ANNE ARUNDEL COUNTY
ILLICIT DISCHARGE DETECTION AND ELIMINATION

2015 ANNUAL REPORT

PERMIT NUMBER MD0068306

Submitted to

Anne Arundel County
Department of Public Works
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Submitted by

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VERSAR

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1 INTRODUCTION

Under its National Pollutant Discharge Elimination System (NPDES) Municipal Separate Storm Sewer System (MS4) permit #MD0068306, Part III.E.3., Anne Arundel County is required to implement an inspection and enforcement program to ensure that all discharges to and from the municipal separate storm sewer system that are not composed entirely of storm-water are either permitted by the Maryland Department of the Environment (MDE) or eliminated. The requirements for the permit encompass five main components: field screening of a minimum of 150 storm drain outfalls annually, conducting routine surveys of commercial and industrial drainage catchments to find and eliminate pollutant sources, maintaining a program to address illegal dumping and spills, maintaining appropriate enforcement procedures for investigating and eliminating non-permitted discharges, and reporting of all discharge detection and elimination activities.

The County's program uses outfall field screening to locate illegal storm drain connections or other non-permitted dry-weather discharges through the municipal storm sewer systems. Versar, Inc. (Versar; with LimnoTech as subcontractor) has a contract with the County to perform the field screening. Where dry-weather effluent from municipal storm sewers is found, it is tested for contaminants. If contamination is found, the program requires that it be eliminated or permitted.

Within each area where field crews conduct dry-weather screening of outfalls, Versar and LimnoTech teams also perform routine visual surveys of commercial and industrial drainage areas. Inspectors drive through each commercial and industrial area, looking for signs of pollution. If pollutant sources are present, the field team notifies the County of the possible infraction at the site; the County then reviews the conditions and considers possible enforcement actions.

The Anne Arundel County Department of Inspections and Permits (I&P) maintains an inspection and enforcement program for identifying, reporting, and eliminating non-stormwater discharges into the County storm drain system, which includes illicit dumping and spills. This program is complaint-based with complaints filed by the public, other County inspectors or departments, and the Versar/LimnoTech team. The County agencies did not request any outfall inspections by the field teams that were initiated by complaints during the 2015 reporting period.

In the event of dumping, a spill, or an illegal connection, I&P corrects the situation or refers the matter to MDE for correction. If inspections identify food-waste-related concerns (e.g., overflowing or leaking dumpsters or grease collection facilities), the Anne Arundel County Department of Health corrects the situation. Both County agencies and MDE maintain appropriate enforcement procedures to ensure correction of these activities.

This report summarizes the outfall and commercial and industrial drainage catchment screening activities conducted by Versar and LimnoTech field teams during the 2015 reporting period. The 2015 reporting period extended from July 2014 through June 2015. The report also includes descriptions of screening activities led by Anne Arundel County, and compliance or enforcement updates from illicit discharges, upland pollutant sources, or structural issues

reported during the 2015 reporting period. Additionally, a summary of the final resolution of complaints reported on as unresolved during the 2013 and 2014 reporting periods is presented in this year's report.

2 METHODOLOGY

2.1 FIELD INVESTIGATION – OUTFALL INSPECTIONS

Dry-weather discharges from illegal sources have a higher likelihood of originating from commercial and industrial land uses (MDE, 1997). The areas targeted for the 2015 field effort included –Hanover, Linthicum Heights, and Glen Burnie. Target outfalls draining portions of commercial and industrial land uses were identified using a Geographic Information Systems (GIS) desktop analysis. To prepare for the field inspections, technicians used the Anne Arundel County's GIS coverage of storm drains and closed storm drain utility grids to create base maps for the targeted areas. Field crews used these maps in a differential Global Positioning System (GPS) unit to identify the extents of the local networks, the locations of outfalls, and the businesses or facilities within the drainage areas.

Field crews inspected 153 outfalls during the reporting period. The crews recorded water chemistry and physical condition of each outfall and its surrounding area in electronic field sheets. Crews documented additional details pertaining to each outfall in the "notes" section of the field sheets. Physical parameters recorded at each outfall included structural condition, deposits, vegetative condition, erosion, floatables, odor, color, and clarity. Crews took photographs of each outfall to document conditions. The inspection methodologies for these physical parameters are presented below.

The field teams' assessments of the structural condition of each outfall involved inspecting the outfall pipe and outfall structure for cracking, spalling, stability, and pipe separations. Often, outfall pipes or structures can be damaged or impaired by large scour holes at the outfall or severe downstream channel erosion that undermines the storm drain outfall. Other conditions such as excessive debris or pipe corrosion can affect the structural integrity of an outfall. When field teams identified damaged outfalls or situations that could threaten the stability of the storm drain system, they documented the significant factors at the outfall that were affecting the structural integrity of the storm drain pipe or outfall structure on the field data sheets and reported the structural issues to the Anne Arundel County Program Manager; the manager then notified the Infrastructure Management Division (IMD).

Deposits and stains present in an outfall can indicate the past discharge of a contaminant. If field crews observed significant deposits or staining at an outfall, they then investigated areas upstream in the network to determine the source.

Vegetative condition is a physical parameter that can be used to indicate the possibility of excessive nutrients, or chemicals and compounds in a discharge that harm or inhibit growth. If field crews found unusual vegetative conditions at a site, they attempted to determine the cause.

At each outfall, field crews inspected the banks of the channel leading away from the outfall for signs of erosion. Crews documented any significant erosion within 25 feet of an outfall.

If the field crews observed flowing water during a dry-weather screening, they inspected the discharge to determine the presence of floatables. The presence of floatables such as trash, sewage, or oil sheen can be evidence of an ongoing illicit connection, poor housekeeping, or a recent spill. If the crews found significant floatables in the discharge, they attempted to identify the source.

The field crews also recorded whether they detected any odor at each site where they found dry-weather flow. If the crews perceived a rancid-sour, sewage, gas, or other strong odor at a site, they recorded its qualities on the field sheets. These odors can indicate an illegal connection or spill. If the crews detected these odors, they attempted to locate the source.

Field crews documented whether algae growth was present at each outfall. The presence of algae growth may indicate nutrients or sewage contained within the discharge. If the crews found significant algae growth within the storm drain pipe or in the receiving channel, they attempted to identify the source.

Similarly, the color and clarity of the discharge can indicate contaminants in the discharge. A cloudy or opaque discharge typically means that solids are suspended in the effluent. The color of a discharge can be a clue to help assess the composition of the discharge, including chemicals or sewage contained within. If the field team found abnormal color or clarity, field teams attempted to identify the source of the potential contaminant.

In some cases, outfalls were either completely or partially submerged as a result of changing deposition patterns at the outfall or in the downstream channel, or its position in a tidal area. In these cases, field crews attempted to collect flowing discharge samples from the upstream storm drain structures. Submerged conditions do not necessarily indicate a storm drain structural problem.

Field crews chemically tested dry-weather discharge from outfalls using Chemetrics color comparator test kits (for detergents, phenols, copper, chlorine, and ammonia), an Extech single analyte tester (for fluoride), and a YSI or *In-situ* multi-parameter sonde (for water temperature and pH). All field screening took place following a minimum of 72 hours (i.e., less than 0.10 inches of rainfall) of dry-weather. Crews compared the results of the screening tests to "action" criteria, presented in Table 2-1, to determine which results should be considered abnormal and warrant further investigation (action) for possible illicit connections.

If the field teams determined that chemical conditions at an outfall resulted in any tested concentrations above the action criteria, they revisited the site within 24 hours, but at least four hours after the first test. This protocol was followed to account for any discharge anomalies, and to confirm the results of the chemical test conducted on the first visit.

Field crews indicated a possible illicit connection for any outfall with dry-weather flow that was found to have a concentration above any of the action criteria (Table 2-1) during both inspections. Possible illicit connections also included situations where an observable pollutant had been discharged through a storm drain system, but at the time of inspection the system did not exhibit flowing effluent or the discharge did not contain the pollutant. To identify the source

of any illicit discharge, the field crews followed the storm drain systems upstream, testing flows through manholes and inlets as necessary and practical, until the source was identified or the discharge could not reasonably be tracked further. Field teams documented evidence of illicit discharges, including the probable cause(s) with photographs.

Table 2-1. Analytes, testing ranges, and action criteria for dry-weather discharge screening in Anne Arundel County

Analyte	Effluent Type Indicated	Action Criterion	Minimum Detection Limit	Instrument Range	Kit or Probe
Chlorine (Cl)	industrial, tap water, sewage	≥ 0.40 mg/l[(a)]	0.05 mg/l	0 to 5 mg/l	Chemetrics color comparator
Copper (Cu)	industrial	≥ 0.21 mg/l[(a)]	0.05 mg/l	0 to 10 mg/l	Chemetrics color comparator
Phenols	dry cleaning	≥ 0.17 mg/l[(a)]	0.05 mg/l	0 to 12 mg/l	Chemetrics color comparator
Detergents*	sewage, washwater	≥ 0.5 mg/l (residential)[(a)]	0.15 mg/l	0.15 to 3 mg/l	Chemetrics color comparator
Ammonia	sewage	≥ 1.0 mg/l[(b)]	N/A	0 to 300 mg/l	Chemetrics color comparator
Fluoride	Sewage, tap water	≥ 0.75 mg/l[(c)]	N/A	0 to 10 mg/l	Extech fluoride meter
pH	Industrial washwater	≤ 6.5 or ≥ 8.5	N/A	0 to 14	YSI sonde
Water Temperature	Sewage	N/A	N/A	N/A	YSI sonde

[(a)] MDE 1997
[(b)] CWP 2004a, CWP 2004b, and Pitt 2004
[(c)] Anne Arundel County (2011)
* Field test results may fall below instrument range when using color comparators

Versar staff prepared site-specific reports for each identified storm drain structural issue found in the field and submitted them to the Anne Arundel County MS4 Program Manager. The Program Manager typically then shared the reports with the IMD to facilitate corrections for the infractions. In some instances, the identified structural issues is associated with non-County-owned infrastructure. In these cases, the Program Manager typically sent copies of the reports to I&P for follow-up site visits, inspections, and appropriate enforcement. Appendix A includes copies of the site-specific reports detailing structural issues identified in the field during the 2015 reporting period.

Versar staff prepared and submitted reports of field-identified possible illicit connections to the Anne Arundel County MS4 Program Manager. The Program Manager then sent copies of the reports to I&P to initiate plans for follow-up site visits and inspections for these reported problems, and enforcement action as appropriate. Appendix B includes copies of the reports of possible illicit connections, with details of the findings by Versar and LimnoTech field teams.

During the illicit discharge outfall investigations, many storm drain outfalls were found that were not on the County's digital version of its infrastructure network. In such cases, field teams recorded each new outfall's location with the GPS unit. Versar staff will send the locations of all previously unmapped outfalls found during the field investigations to the County to augment the County's GIS coverage.

2.2 FIELD INVESTIGATION – ROUTINE SURVEY OF COMMERCIAL AND INDUSTRIAL DRAINAGE CATCHMENTS

Within the three areas where field crews performed dry-weather screening of outfalls in the 2015 reporting period (Hanover, Linthicum Heights, and Glen Burnie), field teams also conducted routine visual surveys of the drainage areas of commercial and industrial facilities to search for signs of polluting activities. These efforts are intended to help the County discover and eliminate any upland pollutant sources. Versar staff used GIS tools to identify areas depicting commercial and industrial land uses, as defined by the Maryland Department of Planning's 2010 land cover data set (Maryland Department of Planning 2010), to facilitate the surveys of these properties. Field crews visited each commercial or industrial property in the designated areas to confirm storm drain system components and to document upland pollutant sources if the teams found evidence of polluting activities during the surveys. Upland pollutant source identification includes evidence of spills or dumping, poor housekeeping, poor maintenance of drainage systems, or other polluting activity not approved by a valid MDE permit. If field teams identified any upland pollutant source, they recorded the evidence on electronic field data sheets and documented the conditions with photographs.

Versar and LimnoTech teams reported evidence of upland pollutant sources to the Anne Arundel County MS4 Program Manager. The Program Manager then typically sent copies of the reports to I&P or the Health Department, as appropriate, to initiate plans for correction. Versar prepared and submitted site-specific reports for any site that the field teams determined required further investigation or correction. Appendix C includes copies of these reports.

As part of the County's program to address spills and illegal dumping, the County provides a means to receive complaints from residents to assist in identifying possible problems during regular field activities. The County requested one site investigation based on a complaint during the 2015 reporting period. On March 10, 2015, the Anne Arundel County Department of Public Works (DPW) received a citizen complaint via the Water Protection Division of the U.S. Environmental Protection Agency, Region III, regarding washdown activity in the rear of Clothes Call (2421 Crofton Lane) in Crofton, MD. Anne Arundel County assigned the investigation task to Versar; company staff conducted a site visit on April 16, 2015, consisting of both a hotspot investigation and dry-weather screening of the storm sewer network associated with the facility's property.

2.3 DATA ENTRY

All of the information entered into the outfall inspection field sheets was transferred to a Microsoft Access database. The database conforms to the format required by MDE, and is included in Appendix E of this report. The database contains a record for each visit to an outfall site. If field inspections indicated that an outfall had dry-weather flow containing a high concentration of a contaminant, project protocol required that field crews screen the outfall again to verify the results of the initial test. The Access database includes the data gathered during the second visit as a separate entry from data recorded on the first site visit. The database format

specified by the County's permit provides several options for each of the following parameters: structural condition, deposits, vegetative condition, erosion, floatables, odor, color, and clarity. The "notes" field contains any specific details or findings from the field assessment that did not match one of these options; this information can be used as a guide for future maintenance activities.

Appendix D contains two maps that show the locations of outfalls screened in the 2015 reporting period. One of the maps shows potential upland pollutant sources identified during the period. The other map shows all outfalls screened in the period, and structural or erosion issues identified by field teams.

3 RESULTS

3.1 PHYSICAL FINDINGS

Versar and LimnoTech field teams identified two locations where physical issues significantly affected stormwater infrastructure within the targeted areas of Anne Arundel County during the 2015 reporting period (Table 3-1). Appendix A contains site-specific reports on these findings.

Table 3-1. Structural issues identified in field inspections during the 2015 reporting period

Location	Town	Outfall ID	Inspection Date	Issue
587 East Ordnance Rd.	Glen Burnie	N/A	5/3/2015	Missing manhole cover
6722 Ritchie Highway	Glen Burnie	N/A	5/3/2015	Stormwater management riser damaged and missing manhole cover

3.2 CHEMICAL FINDINGS

Of the 153 outfalls screened by Versar and LimnoTech, 56 had dry-weather flow. Where possible at each of these outfalls, field crews collected a sample of the effluent and conducted tests on portions of the sample for phenols, chlorine, copper, detergents, ammonia, and fluoride. Field crews also documented air and water temperature and pH during the site visit. Of the screened outfalls containing dry-weather flow, 11 yielded a result above the action criteria limit for one or more of the tested contaminants. Field crews re-screened ten of these outfalls, and of those, eight had concentrations that were above at least one action level when re-tested (Table 3-2). Appendix B contains site-specific reports for the re-tested outfalls that staff identified as confirmed illicit discharges.

Appendix E contains the Microsoft Access database of all of the 163 inspection results (153 initial tests and 10 re-tests) from the 2015 reporting period. The database structure includes a separate record for each site visit to these outfalls.

Table 3-2. Potential illicit discharges identified in field inspections during the 2015 reporting period, based on results from re-tests

Outfall	Date of Test	Test Description	Chlorine (mg/l)	Copper (mg/l)	Phenols (mg/l)	Detergents (mg/l)	Ammonia (mg/l)	Fluoride (mg/l)	pH
L07A1O004	3/19/15	Initial	**3**	**0.4**	0	**0.75**	0	0.6	7.65
	3/19/15	Re-test	**0.6**	0.1	0.1	0.1	0	0.6	7.75
F06H4O016	4/13/15	Initial	**1**	0.1	0	**0.5**	0	0.3	7.28
	4/13/15	Re-test	0.1	0	0	**0.5**	0	0.2	N.T.
F07F8O003	4/29/15	Initial	0.1	0	0	**0.9**	**10**	0.4	7.41
	4/30/15	Re-test	0.05	0	0	**5**	**10**	0.5	7.34
F07F8O003new	4/29/15	Initial	0	0	0	0.15	**2.5**	0.5	7.8
	4/30/15	Re-test	0	0	0	0.25	**2.5**	0	7.76
F09F5O001	5/5/15	Initial	0	0	0	**0.9**	0	0	N.T.
	5/6/15	Re-test	N.T.	N.T.	N.T.	**3**	N.T.	N.T.	N.T.
I04E4O006	5/5/15	Initial	0	0	0	**0.5**	0	0.1	6.97
	5/6/15	Re-test	N.T.	N.T.	N.T.	**0.65**	N.T.	N.T.	N.T.
I04F3O014	5/5/15	Initial	0	0	0	**1**	0	0	7.16
	5/6/15	Re-test	N.T.	N.T.	N.T.	**1**	N.T.	N.T.	N.T.
K02B8O002	5/27/15	Initial	0	0	0	**0.75**	0	0	7.06
	5/28/15	Re-test	0	0	0	**2**	0	0	7.43

Bold = Exceeds action criteria threshold
N.T. = not tested

3.3 UPLAND POLLUTANT SOURCE FINDINGS

Versar and LimnoTech field crews identified 24 upland pollutant sources during the routine survey of the commercial and industrial sites within the targeted areas of Anne Arundel County. Table 3-3 provides a summary of the results of the upland pollutant source investigations. Appendix C contains site-specific reports on these sites.

Table 3-3. Summary of upland pollutant source findings identified during the 2015 reporting period

Address	Town	Business Name	Inspection Date	Wash-down Activity	Poor House-keeping (solid waste)	Poor House-keeping (liquid waste)
1334 Ashton Rd.	Hanover	Beneficial Landscaping	3/11/2015		X	
1327 Ashton Rd.	Hanover	Royal Plus Flooring	3/11/2015		X	
7484 Candlewood Rd.	Hanover	Stevens Auto Transport	3/11/2015		X	
1401 Dorsey Road	Hanover	Dorsey Road 7-11	3/11/2015		X	
Mathison Way & Aviation Blvd.	Hanover	BWI Freight	3/12/2015		X	
6938 Aviation Blvd.	Ferndale	Cromwell Center	3/12/2015		X	X
1001 Aviation Blvd.	Ferndale	Shell	3/12/2015		X	X
829 Elkridge Landing Rd.	Linthicum Heights	Hampton Inn	3/12/2015		X	
7000 Arundel Mills Circle	Hanover	Cinemark Theater	3/13/2015		X	
7000 Arundel Mills Circle	Hanover	Modell's	3/13/2015		X	
7002 Arundel Mills Circle	Hanover	Cheesecake Factory	3/13/2015		X	X
7063 Arundel Mills Circle	Hanover	Red Lobster	3/13/2015			X
7000 Arundel Mills Circle	Hanover	Bass Pro	3/13/2015	X		

Table 3-4. (Continued)

Address	Town	Business Name	Inspection Date	Wash-down Activity	Poor House-keeping (solid waste)	Poor House-keeping (liquid waste)
7661 Arundel Mills Blvd.	Hanover	Staples	3/13/2015		X	
7645 Arundel Mills Blvd.	Hanover	Baja Fresh	3/13/2015			X
7459 Candlewood Rd.	Hanover	Computer Sciences Corporation	3/13/2015		X	
7441 Candlewood Rd.	Hanover	United Stationers	3/13/2015		X	
7572 Ritchie Highway	Glen Burnie	DJ Liquidators	4/13/2015			X
2421 Crofton Ln.	Crofton	2421 Crofton Lane	4/16/2015		X	
595 East Ordnance Rd.	Glen Burnie	West Marine	4/24/2015		X	
713 East Ordnance Rd.	Glen Burnie	behind BASES	4/24/2015		X	
6717 Ritchie Highway	Glen Burnie	Target	4/24/2015		X	
801 Cromwell Park Dr.	Glen Burnie	Cromwell Business Park	4/24/2015		X	
7226 Parkway Drive	Hanover	Belair Produce	6/25/2015			X

4 SUMMARY AND CONCLUSIONS

In support of Anne Arundel County's NPDES permit requirements (Condition III.E.3.a, Illicit Discharge Detection and Elimination, NPDES municipal stormwater permit #MD0068306), Versar and LimnoTech field crews visited 153 outfalls for the 2015 reporting period. Appendix E contains the Microsoft Access database of the results of these visits. Table 4-1 contains a summary of the physical and chemical parameters evaluated in the outfall screening for the period. The table includes only the results from the first visit of re-screened outfalls.

Table 4-1. Summary of conditions evaluated during outfall inspections performed during the 2015 reporting period

Condition	Number of Outfalls
Observable Flow	56
Chlorine present	22
Detergents present	44
Ammonia present	3
Fluoride present	29
Excessive vegetation	8
Algae growth	27
Cloudy water	3
Opaque water	2
Outfall damage	18
Concrete cracking	3
Concrete spalling	9
Sediment deposits	55
Submerged outfall	4
Moderate erosion	14
Severe erosion	6
Oil sheen	5
Trash present	13
Oil/Gas/Sulfur/Sewage odor	10
Rancid/sour odor	0
Other than clear color	9

*Note: Several sites had multiple findings, resulting in an overall total greater than 153.

Versar and LimnoTech field crews identified two stormwater structures exhibiting structural or erosion problems within the targeted areas of Anne Arundel County during the 2015 reporting period. Table 5-1 and Appendix A contain details of these findings, and the corrective actions associated with these sites.

Of the outfalls screened by Versar and LimnoTech containing dry-weather flow, eight yielded results above the action criteria for tested contaminants within the targeted areas of Anne Arundel County for the 2015 reporting period. Table 5-1 and Appendix B contain details of these findings, and the corrective actions associated with these sites.

As required in Condition III.E.3.b, the field program included investigations of commercial and industrial sites in the target areas to determine if any upland pollutant sources were present. Field teams identified 24 upland pollutant during these surveys for the 2015 reporting period. Table 5-1 and Appendix C contain details of these findings, and the corrective actions associated with these sites.

To comply with Condition III.E.3.c, Anne Arundel County maintained an environmental hotline to provide the residents of the County a means for reporting environmental-related complaints, including illegal dumping and spills. Environmental hotline complaints typically involve sediment control issues, illegal grading activities, or potential violations of Critical Area regulations. In the 2015 reporting period, I&P received 7 complaints that were applicable to the NPDES MS4 requirements for Illicit Discharge Detection and Elimination (IDDE), including those forwarded to the County by Versar. Appendix F, which is a summary of the compliance cases that fall under the IDDE program, contains records of these complaints. In the event that illegal dumping or a spill is reported, County personnel immediately mobilize to correct the problem, or refer it to MDE.

As required by Condition III.E.3.c and d, Anne Arundel County used appropriate enforcement procedures to correct any illicit discharge, upland pollutant source, spill, or illegal dumping activities identified within the County. The Corrections and Enforcement Actions section of this report below describes follow-up actions in further detail for the problems identified during the illicit discharge inspections and routine survey of commercial and industrial drainage catchments (see Table 5-1 and Appendix F).

Condition III.E.3.e of the County's NDPES municipal stormwater permit requires that all efforts to comply with the illicit discharge detection and elimination requirements are documented and submitted with the County's Annual Report. Versar staff prepared the Illicit Discharge Detection and Elimination 2015 Annual Report to comply with this permit requirement. As required, the Recommendations section included below provides documentation of the proposed changes to the program for subsequent efforts, if applicable.

5 CORRECTIONS AND ENFORCEMENT ACTIONS

As presented in Table 5-1, the Anne Arundel County Program Manager sent copies of reports for significant findings from field investigations to the responsible authorities for action. Reports of illicit connections and upland pollutant sources (e.g., leaking dumpsters) identified during the investigations for the 2015 reporting period went to either I&P or to the County Health Department. The Program Manager reported structural issues to IMD to determine ownership of the infrastructure (and whether a stormwater agreement existed with the owner); then, either IMD or I&P would respond, depending on their areas of responsibility. The IMD or I&P Departments then addressed the problems based on whether the infrastructure was publicly or privately owned, respectively. Occasionally, complex cases are not resolved in time for a particular year's report; such cases are typically reported as unresolved. This year, Table 5-2 was created to provide details regarding the ultimate resolution of unresolved cases described in the 2013 and 2014 reporting years.

The Anne Arundel County Department of Inspections and Permits applies a phased approach to eliminating and enforcing illicit storm drain discharges. Phase 1 Enforcement consists of a Violation Notice sent by first class and certified mail to the property owner. The Phase 1 Violation Notice includes an explanation of the violation and requests a written commitment to immediately cease the illicit discharge. Upon written receipt of the commitment to comply, the Department monitors the site for up to 60 days. If compliance is maintained, the violation is considered abated. Should the Department fail to receive written commitment to comply, or if further violations are observed, the Department proceeds to Phase 2 Enforcement. At the Phase 2 Enforcement level, the Department posts a Stop Work Order on the property and issues a $1000 civil citation to the property owners. The civil citation must be paid and the violation abated or the civil citations are litigated in court. For the 2015 reporting period, the Inspection and Permits Department successfully enforced all illicit discharge complaints and referrals without the need for any referrals to MDE.

Appendix F contains inspection compliance database reports from the I&P Complaint Tracking System for each identified illicit connection, upland pollutant source, or environmental hotline complaint that is relevant to this report. These reports detail County efforts in determining if remediation is necessary and if action was taken.

Table 5-1. 2015 Illicit Discharge Detection and Elimination Program: Investigative activities and follow-up actions

Survey Date	I&P Compliance Database ID	Outfall/Site Address	Issue	Response	Status
March 13, 2015	N/A	7000 Arundel Mills Circle (Egyptian 24)	A Versar field team found two dumpsters that had been placed over a storm drain curb inlet alongside the Cinemark Egyptian 24 and XD (movie theater) at the listed address. The field team noted that there were stains leading to the curb inlet, suggesting that materials other than water have been entering the storm system at this location. Although the field crew found the dumpsters appropriately closed, any trash alongside the containers, or exposed when the lids are open may blow off-site or into the adjacent opening to the storm drain system. Any debris deposited on the ground may also leak potentially contaminating contents onto surfaces that could enter the storm drain inlet easily. Inspection by the Health Department found no violation at the time of inspection and the case was considered resolved.	April 20, 2015: Received from Versar April 21, 2015: Sent to HD. May 6, 2015: Inspection by HD showed no violation. **CASE CLOSED.**	RESOLVED
March 11, 2015	N/A	1401 Dorsey Road	A Versar field team discovered an open dumpster and scattered debris associated with a 7-11 store at the listed address. The field crew found one of the dumpsters open and filled with trash. Behind the store, the field crew found a large amount of debris (filled bags, cardboard, and food containers) among the bushes. Debris deposited on the ground may allow trash to blow off-site or leak potentially contaminating contents onto surfaces that could lead to adjacent storm drain inlets or open water. An inspection in May by the Health Department confirmed observed conditions. Site manager counseled on maintaining dumpster area.	April 9, 2015: Received from Versar. April 21, 2015: Sent to HD. May 8, 2015: Inspected and manager counseled on maintaining dumpster area. June 22, 2015: At HD request, part of reported unresolved cases. Confirmed inspection made in May, as referenced above. **CASE CLOSED.**	RESOLVED
March 11, 2015	N/A	1327 Ashton Road	A Versar field team discovered an open dumpster behind the Royal Plus building at the listed address. The field crew was unable to determine whether the dumpster was being shared by several businesses. The dumpster had been placed in a corner of the parking lot immediately adjacent to a storm drain inlet. The photographs taken on the day of the visit reveal some debris in the area surrounding the dumpster, which could also enter the storm drain system. During the inspection, the Health Department spoke with property manager about dumpster and the issue was corrected.	April 9, 2015: Received from Versar. April 21, 2015: Sent to HD. May 8, 2015: Inspection by HD. Inspector spoke with property manager about dumpster. Property manager agreed to monitor situation. **CASE CLOSED.**	RESOLVED

Table 5-1. (Continued)

Survey Date	I&P Compliance Database ID	Outfall/Site Address	Issue	Response	Status
March 12, 2015	N/A	829 Elkridge Landing Road	A Versar field team discovered a large amount of debris surrounding an open dumpster associated with the Hampton Inn hotel at the listed address. The open dumpster was not full; this suggests that the debris may have been deposited on the ground at an earlier time, perhaps when the unit was full, or that the dumpster is not being used routinely for trash disposal. The field team documented debris on all sides of the unit, including a mattress along with bagged and loose trash, including food containers. Alongside the dumpster enclosure, the field crew observed several discarded ventilation units. The lack of proper storage (preferably in closed containers under shelter) may allow trash to blow off-site and into the storm drain system. Debris deposited on the ground may leak potentially contaminating contents onto surfaces that could also lead to adjacent storm drain inlets or open water. Some debris may also attract pests to the site. An inspection by the HD confirmed the violation, which was corrected by the property owner.	April 9, 2015: Received from Versar. April 21, 2015: Sent to HD. April 28, 2015: Inspected by HD. Confirmed site not in compliance. Asked to perform cleanup. Will re-inspect on May 12. May 12, 2015: HD performed re-inspection and all issues are resolved. **CASE CLOSED.**	RESOLVED
March 13, 2015	N/A	7000 Arundel Mills Circle (Modell's)	A Versar field team found an overfilled roll-off dumpster in the parking lot near the Modells Sporting Goods store at the listed address. The lack of proper storage (preferably in closed containers under shelter) may allow trash to blow off-site and into the storm drain system. Debris that falls to the ground may leak potentially contaminating contents onto surfaces that could also lead to adjacent storm drain inlets or open water. Some debris may also attract pests to the site. An inspection by the Health Department found no violations.	April 20, 2015: Received from Versar. April 21, 2015: Sent to HD. May 11, 2015: Inspection by HD found no violations. **CASE CLOSED.**	RESOLVED
March 13, 2015	N/A	7661 Arundel Mills Blvd	A Versar field team found an open dumpster with debris scattered around it behind the Staples store at the listed address. The lack of proper storage (preferably in closed containers under shelter) may allow trash to blow off-site and into the storm drain system. Debris on the ground may be carried by wind or water to nearby storm drain inlets; it may also leak potentially contaminating contents onto surfaces that could also lead to nearby storm drain inlets or open water. Some debris may also attract pests to the site. After two Health Department inspections, the property owner brought the site into compliance and the case was closed.	April 20, 2015: Received from Versar. April 21, 2015: Sent to HD. April 24, 2015: Inspected by HD (before receiving WRPR report). April 28, 2015: Re-inspected by HD. Site not in compliance. Property owner told to clean up area. Will re-inspect in 15 days. May 6, 2015: Re-inspection by HD finds site in compliance. **CASE CLOSED.**	RESOLVED

Table 5-1. (Continued)

Survey Date	I&P Compliance Database ID	Outfall/Site Address	Issue	Response	Status
March 11, 2015	E-2015-143	1334 Ashton Road, Hanover	A Versar field team discovered a condition of improper bulk solid storage, in the form of snow removal and road de-icing supplies and tools, in the parking lot adjacent to (immediately to the west of) the building located at 1334 Ashton Road, in Hanover, MD. The field crew documented bags of salt, loose salt, and an open storage trailer at this location. The field crew found a skid steer loader in the same area with residual de-icing salt in its bucket. The truck parked between the storage trailer and the skid loader, with a snow plow attachment displayed a company logo for Beneficial Landscaping, LLC. This small company is located in Sykesville, MD, so the Hanover storage site may be established under an agreement with the landowner of the Ashton Road building, or the building at 7467 Ridge Road, Hanover, which lies adjacent to the parking lot on the southwest side. The placement of salt on an impervious surface introduces the risk of distribution, by wind or rain, of salt particles and associated nutrients which could drift into adjacent storm drain inlets or open water. An inspection by Inspections and Permits found all salt piles properly managed and the snow removal equipment removed.	April 20, 2015: Received from Versar. April 21, 2015: Sent to I&P. June 22, 2015: Status update request sent to I&P May 20, 2015: I&P inspection finds all salt piles covered. Snow removal equipment removed from site. **CASE CLOSED.**	RESOLVED
March 12, 2015	E-2015-146	BWI Freight parking lot, Mathison Way at Aviation Blvd	A Versar field team discovered large chunks of road salt at a curb inlet in the parking lot associated with BWI Freight. The placement of salt on an impervious surface introduces the risk of distribution, by wind or rain, of salt particles and associated nutrients which could easily enter the adjacent storm drain inlet. The professional opinion of the inspector was that the placement of the salt relative to the storm drain system coupled with the small amount of material left made this situation not a significant concern.	April 9, 2015: Received from Versar. April 21, 2015: Sent to I&P May 11, 2015: Inspected by I&P. The small amount of salt and its placement with respect to the stormdrain was judged to not be a concern by the inspector. **CASE CLOSED.**	RESOLVED
March 11, 2015	E-2015-144	7484 Candlewood Road	A Versar field team discovered very large, uncovered piles of road salt in the parking lot associated with Stevens Auto Transport. Near the salt piles, the field crew photo-documented a company truck with a snow plow installed on the front. The salt may have been intended, then, for surface treatment as part of snow removal services. The placement of salt on an impervious surface introduces the risk of distribution, by wind or rain, of salt particles and associated nutrients which could wash into adjacent storm drain inlets or open water. An inspection by Inspections and Permits found the salt piles properly managed and the snow plow removed.	April 9, 2015: Received from Versar. April 21, 2015: Sent to I&P. June 22, 2015: Status update request sent to I&P. May 20, 2015: Site inspected. Tarps placed over salt piles. Snow plow not present. **CASE CLOSED.**	RESOLVED

Table 5-1. (Continued)

Survey Date	I&P Compliance Database ID	Outfall/Site Address	Issue	Response	Status
March 13, 2015	E-2015-145	7441 Candlewood Road	A Versar field team discovered a large amount of debris on a slope leading to a stream alongside a parking lot associated with United Stationers at the listed address. The material deposited on the slope included bottles, cans, and plastic containers. In one area, there were also larger pieces: plastic bags, a box, and strips of foam. The trash was found strewn along a wide stretch of the woods along the stream. The sloped land would contribute to a significant pollution source from this site, as materials could enter the stream easily, carried by wind or rain. Debris deposited on the ground may also leak potentially contaminating contents onto surfaces that could lead to the open water. Some debris may also attract pests to the site. After contact by Inspection and Permits, the property owner cleaned up the area in question and is now in compliance.	April 20, 2015: Received from Versar April 21, 2015: Sent to I&P. June 22, 2015: Status update request sent to I&P. June 24, 2015: A letter has been sent to property owner instructing owner to clean up debris. Additional actions will be triggered if contact is not made with I&P in 30 days. July 30, 2015: I&P inspection has found the debris removed. This site is no longer a significant source of pollution to the stream. **CASE CLOSED.**	RESOLVED
March 13, 2015	E-2015-333	7000 Arundel Mills Circle (Bass Pro Shops)	A Versar field team discovered a man washing a boat with water from a hose at the service entrance of Bass Pro Shops at the listed address. This activity, conducted on impervious surface, may allow tap water to enter the storm drain system; the activity would constitute an illicit discharge. The field crew photo-documented the wastewater entering the roadway via paved surfaces. The current storm drain network is not available in digital format for this location to assess the relative location of the wastewater to an inlet.	April 22, 2015: Received from Versar. April 27, 2015: Sent to HD. May 1, 2015: HD claims not an issue for them. May 1, 2015: Sent to I&P. June 22, 2015: Status update request sent to I&P. June 26, 2015: Inspector informed property owner that boat washing into storm drains is not permitted. The manager stated he would comply. **CASE CLOSED.**	RESOLVED
March 13, 2015	N/A	7002 Arundel Mills Circle (Cheesecake Factory)	A Versar field team discovered two issues of concern in the parking lot near the restaurant The Cheesecake Factory at the listed address. The field crew documented an improper cooking oil storage situation and a dumpster with debris around it on March 13. The field team found a kitchen oil collection container with an open lid in the parking lot associated with the restaurant when they visited the site at 2:45 p.m. The team noted that the open container was located uphill of a curb inlet for the parking area. Cooking oil on an impervious surface poses a hazard to pedestrians; in a rain event, the oil may also distribute contaminants to adjacent impervious surfaces and eventually to storm drain inlets or open water. There is also a concern for attracting pests to the site. Inspections by the Health Department and discussions with the mall manager and the business owners led to correction of the issues.	April 22 , 2015: Received from Versar April 27, 2015: Sent to HD. May 11, 2015: Inspection by HD. Issues were being corrected at time of inspection. Inspector counseled Mall management, business owner about issues to prevent future problems. **CASE CLOSED.**	RESOLVED

Table 5-1. (Continued)

Survey Date	I&P Compliance Database ID	Outfall/Site Address	Issue	Response	Status
March 12, 2015	N/A	6938 Aviation Blvd.	A Versar field team discovered two issues of concern in the parking lot near the three restaurants at Cromwell Center at the listed address. The field crew documented an improper cooking oil storage situation and a dumpster with debris around it on March 12. The field team discovered a soiled biofuels collection container, intended for the disposal of waste kitchen oil, alongside the parking lot at Cromwell Center. The field crew photo-documented fresh oil on and around the container, and extensive stains on the pavement; this suggests that oil may be coming from a leak in the container and spills during attempts to empty materials into the container. Cooking oil on an impervious surface poses a hazard to pedestrians; in a rain event, the oil may also distribute contaminants to adjacent impervious surfaces and eventually to storm drain inlets or open water. There is also a concern for attracting pests to the site. The Health Department inspected the site, counseled property owner to do better housekeeping.	April 22, 2015: Received from Versar. April 27, 2015: Sent to HD. May 5, 2015: HD inspected site. Consulted with property owner to do better housekeeping. **CASE CLOSED.**	RESOLVED
March 13, 2015	N/A	7063 Arundel Mills Circle	A Versar field team discovered a grease collection container, intended for the disposal of waste kitchen grease, in the parking lot associated with the Red Lobster restaurant at the listed address. The field crew members found the container lid open when they visited the site at 2:55 p.m. Cooking oil on an impervious surface poses a hazard to pedestrians; in a rain event, the oil may also distribute contaminants to adjacent impervious surfaces and eventually to storm drain inlets or open water. There is also a concern for attracting pests to the site. Health Department inspection resulted in site manager agreeing to correct dumpster and to better manage housekeeping of grease trap.	April 22, 2015: Received from Versar. April 27, 2015: Sent to HD. May 14, 2015: Inspection by HD. Inspector spoke with manager who agreed to fix the dumpster or get a new one and take better care of the grease trap. **CASE CLOSED.**	RESOLVED
March 13, 2015	N/A	7459 Candlewood Road	A Versar field team found an open, overfilled dumpster near a yard grate in the parking lot associated with the Computer Sciences Corporation at the listed address. The lack of proper storage (preferably in closed containers under shelter) may allow trash to blow off-site or into the nearby storm drain system. Debris that falls on the ground may also leak potentially contaminating contents onto surfaces that could lead to nearby storm drain inlets or open water. Some debris may also attract pests to the site. An inspection by the Health Department found no violations and the case was considered resolved.	April 22, 2015: Received from Versar. April 27, 2015: Sent to HD. June 22, 2015: At HD request, part of reported unresolved cases. May 8, 2015: HD inspection found no violations. **CASE CLOSED.**	RESOLVED

Table 5-1. (Continued)

Survey Date	I&P Compliance Database ID	Outfall/Site Address	Issue	Response	Status
March 12, 2015	N/A	1001 Aviation Blvd.	A Versar field team discovered two issues of concern at the Shell fuel station at the listed address. The field crew documented an inadequate drum storage situation and an overloaded dumpster with debris around it on March 12. In an enclosure on the edge of the parking lot, the field team observed unmarked storage drums among other stored items. The field crew counted six 55-gallon drums in this storage area. Liquid materials in barrels should have secondary containment if placed on an impervious surface. Drums for liquids should also be labeled appropriately with content descriptions and hazard notices. As the contents of these containers were not specified, it is possible that the storage arrangements need to be modified to accommodate these guidelines. The Versar field team also documented an overflowing dumpster on the property at the same Shell fuel station. On closer inspection, the field team noted debris scattered on the pavement around the dumpster. The lack of proper storage (preferably in closed containers under shelter) may allow trash to blow off-site and into the storm drain system. Debris deposited on the ground may leak potentially contaminating contents onto surfaces that could also lead to adjacent storm drain inlets or open water. Some debris may also attract pests to the site. Inspection by the Health Department led to correction of issues with overflowing dumpsters. The barrel labeling issue is not a health code violation.	April 22, 2015: Received from Versar. April 27, 2015: Sent to HD. (may need sending to I&P) Will wait for HD response. June 22, 2015: At HD request, part of reported unresolved cases. May 8, 2015: Site inspected and manager instructed to clean dumpster area. **CASE CLOSED.**	RESOLVED

Table 5-1. (Continued)

Survey Date	I&P Compliance Database ID	Outfall/Site Address	Issue	Response	Status
March 19, 2015	E-2015-110	1000 Stewart Ave	At 11:30 a.m. on March 19, a LimnoTech field team inspected the outfall designated as L07A1O004, located at 1000 Stewart Ave., which is the address of a SunTrust Bank branch. The discharge was noted to be sporadic and began shortly after the arrival of the field team. A gasoline odor was also apparent. The flowing water tested above action levels for copper, chlorine, and detergents. Fluoride was also elevated but was below the action level. At 4:05 p.m., the team returned to the site and performed a 2nd test of the flowing water. At this time, only chlorine was above the corresponding action level. Fluoride was again elevated at this time, but below the action level. The flow rate was lower during the return visit and was continuous. The discharge was also not as cloudy and had a less significant gas odor than our first visit. The team documented a noticeable white powdery residue in the concrete channel that received the discharge. Results are summarized in Table 1 below. After the retest, the field team tracked flow from three directions in the network. Two of the branches originated in parking lot catch basins. The center branch originated from the south, from the direction of the building. The field crew was not able to open the manhole near the building which would confirm that the illicit discharge was originating from the building. Multiple inspections to observe this discharge and assistance from the cooperative property owner in attempting to recreate the issue yielded no results.	March 23, 2015: Received from Versar. March 23, 2015: Sent to I&P March 23, 2015: Inspected by I&P. Possible cross connection suspected. May 12, 2015: HD inspector reports that multiple visits since the initial inspection have resulted in not finding the issue again. Consequently, this case is closed and there is no issue. **CASE CLOSED.**	RESOLVED
April 13, 2015	N/A	7304 Parkway Drive South	Versar field staff conducted site visits to two outfalls (one, a target) associated with a stormwater pond along Parkway Drive South, near the Raspberry Deli at the listed address, on April 13. On the first visit to the outfall F06H4O016, at 11:32 a.m., the field crew documented flow from the 18-inch pipe discharging to the pond. The field team tracked the pipe back to the inlet on the southwest edge of Parkway Drive South (the only source of water for the outfall) and found the inlet dry. The screening results at the outfall on the first visit were above action levels for chlorine (1.0 mg/l) and detergents (0.5 mg/l). The field crew returned to the site several hours later (3:15 p.m.) to retest the discharge from the pipe. The retest yielded the same above-action detergent levels (0.5 mg/l) and a reduced level of chlorine (0.1 mg/l) to a concentration below the action threshold. The field team did not observe any other factors of concern in the discharge water (e.g., color, odor, or floatables). Staff reported the illicit discharge to the Environmental Hotline on 4.14.15. An inspection was conducted by Inspections and Permits on May 1.	April 16, 2015: Received from Versar April 27, 2015: Sent to I&P. May 1, 2015: Inspected by I&P. As this is an SHA pond and outfall, the County has no jurisdiction regarding enforcement. August 17, 2015: SHA informed of possible IDDE issue. September 16, 2015: Follow up with SHA to determine resolution. **CASE OPEN.**	UNRESOLVED

Table 5-1. (Continued)

Survey Date	I&P Compliance Database ID	Outfall/Site Address	Issue	Response	Status
March 13, 2015	N/A	7645 Arundel Mills Blvd	A Versar field team discovered two cooking oil collection containers, intended for the disposal of waste kitchen oil, in the parking lot associated with the Baja Fresh restaurant at the listed address. The field crew documented significant oil stains around the containers; the oil may be coming from leaks in the containers and spills during attempts to empty materials into the containers. Cooking oil on an impervious surface poses a hazard to pedestrians; in a rain event, the oil may also distribute contaminants to adjacent impervious surfaces and eventually to storm drain inlets or open water. There is also a concern for attracting pests to the site.	April 22, 2015: Received from Versar April 28, 2015: Sent to HD. May 6, 2015: Inspection by HD shows no violations. **CASE CLOSED.**	RESOLVED
April 16, 2015	N/A	2421 Crofton Lane	A Versar field team identified several issues of concern related to waste management in an area of the parking lot associated with 2421 Crofton Lane (multiple businesses). The field team discovered an open dumpster. The dumpsters were located next to an enclosed outdoor storage area. The field crew documented that some large pieces of debris have been placed both inside and outside of this enclosure. In a nearby corner of the parking lot, the field crew found more debris blocking a corner drain opening for the lot. The nearest stormwater system inlet is some distance away from the dumpsters and debris; the field team photo-documented its position relative to the storage area. The lack of proper storage (preferably in closed containers under shelter) may allow trash to blow off-site or into the nearby storm drain system. Debris that falls on the ground may also leak potentially contaminating contents onto surfaces that could lead to nearby storm drain inlets or open water. Large debris may pose a hazard to drivers in the parking lot, or block efficient drainage of rainwater across the impervious surface to the stormwater inlets.	May 3, 2015: Received from Versar. May 4, 2015: Sent to HD. May 7, 2015: Inspection by HD confirms violation. May 15, 2015: Re-inspected by HD, no action. June 19, 2015: Re-inspected by HD. Clean up confirmed. CASE CLOSED.	RESOLVED
April 13, 2015	E-2015-182	6722 Ritchie Highway	A LimnoTech field team discovered unsafe conditions with a stormwater detention basin riser structure behind the Best Buy store at the listed address. The field crew inspected the device and photo-documented the extent of the destruction of the facility. The top of the riser was dislocated and the manhole cover was lying on the ground at the base. The embankment behind the riser shows signs of extensive erosion, which suggests that the facility may no longer be properly functioning. The eroded area has been accumulating debris, also. The device in this condition presents a significant safety hazard for the public, although the fence may deter many trespassers. Most work has been completed, but property owner is waiting on design plans to make repairs to pipe and riser structures.	May 3, 2015: Received from Versar. May 4, 2015: Sent to I&P. May 20, 2015: I&P staff met with property owner. Necessary work discussed and discussion continues on necessary repairs. June 22, 2015: Status update request sent to I&P. June 29, 2015: Some repairs and clean up made, but other issues remain unrepaired. August 14, 2015: Status update request sent to I&P. August 14, 2015: I&P reports that property owner is currently developing plans to make repairs. September 8, 2014: Property owner still working on making needed repairs. **CASE OPEN.**	UNRESOLVED

Table 5-1. (Continued)

Survey Date	I&P Compliance Database ID	Outfall/Site Address	Issue	Response	Status
April 13, 2015	N/A	7572 Ritchie Highway	A LimnoTech field team discovered several open buckets of blacktop sealer on a sidewalk behind the D J Liquidators store (approximately) at the listed address. The field crew noted that there was extensive staining on the sidewalk suggesting that sealer has been transferred or spilled in this location in other recent incidents. Residue washed from the buckets or the sidewalk could easily enter the nearby curb inlet and introduce petroleum-based contaminants to the storm sewer system and receiving waters. A Health Department inspection found that all the buckets had been removed and that all observed sealer was dry.	May 3, 2015: Received from Versar. May 4, 2015: Sent to HD. May 8, 2015: Inspection by HD. Buckets had been removed and all sealer was dry. **CASE CLOSED.**	RESOLVED
April 13, 2015	E-2015-183	587 East Ordnance Road	A LimnoTech field team discovered an open stormwater manhole behind the building (unoccupied) at the listed address. An open hole in the ground presents a significant safety hazard for the public, although someone has attempted to create a make-shift marker to alert people of the opening.	May 3, 2015: Received from Versar. May 4, 2015: Sent to I&P. May 6, 2015: Inspection by I&P. Property owner instructed to properly install manhole cover. May 29, 2015: Follow up inspection shows location in compliance. **CASE CLOSED.**	RESOLVED

Table 5-1. (Continued)

Survey Date	I&P Compliance Database ID	Outfall/Site Address	Issue	Response	Status
April 29, 2015	E-2015-185 E-2015-186	Arbor Grove Drive and Arundel Mills Boulevard	On April 29, 2015 at 1:45 p.m., a Versar field team conducted an inspection of a target outfall that discharges to a wet pond located at the above intersection. Upon arrival, the field team identified two outfalls opening into the same headwall. The larger of the two, the target outfall, was 42" in diameter and was situated on the left (facing up-network) and an unmapped outfall (designated as F07F8O003NEW1) was 36" in diameter and oriented to the right. Both outfalls at the time had dry weather flow discharging to the stormwater pond. Outfall F07F8O003 (42", on the left) had sewage smell, was slightly brownish in color, and had a faint sheen on the water surface. The sound of water entering upstream suddenly increased during inspection. The discharge failed chemical tests for detergents (0.9 mg/l) and ammonia (10 mg/l). Outfall F07F8O003NEW1 (36", on the right) had no color or sheen, but had noticeable toilet paper residue at the outfall opening. It, too, had a sewage smell and the ammonia concentration was above the action level at 2.5 mg/l. Given the seriousness of the illicit discharge, Versar contacted I&P to inquire whether they would like to participate in tracking the source. On April 30, 2015 at 12:30 p.m., the field team returned to conduct the retest of both outfalls. Effluent from the 42" outfall was above the corresponding action levels for ammonia, chlorine, and detergents. The 36" outfall failed the ammonia test. With staff from I&P, flow to outfall F07F8O003 was tracked to an inlet just inside the entrance gate to Arbor Grove Drive, off Arundel Mill Blvd. An approximately 9" diameter PVC pipe entering the side of the inlet was dripping grayish water. The pipe was coming from the direction of a building 10 meters away. The detergent concentration in this effluent was off-scale; the ammonia concentration was also higher. A cross connection was found in the upstream network, which was corrected. The source of flow to F07F8O003NEW1 appeared to originate between two manholes and the effluent tested negative for illicit discharge indicators at that point. I&P inspectors and Versar staff continued their upstream investigation and could find no evidence of additional cross connections or other illegal discharge into this network, resolving this case.	April 29, 2015: Issue discovered by Versar. I&P consulted to assist. May 7, 2015: WPRP staff informed of progress via email. May 10, 2015: Report received from Versar. May 11, 2015: I&P inspector met with Versar crew to begin work in determining source of supposed cross connection. Also met with property owner/manager to discuss situation and plot out next steps. Note that there appear to be two cases, one for the 36 inch and one for the 42 inch outfall. May 19, 2015: Copy forwarded on to I&P. June 22, 2015: Status update request sent to I&P. July 7, 2015: Notice received from I&P that the suspected cross connections have been corrected on at least one site (186); E-2015-185 continues as a separate case concerning the Shops at Arundel Preserve to correct/confirm remaining high detergent readings**.** July 17, 2015: Inspection and investigation of outfall for E-2015-185. Extensive testing of the upstream network by I&P and Versar found no evidence of cross connection or other inputs. **CASE CLOSED.**	RESOLVED

Table 5-1. (Continued)

Survey Date	I&P Compliance Database ID	Outfall/Site Address	Issue	Response	Status
May 5, 2015	E-2015-229	890 Elkridge Road	Versar inspected the above outfalls on May 5, 2015 at 3:11 p.m. The screening results for I04E4O006 included an above-action level result for detergents (0.5 mg/l). The inspectors also screened outfall I04F3O014, which was a part of the drainage to outfall I04E4O006. Outfall I04F3O014 failed the screening test for detergents (1 mg/l) and the team suspected that the discharge from this outfall was a possible source of the detergent concentration at outfall I04E4O006. The field team returned to the site on May 6, 2015 at 3:00 p.m. The dry-weather discharges from both outfalls were tested and similar results for detergents were obtained: 0.65 mg/l at outfall I04E4O006 and 1 mg/l at outfall I04F3O014. At outfall I04F3O014, the field team tracked the effluent up the network, but could not ascertain the source of the high detergent concentrations since the source was behind the perimeter fence of a National Security Agency property. Staff also conducted a lengthy trackdown of the other sources of flow to outfall I04E4O006, but no other sources of detergents in the system were apparent. The trackdown procedure was hampered by the location of the trunk line which ran along the center of Elkridge Landing Road and the presence of traffic precluded opening of manhole covers. Small flows were found in several of the branch lines to the trunk, leading field staff to conclude that lower detergent concentrations found at outfall I04E4O006 were the result of dilution of detergent levels found in outfall I04F3O014. Versar notified I&P via the pollution hotline on May 7, 2015. Two site visits were made to perform inspections. On the second visit, water testing revealed no issues so the case was closed.	May 7, 2015: Versar called environmental hotline to report this violation. May 11, 2015: Report received from Versar. May 19, 2015: Copy of report sent to I&P to confirm follow up. June 22, 2015: Status update request sent to I&P. June 15, 2015: Inspection by I&P. Soapy water observed, but unclear about source as there are three inlets. Coordinating with Versar and property owners for additional testing. Follow up scheduled for June 30. July 1, 2015: Additional inspections occurred, but failed to find evidence of illicit discharge. Additional inspection/testing scheduled. July 30, 2015: Additional testing at outfall found detergent below action levels. No evidence of illicit discharge observed. **CASE CLOSED.**	RESOLVED

Table 5-1. (Continued)

Survey Date	I&P Compliance Database ID	Outfall/Site Address	Issue	Response	Status
May 5, 2015	E-2015-228	2631 Annapolis Road (Hanover Shell)	A Versar field team inspected the above outfall (actually the downstream end of a crossing) at 3:05 p.m. on May 5, 2015. The field team immediately noted that the water below the outfall had a greenish color, and there were suds where the dripping water was pooling. The field team collected a water sample, which had an oily odor and contained above action concentration of detergents (0.9 mg/l). The area around the outfall was severely eroded. At 1:12 p.m. on May 6, 2015, the team retested the outfall and obtained a result of 3 mg/l for detergents. Versar tracked the flow through the crossing and overland to another outfall (F09G5O001). The orifice of the outfall was found to be blocked by tree branches that appeared to have been deliberately placed. The team tested the flowing water from this outfall and obtained a detergents result that was off-scale. Source tracking of the discharge led the team to a car wash at a Shell fueling station. Two trench drains (at the entrance and exit) appeared to be connected to the storm drain system. Considering the persistence of flow through the network and through a downstream crossing, it is probable that much excess wash water is entering the system via the trench drains or possibly the main car wash effluent drainage is directly connected to the stormwater network. On May 7, Versar contacted I&P via the pollution hotline to report the matter. After an investigation by I&P, it was determined that an oil-grit separator servicing an on-site carwash was clogged and overflowing into the stormdrain. The BMP was rehabilitated and made functional again. The property owner was advised on the need to perform routine maintenance.	May 5, 2015: Issue discovered by Versar. May 7, 2015: I&P contacted via environmental hotline. May 10, 2015: Report received from Versar. May 19, 2015: Report forwarded to I&P. June 22, 2015: Status update request sent to I&P. June 24, 2015: Meeting between I&P, property owner led to discovery of overflowing oil-grit separator, which is likely source of problem. Property owner will do maintenance on facility. I&P will re-inspect once work is completed. July 30, 2015: I&P inspection found site in compliance. Oil-grit separator has been repaired and the property owner counseled to perform regular maintenance in the future. **CASE CLOSED.**	RESOLVED

Table 5-1. (Continued)

Survey Date	I&P Compliance Database ID	Outfall/Site Address	Issue	Response	Status
May 27, 2015	E-2015-292	601 and 611 Hammonds Ferry Road	A Versar field team inspected outfall K02B8O002, located in the stormwater management facility behind the business park located at 601 and 611 Hammonds Ferry Rd. During the initial visit on May 27 at 2:50 p.m., the test of the water flowing in the outfall resulted in 0.75 mg/l concentration of detergents. The outfall was re-screened the following day at 2:00 p.m. At the time of the follow up visit, the outfall contained obvious suds and tested above the action criterion for detergents again at 2.00 mg/l. The field team initiated procedures to track down the source of the illicit discharge. At the 2nd yard grate up the system where the network split, detergents were found at a concentration of 0.25 mg/l in the steadily flowing water in the network from between the buildings. The next storm drain inlet up in the line between the buildings was damp but not flowing. The branch line from the north side of the building tested at 0.75 mg/l but was puddled up and barely flowing at the junction. The next test point on the line that wraps around the north side of the building was dry. While tracking down and testing, staff observed several instances of vehicles being washed down, but no obvious signs of detergent in use, at two businesses. A chance conversation with an employee revealed that vehicle washing in the complex was common practice. Washing was observed at two businesses during trackdown activities: Valley Lighting and Iron Shore contracting. At Valley Lighting an employee started hosing off a personal truck but quickly stopped. At Iron Shore, employees were observed washing several trucks off. Versar notified I&P via the pollution hotline on May 28, 2015. During multiple inspections, I&P did not observe any vehicle washing. Business owners were advised that vehicle washing into stormdrain system was illegal and the property owner was contacted and asked to reach out to all businesses in the complex and ask them not to wash vehicles into the stormdrain system. A leaking dumpster was observed during the first visit, but was replaced. I&P inspector speculates that flow could be from ground water inflow.	May 28, 2015: Versar alerts I&P to issues. June 15, 2015: Report received from Versar. June 16, 2015: Reported again by WPRP to I&P for follow up. June 17, 2014: Case opened by I&P. June 22, 2015: Status update request sent to I&P. July 1, 2015: Inspection by I&P observed flow in storm drain, but no vehicle washing was observed during this inspection. A leaking dumpster was observed and reported to the Health Department. July 7, 2015: Re-inspection by I&P found flow at site, but no vehicle washing was observed. Businesses in counseled about vehicle washing on-site. Property owner contacted and asked to remind all business on property about prohibition on car washing. Dumpster had been replaced. Flow attributed to groundwater infiltration. **CASE CLOSED.**	RESOLVED

Table 5-1. (Continued)

Survey Date	I&P Compliance Database ID	Outfall/Site Address	Issue	Response	Status
April 24, 29, 2015	N/A	595 E. Ordnance Road	A LimnoTech field team discovered an overfilled roll-off dumpster in the parking lot behind the West Marine store at the listed address. Debris evident at the top of the pile included several open, used containers; the field crew was unable to determine the contents of these visible containers. The field crew also found large pieces of debris scattered around the dumpster. The lack of proper storage (preferably in closed containers under shelter) may allow trash to blow off-site or into the nearby storm drain system. Large pieces of debris, already on the ground or blown to the ground with a strong wind, may create hazards for drivers in the parking lot. Debris that falls onto the ground may also leak potentially contaminating contents onto surfaces that could lead to nearby storm drain inlets or open water; open containers in the dumpster may also release contaminants into the dumpster during rain events. Some debris may also attract pests to the site.	May 17, 2015: Report received from Versar. May 19, 2015: Report forwarded to HD. June 22, 2015: At HD request, part of reported unresolved cases. May 15, 2015: Site inspected. West Marine claims dumpster is not theirs. As of this report, on business is claiming ownership of issue. Citation sent to property owner. . June 17, 2015: Site re-inspected. July 2 is deadline for correction. August 14, 2015: Status update request sent to HD. August 17, 2015: Re-inspection by HD finds the dumpster gone. **CASE CLOSED**	RESOLVED
April 24, 2015	N/A	801 Cromwell Park Drive	A LimnoTech field team discovered a pair of open dumpsters in an enclosure alongside the parking lot behind the Cromwell Business Park building (multiple businesses) at the listed address. One dumpster, intended for the disposal of recyclable material, was overfilled. The other dumpster, intended for trash, had many bags of garbage strewn around it and some loose debris; food containers were apparent in some of the bags. The dumpsters were situated on a concrete pad above the curb. There were curb inlets near the dumpsters, one approximately 65 feet north and the other approximately 117 feet south of the enclosure. The lack of proper storage (preferably in closed containers under shelter) may allow trash to blow off-site or into the nearby storm drain system. Debris on the ground may leak potentially contaminating contents onto surfaces that could lead to nearby storm drain inlets or open water. Some debris may also attract pests to the site.	May 17, 2015: Received from Versar. May 19, 2015: Forwarded to HD. June 22, 2015: Follow up by HD. Re-inspection shows no violation. **CASE CLOSED.**	RESOLVED

Table 5-1. (Continued)

Survey Date	I&P Compliance Database ID	Outfall/Site Address	Issue	Response	Status
April 24, 2015	E-2015-227	6717 Governor Ritchie Highway	A LimnoTech field team discovered what appeared to be a large pile of road de-icing salt in the parking lot behind the Target store at the listed address. The large pile of road salt was found uncovered on the pavement. Small piles of salt were found scattered on the ground above the curb. In the same area, the field crew also found several bags of salt crystals; this material is intended for use in water softening systems. The placement of salt on an impervious surface introduces the risk of distribution, by wind or rain, of salt particles and associated nutrients which could drift into adjacent storm drain inlets or open water. The salt piles already on the ground pose a hazard to animals passing through the area; with rain events, the salt could infiltrate the soil, lead to elevated sodium and chloride levels in the soil, and damage nearby plants. With repeated rains, the salt and its derivatives could enter the nearby stream headwaters behind the parking lot; elevated chloride levels can be toxic to aquatic life.	May 17, 2015: Received from Versar. May 19, 2015: Sent to I&P. June 22, 2015: Status update request sent to I&P. May 20, 2015: Inspection finds not road salt stored in parking lot. Letter sent to property owner on proper storage of road salt. **CASE CLOSED.**	RESOLVED
April 24, 2015	E-2015-226	713 E. Ordnance Road	A LimnoTech field team discovered what appeared to be a large pile of road de-icing salt in the parking lot at the corner of the building (multiple businesses) at the listed address. At the time of the site visit, the pile was partially uncovered. The field crew noted that a line of residue could be traced from the area of the pile along part of the parking lot. Investigations conducted for this report included confirmation with imagery from Google Maps (https://www.google.com/maps/); the image available at the time of the report draft (May 11, 2015) showed a significant line of residue from the same corner where the road salt was being stored on April 24 to an area of distinct but indeterminate use along the parking lot. The placement of salt on an impervious surface introduces the risk of distribution, by wind or rain, of salt particles and associated nutrients which could drift into adjacent storm drain inlets or open water.	May 17, 2015: Report received from Versar. May 19, 2015: Report sent to I&P. June 22, 2015: Status update requested from I&P. May 21, 2015: Site inspection found no exposed salt. Letter sent to property owner about proper salt storage. **CASE CLOSED.**	RESOLVED

Table 5-1. (Continued)

Survey Date	I&P Compliance Database ID	Outfall/Site Address	Issue	Response	Status
June 12, 2015	E-2015-332	7001 Dorsey Road	A Versar field team inspected outfall G06G3O001 which drains a stormwater management (SWM) facility north of 7001 Dorsey Road. The initial visit took place at 12:00 p.m. on June 12. At that time, field testing results included a pH level of 9.18 and chlorine concentration of 0.6 mg/l. The outfall was re-screened on June 15 (due to interposing rainfall); however concentrations of all parameters were in the acceptable range. While at the same facility, staff screened an outfall (G06G3O004) that had dry weather flow into the facility. The contributing outfall had a detergents concentration of 0.75 mg/l. Since the high detergent concentration at outfall G06GEO004 occurred during a follow-up to a downstream outfall that earlier had an above-action level concentration of chlorine, field staff implemented trackdown procedures on June 15 and June 16 to identify the source. Staff tracked the flow to a junction manhole upslope of the SWM. The western branch (originating from Dorsey Road) could not be sampled from the manhole due to extreme depth; staff tested flow at an upstream manhole instead and found a detergent concentration of 0.1 mg/l. Along the southern branch, the flow from the parking lot of 7001 Dorsey tested at 0.5 mg/l for detergents. Farther up-network, at the only flowing and sampleable conduit, the detergent concentration was 0.3 mg/l. Staff noted that within a gated area behind 7001, absorbent berms had been placed around a yard inlet. All other conduits contributing to the outfall were dry or had very low and unsampleable flow. Staff communicated their findings to the pollution hotline on June 16, 2015.	June 24, 2015: Report received from Versar. June 24, 2015: Report sent to I&P. August 14, 2015: Follow up sent to I&P. October 7, 2015: I&P reports that all issues have been remediated and the property owner has been counseled. **CASE CLOSED.**	RESOLVED
June 25, 2015	N/A	7226 Parkway Drive	While in the area to screen an outfall, a Versar field team discovered an actively polluting condition at a roll-away dumpster found behind a Belair Produce building at the above address (Figure 1). The team observed the dumpster leaking a red liquid of sufficient quantity (Figure 2) to span the rear of the parking area (Figure 3) and enter the adjacent wooded land (Figure 4). In light of the nature of the business, one could surmise that the leachate may contain material from fruits and vegetables that have been discarded to the trash compactor; as such, the fluid may contain nutrients, bacteria, waxes, pesticides, and fungicides, among other constituents. In 2014, field crews documented a dumpster in the same location leaching sour-smelling liquid which followed a similar path to the woods. The trail of liquids, apparently emanating from the dumpster, is evident in aerial photographs, since at least 2007 (the date for the photograph used in Figure 5 in this report). An area map, indicating the location of the dumpster, is provided in Figure 5.	June 30, 2015: Report received from Versar. June 30, 2015: Report sent to HD. Also sent to I&P due to likely long term nature of impact. No action requested of I&P at this time. August 14, 2015: Follow up request sent to HD. August 17, 2015: HD met with property managers. Several changes to the site were requested. A follow up inspection was scheduled for later in August. October 19, 2015: HD inspectors have met with property owner, who has repaired the dumpster. Leaking still persists and the HD continues to work to correct issue. **CASE OPEN.**	UNRESOLVED

Table 5-2. Follow up and resolution of past cases from reporting years 2014 and 2013					
Survey Date	**I&P Compliance Database ID**	**Outfall/Site Address**	**Issue**	**Response**	**Status**
May 6, 2014	E-2014-229	510 McCormick Drive	While conducting outfall screening in the target area, the IDDE field team noted a hole in the asphalt near a storm drain inlet in the south parking area at the property of interest's address. Upon closer inspection, the interior of the catch basin could be clearly seen through the open hole. While no vehicles were parked in this area, the weakened asphalt could create a falling hazard for passers-by or cause damage to vehicles. If there is an erosion problem, the condition could worsen. I&P staff determined that there is a stormwater maintenance agreement with the County for this facility requiring the property owner to perform regular maintenance in accord with that agreement. A meeting on-site was held with the property manager, who assured the inspector that this matter would be quickly corrected.	May 8, 2014: Received from Versar. May 12, 2014: Sent to I&P. Complaint opened. May 29, 2014: Inspection by I&P confirming issue. August 5, 2014: I&P follow up meeting with property manager to discuss issue. August 19, 2014: WPRP sent follow up sent to I&P. August 22, 2014: Investigation and follow up on-going. September 3, 2014: Case pending. October 2, 2014: Owner obtaining bids to make repairs. November 7, 2014: Re-inspection finds repairs have been satisfactorily completed. **CASE CLOSED.**	RESOLVED

Table 5-2. (Continued)

Survey Date	I&P Compliance Database ID	Outfall/Site Address	Issue	Response	Status
May 14, 2014	E-2014-252	1300 Concourse Drive (IDDE)	The IDDE field team conducted site visits to several targeted outfalls in the vicinity of Concourse Drive on May 14th. At 1:45 p.m., the field team screened outfall I03E8O003, which discharges to a wet pond and was partially submerged. A visual inspection of the 1st manhole up from the outfall in the middle of Concourse Dr. showed flowing water. A faint rancid odor was noted when the water sample was collected at the outfall, with the results above action the action level for fluoride and elevated for detergents and ammonia. On the following day, the field team retested water obtained from the flowing pipe, rather than the stagnant water at the outfall. The retest yielded results that caused the field staff traced the source of the flow. During trackdown, the field team tested flowing water in a manhole located in the southeast entrance driveway of 1302 Concourse Drive. Again, testing results were high parameters of interest. Field staff also noted white residue on the interior surface of the storm drain pipe and a stronger odor. The field team followed the odor, whitish residue, and flowing water through the curb inlets on the northern edge of 1300 Concourse Dr. (Embassy Suites) to the end of the system, which terminated in a curb inlet located down-gradient from the hotel loading dock. Within this curb inlet, the field team found some standing gray water with a strong foul odor. Testing of the water again yielded elevated detergents and ammonia concentrations. A general inspection of the area around the curb inlet and of the loading dock area showed no signs of active illicit discharge activities. The field crew noted and photo-documented conditions of the dock area as the curb inlet grate was generally untidy, with some staining of the pavement from the direction of the loading dock towards the curb inlets readily apparent. Some residual puddled grey water was also found in the area, but staff couldn't discern the source. Field crew noted the condition of the loading dock to be messy, with clear signs of regular discharge (i.e., a stain line to the drain and apparent residual discharge) from a large rollaway dumpster. Two standard-sized dumpsters were also placed beside the dock; they were over-flowing with cardboard and some trash was noted around them. A waste cooking oil vat was also noted beside the dock but appeared to be in good condition. A mop pail was also present on the loading dock, suggesting that hotel staff may be disposing of wash water onto the parking lot. An inspection by I&P found that the source of the discharges characterized above came from used mop water being regularly disposed of on the loading dock and from a leaking dumpster. Hotel staff were counseled to dispose of all mop water into floor drains connected to the sanitary sewer. The dumpster for the hotel is slated for replacement.	May 16, 2014: Received from Versar May 30, 2014: Site visit by I&P staff and Versar staff. Identified as a cross connection between sanitary sewer and stormdrain. August 19, 2014: Follow up sent to I&P. August 23, 2014: No cross connection here, just a leaking dumpster and improper disposal of mop water. August 29, 2014: Follow up with Hotel by I&P inspector. Status of dumpster replacement questioned. Trash around existing dumpster observed; hotel instructed to perform cleanup. September 3, 2014: Status inquiry sent to I&P regarding dumpster replacement. September 5, 2014: Update from I&P states that dumpster not replaced at this time. September 15, 2014: I&P reports that property owner will have new dumpster in place by end of September. October 22, 2015: Inspection shows new dumpster installed, loading area cleaned. **CASE CLOSED**.	RESOLVED

Table 5-2. (Continued)

Survey Date	I&P Compliance Database ID	Outfall/Site Address	Issue	Response	Status
July 7, 2014	N/A	832 Oregon Avenue, Linthicum Heights, MD	The IDDE field team investigating the stormwater infrastructure along Oregon Avenue noted damage to the asphalt and gutter which has caused partial collapse of these surfaces bordering an inlet down the street from a warehouse at the above address (Lighting Maintenance, Inc. occupies Suite A of 832 Oregon Avenue). The field crew also observed that sediment had accumulated in the inlet box; water flow to the connected pipe did not appear to be blocked, yet. The cause of the damage could not be ascertained on the day of the site visit. The field crew did note that trucks - displaying logos that were not obviously associated with the Lighting Maintenance company - were parked alongside the curb (i.e., spanning several parking spaces) on the same side of the street as the inlet. One could surmise that the parking area and gutter damage around the inlet grate may have been caused by bearing the excessive weight of a parked truck for extended periods of time. If the inlet box structure has been compromised, or the sub-surface of the parking asphalt is being saturated due to leaks in the infrastructure, there is increased potential for damage or collapse in the future.	July 18, 2014: Received from Versar August 1, 2014: Reported to Andy Watcher (Infrastructure) August 4, 2014: Assigned to Ron Rose for follow up August 19, 2014: Follow up sent to AW. September 4, 2014: Follow up sent to AW. September 16, 2014: Follow up sent to AW. Inspector requested to investigate issue. August 20, 2015: IMD has confirmed County ownership and repairs are funded and planned for FY 2016. **CASE CLOSED.**	RESOLVED
July 7, 2014	E-2014-468	1591 West Nursery Road, Linthicum Heights, MD (housekeeping)	While the IDDE field team was investigating a structural problem at a curb inlet in the parking lot behind the Hoyt's Cinema 14 at the subject address, team members detected a foul smell. The crew removed the manhole cover and inspected the contents of the catch basin. The field crew determined that the debris found in the bottom of the catch basin is the likely cause of the disagreeable odor, as the trapped material was rotting in place. The field team noted that the dumpsters are slightly uphill from the inlet; it is possible that the debris in the inlet has accumulated from loose debris associated with the dumpster (an open cover which allows loose debris to be carried out with strong winds or debris that is not properly inserted into the dumpster). I&P inspected the facility and confirmed the field team's findings. Research is underway to determine if a SWMA exists and I&P has made contact with the property owner and has asked for these issues to be corrected.	July 18, 2014: Received from Versar. August 1, 2014: Sent to I&P August 19, 2014: Follow up sent to I&P. August 22, 2014: Re-sent the original report and the tax ID number. I&P inspection performed. August 25, 2014: I&P opened complaint case and is researching if a stormwater management agreement exists for this facility. September 4, 2014: Follow up sent to I&P. September 15, 2014: I&P sent an email to the business owner requesting that the issues be resolved as soon as possible. October 22, 2014: Inspection finds debris removed. Facility in compliance. **CASE CLOSED.**	RESOLVED
July 7, 2014	E-2014-468	1591 West Nursery Road, Linthicum Heights, MD (infrastructure)	A Versar field team discovered a hole in the ground under the corner of a curb inlet in the parking lot behind the Hoyt's Cinema 14 at the subject property. The loss of ground support under the bricks may contribute to a weakened state in the future and present a hazard. In another photograph taken by the field crew, there is evidence of possible structural compromises in the curb inlet support: the corner block does not show supporting mortar and there is an uneven crack through the gutter suggesting a shift in underlying support associated with the same corner. The field team investigated the condition but did not find evidence of an obvious cause for the missing dirt. If there is an erosion problem, the condition could worsen. I&P contacted property owner and asked for this issue to be corrected.	July 18, 2014: Received from Versar August 1, 2014: Sent to Infrastructure (AW). August 4, 2014: Reply from AW—private facility. August 19, 2014: Follow up sent to AW. September 4, 2014: Follow up sent to AW. September 15, 2014: Sent to I&P for consultation and possible action. September 16, 2014: I&P contacted property owner for correction. October 22, 2014: I&P inspection finds sinkhole repaired. **CASE CLOSED.**	RESOLVED

Table 5-2. (Continued)

Survey Date	I&P Compliance Database ID	Outfall/Site Address	Issue	Response	Status
July 7, 2014	E-2014-511	5179 Raynor Ave.	The IDDE field team investigating the stormwater infrastructure between the Motel 6 and the McDonald's restaurant at the subject address discovered a partially clogged outlet for a pipe that drains the Motel 6 parking lot. The outlet is occluded with hard sediment. One crew member inspected the interior of the pipe and reported that he was not able to see an opening for water passage. The presence of similar sedimentation around the opening suggests that the discharged fine silt has been accumulating over time, and a thin top layer of algae on the sediment suggests that water may be still trickling through the pipe, although the drainage is no longer fully effective. Sluggish drainage of the parking lot in this corner may pose a hazard for motorists and pedestrians with accumulating debris, leaves, standing water, and ice.	July 18, 2014: Received from Versar August 1, 2014: Sent to infrastructure (AW). August 4, 2014: Reply from AW—private facility. August 19, 2014: Follow up sent to AW. September 4, 2014: Follow up sent to AW. September 15, 2014: Sent to I&P for consultation and possible action. October 16, 2014: Inspection finds BMP in compliance. **CASE CLOSED.**	RESOLVED
May 15, 2014	E-2014-469	705 East Ordnance Road	While conducting outfall screening in the target area, the IDDE field team discovered an outfall (N04H2O015) almost completely blocked by hard sediment. The outfall drains a parking lot to a stormwater pond behind the building at the above location. The photograph, taken by the field crew on May 15, shows some standing water near the outlet. A thin, top layer of algae downstream of the pipe opening suggests that water may continue to trickle through the pipe; the field crew reported that the outlet was not draining on the day of the field visit. Sluggish drainage of the parking lot in this corner may pose a hazard for motorists and pedestrians with accumulating debris, leaves, standing water, and ice. An inspection by the HD found a number of serious deficiencies that are now slated for correction. A re-inspection is scheduled for September 29, 2014.	August 22, 2014: Received from Versar. August 22, 2014: Sent to I&P. August 29, 2014: Site inspection of stormwater pond noted a number of issues that require correction, including sediment removal, grass cutting, securing access, and other items. Property owner informed. Inspection planned for 9/29/14. October 8, 2014: Pond still not in compliance. Re-inspection to occur in early November. October 22, 2014: Inspection shows pond in compliance. **CASE CLOSED.**	RESOLVED
June 16, 2014	N/A	7201 Standard Drive, Hanover	While conducting outfall screening in the target area, a Versar field team discovered a section of parking lot pavement that had collapsed along with the adjoining curb in the parking lot behind the building at the above location. The field team documented the condition with photographs. No vehicles were parked in this area; however, the weakened asphalt could create a falling hazard for passers-by or cause damage to vehicles. Interpretation of the photographs suggests that there may be an erosion problem, and the condition could worsen. The site may have been repaired previously. County GIS coverage indicates that a storm drain inlet is in the near vicinity and may be part of the problem area.	July 2, 2014: Received from Versar. September 29, 2014: Sent to IMD for review and guidance. September 16, 2015: Follow up with IMD shows this is a private stormdrain system, so no action by IMD is required. **CASE CLOSED.**	RESOLVED

Table 5-2. (Continued)

Survey Date	I&P Compliance Database ID	Outfall/Site Address	Issue	Response	Status
June 2, 2014	E-2014-538	1745 W. Nursery Road	While conducting outfall screening in the target area, a Versar field team discovered two large, uncovered piles - one salt and one sand - at the above location, which is the parking area across the street from the Hilton BWI Airport Hotel. The field team documented the condition with photographs. The sand pile was uncontained and uncovered. Sand was evident in the parking area between the sand pile and the storm drain inlet at the corner of the parking lot. The field crew documented that there was sand in the storm drain, itself. The salt pile was partly contained with a section of concrete barrier (Jersey wall) and some tires, and partially covered. The placement of sand and salt on an impervious surface introduces the risk of distribution, by wind or rain, of particles and associated contaminants which could be transported into adjacent storm drain inlets or open water. An inspection was performed by I&P. One of the two piles was no longer present. However, the remaining pile was not being covered properly and salt was observed in the parking lot and in the stormdrain system. The property owner was instructed to secure the pile and remove the salt from the parking lot and the stormdrain system.	July 2, 2014: Received from Versar. September 29, 2014: Sent to I&P for review. Site inspected same day. October 1, 2014: Property owner notified and asked to correct issue. CASE OPEN October 10, 2014: Inspection by I&P shows site is partially in compliance. Additional housekeeping requested to contain salt spills and grit in parking lot and grass island areas. October 24, 2014: Additional housekeeping requested. Reminder to property owner about proper stockpiling procedures. November 24, 2014: Inspection finds site in compliance. **CASE CLOSED.**	RESOLVED
April 4, 2013	E-2013-0219	101 Stockton Lane	Versar and LimnoTech Field staff visited a dry pond located adjacent to 101 Stockton Lane. The riser of the dry pond was found to be filled with riprap, probably from stone placed over the low-flow dewatering pipe connecting to the riser. The presence of the stone in the riser possibly restricts flow during high flow events. The location of the problem and the photo-documentation was sent to Infrastructure Maintenance group in DPW.	4/19/2013: Received by WERS. 4/22/2013: Forwarded to Infrastructure 4/30/2013: Inspections & Permits (I&P) Database ID assigned. Will forward to Infrastructure Maintenance Group (IMG) as I&P says this is a public pond. 5/1/2013: Forwarded to IMG 5/2/2013: This site was added to the list of upcoming BMP maintenance activities for FY 2014. 8/19/2015: Confirmed with IMD that necessary maintenance performed. **CASE CLOSED.**	RESOLVED
April 11, 2013	N/A	R07H5O007/ Montrose Road & Byrd Lane	While conducting dry weather screening on April 11, 2013, a Versar field team identified a blocked outfall. Field staff were in the area attempting to locate the outfall of a network draining a commercial area. The outfall, identified as R07H5O007, is located at the intersection of Montrose Road and Byrd Lane directly behind a sewage pumping station. The field staff noted that the outfall appeared to be entirely blocked with sediment. At the time of the field visit, water was flowing out of the ground approximately four feet away. The water was clear and colorless but had some algal growth. No suspicious odors or floatables were detected at the time of the inspection so it was suspected the discharge was most likely due to water backed up within the storm sewer system.	5/8/2013: Received by WERS 5/8/2013: Reported to Infrastructure Maintenance Division (IMD). 9/13/2013: An inspection IMD confirmed the existence of the blockage and identified possible other damage to the storm drainage infrastructure at this facility. IMD will complete all necessary repairs in FY 2014. 8/19/2015: Report from IMD confirms repairs completed in January 2014. **CASE CLOSED.**	RESOLVED

Table 5-2. (Continued)

Survey Date	I&P Compliance Database ID	Outfall/Site Address	Issue	Response	Status
April 18, 2013	N/A	W10A8O001/ Mountain Road near Milburne Ct. and Ventnor Rd.	While conducting outfall screening in the target area, a Versar field team noticed a problem storm drain inlet, in passing, while traveling along Mountain Road. The field team documented the problem inlet and also inspected the outfall. The outfall, identified as W10A8O001 and located on the south side of Mountain Road, was found to be partially buried. Field staff noted that the outfall discharges into Cooks Pond and is about 80% blocked with sediment. The headwall, which is composed of field stone and concrete, is moderately deteriorating. The inlet, located on the north side of Mountain Road in a bamboo stand, is missing a grate and creating a falling hazard for the public.	5/8/2013: Received by WERS 5/8/2013: Reported to IMD. 9/13/2013: Upon inspection by IMD, it was determined that this part of the stormdrain system entering Mountain Road is the responsibility of the SHA. SHA has been informed of the issues. 9/16/ 2015: Email sent to SHA to obtain status of this site. 9/17/2015: Discussion with SHA IDDE coordinator will result in SHA inspection and maintenance at this location. **CASE CLOSED.**	RESOLVED
April 4, 2013	N/A	Old Magothy Bridge Road near Country Life Road	While conducting outfall screening on April 4, 2013, a Versar field team identified an erosion problem at an open concrete ditch near Magothy Bridge Road. The ditch is located on the north side of Old Magothy Bridge Road west of the intersection with Country Life Road. Field staff noted moderate erosion next to and under the concrete ditch, which was causing it to collapse.	5/8/2013: Received by WERS 5/8/2013: Reported to IMD. 9/13/2013: An inspection by IMD confirmed the observed damage. IMD will schedule and complete necessary repairs using FY 2014 funding. 8/19/2015: Report from IMD confirms repairs were completed in May 2015. **CASE CLOSED.**	RESOLVED
April 18, 2013	N/A	Lake Shore Plaza near Giant Foods	While conducting outfall screening in the vicinity of Lake Shore Plaza on April 18, 2013, a Versar field team identified a storm drain inlet that had become blocked and non-functional. The inlet is located along a ditch between a Giant parking lot and a medical services building and south of a free standing, walkup Bank of America ATM machine. Field staff noted that the inlet was completely filled with compressed leaves and trash. After probing they were unable to determine the depth of the catch basin, only that it was greater than 24 inches. Field staff were unable to identify an outfall that services the network that includes the blocked inlet.	5/8/2013: Received by WERS 5/8/2013: Reported to IMD. 9/13/2013: IMD has determined that this site is under private ownership and not the responsibility of the County. The property owner will be counseled to perform necessary maintenance. Re-inspection will occur during next IDDE assessment to ensure compliance. **CASE CLOSED .**	RESOLVED

6 RECOMMENDATIONS

The County's illicit discharge detection and elimination program has been successful in the identification and removal of a wide variety of sources of pollutants, including illicit connections, upland pollutant sources, dumping and spills. At this time, no recommendations are being made for improvements to the program.

7 REFERENCES

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APPENDIX A
EROSION AND STRUCTURAL ISSUES
SITE-SPECIFIC REPORTS

Anne Arundel County Infrastructure Site Visit Report

Location: 587 East Ordnance Road, Glen Burnie
Date: April 13, 2015
Investigators: G. Zuknick and B. Crary
Concern: Infrastructure, manhole cover missing

A LimnoTech field team discovered an open stormwater manhole behind the building (unoccupied) at the above address (Figure 1). An open hole in the ground presents a significant safety hazard for the public, although someone has attempted to create a make-shift marker to alert people of the opening. An area map, indicating the location of the missing manhole cover, is provided in Figure 2.

Figure 1. Stormwater system manhole found open

Figure 2. Area map

Anne Arundel County Infrastructure Site Visit Report

Location: Best Buy store, 6722 Ritchie Highway, Glen Burnie
Date: April 13, 2015
Investigators: G. Zuknick and B. Crary
Concern: Infrastructure, damaged

A LimnoTech field team discovered unsafe conditions with a stormwater detention basin riser structure behind the Best Buy store at the above address. The field crew inspected the device and photo-documented the extent of the destruction of the facility. The top of the riser was dislocated and the manhole cover was lying on the ground at the base (Figure 1). The embankment behind the riser shows signs of extensive erosion (Figure 2), which suggests that the facility may no longer be properly functioning. The eroded area has been accumulating debris, also. The device in this condition presents a significant safety hazard for the public, although the fence may deter many trespassers. An area map, indicating the location of the damaged riser, is provided in Figure 3.

Figure 1. Stormwater riser structure condition showing dismantled top

Figure 2. View from the detention basin showing the extent of erosion on the rear bank

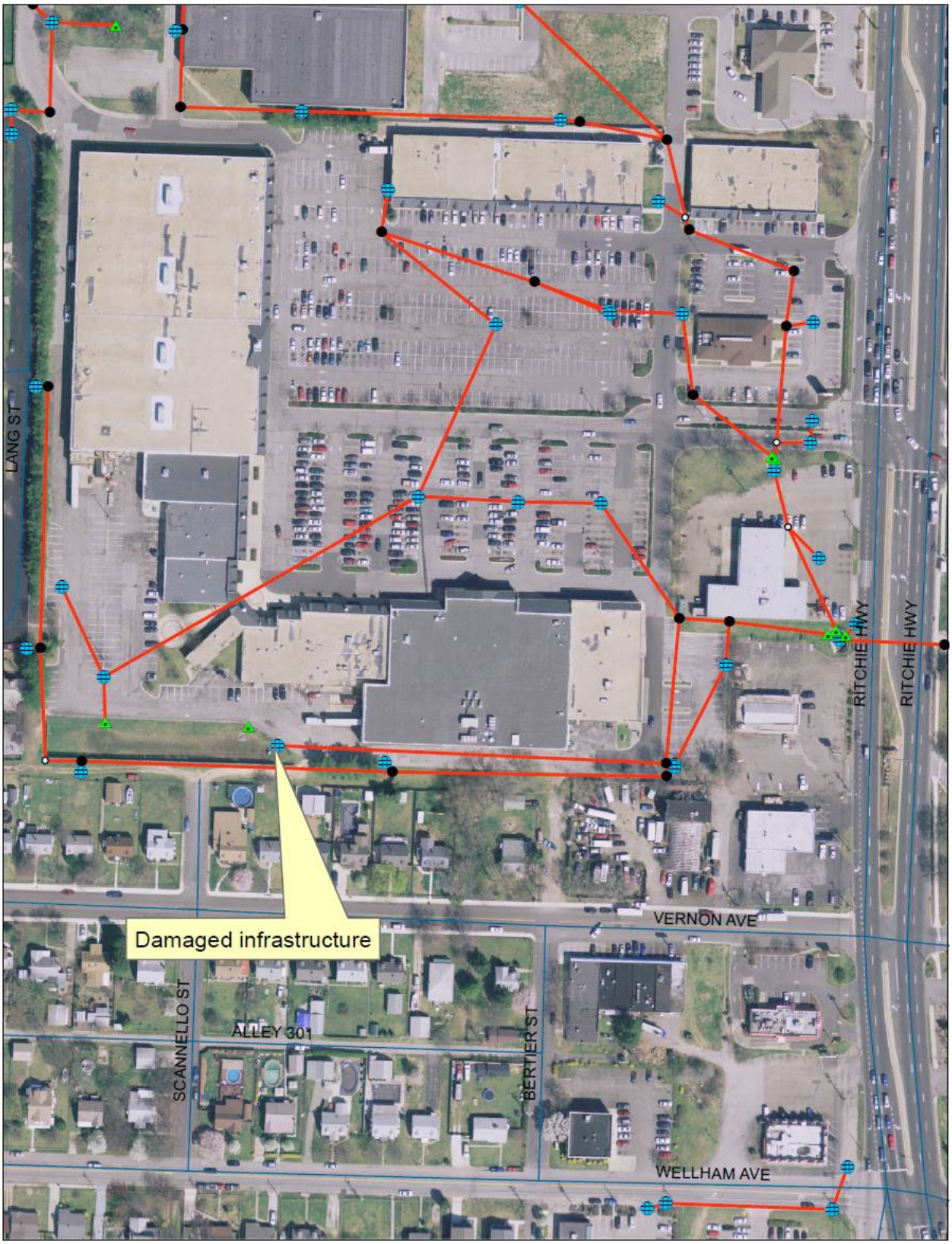


Figure 3. Area map

APPENDIX B
ILLICIT CONNECTIONS SITE-SPECIFIC REPORTS

Anne Arundel County Illicit Discharge Site Visit Report

Outfall ID: L07A1O004
Location: 1000 Stewart Ave., Glen Burnie
Date: March 19, 2015
Investigators: G. Zuknick, B. Crary
Concern: Above action pH level.

At 11:30 a.m. on March 19, a LimnoTech field team inspected the outfall (Figure 1) designated as L07A1O004, located at 1000 Stewart Ave., which is the address of a SunTrust Bank branch. The discharge was noted to be sporadic and began shortly after the arrival of the field team. A gasoline odor was also apparent. The flowing water tested above action levels for copper, chlorine, and detergents. Fluoride was also elevated but was below the action level.

At 4:05 p.m., the team returned to the site and performed a 2nd test of the flowing water. At this time, only chlorine was above the corresponding action level. Fluoride was again elevated at this time, but below the action level. The flow rate was lower during the return visit and was continuous. The discharge was also not as cloudy and had a less significant gas odor than our first visit. The team documented a noticeable white powdery residue in the concrete channel that received the discharge. Results are summarized in Table 1 below. After the retest, the field team tracked flow from three directions in the network. Two of the branches originated in parking lot catch basins. The center branch originated from the south, from the direction of the building. The field crew was not able to open the manhole near the building which would confirm that the illicit discharge was originating from the building. An area map is provided in Figure 3.

Table 1. Chemical test results (red values indicate above action level concentration).

	Action Level	**Test 1 Result**	**Test 2 Result**
pH	≤ 6.5 or ≥ 8.5	7.65	7.75
Temperature (°F)		54.3	60.2
Ammonia (mg/l)	≥ 1	0.0	0.0
Total Chlorine (mg/l)	≥ 0.4	**3.0**	**0.6**
Detergents (mg/l)	≥ 0.5	**0.75**	0.1
Fluoride (mg/l)	≥ 0.75	0.6	0.6
Phenols (mg/l)	≥ 0.17	0.0	0.1
Copper (mg/l)	≥ 0.21	**0.4**	0.1

Figure 1. Outfall L07A1O004 at 1000 Stewart Ave.

Figure 2. Whitish residue on concrete channel downstream of outfall.

Figure 3. Area map.

Anne Arundel County Illicit Discharge Site Visit Report

Outfall ID: F06H4O016
Location: Stormwater pond adjacent to 7304 Parkway Drive South, Hanover
Date: April 13, 2015
Investigators: T. Jones, I. Turcsányi
Concern: Above-action detergents and chlorine

Versar field staff conducted site visits to two outfalls (one, a target) associated with a stormwater pond along Parkway Drive South, near the Raspberry Deli at the above address, on April 13. On the first visit to the outfall F06H4O016, at 11:32 a.m., the field crew documented flow from the 18-inch pipe discharging to the pond (Figure 1). The field team tracked the pipe back to the inlet on the southwest edge of Parkway Drive South (the only source of water for the outfall) and found the inlet dry. The screening results at the outfall on the first visit were above action levels for chlorine (1.0 mg/l) and detergents (0.5 mg/l); these results are tabulated in the Test 1 Result column of Table 1.

The field crew returned to the site several hours later (3:15 p.m.) to retest the discharge from the pipe. The retest yielded the same above-action detergent levels (0.5 mg/l) and a reduced level of chlorine (0.1 mg/l) to a concentration below the action threshold. The results for the retest are tabulated in the Test 2 Result column of Table 1.

The field team did not observe any other factors of concern in the discharge water (e.g., color, odor, or floatables). Staff reported the illicit discharge to the Environmental Hotline on 4.14.15. An area map indicating the outfall and its inlet is provided in Figure 2.

Table 1. Chemical test results (red values indicate above-action-level concentration)

	Action Level	**Test 1 Result (outfall)**	**Test 2 Result (outfall)**
pH	≤ 6.5 or ≥ 8.5	7.28	7.69
Temperature (°F)		56	60
Ammonia (mg/l)	≥ 1	0.00	0.00
Total Chlorine (mg/l)	≥ 0.4	**1.0**	0.1
Detergents (mg/l)	≥ 0.5	**0.5**	**0.5**
Fluoride (mg/l)	≥ 0.75	0.3	0.2
Phenols (mg/l)	≥ 0.17	0.00	0.00
Copper (mg/l)	≥ 0.21	0.1	0.00

Figure 1. Outfall F06H4O016 showing a small amount of flowing water on April 13

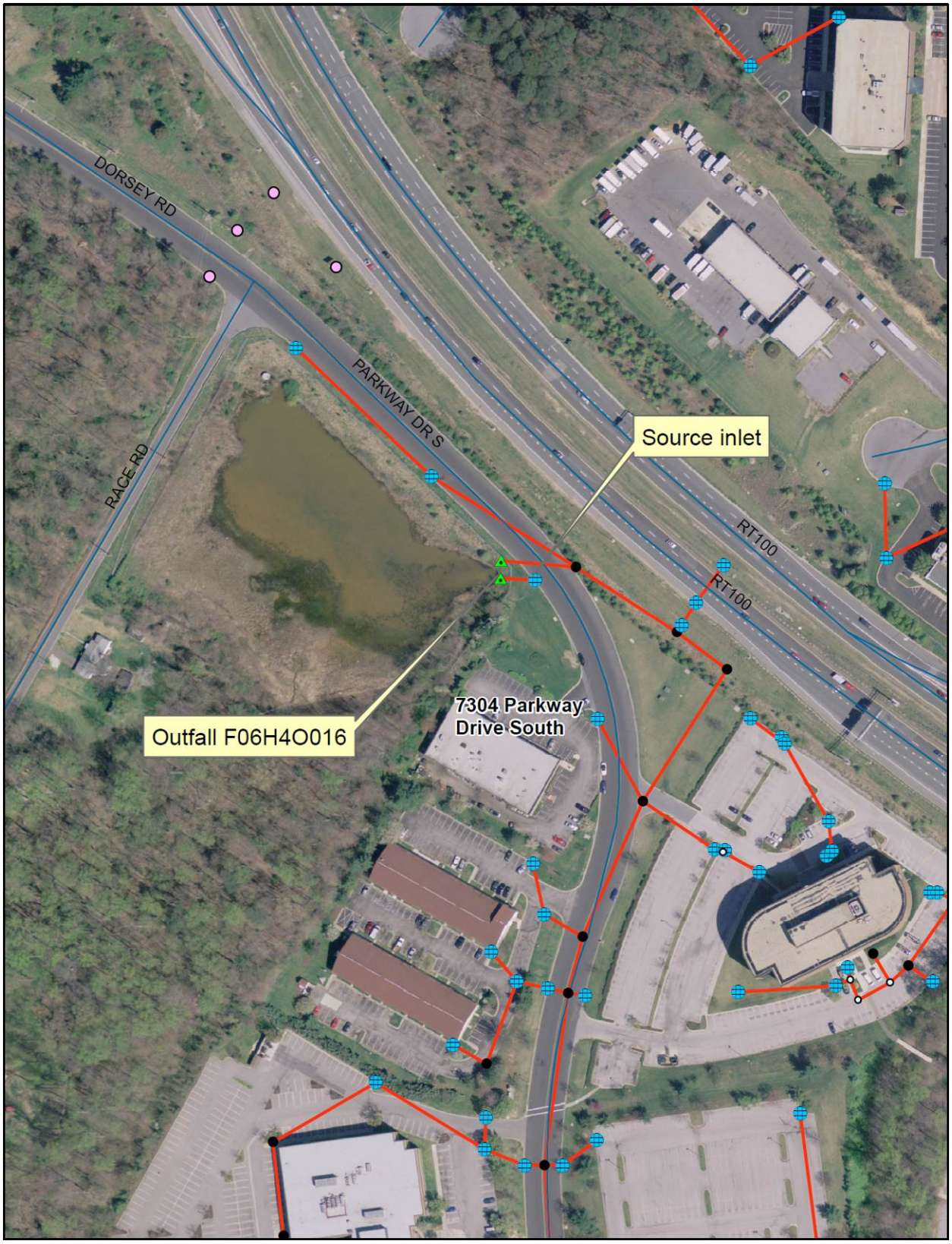


Figure 2. Area map Outfall F06H4O016

Anne Arundel County Illicit Discharge Site Visit Report

Outfall ID: F07F8O003 and F07F8O003NEW
Location: Stormwater Facility at Arbor Grove Drive and Arundel Mills Boulevard, Hanover
Date: April 29, 2015
Investigators: M. Berlett, I. Turcsányi, P. Potti
Concern: Possible multiple cross-connections

On April 29, 2015 at 1:45 p.m., a Versar field team conducted an inspection of a target outfall that discharges to a wet pond located at the above intersection. Upon arrival, the field team identified two outfalls opening into the same headwall (Figure 1). The larger of the two, the target outfall, was 42" in diameter and was situated on the left (facing up-network) and an unmapped outfall (designated as F07F8O003NEW) was 36" in diameter and oriented to the right. Both outfalls at the time had dry weather flow discharging to the stormwater pond.

Outfall F07F8O003 (42", on the left) had sewage smell, was slightly brownish in color, and had a faint sheen on the water surface. The sound of water entering upstream suddenly increased during inspection. The discharge failed chemical tests for detergents (0.9 mg/l) and ammonia (10 mg/l). Outfall F07F8O003NEW (36", on the right) had no color or sheen, but had noticeable toilet paper residue at the outfall opening (Figure 2). It, too, had a sewage smell and the ammonia concentration was above the action level at 2.5 mg/l (Table 1 and Table 2).

Given the seriousness of the illicit discharge, Versar contacted I&P to inquire whether they would like to participate in tracking the source. On April 30, 2015 at 12:30 p.m., the field team returned to conduct the retest of both outfalls. Effluent from the 42" outfall was above the corresponding action levels for ammonia, chlorine, and detergents. The 36" outfall failed the ammonia test. With staff from I&P, flow to outfall F07F8O003 was tracked to an inlet just inside the entrance gate to Arbor Grove Drive, off Arundel Mill Blvd. An approximately 9" diameter PVC pipe entering the side of the inlet was dripping grayish water. The pipe was coming from the direction of a building 10 meters away. The detergent concentration in this effluent was off-scale; the ammonia concentration was also higher. The source of flow to F07F8O003NEW appeared to originate from buildings to the northwest of Arbors at Arundel Preserve condominium complex (not shown on aerial map); I&P inspectors are continuing the investigation of both networks.

Table 1. Chemical test results (red values indicate above action level concentration) of outfall F07F8O003.

	Action Level	Test 1 Result	Test 2 Result
pH	≤ 6.5 or ≥ 8.5	7.41	7.34
Temperature (°F)		60.3	57.6
Ammonia (mg/l)	≥ 1	**10**	**10**
Total Chlorine (mg/l)	≥ 0.4	0.1	**0.5**
Detergents (mg/l)	≥ 0.5	**0.9**	**5.0**
Fluoride (mg/l)	≥ 0.75	0.4	0.5
Phenols (mg/l)	≥ 0.17	0.0	0.0
Copper (mg/l)	≥ 0.21	0.0	0.0

Table 2. Chemical test results (red values indicate above action level concentration) of outfall F07F8O003NEW.			
	Action Level	**Test 1 Result**	**Test 2 Result**
pH	≤ 6.5 or ≥ 8.5	7.80	7.76
Temperature (°F)		55.9	60.3
Ammonia (mg/l)	≥ 1	**2.5**	**2.5**
Total Chlorine (mg/l)	≥ 0.4	0.0	0.0
Detergents (mg/l)	≥ 0.5	0.15	0.25
Fluoride (mg/l)	≥ 0.75	0.5	0.0
Phenols (mg/l)	≥ 0.17	0.0	0.0
Copper (mg/l)	≥ 0.21	0.0	0.0

Figure 1. Outfalls F07F8O003 and F07F8O003NEW near Arbor Grove Drive

Figure 2. Noticeable toilet paper at the opening of outfall F07F8O003NEW

Figure 3. Area map.

Anne Arundel County Illicit Discharge Site Visit Report

Outfall ID: F09F5O001
Location: 2631 Annapolis Road, Hanover
Date: May 5, 2015
Investigators: M. Berlett, P. Potti
Concern: Above action detergents concentration

A Versar field team inspected the above outfall (actually the downstream end of a crossing) at 3:05 p.m. on May 5, 2015. The field team immediately noted that the water below the outfall had a greenish color, and there were suds where the dripping water was pooling (Figure 1 and Figure 2). The field team collected a water sample (Figure 3), which had an oily odor and contained above action concentration of detergents (0.9 mg/l; Table 1). The area around the outfall was severely eroded (Figure 4).

At 1:12 p.m. on May 6, 2015, the team retested the outfall and obtained a result of 3 mg/l for detergents. Versar tracked the flow through the crossing and overland to another outfall (F09G5O001). The orifice of the outfall was found to be blocked by tree branches that appeared to have been deliberately placed (Figure 5). The team tested the flowing water from this outfall and obtained a detergents result that was off-scale. Source tracking of the discharge led the team to a car wash at a Shell fueling station. Two trench drains (at the entrance and exit; Figure 6) appeared to be connected to the storm drain system. Considering the persistence of flow through the network and through a downstream crossing, it is probable that much excess wash water is entering the system via the trench drains or possibly the main car wash effluent drainage is directly connected to the stormwater network. On May 7, Versar contacted I&P via the pollution hotline to report the matter. An area map is provided in Figure 7.

Table 1. Chemical test results (red values indicate above action level concentration) for outfall F09F5O001.

	Action Level	Test 1 Result	Test 2 Result
pH	≤ 6.5 or ≥ 8.5	7.35	N.T.
Temperature (°F)		N.T.	N.T.
Ammonia (mg/l)	≥ 1	0.0	N.T.
Total Chlorine (mg/l)	≥ 0.4	0.0	N.T.
Detergents (mg/l)	≥ 0.5	**0.9**	**3**
Fluoride (mg/l)	≥ 0.75	0.6	N.T.
Phenols (mg/l)	≥ 0.17	0.0	N.T.
Copper (mg/l)	≥ 0.21	0.0	N.T.
N.T. = not tested			

Figure 1. Outfall F09F5O001

Figure 2. Discharge and suds below oufall F09F5O001

Figure 3. Outfall water sample showing color

Figure 4. Erosion at outfall F09F5O001

Figure 5. Outfall F09G5O001 with branches placed in front of orifice.

Figure 6. Trench drain at entry to Shell car wash

Figure 7. Area map.

Anne Arundel County Illicit Discharge Site Visit Report

Outfall ID: I04E4O006 and I04F3O014
Location: Stormwater Facility near 890 Elkridge Landing Road, Hanover
Date: May 5, 2015
Investigators: C. Tonkin, A. Vanko, M. Berlett, P. Potti
Concern: Above action level detergents

Versar inspected the above outfalls on May 5, 2015 at 3:11 p.m. The screening results for I04E4O006 (Figure 1) included an above-action level result for detergents (0.5 mg/l; Table 1). The inspectors also screened outfall I04F3O014 (Figure 2), which was a part of the drainage to outfall I04E4O006. Outfall I04F3O014 failed the screening test for detergents (1 mg/l; Table 2) and the team suspected that the discharge from this outfall was a possible source of the detergent concentration at outfall I04E4O006.

The field team returned to the site on May 6, 2015 at 3:00 p.m. The dry-weather discharges from both outfalls were tested and similar results for detergents were obtained: 0.65 mg/l at outfall I04E4O006 and 1 mg/l at outfall I04F3O014. At outfall I04F3O014, the field team tracked the effluent up the network, but could not ascertain the source of the high detergent concentrations since the source was behind the perimeter fence of a National Security Agency property. Staff also conducted a lengthy trackdown of the other sources of flow to outfall I04E4O006, but no other sources of detergents in the system were apparent. The trackdown procedure was hampered by the location of the trunk line which ran along the center of Elkridge Landing Road and the presence of traffic precluded opening of manhole covers. Small flows were found in several of the branch lines to the trunk, leading field staff to conclude that lower detergent concentrations found at outfall I04E4O006 were the result of dilution of detergent levels found in outfall I04F3O014. Versar notified I&P via the pollution hotline on May 7, 2015. An area map is provided in Figure 3.

Table 1. Chemical test results (red values indicate above action level concentration) of outfall I04E4O006.

	Action Level	Test 1 Result	Test 2 Result
pH	≤ 6.5 or ≥ 8.5	6.97	N.T.
Temperature (°F)		58.1	N.T.
Ammonia (mg/l)	≥ 1	0.0	N.T.
Total Chlorine (mg/l)	≥ 0.4	0.0	N.T.
Detergents (mg/l)	≥ 0.5	**0.5**	**0.65**
Fluoride (mg/l)	≥ 0.75	0.1	N.T.
Phenols (mg/l)	≥ 0.17	0.0	N.T.
Copper (mg/l)	≥ 0.21	0.0	N.T.
N.T. = Not Tested			

Table 2. Chemical test results (red values indicate above action level concentration) of outfall I04F3O014.			
	Action Level	**Test 1 Result**	**Test 2 Result**
pH	≤ 6.5 or ≥ 8.5	7.16	N.T.
Temperature (°F)		66.7	N.T.
Ammonia (mg/l)	≥ 1	0.0	N.T.
Total Chlorine (mg/l)	≥ 0.4	0.0	N.T.
Detergents (mg/l)	≥ 0.5	**1.0**	**1.0**
Fluoride (mg/l)	≥ 0.75	0.0	N.T.
Phenols (mg/l)	≥ 0.17	0.0	N.T.
Copper (mg/l)	≥ 0.21	0.0	N.T.
N.T. = Not Tested			

Figure 1. Outfall I04E4O006

Figure 2. Outfall I04F3O014 discharging to dry pond

Figure 3. Area map.

Anne Arundel County Illicit Discharge Site Visit Report

Outfall ID: K02B8O002
Location: Stormwater Facility at 601 Hammonds Ferry Road, Linthicum Heights
Date: May 27, 2015
Investigators: C. Tonkin, D. Spradlin
Concern: Above action level detergents

A Versar field team inspected outfall K02B8O002, located in the stormwater management facility behind the business park located at 601 and 611 Hammonds Ferry Rd. During the initial visit on May 27 at 2:50 p.m., the test of the water flowing in the outfall resulted in 0.75 mg/l concentration of detergents. The outfall was re-screened the following day at 2:00 p.m. At the time of the follow up visit, the outfall contained obvious suds and tested above the action criterion for detergents again at 2.00 mg/l (Figure 1).

The field team initiated procedures to track down the source of the illicit discharge. At the 2nd yard grate up the system where the network split, detergents were found at a concentration of 0.25 mg/l in the steadily flowing water in the network from between the buildings. The next storm drain inlet up in the line between the buildings was damp but not flowing. The branch line from the north side of the building tested at 0.75 mg/l but was puddled up and barely flowing at the junction. The next test point on the line that wraps around the north side of the building was dry.

While tracking down and testing, staff observed several instances of vehicles being washed down, but no obvious signs of detergent in use, at two business. A chance conversation with an employee revealed that vehicle washing in the complex was common practice. Washing was observed at two businesses during trackdown activities: Valley Lighting and Iron Shore contracting. At Valley Lighting an employee started hosing off a personal truck but quickly stopped (Figure 2). At Iron Shore, employees were observed washing several trucks off (Figure 3). Versar notified I&P via the pollution hotline on May 28, 2015. An area map is provided in Figure 4.

Table 1. Chemical test results (red values indicate above action level concentration) of outfall K02B8O002.

	Action Level	Test 1 Result	Test 2 Result
pH	≤ 6.5 or ≥ 8.5	7.06	7.43
Temperature (°F)		70.7	71.8
Ammonia (mg/l)	≥ 1	0.0	0.0
Total Chlorine (mg/l)	≥ 0.4	0.0	0.0
Detergents (mg/l)	≥ 0.5	**0.75**	**2.00**
Fluoride (mg/l)	≥ 0.75	0.0	0.0
Phenols (mg/l)	≥ 0.17	0.0	0.0
Copper (mg/l)	≥ 0.21	0.0	0.0

Figure 1. Outfall K02B8O002 with suds, May 28, 2015

Figure 2. Washdown activity observed at 601-611 Hammonds Ferry Rd. on May 28, 2015

Figure 3. Washdown activity observed at 601-611 Hammonds Ferry Rd. on May 28, 2015

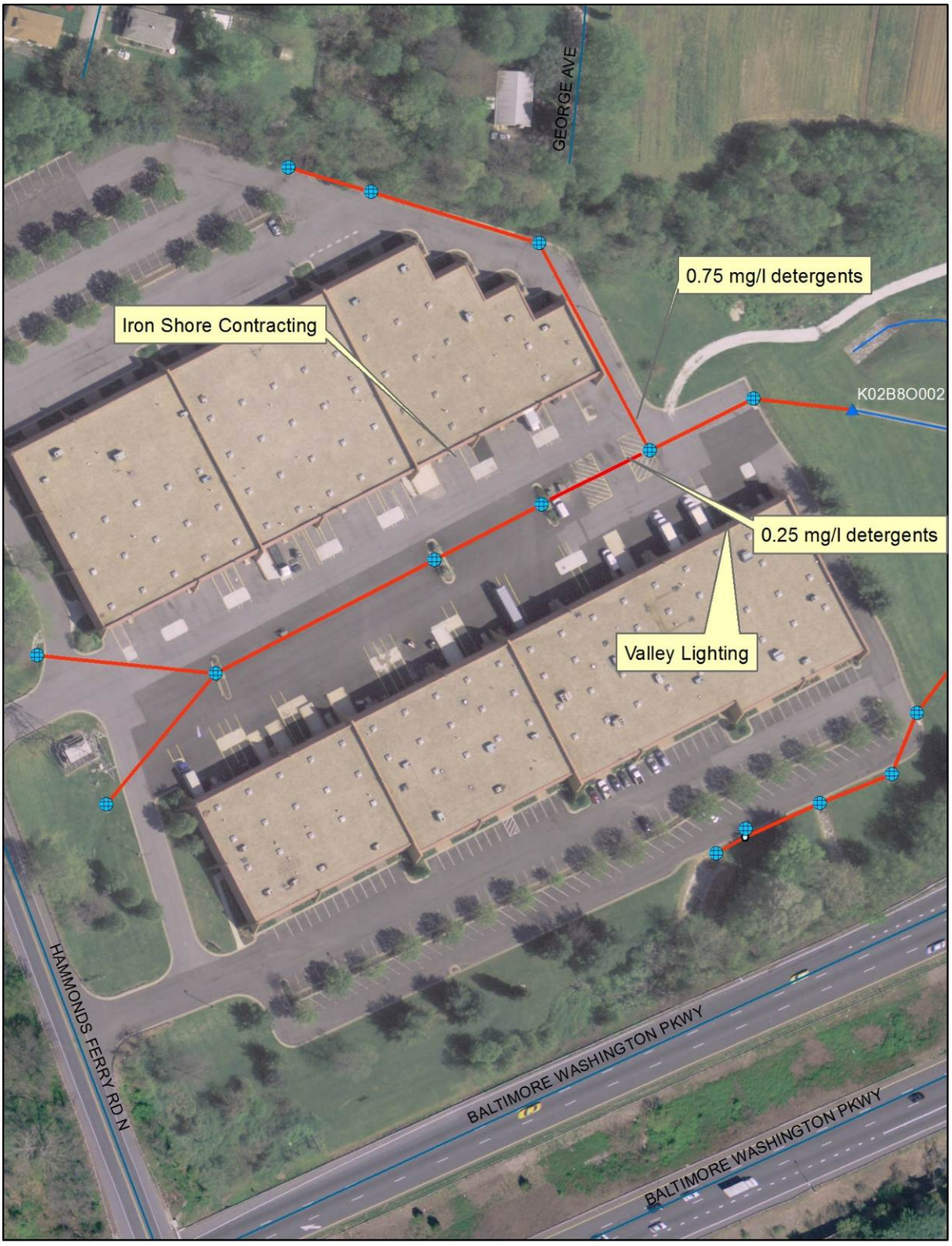


Figure 4. Area map.

Anne Arundel County Illicit Discharge Site Visit Report

Outfall ID: G06G3O001 and G06G3O004
Location: Stormwater Facility at 7001 Dorsey Road, Hanover
Date: June 12, 2015
Investigators: T. Jones, C. Tonkin, M. Berlett, & I. Turcsányi
Concern: Above action level detergents

A Versar field team inspected outfall G06G3O001 which drains a stormwater management (SWM) facility north of 7001 Dorsey Road. The initial visit took place at 12:00 p.m. on June 12. At that time, field testing results included a pH level of 9.18 and chlorine concentration of 0.6 mg/l (Table 1). The outfall was re-screened on June 15 (due to interposing rainfall), however concentrations of all parameters were in the acceptable range. While at the same facility, staff screened an outfall (G06G3O004) that had dry weather flow into the facility. The contributing outfall had a detergents concentration of 0.75 mg/l (Figure 1 and Table 2).

On the basis of identifying two potential illicit discharges in the same storm sewer catchment, onsite field staff performed a trackdown during the second visit even though the indicator pollutants at outfall G06G3O001 were within the acceptable range. Field staff implemented trackdown procedures on June 15 and June 16 to identify the source. Staff tracked the flow to a junction manhole upslope of the SWM. The western branch (originating from Dorsey Road) could not be sampled from the manhole due to extreme depth; staff tested flow at an upstream manhole instead and found a detergent concentration of 0.1 mg/l. Along the southern branch, the flow from the parking lot of 7001 Dorsey tested at 0.5 mg/l for detergents. Farther up-network, at the only flowing and sampleable conduit, the detergent concentration was 0.3 mg/l. Staff noted that within a gated area behind 7001, absorbent berms had been placed around a yard inlet (Figure 2). All other conduits contributing to the outfall were dry or had very low and unsampleable flow. Staff communicated their findings to the pollution hotline on June 16, 2015. An area map is provided in Figure 3.

Table 1. Chemical test results (red values indicate above action level concentration) of outfall G06G3O001.

	Action Level	Test 1 Result	Test 2 Result
pH	≤ 6.5 or ≥ 8.5	**9.18**	7.81
Temperature (°F)		88.3	92.8
Ammonia (mg/l)	≥ 1	0.1	0.0
Total Chlorine (mg/l)	≥ 0.4	**0.6**	0.25
Detergents (mg/l)	≥ 0.5	0.05	0.2
Fluoride (mg/l)	≥ 0.75	0.1	0.1
Phenols (mg/l)	≥ 0.17	0.0	0.0
Copper (mg/l)	≥ 0.21	0.0	0.0

Table 2. Chemical test results (red values indicate above action level concentration) of outfall G06G3O004.			
	Action Level	**Test 1 Result**	**Test 2 Result**
pH	≤ 6.5 or ≥ 8.5	7.1	N.A.
Temperature (°F)		66.2	N.A.
Ammonia (mg/l)	≥ 1	0.1	N.A.
Total Chlorine (mg/l)	≥ 0.4	0.2	N.A.
Detergents (mg/l)	≥ 0.5	**0.75**	N.A.
Fluoride (mg/l)	≥ 0.75	0.0	N.A.
Phenols (mg/l)	≥ 0.17	0.0	N.A.
Copper (mg/l)	≥ 0.21	0.0	N.A.

Figure 1. Outfall G06G3O004, June 15, 2015

Figure 2. Enclosed area behind 7001 Dorsey Rd. with absorbent berms around yard inlet

Figure 3. Area map.

APPENDIX C
UPLAND POLLUTANT SOURCES
SITE-SPECIFIC REPORTS

Anne Arundel County Hotspot Site Investigation Visit Report

Location: 1334 Ashton Road, Hanover
Date: March 11, 2015
Investigators: M. Berlett, I. Turcsányi
Concern: Bulk solid storage

A Versar field team discovered a condition of improper bulk solid storage, in the form of snow removal and road de-icing supplies and tools, in the parking lot adjacent to (immediately to the west of) the building located at 1334 Ashton Road, in Hanover, MD. The field crew documented bags of salt, loose salt, and an open storage trailer at this location (Figure 1). The field crew found a skid steer loader in the same area with residual de-icing salt in its bucket (Figure 2). The truck parked between the storage trailer and the skid loader, with a snow plow attachment, displayed a company logo for Beneficial Landscaping, LLC (Figure 3). This small company is located in Sykesville, MD, so the Hanover storage site may be established under an agreement with the landowner of the Ashton Road building, or the building at 7467 Ridge Road, Hanover, which lies adjacent to the parking lot on the southwest side. The placement of salt on an impervious surface introduces the risk of distribution, by wind or rain, of salt particles and associated nutrients which could drift into adjacent storm drain inlets or open water. An area map, indicating the location of the loose salt, is provided in Figure 4.

Figure 1. An open storage trailer and several small piles of de-icing salt found in the parking lot

Figure 2. Skid steer loader found with de-icing salt in the bucket

Figure 3. Truck found alongside the storage trailer, with company logo on the door

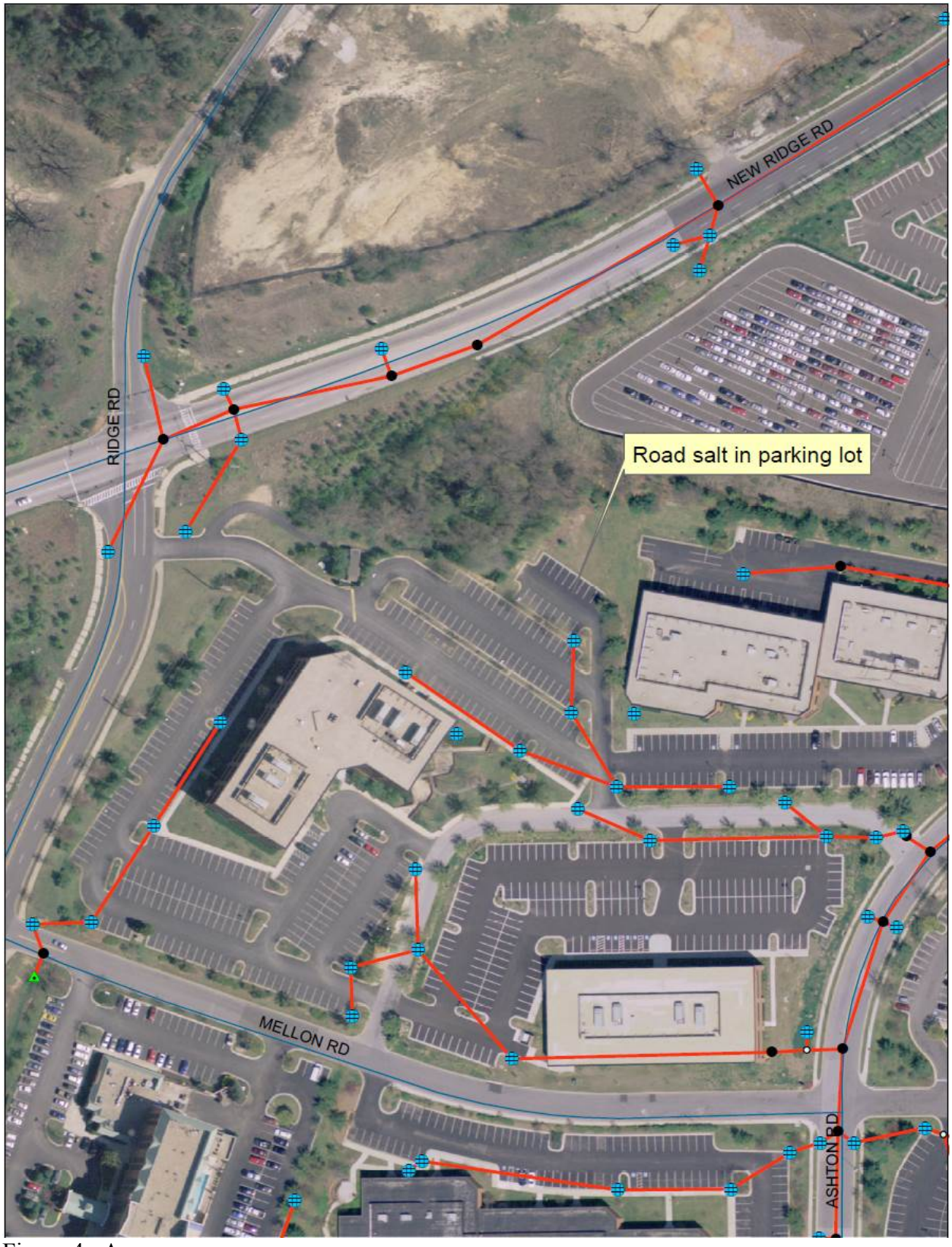


Figure 4. Area map

Anne Arundel County Hotspot Site Investigation Visit Report

Location: Royal Plus, 1327 Ashton Road, Hanover
Date: March 11, 2015
Investigators: M. Berlett, I. Turcsányi
Concern: Waste management

A Versar field team discovered an open dumpster behind the Royal Plus building at the above address (Figure 1). The field crew was unable to determine whether the dumpster was being shared by several businesses. The dumpster had been placed in a corner of the parking lot immediately adjacent to a storm drain inlet. The photographs taken on the day of the visit reveal some debris in the area surrounding the dumpster, which could also enter the storm drain system. An area map, indicating the location of the dumpster, is provided in Figure 2.

Figure 1. Open dumpster placed by a storm drain inlet found behind the Royal Plus building

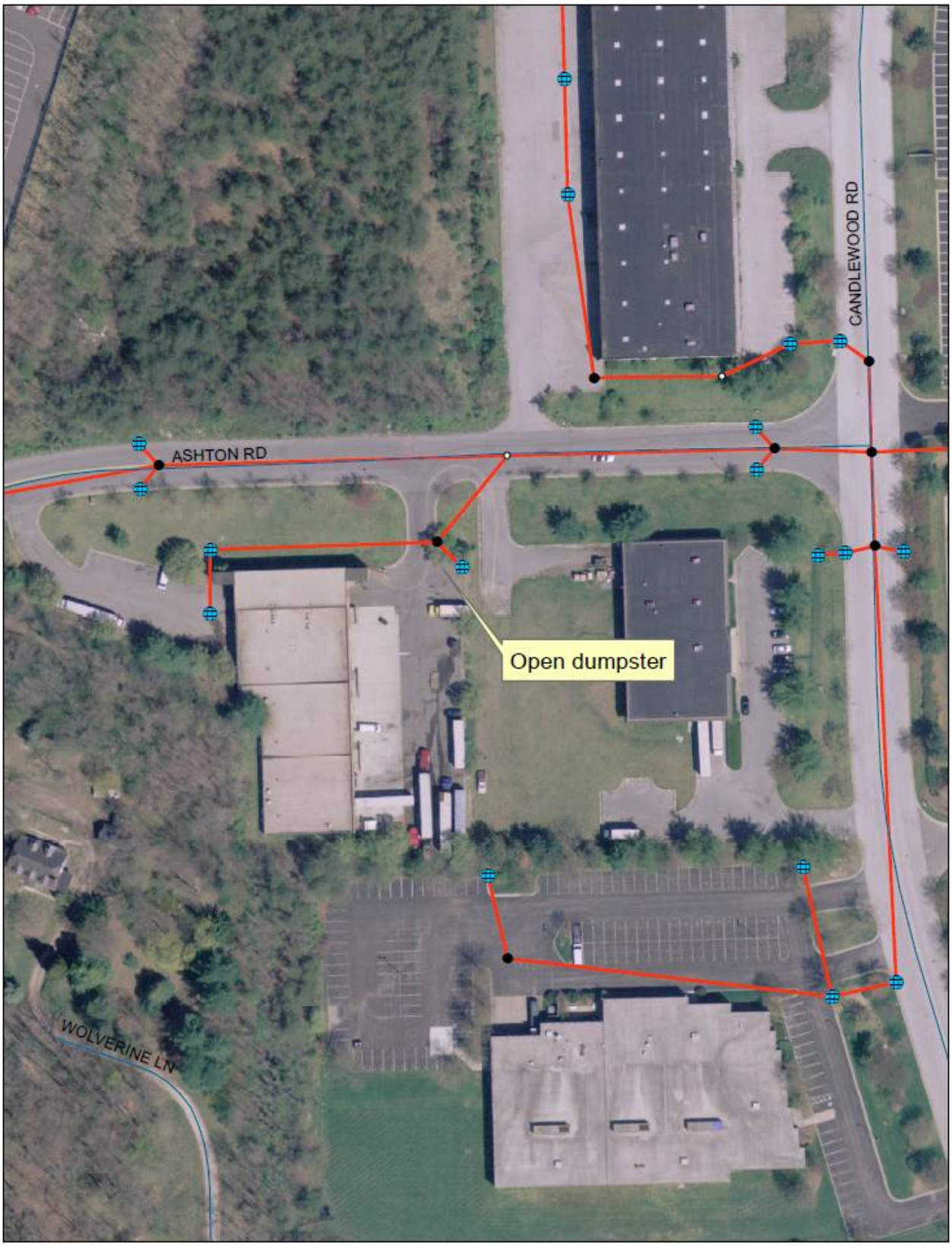


Figure 2. Area map

Anne Arundel County Hotspot Site Investigation Visit Report

Location: Stevens Auto Transport, 7484 Candlewood Road, Hanover
Date: March 11, 2015
Investigators: M. Berlett, I. Turcsányi
Concern: Bulk solid storage

A Versar field team discovered very large, uncovered piles of road salt in the parking lot associated with Stevens Auto Transport (Figure 1). Near the salt piles, the field crew photo-documented a company truck with a snow plow installed on the front (Figure 2). The salt may have been intended, then, for surface treatment as part of snow removal services. The placement of salt on an impervious surface introduces the risk of distribution, by wind or rain, of salt particles and associated nutrients which could wash into adjacent storm drain inlets or open water. An area map, indicating the location of the salt piles, is provided in Figure 3.

Figure 1. Exposed piles of salt found in a parking area associated with Stevens Auto Transport

Figure 2. Truck with mounted snow plow, belonging to Stevens Auto Transport, found near the salt piles

Figure 3. Area map

Anne Arundel County Hotspot Site Investigation Visit Report

Location: 7-11 Store, 1401 Dorsey Road, Hanover
Date: March 11, 2015
Investigators: M. Berlett, I. Turcsányi
Concern: Waste management

A Versar field team discovered an open dumpster and scattered debris associated with a 7-11 store at the above address. The field crew found one of the dumpsters open and filled with trash (Figure 1). Behind the store, the field crew found a large amount of debris (filled bags, cardboard, and food containers) among the bushes (Figure 2). Debris deposited on the ground may allow trash to blow off-site or leak potentially contaminating contents onto surfaces that could lead to adjacent storm drain inlets or open water. An area map, indicating the location of the open dumpster, is provided in Figure 3.

Figure 1. Open dumpster (right) found in the parking area of the 7-11 store

Figure 2. Debris found strewn behind the 7-11 store

Figure 3. Area map

Anne Arundel County Hotspot Site Investigation Visit Report

Location: BWI Freight parking lot, Mathison Way at Aviation Blvd., Baltimore
Date: March 12, 2015
Investigators: B. Hood, M. Berlett
Concern: Bulk solid storage

A Versar field team discovered large chunks of road salt at a curb inlet in the parking lot associated with BWI Freight (Figure 1). The placement of salt on an impervious surface introduces the risk of distribution, by wind or rain, of salt particles and associated nutrients which could easily enter the adjacent storm drain inlet. An area map, indicating the location of the salt chunks, is provided in Figure 2.

Figure 1. Road salt found at a curb inlet in a parking area associated with BWI Freight

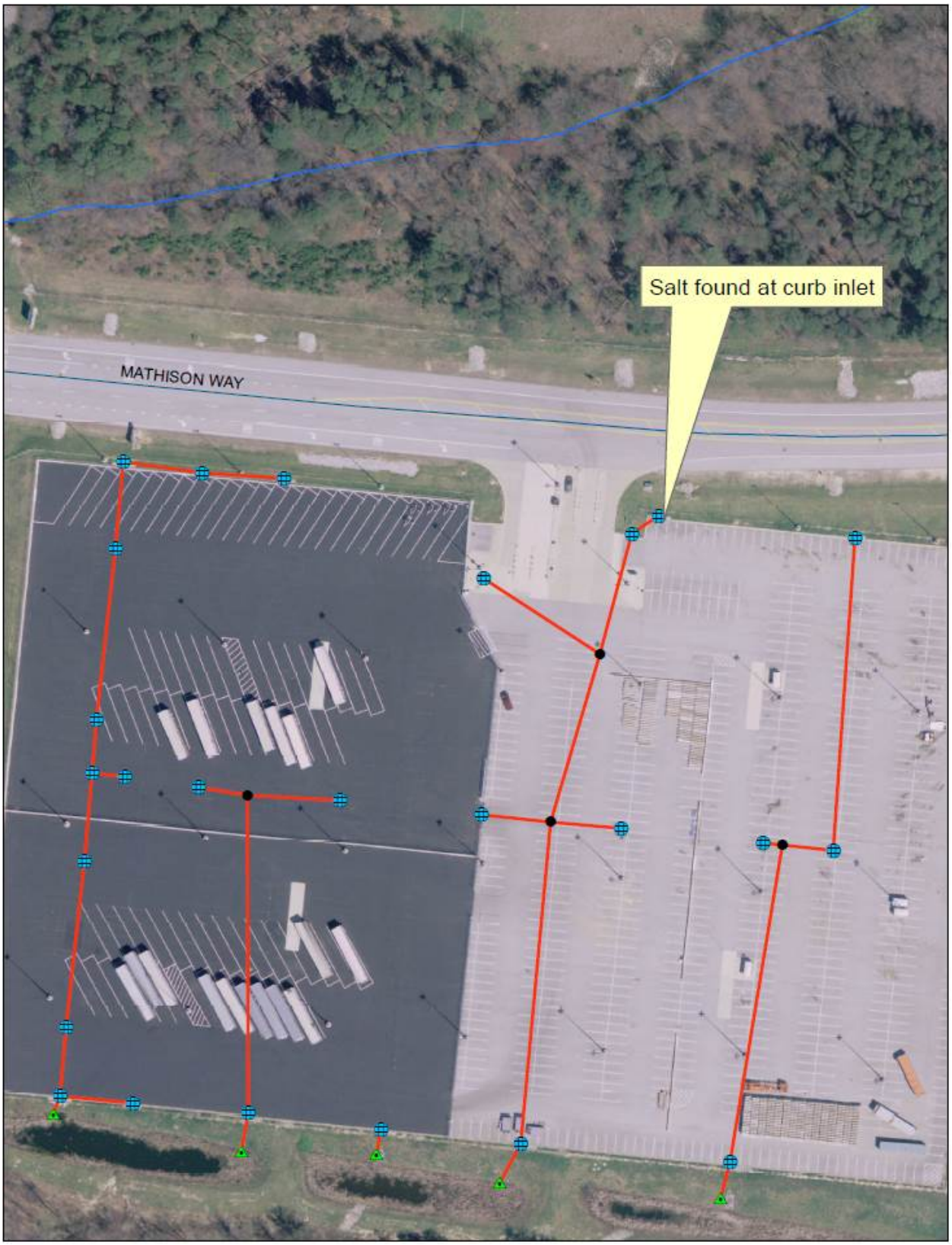


Figure 2. Area map

Anne Arundel County Hotspot Site Investigation Visit Report

Location: Cromwell Center, 6938 Aviation Blvd., Ferndale
Date: March 12, 2015
Investigators: B. Hood, M. Berlett
Concern: Cooking oil storage and waste management

A Versar field team discovered two issues of concern in the parking lot near the three restaurants at Cromwell Center at the above address. The field crew documented an improper cooking oil storage situation and a dumpster with debris around it on March 12.

The field team discovered a soiled biofuels collection container, intended for the disposal of waste kitchen oil, alongside the parking lot at Cromwell Center. The field crew photo-documented fresh oil on and around the container, and extensive stains on the pavement (Figure 1); this suggests that oil may be coming from a leak in the container and spills during attempts to empty materials into the container. Cooking oil on an impervious surface poses a hazard to pedestrians; in a rain event, the oil may also distribute contaminants to adjacent impervious surfaces and eventually to storm drain inlets or open water. There is also a concern for attracting pests to the site.

Figure 1. Oil collection container with fresh residue on top of the container and surrounding it; older stains are also present

The Versar field team also found a dumpster surrounded by scattered debris in the same area alongside the parking lot (Figure 2). Debris deposited on the ground may allow trash to blow off-site or leak potentially contaminating contents onto surfaces that could lead to adjacent storm drain inlets or open water. An area map, indicating the locations of the oil collection container and the dumpster, is provided in Figure 3.

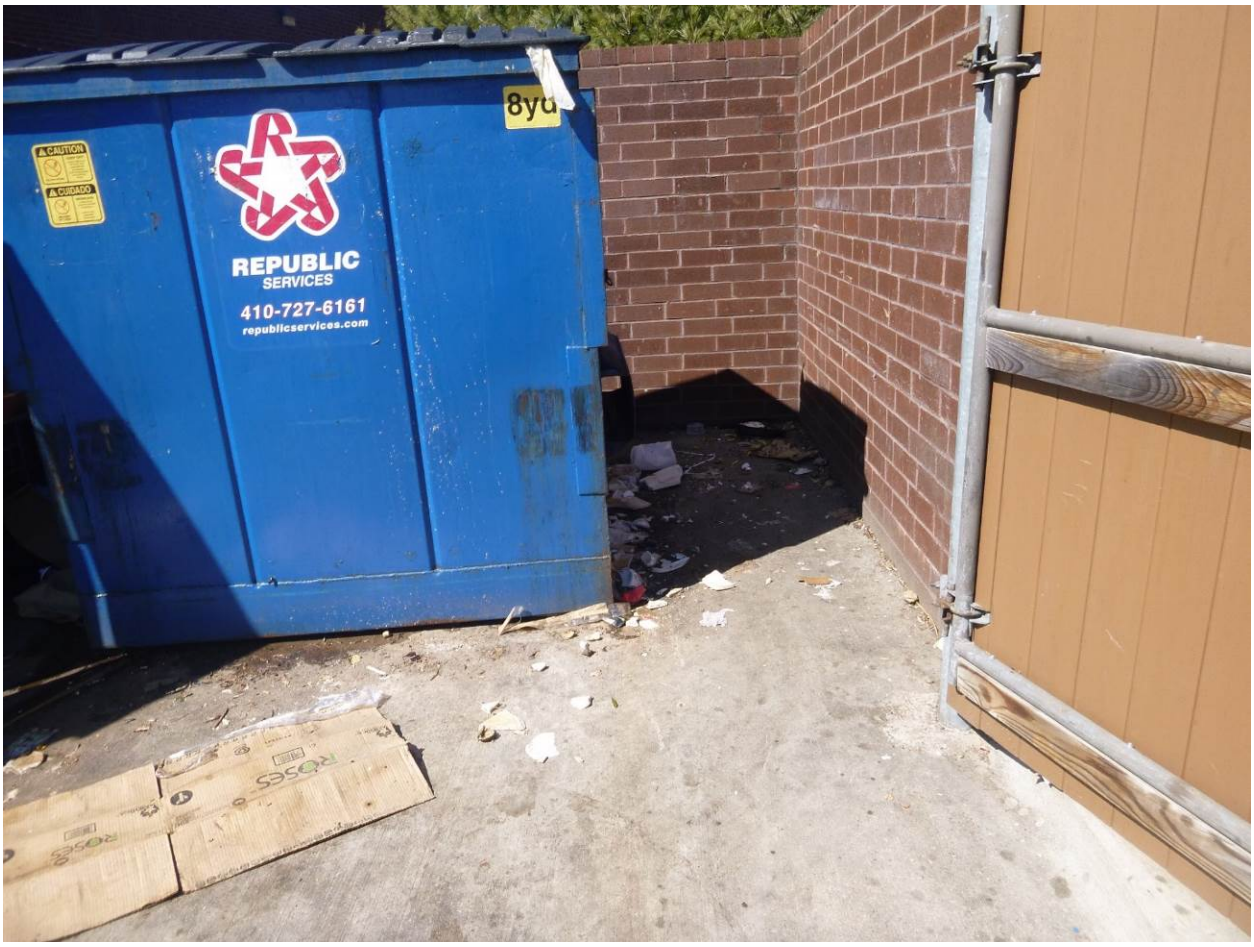


Figure 2. Dumpster found with debris scattered around it

Figure 3. Area map

Anne Arundel County Hotspot Site Investigation Visit Report

Location: Shell fuel station, 1001 Aviation Blvd., Baltimore
Date: March 12, 2015
Investigators: B. Hood, M. Berlett
Concern: Liquid storage and waste management

A Versar field team discovered two issues of concern at the Shell fuel station at the above address. The field crew documented an inadequate drum storage situation and an overloaded dumpster with debris around it on March 12.

In an enclosure on the edge of the parking lot, the field team observed unmarked storage drums among other stored items (Figure 1). The field crew counted six 55-gallon drums in this storage area. Liquid materials in barrels should have secondary containment if placed on an impervious surface. Drums for liquids should also be labeled appropriately with content descriptions and hazard notices. As the contents of these containers were not specified, it is possible that the storage arrangements need to be modified to accommodate these guidelines.

Figure 1. Unmarked drums found in an enclosure associated with the Shell fuel station

The Versar field team also documented an overflowing dumpster on the property at the same Shell fuel station (Figure 2). On closer inspection, the field team noted debris scattered on the pavement around the dumpster (Figure 3). The lack of proper storage (preferably in closed containers under shelter) may allow trash to blow off-site and into the storm drain system. Debris deposited on the ground may leak potentially contaminating contents onto surfaces that could also lead to adjacent storm drain inlets or open water. Some debris may also attract pests to the site. An area map, indicating the location of the enclosures that house the drums and the nearby dumpster, is provided in Figure 4.

Figure 2. Open dumpster found overfilled with trash on March 12

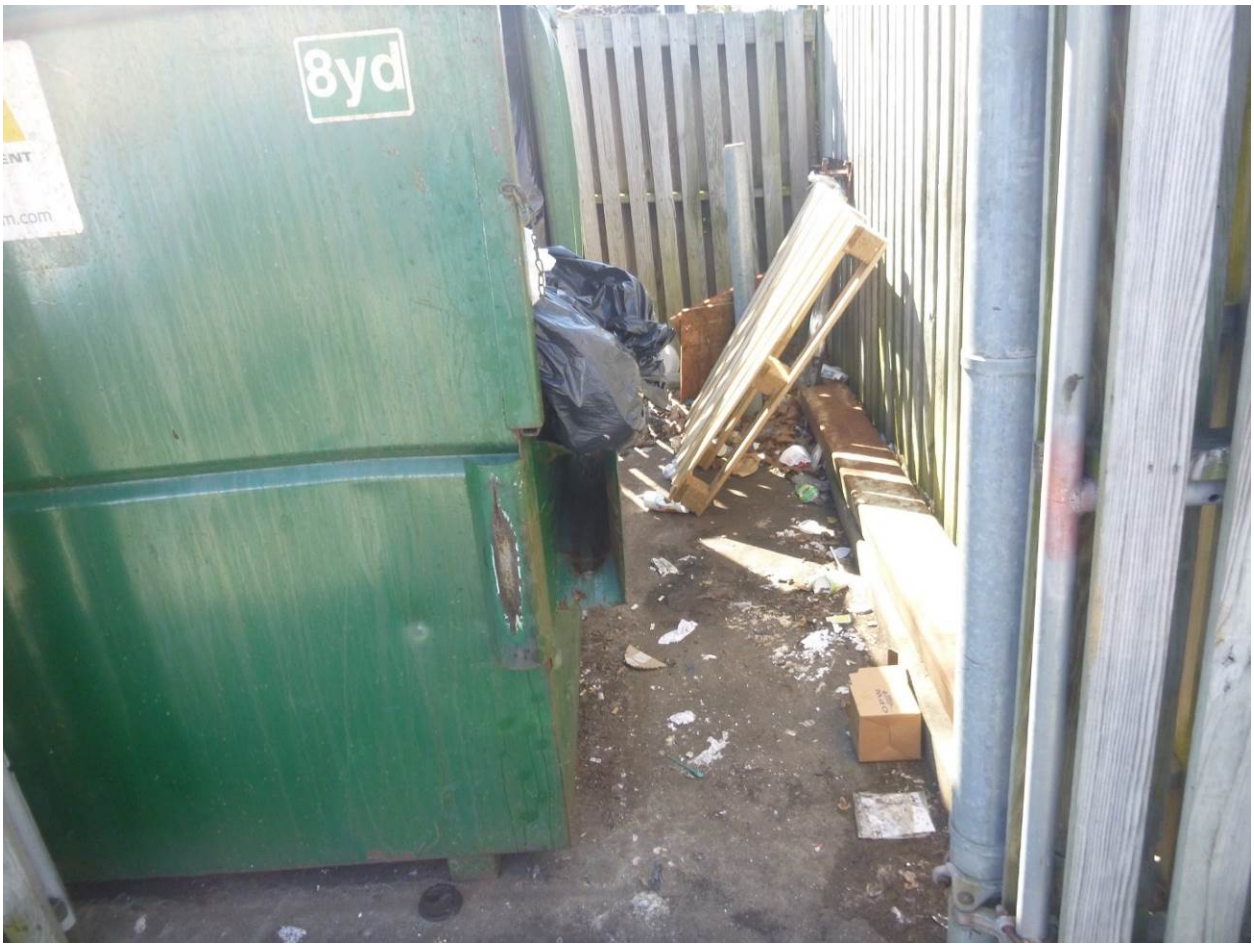


Figure 3. Dumpster found with debris scattered around it on March 12

Figure 4. Area map

Anne Arundel County Hotspot Site Investigation Visit Report

Location: Hampton Inn, 829 Elkridge Landing Road, Linthicum Heights
Date: March 12, 2015
Investigators: B. Hood, M. Berlett
Concern: Waste management

A Versar field team discovered a large amount of debris surrounding an open dumpster associated with the Hampton Inn hotel at the above address (Figure 1). The open dumpster was not full (Figure 2); this suggests that the debris may have been deposited on the ground at an earlier time, perhaps when the unit was full, or that the dumpster is not being used routinely for trash disposal. The field team documented debris on all sides of the unit, including a mattress (Figure 3) and bagged and loose trash, including food containers (Figure 4). Alongside the dumpster enclosure, the field crew observed several discarded ventilation units (Figure 5). The lack of proper storage (preferably in closed containers under shelter) may allow trash to blow off-site and into the storm drain system. Debris deposited on the ground may leak potentially contaminating contents onto surfaces that could also lead to adjacent storm drain inlets or open water. Some debris may also attract pests to the site. An area map, indicating the location of the dumpster, is provided in Figure 6.

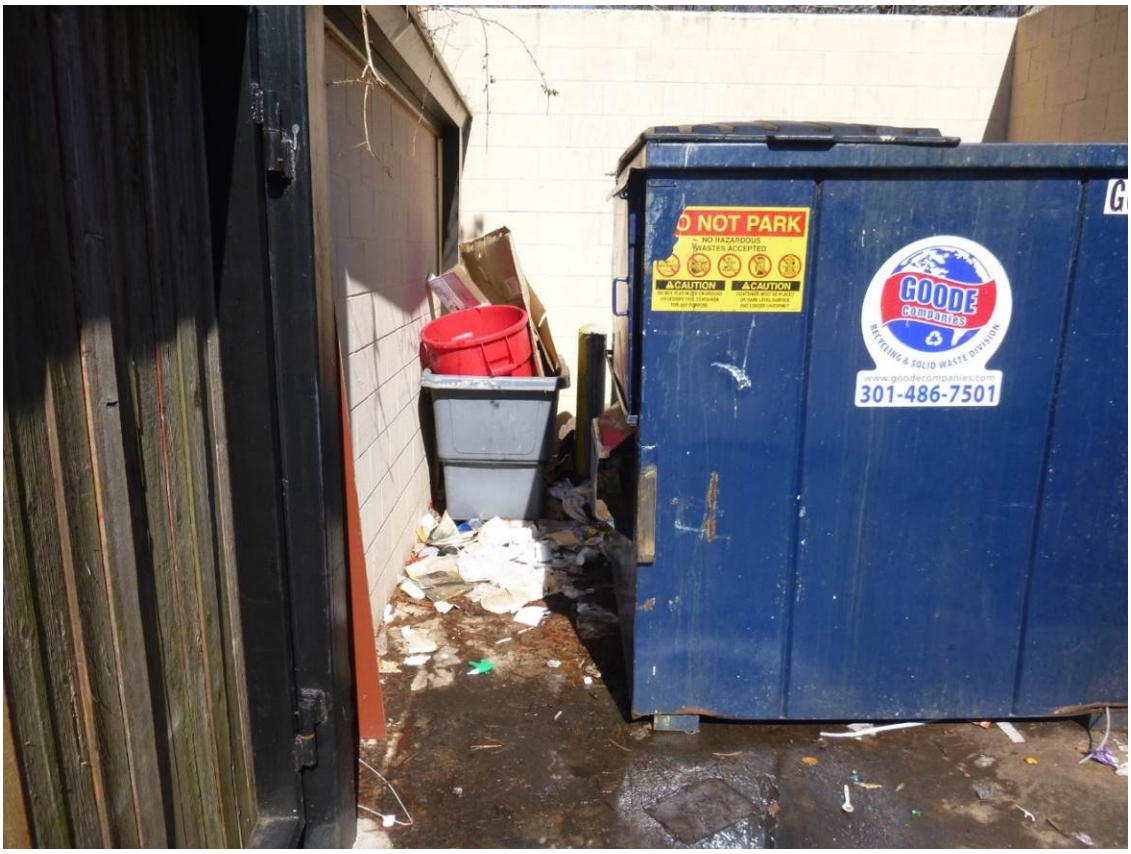


Figure 1. An open dumpster with debris and loose bins deposited around it

Figure 2. A view inside the open side of the dumpster showing that the unit is not full

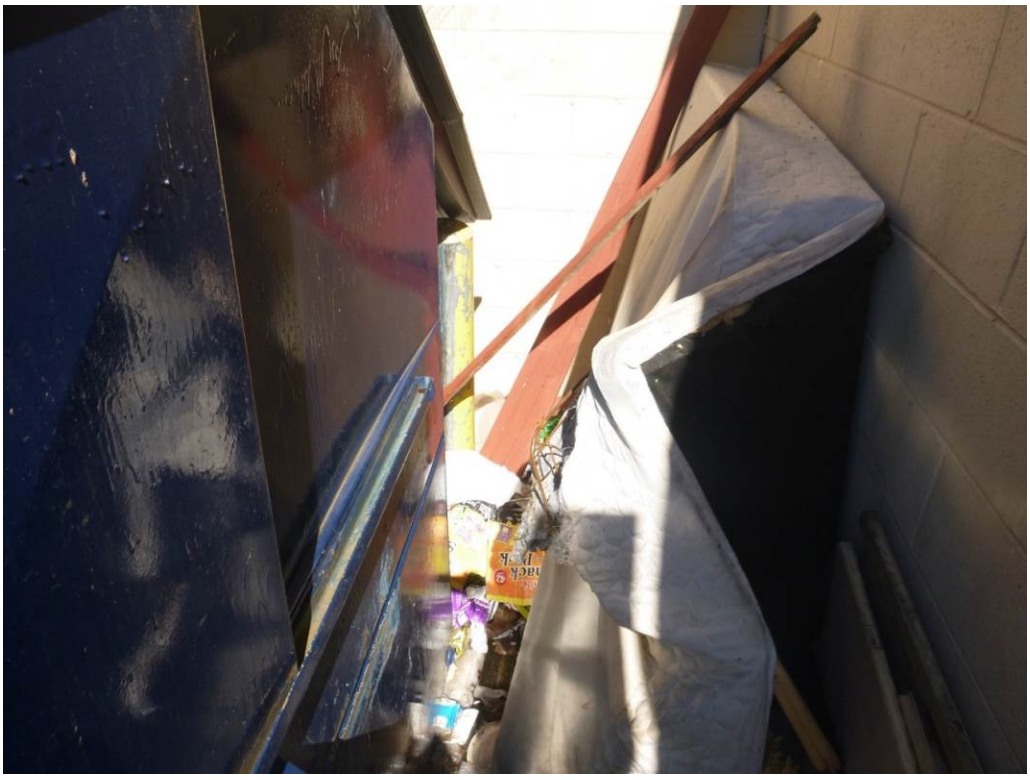


Figure 3. A mattress and other large pieces of trash deposited alongside the dumpster

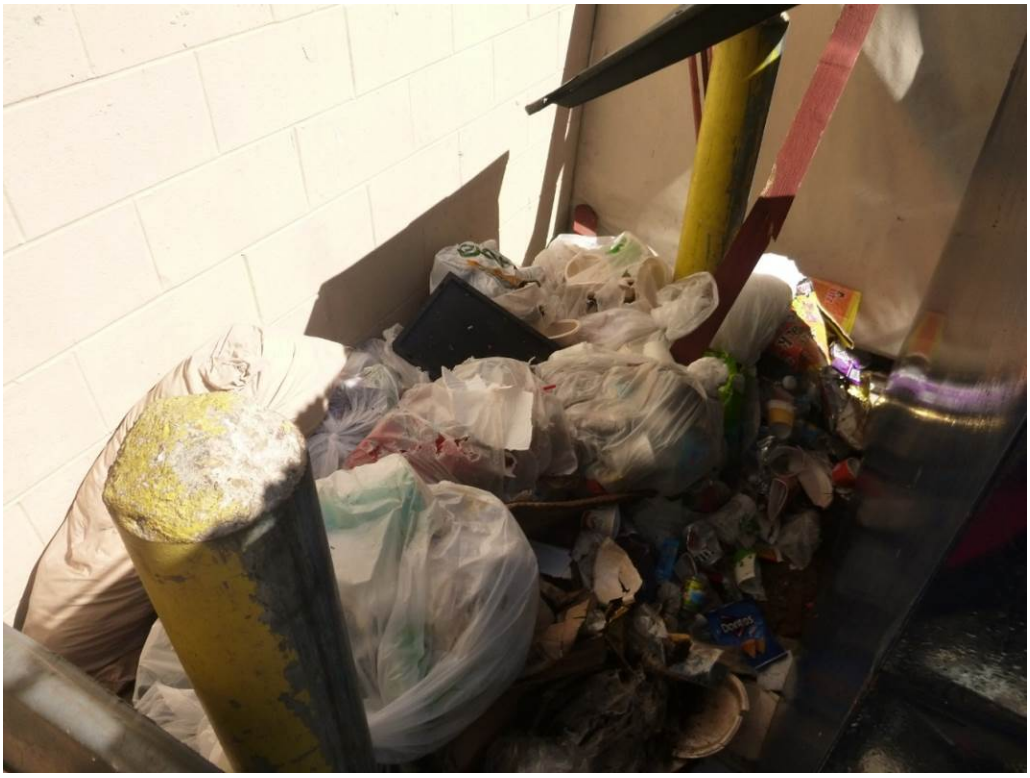


Figure 4. Bagged and loose trash, including food containers, found behind the dumpster

Figure 5. Several ventilation units and associated parts found on the ground near the dumpster

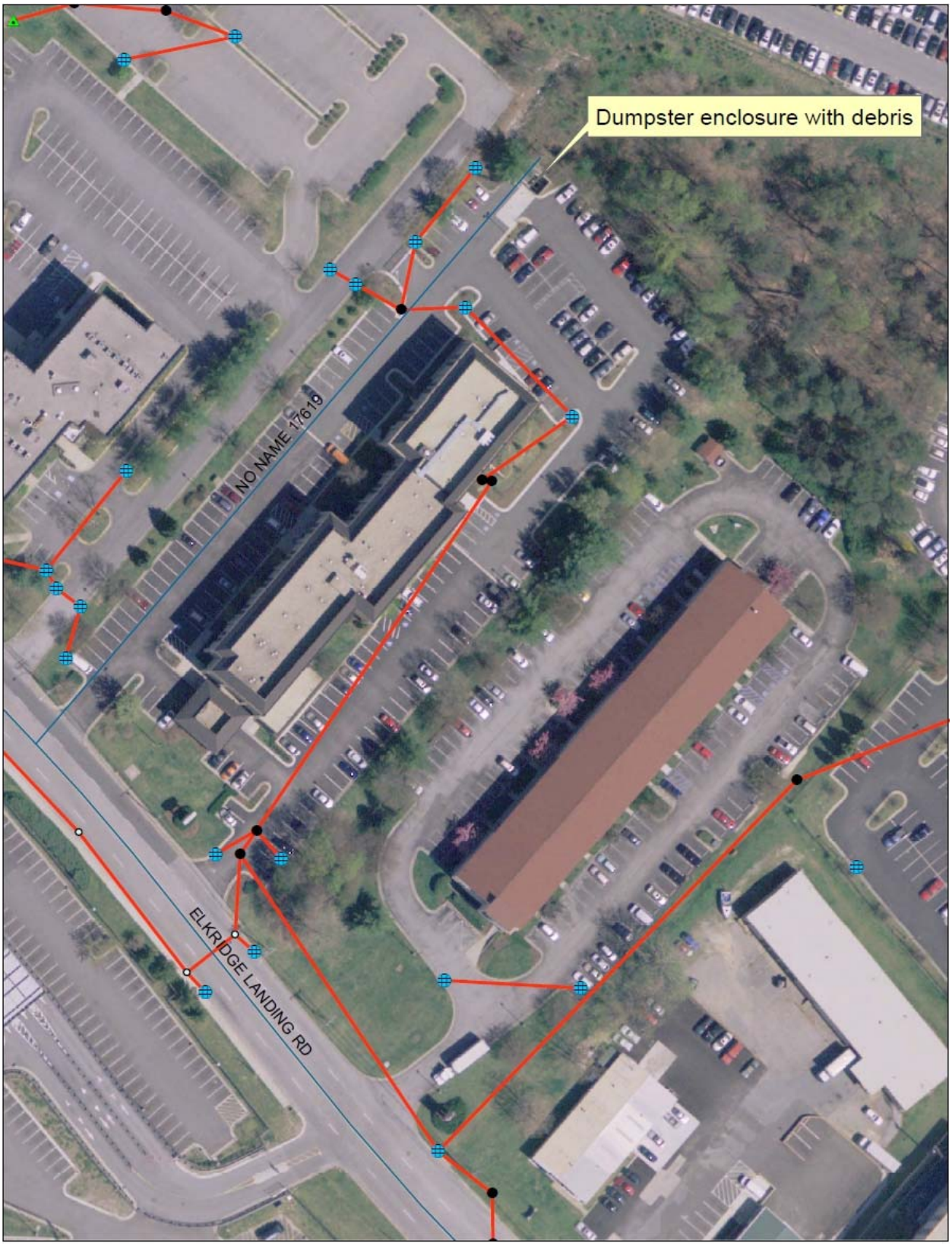


Figure 6. Area map

Anne Arundel County Hotspot Site Investigation Visit Report

Location: Cinemark Egyptian 24 and XD (theater), 7000 Arundel Mills Circle, Hanover
Date: March 13, 2015
Investigators: M. Berlett, A. Vanko
Concern: Waste management

A Versar field team found two dumpsters that had been placed over a storm drain curb inlet alongside the Cinemark Egyptian 24 and XD (movie theater) at the above address (Figure 1). The field team noted that there were stains leading to the curb inlet, suggesting that materials other than water have been entering the storm system at this location (Figure 2). Although the field crew found the dumpsters appropriately closed, any trash alongside the containers, or exposed when the lids are open may blow off-site or into the adjacent opening to the storm drain system. Any debris deposited on the ground may also leak potentially contaminating contents onto surfaces that could enter the storm drain inlet easily. An area map, indicating the location of the dumpsters, is provided in Figure 3.

Figure 1. Dumpsters found immediately adjacent to a curb inlet to the storm system

Figure 2. Stains found leading to the curb inlet

Figure 3. Area map

Anne Arundel County Hotspot Site Investigation Visit Report

Location: Arundel Mills Mall near Modell's Sporting Goods store, 7000 Arundel Mills Circle, Hanover
Date: March 13, 2015
Investigators: M. Berlett, A. Vanko
Concern: Waste management

A Versar field team found an overfilled roll-off dumpster in the parking lot near the Modells Sporting Goods store at the above address (Figure 1). The lack of proper storage (preferably in closed containers under shelter) may allow trash to blow off-site and into the storm drain system. Debris that falls to the ground may leak potentially contaminating contents onto surfaces that could also lead to adjacent storm drain inlets or open water. Some debris may also attract pests to the site. An area map, indicating the location of the dumpster, is provided in Figure 2.

Figure 1. Overfilled roll-off dumpster found near Modell's Sporting Goods store on March 13

Figure 2. Area map

Anne Arundel County Hotspot Site Investigation Visit Report

Location: Arundel Mills Mall near the restaurant The Cheesecake Factory, 7002 Arundel Mills Circle, Hanover
Date: March 13, 2015
Investigators: M. Berlett, A. Vanko
Concern: Cooking oil storage and waste management

A Versar field team discovered two issues of concern in the parking lot near the restaurant The Cheesecake Factory at the above address. The field crew documented an improper cooking oil storage situation and a dumpster with debris around it on March 13.

The field team found a kitchen oil collection container with an open lid in the parking lot associated with the restaurant when they visited the site at 2:45 p.m. (Figure 1). The team noted that the open container was located uphill of a curb inlet for the parking area (Figure 2). Cooking oil on an impervious surface poses a hazard to pedestrians; in a rain event, the oil may also distribute contaminants to adjacent impervious surfaces and eventually to storm drain inlets or open water. There is also a concern for attracting pests to the site.

Figure 1. Cooking oil collection container found with an open lid; the container was located uphill of a curb inlet in the same parking lot

Figure 2. Photograph showing the relative location of the cooking oil storage bin to the nearby curb inlet

The Versar field team found some trash - including food - littering the area around a dumpster adjacent to the cooking oil bin in the same parking lot (Figure 3). Debris on the ground may be carried by wind or water to nearby storm drain inlets; it may also leak potentially contaminating contents onto surfaces that could also lead to adjacent storm drain inlets or open water. Food debris may also attract pests to the site. An area map, indicating the locations of the cooking oil bin and the dumpster, is provided in Figure 4.

Figure 3. Debris, including food, found scattered around a dumpster near the Cheesecake Factory restaurant on March 13

Figure 4. Area map

Anne Arundel County Hotspot Site Investigation Visit Report

Location: Red Lobster restaurant, 7063 Arundel Mills Circle, Hanover
Date: March 13, 2015
Investigators: M. Berlett, A. Vanko
Concern: Improper cooking oil storage

A Versar field team discovered a grease collection container, intended for the disposal of waste kitchen grease, in the parking lot associated with the Red Lobster restaurant at the above address. The field crew members found the container lid open when they visited the site at 2:55 p.m. (Figure 1). Cooking oil on an impervious surface poses a hazard to pedestrians; in a rain event, the oil may also distribute contaminants to adjacent impervious surfaces and eventually to storm drain inlets or open water. There is also a concern for attracting pests to the site. An area map is provided as Figure 2.

Figure 1. Kitchen grease collection container found with an open lid

Figure 2. Area map (imagery was derived from Google Earth because the Anne Arundel County orthophotography was not recent enough to show the target features)

Anne Arundel County Hotspot Site Investigation Visit Report

Location: Bass Pro Shops, 7000 Arundel Mills Circle, Hanover
Date: March 13, 2015
Investigators: M. Berlett, A. Vanko
Concern: Vehicle washing outdoors

A Versar field team discovered a man washing a boat with water from a hose at the service entrance of Bass Pro Shops at the above address (Figure 1). This activity, conducted on impervious surface, may allow tap water to enter the storm drain system; the activity would constitute an illicit discharge. The field crew photo-documented the wastewater entering the roadway via paved surfaces. The current storm drain network is not available in digital format for this location to assess the relative location of the wastewater to an inlet. An area map, indicating the location of the washdown activity, is provided in Figure 2.

Figure 1. Boat washdown observed at the service entrance to Bass Pro Shops

Figure 2. Area map

Anne Arundel County Hotspot Site Investigation Visit Report

Location: Staples store, 7661 Arundel Mills Blvd, Hanover
Date: March 13, 2015
Investigators: M. Berlett, A. Vanko
Concern: Waste management

A Versar field team found an open dumpster with debris scattered around it behind the Staples store at the above address (Figure 1). The lack of proper storage (preferably in closed containers under shelter) may allow trash to blow off-site and into the storm drain system. Debris on the ground may be carried by wind or water to nearby storm drain inlets; it may also leak potentially contaminating contents onto surfaces that could also lead to nearby storm drain inlets or open water. Some debris may also attract pests to the site. An area map, indicating the location of the dumpster, is provided in Figure 2.

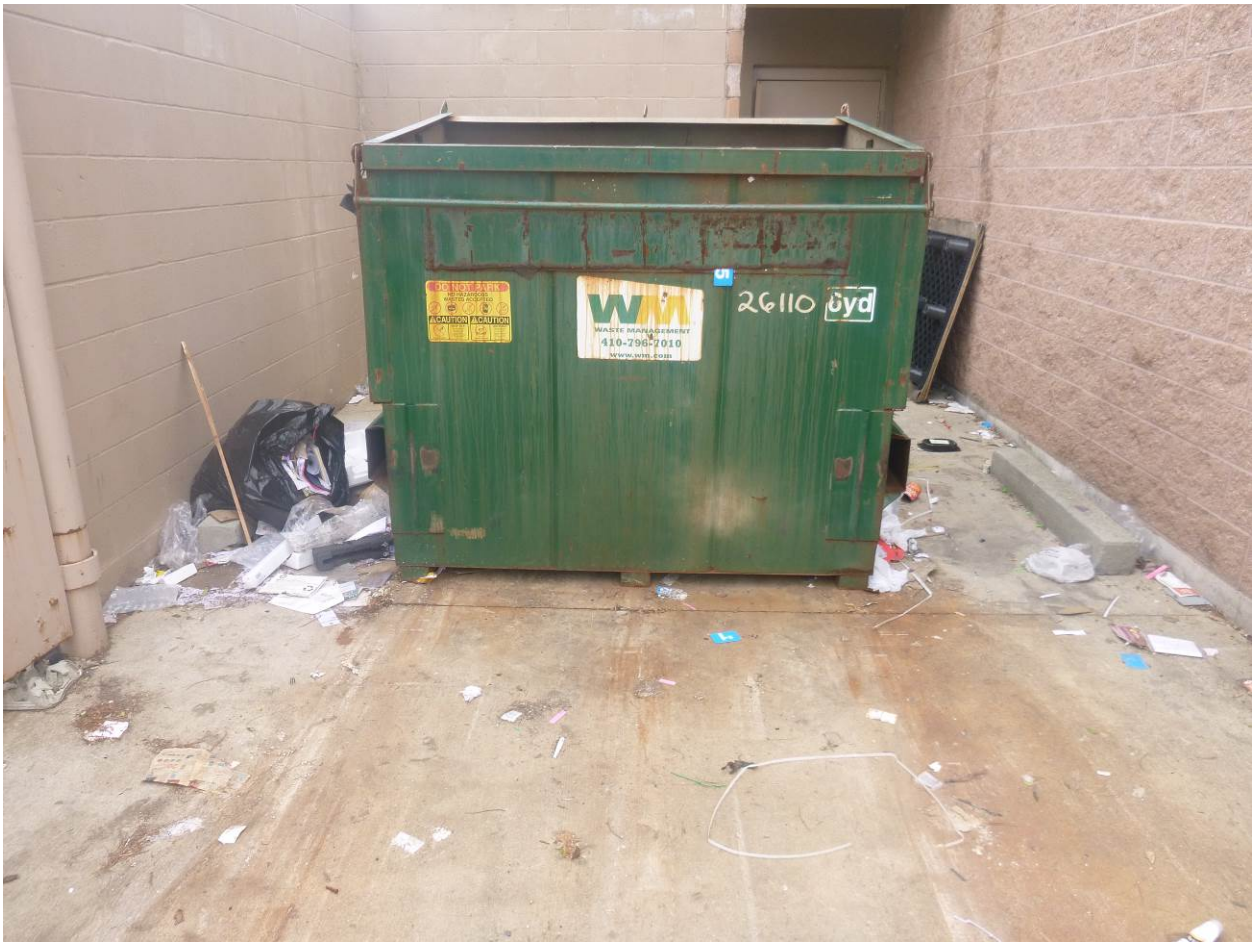


Figure 1. An open dumpster with debris scattered around in found near the Staples store on March 13

Figure 2. Area map

Anne Arundel County Hotspot Site Investigation Visit Report

Location: Baja Fresh restaurant, 7645 Arundel Mills Blvd., Hanover
Date: March 13, 2015
Investigators: M. Berlett, A. Vanko
Concern: Cooking oil storage

A Versar field team discovered two cooking oil collection containers, intended for the disposal of waste kitchen oil, in the parking lot associated with the Baja Fresh restaurant at the above address. The field crew documented significant oil stains around the containers; the oil may be coming from leaks in the containers and spills during attempts to empty materials into the containers. Cooking oil on an impervious surface poses a hazard to pedestrians; in a rain event, the oil may also distribute contaminants to adjacent impervious surfaces and eventually to storm drain inlets or open water. There is also a concern for attracting pests to the site. An area map is provided as Figure 2.

Figure 1. Cooking oil collection bins with oil stains surrounding both of the containers

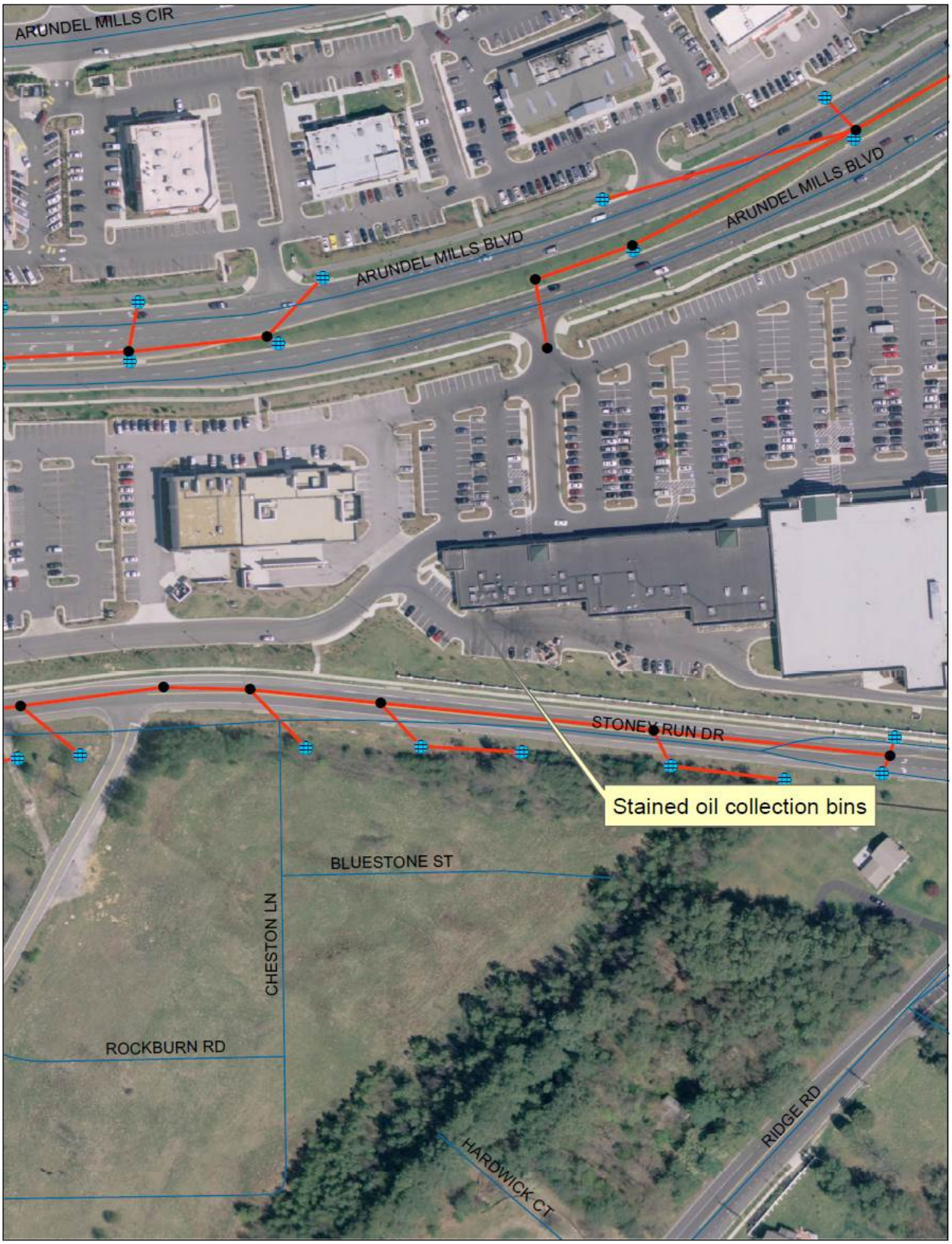


Figure 2. Area map

Anne Arundel County Hotspot Site Investigation Visit Report

Location: Computer Sciences Corporation, 7459 Candlewood Road, Hanover
Date: March 13, 2015
Investigators: M. Berlett, A. Vanko
Concern: Waste management

A Versar field team found an open, overfilled dumpster near a yard grate in the parking lot associated with the Computer Sciences Corporation at the above address (Figure 1). The lack of proper storage (preferably in closed containers under shelter) may allow trash to blow off-site or into the nearby storm drain system. Debris that falls on the ground may also leak potentially contaminating contents onto surfaces that could lead to nearby storm drain inlets or open water. Some debris may also attract pests to the site. An area map, indicating the location of the dumpster, is provided in Figure 2.

Figure 1. An open, overfilled dumpster located near a yard grate that was found on March 13

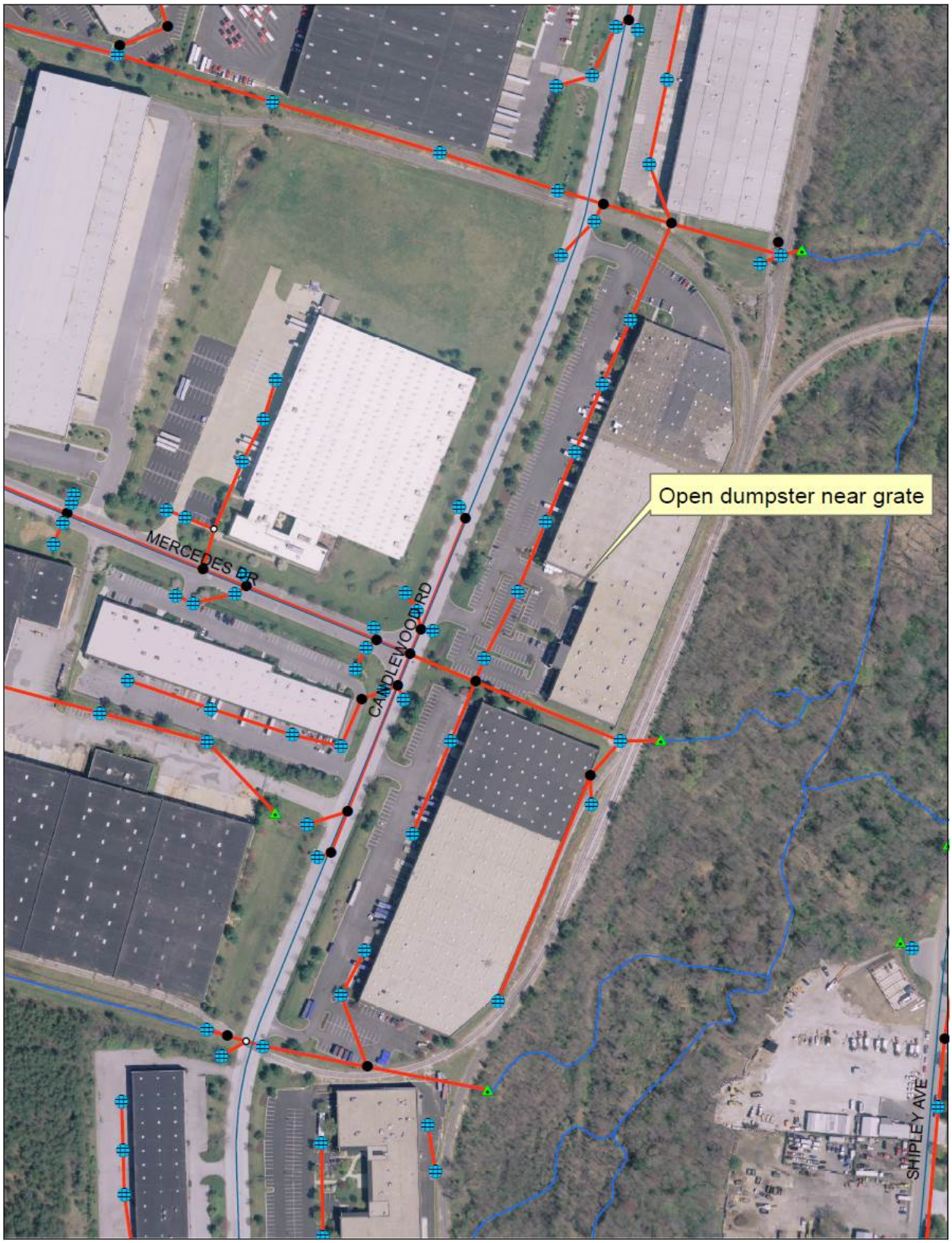


Figure 2. Area map

Anne Arundel County Hotspot Site Investigation Visit Report

Location: United Stationers, 7441 Candlewood Road, Hanover
Date: March 13, 2015
Investigators: M. Berlett, A. Vanko
Concern: Loose debris on-site

A Versar field team discovered a large amount of debris on a slope leading to a stream alongside a parking lot associated with United Stationers at the above address (Figure 1). The material deposited on the slope included bottles, cans, and plastic containers. In one area, there were also larger pieces: plastic bags, a box, and strips of foam (Figure 2). The trash was found strewn along a wide stretch of the woods along the stream. The sloped land would contribute to a significant pollution source from this site, as materials could enter the stream easily, carried by wind or rain. Debris deposited on the ground may also leak potentially contaminating contents onto surfaces that could lead to the open water. Some debris may also attract pests to the site. An area map, indicating the location of the debris, is provided in Figure 3.

Figure 1. Abundant loose debris found on a slope alongside a stream

Figure 2. Larger items documented among the debris

Figure 3. Area map

Anne Arundel County Hotspot Site Investigation Visit Report

Location: 7572 Ritchie Highway, Glen Burnie
Date: April 13, 2015
Investigators: G. Zuknick and B. Crary
Concern: ~~Infrastructure, manhole cover missing~~Liquid storage

A LimnoTech field team discovered several open buckets of blacktop sealer on a sidewalk behind the D J Liquidators store (approximately) at the above address (Figure 1). The field crew noted that there was extensive staining on the sidewalk (Figure 2) suggesting that sealer has been transferred or spilled in this location in other recent incidents. Residue washed from the buckets or the sidewalk could easily enter the nearby curb inlet and introduce petroleum-based contaminants to the storm sewer system and receiving waters. An area map, indicating the location of the open buckets of sealer, is provided in Figure 3.

Figure 1. Open containers of blacktop sealer found on the sidewalk

Figure 2. Extensive staining on the sidewalk near the open buckets of sealer

Figure 3. Area map

Anne Arundel County Hotspot Site Investigation Visit Report

Location: 2421 Crofton Lane, Crofton
Date: April 16, 2015
Investigators: T. Jones and I. Turcsányi
Concern: Waste management

A Versar field team identified several issues of concern related to waste management in an area of the parking lot associated with 2421 Crofton Lane (multiple businesses). The field team discovered an open dumpster (Figure 1). The dumpsters were located next to an enclosed outdoor storage area. The field crew documented that some large pieces of debris have been placed both inside and outside of this enclosure (Figure 2). In a nearby corner of the parking lot, the field crew found more debris blocking a corner drain opening for the lot (Figure 3). The nearest stormwater system inlet is some distance away from the dumpsters and debris; the field team photo-documented its position relative to the storage area (Figure 4). The lack of proper storage (preferably in closed containers under shelter) may allow trash to blow off-site or into the nearby storm drain system. Debris that falls on the ground may also leak potentially contaminating contents onto surfaces that could lead to nearby storm drain inlets or open water. Large debris may pose a hazard to drivers in the parking lot, or block efficient drainage of rainwater across the impervious surface to the stormwater inlets. An area map, indicating the location of the dumpster and the debris, is provided in Figure 5.

Figure 1. An open dumpster found on April 16

Figure 2. Large pieces of debris placed outside of the storage enclosure

Figure 3. Pipes and other debris found in a parking lot corner drain area

Figure 4. Relative location of the inlet that would receive drainage from the dumpsters and storage areas

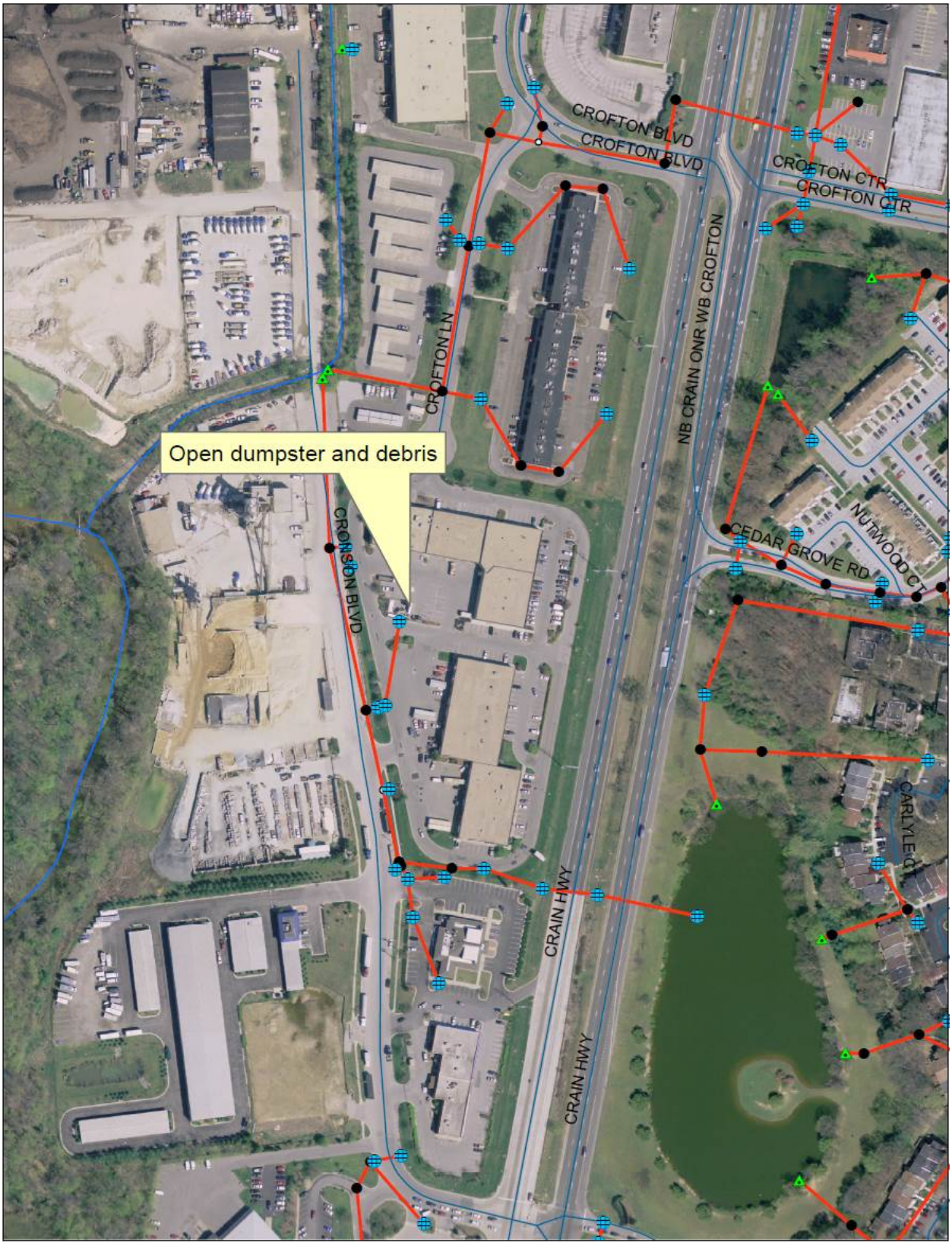


Figure 5. Area map

Anne Arundel County Hotspot Site Investigation Visit Report

Location: West Marine, 595 East Ordnance Road, Glen Burnie
Date: April 24 and 29, 2015
Investigators: G. Zuknick, B. Crary, and L. Vander Linden
Concern: Waste management

A LimnoTech field team discovered an overfilled roll-off dumpster in the parking lot behind the West Marine store at the above address (Figure 1). Debris evident at the top of the pile included several open, used containers; the field crew was unable to determine the contents of these visible containers. The field crew also found large pieces of debris scattered around the dumpster (Figure 2). The lack of proper storage (preferably in closed containers under shelter) may allow trash to blow off-site or into the nearby storm drain system. Large pieces of debris, already on the ground or blown to the ground with a strong wind, may create hazards for drivers in the parking lot. Debris that falls onto the ground may also leak potentially contaminating contents onto surfaces that could lead to nearby storm drain inlets or open water; open containers in the dumpster may also release contaminants into the dumpster during rain events. Some debris may also attract pests to the site. An area map, indicating the location of the dumpster, is provided in Figure 3.

Figure 1. An overfilled dumpster investigated on April 24 and 29; several open containers are evident in the debris (photography date: April 29, 2015)

Figure 2. Large pieces of debris scattered around the overfilled dumpster (photography date: April 24, 2015)

Figure 3. Area map

Anne Arundel County Hotspot Site Investigation Visit Report

Location: 713 East Ordnance Road, Glen Burnie
Date: April 24, 2015
Investigators: G. Zuknick and L. Vander Linden
Concern: Bulk solid storage

A LimnoTech field team discovered what appeared to be a large pile of road de-icing salt in the parking lot at the corner of the building (multiple businesses) at the above address (Figure 1). At the time of the site visit, the pile was partially uncovered. The field crew noted that a line of residue could be traced from the area of the pile along part of the parking lot (Figure 2). Investigations conducted for this report included confirmation with imagery from Google Maps (https://www.google.com/maps/); the image available at the time of the report draft (May 11, 2015) showed a significant line of residue from the same corner where the road salt was being stored on April 24 to an area of distinct but indeterminate use along the parking lot (Figure 3). The placement of salt on an impervious surface introduces the risk of distribution, by wind or rain, of salt particles and associated nutrients which could drift into adjacent storm drain inlets or open water. An area map, indicating the location of the large salt pile, is provided in Figure 4.

Figure 1. A large, partially uncovered pile of road de-icing salt found on April 24

Figure 2 Evidence of the distribution of salt residue along the parking lot surface from the exposed pile of road salt

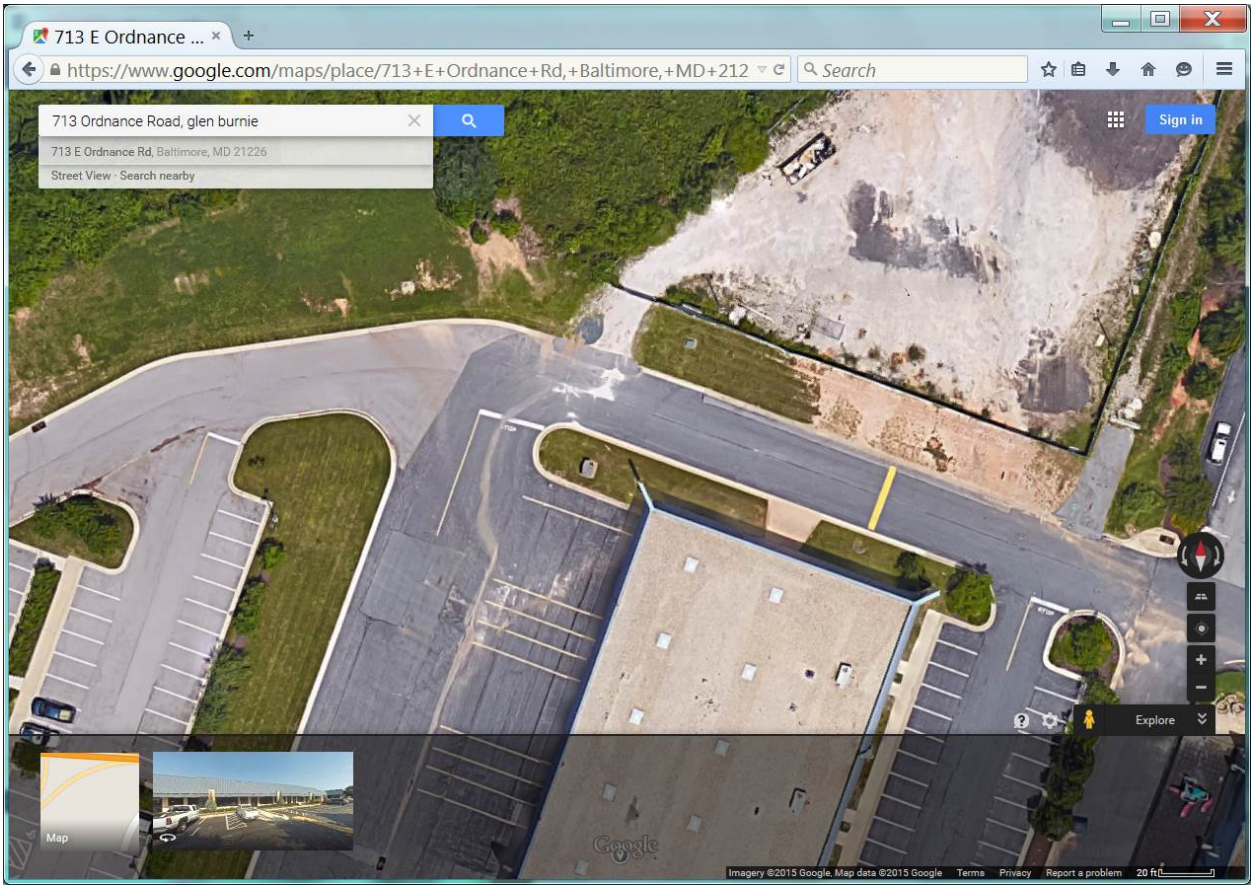


Figure 3. Similar evidence of a trail of residue from the corner of the parking lot where the exposed road salt was found apparent in an image available on the Internet from Google Maps (source: https://www.google.com/maps/place/713+E+Ordnance+Rd,+Baltimore,+MD+21226/@39.2047719,-76.5954318,92m/data=!3m1!1e3!4m2!3m1!1s0x89b7fd7ffce1ba43:0x26055e1250fdd82d!6m1!1e1?hl=en, obtained May 11, 2015)

Figure 4. Area map

Anne Arundel County Hotspot Site Investigation Visit Report

Location: Target store, 6717 Governor Ritchie Highway, Glen Burnie
Date: April 24, 2015
Investigators: G. Zuknick and L. Vander Linden
Concern: Bulk solid storage

A LimnoTech field team discovered what appeared to be a large pile of road de-icing salt in the parking lot behind the Target store at the above address (Figure 1). The large pile of road salt was found uncovered on the pavement. Small piles of salt were found scattered on the ground above the curb. In the same area, the field crew also found several bags of salt crystals; this material is intended for use in water softening systems. The placement of salt on an impervious surface introduces the risk of distribution, by wind or rain, of salt particles and associated nutrients which could drift into adjacent storm drain inlets or open water. The salt piles already on the ground pose a hazard to animals passing through the area; with rain events, the salt could infiltrate the soil, lead to elevated sodium and chloride levels in the soil, and damage nearby plants. With repeated rains, the salt and its derivatives could enter the nearby stream headwaters behind the parking lot; elevated chloride levels can be toxic to aquatic life. An area map, indicating the location of the large salt pile, is provided in Figure 2.

Figure 1. A large, uncovered pile of road de-icing salt in the parking lot, small piles of road salt on the ground, and several bags of water softener salt crystals found on the day of the site visit

Figure 2. Area map

Anne Arundel County Hotspot Site Investigation Visit Report

Location: Cromwell Business Park, 801 Cromwell Park Drive, Glen Burnie
Date: April 24, 2015
Investigators: G. Zuknick and L. Vander Linden
Concern: Waste management

A LimnoTech field team discovered a pair of open dumpsters in an enclosure alongside the parking lot behind the Cromwell Business Park building (multiple businesses) at the above address. One dumpster, intended for the disposal of recyclable material, was overfilled (Figure 1). The other dumpster, intended for trash, had many bags of garbage strewn around it and some loose debris; food containers were apparent in some of the bags (Figure 2). The dumpsters were situated on a concrete pad above the curb. There were curb inlets near the dumpsters, one approximately 65 feet north and the other approximately 117 feet south of the enclosure. The lack of proper storage (preferably in closed containers under shelter) may allow trash to blow off-site or into the nearby storm drain system. Debris on the ground may leak potentially contaminating contents onto surfaces that could lead to nearby storm drain inlets or open water. Some debris may also attract pests to the site. An area map, indicating the location of the dumpsters, is provided in Figure 3.

Figure 1. An overfilled dumpster (left), intended for materials to be recycled; the nearby curb inlet to the north is evident on the left side of the photograph

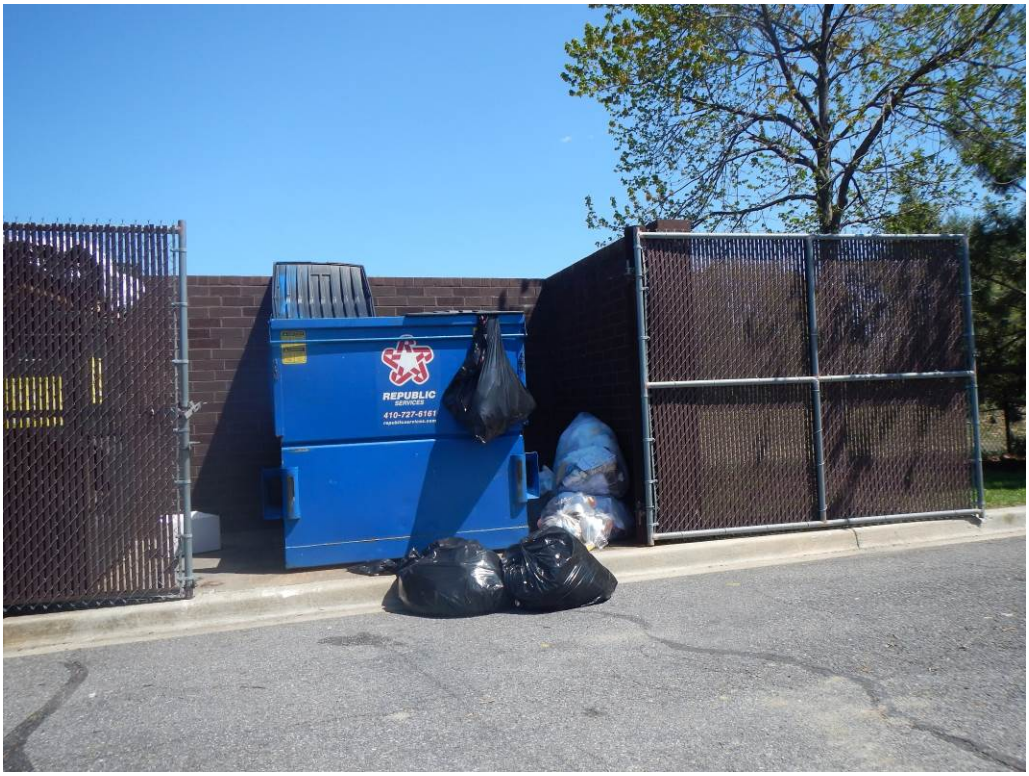


Figure 2. Many bags of garbage found on and around an open trash dumpster

Figure 3. Area map

Anne Arundel County Hotspot Site Investigation Visit Report

Location: Belair Produce, 7226 Parkway Drive, Hanover
Date: June 25, 2015
Investigators: C. Tonkin, J. Rella
Concern: Waste management

While in the area to screen an outfall, a Versar field team discovered an actively polluting condition at a roll-away dumpster found behind a Belair Produce building at the above address (Figure 1). The team observed the dumpster leaking a red liquid of sufficient quantity (Figure 2) to span the rear of the parking area (Figure 3) and enter the adjacent wooded land (Figure 4). In light of the nature of the business, one could surmise that the leachate may contain material from fruits and vegetables that have been discarded to the trash compactor; as such, the fluid may contain nutrients, bacteria, waxes, pesticides, and fungicides, among other constituents. In 2014, field crews documented a dumpster in the same location leaching sour-smelling liquid which followed a similar path to the woods. The trail of liquids, apparently emanating from the dumpster, is evident in aerial photographs, since at least 2007 (the date for the photograph used in Figure 5 in this report). An area map, indicating the location of the dumpster, is provided in Figure 5.

Figure 1. Red liquid observed leaking from a roll-away dumpster found behind the Belair Produce building on June 25, 2015

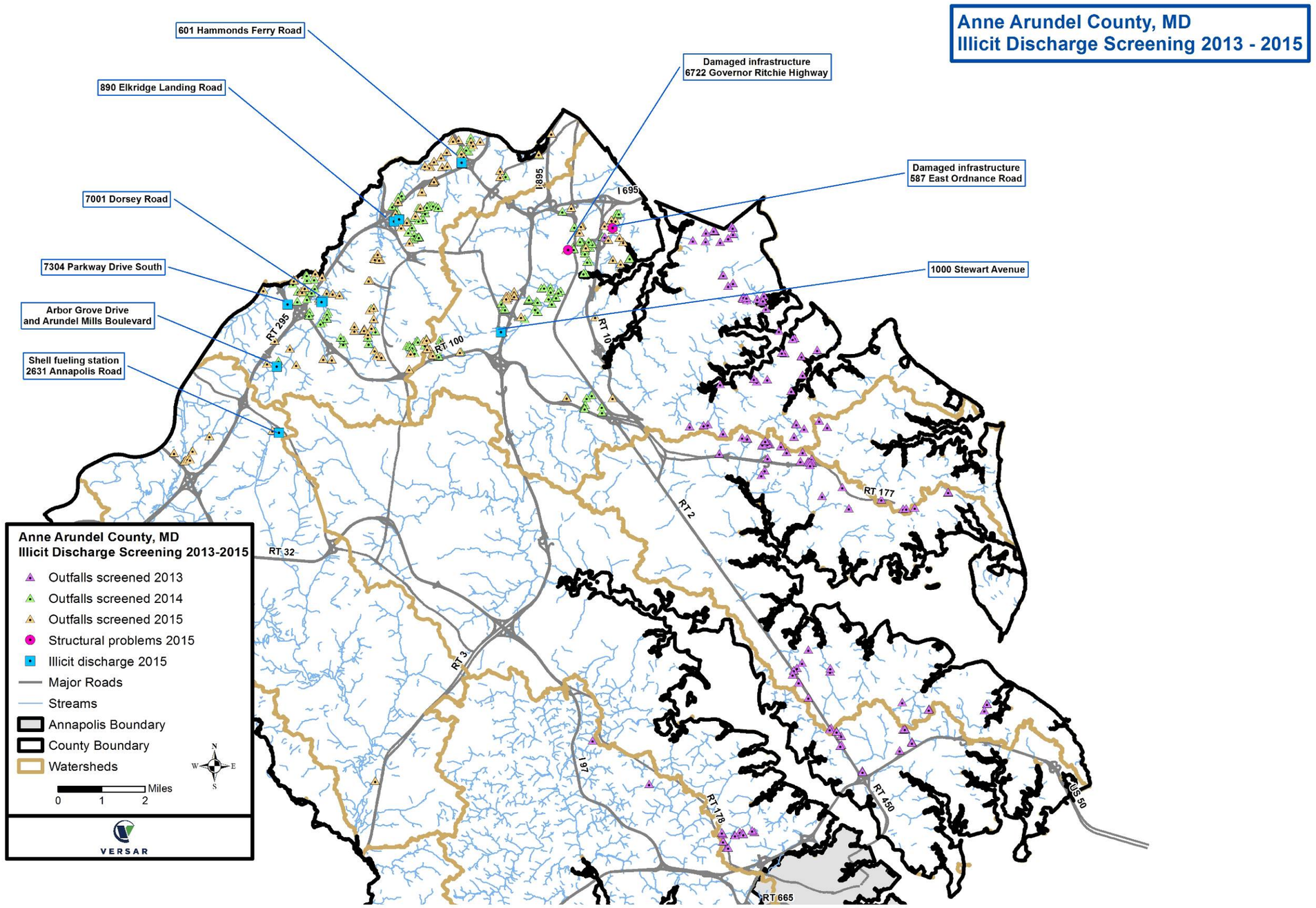
Figure 2. Fluid observed leaking from the dumpster on June 25, 2014 in amounts sufficient to run a course along the edge of the parking lot

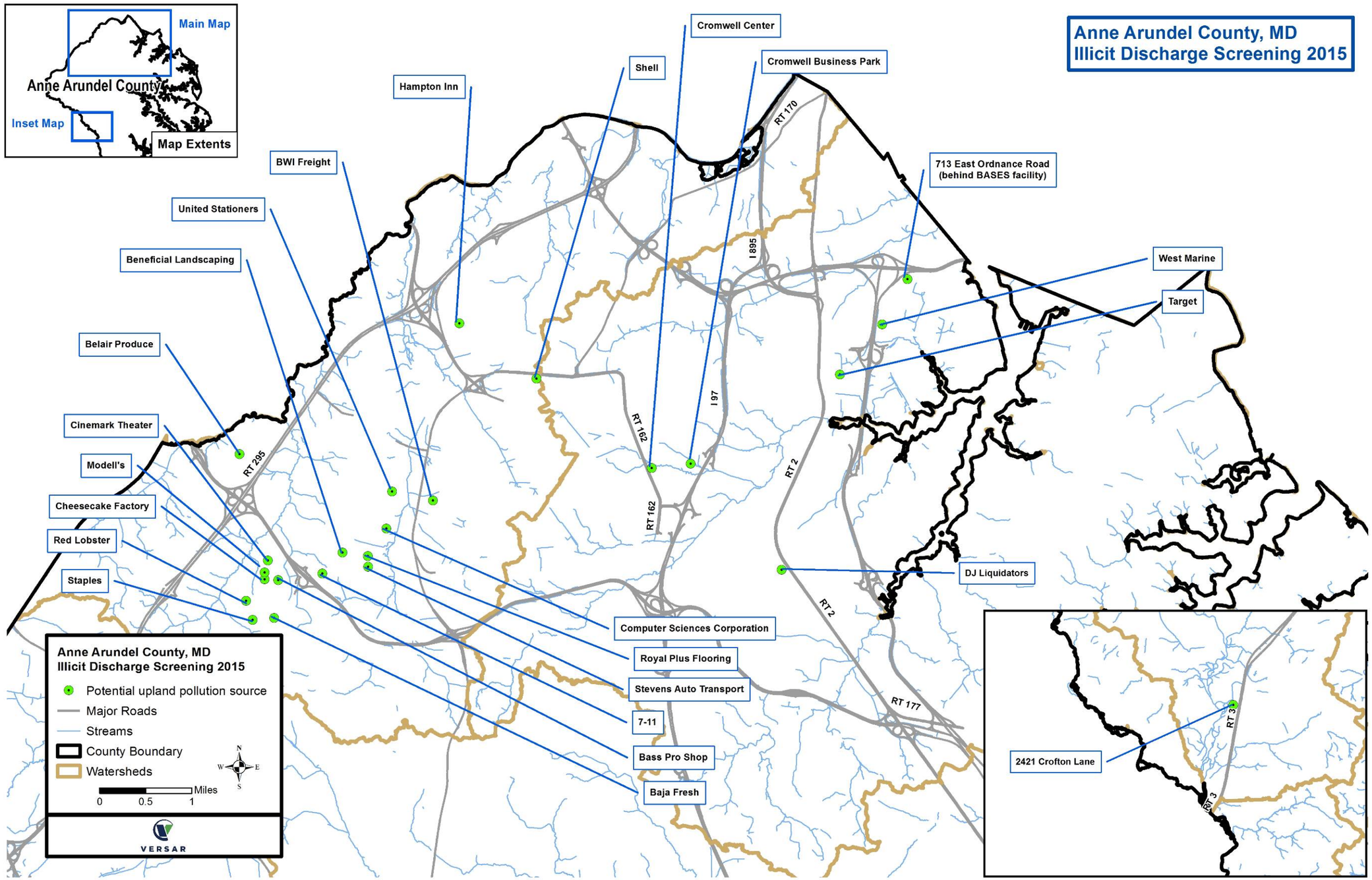
Figure 3. Fresh leachate trail as observed facing the dumpster on June 25, 2015

Figure 4. Red liquid leachate leading into the woods from the parking lot, as observed on June 25, 2015

Figure 5. Area map (note that the leachate trail is evident in this aerial photograph from 2007)

APPENDIX D
MAPS


Anne Arundel County, MD
Illicit Discharge Screening 2013 - 2015
601 Hammonds Ferry Road
890 Elkridge Landing Road
7001 Dorsey Road
7304 Parkway Drive South
Arbor Grove Drive
and Arundel Mills Boulevard
Shell fueling station
2631 Annapolis Road
Damaged infrastructure
6722 Governor Ritchie Highway
Damaged infrastructure
587 East Ordnance Road
1000 Stewart Avenue
I 895
I 695
RT 295
RT 100
RT 10
RT 2
RT 177
RT 32
RT 3
197
RT 178
RT 450
US 50
RT 665
Anne Arundel County, MD
Illicit Discharge Screening 2013-2015
Outfalls screened 2013
Outfalls screened 2014
Outfalls screened 2015
Structural problems 2015
Illicit discharge 2015
Major Roads
Streams
Annapolis Boundary
County Boundary
Watersheds
N
W
E
S
Miles
0
1
2
VERSAR


Anne Arundel County, MD
Illicit Discharge Screening 2015
Main Map
Anne Arundel County
Inset Map
Map Extents
Cromwell Center
Shell
Cromwell Business Park
Hampton Inn
RT 170
BWI Freight
713 East Ordnance Road
(behind BASES facility)
United Stationers
I 895
West Marine
Beneficial Landscaping
Target
Belair Produce
I 97
RT 162
RT 2
Cinemark Theater
RT 295
Modell's
Cheesecake Factory
RT 162
Red Lobster
DJ Liquidators
Staples
RT 2
Computer Sciences Corporation
Royal Plus Flooring
Stevens Auto Transport
RT 177
7-11
Bass Pro Shop
2421 Crofton Lane
RT 3
Baja Fresh
RT 3
Anne Arundel County, MD
Illicit Discharge Screening 2015
Potential upland pollution source
Major Roads
Streams
County Boundary
Watersheds
N
W
E
S
Miles
0
0.5
1
VERSAR

APPENDIX E
ACCESS DATABASE FOR ILLICIT DISCHARGE DETECTION PROGRAM INSPECTIONS

APPENDIX F
COUNTY INSPECTION COMPLIANCE DATABASE REPORTS

9/2/2015 Anne Arundel County Department of Inspections and Permits

Environment Section Complaint

Case ID:	E - 2015 - 69	Location:	2421 CROFTON LN
Tax ID:	220690059752		CROFTON OFF/WRHSE CONDO CROFTON 21114
Received:	3/11/2015	Details:	
Tickler:		Completed:	3/12/2015
	ILLEGAL DISCHARGES COMPLAINT		

Receiver:		Inspector:		
Date Assigned:	3/11/2015	Permit Number:		Original ID:
ADC Map:		Related Cases:		
Water Front:	N	Critical Area:	N	Violation:
Cty. Council Ind:	N	Case Org:		
Complainant:				

Owner Information		Violator Information	
Owner 1:	CROFTON DEVLPRS II LTD PTNSHP	Violator 1:	CLOTHES CALL
Owner 2:		Violator 2:	
Address:	2421 CROFTON LN CROFTON 21114	Address:	
		Phone:	

State Map:	Map No:	Suffix	Block	Parcel	County Map:	Plat	Sect	Block	Lot No
	42		05	0146		1	1		2A

Date	Event	Due Date	Request for Trial Date
3/11/2015	OPENED COMPLAINT CASE	3/16/2015	

TIP OR COMPLAINT: I WAS PASSING THE CLOTHES CALL ON SUNDAY 8 MAR ABOUT 2:00 PM ON THE WAY TO MY STORAGE FACILITY AND IN BACK OF THE CLOTHES CALL I SAW 2 OR 3 EMPLOYEES WHO WERE WASHING RUGS. I SAW THEM USING BIG 40 GALLON WHITE PLASTIC SOAP DRUMS TO POUR SOAP SCRUB USING PUSH BROOMS AND I BELIEVE ONE DRUM WITH CLEAN WATER TO RINSE THE RUGS. I KNOW THESE DRUMS BECAUSE I GOT SOME FROM A CAR WASH FREE TO BUILD WATER CATCHERS. THE SOAP AND WATER WAS RUNNING DIRECTLY INTO A STORM DRAIN. I DONT KNOW IF THIS WAS OFFICIAL OFFICE BUSINESS OR THEY WERE JUST WASHING THE OFFICE OR HOME RUGS. BUT THE SOAP WAS DEFINITELY RUNNING DIRECTLY INTO THE SOTRM DRAIN AND IT WAS OBVIOUS THEY PCIKED THAT SPOT BECAUSE OF THE PROXIMITY TO THE DRAIN. COULD BE ENVIRONMENTALLY FIRENDLY SOAP OR THEIR CLOTHES WASHING. I DON'T KNOW. SAVE THE BAY! THE DRAIN WAS DIRECTLY BEHIND THE LEFT MOST AS YOU FACE IT FROM THE REAR OF THE BUILDING END OF THE BUILDING. VIOLATION STILL OCCURRING?

3/12/2015 CLOSE COMPLAINT

NO CARPET CLEANING GOING ON AT THE LOCATION AT TIME OF INSPECTION. INSPECTED SITE AT 11:50 AM ON WEDNESDAY, MARCH 11, 2015. A DRY CLEANING COMPANY CALLED CLOTHES CALL OCCUPIES THE BUILDING LOCATION. INSPECTOR TALKED TO PATRICK BERGMANN PRESIDENT OF THE COMPANY. HE INFORMED HIM THAT ON OCCASION HIS COMPANY DOES TEXTILE RESTORATION. IN THIS CASE, ON SUNDAY MARCH 8, 2015 HIS EMPLOYEES WERE DOING A RUG CLEAN UP, OUTSIDE AT THE REAR OF BUILDING NEAR A GARAGE TYPE DOOR, WHICH WAS OPEN. THEY WERE SOAKING A WATER DAMAGED RUG AND SQUEE -GEEING WATER FROM THE WET RUG AND USING THE WATER HOSE WHICH IS ATTACHED TO THE BUILDING. HE SAID THAT HIS EMPLOYEES WERE NOT USING CHEMICALS OR SOAPS. THERE WAS HOWEVER A SOAP DRUM WHICH CAME OFF THE MECHANICAL TRUCK,

WHICH WAS PLACED ON THE PAVING. THIS DRUM GOES WITH THE TRUCK AND THE SOAP IS USED AT RESTORATION SITES.. I LOOKED INTO THREE STORM DRAIN INLETS DOWNSTREAM OF THE REAR OF THE BUILDING. I SAW NO EVIDENCE OF SOAP RESIDUES OR BUBBLES IN THE DOWNSTREAM INLETS. THE OUTFALL FOR THE COUNTY STORM DRAIN IS LOCATED ABOUT A CITY BLOCK AWAY IN A LARGE POND LOCATED TO THE EAST ON RT. 3 NORTH. THE OUTFALL IS UNDER WATER AND THE POND IS FROZEN. NO VIOLATION AT THIS ADDRESS.

9/8/2015 Anne Arundel County Department of Inspections and Permits

Environment Section Complaint

Case ID:	E - 2015 - 70	Location:	121 JENNIFER RD
Tax ID:	200000211375		BESTGATE ANNAPOLIS 21401
Received:	3/11/2015	Details:	
Tickler:		Completed:	3/11/2015
	ILLEGAL DISCHARGES COMPLAINT		

Receiver:			Inspector:		
Date Assigned:	3/11/2015		Permit Number:		Original ID:
ADC Map:			Related Cases:		
Water Front:	N		Critical Area:	N	Violation:
Cty. Council Ind:	N		Case Org:		
Complainant:					

Owner Information		Violator Information	
Owner 1:	ANNE ARUNDEL COUNTY	Violator 1:	
Owner 2:		Violator 2:	
Address:	121 JENNIFER RD ANNAPOLIS 21401	Address:	
		Phone:	

State Map:	45	H	14	0074	County Map:				
	Map No:	Suffix	Block	Parcel		Plat	Sect	Block	Lot No

Date	Event	Due Date	Request for Trial Date
3/11/2015	OPENED COMPLAINT CASE	3/16/2015	
	NOTICED A PETROLEUM SHEEN ON WEEMS CREEK AT THE INTERSECTION OF ADMIRAL DR AND JENNIFER RD, ANNAPOLIS.		
3/11/2015	CLOSE COMPLAINT		
	INVESTIGATED THE SHEEN AND DETERMINED THAT THE PETROLEUM DISCHARGE ORIGINATED AT THE WEST ANNAPOLIS FIRE DEPARTMENT LOCATED AT 121 JENNIFER RD, ANNAPOLIS. UPON SPEAKING WITH THE OFFICER ON DUTY, BECAME AWARE THAT THERE HAD BEEN A DISCHARGE OF TRANSMISSION FLUID FROM A BREAK IN A TRANSMISSION LINE FROM ONE OF THE ENGINES. THE DISCHARGE IS TEMPORARY AND WILL NOT BE A REGULAR OCCURRENCE. THIS COMPLAINT IS CLOSED.		

9/8/2015 Anne Arundel County Department of Inspections and Permits

Environment Section Complaint

Case ID:	E - 2014 - 392	Location:	252 SEVERN RD
Tax ID:	325017526350		ELVATON ACRES MILLERSVILLE 21108
Received:	8/5/2014	Details:	
Tickler:		Completed:	8/21/2014
	ILLEGAL DISCHARGES COMPLAINT		

Receiver:		Inspector:		
Date Assigned:	8/5/2014	Permit Number:		Original ID:
ADC Map:		Related Cases:		
Water Front:	N	Critical Area:	N	Violation:
Cty. Council Ind:	N	Case Org:		
Complainant:				

Owner Information		Violator Information	
Owner 1:	ASHLEY DONALD D	Violator 1:	
Owner 2:		Violator 2:	
Address:	252 SEVERN RD MILLERSVILLE 21108	Address:	
		Phone:	

State Map:	Map No:	Suffix	Block	Parcel	County Map:	Plat	Sect	Block	Lot No
	23		02	0628					86

Date	Event	Due Date	Request for Trial Date
8/5/2014	CASE NOTE	8/12/2014	8/5/2014

AUGUST 1ST, 2014 INSPECTOR DID A DRIVE BY AND NO WORK HAD BEEN DONE NOR STARTED. AUGUST 4TH 2014 INSPECTOR HAD DRIVEN BY THE ABOVE STATED ADDRESS AT ABOUT NOON AND NOTICED THAT WORK HAD BEEN DONE. THE ILLICIT DISCHARGE 3" PVC PIPE HAD BEEN CUT BACK ABOUT 25' AND IS NOW SPILLING ONTO THE HOMEOWNER'S PROPERTY. THE PIPE HAS A STEADY DISCHARGE COMING FROM IT AND DOES NOT APPEAR TO BE CAPPED OFF. PHOTOGRAPHS WERE TAKEN OF THE PREMISES AND RECORD MADE OF WHAT WAS SEEN. ON A SIDE NOTE HE HAD ALSO ATTEMPTED TO RE GRADE THE COUNTY DITCH. INSPECTOR DID MAKE THE COUNTY GRADING INSPECTOR AWARE OF THIS.AUG 5TH 2014 INSPECTOR MADE A TELEPHONE CALL TO MR. ASHLEY'S CELL PHONE NUMBER AND RECEIVED HIS VOICEMAIL. CALL WAS MADE AT 9:00 A.M. INSPECTOR DID LEAVE HIS NAME AND NUMBER AND ASKED THAT HE CALL WHEN HE RECEIVES THIS MESSAGE.

8/5/2014	OPENED COMPLAINT CASE	8/12/2014	

WEDNESDAY JULY 30, 2014 1:00 P.M. INSPECTOR ALONG WITH INSPECTOR ARRIVED AT THE RESIDENCE OF ASHLEY DONALD D ASHLEY JESSIE L LOCATED AT 252 SEVERN ROAD IN MILLERSVILLE, MARYLAND TO INVESTIGATE AN ILLICIT DISCHARGE COMPLAINT PER THE REQUEST OF ANNE ARUNDEL COUNTY DPW. UPON OUR ARRIVAL AT THE ABOVE STATED ADDRESS WE NOTICED A 3" PVC PIPE THAT WAS DIRECT BURIED UNDERGROUND IN THE FRONT YARD WHICH APPEARED TO BE COMING FROM THE HOUSE LOCATED ON THE ABOVE ADDRESS. THE 3" PIPE VISIBLY HAD SOAPY WATER DISCHARGING FROM THE PIPE. WE WERE ABLE TO SPEAK WITH THE PROPERTY OWNER MR. ASHLEY AT THE RESIDENCE AND HE ADMITTED THAT HIS WASHING MACHINE AND A SINK ARE IN FACT ATTACHED AND DRAIN IN TO THIS 3" PVC DISCHARGE PIPE WHICH DIRECTLY DISCHARGES INTO THE COUNTY STORM WATER AND DRAINAGE SYSTEM/DITCH. THIS TYPE OF DISCHARGE INTO THE MUNICIPAL STORM DRAIN SYSTEM IS STRICTLY PROHIBITED. SANITARIAN INSPECTOR FROM THE COUNTY HEALTH DEPARTMENT HAS ALSO BEEN OUT TO THE ABOVE STATED ADDRESS AND NOTIFIED MR. ASHLEY THAT THIS ISSUE NEEDS TO BE

FIXED ACCORDING TO COUNTY CODE. THE HEALTH DEPARTMENT IS FOLLOWING UP THERE INSPECTION WITH NOTICE TO CORRECT THIS ISSUE.

8/21/2014 CLOSE COMPLAINT

AS OF AUGUST 15, 2014, MR. ASHLEY IS NO LONGER IN VIOLATION OF AN ILLICIT DISCHARGE. NO FURTHER ACTION REQUIRED.

9/8/2015 Anne Arundel County Department of Inspections and Permits

Environment Section Complaint

Case ID:	E - 2014 - 549	Location:	134 MEADOW RD
Tax ID:	369390048504		RIVIERA BEACH PASADENA 21122
Received:	10/8/2014	Details:	
Tickler:		Completed:	10/27/2014
	ILLEGAL DISCHARGES COMPLAINT		

Receiver:		Inspector:		
Date Assigned:	10/8/2014	Permit Number:		Original ID:
ADC Map:		Related Cases:		
Water Front:	N	Critical Area:	N	Violation:
Cty. Council Ind:	N	Case Org:		
Complainant:				

Owner Information		Violator Information
Owner 1:	WITTIG JOANN C	Violator 1:
Owner 2:		Violator 2:
Address:	134 MEADOW RD PASADENA 21122	Address:
		Phone:

State Map:	Map No:	Suffix	Block	Parcel	County Map:	Plat	Sect	Block	Lot No
	11		16	0180		22			3

Date	Event	Due Date	Request for Trial Date
10/8/2014	OPENED COMPLAINT CASE	10/15/2014	
	PUMPING WATER FROM HOUSE TO OUTSIDE (LOOKS LIKE WASHING MACHINE WATER).		
10/27/2014	CLOSE COMPLAINT		
	INSPECTOR COMPLAINT. INVESTIGATED COMPLAINT. NO SIGN OF ILLICIT DISCHARGE. CLOSE		

9/9/2015 Anne Arundel County Department of Inspections and Permits

Environment Section Complaint

Case ID:	E - 2015 - 322	Location:	1054 DEEP CREEK AVE
Tax ID:	374919905004		SHORE ACRES ARNOLD 21012
Received:	6/24/2015	Details:	
Tickler:		Completed:	6/26/2015
	ILLEGAL DISCHARGES COMPLAINT		

Receiver:		Inspector:		
Date Assigned:	6/24/2015	Permit Number:		Original ID:
ADC Map:		Related Cases:		
Water Front:	N	Critical Area:	N	Violation:
Cty. Council Ind:	N	Case Org:		
Complainant:				

Owner Information		Violator Information	
Owner 1:	G & H GROUP LLC	Violator 1:	
Owner 2:		Violator 2:	
Address:	1054 DEEP CREEK AVE ARNOLD 21012	Address:	
		Phone:	

State Map:	33		22	0037	County Map:				93
	Map No:	Suffix	Block	Parcel		Plat	Sect	Block	Lot No

Date	Event	Due Date	Request for Trial Date
6/24/2015	OPENED COMPLAINT CASE	7/10/2015	
	REPORTED ISSUE WITH SEWAGE OVERFLOW (OR SOME ILLICIT DISCHARGE) RUNNING OUT OF THE DEEP CREEK RESTAURANT INTO DEEP CREEK.		
6/26/2015	CLOSE COMPLAINT		
	RECEIVED A COMPLAINT DESCRIBING SEWAGE BEING DISCHARGED FROM PIPES IN THE BULKHEAD ON DEEP CREEK AT DEEP CREEK RESTAURANT. UPON INVESTIGATION, NO SEWAGE DISCHARGE WAS FOUND. HOWEVER, HIGHER THAN NORMAL LEVELS OF DETERGENT WERE FOUND ON THE WESTERN-MORE SIDE OF THE RESTAURANT AND CORRESPONDING PIPES EXITING THE BULKHEAD. AFTER SPEAKING WITH OWNER OF THE RESTAURANT, MR. HUNDERMAN, I WAS ABLE TO DETERMINE THAT HIS SANITARY STAFF IS DISPOSING OF CLEANING WASTE (MOP BUCKETS) OUTSIDE THE RESTAURANT. HE HAS ASSURED ME THAT HE WILL DISCONTINUE THIS PRACTICE. I WILL FOLLOW UP WITH REGULAR RE-INSPECTIONS.		

9/8/2015 Anne Arundel County Department of Inspections and Permits

Environment Section Complaint

Case ID:	E - 2015 - 231	Location:	433 ELM TWIN CT
Tax ID:	582190060081		TWIN OAKS LINTHICUM 21090
Received:	5/21/2015	Details:	
Tickler:		Completed:	5/22/2015
	ILLEGAL DISCHARGES COMPLAINT		

Receiver:		Inspector:		
Date Assigned:	5/21/2015	Permit Number:		Original ID:
ADC Map:		Related Cases:		
Water Front:	N	Critical Area:	N	Violation:
Cty. Council Ind:	N	Case Org:		
Complainant:				

Owner Information		Violator Information	
Owner 1:	MARTZ JR DONALD	Violator 1:	
Owner 2:	MARTZ DEBORAH A	Violator 2:	
Address:	433 ELM TWIN CT LINTHICUM 21090	Address:	
		Phone:	

State Map:	Map No:	Suffix	Block	Parcel	County Map:	Plat	Sect	Block	Lot No
	04		03	0002		3	2		13

Date	Event	Due Date	Request for Trial Date
5/21/2015	OPENED COMPLAINT CASE	6/26/2015	
	OWNER PARKS HIS VEHICLES OVER STORM DRAIN AND CHANGES THE OIL INTO A BUCKET.		
5/22/2015	CLOSE COMPLAINT		

RECEIVED COMPLAINT ON THURSDAY, 5/21/2015. A RESIDENT WAS COMPLAINING THAT: THE OWNER OF A PICKUP TRUCK WAS PARKING OVER TOP OF A STORM INLET; AND THEN CHANGING THE TRUCK'S OIL INTO A BUCKET WHILE SITTING IT ALL OVER TOP OF THE INLET. IF OIL CHANGES ARE BEING DONE HERE, THIS WOULD PRESENT AN ISSUE BECAUSE ANY OIL THAT DOESN'T MAKE IT INTO THE OIL BUCKET WOULD GO STRAIGHT INTO THE INLET, THUS BECOMING A SOURCE OF ILLICIT DISCHARGE. INSPECTOR ARRIVED ON-SITE ON THURSDAY, 5/21/2015, AT APPROXIMATELY 2:45 PM. INSPECTOR'S INVESTIGATION PRODUCED THE FOLLOWING FINDINGS: 1. THERE IS A TRUCK SITTING NEXT TO A STORM INLET WITH AN OIL BUCKET SITTING UNDERNEATH OF IT. NEITHER ONE IS SITTING "OVER TOP" OF AN INLET AS PREVIOUSLY THOUGHT. 2. THE STORM INLET IN QUESTION HAS NO ROAD GRATE. THE OPENING FOR THE INLET IS A CURB CUT. THUS, AS STATED IN ITEM 1, THE TRUCK AND OIL BUCKET ARE NOT SITTING OVER TOP OF AN INLET AND/OR INLET GRATE. 3. THERE IS NO EVIDENCE OF OIL CHANGES BEING DONE AT THIS LOCATION. NO RUNOFF OBSERVED AT THE TIME SHOWED EVIDENCE OF OIL SHEEN. THERE WAS NO EVIDENCE OF CRACKS IN THE OIL BUCKET, OR OIL LEAKING FROM THE TRUCK. INSPECTOR SPOKE WITH MRS. MARTZ, THE WIFE / CO-HOMEOWNER OF THE OWNER OF THE TRUCK, MR. MARTZ. SHE EXPLAINED TO THE INSPECTOR THAT DURING A PAST OIL CHANGE DONE TO THE TRUCK, TOO MUCH OIL WAS ADDED TO IT. THIS CAUSED THE OIL TO OVERFLOW AND LEAK DOWN INTO THE STORM INLET. A NEIGHBOR COMPLAINED, AND THEY PLACED THE OIL BUCKET UNDERNEATH IT TO PREVENT THE LEAK FROM GETTING INTO THE STORM INLET. MRS. MARTZ EXPLAINED TO THE INSPECTOR THAT HER HUSBAND DOES NOW DO HIS OWN OIL CHANGES TO PREVENT THIS PROBLEM IN THE FUTURE. HOWEVER, SHE CLAIMS HE DRIVES TO A NEARBY PARKING LOT, WHERE HE PERFORMS THE OIL CHANGE. WHILE THERE, HE DRAINS THE OLD OIL INTO THE OIL BUCKET. WHEN HE RETURNS HOME, HE DISPOSES THE OIL FROM THE OIL BUCKET

INTO A 5-GALLON DRUM, AND PLACES THE OIL BUCKET BACK UNDERNEATH THE TRUCK TO CATCH ANY POTENTIAL ONGOING LEAKS. WHEN THE 5-GALLON DRUM REACHES CAPACITY, HE TAKES IT TO A PROPER DISPOSAL FACILITY AND GETS A NEW ONE. AT THIS TIME, INSPECTOR HAS CONCLUDED THAT THERE IS NO EVIDENCE OF ANY ILLICIT ACTIVITY, OR ANY POTENTIAL ILLICIT DISCHARGES AT THIS LOCATION. COMPLAINT CASE MAY BE CLOSED AT THIS TIME.

9/8/2015 Anne Arundel County Department of Inspections and Permits

Environment Section Complaint

Case ID:	E - 2015 - 230	Location:	3601 LAUREL FT MEADE RD LAUREL LAUREL 20724
Tax ID:	400001778002		
Received:	5/20/2015	Details:	
Tickler:	ILLEGAL DISCHARGES COMPLAINT	Completed:	7/30/2015

Receiver:			Inspector:		
Date Assigned:	5/20/2015		Permit Number:		Original ID:
ADC Map:			Related Cases:		
Water Front:	N		Critical Area:	N	Violation:
Cty. Council Ind:	N		Case Org:		
Complainant:					

Owner Information		Violator Information	
Owner 1:	PMIG 1001 LLC	Violator 1:	
Owner 2:		Violator 2:	
Address:	3601 LAUREL FT MEADE RD LAUREL 20724	Address:	
		Phone:	

State Map:	Map No:	Suffix	Block	Parcel	County Map:	Plat	Sect	Block	Lot No
	19		17	0201					

Date	Event	Due Date	Request for Trial Date
5/20/2015	OPENED COMPLAINT CASE	6/25/2015	
	CAR WASH AREA NOT USING PROPER DRAINAGE. DRAINS ARE JAMMED UP AND IT FILLS UP LIKE A POND. THEY END UP PUMPING IT ON TO GRASS AREA OF DELTA BINGO.		
6/24/2015	CASE NOTE	7/31/2015	6/24/2015
	UNABLE TO CONTACT THE OWNER OF THE GULF GAS STATION/CAR WASH. HAVE INSTRUCTED THE WORKERS TO NO LONGER PUMP WATER ON TO THE GRASS AREA OF DELTA BINGO. INSTRUCTIONS TO CLEAN OUT THE JAMMED PARKING LOT DRAINS WILL BE GIVEN TO THE PROPERTY OWNER ONCE CONTACT IS MADE.		
7/30/2015	CLOSE COMPLAINT		
	THE CAR WASH HAS BEEN DIRECTED TO NO LONGER PUMP WATER FROM THEIR PARKING LOT ON TO THE GRASS AREA OF DELTA BINGO.		