

Arlington County Dry Weather Screening Program Plan MS4 Permit VA0088579 (2021-2026 Permit Cycle)



Adapted from the Arlington County Dry Weather Screening Program: Site Selection and Screening (2015 revision) prepared by Versar, Inc.



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Introduction and Purpose

Arlington County's 2021-2016 Municipal Separate Storm Sewer System (MS4) permit (VA0088579) requires the County to continue to implement its pollution prevention programs to identify illicit connections and unauthorized non-stormwater discharges to the MS4. The County will continue its dry weather monitoring program to screen selected outfalls as well as points of connection to the County's MS4 at selected facilities. Concurrent implementation of the County's Industrial and High-Risk Runoff (IHRR) facilities inspection program will complement these efforts.

The purpose of this updated plan is to provide information on screening locations (outfalls and facilities) and outline the methodologies that will be implemented during the 2021-2016 permit cycle to comply with section 1.B.12.a of the County's MS4 permit.

This plan builds on the assessments conducted and information collected for the County's previous plan, Arlington County Dry Weather Screening Program: Site Selection and Screening Plan prepared by Versar, Inc. for implementation during Arlington County's previous MS4 permit cycle, 2013-2018 plus the administrative continuance period (July 2018- June 2021). In addition to screening stormwater outfalls, comprehensive inspections of outdoor areas and points of connection to the County's MS4 at facilities that have been determined to have the potential to contribute significant sources of pollutants will be conducted as part of this plan.

This updated dry weather screening plan contains the following:

- Information on stormwater outfall selection and locations
- Information on comprehensive facility inspections
- Screening parameters
- Field protocols
- Data management
- Notification and follow-up procedures
- Health and safety guidelines
- References

Background

Dry Weather Outfall Screening

Dry weather screening involves monitoring both physical and chemical characteristics of dry weather flows. Physical indicators of a potential unauthorized non-stormwater or illicit discharge can be evident even when flow is not present; such indicators include deposits or stains, unusual colors or odors in plunge pools, deposits of material in receiving channels, and excessive algal growth in pipes. Indicators in flowing water include odor, color, turbidity, and the presence of oil (sheen), foam, suds, or sewage (Brown *et al.* 2004). If flowing water is present at an outfall or a point of connection to the MS4 during dry weather, the flowing water is assessed in the field. Water quality testing for specific parameters and visual observation / detection of characteristics associated with possible pollutants provides on-the-spot information to help distinguish between improper or illicit discharges and other possible sources of dry weather flow, such as groundwater or other authorized non-stormwater discharges listed in the County's MS4 permit, Section 1.A.1.b.3.

It is important to note that many of Arlington's streams have been diverted, buried, and/or piped as the County has been developed over the last past 75 years. The existing underground stormwater system network is extensive, consisting of miles of public and private pipes and storm structures. It is not

uncommon to observe flow during dry weather from outfalls that drain large areas as a result of diverted / piped stream flow and groundwater infiltration. Authorized non-stormwater inputs (such discharges from sump pumps, irrigation systems, uncontaminated pumped groundwater, water line flushing, dechlorinated swimming pool discharges, air conditioning condensate, and other discharges authorized under section 1.A.1.b.3 in the County's MS4 permit) also contribute flow in the system and discharges from outfalls.

Dry Weather Facility Inspections

The County has conducted annual inspections of outdoor areas at commercial and industrial facilities for several years as part of its IHRR or "hot spot" inspection program required by the MS4 permit. This program is done in addition and complementary to facility inspections conducted by other County departments and offices such as the Fire Marshal's Office, Health Department, Code Enforcement, and Solid Waste Bureau. Staff from these offices are able to assist each other to communicate and resolve issues that may be identified during routine inspections of outside areas or reported by the public.

Conducting inspections of outdoor areas at facilities and checking points of connection to the MS4, can help identify housekeeping issues or potential sources of unauthorized non-stormwater discharges.

MS4 Permit Requirements

Per Arlington County's MS4 Permit section 1.B.12.a Water Quality Screening Programs:

*a) **Dry Weather Screening and Source Identification:** The permittee shall continue its pollution prevention-based efforts to detect the presence of illicit connections and unauthorized discharges to the MS4. The permittee shall implement the following dry weather field screening protocols to detect, identify, and eliminate illicit discharges to the MS4.*

*1) **Identifying Dry Weather Flows and Sources:** The permittee shall continue to implement a program of dry weather screening in areas of concern following a prioritized schedule of field screening activities and rationale for prioritization determined by the permittee based on such criteria as age of the infrastructure, land use, historical illegal discharges, dumping or cross connections, knowledge of prior problems, and priority areas:*

(a) Annual screening of a minimum of ten (10) outfalls that drain the Shirlington commercial district and the South Four Mile Run Drive industrial area. Screening methodology may be modified based on experience gained during actual field screening activities and need not conform to the protocol at 40 CFR Part 122.26(d)(1)(iv)(D). Where the sample analysis does not include analytical methods approved under 40 CFR Part 136, the permittee may use any suitable method but shall provide a description of the method used. The permittee shall review and update the "Arlington County Dry Weather Screening program: Site Selection and Screening Plan" within 12 months of the permit effective date.

(b) The permittee shall continue to implement its pollution prevention program. On an annual basis, the permittee will visually inspect points of connection to the MS4 for dry weather flow or evidence of illicit discharges at a minimum of thirty-five (35) facilities determined to be potentially contributing significant sources of pollutants. Key facility areas including material storage locations, dumpsters and surrounding areas, and

housekeeping operations at the facility shall be evaluated as part of a comprehensive facility inspection. Any observed dry weather flows will be evaluated. If evidence of an illicit discharge is detected, the permittee shall conduct further investigation and document the steps taken to eliminate any unauthorized non-stormwater discharges.

2) *Dry weather screening procedures shall be documented in the MS4 program plan.*

Site Selections

Selected Outfall Screening Locations

The County's MS4 permit requires screening a minimum of ten (10) stormwater outfalls that drain the Shirlington commercial district and the South Four Mile Run Drive commercial / industrial area. All of the outfalls in this area drain to Four Mile Run, which is listed as an impaired surface water in the Virginia Department of Environmental Quality 2020 305(b)/303(d) Water Quality Assessment Integrated Report. The report lists use impairments for aquatic life, recreation, and fish consumption associated with *Escherichia coli* (*E. coli*) bacteria, chlordane in fish tissue, PCBs in fish tissue, and benthic macroinvertebrate bioassessment.

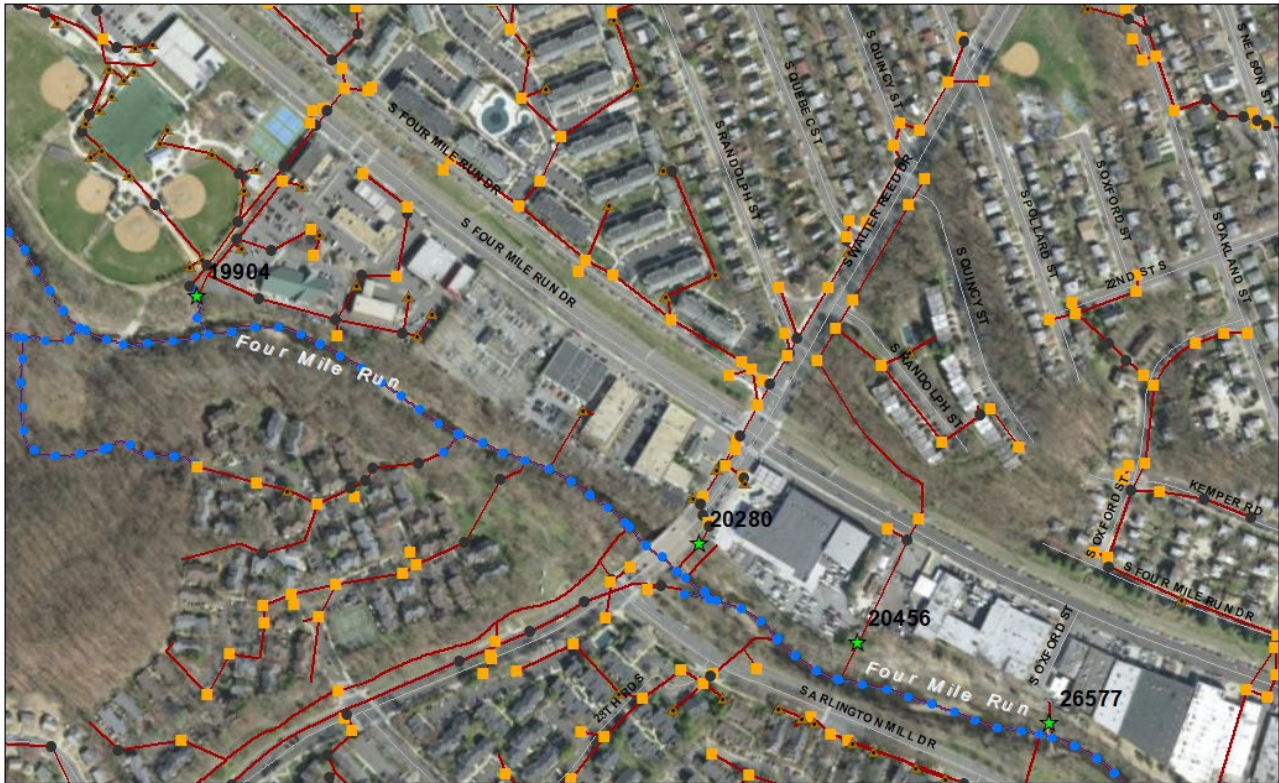
The land use in this area is comprised of high density commercial and residential areas as well as some light industrial areas. The Shirlington commercial district includes numerous restaurants and stores, a dry-cleaning establishment, a car rental, a grocery store, hotel, and other service establishments. The South Four Mile Run Drive industrial area extends along the north bank of Four Mile Run and includes automotive service businesses, municipal facilities, gas stations, a catering business, self-storage, brewery, pet grooming establishment, and several other businesses.

The County reevaluated targeted outfalls in this area that were identified and screened in its previous dry weather screening plan. Based on past screening data and potential for dry weather flow at these locations, the following outfalls will be screened on an annual basis during the 2021-2026 permit cycle.

Outfall ID	Location	Outfall Type	Land Use in Drainage Area
19904	Between Barcroft Park and a branch office of the Virginia Department of Motor Vehicles	36-inch circular RCP	Commercial
20280	Southwest of AAAA Self Storage, 2305 South Walter Reed Drive	48-inch circular RCP	Commercial, High Density Residential
20456	Near the west edge of Shirlington Dog Park	18-inch circular CMP	Light Industrial, Commercial, High Density Residential
26577	South Four Mile Run Drive at South Oxford Street, south of Shirlington Dog Park	15-inch circular RCP	Light Industrial, Commercial
20794	Northeast of the intersection of South Arlington Mill Drive and South Taylor Street	30-inch circular RCP	Light Industrial
20619	Near Shirlington Dog Park	54-inch circular RCP	Light Industrial, Commercial, High Density Residential
20992	Northeast of South Arlington Mill Drive; approximately 460 feet southeast of South Taylor Street	48-inch circular RCP	Light Industrial, Commercial, High Density Residential
25986	Near the entrance to Shirlington Dog Park	15-inch circular RCP	Commercial
21120	Near the intersection of South Arlington Mill Drive and Campbell Drive	42-inch circular RCP	Commercial, High Density Residential
21131	North of the intersection of South Arlington Mill Drive and South Randolph Street	30-inch circular RCP	Commercial, High Density Residential
21139	South side of South Arlington Mill Drive, between South Quincy Street and South Randolph Street	27-inch circular RCP	Commercial
21045	Northwest of intersection of South Arlington Mill Drive and South Quincy Street	84-inch circular RCP	Commercial, High Density Residential
20981	Near the intersection of South Arlington Mill Drive and Shirlington Road	27-inch circular RCP	Commercial, High Density Residential

RCP = reinforced concrete pipe

Dry Weather Screening Outfalls



Legend

- ★ Outfalls
- ▲ Grate Inlet
- Stom Mains
- Catch Basin
- Manhole
- Street Network
- Streams



Dry Weather Screening Outfalls



Legend

- ★ Outfalls
- ▲ Grate Inlet
- Storm Mains
- Catch Basin
- Manhole
- Street Network
- Streams

The County may choose to change or screen other outfalls in this area at its discretion. Any changes will be documented in the MS4 annual report.

Facilities Inspection Selection

The County will also conduct comprehensive visual inspections of outdoor areas and points of connection to the County's MS4 at thirty-five (35) facilities on an annual basis. Sites will be selected from the list of Industrial High Risk Runoff (IHRR) or hot spot facilities the County developed and maintained during the previous permit cycle. These facilities have the potential for contributing significant pollutant discharges based on the types of operations that occur and outdoor storage at these facilities. Commercial facilities where issues or complaints were previously identified or reported are also included on the list. Targeted facility types include commercial operations such as major automotive facilities such as repair and body shops, auto detailing businesses, service /gas stations, and establishments such as grocery stores, warehouses, restaurants, pet grooming/ boarding service businesses, and shopping strips.

Field Protocol for Dry Weather Outfall Screening

This section details the field protocols to be followed during implementation of dry weather outfall screening.

Dry weather screening at each outfall includes assessing and inspecting the physical characteristics of the outfall, inspecting the outfall and plunge pool or immediate downstream area for physical evidence of an illicit discharge or pollution release, performing various chemistry tests on the discharge (if present), and investigating any likely illicit discharge. Field staff will document the following screening assessment information at each site.

- screening date, location description, staff names, and other background data
- outfall ID, physical characteristics, flow description (if applicable)
- descriptions of any excessive algae or abnormal vegetation, damage and structural problems, stains, and plunge pool condition (if applicable)
- physical (non-chemical) characterization of flow (e.g., odor, color, turbidity, sheens, and floating materials) if present
- on-site chemistry test results of analytes selected for their abilities to aid in detecting various kinds of discharges

If flow is present during the screening event, the following water quality parameters will be measured to assess water quality and determine if pollutants are present.

- Total Chlorine
- Fluoride
- Ammonia
- Nitrate and Nitrite
- Total Phosphorus
- Detergents
- pH

Additional parameters such as bacteria may be included in the monitoring protocol at the County's discretion.

The results of chemistry tests conducted in the field are compared to the program criteria shown in the table below. Program criteria are based on guidance from the Center for Watershed Protection's "Illicit Discharge Detection and Elimination: A Guidance Manual for Program Development and Technical Assessments". Results that exceed relevant criteria as indicators are used to determine whether the flow coming from the outfall represents a possible illicit discharge. Readings below the thresholds may suggest

low levels of input from polluting sources. If results indicate no contamination, or levels below detection limits, the discharge is considered to be baseflow or groundwater flowing through the stormwater system. The test results will facilitate identifying the possible source of a suspected improper discharge or illicit connection.

Dry weather screening parameters and action criteria				
Analyte	Potential Discharge / Pollutant	Testing Equipment	Recommended Follow-up Action Criterion	Instrument Range
total chlorine ^(a)	potable water sewage swimming pool wash water	photometer	≥ 0.4 mg/l	0 to 5 mg/l
fluoride ^(b)	potable water groundwater	single analyte meter	≥ 0.25 mg/l	0 to 10 mg/l
ammonia	sewage wash water	photometer	≥ 1 mg/l	0.2 to 30 mg/l
surfactants (detergents)	sewage wash water	single analyte meter	≥ 0.25 mg/l	0.15 to 1 mg/l
pH	wash water concrete acids / solvents	sonde	≤ 5 or >8	0 to 14
nitrate	fertilizer animal waste	photometer	N/A	0.2 to 1.5 mg/l
nitrite	fertilizer	photometer	N/A	0.08 to 0.80 mg/l
total phosphorus	wash water fertilizer	photometer	N/A	0-2.30 mg/l

^(a) Exceedance criteria are based on the test range of the field kit.

^(b) Fluoride may also emanate from natural, or non-illicit, sources.

mg/L = milligrams per liter. N/A = not applicable

Brown, et al. 2004

Follow-up investigations of a drainage area will be conducted if an illicit discharge is suspected or confirmed at an outfall. An illicit discharge is suspected if on-site chemistry test results indicate an above-action-criterion concentration or when site characteristics or physical indicators show evidence of a past or episodic illicit discharge. During follow-up investigations, staff look for observations or evidence of permitted and unpermitted dry weather discharges to the stormwater system from facilities or activities occurring in the drainage area. Information is documented and appropriate follow-up action is taken if necessary. Examples of dry weather discharges include washing activities, draining tanks, dewatering, dumping of liquid waste / materials, sump pump discharges, leaks from water lines, leaks tanks or containers, and irrigation runoff.

Field forms will be used to document outfall location, date of screening, names of staff, site conditions, indicators of dry weather flow, indicators of illicit discharges, presence of flow, and sampling results if applicable. Types of trash (“floatables”) around the outfall will also be noted. A copy of sample field form can be found in Appendix A. Field forms may be modified as needed.

Field Protocol for Dry Weather Facility Screening

Dry weather inspections will be conducted on an annual basis at thirty-five (35) facilities determined to have the potential to contribute significant sources of pollutants to the MS4 and surface waters. The facilities to be inspected will be selected from the County's list of identified Industrial High Risk Runoff (IHRR) facilities. This list is updated each year. Facilities may be added or removed from the list as conditions at establishments change or establishments close.

Visual inspections of outside areas will be conducted to assess site conditions and identify potential sources of non-stormwater discharges. Inspections will focus on key areas including outdoor areas where materials, containers, and/or equipment are stored, waste and recycling management areas, loading docks, fueling areas and back of house areas. Housekeeping operations at each facility and focus areas will be assessed. Evidence of outside housekeeping issues or unauthorized non-stormwater discharges will be documented. Issues of concern include damaged or leaking containers or tanks, staining on the ground, trash, debris on the ground around waste receptacles, overflowing waste receptacles, leaking equipment or vehicles, inadequate cover or secondary containment, and/or exposed materials.

Points of connections to the County's storm drain system or surface waters, such as onsite storm drain infrastructure or connections to the County's MS4 in the right of way will be visually inspected for presence or evidence of dry weather flow or illicit discharges. Storm drains will be checked for any evidence of illicit connections to the structure. Any dry weather flows will be evaluated to determine whether the flow is authorized and/or a source of pollutants. The flow will be visually assessed for any indicators of pollutants such as cloudy or discolored water, foam, suds, sheen, grease, odor, algae, and/or trash. If enough water is present, chemical testing will be conducted using test strips and/or other sampling equipment. Water quality parameters to be tested include total chlorine, ammonia, total phosphorus, nitrate/nitrite, and pH. Other testing may be conducted at the discretion of the County.

A field form will be used to document outdoor site conditions at each inspected facility as well as any observations and/or sampling conducted if flow is observed at a point of connection to the MS4. Site conditions will also be photo documented. A sample copy of the field form for facility inspections can be found in Appendix B. The inspection form may be modified as needed.

The County will follow-up with appropriate facility representatives to address any issues identified during the facility inspection.

Monitoring Frequency and Timing

Outfall screening and facility inspections will be conducted on an annual basis (July 1 – June 30). Screenings and inspections will be conducted following a 72-hour period with no measurable precipitation.

Notification / Follow-Up Procedures for Contracted Staff

If a hazardous material spill or other significant illicit discharge is suspected or detected while in the field, contracted staff will call the County's Non-Emergency service (703-558-2222) or 911. Designated staff with Arlington County's Department of Environmental Services, Office of Sustainability and Environmental Management (OSEM) will be notified by contracted field personnel if there is evidence of an illicit discharge or substantial pollution release during monitoring activities. A description of the location of the outfall or facility, description / type of pollution being observed, any chemical results, and date and time of screening will be conveyed to DES OSEM by phone and e-mail.

Health and Safety Protocols

Ensuring the health and safety of field personnel is the responsibility of every member of the staff for the project. The collective effort of all staff members in providing a healthy and safe work environment will minimize or eliminate the potential for accidents. In general, the following safety protocol will be followed to protect the field staff:

1. Bring and wear appropriate personal protective equipment (safety vests, eye protection, steel-toed shoes).
2. Perform field work in teams of two whenever possible.
3. Bring a cell phone and first aid kit on all field site visits.
4. Exercise caution when encountering any wildlife, off-leash pets, and hazardous plants.
5. Many outfalls are in remote areas that may be near gathering places for homeless or transient individuals. Do not enter a potentially hostile area. Exercise caution when accessing manholes and outfall areas and when encountering uneven or slippery terrain (rip rap), steep slopes, and possible sharp objects such as broken glass, gabion baskets, metal, fencing, needles, or any debris with sharp or pointed edges or corners.
6. Schedule screening when the forecast does not include the potential for severe weather or environmental conditions (thunderstorms, windy conditions, extreme heat, extreme cold, poor air quality).
7. Storm sewers contain a variety of water-borne bacteria and other harmful chemicals. Wash hands or use anti-bacterial wipes or hand gels liberally, especially prior to lunch breaks, etc.
8. Any work in confined spaces will be performed by technicians who are appropriately trained and certified for such work.

Evaluation of Monitoring Data

These dry weather screening data provide a snapshot of conditions at a number of locations in the County. The information obtained from outfall monitoring and facility inspections can be used to help identify potential sources of unauthorized non-stormwater discharges and refine outreach messaging and recommendations for applicable BMPs or improved housekeeping at screened facilities.

Annual Monitoring Reports

Outfall Screening at Shirlington Commercial District and South Four Mile Run Drive Industrial Area

An annual monitoring report will be developed that includes information on each of the stormwater outfalls screened in the Shirlington commercial district and South Four Mile Run Drive industrial area. The following information will be provided in the report: outfall location, weather conditions, whether flow is present or not, sampling results if applicable, observations of site conditions, summaries of any follow-up investigations, photographs of outfalls, field forms, and any additional photos taken during screening events.

IHRR Facilities (Hot Spot) Inspections

An annual report will be prepared that includes a list of the thirty-five facilities that were inspected, and summary of the conditions observed. A summary of any follow-up activities taken as a result of inspection findings will be included in the report.

MS4 Permit Reporting

Per the permit, the following information will be provided in Arlington County's MS4 Annual Report submitted to VA DEQ.

- *An updated summary of the procedures and annual schedule for conducting dry weather screening for the selected outfalls.*
- *The total number of outfalls included as part of the permittee's MS4, the number of outfalls screened during the reporting period as part of the dry weather screening program, a list of locations upon which dry weather screening was conducted, the results and any follow-up actions including a summary of each investigation conducted by the operator of any suspected illicit discharge. The summary will include (i) the date that the suspected discharge was observed; (ii) how the investigation was resolved, including any follow up, and (iii) resolution of the investigation and the date the investigation was closed.*
- *A summary of the facilities inspection program that occurred during the annual reporting period. Each facility report shall include the name and the location of the facility; visual inspections including points of connection to the MS4 for dry weather flows that document evidence of staining or illicit discharges and any other findings determined to be potentially contributing significant sources of pollutants to the MS4; the results of any observed dry weather flows investigations; and steps taken to eliminate any unauthorized non-stormwater-discharges.*

References

Brown, E., D. Caraco, and R. Pitt. 2004. Illicit Discharge Detection and Elimination: A Guidance Manual for Program Development and Technical Assessments. Center for Watershed Protection, Ellicott City, MD. October.

Pitt, R., M. Lalor, R. Field, D. Adrian, and D. Barbé. 1993. A User's Guide for the Assessment of Non-Stormwater Dischargers into Separate Storm Drainage Systems. EPA/600-R-92-238. Risk Reduction Engineering Laboratory, U.S.EPA. Cincinnati, OH.

Versar, Inc. 2014. Arlington County Dry Weather Screening Program: Site Selection and Screening Plan. Columbia, MD.

Virginia State Water Control Board. 2011. 9VAC25-260 Virginia Water Quality Standards, With Amendments Effective January 6, 2011. Virginia Department of Environmental Quality, Richmond, VA. January.

Appendix A – Sample Field Form for Dry Weather Outfall Screening

SECTION 1: BACKGROUND DATA

Watershed: _____	Outfall ID: _____
Date (MM/DD/YY): ____/____/20____	Time (Military): ____:____
Investigators: _____	Form completed by: _____
Rainfall: Last 24 hours: <input type="checkbox"/> < 0.1 inches <input type="checkbox"/> > 0.1 inches Last 72 hours: <input type="checkbox"/> < 0.1 inches <input type="checkbox"/> > 0.1 inches	
Latitude (dd.dddd): ____° ____' ____" N	Longitude (dd.dddd): ____° ____' ____" W
GPS Unit: _____	
Camera: _____	Photo #s: _____
Notes/Comments (e.g., origin of outfall, if known): _____	

SECTION 2: OUTFALL DESCRIPTION

Location	Material	Shape	Dimensions (In.)
<input type="checkbox"/> Closed Pipe	<input type="checkbox"/> RCP <input type="checkbox"/> CMP <input type="checkbox"/> PVC <input type="checkbox"/> HDPE <input type="checkbox"/> Steel <input type="checkbox"/> Terra-cotta <input type="checkbox"/> Other: _____	<input type="checkbox"/> Circular <input type="checkbox"/> Box <input type="checkbox"/> Elliptical <input type="checkbox"/> Arch <input type="checkbox"/> Other: _____	<input type="checkbox"/> Single <input type="checkbox"/> Double <input type="checkbox"/> Triple <input type="checkbox"/> Other: _____ Dimensions: Height: _____ Width: _____
<input type="checkbox"/> Open Drainage	<input type="checkbox"/> Concrete <input type="checkbox"/> Rip-Rap <input type="checkbox"/> Earthen <input type="checkbox"/> Other: _____	<input type="checkbox"/> Trapezoid <input type="checkbox"/> Parabolic <input type="checkbox"/> Other: _____	Depth: _____ Top Width: _____ Bottom Width: _____
Outfall Elevation:	Suspended Height (ft): _____ / Submerged Depth: In Water (ft): _____ In Sediment (ft): _____		
Outfall Cover:	<input type="checkbox"/> Steel Grate <input type="checkbox"/> Cage <input type="checkbox"/> None <input type="checkbox"/> Other: _____		
Outfall Protection:	<input type="checkbox"/> Rip-Rap <input type="checkbox"/> Gabion Basket <input type="checkbox"/> Concrete <input type="checkbox"/> None <input type="checkbox"/> Other: _____		
Outlet Erosion:	<input type="checkbox"/> None <input type="checkbox"/> Minimal Erosion <input type="checkbox"/> Moderate Erosion <input type="checkbox"/> Heavy Erosion <input type="checkbox"/> Silted		
Erosion Source:	_____		
Headwall Condition:	<input type="checkbox"/> No Headwall <input type="checkbox"/> Good <input type="checkbox"/> Fair <input type="checkbox"/> Poor		
Flow Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Intermittent <input type="checkbox"/> Stagnant If No, Skip to Section 5		
Flow Depth (In.):	_____		

SECTION 3: QUANTITATIVE CHARACTERIZATION

FIELD DATA FOR FLOWING OUTFALLS					
PARAMETER	RESULT	UNITS	PARAMETER	RESULT	UNITS
Chlorine	__ . __	mg/L	Nitrate	__ . __	mg/L
Fluoride	__ . __	mg/L	Nitrite	__ . __	mg/L
Ammonia	__ . __	mg/L	Phosphorus	__ . __	mg/L
Detergents	__ . __	mg/L	pH	__ . __	pH Units

Outfall ID:

Today's date:

SECTION 4: PHYSICAL INDICATORS FOR FLOWING OUTFALLS ONLY

INDICATOR	CHECK if Present	DESCRIPTION
Odor	<input type="checkbox"/>	<input type="checkbox"/> Sewage <input type="checkbox"/> Rancid/sour <input type="checkbox"/> Petroleum/gas <input type="checkbox"/> Sulfide <input type="checkbox"/> Chemical <input type="checkbox"/> Other: <input type="text"/>
	<i>Relative Severity</i>	<input type="checkbox"/> 1 – Faint <input type="checkbox"/> 2 – Easily detected <input type="checkbox"/> 3 – Noticeable from a distance
Color	<input type="checkbox"/>	<input type="checkbox"/> Clear <input type="checkbox"/> Brown <input type="checkbox"/> Gray <input type="checkbox"/> Yellow <input type="checkbox"/> Green <input type="checkbox"/> Orange <input type="checkbox"/> Red <input type="checkbox"/> Other: <input type="text"/>
	<i>Relative Severity</i>	<input type="checkbox"/> 1 – Faint colors in sample bottle visible in outfall flow <input type="checkbox"/> 2 – Clearly visible in sample bottle <input type="checkbox"/> 3 – Clearly
Turbidity	<input type="checkbox"/>	See severity
	<i>Relative Severity</i>	<input type="checkbox"/> 1 – Slight cloudiness <input type="checkbox"/> 2 – Cloudy <input type="checkbox"/> 3 – Opaque
Floatables	<input type="checkbox"/>	<input type="checkbox"/> Sewage (Toilet Paper, etc.) <input type="checkbox"/> Suds <input type="checkbox"/> Petroleum (oil sheen) <input type="checkbox"/> Other: <input type="text"/>
	<i>Relative Severity</i>	<input type="checkbox"/> 1 – Few/slight <input type="checkbox"/> 2 – Some <input type="checkbox"/> 3 – Widespread

SECTION 5: PHYSICAL INDICATORS FOR BOTH FLOWING AND NON-FLOWING OUTFALLS

INDICATOR	CHECK if Present	DESCRIPTION COMMENTS
Outfall Damage	<input type="checkbox"/>	<input type="checkbox"/> Spalling, Cracking or Chipping <input type="checkbox"/> Peeling Paint <input type="checkbox"/> Corrosion
	Comments	<input type="text"/>
Deposits/Stains	<input type="checkbox"/>	<input type="checkbox"/> Oily <input type="checkbox"/> Flow Line <input type="checkbox"/> Paint <input type="checkbox"/> Other: <input type="text"/>
	Comments	<input type="text"/>
Abnormal Vegetation	<input type="checkbox"/>	<input type="checkbox"/> Excessive <input type="checkbox"/> Partially Inhibited <input type="checkbox"/> Totally Inhibited
	Comments	<input type="text"/>
Poor pool quality	<input type="checkbox"/>	<input type="checkbox"/> Odors <input type="checkbox"/> Colors <input type="checkbox"/> Floatables <input type="checkbox"/> Oil Sheen <input type="checkbox"/> Suds <input type="checkbox"/> Excessive <input type="checkbox"/> Algae <input type="checkbox"/> Other: <input type="text"/>
	Comments	<input type="text"/>
Pipe algae growth	<input type="checkbox"/>	<input type="checkbox"/> Brown <input type="checkbox"/> Orange <input type="checkbox"/> Green <input type="checkbox"/> Other: <input type="text"/>
	Comments	<input type="text"/>
Trash	<input type="checkbox"/>	<input type="checkbox"/> Aluminum <input type="checkbox"/> Glass bottles <input type="checkbox"/> Plastic bottles <input type="checkbox"/> Paper <input type="checkbox"/> Styrofoam <input type="checkbox"/> Other: <input type="text"/>
	Comments	<input type="text"/>

SECTION 6: OVERALL OUTFALL CHARACTERIZATION OF ILLICIT DISCHARGE POTENTIAL

<input type="checkbox"/> Unlikely	<input type="checkbox"/> Suspect (≥1 Section 4 indicator with a severity of 3)
<input type="checkbox"/> Potential (presence of ≥2 Section 5 indicators)	<input type="checkbox"/> Obvious (≥1 WQ indicator)

Form adapted from Brown, et al. 2004)

Appendix B – Field Form for Dry Weather Screening Facility Inspections



Arlington County Department of Environmental Services
Dry Weather Screening Facility Inspection / IHRR Assessment

Inspection Date:		Weather:		Last Rainfall:	
<input type="checkbox"/> Commercial / Industrial Facility (non-permitted)					
Inspector(s):					
Facility Name					
Facility Address					
Type of Operation					



CONNECTION(S) TO MS4	YES	NO	Description / Notes
Is there a storm drain / direct structural connection to County MS4 on the site?			Structure Type: Structure GIS ID:
Flow present in structure?			Description if flow is present: <input type="checkbox"/> Clear <input type="checkbox"/> Cloudy / Discolored Color: <input type="checkbox"/> Foam / Suds <input type="checkbox"/> Sheen <input type="checkbox"/> Odor <input type="checkbox"/> Algae <input type="checkbox"/> Other:
			Parameters tested if flow is present / reading <input type="checkbox"/> Total Chlorine _____ ppm <input type="checkbox"/> Ammonia _____ ppm <input type="checkbox"/> Total Phosphorus _____ ppm <input type="checkbox"/> Nitrate / Nitrite _____ ppm <input type="checkbox"/> pH _____
Connection to MS4 clean / free of debris?			Types of trash observed:
Does surface runoff drain to County ROW / MS4?			
Evidence of illicit discharge at site?			



Arlington County Department of Environmental Services
Dry Weather Screening Facility Inspection / IHRR Assessment



OUTDOOR / STORAGE AREAS	YES	NO	Description / Issue(s)
Chemicals or materials stored outside (drums, containers, stockpiles)			
Exposed equipment?			
Leaking vehicles equipment?			
Trash / Debris?			
Staining?			
Fueling Area?			
Other?			

WASTE MANAGEMENT	YES	NO	Description / Issue(s)
Dumpsters / compactors / trash cans outside?			
Lid(s) / Door(s) closed?			
Drain plug(s) in place?			
Evidence of leaks?			
Debris on ground around container(s)?			
Overflowing?			
Receptacle(s) close to storm drain?			
Used grease storage container(s) outside?			
Lid(s) closed?			
Evidence of leaks?			
Debris on container or on ground around container?			
Overflowing?			

Notes / General recommendations / Corrective Action(s):

Follow-up Required?	
IDITS Entry?	