City of Portsmouth MS4 Program Industrial and High Risk Runoff Facilities

PREPARED FOR:	City of Portsmouth
PREPARED BY:	Celeste Ostman/CH2M
COPY TO:	James Wright/City of Portsmouth
DATE:	June 21, 2017

This Technical Memorandum (TM) is a guide on how to meet the industrial and high risk runoff requirements in Part I Section B.2.g of the City of Portsmouth's (City's) Municipal Separate Storm Sewer System (MS4) permit. The MS4 permit states that the City shall implement a program to identify and control pollutants in stormwater discharges to the MS4 from industrial and high risk runoff facilities and any other industrial or commercial discharges the City determines are contributing a significant pollutant loading to the MS4. The permit requires the City to maintain, and update as necessary, a list of all known industrial and high-risk dischargers to the MS4, and to develop and implement a prioritized schedule and procedure to inspect outfalls of these facilities at the point of connection to the MS4 at least once every 5 years. This TM describes the categories of facilities that will need to be inspected, the prioritized schedule of inspections, the inspection procedures, and the Discharge Monitoring Report (DMR) review for the other stormwater permit holders that discharge to the City's MS4.

1.0 Virginia Pollutant Discharge Elimination System Permit Holders

The permit specifically states that the list of industrial and high risk dischargers shall include Virginia Pollutant Discharge Elimination System (VPDES) industrial stormwater permit holders. The City will implement a prioritized schedule to inspect outfalls of facilities with VPDES industrial stormwater permits at the point of connection to the MS4. The City will need to inspect all VPDES industrial stormwater permitted outfalls connected to its MS4, a minimum of once every 5 years.

1.1 Industrial Stormwater Permit holders

There are both individual permit holders and general stormwater industrial permit holders that discharge to the City's MS4. General permits are permits written for a general class of dischargers. Individual permits are permits for facilities not qualified for a general permit and for which permit requirements, special conditions, effluent limitations, and monitoring requirements are determined for each facility on a site-specific basis in order to meet applicable water quality standards. The number of industrial stormwater permit holders located in the City and connected to the City's MS4 is provided in Table 1. A list of all the industrial stormwater permit holders is provided in Attachment 1. The facilities that are highlighted in Attachment 1 discharge to the MS4 and are included on the prioritized inspection schedule provided in Attachment 4. All VPDES permitted facilities are also required to submit DMRs to the City for review. See Section 6 for more details on the DMR review.

Table 1. Virginia Pollutant Discharge Elimination System Permit Holders

Number of VPDES permit holders that are located in Portsmouth and the number of them that are interconnected to the MS4.

Permit Type	Total Number of Permit Holders	Number of Permit Holders Connected to the MS4
Individual Industrial Stormwater Permit (VA00XXXXX)	7	3
General Industrial Stormwater Permit (VAR05XXXX)	12	3
No Exposure Certification (NECTROXXXX)	2	1

1.2 No Exposure Certification

A facility that is required to have an industrial stormwater permit may obtain a no exposure certification (NEC) from the Virginia Department of Environmental Quality (DEQ) if they have no exposure of pollutants to stormwater. There are two permit holders with NECs located within the City and one of the facilities is connected to the City's MS4. The information about the facilities with NECs is provided in Attachment 1. The two facilities (under one permit) that are highlighted in Attachment 1 discharge to the MS4 and are included on the prioritized inspection schedule found in Attachment 4. These facilities are included on the prioritized inspection schedule because of the possibility of stormwater pollution.

2.0 Other High Risk Runoff Facilities

The MS4 permit describes municipal landfills, other treatment, storage, or disposal facilities for municipal waste, hazardous waste treatment, storage, disposal or recovery facilities, and facilities subject to Emergency Planning & Community Right-To-Know Act (EPCRA) Title III, Section 313 as high risk facilities. These high risk facilities that discharge to the City's MS4 are described in the following sections and are included in the prioritized inspection schedule in Attachment 4.

2.1 Municipal Landfills, Other Treatment, Storage, or Disposal Facilities for Municipal Waste

The City's Craney Island Landfill is the only municipal landfill located in the City and it can be found in the list of VPDES permit holders in Attachment 1. The landfill does not connect to the City's MS4 and therefore was not included in the prioritized inspection schedule.

2.2 Hazardous Waste Treatment, Storage, Disposal or Recovery Facilities

There are no hazardous waste treatment, disposal, or recovery facilities located in the City, but there are several private waste storage locations in Portsmouth. Some private waste storage locations have other types of permits and are already included on the prioritized inspection schedule. The facilities that were not already included on the inspection schedule were screened for likelihood of outdoor storage based on the type of facility.

Hazardous waste storage areas that are unlikely to have outdoor storage were not included on the prioritized inspection schedule as it is unlikely that they would contribute a "significant" pollutant load to the MS4. These facilities included schools, natural gas facilities, laundry service locations, housing developments, office buildings, medical related facilities, and facilities that were inactive or demolished. The full list of hazardous waste storage facilities is provided in Attachment 3 and the highlighted facilities in the attachment are included in the prioritized inspection schedule.

2.3 Facilities Subject to EPCRA Title III, Section 313

Facilities subject to EPCRA Title III, Section 313 are included in the MS4 permit list of industrial and high risk dischargers. The Toxic Release Inventory was used to find facilities that have EPCRA reporting

requirements. Most of these facilities are already identified as an industrial or high risk discharger because they have other permits, except for four pharmacies. Since pharmacies store their product indoors, they were excluded from the prioritized inspection schedule. The list of EPCRA facilities is provided in Attachment 2 and the highlighted facility in Attachment 2 is already included in the prioritized inspection schedule because of its individual industrial stormwater permit.

3.0 Industrial and Commercial Stormwater Dischargers with Significant Pollutant Loading

In the MS4 permit Part I Section B.2.g.6, the City will need to maintain a list of any industrial and commercial stormwater dischargers not regulated under the Virginia State Water Control Law that it determines may be contributing a significant pollutant loading to the MS4. This list may be individual dischargers or categories of dischargers. The list of industrial and commercial stormwater discharges includes major automotive facilities such as repair shops, body shops, auto detailers, tire repair shops and service stations and these facilities are included in the prioritized inspection schedule. The City is not aware of any facilities that may be significant stormwater polluters and no other categories or types of non-regulated industrial or commercial facilities were included in this category. If the City finds evidence of significant stormwater pollution during their inspections, they will need to determine the appropriate measures to control stormwater pollution from these facilities. The major automotive facilities located in the City are listed in Attachment 4 and they will be included on the prioritized inspection schedule. An internet search engine was used to locate and compile the list of the various types of automotive facilities. After City personnel visit an automotive facility, they can determine if it is not a major automotive facility or does not have the potential to be a significant pollutant source. In this case, the City will remove the facility from the prioritized inspection schedule because it does not have the potential for significant pollutant loading.

4.0 Prioritized Schedule

The connection points from the facilities to the MS4 must be inspected once per 5-year permit cycle. A prioritized schedule was developed to ensure all 133 industrial and high risk facilities are inspected. The permit specifically requires the VPDES permit holders be inspected; therefore, they are ranked first in the prioritized order for the inspection schedule, and the rest of the facilities are prioritized for inspection as follows:

1. VPDES permit holders, both individual and general
2. NEC holders
3. EPCRA Title III, Section 313 facilities
4. Hazardous waste storage site with outdoor storage
5. Industrial and/or commercial facilities which may contribute a significant pollutant load, including major automotive facilities

In order to ensure that all industrial and high risk runoff facilities' connections to the MS4 are inspected, CH2M HILL, Inc. (CH2M) assumed that they will be inspected within permit year 2 (PY2), PY3, and PY4. In PY2, Portsmouth should inspect the connections of a minimum 25 percent of all the facilities on the list. In PY3, Portsmouth should inspect the next 35 percent of the facilities on the list, continuing to follow the prioritized order. In PY4, Portsmouth should inspect the remaining 40 percent of the facilities on the list. In PY5, Portsmouth should investigate if there are any new facilities that need to be inspected and inspect them following the prioritized order. The recommended schedule is provided in Attachment 5 and it is based on the list of industrial and high risk runoff facilities found in Attachments 1 to 4 in the prioritized order and the percentages previously outlined. The City may accelerate the inspection schedule as appropriate.

5.0 Inspection Procedures

The MS4 permit requires the City to develop and implement a procedure to inspect the MS4 point of connection for facilities with VPDES industrial stormwater permits. The MS4 Permit Fact Sheet states that the visual inspection of industrial and high risk industrial outfall connections to the MS4 is a means of identifying potential sources of pollutants. The recommended industrial and high risk runoff facilities inspection procedures are based on a visual inspection of the interconnection and will not require any water quality testing unless there is a suspected illicit discharge. If flow is present during dry weather conditions and it is a potential illicit discharge, the City Inspector will need to trace the source of the flow to determine if it is from the facility being inspected and have the location added to the City's dry weather screening program. The recommended inspection procedures are provided in Attachment 6.

6.0 Discharge Monitoring Report Review

The VPDES Industrial Stormwater Permit holders that discharge to the MS4 are required to submit DMRs for review to the City per their permits. Table 2 indicates the permit holders who have submitted their DMRs to the City for review and those who have not. The City will report the permit holders who have not submitted their DMRs to DEQ, as required by Part I Section B.2.g.5.(d) of the MS4 permit. The DMRs that have been submitted will be reviewed by the City to determine if the monitored discharges exceed the industrial stormwater benchmark values. Any facilities that exceed their benchmark values and that the City may be concerned about contributing a significant pollutant load to the MS4 will be referred to DEQ. A summary table of the DMR review will be included in the annual report. The DMR review procedures are described in Attachment 7.

Table 2. Discharge Monitoring Report Submittals
DMR submittal status of VPDES permit holders that are interconnected to the City's MS4.

Facility	Permit Number	Have DMRs been submitted
Norfolk Naval Shipyard	VA0005215	No
Wheelabrator Portsmouth Incorporated	VA0089923	No
Howells Motor Freight Incorporated	VAR050417	Yes
Third Capital Incorporated	VAR051967	Yes
P-Town Recycling	VAR052125	Yes

7.0 Recommendations and Referrals

The MS4 permit requires the City to refer the following facilities to the DEQ Tidewater Regional Office, for Department compliance review under the Virginia State Water Control Law:

a) Facilities and operations having non-stormwater discharges that do not have coverage under an existing VPDES permit.

b) Facilities and operations identified pursuant to 40 Code of Federal Regulations (CFR) Part 122.26(b)(14) with manufacturing, processing, or raw materials storage outside that do not have coverage under an existing VPDES industrial stormwater permit.

c) Any VPDES industrial stormwater permit facility where there is evidence of significant pollutant loadings to the MS4.

d) Facilities that do not submit signed copies of DMRs to the permittee as required under a VPDES industrial stormwater permit.

During the investigation of industrial and high risk runoff facilities to include on the inspection schedule, it was found that the business, Metro Used Auto Parts, located at 700 Yorktown Avenue had shut down and cancelled their permit, and there is an identical business, Brown's Automotive Services, at the same location that does not appear to have a VPDES stormwater industrial permit. The City has referred this information to DEQ via email.

The VPDES permit holders that have not submitted their DMRs to the City by June 30, 2017, will also be referred to DEQ.

Attachment 1
Permitted Facilities

Permitted Facilities

Included on the prioritized inspection schedule in Appendix E

Permit No.	Type of Permit	Facility	Owner/Company	Address	Discharge through MS4
VA0005215	Individual Stormwater	US Navy - Norfolk Naval Shipyard	US Navy - Commander - Navy Region - Mid Atlantic	Intersection of Effingham St & George Washington HW`	Yes
VA0074781	Individual Stormwater	Virginia Renewable Power - Portsmouth LLC	Portsmouth Genco LLC	One Wild Duck Road	No
VA0090778	Individual Stormwater	Ocean Marine Yacht Center	Ocean Marine LLC	201 WAVY Street	No
VA0089605	Individual Stormwater	US Defense Fuel Support Point Craney Island	US Navy - Commander - Navy Region - Mid Atlantic	4501 Cedar Ln	No
VA0089699	Individual Stormwater	General Dynamics NASSCO-Norfolk - Harper Facility	Earl Industries LLC	2 Harper Rd	No
VA0089923	Individual Stormwater	Wheelabrator Portsmouth RDF and WTE Facility	Wheelabrator Portsmouth Incorporated	2 Victory Blvd and 3809 Elm Ave	Yes
VA0087599	Individual Stormwater	East Coast Repair and Fabrication LLC Div-3	East Coast Repair and Fabrication LLC Div-3	3400 Shipwright St	No
VAR050312	General Industrial Stormwater	Virginia Port Authority - Portsmouth Marine Terminal	Alinda Capital Partners & Universities	2000 Seaboard Ave	No
VAR050336	General Industrial Stormwater	Tidewater Yacht Marina	ST Tidewater LLC	10 Crawford Pkwy	No
VAR050375	General Industrial Stormwater	US Navy - Southgate Annex	US Navy - Commander - Navy Region - Mid Atlantic	Route 337 and Burtons Pt Rd	No
VAR050417	General Industrial Stormwater	Howells Motor Freight Incorporated	Howells Motor Freight Incorporated	3 Victory Ct	Yes
VAR050492	General Industrial Stormwater	CSX Intermodal Terminals - Portsmouth	CSX Intermodal	1 Harper Ave	No
VAR051438	General Industrial Stormwater	Portsmouth City - Craney Island Landfill	Portsmouth City - Department of Engineering	4699 Hedgerow Ln	No
VAR051741	General Industrial Stormwater	Murro Chemical Company of Virginia Incorporated	Murro Chemical Company of Virginia Incorporated	1510 Columbus Ave	No
VAR051764	General Industrial Stormwater	Virginia International Gateway	Alinda Capital Partners & Universities	1000 APM Terminals Blvd	No
VAR051967	General Industrial Stormwater	Third Capital Incorporated - RDS	Third Capital Incorporated	3325 Frederick Blvd	Yes
VAR052125	General Industrial Stormwater	P-Town Recycling	Empire Services	4091 Portsmouth Blvd	Yes
VAR052168	General Industrial Stormwater	Beach Marine Services Inc	Beach Marine Services Inc	801 Victory Blvd	No
VAR052197	General Industrial Stormwater	US Amines LLC - Portsmouth	US Amines LLC	3230 W Norfolk Rd	No
NECTRO0075	No Exposure Certificate	L3 Communications: Power & Control Systems	PacOrd Inc.	826 Mount Vernon Ave	Yes
NECTRO0075	No Exposure Certificate	L3 Communications: SPD Technologies, Inc.	PacOrd Inc.	847 Mount Vernon Ave	Yes
NECTRO0104	No Exposure Certificate	Southeastern Freight Lines	Southeastern Freight Lines	2655 Elmhurst Lane	No
VAG110117	Concrete Products GP	Titan Virginia Ready Mix LLC - Port Norfolk	Titan Virginia Ready-Mix LLC	101 Chautauqua Ave	No
VAG110244	Concrete Products GP	Portsmouth Plant 50	Commercial Ready Mix Products, Inc.	1125 Victory Blvd	No

Attachment 2
Emergency Planning & Community Right-To-Know Act Required Reporting Facilities

EPCRA Required Reporting Facilities

Included on the prioritized inspection schedule in Appendix E

Company/Facility	Address	Reported TRI	Other Coverage	Discharge to MS4
US Coast Guard Base Portsmouth	4000 Coast Guard Blvd	Yes	Phase II MS4 permit VAR040072	No
Titan Virginia Ready-Mix LLC - Port Norfolk Plant	101 Chautauqua Ave	Yes	Concrete Products permit VAG110117	No
General Dynamics	2 Harper Avenue	No	Industrial Permit VA0089699	No
US Navy Defense Fuel Support Point Craney Islanc	4501 Cedar Ln	Yes	Industrial Permit VA0089605	No
Portsmouth Genco LLC	1 Wild Duck Ln	Yes	Industrial Permit VA0074781	No
CVS Pharamcy #10088	5829 High Street	No	None	Yes
US Amines (Portsmouth) LLC	3230 W Norfolk Rd	Yes	Stormwater Industrial GP VAR052197	No
US Navy - Portsmouth Naval Hospital	620 John Paul Jones Cir	No	Phase II MS4 permit VAR040114	No
CVS Pharamcy #4520	1800 Fredrick Blvd	No	None	Yes
Neighborcare Pharmacy	1320 Court Street	No	None	Yes
US Navy Norfolk Naval Shipyard	Intersection of Effingham St & George Washington HWY	Yes	Industrial Permit VA0005215	Yes
CVS Pharmacy #5501	3555 Airline Blvd	No	None	Yes

Attachment 3
Facilities that Store Hazardous Waste

Facilities that Store Hazardous Waste

Included in prioritized inspection schedule in Appendix E

Handler ID	Company/Facility	Address	Classification	Discharge to MS4
VAD023873920	BOULEVARD TRANSMISSION CO	1411 AIRLINE BLVD	Automotive	YES
VAD988223855	CHARLIE FALKS AUTO WHOLESALE	1140 LONDON BLVD	Automotive	YES
VAD988172086	CROWN STATION VA-33	1101 FREDERICK BLVD	Automotive	YES
VAD023875123	CULPEPPER RADIATOR SERVICE INC	3511 RACE ST	Automotive	YES
VAD023875131	CUMBIAS BODY SHOP INC	400 CUMBERLAND AVE	Automotive	YES
VAD023875693	EWELL, BOB TIRE SERVICE INC	703 CONSTITUTION AVE	Automotive	YES
VAR000006536	HYDRAULIC SVC CO INC	3104 VICTORY BLVD	Automotive	YES
VAD981737448	KOOL, JOHN LINCOLN-MERCURY	1313 HIGH ST	Automotive	YES
VAD988206678	MERCHANTS TIRE & AUTO #05007	5805 W NORFOLK RD	Automotive	YES
VAD988208849	MORSE-PARKER MOTOR SUPPLY INC	809 HIGH ST	Automotive	YES
VAR000011205	PRICES INC T/A BRADS AUTO MACHINE SHOP	3500 A GEORGE WASHINGTON HWY	Automotive	YES
VAR000011999	PROFFIT ENTERPRISES TA CRADOCK AUTO	315 HANBURY AVE	Automotive	YES
VAR000513465	WALMART SUPERCENTER #3831	1098 FREDERICK BOULEVARD	Automotive	YES
VAD003177086	WESTERN BRANCH DIESEL INC	3504 SHIPWRIGHT ST	Automotive	YES
VAD982569592	WILBARTRUCK INC	2808 FREDERICK BLVD	Automotive	YES
VAR000504233	CSX TRANSPORTATION, INC.	800 CONSTITUTION AVENUE	Permitted	YES
VAD003174885	EAST COAST REPAIR & FABRICATION, LLC DIV-3	3400 SHIPWRIGHT ST	Permitted	YES
VAD153920269	L-3 PACORD, INC.	826 MOUNT VERNON AVE	Permitted	YES
VAR000015842	L-3 PACORD, INC.	847 MOUNT VERNON AVE.	Permitted	YES
VAD125962613	PORTSMOUTH CITY OF VEHICLE SVC CTR	2003 FREDERICK BLVD	Permitted	YES
VAD988191318	7-ELEVEN #23030	725 LONDON BOULEVARD	Gas Station	YES
VAD988191326	7-ELEVEN #23219	3201 GEORGE WASHINGTON HIGHWAY	Gas Station	YES
VAD988191359	7-ELEVEN #24040	700 MOUNT VERNON AVENUE	Gas Station	YES
VAD988191367	7-ELEVEN #24488	1200 HIGH STREET	Gas Station	YES
VAR000502963	7-ELEVEN, INC. # 33236	600 FREDERICK BLVD	Gas Station	YES
VAD988191375	7-ELEVEN, INC. #24636	1500 AIRLINE BLVD	Gas Station	YES
VAD988198941	AMOCO #1990-TANKS	2201 TURNPIKE RD	Gas Station	YES
VAD988198958	AMOCO #60169-TANKS	3909 TWIN PINES RD	Gas Station	YES
VAD988198966	AMOCO #60295	2600 FREDERICK BLVD	Gas Station	YES
VAD988198248	AMOCO #735-TANKS	4113 GEORGE WASHINGTON HWY	Gas Station	YES
VAD988198206	AMOCO #780-TANKS	5901 HIGH ST WEST	Gas Station	YES
VAD988198396	AMOCO #792-TANKS	2200 HIGH ST	Gas Station	YES
VAD988211900	CHURCHLAND AMOCO	5901 HIGH ST WEST	Gas Station	YES
VAD988200754	COASTAL MART INC #908	2910 VICTORY BLVD	Gas Station	YES
VAD982580789	EXXON CO U S A PORTSMOUTH	5830 HIGH ST	Gas Station	YES
VAD988223335	EXXON CO USA #27845	3525 TOWNE POINT RD	Gas Station	YES
VAD988215737	FAST FARE INC T/A CROWN VA-536	800 FREDERICK BLVD	Gas Station	YES

Handler ID	Company/Facility	Address	Classification	Discharge to MS4
VAD988212056	HIGH STREET AMOCO	2200 HIGH ST	Gas Station	YES
VAD988212049	PARKERS AMOCO	2201 TURNPIKE	Gas Station	YES
VAD988211082	TEXACO STATION-TANKS	3500 HIGH ST	Gas Station	YES
VAR000530121	WAWA FOOD MARKETS #8636	1200 FREDERICK BLVD	Gas Station	YES
VAR000504134	CLIFF BERRY INC	3701 BROADWAY ST	Industrial	YES
VAR000502872	CRB ASSOCIATES OF VIRGINIA, INC.	1801 HIGH STREET	Industrial	YES
VAR000512061	EPSILON SYSTEMS SOLUTIONS	801 FLORIDA AVENUE	Industrial	YES
VAR000530667	EPSILON SYSTEMS SOLUTIONS, INC.	573 CHAUTAUQUA AVE	Industrial	YES
VAR000530154	EPSILON SYSTEMS SOLUTIONS, INC.	846 MOUNT VERNON AVE	Industrial	YES
VAR000016162	FAIRLEAD PRECISION MANUFACTURING & INTEGRA	3132 VICTORY BLVD.	Industrial	YES
VAR000016154	FAIRLEAD PRECISION MANUFACTURING & INTEGRA	750 CHAUTAUQUA AVE	Industrial	YES
VAR000502682	HIGHSTAR INDUSTRIAL TECH INC	500 PORTCENTRE PKWY	Industrial	YES
VAR000525451	MARINE SPECIALTY PAINTING	3350 ELM AVENUE	Industrial	YES
VA0000187872	NOTTINGHAM WINDOW AND DOOR	206 SANDPIPER DR	Industrial	YES
VAD988212973	PET DAIRY	2320 TURNPIKE ROAD	Industrial	YES
VAD988193314	PORTSMOUTH SIGN PAINT CITY OF	2007 FREDERICK BLVD	Industrial	YES
VAD046247276	PORTSMOUTH TOOL & DIE CORP	807 FLORIDA AVE	Industrial	YES
VAD003772605	J & D Marine	684 Military Rd	Industrial	YES
VAR000008227	RACHEL SCREEN PRINTING	40 CLAREMONT DR	Industrial	YES
VAD055483846	SALES SYSTEMS LTD	700 FLORIDA AVE	Industrial	YES
VAR000002451	SHERWIN-WILLIAMS (SEAGUARD)	3560 ELM AVENUE	Industrial	YES
VAD982704744	PENSKE TRUCK LEASING	2410 WESLEY ST	Automotive	NO
VAR000514836	APM TERMINALS	1000 APM TERMINALS BOULEVARD	Permitted	NO
VAP611201623	CSX INTERMODAL TERMINAL, INC	1 HARPER AVENUE	Permitted	NO
VAR000524918	DOWNTOWN TUNNEL / MIDTOWN TUNNEL / MLK EX	1500 SEABOARD AVE	Permitted	NO
VAD988228961	LAIDLAW ENVIRONMENTAL SERVICES TS INC	4 A VICTORY BLVD	Permitted	NO
VAD981744030	METRO MACHINE CORP. DBA GENERAL DYNAMICS	2 HARPER AVENUE	Permitted	NO
VA1170024813	NORFOLK NAVAL SHIPYARD	C-106 BLDG. M-22 3RD FLOOR	Permitted	NO
VA6170024818	NSA HAMPTON ROADS PORTSMOUTH ANNEX (NMC	620 JOHN PAUL JONES CIRCLE	Permitted	NO
VAR000504928	SCOTT CENTER ANNEX	ANDREW STREET	Permitted	NO
VA9170090022	SOUTHGATE ANNEX	BURTONS POINT ROAD	Permitted	NO
VA5170000181	ST. JULIENS CREEK ANNEX	VICTORY BLVD	Permitted	NO
VAD039050661	TITAN VIRGINIA READY-MIX, LLC	101 CHAUTAUQUA AVE	Permitted	NO
VA4690300112	U S FIFTH COAST GUARD DISTRICT	431 CRAWFORD ST	Permitted	NO
VA1179900989	U S PORTSMOUTH CITY LANDFILL	CRANEY ISLAND	Permitted	NO
VAR000502203	U.S. AMINES (PORTSMOUTH) LLC	3230 WEST NORFOLK RD	Permitted	NO
VA4690320235	US COAST GUARD BASE PORTSMOUTH	4000 COAST GUARD BLVD	Permitted	NO
VA0170090005	US NAVY DEFENSE FUEL SUPPORT POINT CRANEY	4501 CEDAR LANE	Permitted	NO
VAR000006569	USA CORPS ENGR CRANEY ISLAND	4599 RIVERSHORE RD	Permitted	NO

Handler ID	Company/Facility	Address	Classification	Discharge to MS4
VAD151888757	VA INTERNATIONAL TERMINALS INC	2000 SEABOARD AVE PMT	Permitted	NO
VAR000500041	WHEELABRATOR PORTMOUTH INC	3809 ELM AVE	Permitted	NO
VAD980690846	WHEELABRATOR PORTSMOUTH, INC.	2 VICTORY BOULEVARD	Permitted	NO
VAR000500223	ACCURATE MARINE ENVIRONMENTAL, INC.	3965 BURTONS POINT ROAD	Industrial	NO
VAD087340048	FIATALLIS NORTH AMERICA INC	2400 WESLEY ST	Industrial	NO
VAR000505834	PORTSMOUTH MARINE TERMINAL	1800 SEABOARD AVE	Industrial	NO
VAD003174810	PROCTER & GAMBLE MFG CO PORTSMOUTH	ARREFF TERMINALS, INC.	Industrial	NO
VAD132035601	SEALAND SERVICE INC	1800 SEABOARD AVE	Industrial	NO
VAR000514497	THE PECK COMPANY	3850 ELM AVENUE	Superfund site	NO
VAR000012864	CNA HOLDINGS, INC. REMEDIATION PROJECT	3340 WEST NORFOLK RD	Unknown	NO
VAR000512681	MID-ATLANTIC MILITARY FAMILY COMMUNITIES	QTRS C BARRON STREET	Housing	NO
VAD981039423	OPERATIONAL SERVICES	3920 BURTONS POINT RD	Inactive	NO
VAD982570483	PINNERS POINT TREATMENT PLANT	320 SEABOARD AVE	Inactive	NO
VAD981738693	PORTSMOUTH CITY SCHOOL BUS GARAGE	3920 BURTON POINT RD	Inactive	NO
VAD123933426	TIDEWATER COMMUNITY CLG	7000 COLLEGE DR	School	NO
VAD988212916	FIRESTATION #4	445 LEE AVE	Service Provider	NO
VAR000531087	METROPOLITAN SOLUTIONS	1420 CHESTNUT STREET	Administrative	YES
VAD988221933	W F MAGANN CORP	3220 MARINER AVE	Administrative	YES
VAD988213054	CITY OF PORTSMOUTH PROPERTY MGMT DIV	2005 FREDERICK BLVD	Housing	YES
VAR000512236	MID-ATLANTIC MILITARY FAMILY COMMUNITIES	16 DEBRA LANE	Housing	YES
VAD988186458	PRHA DALE HOMES VA 1-1	1842-2210 COLUMBUS AVE	Housing	YES
VAD988186540	PRHA DALE HOMES VA 1-1	2-300 DALE DR	Housing	YES
VAD988186508	PRHA IDA BARBOUR PARK VA 1-5	1100-1574 BARBOUR DR	Housing	YES
VAD988186490	PRHA IDA BARBOUR PARK VA 1-5	700-847 ELM ST	Housing	YES
VAD988186516	PRHA IDA BARBOUR PARK VA 1-5	700-918 GODWIN ST	Housing	YES
VAD988186466	PRHA IDA BARBOUR PARK VA 1-5	917-1315 COUNTY ST	Housing	YES
VAD988186557	PRHA IDA BARBOUR PARK VA 1-5	917-938 COLUMBIA ST	Housing	YES
VAD988186482	PRHA IDA BARBOUR PARK VA 1-5	920-1139 SOUTH ST	Housing	YES
VAD988186474	PRHA IDA BARBOUR VA 1-5	1000-1020 CRABAPPLE ST	Housing	YES
VAD988186326	PRHA JEFFRY WILSON HOMES VA 1-4	2901-3035 TURNPIKE RD	Housing	YES
VAD988186334	PRHA JEFFRY WILSON HOMES VA 1-4	3-400 PROJECT DR	Housing	YES
VAD988186383	PRHA LINCOLN PARK VA 1-6	1-171 LEXINGTON DR	Housing	YES
VAD988186391	PRHA LINCOLN PARK VA 1-6	2416-2422 COLUMBUS AVE	Housing	YES
VAD988186433	PRHA LINCOLN PARK VA 1-6	2501-2563 GRAHAM ST	Housing	YES
VAD988186441	PRHA LINCOLN PARK VA 1-6	2800-2918 DEEP CREEK BLVD	Housing	YES
VAD988186425	PRHA SWANSON HOMES VA 1-2	1102-1220 LANSING AVE	Housing	YES
VAD988186532	PRHA SWANSON HOMES VA 1-2	1702-1824 SOUTH ST	Housing	YES
VAD988186524	PRHA SWANSON HOMES VA 1-2	1-98 MERRIMAC DR	Housing	YES
VAD988186409	PRHA SWANSON HOMES VA 1-2	1-98 SWANSON PARKWAY	Housing	YES

Handler ID	Company/Facility	Address	Classification	Discharge to MS4
VAD988186417	PRHA SWANSON HOMES VA 1-2	2-44 BUCHANAN AVE	Housing	YES
VAD988186367	PRHA WASHIGTON PARK VA 1-7	1306-1402 SEVENTH ST	Housing	YES
VAD988186359	PRHA WASHINGTON PAR VA 1-7	1300-1542 GREEN ST	Housing	YES
VAD988186342	PRHA WASHINGTON PARK VA 1-7	1401-1515 EFFINGHAM ST	Housing	YES
VAD988186375	PRHA WASHINGTON PARK VA 1-7	601-615 RACE ST	Housing	YES
VA0000350603	CEM CORP	1 BEECHWOOD CT	Inactive	YES
VAD988212908	FIRESTATION #3	419 JAMESTOWN AVE	Inactive	YES
VAD988202552	FIRESTONE TIRE & SERVICE CENTER	901 FREDERICK BLVD	Inactive	YES
VAD988188728	KMART #9514	1070 FREDERICK BLVD	Inactive	YES
VAR000529966	KROGER #0538-029	5601 HIGH ST W	Inactive	YES
VAD003174836	PNEUMO ABEX CORPORATION	614 RANDOLPH ST	Inactive	YES
VAR000006783	PORTSMOUTH BODY WORKS	1001 GODWIN ST	Inactive	YES
VAD988184701	PRINTCRAFT PRESS INC	309 COLUMBIA ST	Inactive	YES
VAR000007617	TRI VECTOR INC DBA TOP COATES	820 7TH ST	Inactive	YES
VAD100557933	TRI-CITIES CENTER	4300 GEO WASHINGTON HWY	Inactive	YES
VAR000518050	CINTAS CORP	2707 SMITHFIELD ROAD	Laundry	YES
VAD023876238	FORMER HAGWOODS DRY CLEANERS	1001 ELM AVE	Laundry	YES
VAR000007344	PORTSMOUTH CLNRS	3601 HIGH ST	Laundry	YES
VAD988210340	CVS PHARMACY #10088	5829 HIGH ST	Medical	YES
VAR000523522	CVS PHARMACY #4520	1800 FREDERICK BLVD.	Medical	YES
VAD100557941	DAC	401 W RD	Medical	YES
VAR000015172	INTERNAL MEDICINE OF PORTSMOUTH LTD	3300 HIGH ST STE 6	Medical	YES
VAD982702334	MARYVIEW MEDICAL CTR	3636 HIGH ST	Medical	YES
VAR000519389	NEIGHBORCARE PHARMACY	1320 COURT STREET	Medical	YES
VAR000527424	RITE AID # 11297	5914 WEST HIGH STREET	Medical	YES
VAR000526558	RITE AID #3960	1141 LONDON BLVD	Medical	YES
VAD982710444	ILC	900 THOMAS CIRCLE	Residential	YES
VAD100557875	BRIGHTON ELEMENTARY	1101 JEFFERSON ST	School	YES
VAD100557883	CHURCHLAND ACADEMY ELEMENTARY	4061 RIVER SHORE RD	School	YES
VAD982710261	CHURCHLAND ELEMENTARY	5601 MICHAEL LANE	School	YES
VAD100557909	CHURCHLAND HIGH	4301 CEDAR LANE	School	YES
VAD100557917	CHURCHLAND MIDDLE	4051 RIVER SHORE RD	School	YES
VAD100557925	CHURCHLAND PRIMARY	5700 HEDGEROW LANE	School	YES
VAD100557867	CRADOCK MIDDLE	21 ALDEN AVE	School	YES
VAD982676058	EMILY SPONG	2200 PIEDMONT AVE	School	YES
VAD982676298	HARRY A HUNT JUNIOR HIGH	1800 HIGH ST	School	YES
VAD100558147	HUNT-MAPP MIDDLE	3701 WILLETT DR	School	YES
VAD982676470	HURST JAMES ELEMENTARY	18 DAHLGREN AVE	School	YES
VAD982675993	IRC	3651 HARTFORD ST	School	YES

Handler ID	Company/Facility	Address	Classification	Discharge to MS4
VAD982710329	MOUNT HERMON	3000 MOUNT HERMON	School	YES
VAD123511081	NORCOM IC HIGH	2900 TURNPIKE RD	School	YES
VAD982676413	PARKVIEW ELEMENTARY	1401 CRAWFORD PKWY	School	YES
VAD982676355	PORT NORFOLK ELEMENTARY	3101 DETROIT ST	School	YES
VAD982676116	SH CLARKE	2801 TURNPIKE RD	School	YES
VAD100558105	SHEA TERRACE ELEMENTARY	253 CONSTITUTION AVE	School	YES
VAR000007328	TIDEWATER COMM CLG VISUAL ARTS CTR	340 HIGH ST	School	YES
VAD982676173	WESTHAVEN ELEMENTARY	3701 DETROIT ST	School	YES
VAR000001248	COLUMBIA GAS OF VIRGINIA	115 AVONDALE RD	Utility	YES
VAR000001263	COMMONWEALTH GAS SERVICES INC	301 EFFINGHAM ST	Utility	YES
VAD988224473	SUBURBAN PROPANE FLEET MAINT	5202 GEO WASHINGTON HWY	Utility	YES

Attachment 4
Automotive Facilities

Automotive Facilities

Included in prioritized inspection schedule in Appendix E

Company	Address	Discharge to MS4
A1 Automotive	2012 High St	YES
Action Automotive Incorporated	1300 High St	YES
Advantage Collision Center	3013 Airline Blvd	YES
Airline Automotive & Truck Center	3308 Airline Blvd	YES
All in One Auto	1201 Airline Blvd	YES
All in One Auto Repair	3415 Griffin St	YES
American Fleet Service Inc	3000 Elmhurst Ln	YES
American Truck and Trailer Repair	2407 South St	YES
Auto Repair & Service	506 Dinwiddie St	YES
AutoZone	3931 Victory Blvd	YES
AutoZone	5921 High St W	YES
Barbers Tire & Auto	5701 Portsmouth Blvd	YES
Bargain Tire Outlet	4244 Portsmouth Blvd	YES
Baucoms Auto Service Inc	1205 Airline Blvd	YES
Bay Area Wholesale	3500 A George Washington Hwy	YES
Bayside Harley-Davidson	2211 Frederick Blvd	YES
Big Als Mufflers & Brakes	1611 Airline Blvd	YES
Bob Ewell Tire - Cooper Tire	703 Constitution Ave	YES
Boulevard Transmissions Co	1411 Airline Blvd	YES
Browns Automotive Services	700 Yorktown Ave	YES
Budget Tire & Automotive	5805 W Norfolk Rd	YES
Butchs Auto Service	3412 George Washington Hwy	YES
C & M Automotive and Truck Specialist	5009 Deep Creek Blvd	YES
Charlie Falks Auto Wholesale	1140 London Blvd	YES
Chris Auto Electric	4435 Winchester Dr	YES
Chriss Auto Services	3605 Dartmouth St	YES
Churchland Glass & Mirror Co	3112 Tyre Neck Rd	YES
Complete Auto Repair Service	3900 Garwood Ave	YES
Cradock Auto Collision Center	315 Hanbury Ave	YES
Crown station VA-33	1101 Fredrick Blvd	YES
Culpepper Radiator & Auto	3511 Race St	YES
D & J Automotive	3111 Airline Blvd	YES
Dails Auto Repair Inc	3637 Victory Blvd	YES
Dodd RV of Portsmouth	4705 Portsmouth Blvd	YES
Dodds Auto Service	4704 Portsmouth Blvd	YES
Earls Complete Car Care	2865 Airline Blvd	YES
Everway Mobile Tire Services Inc	4006 Victory Blvd	YES
Fair & Honest Auto Repair	2921 Portsmouth Blvd	YES
Finks Car Care	2711 Victory Blvd	YES
All Star Auto Repair	1011 Queen St	YES
Finks Truck Frame & Alignment	35 Beechdale Rd	YES
Firestone Tire & Service Center	901 Fredrick Blvd	YES
Ford Automotive Repair Center	1803 High St	YES
Gac Automotive Center	2100 Portsmouth Blvd	YES
George Farish Collision Center	2525 Airline Blvd	YES
Gilmores Auto	3035 High St	YES
Glasspros Inc	3901 Garwood Ave	YES
GW Auto Repair	2612 Elliott Ave	YES
Hot Spot Tires & Rims	1209 Lindsay Ave	YES
Hydraulic SVC Co. INC	3104 Victory Blvd	YES
Icebergs Auto Service	601 Constitution Ave	YES

Automotive Facilities

Company	Address	Discharge to MS4
Import 4 Less Auto Care	706 7th St	YES
Import Autowerks	3040 High St	YES
Import Connection	2884 Airline Blvd	YES
Jade Automotive LLC	1609 Airline Blvd	YES
Johnnys Auto Care	3615 High St	YES
Johns Service Center	4650 Portsmouth Blvd	YES
Kool Automotive	1313 High St	YES
Lees Auto Care	2610 Victory Blvd	YES
Liberty Tire Co., LLC	615 Chautauqua Ave	YES
Maaco Collision Repair & Auto Painting	3937 Turnpike Rd	YES
McCartys Wheel Shop	515 Broad St	YES
Meineke Car Care Center	2490 Airline Blvd	YES
Morse-Parker Motor Supply Inc.	809 High St	YES
MRD Quality Automotive Service	3427 Race St	YES
Nobles Auto Center	400 Cumberland Ave	YES
Norfolk Tire & Rims	3790 Victory Blvd	YES
Pep Boys Auto Parts & Services	2570 Airline Blvd	YES
Portsmouth Alignment Services	3119 Elm Ave	YES
Portsmouth Glass	4400 Portsmouth Blvd	YES
R & M Harden Motorsports	3144 Victory Blvd	YES
Rick Hendrick Collision Center Portsmouth	3310 Airline Blvd	YES
Salas Auto Service	4350 Portsmouth Blvd	YES
Sivels Auto Repair & Restoration	3120 Armistead Dr	YES
Sonny & Bryans Auto Repair	549 Chautauqua Ave	YES
South Norfolk Trucking	5 Beechwood Ct	YES
Steves Auto Electric & Repair	3700 Turnpike Rd	YES
Superior Automotive	4231 Portsmouth Blvd	YES
Transmission Repair & Services	4117 Portsmouth Blvd	YES
Tread Quarters	1401 Airline Blvd	YES
Tread Quarters	3205 Tyre Neck Rd	YES
Tread Quarters	5003 George Washington Hwy	YES
Unique One Auto Repair Mobil Service	2000 Laigh Rd	YES
Walmart Supercenter #3831	1098 Fredrick Blvd	YES
Waynes Body Shop	3134 Victory Blvd	YES
Wes Frye Auto & Van Repair	3409 Deep Creek Blvd	YES
Western Branch Diesel	3504 Shipwright St	YES
Wilbartruck Inc	2808 Fredrick Blvd	YES
Auto-Motivation	4748 River Shore Rd	NO
Penske Truck Leasing	2410 Wesley St	NO

Attachment 5
Inspection Schedule

Inspection Schedule

PY2 - Inspect 25% of Facilities
PY3 - Inspect 35% of Facilities
PY4 - Inspect 40% of Facilities

Facility	Address	Category
US Navy - Norfolk Naval Shipyard	Intersection of Effingham St & George Washington HWY	Permitted Facility
Wheelabrator Portsmouth RDF and WTE Facility	2 Victory Blvd and 3809 Elm Ave	Permitted Facility
Howell's Motor Freight Incorporated	3 Victory Ct	Permitted Facility
Third Capital Incorporated - RDS	3325 Frederick Blvd	Permitted Facility
P-Town Recycling	4091 Portsmouth Blvd	Permitted Facility
L3 Communications: Power & Control Systems	826 Mount Vernon Ave	Permitted Facility
L3 Communications: SPD Technologies, Inc.	847 Mount Vernon Ave	Permitted Facility
7-ELEVEN #23030	725 LONDON BOULEVARD	Hazardous Waste Storage
7-ELEVEN #23219	3201 GEORGE WASHINGTON HIGHWAY	Hazardous Waste Storage
7-ELEVEN #24040	700 MOUNT VERNON AVENUE	Hazardous Waste Storage
7-ELEVEN #24488	1200 HIGH STREET	Hazardous Waste Storage
7-ELEVEN, INC. # 33236	600 FREDERICK BLVD	Hazardous Waste Storage
7-ELEVEN, INC. #24636	1500 AIRLINE BLVD	Hazardous Waste Storage
AMOCO #1990-TANKS	2201 TURNPIKE RD	Hazardous Waste Storage
AMOCO #60169-TANKS	3909 TWIN PINES RD	Hazardous Waste Storage
AMOCO #60295	2600 FREDERICK BLVD	Hazardous Waste Storage
AMOCO #735-TANKS	4113 GEORGE WASHINGTON HWY	Hazardous Waste Storage
AMOCO #780-TANKS	5901 HIGH ST WEST	Hazardous Waste Storage
AMOCO #792-TANKS	2200 HIGH ST	Hazardous Waste Storage
CHURCHLAND AMOCO	5901 HIGH ST WEST	Hazardous Waste Storage
CLIFF BERRY INC	3701 BROADWAY ST	Hazardous Waste Storage
COASTAL MART INC #908	2910 VICTORY BLVD	Hazardous Waste Storage
CRB ASSOCIATES OF VIRGINIA, INC.	1801 HIGH STREET	Hazardous Waste Storage
EPSILON SYSTEMS SOLUTIONS	801 FLORIDA AVENUE	Hazardous Waste Storage
EPSILON SYSTEMS SOLUTIONS, INC.	573 CHAUTAUQUA AVE	Hazardous Waste Storage
EPSILON SYSTEMS SOLUTIONS, INC.	846 MOUNT VERNON AVE	Hazardous Waste Storage
EXXON CO U S A PORTSMOUTH	5830 HIGH ST	Hazardous Waste Storage
EXXON CO USA #27845	3525 TOWNE POINT RD	Hazardous Waste Storage
FAIRLEAD PRECISION MANUFACTURING & INTE	3132 VICTORY BLVD.	Hazardous Waste Storage
FAIRLEAD PRECISION MANUFACTURING & INTE	750 CHAUTAUQUA AVE	Hazardous Waste Storage
FAST FARE INC T/A CROWN VA-536	800 FREDERICK BLVD	Hazardous Waste Storage
HIGH STREET AMOCO	2200 HIGH ST	Hazardous Waste Storage
HIGHSTAR INDUSTRIAL TECH INC	500 PORTCENTRE PKWY	Hazardous Waste Storage
MARINE SPECIALTY PAINTING	3350 ELM AVENUE	Hazardous Waste Storage
NOTTINGHAM WINDOW AND DOOR	206 SANDPIPER DR	Hazardous Waste Storage
PARKERS AMOCO	2201 TURNPIKE	Hazardous Waste Storage
PET DAIRY	2320 TURNPIKE ROAD	Hazardous Waste Storage
PORTSMOUTH SIGN PAINT CITY OF	2007 FREDERICK BLVD	Hazardous Waste Storage
PORTSMOUTH TOOL & DIE CORP	807 FLORIDA AVE	Hazardous Waste Storage
J & D Marine	684 Military Rd	Hazardous Waste Storage
RACHEL SCREEN PRINTING	40 CLAREMONT DR	Hazardous Waste Storage
SALES SYSTEMS LTD	700 FLORIDA AVE	Hazardous Waste Storage
SHERWIN-WILLIAMS (SEAGUARD)	3560 ELM AVENUE	Hazardous Waste Storage
TEXACO STATION-TANKS	3500 HIGH ST	Hazardous Waste Storage
WAWA FOOD MARKETS #8636	1200 FREDERICK BLVD	Hazardous Waste Storage
A1 Automotive	2012 High St	Major Automotive
Action Automotive Incorporated	1300 High St	Major Automotive
Advantage Collision Center	3013 Airline Blvd	Major Automotive
Airline Automotive & Truck Center	3308 Airline Blvd	Major Automotive
All in One Auto	1201 Airline Blvd	Major Automotive
All in One Auto Repair	3415 Griffin St	Major Automotive
American Fleet Service Inc	3000 Elmhurst Ln	Major Automotive
American Truck and Trailer Repair	2407 South St	Major Automotive
Auto Repair & Service	506 Dinwiddie St	Major Automotive
AutoZone	3931 Victory Blvd	Major Automotive
AutoZone	5921 High St W	Major Automotive
Barbers Tire & Auto	5701 Portsmouth Blvd	Major Automotive
Bargain Tire Outlet	4244 Portsmouth Blvd	Major Automotive
Baucoms Auto Service Inc	1205 Airline Blvd	Major Automotive
Bay Area Wholesale	3500 A George Washington Hwy	Major Automotive
Bayside Harley-Davidson	2211 Frederick Blvd	Major Automotive
Big Als Mufflers & Brakes	1611 Airline Blvd	Major Automotive

Bob Ewell Tire - Cooper Tire	703 Constitution Ave	Major Automotive
Boulevard Transmissions Co	1411 Airline Blvd	Major Automotive
Browns Automotive Services	700 Yorktown Ave	Major Automotive
Budget Tire & Automotive	5805 W Norfolk Rd	Major Automotive
Butchs Auto Service	3412 George Washington Hwy	Major Automotive
C & M Automotive and Truck Specialist	5009 Deep Creek Blvd	Major Automotive
Charlie Falks Auto Wholesale	1140 London Blvd	Major Automotive
Chris Auto Electric	4435 Winchester Dr	Major Automotive
Chriss Auto Services	3605 Dartmouth St	Major Automotive
Churchland Glass & Mirror Co	3112 Tyre Neck Rd	Major Automotive
Complete Auto Repair Service	3900 Garwood Ave	Major Automotive
Cradock Auto Collision Center	315 Hanbury Ave	Major Automotive
Crown station VA-33	1101 Fredrick Blvd	Major Automotive
Culpepper Radiator & Auto	3511 Race St	Major Automotive
D & J Automotive	3111 Airline Blvd	Major Automotive
Dails Auto Repair Inc	3637 Victory Blvd	Major Automotive
Dodd RV of Portsmouth	4705 Portsmouth Blvd	Major Automotive
Dodds Auto Service	4704 Portsmouth Blvd	Major Automotive
Earls Complete Car Care	2865 Airline Blvd	Major Automotive
Everway Mobile Tire Services Inc	4006 Victory Blvd	Major Automotive
Fair & Honest Auto Repair	2921 Portsmouth Blvd	Major Automotive
Finks Car Care	2711 Victory Blvd	Major Automotive
All Star Auto Repair	1011 Queen St	Major Automotive
Finks Truck Frame & Alignment	35 Beechdale Rd	Major Automotive
Firestone Tire & Service Center	901 Fredrick Blvd	Major Automotive
Ford Automotive Repair Center	1803 High St	Major Automotive
Gac Automotive Center	2100 Portsmouth Blvd	Major Automotive
George Farish Collision Center	2525 Airline Blvd	Major Automotive
Gilmores Auto	3035 High St	Major Automotive
Glasspros Inc	3901 Garwood Ave	Major Automotive
GW Auto Repair	2612 Elliott Ave	Major Automotive
Hot Spot Tires & Rims	1209 Lindsay Ave	Major Automotive
Hydraulic SVC Co. INC	3104 Victory Blvd	Major Automotive
Icebergs Auto Service	601 Constitution Ave	Major Automotive
Import 4 Less Auto Care	706 7th St	Major Automotive
Import Autowerks	3040 High St	Major Automotive
Import Connection	2884 Airline Blvd	Major Automotive
Jade Automotive LLC	1609 Airline Blvd	Major Automotive
Johnnys Auto Care	3615 High St	Major Automotive
Johns Service Center	4650 Portsmouth Blvd	Major Automotive
Kool Automotive	1313 High St	Major Automotive
Lees Auto Care	2610 Victory Blvd	Major Automotive
Liberty Tire Co., LLC	615 Chautauqua Ave	Major Automotive
Maaco Collision Repair & Auto Painting	3937 Turnpike Rd	Major Automotive
McCartys Wheel Shop	515 Broad St	Major Automotive
Meineke Car Care Center	2490 Airline Blvd	Major Automotive
Morse-Parker Motor Supply Inc.	809 High St	Major Automotive
MRD Quality Automotive Service	3427 Race St	Major Automotive
Nobles Auto Center	400 Cumberland Ave	Major Automotive
Norfolk Tire & Rims	3790 Victory Blvd	Major Automotive
Pep Boys Auto Parts & Services	2570 Airline Blvd	Major Automotive
Portsmouth Alignment Services	3119 Elm Ave	Major Automotive
Portsmouth Glass	4400 Portsmouth Blvd	Major Automotive
R & M Harden Motorsports	3144 Victory Blvd	Major Automotive
Rick Hendrick Collision Center Portsmouth	3310 Airline Blvd	Major Automotive
Salas Auto Service	4350 Portsmouth Blvd	Major Automotive
Sivels Auto Repair & Restoration	3120 Armistead Dr	Major Automotive
Sonny & Bryans Auto Repair	549 Chautauqua Ave	Major Automotive
South Norfolk Trucking	5 Beechwood Ct	Major Automotive

Steves Auto Electric & Repair	3700 Turnpike Rd	Major Automotive
Superior Automotive	4231 Portsmouth Blvd	Major Automotive
Transmission Repair & Services	4117 Portsmouth Blvd	Major Automotive
Tread Quarters	1401 Airline Blvd	Major Automotive
Tread Quarters	3205 Tyre Neck Rd	Major Automotive
Tread Quarters	5003 George Washington Hwy	Major Automotive
Unique One Auto Repair Mobil Service	2000 Laigh Rd	Major Automotive
Walmart Supercenter #3831	1098 Fredrick Blvd	Major Automotive
Waynes Body Shop	3134 Victory Blvd	Major Automotive
Wes Frye Auto & Van Repair	3409 Deep Creek Blvd	Major Automotive
Western Branch Diesel	3504 Shipwright St	Major Automotive
Wilbartruck Inc	2808 Fredrick Blvd	Major Automotive

Attachment 6
MS4 Interconnection Visual Inspection Procedures

Industrial and High Risk Runoff Facilities Interconnection Inspection Procedures

The City of Portsmouth's (City's) Municipal Separate Storm Sewer System (MS4) permit requires the City to implement a program to identify and control pollutants in stormwater discharges from industrial and high risk runoff facilities to the MS4. The City will perform visual inspections of the industrial and high risk runoff facilities interconnections to the City's MS4 to meet the permit requirements.

This document describes the visual inspection procedures and is intended for use as a field guide with detailed instructions and sampling procedures. It describes what observations to record, the time estimates for the inspections, the responsibilities of field personnel, and procedures to be followed.

Safety Procedures

SAFETY IS ALWAYS THE PARAMOUNT CONSIDERATION: IF YOU THINK A SITUATION IS UNSAFE, DO NOT PUT YOURSELF INTO THAT SITUATION. Inspections may be conducted in areas where there are safety hazards. Sampling personnel must always be aware of possible hazards and must take the necessary precautions to avoid dangerous situations. Please reference the City of Portsmouth's Dry Weather Inspection Procedures' safety procedures section in Attachment A.

Inspection Procedures

The field supervisor will assign each inspection team a list of sites to be screened each day. Each field crew team will review the list of inspection points to be evaluated before starting the fieldwork. A packet of inspection site information will be distributed to each field crew team and the information packet will include a list describing the inspection sites, an inspection site location map, field data sheets, quality control records, chain-of-custody forms, and an equipment checklist. The inspection sites will be marked on the map, and the proposed order of site visits will be established before beginning fieldwork. The site descriptions will be reviewed to determine if any unusual conditions exist at the sites and to determine the best way to gain access to each site.

After the site locations have been evaluated, the field crew team will organize their equipment. The equipment checklist should be reviewed and all equipment gathered and inspected to be certain it is in good working order. All equipment should be intact, complete, and clean.

Observations

The procedures for collecting information at each site are described in the following paragraphs.

Locate the inspection location as soon as arriving at a site. Record the field crew members' names, map number, the location identification number, date, and time at the top of the field form provided in Attachment A. Document the date, duration, and amount of rainfall on the field form. Use precipitation gauges located in the City of Portsmouth and the Norfolk International Airport to obtain precipitation readings. The field supervisor will pull the precipitation data from National Oceanic and Atmospheric Administration's website at each weather station to obtain the precipitation information required for each station.

Observe and document the physical conditions of the drainage area and stormwater structure being examined by answering the questions in Section 1 of the field form. Look around the area draining to the inspection location and examine the zoning maps in the vicinity of the inspection location to characterize the dominant land use draining to the site. The location is the grid number in which the site is located. Circle or describe the appropriate type of structure in Section 2 of the field form.

Determine if flow is present by carefully observing any liquid in the stormwater conveyance. Allow the liquid in the manhole or storm drain structure time to stabilize following removal of the cover. When removing a manhole or storm drain structure cover, dirt or debris is often dropped into the water at the bottom of the structure and will produce the illusion of movement. If flow is observed in the manhole or structure, it may indicate that there is a potential illicit discharge to the storm sewer system. Follow up on a potential illicit discharge to identify it and eliminate it if the source of the illicit discharge is found is the City's responsibility. Indicate document findings of potential illicit discharges in Section 3 of the field form.

Make observations about the conveyance in which the stormwater is carried in Section 5 of the field form. Stains on the structure wall or deposits in the channel will indicate past instances of unwanted material or heavy sediment loads from construction activity being discharged to the MS4. Vegetative growth occurring in the pipe or channel will indicate past illicit discharges. Describe the general condition of the manhole or storm drain structure and indicate if there is deterioration or corrosion. Record any other general concerns in Section 7 of the field form.

Procedures if Flow is Observed

When flow is observed at the inspection manhole, outfall, or other structure, take a grab sample using the long handled sampler. Make and log visual observations about the flow, analyze the sample, and record the resulting data in Sections 3, 4, and 5 of the field form.

Photograph the outfall or manhole and record the photo numbers, date, and time.

If flow is observed, estimate the flow rate using the prescribed method and recorded in Section 3 of the field form. Take a sample of the discharge and the method used to collect the sample will depend on the type of structure and its accessibility.

Visually examine and note the observations after the sample is obtained. Evaluate the field data sheet that lists all the characteristics, including odor, color, turbidity, and presence of floatables. Select descriptors are provided; distinctly and clearly circle and appropriate descriptors. If a descriptor other than those provided is appropriate, fill in the blank beside the word "other". Address all the characteristics; none should be left without a descriptor circled or noted. Note any additional remarks in the space provided under *Notes*.

Report the locations with observed flow to the Stormwater Manager, to determine if they should be added to the dry weather inspection locations for that year.

Time Estimates

The field supervisor will estimate the time it will take to perform the inspections based on the number of sites and their relative locations. It is anticipated that an average of 35 minutes will be required for each location where flow is not observed. This estimate includes time to find the inspection site, record observations, and proceed to the next location. Notify the field supervisor of delays in the schedule, to help in planning the next day's activities.

Weather Conditions

Conduct inspections only during dry weather conditions. Dry weather conditions are defined as less than 0.1 inch of rain occurring during the immediately preceding 48-hour period. If rainfall is received during this 48-hour period, then a waiting period is mandatory. Do not inspect at least 48 hours after the completion of a rainfall event, totaling between 0.1 and 1.0 inch. Major storms are defined as precipitation in the form of rain in excess of 1 inch over a 24-hour period. Do not conduct inspections for 72 hours following a major storm event.

The field supervisor will notify the field crews of the suspension of inspections because of precipitation, and notify the field crews when to resume inspections.

Tidally Influenced Locations

Some of the inspection locations may discharge into the intertidal zone, meaning the locations may be partially or fully submerged with receiving waters. Schedule inspections at tidally influenced locations for low tide. If the inspection location is submerged or partially submerged during low tide, the field crew will proceed to the alternate point chosen for this location.

Field Crew Responsibilities

The Field Supervisor responsibilities include the following:

- Conduct the morning briefing and ensure that all crews understand their assignments.
- Collect the field logs each day, verify that follow-up visits were performed as needed (or are scheduled to be done), and check the field forms for completeness.
- Track the locations screened and adjust the inspection schedule, if necessary.
- Contact the local weather station to determine the weather conditions and contact City personnel to postpone sampling, if necessary, because of rain or threatening weather.
- Make decisions on procedures as requested by the field crews.
- Check that personnel performing sampling are following proper sampling and QC procedures.
- Notify the Stormwater Manager of any potential illicit discharges.

The field crews are responsible for following:

- Follow inspection procedures
- Complete all information as appropriate on the field forms
- Notify the Field Supervisor of any problems encountered

Equipment List

- ☐ distilled water
- ☐ squeeze bottle
- ☐ inspection binder
- ☐ kimwipes
- ☐ beaker (50 ml)
- ☐ sample containers, plastic (500 ml)
- ☐ safety glasses
- ☐ gloves, latex (disposable)
- ☐ flashlight
- ☐ first aid kit w/ eye wash
- ☐ safety cones (18 inches)
- ☐ sample dippers (2) with extendable handles
- ☐ safety vests
- ☐ camera
- ☐ selfie stick (for pictures inside the manhole)
- ☐ manhole pick
- ☐ stop watch
- ☐ pictometry app downloaded on phone

Revised 5/19/16

CITY OF PORTSMOUTH

FIELD SCREENING PLAN AND PROCEDURES MANUAL

A. INTRODUCTION

1. **Background:** You are an essential part of a federally mandated program, which will help protect and preserve the quality of the waters in Hampton Roads. Storm water has proven to be a significant cause of degraded water quality. The EPA and the Virginia Water Control Board (SWCB) already have tight control over most known point sources of water quality degradation. Sewage treatment plants and industries which discharge directly to state or federal waters hold NPDES permits which require monitoring and limit pollutant loads. Regulatory agencies are now attempting to assess the magnitude and ultimately limit the pollutant loading introduced through urban stormwater runoff. This study is a portion of a larger and more complex procedure, which will result in the issuance of an NPDES permit to the City of Portsmouth for each of its storm water outfalls. **The objective of this particular part of the EPA Storm Water program is to provide a preliminary determination about the existence, extent, and location of illicit connections and illegal dumping to your stormwater system.** A goal of any stormwater system must be no illicit connections.

2. This document is intended for use as a field guide and contains detailed instructions and sampling procedures. It describes the sampling procedures, schedule, lists the responsibilities of field personnel, and describes QA/QC procedures to be followed. You are not required to memorize this document but rather to use it as a field reference guide.

B. SAFETY PROCEDURES

SAFETY IS ALWAYS THE PARAMOUNT CONSIDERATION: IF YOU HAVE CONCERN THAT A SITUATION IS UNSAFE DO NOT PUT YOURSELF INTO THAT SITUATION.

1. <u>Sampling</u>

Sampling is sometimes conducted in areas where safety hazards exist. Sampling personnel must always be aware of possible hazards and must take the necessary precautions to avoid dangerous situations. Some of the more common hazards are discussed below.

a. Protection from Traffic. If the sample is collected from a manhole in a street, traffic control is an important consideration. In addition to markers, the sampling vehicle should be parked between the working area and oncoming traffic. Personnel should wear orange safety vests when the manhole is located in a vehicular traffic area. Cones and flags should be utilized where appropriate. Under no circumstances should any field personnel enter a manhole.

Samples should be obtained from the manhole as quickly as possible. Sampling crews should replace the manhole cover and move the vehicle and equipment to a location off the street. All sample analyses should be performed in a safe location away from the vehicular traffic area.

b. Confined Space Entry. Manholes and enclosed storm drains are confined spaces and as such must not be entered for any reason without adequate safety precautions. These precautions can only be certified and evaluated by a "Confined Space Qualified Person" with the appropriate monitoring equipment. The project manager and supervisor are "Qualified" and must be consulted for guidance in any confined space situation. Entry includes any time any part of your body breaks the plane of the entry port. **Therefore do not enter or place any part of your body into any manhole.**

c. Removing Manhole Covers. Manhole covers should be carefully removed using the pickaxe provided. Hands and feet should not be used to assist in either opening or closing the manholes. Under no circumstances should any field personnel enter a manhole.

d. Emergencies. Every member of the sampling crew must be aware of procedures to be followed in case of an emergency. All field personnel should have a list of emergency telephone numbers, including the local hospital's general emergency number. All injuries and other problems should receive immediate medical attention and should also be reported as soon as practical to the field supervisor.

e. Hazardous Waste Streams. The storm sewers may receive industrial wastes that contain corrosive or toxic materials. Skin contact with a waste stream must be avoided and long-handled samplers will be provided to each sampling crew. Sampling personnel should always be aware of possible hazards and should take all necessary precautions to insure safety.

f. Other Hazards. A wide variety of insects and rodents may inhabit manholes or sampling sites. Sampling personnel should always be on the lookout for these creatures to avoid painful and dangerous bites or stings.

Sampling personnel are always exposed to the possibility of infections. Disposable rubber gloves should be used to avoid skin contact with the waste stream. Personnel should wash their hands or use the provided towelettes as required. Open cuts or sores should never be allowed to come into contact with a waste stream.

2. Analysis

During sample analysis with the Chemetrics kit, sampling personnel should avoid any internal or external contact with chemicals in the chlorine, copper, and phenol reagents. Skin and eyes may become irritated if exposed to the chemicals. Each member of the sampling team should wear protective safety goggles and disposable rubber gloves while performing the analyses. If exposure does occur, large amounts of water should be used to flush the exposed area.

The analyses should be performed in a well-ventilated area to avoid inhalation of chemical fumes. Specific first aid instructions for each sampling procedure are listed on the materials safety sheets included in the field procedures manual.

3. First Aid

Members of sampling crews should know first aid procedures and, if possible, one person in any sampling group should remain in a safe location during the course of the work. Included in first aid training should be procedures for resuscitation.

Each member of every sampling team should know at least the basics of first aid. A first aid kit will be provided to each sampling team. The field supervisor will carry a portable telephone and should be contacted in the event of a serious injury.

4. Accident Reports

Reports should be filled out on all accidents regardless of the extent of the injury. In this way, conditions that cause repeated injuries may be isolated and corrected.

C. SCREENING PROCEDURES

1. Preparation for Daily Screening Activities

Each sampling team will begin the day's activities by reviewing the list of screening points to be evaluated. The field supervisor will assign each team a list of sites to be screened each day. A packet of information will be distributed which includes a list of the sampling points, a description of their locations, a map showing their locations, field data sheets, quality control records, chain-of-custody forms, and an equipment checklist. The locations of the points will be marked on the map, and the proposed order of sampling will be established before moving into the field. The description of the screening point, provided by the City of Portsmouth will be reviewed to determine if any unusual conditions exist at the site and to determine the best way to gain access to the site.

Once the locations of screening points have been clearly established, the screening team will organize their equipment. The equipment checklist should be reviewed and all equipment gathered and inspected to be certain it is in good working order. In particular, the Chemetrics sample analysis kit must be clean, stocked, and fully functional. All equipment in the kit should be intact, complete, and clean.

The pH meter should be conditioned, according to directions in the kit, and checked to make certain the batteries are working. An extra set of batteries should also be carried into the field.

The field supervisor will complete the Weather Conditions Log at the start of each day. This form is presented on Figure 1. The date, duration, and amount of rainfall will be clearly documented. Precipitation gauges located at City of Portsmouth and the Norfolk airport will be used to obtain precipitation readings. The field supervisor will contact the individual identified at each location to obtain the precipitation information.

This study must be conducted only during dry weather conditions. Dry weather conditions are defined as less than 0.1 inch of rain during the immediately preceding 48 hour period. If rainfall is received during this 48 hour period then a waiting period is mandatory. No screening will be performed at least 48 hours after the completion of a rainfall event totaling between 0.1 and 1.0 inch. Major storms are defined as precipitation in the form of rain in excess of 1 inch over a 24 hour period. No screening will be

performed for 72 hours following a major storm event.

The field supervisor will be responsible for notifying the screening crews of suspension of field screening because of precipitation, and will also notify the screening crews to resume screening.

2. Initial Observations

Figure 2 is a sample Field Data Sheet and should serve as a guide for the tasks required at each sampling site. Identify the sample location as soon as arriving at a site. Record the Map No., the Outfall/Structure No., Date and Time on the top of the Field Data Sheet.

Some initial observations are required in all cases. Complete the General Information section by answering the questions regarding rainfall and identifying the Inspection Team.

Observe and document the physical conditions of the drainage area and stormwater structure being examined by answering the questions under the Field ... Description category. Location is the grid no. in which the site is located. Circle or describe the appropriate type of structure (Open Channel; Manhole; Outfall). Look around or examine the zoning maps in the vicinity from which the structure is expected to receive runoff and describe the dominant land use (Industrial; Commercial; Residential; Unknown or Other(please describe)).

Make observations about the conveyance in which the stormwater is carried. Are their stains on the wall or deposits in the channel? This may indicate past instances of unwanted material or heavy sediment loads from construction activity. Is vegetative growth occurring in the pipe or channel, which could indicate past or future problems? Describe the general structural condition. Is it in good repair or are there indications of deterioration or corrosion?

Determine if flow is present by carefully observing any liquid in the stormwater conveyance. Remember allow the liquid time to stabilize following removal of a manhole. Often when removing the cover dirt or debris is dropped into the water which can produce the false illusion of movement. If flow is observed there is strong indication that an illicit connection to the stormwater system is present and the City will most likely follow up to identify and correct.

3. Procedures to be Followed When Flow is Observed

When flow is observed at the screening location in the manhole, outfall, or other structure, a grab sample will be taken using the long handled sampler. Visual observations will then be made and logged, the sample will be analyzed, and the resulting data recorded.

The outfall or manhole should be photographed and the photo numbers recorded. Be sure to include the date and time.

If flow is observed, the amount should be estimated using the prescribed method. A sample of the discharge should then be taken. The method used to sample the discharge will depend on the type of structure and its accessibility.

Once the sample is obtained, it should be visually examined and the observations should be noted. The field data sheet lists all the characteristics to be evaluated, including odor, color, turbidity, and floatables. A selection of descriptors is provided. The appropriate ones should be distinctly and clearly circled. If a descriptor other than those provided is appropriate, the blank beside the word "other" should be filled in. All of the characteristics should be addressed; none should be left without a descriptor circled or noted. Any additional remarks should be noted in the space provided under **Comments**.

After visual observations are recorded, the sample should be analyzed using the Chemetrics stormwater sampling kit. The kit should be opened in an accessible area that is free from hazards, dry and out of direct sunlight. The following constituents will be analyzed: chlorine, copper, phenol, detergents, pH, and temperature.

The Chemetrics kit uses colorimetric methods of analysis. The analyses should be performed according to the directions provided, and color comparisons made by using the comparators. The concentrations of the constituents should be recorded on the field data sheet. If the constituent is not detected (the appropriate color change does not occur), then a concentration of zero should be recorded.

The following procedures will be used when testing the samples with the Chemetrics sampling kit.

a. Glassware Cleaning Procedure

It is important to wash sample containers with Deionized Water, 3 times in succession, after each test procedure is completed. At the

end of each day, all sampling and test glassware (except the detergent test equipment) should be washed with detergent and rinsed 3 times in succession. This procedure can best be performed in your laboratory.

To avoid possible detergent test interference, do not use detergent to clean Detergent Test reaction tube, merely rinse 3 times in succession with Deionized Water only.

***WARNING:** Reagents marked with a * are considered hazardous substances. Material Safety Data Sheets (MSDS) are supplied for these reagents. For your safety, read label and accompanying MSDS before using.

b. Total Chlorine

1. Rinse the sample cup with your sample and fill to the **25 mL** mark.
2. Add **5 drops** of the A-2500 activator solution. Stir with the tip of a chlorine CHEMet ampoule and wait **1 minute**.
3. Immerse the CHEMet ampoule in the contents of the sample cup and snap the tip.
4. After **1 minute**, wipe all of the liquid from the exterior of the ampoule and then use the appropriate chlorine comparator to determine the level of chlorine in the sample.

c. Total Phenol

1. Rinse the plastic beaker with your sample and fill to the **25 mL** mark.
2. Stir briefly (5-10 seconds) with the tip of the CHEMet ampoule to dissolve the crystals and snap the tip of the ampoule.
3. Immediately wipe all of the liquid from the exterior of the ampoule and use the appropriate phenols comparator to determine the level of phenols in the sample.

d. Total Copper

1. Rinse the sample cup with your sample and fill to the **25 mL** mark.
2. Immerse a copper CHEMet ampoule in the contents of the sample cup and snap the tip.
3. After **1 minute**, wipe all the liquid from the exterior of the ampoule and then use the appropriate chlorine comparator to

determine the level of copper in the sample.

e. Detergents

1. Rinse the reaction tube (red cap) with sample and fill to the 5 mL mark.
2. While holding the double tipped ampoule in a vertical position, snap the upper tip using the tip-breaking tool.
3. Invert the ampoule and position the broken end over the reaction tube. Snap the upper tip and allow the ampoule to empty into the tube.
4. Cap the reaction tube and shake it vigorously for **30 seconds**. Allow the tube to stand undisturbed for approximately **1 minute**.
5. Make sure that the flexible tubing is firmly attached to the CHEMet ampoule tip.
6. Place the CHEMet assembly (tubing first) into the reaction tube, making sure that the end of the flexible tubing rests on the bottom. Break the tip of the CHEMet ampoule by gently pressing it against the side of the reaction tube.
7. When filling is complete, remove the CHEMet assembly from the reaction tube. Note: The ampoule should draw in fluid only from the organic phase (bottom layer).
8. Invert the ampoule several times, allowing the bubble to travel end to end. Using a tissue remove the flexible tubing from the CHEMet ampoule and wipe all the liquid from the exterior of the ampoule.
9. Place a small white cap firmly onto the tip of the ampoule.
10. Use the detergents comparator to determine the level of detergent in the sample.

f. **pH meter calibration**

To determine which set of standards to use, refer to historical data to find a suitable range in which the sample may give a reading. If historical data is not available, calibrate with pH 4 and 7. If the sample pH reading is outside of the range in which the meter is calibrated, recalibrate the meter to best suit the sample. Manufacturer instructions are provided for meter calibration and sample reading.

h. **Turbidity**

Turbidity in the sample may lead to difficulty in reading colorimetric test results. A 30 cc syringe and 0.45 um disposable filters are included in the kit for filtering the samples, if necessary. The filter is attached to the end of the syringe and the sample is drawn into the syringe through the filter. The filter is removed and the filtered sample is discharged from the syringe into the appropriate sample container.

i. **Repeat Samplings**

When flow is observed at the sampling location two samplings for all the above parameters are required. The first sample set should be collected when the flow is first observed. A second set of samples must be taken and analyzed more than 4 hrs, but not greater than 24 hours later.

D. SAMPLING SCHEDULE

1. Time Estimates

Your project supervisor provides a general estimate of the work to be accomplished based on analysis of the number of sites and their relative locations. The actual time involved will be directly dependent on the number of locations where flow is observed. Assume a large portion of the locations will have flow and require sampling to develop a conservative estimate for total required time.

It is anticipated that an average of 35 minutes will be required for each location where flow is not observed. This includes time to find the access point, record observations, and to proceed to the next location. Where flow is observed, an average of 60 minutes has been estimated. This includes time to find access, collect the sample, perform the required analyses, record observations and results, and to reach the next location.

Your objective should be to do the job correctly, not to do it as fast as you can. As with all field sampling activities, your speed will increase as you gain confidence and familiarity with the program. Notify the field supervisor should you get considerably off schedule. This will assist him in planning the next day's activities and in adjusting sampling attention.

2. Weather Problems

The field screening work is to be conducted during dry weather conditions. Dry weather will be defined as less than 0.1 inch of rain during the immediately preceding 48 hour period. Sampling will not occur for 72 hours after a major storm (defined as more than 1 inch of rain over a 24 hour period). If a rain, drizzle, snow or mist occurs during sampling, the field supervisor must decide whether sampling should be suspended and inform the field crews.

If it rains between the first and second sampling of a location, the first sampling will be repeated so that the second sample can be taken within 4 to 24 hours. Appropriate notations will be made in the field logs. To minimize the number of times this may occur, locations will be resampled on the same day whenever possible. A daily scheduling form has been developed to assist the field crews in allocating time for resampling. This form is discussed later in this section.

3. Tidally Influenced Locations

Up to one third of the screening locations discharge into the intertidal zone and have been identified as being tidally influenced. This means that the locations may be partially or fully submerged with receiving waters. These locations should be scheduled for sampling during low tide. If they are submerged or partially submerged during low tide, the crews will proceed to the alternate point chosen for this location. If the outfall is not submerged and is discharging flow, a sample will be collected and analyzed.

E. SAMPLING CREW RESPONSIBILITIES

It is anticipated that two field crews of two persons each will operate simultaneously to conduct the field screening work. A field supervisor will oversee this field screening work. In addition, a field assistant will be on call.

The responsibilities of the field supervisor include the following:

- Conduct the morning briefing and ensure that all crews understand their assignments.
- Collect the field logs each day, verify that resampling was done as needed (or is scheduled to be done), and check the field logs for completeness.
- Track the locations screened and adjust sampling schedule, if necessary.
- Contact the local weather station and City personnel to postpone sampling, if necessary, because of rain or threatening weather.

- Make decisions on procedures as requested by the field crews.

- Check that sampling crews are following proper sampling and QC procedures.

- Handle any problems that may arise.

The field crews are responsible for following the procedures described in this manual, for completing all information called for in the field data logs, and for notifying the field supervisor of any problems encountered.

F. QA/QC PROCEDURES

The quality control procedures to be used on this project are listed below.

- One person in each crew will fill out the log sheets. Before leaving the screening location, the other crewmember will check the sheet for completeness, verify the location information, and initial the form.

- If testing results in any values that are cause for concern, a retest of that constituent will be conducted immediately. If the second test shows substantially different results, a third test will be done. All results will be recorded. The specified ranges for the measured parameters, which are cause for concern, are listed below and are based on the concentration ranges available in CHEMetrics test kits:

  Total Copper > 3 mg/L
  Total Phenol > 10 mg/L
  Detergents > 3 mg/L

  A sample is required for laboratory verification if the second test verifies the first test, or, if the third test still shows values, which we have identified as cause for concern. Collect a sample in the specially marked 500 ml nalgene container, place the container on ice, and call HRSD's Technical Services Division (757-460-7004) for further direction. These samples will have to be transported to the District Lab before the end of the work day (3:30 pm) so that analysis can be conducted on the sample within the prescribed holding time for the intended parameters.

- Duplicate analyses will be run routinely on 10 percent of the samples. For these duplicate analyses the crewmembers will switch roles and conduct the analyses normally performed by the other person. Each crew will complete a Quality Control Record (presented in Figure 3).

- At least 10 percent of sample collected by each crew will be split and one part will be analyzed in the field and the other will be sent to the lab for analysis. Included in this 10% calculation are any causes for concern verifications. The chain of Custody Record for the laboratory samples is presented in Figure 5. The samples for the laboratory must be kept in a cooler on ice.

- The field supervisor will routinely check the sampling procedures of each field crew.

- The field supervisor will check the field logs each day to ensure that they are being filled out completely and that resampling is occurring as required, and that duplicate analyses are conducted as required.

Figure 1

Portsmouth NPDES Stormwater Permit
Weather Conditions Log

Date _____ Time _____ Field Supervisor

I. Weather Conditions:

A. If rainfall was less than 0.1 inch for the previous 48-hour period, ***dry weather conditions*** exist, and sampling may proceed.

B. If rainfall was more than 0.1 inch for the previous 48-hour period but less than 1 inch for a 24-hour period, a ***rainfall event*** has taken place and 48 hours must elapse prior to continuance of sampling.

C. If rainfall was more than 1 inch for a 24-hour period, a ***storm event*** has taken place and 72 hours must elapse prior to sampling.

II. Document current weather conditions and antecedent weather conditions. The previous 24-hour to 48-hour time frame is critical for determining if sampling will be conducted.

A. Rainfall: Document rainfall data from the two locations identified for use in the Portsmouth sampling events.

	Amount (in)	Period (hr)	Start	End
Wakefield National Weather Service 1-757-899-4200				
Portsmouth Weather Service				

B. Discussion

Figure 3

Portsmouth NPDES Stormwater Permit
Quality Control Record

Date: _____ Sheet No. _____

Time: _____ Structure No._____

Sampling Team:_____ Address. _____

A. Split Sample: The sample will be collected and split into two portions. One-half of the sample will be field analyzed and one half will be sent to the laboratory for analysis. The samples for the laboratory must be kept in a cooler on ice.

Results of field analysis: Results of lab analyses:

Copper ____ mg/L Copper ____ mg/L

Phenol ____ mg/L Phenol ____ mg/L

Chlorine ____mg/L

Detergents ____ mg/L Detergents ____ mg/L

pH ____

Copy of chain-of-custody attached

Date of laboratory analysis

B. Duplicate Analysis: Each crewmember will switch roles and will conduct the analyses normally conducted by the other crewmember.

Results of field analysis I: Results of field analyses II:

Copper ____ mg/L Copper ____ mg/L

Phenol ____ mg/L Phenol ____ mg/L

Chlorine ____mg/L Chlorine ____ mg/L

Detergents ____ mg/L Detergents ____ mg/L

pH ____ pH

Note: Write NA in the blanks that are not applicable.

H. EQUIPMENT LIST

The following equipment will be provided to each field sampling team for site investigations.

1. CHEMetrics Storm Drain Kit
2. Measuring Device(s)
3. Distilled Water
4. Squeeze Bottle
5. Sampling Binder
6. Kimwipes (lg)
7. Beaker (50 ml)
8. pH meter w/ pH and temperature probe
9. Sample Containers, plastic (500 ml)
10. Safety Glasses
11. Gloves, latex (disposable)
12. Flashlight
13. First Aid Kit w/ eye wash
14. Safety Cones (18 in.)
15. Sample Dippers (2) w/ extendable handles
16. Safety Vests
17. Camera
18. Manhole pick
19. Stop Watch
20. Chemical Waste Container, plastic (1000 ml)
21. Refractometer
22. Cooler with ice
23. Pictometry App downloaded on phone

Interconnection Inspection Field Form

Section 1: Background Data

Station ID No.:		Receiving Water and Hydrologic Unit Code:
Date:		Time (Military):
Investigators:		Form Completed By:
Temperature (°F):	Rainfall (in.): Last 24 hours:	Last 48 hours:
Latitude:		Longitude:
Location:		Photo Nos.:

Land Use in Drainage Area (Check all that apply):

- ☐ Industrial
- ☐ Ultra-Urban Residential
- ☐ Suburban Residential
- ☐ Commercial
- ☐ Open Space
- ☐ Institutional
- Other: _____
- Known Industrial Activities in Outfall Drainage Area: _____

Notes (e.g., origin of outfall, if known):

Section 2: Station Description

LOCATION	MATERIAL	SHAPE		DIMENSIONS (IN.)	SUBMERGED
☐ **Closed Pipe**	☐ RCP ☐ CMP ☐ PVC ☐ HDPE ☐ Steel ☐ Other: _____	☐ Circular ☐ Elliptical ☐ Box ☐ Other: _____	☐ Single ☐ Double ☐ Triple ☐ Other: _____	Diameter/Dimensions: _____ _____	In Water: ☐ No ☐ Partially ☐ Fully With Sediment: ☐ No ☐ Partially ☐ Fully
☐ **Open Drainage**	☐ Concrete ☐ Earthen ☐ Riprap ☐ Other: _____	☐ Trapezoid ☐ Parabolic ☐ Other: _____		Depth: _____ Top Width: _____ Bottom Width: _____	If partially or fully submerged in sediment, include measurement in inches: _____
FLOW PRESENT?	☐ Yes ☐ No			***If No, Skip to Section 5***	
FLOW DESCRIPTION (IF PRESENT)	☐ Trickle ☐ Moderate ☐ Substantial				

Notes:

Section 3: Quantitative Characterization *FOR FLOWING STATIONS ONLY*

FIELD DATA FOR STATIONS WITH DRY WEATHER FLOW				
Station Sampling Date:		**Station Sampling Time (Military):**		
PARAMETER		**RESULT**	**UNIT**	**EQUIPMENT**
☐ Flow measured using volume fill calculation	Volume		liter	Bottle: Size _____
	Time to fill		sec	Bottle: Size_____
☐ Flow measured using area and distance calculation	Flow depth		in	Tape measure
	Flow width	_____' _____"	ft., in	Tape measure
	Measured length	_____' _____"	ft., in	Tape measure
	Time of travel		sec	Stopwatch
☐ In-stream collection of samples				
pH			pH units	Test strip
Total Residual Chlorine (TRC)			mg/L	Test strip
Turbidity			NTU	Test kit

Section 4: Physical Indicators for Flowing Stations Only

Are any physical indicators present in the flow? ☐ Yes ☐ No ***(If No, Skip to Section 5)***

INDICATOR	CHECK IF PRESENT	DESCRIPTION	RELATIVE SEVERITY INDEX (1-3)		
Odor	☐	☐ Sewage ☐ Rancid/sour ☐ Petroleum/gas ☐ Sulfide ☐ Other:	☐ 1 – Faint	☐ 2 – Easily detected	☐ 3 – Noticeable from a distance
Color/Clarity	☐	☐ Clear ☐ Brown ☐ Gray ☐ Yellow ☐ Green ☐ Red ☐ Orange ☐ Other:	☐ 1 – Faint colors in sample bottle	☐ 2 – Clearly visible in sample bottle	☐ 3 – Clearly visible in outfall flow
Turbidity	☐	Description of relative turbidity in addition to turbidity measurement.	☐ 1 – Slight cloudiness	☐ 2 – Cloudy	☐ 3 – Opaque
Floatables -Does Not Include Trash!!	☐	☐ Sewage (toilet paper, etc.) ☐ Suds ☐ Petroleum (oil sheen) ☐ Other:	☐ 1 – Few/slight; origin not obvious	☐ 2 – Some; indications of origin (e.g., possible suds or oil sheen)	☐ 3 - Some; origin clear (e.g., obvious oil sheen, suds, or floating sanitary materials)

Section 5: Physical Indicators for both Flowing and Non-Flowing Stations

Are physical indicators that are not related to flow present? ☐ Yes ☐ No ***(If No, Skip to Section 6)***

INDICATOR	CHECK IF PRESENT	DESCRIPTION	COMMENTS
Outfall Damage	☐	☐Spalling, Cracking, or Chipping ☐Peeling Paint ☐Corrosion	
Deposits/Stains	☐	☐Oily ☐Flow Line ☐Paint ☐ Other:	
Abnormal Vegetation	☐	☐Excessive ☐Inhibited	
Poor Pool Quality	☐	☐Odors ☐Colors ☐Floatables ☐Oil Sheen ☐Suds ☐Excessive Algae ☐Other:	
Pipe Benthic Growth	☐	☐Brown ☐Orange ☐Green ☐Other:	

Section 6: Overall Station Illicit Discharge Characterization for Flowing Stations Only

☐ Unlikely ☐ Potential (presence of two or more indicators) ☐ Suspect (one or more indicators with a severity of 3)
☐ Obvious

Section 7: Other Concerns (e.g., trash)?

☐ Trash (e.g., plastic/glass bottles)

☐ Erosion in surrounding area?

☐ If applicable, have recommendations from previous IDS survey been implemented?

☐ Other_____

Notes:

Attachment 7
Discharge Monitoring Report Review Procedures

Discharge Monitoring Report Review Procedures

The Virginia Pollutant Discharge Elimination System (VPDES) Industrial Stormwater Permit holders that discharge to the Municipal Separate Storm Sewer System (MS4) are required to submit Discharge Monitoring Reports (DMRs) for review to the City of Portsmouth (City) per their individual or general permits. For any permitted facilities that fail to submit signed copies of DMRs to the City, the City must report them to the Virginia Department of Environmental Quality (DEQ) Tidewater Regional Office as required by Part I Section B.2.g.5.(d) of the City's MS4 permit. The MS4 permit also requires the City to review the DMRs. The City's review will consist of comparing the monitoring results against the effluent limitations or benchmarks contained in a VPDES Industrial Stormwater General Permit or Individual Stormwater Permit. Where DMRs show continued or regular exceedance of the benchmarks, the City shall refer the permittee (facility) to the DEQ Tidewater Regional Office.

Discharge Monitoring Report Review

DMR review will be performed yearly to meet annual reporting requirements and the following steps should be taken every year to ensure compliance.

1. Confirm Permittees Required to Submit Discharge Monitoring Reports

Beginning in January of every year, the City should reaffirm the list of permitted facilities within the City limits. City staff can look at DEQ's website, under the VPDES Permits, Fees, and Regulations webpage at http://www.deq.virginia.gov/Programs/Water/PermittingCompliance/PollutionDischargeElimination/PermitsFees.aspx#GGPs and download the spreadsheets that contain information from DEQ's Comprehensive Environmental Data System. These spreadsheets contain contact information for the permitted facilities should the City staff need to remind them to submit DMRs to the City. If there are any new permitted facilities, the City will need to determine if they discharge to the MS4. The facilities that do, will need to be added to the list for DMR review.

2. Ensure Discharge Monitoring Report Submittal

Depending on the facility, there will either be quarterly or semiannual DMRs from each facility. As Portsmouth receives the DMRs, they should be scanned into electronic format if necessary and saved to a folder in the shared drive. After confirming the list of permittees discharging to the City's MS4, the City should review the DMRs received and determine which facilities have not submitted their reports. For the Industrial Stormwater General Permit holders, the facilities are required to submit their DMRs to DEQ by January 10th, and the DMRs should be available to Portsmouth at the same time. For the facilities failing to submit their DMRs to the City, the City may choose to remind the permitted facilities of their permit obligations to submit DMRs per Part I A.5.b of the VPDES Industrial Stormwater General Permit (VAR05), which states that in addition to submitting copies of discharge monitoring reports in accordance with Part II C, permittees with at least one stormwater discharge associated with industrial activity through a regulated MS4 shall submit signed copies of DMRs to the MS4 operator at the same time as the reports are submitted to DEQ. Permittees not required to report monitoring data and permittees that are not otherwise required to monitor their discharges need not comply with this provision. The VAR05 can be found at:
http://law.lis.virginia.gov/admincode/title9/agency25/chapter151/section70/

The DMR submittal requirement language in Individual Industrial Stormwater Permits may vary slightly from the Industrial Stormwater General Permit requirements.

The City is not required to remind facilities to submit DMRs, but may do so as a courtesy. Any permitees (facilities) that do not submit their DMRs to Portsmouth by June 30th of every year should be referred to the DEQ Tidewater Regional Office.

3. Reviewing the Discharge Monitoring Reports

After June 30th, the City will review the DMRs by comparing the reported values to the benchmarks or effluent limitations included on the DMR form. The City will note if any of the facilities exceeded the benchmark values and refer any facilities to DEQ that show continued or regular exceedance of their benchmarks.

The City should note that benchmark concentration values are not effluent limitations. Exceedance of a benchmark concentration does not constitute a violation of the facilities permit and does not indicate that violation of a water quality standard has occurred; however, it does signal that modifications to the facilities Stormwater Pollution Prevention Plans are necessary. In addition, exceedance of benchmark concentrations may identify facilities that would be more appropriately covered under an individual, or alternative general permit where more specific pollution prevention controls could be required.

However, the City is required to report facilities where there is evidence of significant pollutant loadings to the MS4 to DEQ. Per the MS4 Permit Fact Sheet, DEQ is the authority responsible for compliance and enforcement of the VPDES Stormwater Permit Program, and the requirements of the City's MS4 permit condition do not convey any authority to the City for enforcing VPDES permits. If the City identifies a concern regarding a permitted or unpermitted discharger, they should notify the DEQ Tidewater Regional Office.

4. Information Tracking

Information regarding DMR review should be tracked and can be recorded in a spreadsheet located on the shared server. The following DMR review information should be included in the tracking spreadsheet:

- Permit number
- Facility and owner
- Address
- Year
- Monitoring period
- DMR submittal (Y/N)
- Outfall number
- Exceedances (none or list the constituents)
- Follow-up activities (none or email referral to DEQ with date)

The DMR review tracking spreadsheet can be updated throughout the life of the permit to help identify any reoccurring exceedances. This information will allow the City to determine if facilities may need to be referred to DEQ as contributing potential significant pollutant loadings to the MS4.

Annual Reporting

The VPDES permit holders that have not submitted their DMRs to the City by June 30th will be referred to the DEQ. Based on the available DMRs for review, any VPDES industrial stormwater permit facility where there is evidence of significant pollutant loadings to the MS4 may also be referred to DEQ. These facilities should be included in the list of referrals in the City's annual report. The City may also include a short summary table of the DMR review results in their annual report.