

Pollution Prevention Assessment Summary

PREPARED FOR: The City of Portsmouth
PREPARED BY: Celeste Ostman/CH2M
DATE: May 22, 2017
PROJECT NUMBER: Task 3.3: City Facilities

CH2M and City staff conducted pollution prevention assessments at Portsmouth's three high schools: I.C. Norcom, Churchland, and Woodrow Wilson. The purpose of the assessments was to determine if any of the high schools need to be included in the City's high priority facility list or on the high priority facility list with high pollutant potential. Churchland High School and Woodrow Wilson High School serve as bus parking lots for the eastern and western parts of the City. Bus maintenance is not conducted at either high school. The known Stormwater Management Facility (SWMF) serving I.C. Norcom was inspected based on the City's draft SWMF inspection forms. The SWMF that was discovered at Churchland was not inspected.

I. C. Norcom High School

I.C. Norcom High School is located off London Boulevard and is approximately 31 acres. There is no bus parking on the campus and the parking lot is only used for staff and student parking. The site is well maintained and there is minimal trash around the site. There is one loading dock along the eastern side of the main building that had minimal spill stains, Figure 1.

There is one underground grease trap that will be cleaned out twice a year. There were no material storage areas outside of the building and there was no equipment storage onsite. The full site evaluation can be found in Attachment A.

Retention Area

The retention area was designed in 1995 and construction was finished in 1997. This was prior to the VSMP standards for building BMPs was released and so it is assumed that the retention area was designed to control quantity of runoff and not quality. This makes the retention area eligible to be retrofitted for credit should Portsmouth choose to do so. Tom Marsh from the City of Portsmouth was able to provide the original plans for the high school and per the plans, trees were to be planted along the perimeter, but no other vegetation was called for within the basin on the plans.

Churchland High School

Churchland High School is located off Cedar Road in the northern part of Portsmouth and is approximately 89 acres. There is a bus parking lot in the southwestern corner of the campus and a City fueling station. The fueling station is covered, but there were no obvious spill kits onsite. This area already has a SWPPP and the bus parking lot was being added to the document. The inlets included in the area covered by the SWPPP will need to be marked per Part I Section B.i.1.e of the MS4 permit.

There are two areas that have dumpsters and recycling bins and there is minimal trash around the site. There are two loading docks along the eastern side of the main building. The northern loading dock had stains that started at the door and went to the storm drain, Figure 2. Tom Marsh from the City stated that he believed it was from mop water and waste water from a scrubber which contains wax and "green stripper" from when the school refinishes the boiler room floor. He asserted that the water

should be dumped down the sanitary sewer and that this has been conveyed to the maintenance and janitorial staff on several occasions.

There are two underground grease traps that will be cleaned out twice a year and one grease bin. There were no material storage areas outside of the building. The full site evaluation can be found in Attachment B.

Roof Drain Disconnections

While onsite, it was discovered that there were roof drain disconnections installed when the green house was built on the eastern side of the site. The operation appeared to be fairly new and in good condition. The roof drain disconnections will need to be added to the City's SWMF database and inspected annually per the MS4 permit.

Woodrow Wilson High School

Woodrow Wilson High School is located at the intersection of Cherokee Road and Elmhurst Lane and is approximately 43 acres. There is a bus parking lot in the northeastern corner of the campus, but no buses were present at the time of the inspection. During weekdays the buses will park on campus, but on weekends and breaks the buses are parked at the Parks, Recreation and Leisure Services Maintenance facility located at 2717 Victory Boulevard (formerly known as the "HRT site").

There is one loading dock along the northern side of the main building. There were similar stains to those found at the Churchland campus from mop water and waste water from a scrubber which contains wax and "green stripper" from when the school refinishes the boiler room floor. There was an area with dumpsters and recycling bins by the loading dock and there is minimal trash around the site. There is a very large, empty fuel tank that was originally used for the boiler which has no plans for removal due to cost constraints. There is one underground grease trap that will be cleaned out twice a year and one grease bin. The full site evaluation can be found in Attachment C.

Summary

In general, there were little potential pollutant sources at the three high schools. There was some concern with the improper disposal of wash water from mop buckets and waste water from refinishing the boiler room floors. It is believed that this can be remediated by having a training for custodial, maintenance, and food service staff on stormwater pollution prevention and good housekeeping practices. CH2M recommends that the City resume stormwater training at in-service meeting before school starts.

Churchland High School already has a SWPPP for the fueling station, which is currently being revised to include the bus parking area. If this facility will be included on the high priority municipal facility list required in Part I Section B.i.2(b) for facilities that are required to have SWPPPs, CH2M recommends making it clear that it is not the entire campus, but just the fueling and bus parking areas only. It is CH2M's professional opinion that the other two facilities do not need to be included on either list as there were no major potential pollutant sources and buses are only parked at the schools, if at all, and no maintenance is performed on site.

Attachment A
I.C. Norcom High School Pollution
Prevention Assessment

Pollution Prevention Assessment

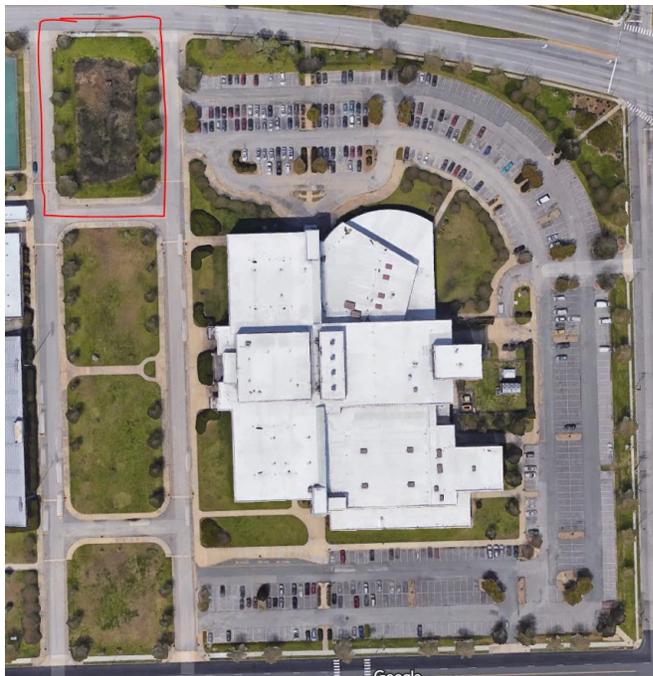
FACILITY NAME:	I.C. Norcom High School
LOCATION:	1801 London Boulevard
INSPECTOR	Celeste Ostman/CH2M
PRESENT AT INSPECTION:	Christina VanLear/Portsmouth; Rachel Morales/Portsmouth; Alexandra Neblett; Tom Marsh/Portsmouth
DATE:	4/10/2017
TIME:	9:20 am
WEATHER: (INCLUDE DATE OF LAST RAIN EVENT)	Sunny; 62°F; Last rain event on 4/6/12 with 0.91 inches

The purpose of this form is to collect information during a pollution prevention assessment and to use the collected information to determine if the inspected facility needs to be included in the City’s high priority facilities list.

Pre Site Visit Desktop Evaluation

Size of the Site (Aerial View)?

The campus is approximately 31 acres and does not have bus parking lot. There is one loading area on the eastern side of the main building.



Areas of High Pollutant Potential

This section will help to identify if there are any areas with pollutant potential on the site. A photo log is included at the end of this section to help document findings.

Are there Material Storage Areas?

There were no outdoor material storage areas. All materials were kept inside the school or in outbuildings.

Is vehicle washing performed onsite?

All buses are washed at the Vehicle Wash Building at the City's Operations Center. No vehicles are washed onsite.

Is maintenance performed on any vehicles onsite?

No vehicle maintenance is performed onsite.

Has all outdoor equipment been maintained in a clean and properly operating condition?

There was no outdoor equipment noted onsite. There were no unusually large stains in the staff and student parking lot to suggest that vehicles are not maintained.

Is there evidence of past spills other than previously noted in the material storage table?

There is a stain by the athletic fields of unknown origin or substance and minor stains in both the loading/unloading area and the student/staff parking lot (see Photos 006, 003, and 007, respectively, in the photo log)

Liquid transfer outside?

There is no liquid transfer at this campus.

Are there any material loading/unloading areas?

There is a loading/unloading area along the eastern side of the main building (see Photo 003 in the photo log).

Are spill kits available?

There were no spill kits observed onsite.

Are Pesticides, Herbicides, or Fertilizers applied to the site?

There may potentially be fertilizers used on the athletic fields.

Are trash receptacles provided and is the area clean/free of debris?

There were domestic waste dumpsters by the loading/unloading area (see Photo 005 in the photo log). There were several smaller, general use trash cans around the site as well.

Is the area cleaned on a regular basis to prevent trash/debris from washing into storm drains?

Custodians pick up trash around the campus every day that school is in session.

Are there any non-stormwater discharges observed on-site?

There was minor AC condensate on the sidewalk by the loading/unloading area (see photo 004 in the photo log).

Are all exposed areas properly vegetated to avoid sedimentation in stormwater runoff or else are proper controls such as silt fences or hay bales in place?

The campus appeared to be well stabilized at the time of the inspection.

Is there an oil water separator (OWS)?

There is a grease trap that services the cafeteria in the loading/unloading area (refer to Photo 003 in the photo log). Tom Marsh/Portsmouth stated that all the school grease traps will be cleaned out twice a year.

Notes:

There is a retention area was designed in 1995 and construction was finished in 1997 according to Tom Marsh/Portsmouth and he was able to provide the original plans for the high school. Per the plans, trees were to be planted along the perimeter, but no other vegetation was called for within the basin on the plans. As seen in Photos 008, 009, and 010 in the photo log, the SWMF has become quite overgrown with vegetation and is collecting trash. The SWMF was built prior to the VSMP standards for building SWMFs was released and it is assumed that the retention area was designed to control quantity of runoff only. This makes the retention area eligible to be retrofitted for credit should Portsmouth choose to do so.



Photo 001: Outfall for most of the school's campus. There was a sheen from a leak at an adjacent gas station



Photo 002: Loading/unloading area by the cafeteria



Photo 003: Minor stains at the loading/unloading area by the cafeteria

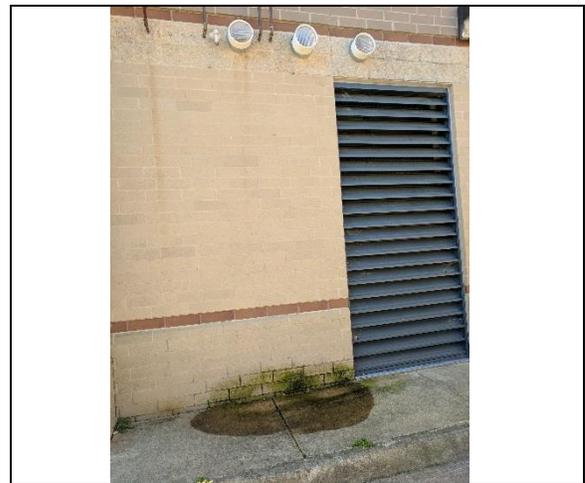


Photo 004: by the wood working shop off the southwestern corner of the main building



Photo 005: Dumpsters by the loading/unloading area



Photo 006: Stain of unknown origin or substance

PHOTO LOG



Photo 007: Stain believed to be from mop water and waste water from refinishing the boiler room floor



Photo 008: Grease bin outside of cafeteria



Photo 009: Overgrown retention area



Photo 010: Football field

Attachment B
Churchland High School Pollution
Prevention Assessment

Pollution Prevention Assessment

FACILITY NAME:	Churchland High School
LOCATION:	Off of Cedar Road in the northern part of Portsmouth
INSPECTOR	Celeste Ostman/CH2M
PRESENT AT INSPECTION:	Christina VanLear/Portsmouth; Rachel Morales/Portsmouth; Alexandra Neblett; Tom Marsh/Portsmouth; Beth Arnold/CH2M
DATE:	4/11/2017
TIME:	9:00 am
WEATHER: (INCLUDE DATE OF LAST RAIN EVENT)	Sunny; 73°F; Last rain event on 4/6/12 with 0.91 inches

The purpose of this form is to collect information during a pollution prevention assessment and to use the collected information to determine if the inspected facility needs to be included in the City’s high priority facilities list.

Pre-Site Visit Desktop Evaluation

Size of the Site (Aerial View)?

The campus is approximately 89 acres and has a bus parking lot and fueling station in the southwestern corner of the campus. There is also one loading area that looks heavily used in the northeastern corner of the campus.



Areas of High Pollutant Potential

This section will help to identify if there are any areas with pollutant potential on the site. A photo log is included at the end of this section.

Are there Material Storage Areas?

There were no outdoor material storage areas. All materials were kept inside the school or in outbuildings.

Is vehicle washing performed onsite?

All buses are washed at the Vehicle Wash Building at the City's Operations Center. No vehicles are washed onsite.

Is maintenance performed on any vehicles onsite?

No vehicle maintenance is performed onsite.

Has all outdoor equipment been maintained in a clean and properly operating condition?

The buses parking area is in the southwestern corner of the campus and there were very few stains on the pavement suggesting the buses are well maintained (refer to Photo 015 in the photo log). There was no other equipment noted onsite.

Is there evidence of past spills?

There is a stain in the loading area by the cafeteria on the eastern side of the building (see Photos 005, 006, and 007 in the photo log). Most likely mop water and possibly waste water from refinishing the boiler room floor according to Tom Marsh/Portsmouth.

Liquid transfer outside?

There is a fueling station in the southwestern corner of the campus (see Photos 002, 003, and 021 in the photo log). The fueling station is covered, but there were no obvious spill kits onsite. This area already has a SWPPP and the bus parking lot was being added to the document. The inlets included in the area covered by the SWPPP will need to be marked per Part I Section B.i.1.e of the MS4 permit.

The grease bin is located off the eastern side of the building by the cafeteria (see Photos 008 and 012 in the photo log).

Are there any material loading/unloading areas?

There is material loading/unloading on the eastern side of the building for bringing in cooking supplies for the cafeteria and one at the southeastern corner of the building by the wood shop classroom (see Photos 014 and 004, respectively, in the photo log).

Are spill kits available?

There were no spill kits observed onsite.

Are Pesticides, Herbicides, or Fertilizers applied to the site?

There may potentially be fertilizers used on the athletic fields.

Are trash receptacles provided and is the area clean/free of debris?

There were domestic waste dumpsters at four locations: the athletic fields, by the HVAC system, in the bus parking area, and by the back doors of the cafeteria (see Photos 001, 009, 011, and 014, respectively, in the photo log). There were several smaller, general use trash cans around the site as well.

Is the area cleaned on a regular basis to prevent trash/debris from washing into storm drains?

Custodians pick up trash around the campus every day that school is in session.

Are there any non-stormwater discharges observed on-site?

No discharges were seen on the campus.

Are all exposed areas properly vegetated to avoid sedimentation in stormwater runoff or else are proper controls such as silt fences or hay bales in place?

The campus appeared to be well stabilized at the time of the inspection.

Is there an oil water separator (OWS)?

There is a grease trap that services the cafeteria in the loading/unloading area (refer to Photos 012 and 018 in the photo log). Tom Marsh/Portsmouth stated that all the school grease traps will be cleaned out twice a year.

Notes:

While onsite, it was discovered that there were roof drain disconnections installed when the green house was built on the eastern side of the site. The operation appeared to be fairly new and in good condition. The roof drain disconnections will need to be added to the City's SWMF database and inspected annually per the MS4 permit (see Photos 019 and 022).



Photo 001: Dumpster by athletic fields in the northeastern part of the campus



Photo 002: Fueling station in the southwestern part of the campus



Photo 003: Fueling station in the southwestern part of the campus



Photo 004: Loading/unloading area by the wood working shop off the southwestern corner of the main building



Photo 005: Stain believed to be from mop water and waste water from refinishing the boiler room floor



Photo 006: Stain believed to be from mop water and waste water from refinishing the boiler room floor

PHOTO LOG



Photo 007: Stain believed to be from mop water and waste water from refinishing the boiler room floor



Photo 008: Grease bin outside of cafeteria



Photo 009: Dumpsters



Photo 010: Football field



Photo 011: Dumpsters located in bus parking area in the southeastern corner of the campus



Photo 012: Grease bin and grease trap servicing the cafeteria kitchen



Photo 013: Drainage swale around the green house area



Photo 014: Grease bin and dumpster behind the cafeteria in the loading/unloading area



Photo 015: Bus parking area in the southwestern corner of the campus with very few stains on the asphalt



Photo 016: Drainage swale around the green house area east of the main building



Photo 017: Drainage for the bus parking area in the southwestern corner of the campus



Photo 018: Grease trap servicing the cafeteria kitchen and vents to the boiler room

PHOTO LOG



Photo 019: Greenhouse roof drain disconnection



Photo 020: Storm drain that leads directly into Craney Island Creek



Photo 021: Fueling station in the southwestern part of the campus



Photo 022: Southern end of greenhouse area

Attachment C
Woodrow Wilson High School
Pollution Prevention Assessment

Pollution Prevention Assessment

FACILITY NAME:	Woodrow Wilson High School
LOCATION:	Intersection of Cherokee Road and Elmhurst Lane
INSPECTOR	Celeste Ostman/CH2M
PRESENT AT INSPECTION:	Christina VanLear/Portsmouth; Rachel Morales/Portsmouth; Alexandra Neblett; Tom Marsh/Portsmouth
DATE:	4/12/2017
TIME:	9:15 am
WEATHER: (INCLUDE DATE OF LAST RAIN EVENT)	Sunny; 73°F; Last rain event on 4/6/12 with 0.91 inches

The purpose of this form is to collect information during a pollution prevention assessment and to use the collected information to determine if the inspected facility needs to be included in the City’s high priority facilities list.

Pre-Site Visit Desktop Evaluation

Size of the Site and Aerial Overview

The campus is approximately 43 acres and has a bus parking lot and a loading area in the northeastern corner of the campus.



Areas of High Pollutant Potential

This section identifies any areas with pollutant potential on the site. A photo log is included at the end of this section.

Are there Material Storage Areas?

There were no material storage areas. There was an old, empty fuel tank under an overhang in the loading/unloading area on the north side of the school (see Photo 003 in the photo log). Tom Marsh/Portsmouth stated that there were currently no plans to remove the empty tank due to the cost.

Is vehicle washing performed onsite?

All buses are washed at the Vehicle Wash Building at the City's Operations Center. No vehicles are washed onsite.

Is maintenance performed on any vehicles onsite?

No vehicle maintenance is performed onsite.

Has all outdoor equipment been maintained in a clean and properly operating condition?

There were no buses onsite during the time of the inspection. According to Tom Marsh, the buses park in the northeastern corner of the campus during weekdays the buses will park on campus, but on weekends and breaks the buses will get parked over at the old HRT location on 2717 Victory Boulevard.

There was no other equipment noted onsite.

Is there evidence of past spills other than previously noted in the material storage table?

There is a stain in the loading area by the cafeteria on the northern side of the building (see Photo 004 in the photo log). Most likely mop water and possibly waste water from refinishing the boiler room floor according to Tom Marsh/Portsmouth.

Liquid transfer outside?

The only liquid transfer is grease into the grease bin. The grease bin is located off the northeastern corner of the building in a grassy area (see Photo 001 in the photo log).

Are there any material loading/unloading areas?

There is material loading/unloading on the north side of the building that is used to bring in cooking supplies for the cafeteria.

Are spill kits available?

There were no spill kits observed onsite.

Are Pesticides, Herbicides, or Fertilizers applied to the site?

There may potentially be fertilizers used on the athletic fields.

Are trash receptacles provided and is the area clean/free of debris?

There were two domestic waste dumpsters and one dumpster for recycling off the northern side of the building by the material loading/unloading area (see Photo 005 in the photo log). There were several smaller, general use trash cans around the site as well.

Is the area cleaned on a regular basis to prevent trash/debris from washing into storm drains?

Custodians pick up trash around the campus every day school is in session.

Are there any non-stormwater discharges observed on-site?

No discharges were seen on the campus.

Are all exposed areas properly vegetated to avoid sedimentation in stormwater runoff or else are proper controls such as silt fences or hay bales in place?

There is a small area by the athletic fields that is used for overflow parking during large events that does not have good ground cover (see Photo 006 in the photo log).

Is there an oil water separator (OWS)?

There is a grease bin behind the school, along the northern side, in a grassy area (refer to Photo 001 in the photo log). There is also a grease trap that services the cafeteria in the loading/unloading area (refer to Photo 002 in the photo log). Tom Marsh/Portsmouth stated that all the school grease traps will be cleaned out twice a year.



Photo 001: Grease bin



Photo 002: Grease trap servicing the cafeteria kitchen



Photo 003: Empty boiler fuel tank no longer in service



Photo 004: Stain believed to be from mop water and waste water from refinishing the boiler room floor

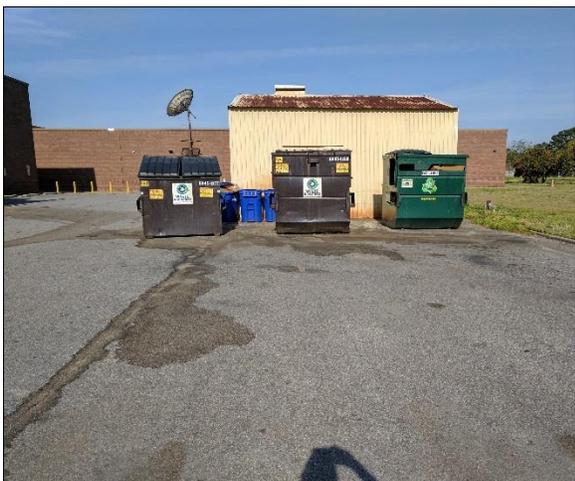


Photo 005: Dumpsters located adjacent to the material loading/unloading area



Photo 006: Unstabilized area used as overflow parking during large events.