

Stormwater Pollution Prevention Plan



Derry Public Works Facilities 38-46 Transfer Lane, Derry, NH

**EPA NPDES Permit Number
NHR041005**

Prepared: 06/30/2021

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**Stormwater Pollution Prevention Plan
for
DERRY PUBLIC WORKS FACILITIES**

Facility Name: Vehicle Maintenance Facility
Facility Address: 38 Transfer Lane

Facility Name: Highway Garage
Facility Address: 40 Transfer Lane

Facility Name: Salt Storage Facility
Facility Address: 42 Transfer Lane

Facility Name: Storage Building – Winter Maintenance Equipment
Facility Address: 46 Transfer Lane

Facility Name: Buildings & Grounds Storage
Facility Address: 48 Transfer Lane

1.0 Stormwater Pollution Prevention Plan Overview

This Stormwater Pollution Prevention Plan (SWPP) does the following:

- Identifies the SWPPP team, by name and title.
- Describes the facility, with information on location and activities, a site map, and a description of the stormwater drainage system.
- Identifies potential stormwater contaminants.
- Describes stormwater management control and best management practices (BMPs) needed to reduce pollutants in stormwater discharges; and
- Describes the facility's inspection and monitoring plan.

2.0 Stormwater Management Program Team

Stormwater Program Coordinators:

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3.0 Site Description

The Derry Public Works support facilities are located on Transfer Lane in Derry, NH. The facilities are all located adjacent to each other on a contiguous parcel and include the Vehicle Maintenance Facility (#38), Highway Garage (#40), Salt Storage Facility (#42), an auxiliary Storage Building (#46), Buildings & Grounds Storage Building (#48), paved employee parking, equipment and materials storage and staging yard with bunkers and closed storage containers, and a materials stockpile area that is shared with the Transfer Station Yard Waste Drop-off area.

A map of the facility is included as Attachment 1 of this SWPPP. The map identifies key buildings and sites, the locations of outdoor storage with potential to contribute stormwater pollution, the locations of all floor drains and oil/water separators that tie into the municipal sewer system, and stormwater drainage system, stormwater outfalls, and their receiving waters if any.

3.1 FACILITY DESCRIPTIONS

3.1.1 Vehicle Maintenance Facility Building #38

The Vehicle Maintenance Facility consists of a single building with 3 double bays and a single bay, an elevated parts storage area, office/parts storage room, and a break room. One of the double bays is a drive-through bay.

The VMF is used for repairs and maintenance of the town's vehicle fleet. Automotive fluids are replaced, stored, and/or recycled indoors at the facility. Virgin products are stored in drums on spill containment pallets. Small containers of chemicals are stored in flammable storage cabinets. Used oil is stored inside the building in a 500-gallon aboveground storage tank (AST). The main source of heating is fueled by propane. Vehicles and trucks are also washed inside the building with wash water being captured in floor drains that flow to an oil-water separator prior to discharge to the municipal sewer system. Spill response materials are maintained in the facility.

Most of the area immediately surrounding the building is paved for limited parking and access to the rear of the facility. The immediate area west of the building is unpaved allowing infiltration and sheet flow of stormwater runoff. A closed-top storage container is located immediately behind the building and used for storage of tires and vehicle parts. An emergency generator is located behind the building and fueled by propane.

No raw materials, parts, solid waste, or hazardous or universal wastes are stored outside or exposed to precipitation or stormwater run-on/run-off.

3.1.2 Highway Garage Building #40

The Highway Garage is a single building completed in January 2008 and is the base of operations for all road repair/maintenance and winter snow removal operations. The building consists of an office, break room, locker room, 2 storage rooms, and a large bay area storing

vehicles, trailers, and heavy equipment for both the highway department and the water/wastewater division. As of the preparation of this SWPPP, vehicles and equipment stored include several trucks (four 10-wheelers, three 6-wheelers, four 1-tons, three pickups), two bucket loader, two backhoes, three utility trucks, a trailer-mounted sewer jetter, and various grounds keeping equipment (mowers, trimmers, chainsaws, etc.)

Truck and equipment washing occurs inside the building with wash water being captured in a trench floor drain that flows to an oil-water separator prior to discharge to the municipal sewer system. One storage room is used to store small power equipment including walk-behind lawnmowers, chainsaws, and brush cutters for the Highway Department. Small (up to 5-gallon) containers of fuel (gas and diesel) are stored in one of two flammable storage cabinets within the storage room. A spill kit is in the main highway garage next to the storage room.

The facility has a trench-style floor drain. The floor drain discharges to an oil-water separator located on the east side of the building and is connected to municipal sewer. The floor drain is cleaned as needed. The oil-water separator is cleaned annually or more often as needed.

Virgin motor oil and lubricating oil are stored in one of two 55-gallon drums which are placed on secondary containment pallets inside the highway garage next to the spill kit. Pavement marking paints in 5-gallon containers are also stored in the highway garage on storage shelves.

The immediate area to the front and rear of the highway garage is paved and used for employee parking or seasonal parking of subcontracted plow trucks. The area immediately to the sides of the building is gravel and used for storage of plow blades. Two closed top containers located behind the garage is used for storing traffic cones, barricades, and bales of hay used for erosion control.

Earth-type materials (sand, crushed stone, riprap) used for utility construction and road repairs are stored outside in concrete block bunkers. The bunkers are situated to prevent runoff of precipitation from impacting storm drain, wetlands, or surface water. Other materials stored outside include storm drainpipes, concrete drain structures, and steel catchbasin grates and manhole structures.

No solid, hazardous, or universal wastes are stored outside or exposed to precipitation.

3.1.3 Salt Storage Facility #42

The salt storage facility consists of a galvanized steel frame with a PVC membrane cover and concrete foundation building with an open end for deliveries and loading. The structure was completed in January 2008 and allows complete storage of up to 3600 cubic yards of sand and salt for winter deicing operations. Its size and ceiling height allow trucks to completely unload deliveries of sand and salt inside as well as loading of highway Department plow trucks inside. Any loading outside is conducted on a paved area at the open end of the facility so that any spilled material is pushed back into the building with the bucket loader following loading activities.

No solid waste or universal or hazardous waste are stored at this facility.

3.1.4 Winter Maintenance Equipment Storage Building #46

Building #46, formerly used for commingled municipal waste, is currently used to store truck mounted salt spreading equipment during the off-season and protecting them from precipitation.

No solid, universal, or hazardous wastes are stored at this location.

3.1.5 Buildings & Grounds Storage Facility Building #48

The Buildings & Grounds (B&G) Division started using Building #48 during summer 2019. The building was renovated, cracks in the floor sealed, and a spill kit and flammable storage cabinet purchased. B&G is responsible for general building maintenance and groundskeeping including mowing at town-owned properties. This location is unstaffed and used for storage of a few gas cans, lawn mowers, trimmers and associated equipment and materials needed for general maintenance.

No materials or equipment is stored outdoors and no universal or hazardous wastes are stored at this facility.

3.1.6 Materials Stockpile/Staging and Dewatering Pit Area

The materials stockpiling/staging and dewatering pit are collocated with the Transfer Station yard waste drop-off area which is regulated under the Multi-Sector General Permit and included in the SWPPP for the Transfer Station and inspected quarterly. This SWPPP only covers activities and materials as it applies to DPW facilities.

This area is used for temporary storage or stockpiling of excavation materials from DPW projects. Materials stored may include sediment, stone, broken concrete, and asphalt. A small pit is used for deposition and dewatering of catchbasin cleanings collected during catchbasin cleaning by the Town or its contractor. These materials are dumped in or immediately adjacent to the pit and water in the materials drains into the pit to infiltrate.

The area is unpaved allows for significant infiltration and is sloped to a vegetated stormwater detention/infiltration basin and swales located east of west of this area, respectively.

No universal or hazardous wastes are stored at this location.

3.2 Activities and Potential Pollutants

DPW uses and/or stores materials or engages in activities that have the potential to contribute pollutants to stormwater runoff if not used, stored, or disposed of properly. To the extent feasible, materials are stored, and activities are conducted indoors to eliminate exposure of

potential pollutants to precipitation. Tables 3-1 and 3-2 include a list of activities that occur and materials that are stored at these facilities and the potential pollutants associated with each activity or material. Table 3-1 identifies those activities and materials not exposed to stormwater and Table 3-2 identifies those that are or may be exposed to precipitation and have a potential to be a stormwater pollution concern.

Table 3-1: Activities or Materials with Potential Pollutants - No Exposure to Precipitation

Activity #	Description	Potential Pollutants	Exposure to precipitation
1	Vehicle Maintenance/Repair	Petroleum, antifreeze	No-Indoors
2	Vehicle Washing	Sediment, oil, chloride	No-Indoors
3	Salt Storage	Chloride	No-Indoors
4	Trash/Recycling Collection	Trash (paper, plastic)	No-Indoors
5	Equipment/Power Tool Refueling	Petroleum	No-Indoors
6	Vehicle Refueling	Petroleum	No-Off Site
7	Cold Patch Asphalt Storage	PAHs	No-Indoors
8	Hazardous Material Storage	Petroleum, solvents, paints	No-Indoors
9	Used Oil Storage	Petroleum	No-Indoors

Table 3-2: Activities or Materials with Potential Pollutants - Exposure to Precipitation

Activity #	Description	Potential Pollutants	Exposure to precipitation
1	Salt Loading	Chloride	Yes
2	Sand/Stone Storage and Loading	Sediment	Yes
3	Employee Parking	Sediment, petroleum drips	Yes
4	Broken asphalt/millings	sediment	Yes
5	Catchbasin Cleanings Pit	Sediment, nutrients, metals	Yes
6	Equipment (plow blades) storage	Petroleum (hydraulic fluid)	Yes
7	Contractor Plow Truck Parking	Chloride, petroleum	Yes

4.0 Implementation

This section describes practices that are in place or that will be implemented to control pollutants that have the potential to contaminate stormwater. The following sub-sections describe the relevant management practices that will be implemented as identified in Section 2.3.7.2 (iv) in the MS4 permit. Unless otherwise stated, all measures will be implemented to be consistent with the schedule required in the MS4 permit, or no later than the end of year 5 of the permit if not otherwise described.

4.1 Minimize or Prevent Exposure

Permit Language: *The permittee shall to the extent practicable either locate materials and activities inside or protect them with storm-resistant coverings in order to prevent exposure to rain, snow, snowmelt and runoff (although significant enlargement of impervious surface area is not recommended). Materials do not need to be enclosed or covered if stormwater runoff from affected areas will not be discharged directly or indirectly to surface waters or to the MS4 or if discharges are authorized under another NPDES permit.*

The site-specific practices implemented to minimize or prevent exposure of pollutants to stormwater runoff include the following:

- Vehicles are washed indoors at VMF (#38) or Highway Garage facilities (#40). Wash water is collected in floor drains that discharge to oil-water separators before discharging to the municipal sewer system and wastewater treatment facility.
- Vehicle maintenance and fluid changing occurs inside the Vehicle Maintenance Facility which is covered.
- Best practices for salt storage, hazardous materials storage, spill prevention/response, runoff management, and other key topics will be discussed later in this document.

4.2 Good Housekeeping

Permit Language: *The permittee shall keep clean all exposed areas that are potential sources of pollutants, using such measures as sweeping at regular intervals. Ensure that trash containers are closed when not in use, keep storage areas well swept and free from leaking or damaged containers; and store leaking vehicles needing repair indoors.*

The following list describes good housekeeping practices followed at these facilities:

- Used oil is stored in an above ground storage tank inside the Vehicle Maintenance Facility.
- Drums of virgin materials (motor oil, lubricating oil, etc.) are stored inside on secondary containment pallets and kept closed except when actively in use.
- Smaller containers of flammable or combustible liquids up to 5 gallons in size are stored in flammable storage cabinets.
- The facilities are routinely swept, or as needed, to minimize sediment and associated pollutants entering floor drains and from being tracked out of the facilities;
- Used or spent fluids are stored inside in closed containers;

- Spillage of chemicals or sewage are promptly cleaned and reported as required;
- Spill kits are present and maintained;
- Drip pans are used when changing fluids, and spigots/funnels are used to minimize drips/leaks;
- Leaking vehicles needing repair are stored indoors and drip pans used to capture leaks;
- Solid waste (household refuse) is stored in barrels indoors;
- Outdoor storage areas are regularly swept and kept free of leaking or damaged containers.

4.3 Preventative Maintenance

Permit Language: The permittee shall regularly inspect, test, maintain, and repair all equipment and systems to avoid situations that may result in leaks, spills, and other releases of pollutants in stormwater to receiving waters. Inspections shall occur at a minimum once per quarter.

The following is a list of preventative maintenance procedures practiced at this facility:

- Vehicles undergo routine annual maintenance and repairs conducted as needed.
- Hydraulic equipment is kept in good repair to minimize leaks;
- All materials, waste storage areas, drains, tanks, and cans are properly labeled and inspected periodically.
- Drainage swales are kept clear;
- Floor drains are cleaned as needed and oil-water separators are pumped out annually.

4.4 Spill Prevention and Response

Permit Language: *The permittee shall minimize the potential for leaks, spills, and other releases that may be exposed to stormwater and develop plans for effective response to such spills if or when they occur.* See Section 2.3.7.2 (iv) in the MS4 permit for additional details.

The following is a list of spill prevention and response procedures practiced at this facility:

- Staff are aware of spill prevention and response procedures;
- Spill response equipment is located at potential spill areas;
- Spills will be contained as close to the source as possible with a dike of absorbent materials from the emergency spill kit or available sand from stockpiles, and a cover or dike will protect any catch basins or other stormwater intake structures;
- Supervisors will be advised immediately of all hazardous or regulated material spills;
- Qualified personnel observe transfers to and from fuel tanks;
- Above ground storage tanks are inspected regularly for signs of corrosion or leaks;
- Hazardous materials storage areas are inspected regularly for spills or leaks.

4.5 Erosion and Sediment Control

Permit Language: *The permittee shall use structural and non-structural control measures at the facility to stabilize and contain runoff from exposed areas and to minimize or eliminate onsite erosion and sedimentation. Efforts to achieve this may include the use of flow velocity*

dissipation devices at discharge locations and within outfall channels where necessary to reduce erosion.

All runoff from roofs and paved areas flows by sheet flow to unpaved or wooded areas for infiltration or to a stormwater detention basin and vegetated swales. Sheet flow to the south of the facilities must pass through a wood chip berm at the perimeter of the facilities yard which slows and dissipates flow. Erosion is minimized by grading to promote sheet flow directed to stormwater control features.

4.6 Management of Runoff

Permit Language: The permittee shall manage stormwater runoff from the facility to prevent or reduce the discharge of pollutants. This may include management practices which divert runoff from areas that are potential sources of pollutants, contain runoff in such areas, or reuse, infiltrate or treat stormwater to reduce the discharge of pollutants.

The following management practices for runoff are used at this facility:

- Impervious areas are uncurbed practical to encourage sheet flow runoff to unpaved or vegetated areas.
- Runoff from the paved employee parking on the front of the VMF and HG is by sheet flow that discharges to an upland wooded area east of the facilities.
- Stormwater runoff from areas with potential pollutants is not discharged directly or indirectly to surface waters.
- Runoff from the sides and rear sheet flows to either unpaved areas around the facilities for infiltration, through wood chip filtration berms at the rear of the facilities before flowing to wooded upland/floodplain area, or to a detention/infiltration basin and vegetated swales which discharges to the wooded upland/floodplain area.
- No stormwater from the facility enters the town's MS4.

4.7 Salt Storage and Loading

Permit Language: For storage piles of salt or piles containing salt used for deicing or other purposes (including maintenance of paved surfaces) for which the discharge during precipitation events discharges to the permittee's MS4, any other MS4 or to a Water of the United States, the permittee shall prevent exposure of the storage pile to precipitation by enclosing or covering the storage piles. Such piles shall be enclosed or covered within two (2) years of the permit effective date. The permittee shall implement appropriate measures (e.g., good housekeeping, diversions, containment) to minimize exposure resulting from adding to or removing materials from the pile. The permittee is encouraged to store piles in such a manner as not to impact surface water resources, ground water resources, recharge areas, and wells.

As previously described, the salt storage facility was completed in January 2008 and allows complete storage of up to 3600 tons of salt for winter deicing operations. Its size and ceiling height allow trucks to completely unload deliveries of salt inside as well as loading of highway

Department plow trucks inside. Any loading outside is conducted on a paved area at the open end of the facility so that any spilled material is pushed back into the building with the bucket loader following loading activities.

The facility is graded to prevent any stormwater run-on into the facility. Run-off around the facility is sloped for sheet flow toward woodchip berm and upland woods or an infiltration swale.

4.8 Employee Training

Permit Language: The permittee shall regularly train employees who work in areas where materials or activities are exposed to stormwater, or who are responsible for implementing activities identified in the SWPPP (e.g., inspectors, maintenance personnel), including all members of the Pollution Prevention Team. Training shall cover both the specific components and scope of the SWPPP and the control measures required under this Part, including spill response, good housekeeping, material management practices, any best management practice operation and maintenance, etc. EPA recommends annual training.

Key staff will be regularly trained on stormwater related topics such as: stormwater system pollution, Stormwater system maintenance practices, salt storage and handling procedures, spill response and cleanup procedures, housekeeping, and relevant best management practices. Please refer to the Town of Derry's Stormwater Management Plan (SWMP) for additional details on employee training.

The Town of Derry will retain records on employee training including:

- The training date, title, and duration;
- Municipal attendee list;
- Subjects covered during training.

4.9 Maintenance of Control Measures

Permit Language: The permittee shall maintain all control measures, required by this permit in effective operating condition. The permittee shall keep documentation onsite that describes procedures and a regular schedule for preventative maintenance of all control measures and discussions of back-up practices in place should a runoff event occur while a control measure is off-line. Nonstructural control measures shall also be diligently maintained (e.g., spill response supplies available, personnel trained).

The following is a list of stormwater control measure maintenance procedures practiced at this facility:

- All control measures are maintained in effective operating condition.
- This SWPPP will be supplemented by on-site documentation describing maintenance procedures and a schedule outlining preventative maintenance of all control measures;
- The Town will work to develop backup procedures and practices in case a runoff event occurs while a control measure is offline.

5.0 Inspection and Record Keeping

5.1 Site Inspections

The Town of Derry conducts quarterly inspections of these facility that will cover all areas exposed to stormwater, and all stormwater control measures. At least one of the inspections will be during a period when stormwater discharge is occurring. Additional inspections will occur on an as-needed basis if significant activities are exposed to stormwater. The inspections will contain the information included in Attachment 2, an example site inspection form.

If control measures are discovered to need repair or be ineffective, whether as part of a routine inspection or otherwise, the Town will repair or replace them as soon as practicable, and preferably before the next storm event.

5.2 Record Keeping

The Town will maintain records of all maintenance, inspection, training, and other activities required by Section 2.3.7.2 of the MS4 permit. Records will be maintained for at least five (5) years, as required by Section 4.2.1 of the MS4 Permit.

Attachment 1: Facility site map identifying key buildings and sites, the location of all known floor drains that tie into the stormwater drainage system, stormwater outfalls, and their receiving waters.

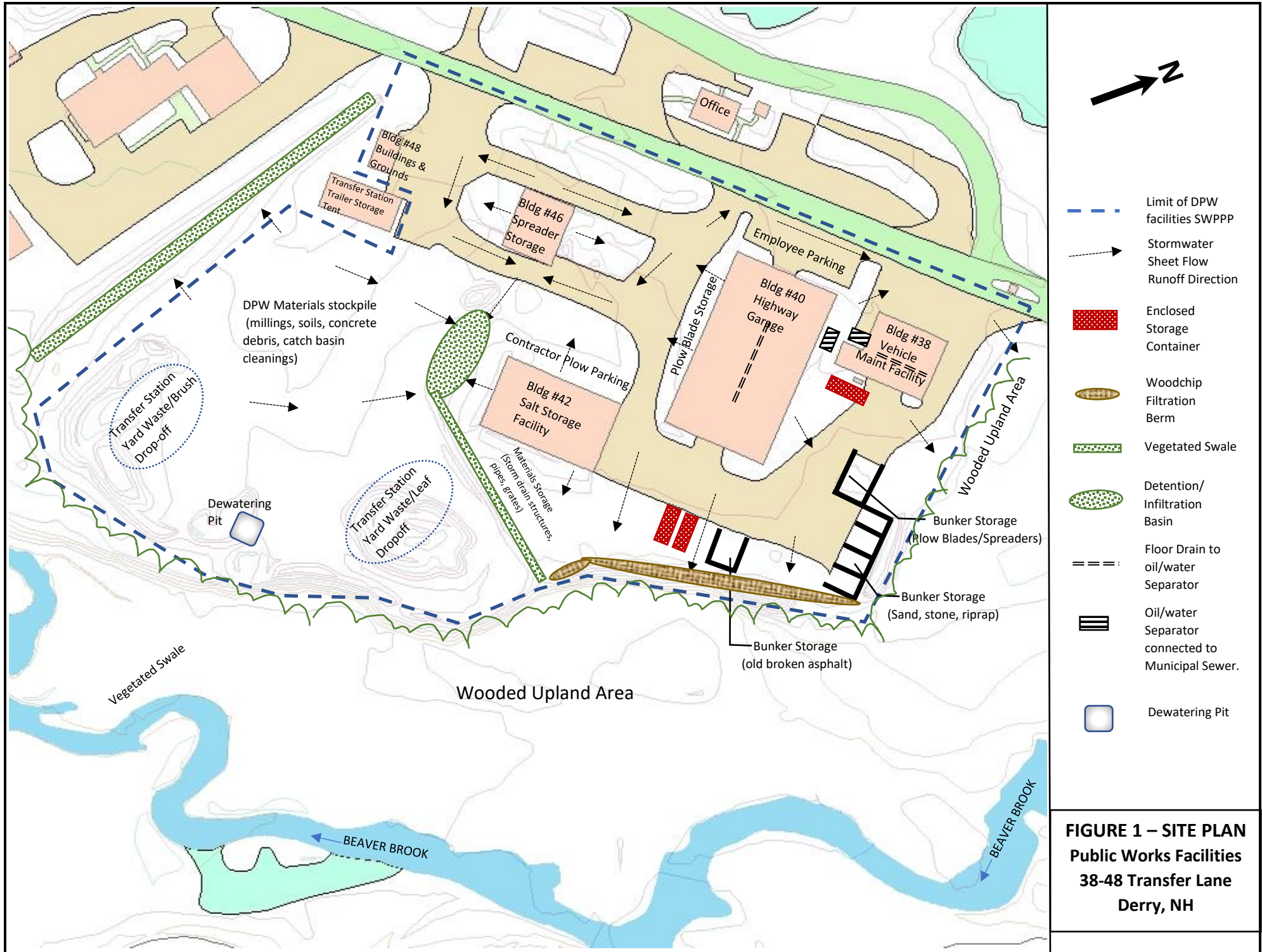


FIGURE 1 – SITE PLAN
Public Works Facilities
38-48 Transfer Lane
Derry, NH

Attachment 2: Example Facility Site Inspection Form

Facility Name: _____

Facility Address: _____

Inspection Date: _____ Inspection Time: _____

Inspector(s): _____

Weather: _____

Stormwater Discharge Description (circle one): None Light Moderate Heavy

Stormwater discharge notes, if any: _____

Have any previously unidentified discharges been identified as part of this inspection? Yes / No

If yes, describe: _____

Are any control measures in need of maintenance or repair? Yes / No

If yes, describe: _____

Did you identify any failed control measures that need replacement as part of this inspection? Yes / No

If yes, describe: _____

Are any changes to the SWPPP needed based on this inspection? Yes / No

If yes, describe: _____

Please scan and save a copy of this inspection file and keep the hard copy on-site at least five (5) years after the inspection date.

FACILITY ENVIRONMENTAL AND HOUSEKEEPING INSPECTION

FACILITY VMF HWG WWTF B&G Date: _____

Inspectors: _____

INSIDE INSPECTION

Action Items

<p>Household-Related Waste:</p> <p>Designated Barrels Present: Y / N Overflowing Receptacles Y / N Scattered trash on floor Y / N</p> <p>Materials Storage and Aisles:</p> <p>Aisles clear? Y / N Easily accessible? Y / N Trip Hazards Present? Y / N</p> <p>Floor Drains: Present: Y / N spills near drains? Y / N Present in drain? Sand Petroleum Sludge Other: _____ Connected to: Registered Holding tank / O-W Separator Date last cleaned/pumped: _____</p> <p>Parts Cleaner: Present: Y / N Cover Closed: Y / N Type: Aqueous / Solvent Evidence of Spills: Y / N</p>	
<p>Storage of Regulated Materials (inside)</p> <p>Speedy-dry/spill kit available Y / N</p> <p>ASTs Present: Y / N / NA Contents: used oil / fuel oil / other _____ Labelled: Y / N secondary containment: Y / N Evidence of drips/spills inside/outside of containment</p> <p>Barrels Present: Y / N 55-gallon/30 gallon Contents: Labelled: Y / N secondary containment: Y / N Evidence of drips/spills inside/outside of containment</p> <p>Other Present: Y / N (< or = 5gal) Flamm Storage Cabinet Y / N Labelled: Y / N Closed when not in use? Y / N Vented Y / N inside/outside/NA Evidence of drips/spills Y / N inside/outside/NA</p>	
<p>Safety Items</p> <p>present accessible</p> <p>First Aid Kit Y / N Y / N MSDS Y / N Y / N Eye wash/shower Y / N Y / N</p>	

