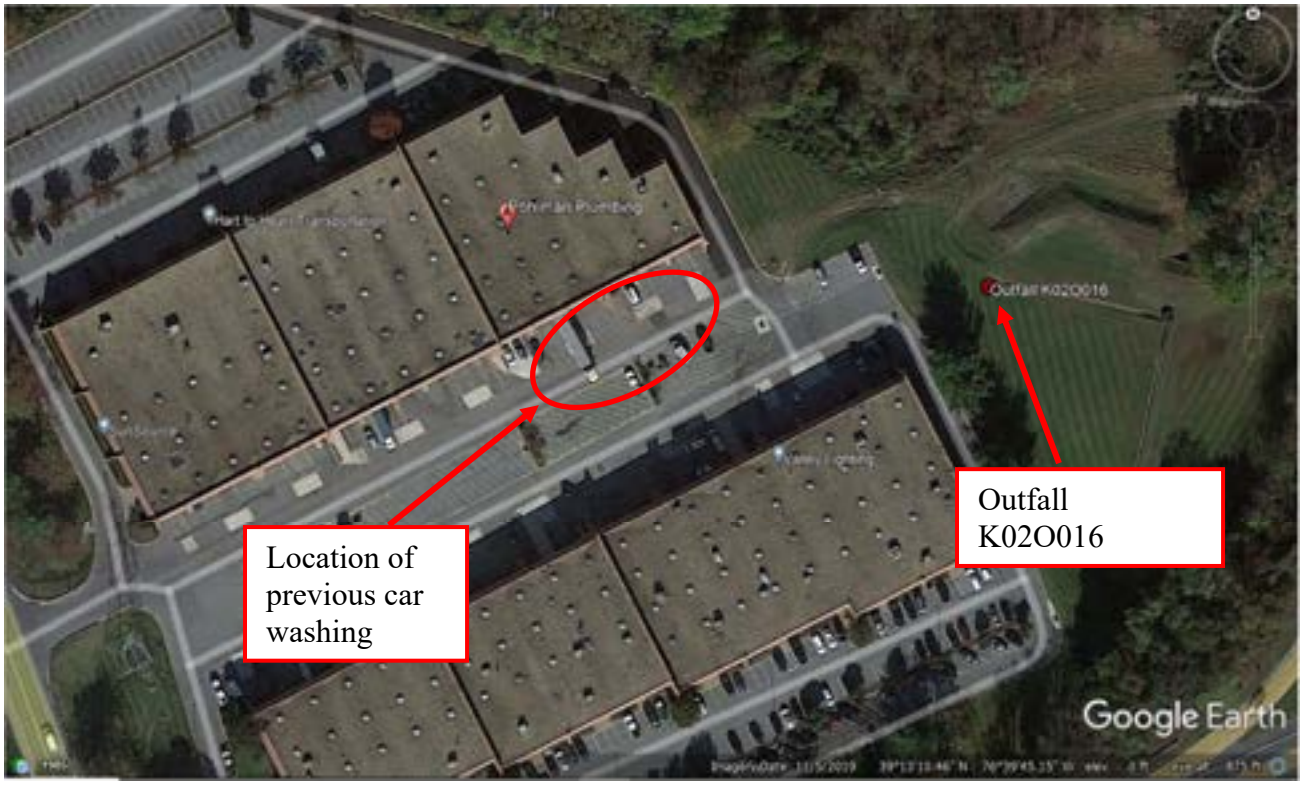
01/14/2022 Inspection - Trash compactor in the loading dock of C Care USA, showing soapy substances leaking into the trench drain below.

01/14/2022 Inspection – Trash compactor in the loading dock of C Care USA, showing soapy substances leaking into the trench drain below.

Anne Arundel County Systematic IDDE Outfall Screening
Upland Pollution Report
Pohlman Plumbing

On October 13th, 2021, while performing illicit discharge inspections for Anne Arundel County, KCI Technologies, Inc. discovered a potential water quality issue near Pohlman Plumbing in Linthicum Heights. Outfall K02O016 is located downstream from Pohlman Plumbing and was found wet with no active discharge out of the pipe. There was, however, a collection of suds and a strong scent of detergent at the pipe. There was no flowing water to sample at the time of inspection, but an upland investigation was performed to determine the source of detergents. Evidence of previous washing of commercial vehicles was found in the vicinity of Pohlman Plumbing at 601 N Hammonds Ferry Rd and was documented.

LOCATION: 601 N Hammonds Ferry Rd Suite P, Linthicum Heights, MD 21090



10/13/2021 Inspection – Outfall K02O016 with a collection of suds.

10/13/2021 Inspection – Location of commercial vehicle washing near Pohlman Plumbing.

Anne Arundel County Systematic IDDE Outfall Screening
Upland Pollution Report
Concrete Polishing & Prep Solutions

On March 1st, 2022, while performing commercial industrial inspections for Anne Arundel County, KCI Technologies, Inc. discovered white staining on the pavement at Concrete Polishing & Prep Solutions located at 7240 Standard Drive in Hanover, Maryland. Inspectors followed the white staining and found it to lead to a storm drain inlet. The source of staining could not be definitively determined at the time of inspection, but is believed to be residue from equipment washing activity.

LOCATION: 7240 Standard Drive, Hanover, Maryland 21076

3/1/2022 Inspection – Location of white staining.

3/1/2022 Inspection – Location of white staining runoff.

Anne Arundel County Systematic IDDE Outfall Screening
Upland Pollution Report
Sudano's Produce

On December 22nd, 2021, while performing commercial industrial inspections for Anne Arundel County, KCI Technologies, Inc. discovered evidence of what appeared to be vehicle washing at Sudano's Produce at 7251 Standard Dr in Hanover. At the time of inspection, no active washing was observed, but water was seen tracking across the pavement in the direction of the storm drain. The Environmental Hotline was notified immediately on discovery for follow up.

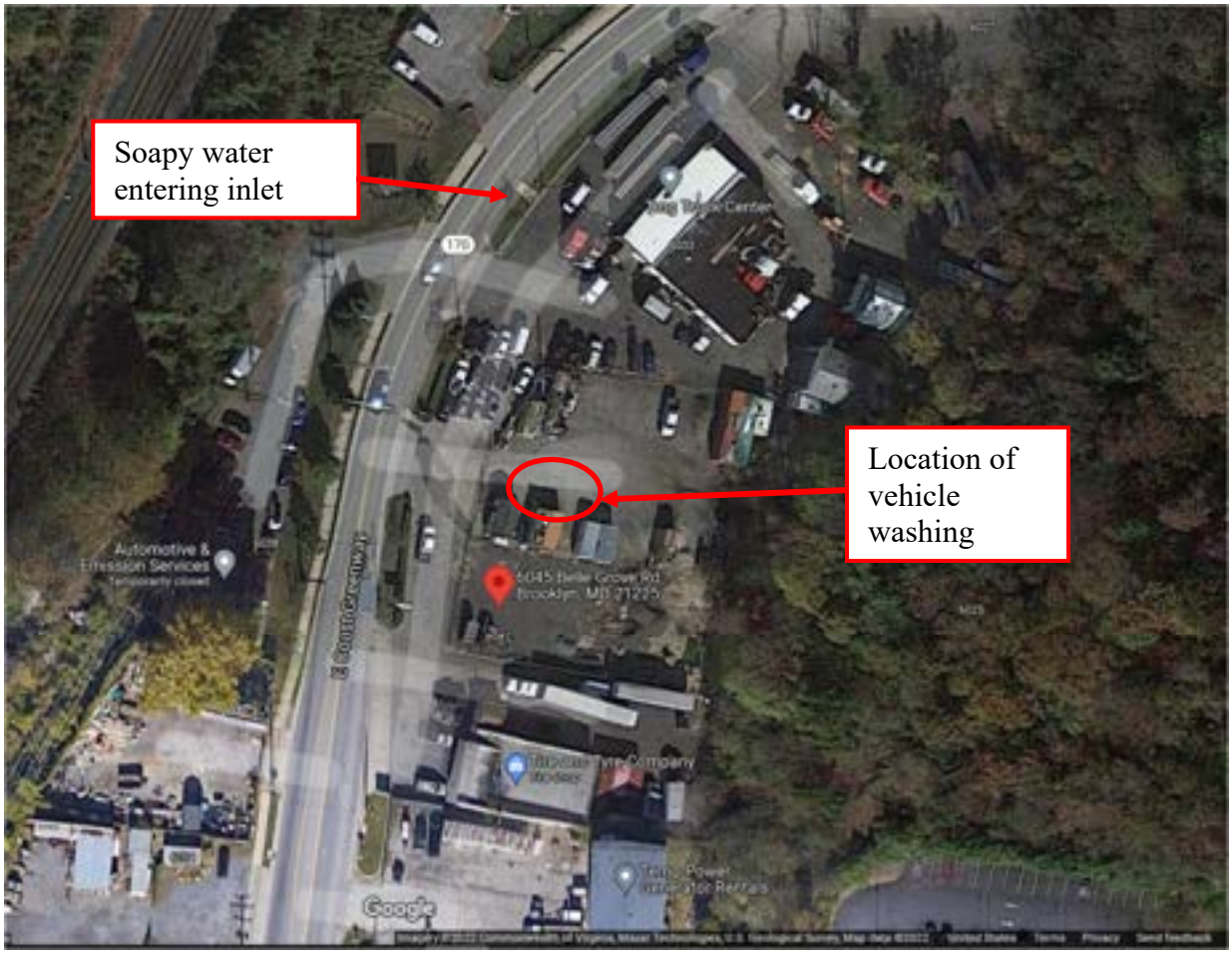
LOCATION: 7251 Standard Dr, Hanover, MD 21076

12/22/2021 Inspection – Location of apparent vehicle washing.

Anne Arundel County Systematic IDDE Outfall Screening
Upland Pollution Report
Quality Landscaping

On January 13th, 2022, while performing commercial/industrial inspections for Anne Arundel County, KCI Technologies, Inc. discovered vehicle and equipment washing at Quality Landscaping located at 6045 Belle Grove Rd in Brooklyn. At the time of inspection, active washing was occurring, and soapy water was seen leaving the area and into the storm drain system. This was reported to the environmental hotline on discovery for follow up.

LOCATION: 6045 Belle Grove Rd, Brooklyn, MD 21225



1/13/2022 Inspection – Location of vehicle washing and runoff.

Anne Arundel County Systematic IDDE Outfall Screening
Upland Pollution Report
Baltimore Storage Lots

On January 14th, 2022, while performing commercial/industrial inspections for Anne Arundel County, KCI Technologies, Inc. discovered an unidentifiable blue substance deposit on the ground at Baltimore Storage Lots located at 6051 Olson Rd in Brooklyn Park. At the time of inspection, the substance appeared to be chalk-like or otherwise sediment-like in consistency, and it did not appear to be a liquid.

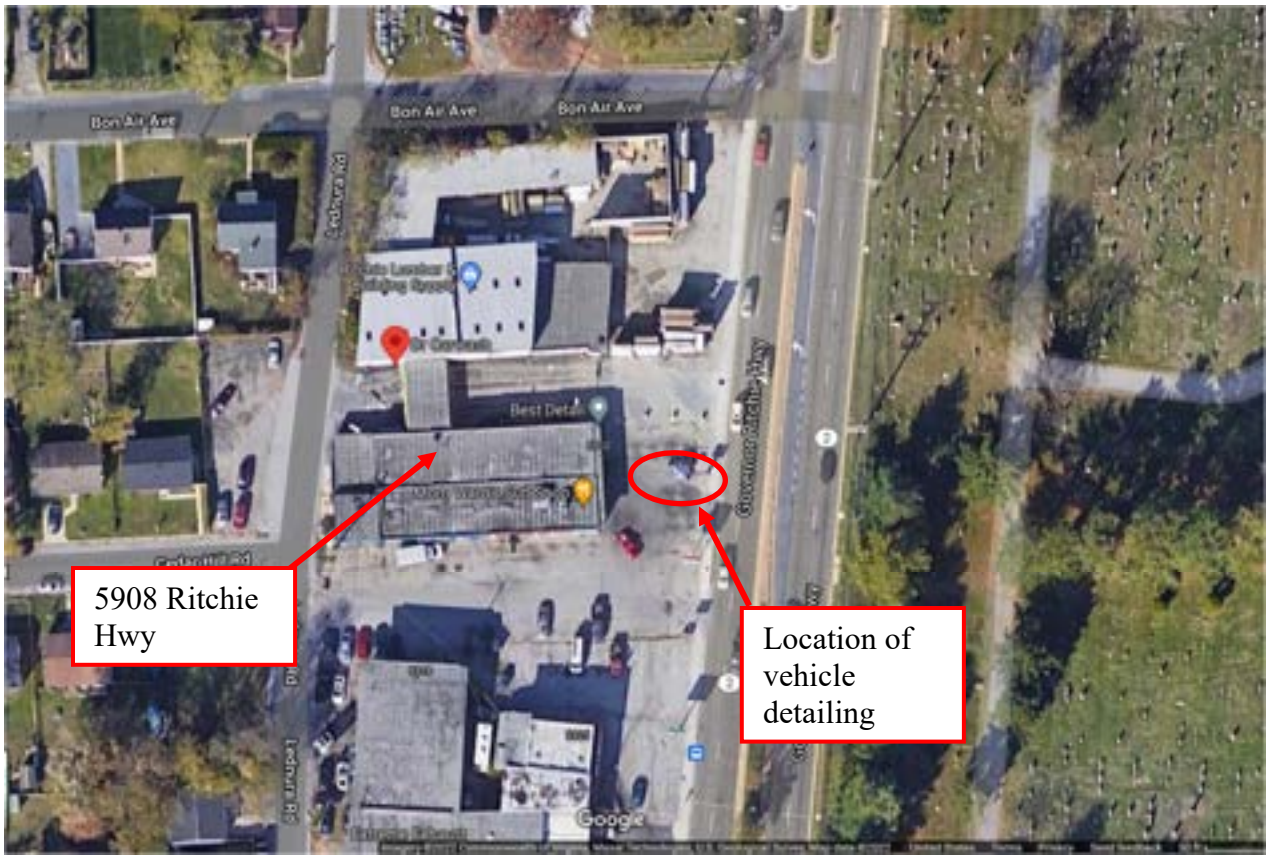
LOCATION: 6051 Olson Rd, Brooklyn Park, MD 21225

01/14/2022 Inspection – Location of blue deposit.

Anne Arundel County Systematic IDDE Outfall Screening
Upland Pollution Report
Dr. Car Wash

On January 14th, 2022, while performing commercial/industrial inspections for Anne Arundel County, KCI Technologies, Inc. discovered employees performing detailing on vehicles at Dr. Car Wash located at 5908 Ritchie Hwy in Brooklyn. At the time of inspection, inspectors observed active detailing work out of cover, allowing car-cleaning products to drip onto the pavement and be exposed to rainfall. The Environmental Hotline was notified immediately on discovery for follow up.

LOCATION: 5908 Ritchie Hwy, Brooklyn, MD 21225



01/14/2022 Inspection – Location of vehicle detailing.

Anne Arundel County Systematic IDDE Outfall Screening
Upland Pollution Report
Nursery Road Plaza

On March 1st, 2022, while performing commercial industrial inspections for Anne Arundel County, KCI Technologies, Inc. discovered uncovered kitchen grease drums and staining on the pavement behind Nursery Road Plaza located at 810 Nursery Rd, Linthicum Heights. Waste kitchen grease drums are being stored without cover and appear to be leaking based on the staining around their location. Staining can also be seen tracking to a stormwater facility through a curb cut opening.

LOCATION: 810 Nursery Rd, Linthicum Heights, Maryland 21090

3/1/2022 Inspection – Location of uncovered kitchen grease drums.

3/1/2022 Inspection – Location of stains in the vicinity of the kitchen grease barrel.

3/1/2022 Inspection – Stains appear to track along the curb to a curb cut opening.

Anne Arundel County Systematic IDDE Outfall Screening
Upland Pollution Report
HYDE Products

On March 1st, 2022, while performing commercial industrial inspections for Anne Arundel County, KCI Technologies, Inc. discovered white staining on the pavement at HYDE Products located at 700 Evelyn Ave, Linthicum Heights, Maryland. The white substance could not be definitively identified at the time of inspection, but seems to be originating from inside the building and is assumed to be concrete-related due to the nature of the business.

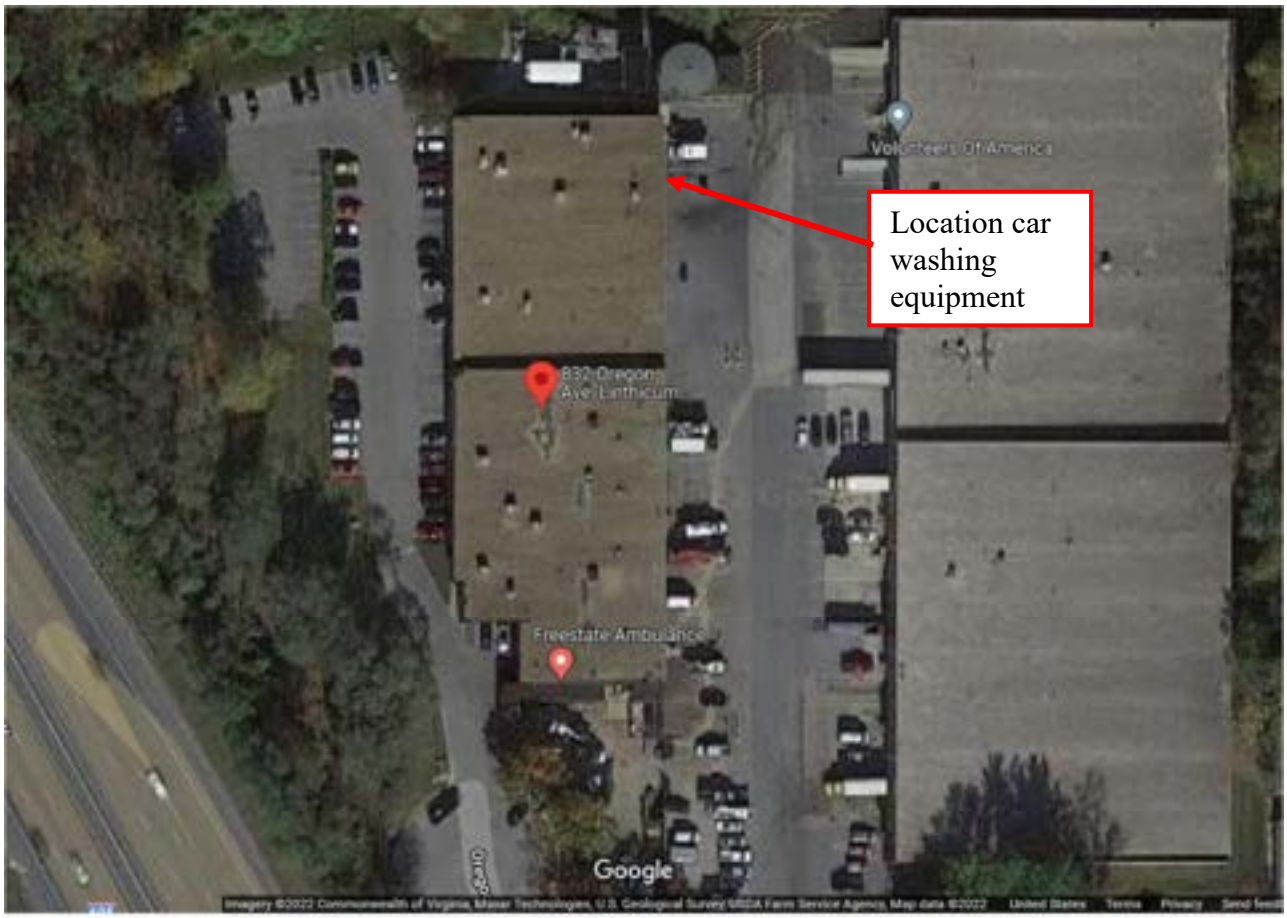
LOCATION: 700 Evelyn Ave UNIT C, Linthicum Heights, Maryland 21090

3/1/2022 Inspection – Location of white staining.

Anne Arundel County Systematic IDDE Outfall Screening
Upland Pollution Report
Freestate Ambulance

On March 1st, 2022, while performing commercial industrial inspections for Anne Arundel County, KCI Technologies, Inc. discovered car washing equipment at Freestate Ambulance located at 832 Oregon Ave UNIT K, Linthicum Heights, Maryland. At the time of inspection, no active washing was observed.

LOCATION: 7210 Preston Gateway Dr, Hanover, Maryland 21090

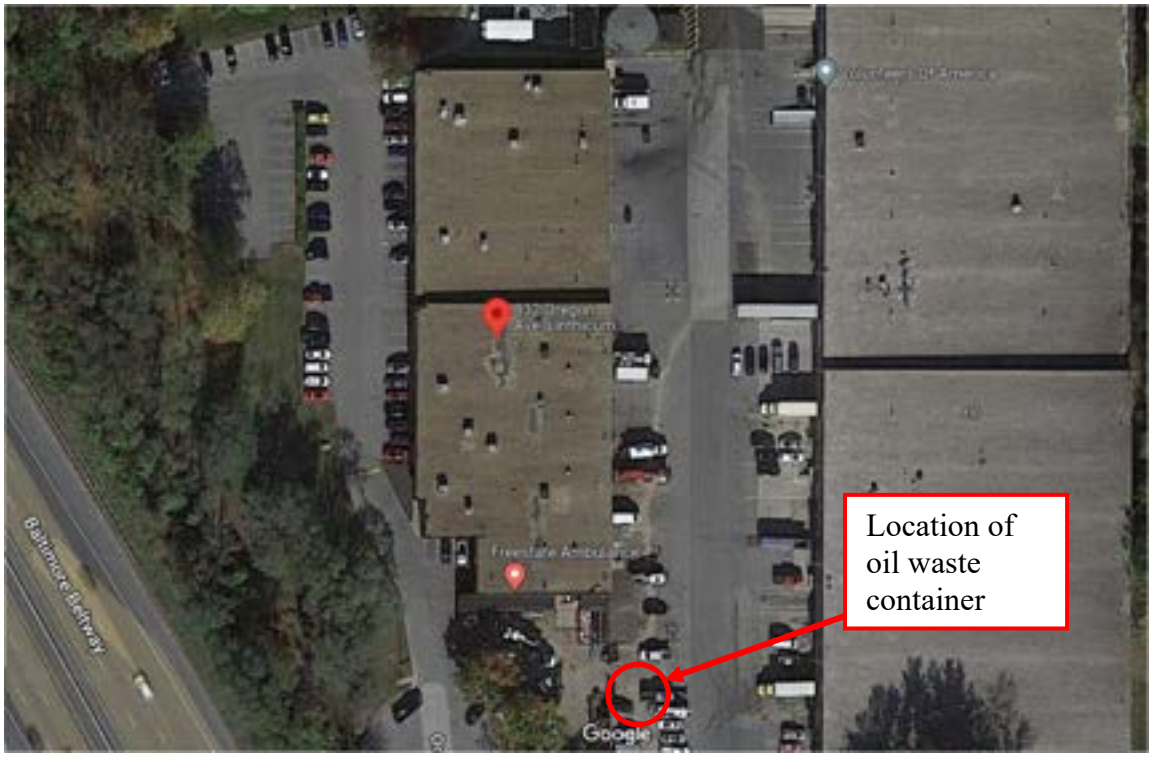


3/1/2022 Inspection – Location of car washing equipment.

Anne Arundel County Systematic IDDE Outfall Screening
Upland Pollution Report
Lighting Maintenance Inc.

On March 1st, 2022, while performing commercial industrial inspections for Anne Arundel County, KCI Technologies, Inc. discovered oil leaking from a waste oil container at Lighting Maintenance Inc. located at 832 Oregon Ave., Linthicum Heights. At the time of inspection, oil appeared to be leaking from a container labeled "Oil Waste Container" on top of a trailer. Oil was flowing from that location and if not stopped and cleaned up appropriately, will eventually hit the storm drain system. Inspectors immediately notified the Environmental Hotline for further follow up.

LOCATION: 832 Oregon Ave, Linthicum Heights, Maryland 21090



3/1/2022 Inspection – Location of trailer and leaking oil container.

3/1/2022 Inspection – Oil flowing in the direction of a storm drain

Anne Arundel County Systematic IDDE Outfall Screening
Upland Pollution Report
Coca Cola

On March 1st, 2022, while performing commercial industrial inspections for Anne Arundel County, KCI Technologies, Inc. discovered excessive pavement staining at the Coca Cola facility located at 7210 Preston Gateway Dr, Hanover, Maryland. The stains appear to be coming from a roll-off and multiple vehicles and equipment in the parking lot. There was no active discharge occurring, however, the staining entering a storm drain inlet indicates it may have discharged previously.

LOCATION: 7210 Preston Gateway Dr, Hanover, Maryland 21090

3/1/2022 Inspection – Location of roll-off with staining.

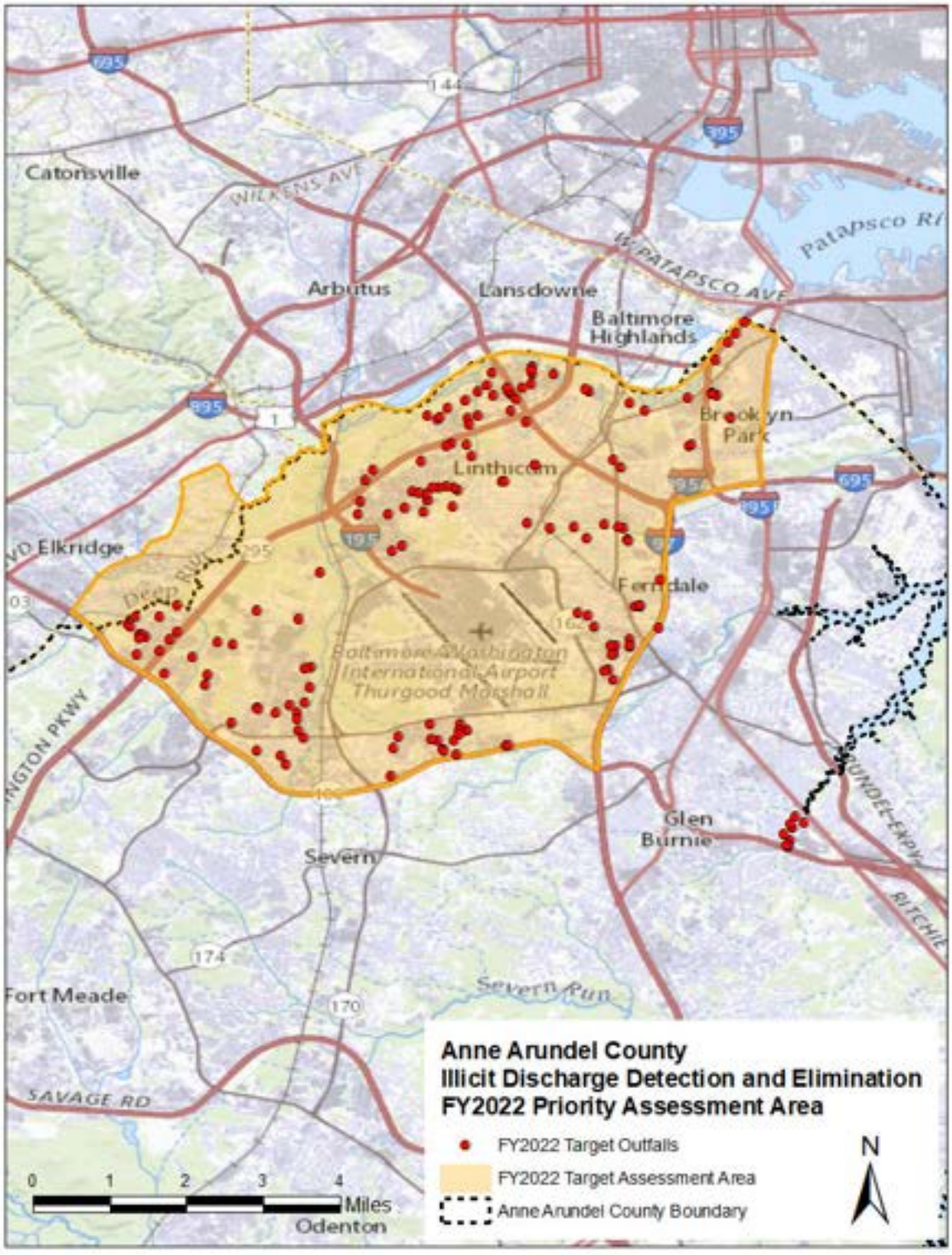
3/1/2022 Inspection – Location of vehicles/equipment with staining.

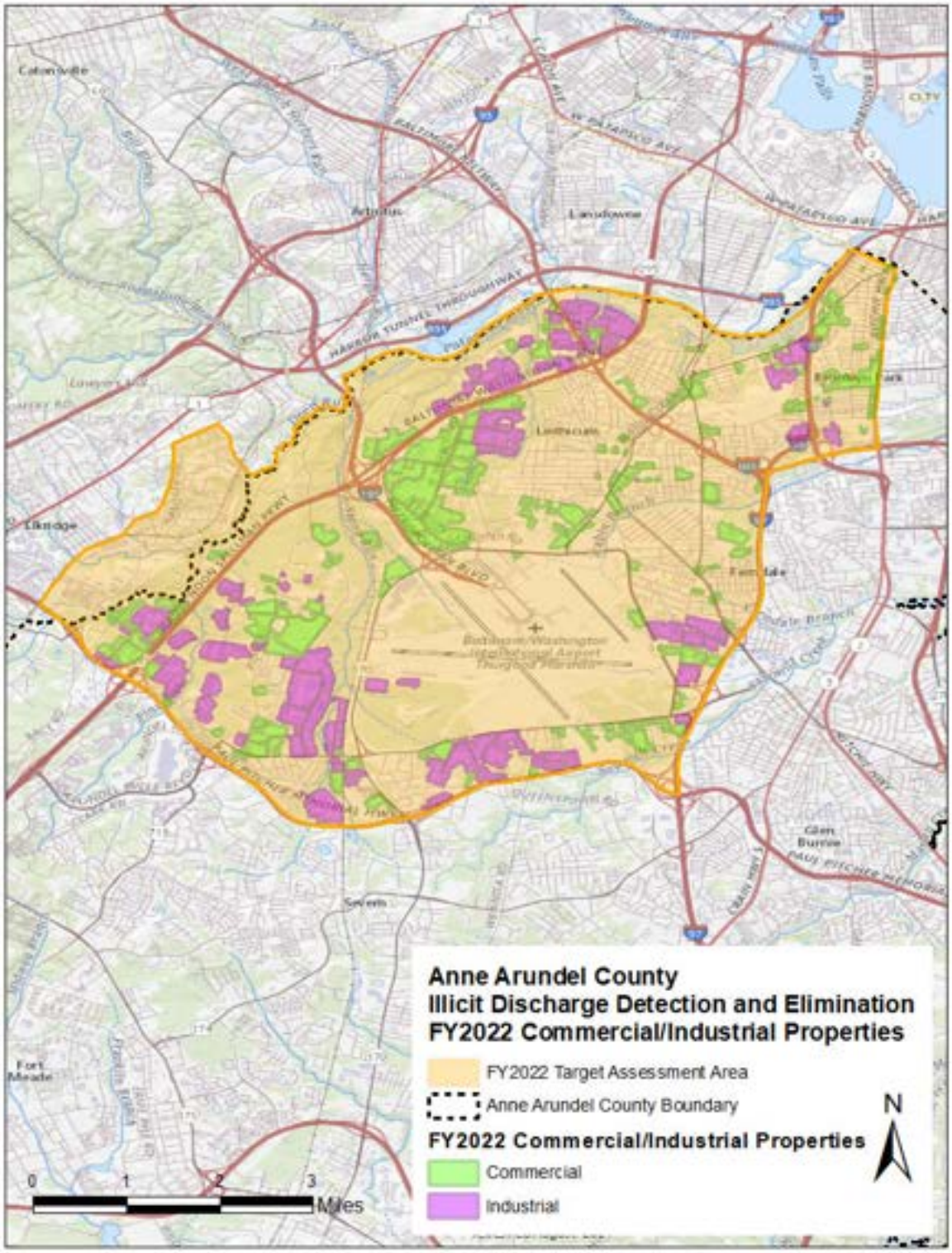
3/1/2022 Inspection – Location of storm drain inlet.

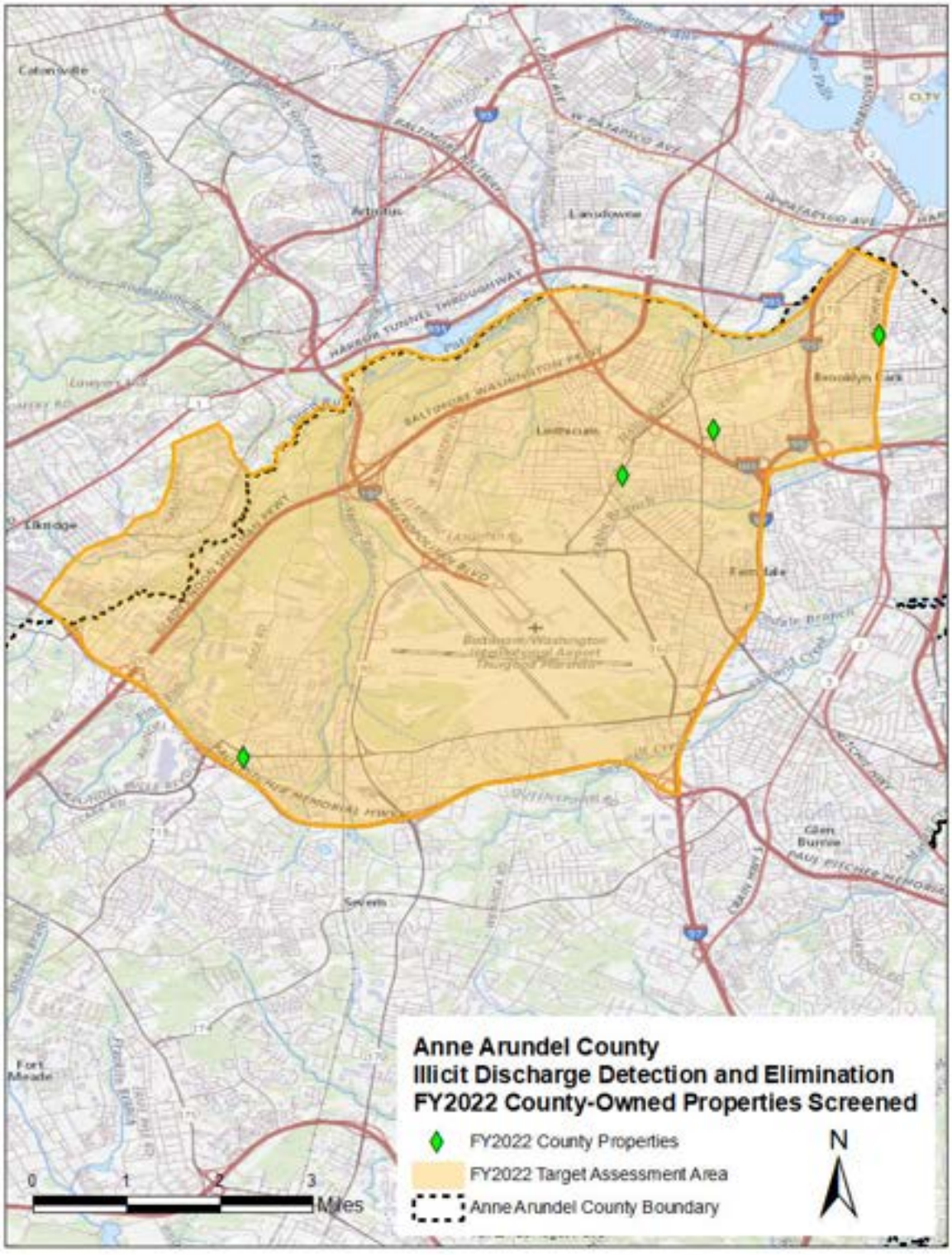
APPENDIX D | ANNE ARUNDEL COUNTY COMPLIANCE DATABASE REPORTS

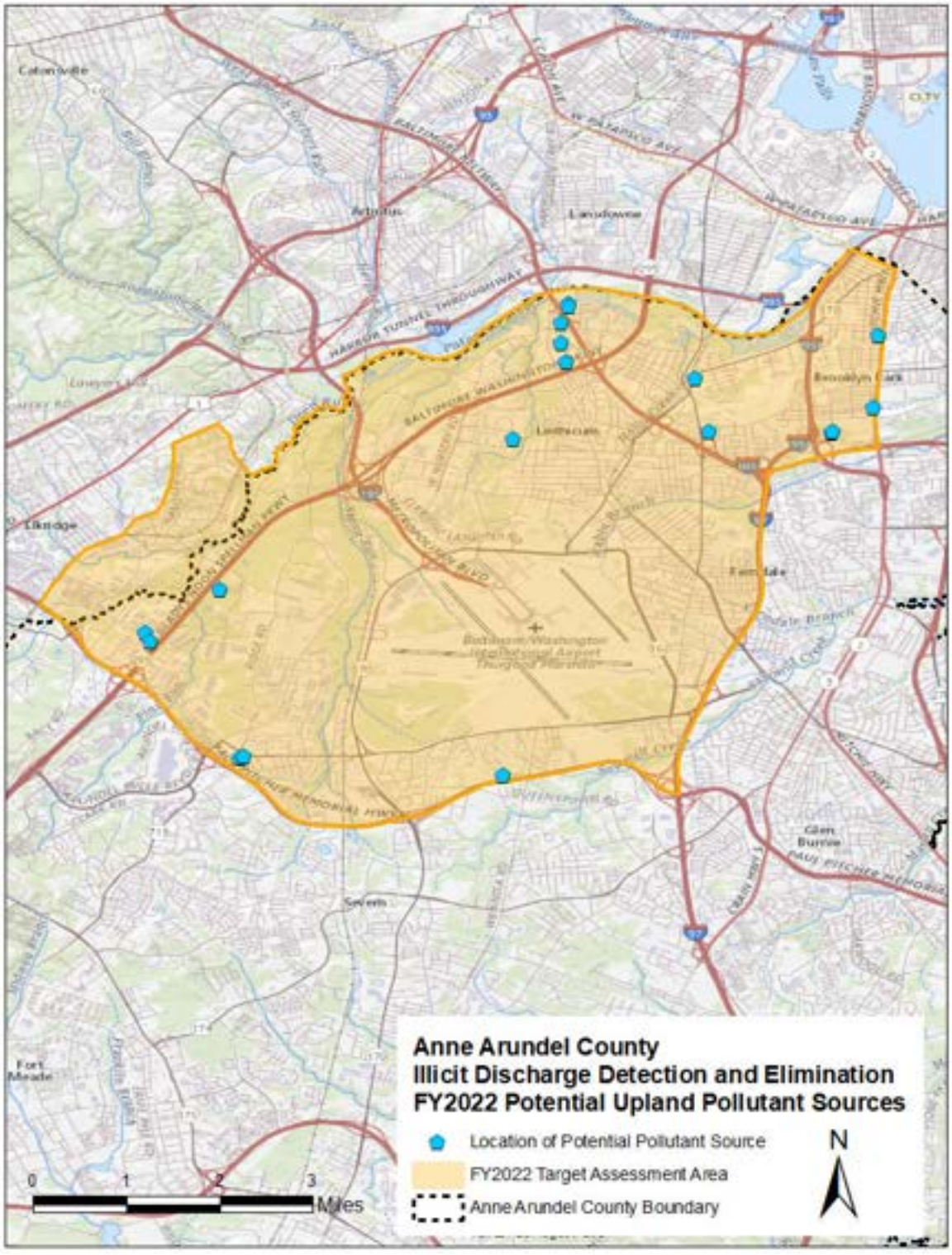
APPENDIX E | IDDE PROGRAM MAPS


Anne Arundel County
Illicit Discharge Detection and Elimination
FY2022 Priority Assessment Area
FY2022 Target Assessment Area
Anne Arundel County Boundary
N
0 2.5 5 7.5 10
Miles
Ellicott City
Catonsville
Arbutus
Baltimore Highlands
Dundalk
Edgemere
Ilchester
Brooklyn Park
Linthicum
Columbia
Ferndale
Patapsco River
Savage
Jessup
Glen Burnie
Severn
Pasadena
Fort Meade
Maryland City
Lake Shore
Gambrills
Severna Park
Odenton
Herald Harbor
Arnold
Crofton
Glenn Dale
Parole
Bowie
Woodmore
Lake Arbor
Kettering
Largo
Brock Hall
Westphalia
Marlton
Croom
PRINCE GEORGE'S COUNTY
ANNE ARUNDEL COUN
Herring Bay


Catonsville
Arbutus
Lansdowne
Baltimore Highlands
Brooklyn Park
Linthicum
Elkridge
Ferndale
Glen Burnie
Severn
Fort Meade
Severn Run
Odenton
Anne Arundel County
Illicit Discharge Detection and Elimination
FY2022 Priority Assessment Area
FY2022 Target Outfalls
FY2022 Target Assessment Area
Anne Arundel County Boundary
N
0 1 2 3 4
Miles


Anne Arundel County
Illicit Discharge Detection and Elimination
FY2022 Commercial/Industrial Properties
FY2022 Target Assessment Area
Anne Arundel County Boundary
FY2022 Commercial/Industrial Properties
Commercial
Industrial
N
0
1
2
3
Miles
Arbutus
Landover
Linthicum
Glen Burnie
Severn
Fort Meade


Anne Arundel County
Illicit Discharge Detection and Elimination
FY2022 County-Owned Properties Screened
FY2022 County Properties
FY2022 Target Assessment Area
Anne Arundel County Boundary
N
0
1
2
3
Miles


Anne Arundel County
Illicit Discharge Detection and Elimination
FY2022 Potential Upland Pollutant Sources
Location of Potential Pollutant Source
FY2022 Target Assessment Area
Anne Arundel County Boundary
N
0
1
2
3
Miles
Catonsville
Arbutus
Lansdowne
Baltimore Washington International Airport
Linthicum
Glen Burnie
Severn
Fort Meade