3.5 POLLUTION PREVENTION/GOOD HOUSEKEEPING FOR MUNICIPAL OPERATORS

This chapter focuses on the Statewide Basic Requirement (SBR) related to pollution prevention/good housekeeping. The Tier A permit requirements for this SBR have been carried forward from the previous Tier A permit with only minor changes. This SBR is categorized into the following sections: community-wide ordinances; community-wide measures; municipal maintenance yards and other ancillary operations; and employee training. The sections discussed below, when implemented together, may significantly reduce the addition of nutrients, disease causing microorganisms (pathogens), solids and other pollutants to receiving waters in a cost-effective manner.

This chapter contains more sections than most chapters in this guidance document and is therefore organized in a slightly different manner from the rest. Rather than have one master summary table appear immediately below the opening text, the summary tables are grouped with the subject material of each section, located as follows:

Community Wide Ordinances

There following six (6) community wide ordinances must be adopted and enforced by a Tier A Municipality:

- Pet Waste Ordinance;
- Wildlife Feeding Ordinance;
- Litter Control Ordinance;
- Improper Disposal of Waste Ordinance;
- Containerized Yard Waste/Yard Waste Collection Program Ordinance; and
- Private Storm Drain Inlet Retrofitting Ordinance.

The previous Tier A permit required the passing of one or more Community Wide Ordinances and those requirements are carried forward in the renewed Tier A permit in Part IV.B.5. The Department has provided sample model ordinances that may be downloaded at http://www.nj.gov/dep/dwq/tier_a_model_ord.htm, and are available for use by a Tier A municipality to

assist in developing local regulations. A municipality may change the sample ordinances to fit its individual needs, but must ensure that any changes do not prevent the ordinances from meeting the minimum standards of the permit. If a Tier A Municipality already has an ordinance in place that meets the requirements of the permit, a new or modified ordinance is not required. However, if an ordinance does not meet the minimum standards of the Tier A NJPDES MS4 permit, then the ordinance must be modified accordingly. The municipal attorney should review all ordinances.

Each of these ordinances is discussed individually, beginning on the following page. Table 2.5-1 below summarizes the minimum standards, measurable goals and implementation schedules of each ordinance.

Table 2.5-1

Pollution Prevention/Good Housekeeping for Municipal Operators SBR For Community Wide Ordinances

Minimum Standard	Measurable Goal	Implementation Schedule	
		Existing Permittees	New Permittees
Adopt and enforce a pet waste ordinance. Distribute pet waste ordinance information with pet licenses.	Certify annually; SPPP records	January 1, 2018	EDPA + 12 months
Adopt and enforce a wildlife feeding ordinance.	Certify annually; SPPP records	January 1, 2018	EDPA + 12 months
Adopt and enforce a litter control ordinance.	Certify annually; SPPP records	January 1, 2018	EDPA + 12 months
Adopt and enforce an improper disposal of waste ordinance.	Certify annually; SPPP records	January 1, 2018	EDPA + 12 months
Adopt and enforce a containerized yard waste / yard waste collection program ordinance.	Certify annually; SPPP records	January 1, 2018	EDPA + 12 months
Adopt and enforce a private storm drain inlet retrofitting ordinance.	Certify annually; SPPP records	January 1, 2018	EDPA + 12 months

Note: EDPA means effective date of permit authorization.

Minimum Standards

The Tier A Municipality must adopt and enforce each of the following six (6) community wide ordinances discussed below:

1. Pet Waste Ordinance

The Tier A Municipality must adopt and enforce an ordinance to ensure that pet owners and keepers (walkers or pet sitters) immediately and properly dispose of their pet's solid waste deposited on any property, public or private, not owned or possessed by that person. This means that someone walking a pet, on property not owned by that person, needs to immediately pick up after the pet and properly dispose of the pet's waste. The only place individuals are not required to clean up after their pets is in their own yard (or on other private property with that owner's permission). Additionally, information on the Pet Waste Ordinance and the benefits of proper disposal of pet solid waste shall be distributed with pet licenses. It is important to educate the public about the ordinance, the potential fines for non-compliance and the environmental benefit on water quality. To this end, the Tier A municipality must distribute informational handouts to individuals upon receipt of a pet license.

Additional Information

Pet waste can be a significant source of organic pollutants and pathogens. When pet waste is left on yards, sidewalks and streets and is not properly disposed of, organic pollutants and pathogens from the pet waste can be carried into storm drains by rain. Most storm drain inlets are connected to or drain directly to local water bodies. By controlling pet waste, pollutant loading entering these surface waters is reduced. Pollutants in pet waste include oxygen demanding substances, nitrogen, phosphorous and pathogens. Pet waste uses up oxygen in the decay process, which in turn can deplete available oxygen in the water body for other aquatic life and degrades overall water quality. Nitrogen and phosphorous are nutrients that can overstimulate weed and algal growth in slow moving water bodies and coastal waters, which in turn further reduces oxygen levels in the water body. Pathogens in pet waste include protozoa, parasites and bacteria. It is estimated that about 95 percent of the fecal coliform in urban stormwater are of non-human origin. In addition, it has been estimated that for watersheds of up to 20 square miles draining to a small coastal bay, 2 - 3 days of droppings from a population of about 100 dogs would contribute enough bacteria and nutrients to temporarily close the bay to swimming and shellfishing. Due to the impact of animal waste on water quality, ordinances requiring pet owners and keepers to immediately clean up after their pets, makes simple environmental sense.

References

Alderserio, K.D. Wait and M. Sobsey. 1996. "Detection and characterization of male-specific RNA coliphages in a New York City reservoir to distinguish between human and non-human sources of contamination." In *Proceedings of a Symposium on New York City Water Supply Studies*, ed. Mcdonnell et al. TPS-96-2. American Resources Association. Herndon, VA.

Trial, W. et al. 1993. *Bacterial source tracking: studies in an urban Seattle watershed*. Puget Sound Notes 30:1-3.

USEPA. 1993. *Guidance Specifying Management Measures for Sources of Nonpoint Pollution in Coastal Waters.* U.S. Environmental Protection Agency, Office of Water. Washington, DC.

Recommendations

To make the Tier A Municipality's pet waste ordinance more effective, the following recommendations are provided by the Department. These recommendations may be beneficial but are not required by the permit.

- Provide pet waste stations with pet waste removal bags and dedicated trash cans for pet waste in municipal parks.
- Require, by ordinance, that high-density housing provide pet waste stations as described above.
- Place educational posters about pet waste in veterinary offices, pet licensing offices, pet stores, kennels, shelters and places where pet products are sold.

2. Wildlife Feeding Ordinance

The Tier A Municipality must adopt and enforce a wildlife feeding ordinance to prohibit the feeding of wildlife on municipally owned or operated property, including municipal parks. Exclusions include wildlife confined in zoos, parks, or rehabilitation centers as well the following unconfined animals: (1) wildlife at environmental education centers; (2) feral cats as part of an approved Trap-Neuter-Release program; and (3) other kinds of unconfined animals, if any, that the ordinance specifically lists and excludes for reasons set forth in the ordinance.

Additional Information

This prohibition helps prevent nutrients, organic pollutants and pathogens associated with wildlife fecal matter from entering local water bodies, as well as prevents overgrazing, which can lead to erosion. The sample ordinance does allow the feeding of any confined animal such as wildlife confined in zoos and petting zoos, parks or rehabilitation centers. People may have backyard bird feeders if they are located on private property. It is important to note that while most people understand "wildlife" to mean waterfowl, "wildlife" also includes other wild animals, such as bears, deer and pigeons. Baiting of wildlife for the purposes of hunting and fishing is permitted if done in accordance with New Jersey Fish and Game regulations.

Many people enjoy feeding waterfowl and other wildlife. It can give them a sense of pleasure and fulfillment to feed the animals, and enjoyment by bringing the wildlife closer so that they can see them. What people do not realize is that they are actually harming the very animals they are trying to help. Feeding wildlife can do more harm than good to both the animal and its habitat. Artificial feeding can, for example, result in poor nutrition, delayed migration, spread of disease, overcrowding, unnatural behavior, water pollution and aggressive behavior.

Feeding attracts wildlife in unnatural numbers, beyond natural food and water supplies, and frequently in numbers beyond which people will tolerate. This overcrowding often results in overgrazing, which can lead to erosion and in turn, result in excess amounts of sediment entering

water bodies. These feeding areas can quickly become unsanitary and unusable to people and become a breeding ground for wildlife disease. While these diseases are generally not transmissible in wild settings, they thrive in overcrowded and unsanitary conditions where the wildlife is eating in the same place where they defecate. For example, many beach closings have also been attributed to geese and other birds. When an excessive number of birds congregate near a beach or waterway, their fecal matter may sometimes overload the normal capacity of a beach to absorb natural wastes, thus degrading the water quality and requiring the area to be closed to the public. In addition, where birds congregate to feed, *E*. *coli* counts often swell to levels that make the water unsuitable for swimming.

Excess nutrients in ponds and other waterways caused by unnatural numbers of waterfowl and other wildlife droppings may result in water quality problems such as summer algal blooms. These problems may cause a loss of habitat and wildlife, including fish kills, as well as odor nuisances, taste and odor in drinking water and an interference with various forms of recreation (e.g., fishing, swimming, boating, etc.).

There are many other options and alternatives to feeding wildlife. Elimination of wildlife feeding will not result in a disappearance of wildlife. The public may still visit sites to enjoy viewing the animals. Children can still be encouraged to learn about wildlife and their natural habitats. Additionally, some zoos offer feeding of captive wildlife (petting zoos).

3. Litter Control Ordinance

The Tier A Municipality must either adopt and enforce its own litter ordinance or enforce the State litter statute at N.J.S.A 13:1E-99.3 to help prevent the discharge of litter such as fast food wrappers, soda cans and bottles, along with other trash, into MS4s.

Additional Information

Litter is a significant source of pollutants, especially in urban areas where large volumes of trash are generated. "Litter," as defined in N.J.S.A. 13:1E-215, "*means any used or unconsumed substance or waste material which has been discarded, whether made of aluminum, glass, plastic, rubber, paper, or other natural or synthetic material, or any combination thereof, including, but not limited to, any bottle, jar, or any top, cap or detachable tab of any bottle, jar or can, any unlighted cigarette, cigar, match or any flaming or glowing material or any garbage, trash, refuse, debris, rubbish, grass clippings, or other lawn or garden waste, newspapers, magazines, glass, metal, plastic or paper containers or other packaging or construction material, but does not include the waste of the primary processes of mining or other extraction processes, logging, sawmilling, farming or manufacturing*."

Litter is a serious problem in many states, but even more so in a state as densely populated and heavily traveled as New Jersey. It is the Department's duty to promote and encourage a clean and safe environment for future generations. Litter not only poses a threat to public health and safety, but also plays a large role in a municipality's aesthetic appearance, which in turn can play a part in the economics of that municipality. An attractive community creates an environment in which people will want to live, work and visit, and encourages companies considering relocation. Littering can significantly impact receiving waters. Litter, such as fast food wrappers, soda cans and bottles, and other trash, if not properly disposed, could eventually end up in our lakes, streams, and oceans. When

litter reaches these surface water bodies, it not only causes problems aesthetically, but it can also have a negative impact on marine and other wildlife. For example, birds can easily become stuck in plastic six-pack rings, marine mammals and sea turtles often choke on plastic bags that they mistake for jellyfish, and many sharks have been found with aluminum cans in their digestive systems. Issuing and actively enforcing litter ordinances or the State litter statute is a cost-effective means of preventing litter from reaching waters of the State.

New Jersey Clean Communities Council

The New Jersey Clean Communities Council is a 501(c)(3) corporation funded by the Clean Communities Act and private sector donations to implement a statewide program of public information and education that will change the attitudes that cause littering and the irresponsible handing of solid waste.

The Council works with the state Department of Environmental Protection and Department of Treasury to oversee the implementation of litter abatement programs in nearly every municipality and all counties in the state. The Council provides a clearinghouse for information about litter abatement, forums for the free exchange of ideas and a voice for its constituents.

For more information, call (609) 989-5900 or see http://www.njclean.org.

Recommendations

The following recommendations are provided by the Department to help make the municipal stormwater program more successful, but these actions are not required by the permit:

- Put additional "No Littering" signs and additional trash receptacles, recycling containers and cigarette butt containers at places where trash is likely to accumulate, such as parks and along busy streets, and empty such receptacles on a regular basis;
- Develop an Annual Litter March, or similar activity, where residents clean up the community. Target those areas where there is a lot of litter. These activities could be coordinated with other public education activities (e.g., storm drain inlet labeling); and
- Retrofit existing storm drain inlets to meet the standard, which is located in Attachment C of the Tier A NJPDES MS4 permit, earlier than required by the permit (rather than waiting until repaving or other projects).

4. Improper Disposal of Waste Ordinance

The Tier A Municipality must adopt and enforce an ordinance that prohibits the improper spilling, dumping or disposal of materials other than stormwater into the MS4 excluding the following discharges as allowable under Part II.C.2.b. of the Tier A permit:

- Water line flushing and discharges from potable water sources;
- Uncontaminated ground water (e.g., infiltration, crawl spaces or basement sump pumps, foundation or footing drains, rising ground waters);
- Air conditioning condensate (excluding contact and non-contact cooling water; and industrial refrigerant condensate);

- Irrigation water (including landscape and lawn watering runoff);
- Flows from springs, riparian habitats and wetlands, water reservoir discharges and diverted stream flows;
- Residential car washing water, and dechlorinated residential swimming pool discharges;
- Sidewalk, driveway and street wash water;
- Flows from firefighting activities including the washing of fire fighting vehicles; and
- Flows from rinsing of the following equipment with clean water, provided the rinsing of equipment in the following situations is limited to exterior, undercarriage and exposed parts and does not apply to engines or other enclosed machinery:
    - □ Beach maintenance equipment immediately following its use for its intended purpose; and
    - □ Equipment used in the application of salt and de-icing materials immediately following salt and de-icing material applications. Prior to rinsing with clean water, all residual salt and deicing materials must be removed from equipment and vehicles to the maximum extent practicable using dry cleaning methods (e.g., shoveling and sweeping). Recovered materials are to be returned to storage for reuse or properly discarded.

Additional Information

Materials such as automotive fluids, used motor oil, paints and solvents that can have a direct impact on receiving water bodies. Failure to properly dispose of materials, such as automotive fluids, motor oil, lawn and garden supplies, household cleaning supplies, paints and solvents, can have a direct impact on receiving waterbody quality. Each year, nearly 180 million gallons of used oil are disposed of improperly. It is estimated that a single quart of motor oil can pollute 250,000 gallons of drinking water.

Moreover, the average household contains three to 10 gallons of materials that are hazardous to human health and/or the environment. Uninformed residents and businesses may dump these materials onto streets, sidewalks, roadways, onto the ground or down storm sewers, unintentionally causing the pollutants to enter surface and/or ground waters. Most illegal disposal occurs because people are unaware that it causes an environmental problem or that it is actually illegal. A smaller percentage of these occurrences are deliberate acts. The proper disposal of these wastes may be as simple as disposing of it with other household trash. However, a better option may be to recycle or reuse these materials. Motor oil, oil filters and automotive batteries are just a few examples of hazardous materials that can be recycled and reused. The threat they pose to the environment, as well as human health, can be greatly reduced when these materials are recycled and reused instead of being dumped down storm sewers or onto the ground.

For more information on the improper disposal of wastes, see *Chapter 3.2: Local Public Education and Outreach* of this guidance manual, in particular, the information provided for Targeted Audiences Outreach on Page 4 and the Hazardous Waste information on Pages 8 and 9 of that Chapter.

Recommendations

The following recommendations may be beneficial but are not required:

- Establish a hotline or dedicated phone number for reporting the improper disposal of waste;
- Educate residents and businesses on how to properly dispose of materials like automotive fluids, used motor oil, paints and solvents; and
- Host a drop-off event where residents may bring these materials for proper disposal.

5. Containerized Yard Waste/Yard Waste Collection Program Ordinances

The Department defines "yard waste" as "*leaves and grass clippings*." The Tier A Municipality has the discretion as to whether any kind of brush or other vegetative waste will be considered to be "yard waste," and must adopt and enforce one of the following ordinances:

Option 1 – Containerized Yard Waste Ordinance

Adopt and enforce an ordinance that prohibits placing non-containerized yard wastes in the street. This means that property owners cannot pile leaves at the curb for collection; instead leaves and grass clippings placed in the street must be in bags or other containers. The municipality is not required to supply the containers. This permit requirement does not mean that the yard waste should be landfilled; municipalities are still required to comply with applicable solid waste disposal rules for yard waste and are encouraged to recycle and compost as much yard waste as possible.

Option 2 - Yard Waste Collection Program Ordinance

Adopt and enforce an ordinance that prohibits placing non-containerized yard waste at the curb or along the street within 10 feet of any storm drain inlet and at any time other than a set yard waste collection schedule. This option requires the Tier A Municipality to develop and implement a set yard waste collection schedule including the frequency of yard waste pickups which is noticed to all municipal residents and businesses. Any area, which the municipality determines to have no yard waste, can be exempt from the collections.

Additional Information

Regular yard waste collections and ordinances requiring yard waste to be containerized help to ensure that leaves and grass clippings do not end up in our storm sewers or water bodies. When leaves are placed at the curb and are carried away by stormwater, they can have several detrimental effects on the surrounding community and environment. Excess leaves and grass clippings can clog stormwater systems, causing flooding and requiring additional maintenance at the municipality's expense. If yard wastes enter local waterways, they remove oxygen from the water during the decomposition process and lead to increased nutrients, which cause excessive plant and algal growth.

However, yard wastes do not belong in landfills. During the summer, grass clippings can make up to 50 percent of municipal waste, and in the fall, leaves can account for 60 percent to 80 percent of municipal waste. To minimize the amount of yard waste in landfills, it is important that homeowners know proper alternatives to landfill disposal such as mulching and composting.

Leaves and grass clippings are a valuable resource. Yard wastes can be recycled by both the municipality and by the individual homeowner. On-site composting, as well as "grass cycling," treats organic materials as a valuable resource, thus diverting them from disposal and reducing the environmental problems associated with landfills. On-site composting and grass cycling produces valuable soil amendments that can be used on site. It can also inoculate the soil with beneficial microbes that can extract nutrients from the soil and pass them on to the plants, therefore reducing the need for chemical fertilization. Grass clippings and leaves can be recycled directly on the lawn or by composting or mulching. When grass clippings are left on the lawn they can act as fertilizer by breaking down quickly and releasing nutrients into the soil. Leaves can have a similar effect on lawns, but will take a longer time to decompose unless they are shredded first. If the leaves are composted, they can have several other benefits to the soil, such as adding organic matter, which improves the way in which water interacts with the soil. For instance, if composted leaves are mixed with a sandy soil, the organic matter will act as a sponge and retain water, and if mixed with a clay soil, the organic matter will improve porosity, which helps the soil drain more quickly.

Recommendations

The following are recommendations that may be beneficial, but are not required by the permit:

- Prohibit yard waste from being mixed with garbage;
- Consider locating municipal composting/mulching facilities at the municipal recycling center to make drop-offs easier; and
- Provide containers with lids to homeowners labeled for yard waste.

6. Private Storm Drain Inlet Retrofitting Ordinance

The Tier A municipality must adopt and enforce an ordinance requiring the retrofitting of existing storm drain inlets on private property to meet the standard in *Attachment C (Design Standards for Storm Drain Inlets)* of the Tier A MS4 Permit. Specifically, the ordinance shall:

- Apply to storm drain inlets, on property not owned or operated by the Tier A Municipality (e.g. condominium associates), that are in direct contact (i.e. contiguous) to:
  - □ repaving;
  - □ repairing (excluding individual pothole repair);
  - □ resurfacing (including top coat or chip sealing with asphalt emulsion or a thin base of hot bitumen); and
  - □ reconstruction or alteration of facilities; and
- Shall not apply to a residential lot with one single family house.

For specific information on the requirements contained within *Attachment C (Design Standards for Storm Drain Inlets)* and additional guidance please see the *Tier A Municipality Storm Drain Inlet Retrofit Measure* portion of this Chapter, which begins on page 14.

Measurable Goal

The Tier A Municipality must certify in each annual report the date that each of the Community Wide Ordinances were adopted and that they are being enforced. A log of enforcement actions must be kept in the SPPP, or the location of such records must be noted in the SPPP.

Implementation Schedule

See Table 2.5-1 for the implementation schedule. An existing Tier A Municipality should have already adopted and currently be enforcing all of the required Community Wide Ordinances. If one or more of the ordinances has not been adopted, the Tier A Municipality must do so as soon as possible. New permittees have 12 months from the effective date of permit authorization to adopt the Community Wide Ordinances.

Community Wide Measures

In accordance with Part IV.B.5.b of the Tier A NJPDES MS4 permit, the following three (3) community wide pollution prevention/good housekeeping measures must be developed and implemented by a Tier A Municipality:

- Street Sweeping;
- Catch Basin and Storm Drain Inlet Inspection and Cleaning; and
- Tier A Municipal Storm Drain Inlet Retrofit.

Table 2.5-2 below summarizes the minimum standards, measurable goals and implementation schedules for each of these measures for existing and new permittees, respectively, followed by an explanation of each measure.

Table 2.5-2

Pollution Prevention/Good Housekeeping for Municipal Operators SBR For Community Wide Measures			
		Implementation Schedule	
Minimum Standard	**Measurable Goal**	**Existing Permittees**	**New Permittees**
Develop and continue to implement street sweeping measures as specified at Part IV.B.5.b.i.	Certify annually; SPPP records retention	January 1, 2018	EDPA + 24 months
Develop and continue to implement catch basin and storm drain inlet inspection and cleaning measures as specified at Part IV.B.5.b.ii.	Certify annually; SPPP records retention	January 1, 2018	EDPA + 12 months
Develop and continue to implement storm drain inlet retrofit measures as specified at Part IV.B.5.b.iii.	Certify annually; SPPP records retention	January 1, 2018	EDPA + 12 months

Note: EDPA means effective date of permit authorization.

1. Street Sweeping Measure

Minimum Standards

The Tier A Municipality shall sweep, at a minimum of once per month (weather and street surface conditions permitting), all streets (including roads or highways) that meet all of the following criteria:

- The street is owned or operated by the municipality;
- The street is curbed and has storm drains;
- The street has a posted speed limit of 35 miles per hour or less;
- The street is not an entrance or exit ramp; and
- The street is in a predominantly commercial area.

An example of a street sweeper

Measurable Goal

The Tier A Municipality must certify in each annual report that a street sweeping schedule is being maintained and records are being kept, which include the date and areas swept, number of miles of streets swept and the total amount of materials collected in wet tons. Totals must be included in the Annual Report and Certification and records must be kept in the SPPP, or the location of such records must be noted in the SPPP.

Implementation Schedule

As indicated in Table 2.5-2, the Tier A Municipality must have fully implemented the Street Sweeping Measure on the effective date of permit authorization. New permittees must implement it within 24 months from the effective date of permit authorization.

Additional Information

Street sweeping removes silt, trash, total suspended solids (TSS), hydrocarbons, excessive nutrients, such as phosphorous and nitrogen, and other chemicals from the roadside before they are discharged from the storm drain system. Studies have revealed that the vast majority of toxic and conventional pollutants found in stormwater are associated with automobile maintenance and use. Studies have identified gasoline combustion, brake fluid, transmission oil, antifreeze, grease and undercoatings, as well as tire compounds and brake linings, both lost through wear, as the chief contributors. Since little can be done to prevent these pollutants from being deposited on street surfaces, attention must be focused on removing the accumulated materials. A regular street-sweeping program will help to clean and maintain the attractiveness of communities and enhance business viability and residential values.

It is also important to note there is a relationship between regular sweeping and maintenance of catch basins and other stormwater facilities. A regular sweeping program will reduce the amount of material accumulating in such facilities, reducing the need for frequent cleaning. More information on catch basin and storm drain inlet inspection and cleaning can be found beginning on Page 13, and storage of street sweepings and catch basin cleanout material is found beginning on Page 32.

For information on how to properly dispose of materials collected during street sweeping and catch basin cleaning see http://www.state.nj.us/dep/dshw/rrtp/sweeping.htm.

For information on the beneficial use program, see http://www.state.nj.us/dep/dshw/rrtp/bud.htm.

Recommendations

The following are recommendations that may be beneficial but are not required by the permit:

- Higher efficiency street sweepers should be considered when purchasing new equipment (e.g., regenerative air and vacuum filter street sweepers);
- By sharing staff and equipment, municipalities or other governmental entities may benefit by saving money and resources; and
- Parking should be regulated on predominately commercial streets to facilitate sweeper access.

2. Catch Basin and Storm Drain Inlet Inspection and Cleaning Measure

Minimum Standard

The Tier A Municipality shall inspect storm drain inlets and any associated catch basins that it owns or operates and remove sediment, trash or debris when present. Each catch basin and inlet shall be inspected at least once every five years. The Tier A Municipality shall clean any municipally owned or operated storm drain inlet or catch basin as frequently as necessary to eliminate recurring problems and maintain proper function.

Measurable Goal

The Tier A Municipality must certify in each annual report that a catch basin and storm drain inlet inspection and cleaning schedule is being maintained and a log documenting the following is being kept:

- The number of municipally owned and operated catch basins and inlets within the municipality;
- The number of catch basins and inlets inspected; and
- The number catch basins and inlets cleaned.

Records must be maintained documenting the amount of materials collected in wet tons during cleaning activities in the SPPP, or the location of such records must be noted in the SPPP. Totals must be included in the Annual Report and Certification.

Implementation Schedule

As indicated in Table 2.5-2, the Tier A Municipality must have fully implemented the catch basin and storm drain inlet inspection and cleaning measure on the effective date of permit authorization. New permittees shall implement it within 24 months from the effective date of permit authorization.

Additional Information

For information on the proper handling and disposal of the debris collected during catch basin cleaning, see http://www.state.nj.us/dep/dshw/rrtp/sweeping.htm. Take note that in accordance with this information, at a minimum, all potentially contaminated road cleanup material must be staged on an impervious surface and covered with a waterproof material (i.e., tarpaulin or 10-mil plastic sheeting). The containment must be maintained for the duration of the staging period to prevent contaminant volatilization, runoff, leaching or fugitive dust emissions. Refer to the link above for specific information.

Recommendations

The following are recommendations that may be beneficial but are not required by the permit:

- Increase the frequency of inspecting and cleaning catch basins in problem areas (e.g., those prone to blockages);
- Perform maintenance inspections after major storm events;
- Pass a municipal ordinance establishing requirements for private entities to properly maintain stormwater facilities under their ownership, or take over existing private stormwater facilities, and include them in the stormwater facility maintenance program (see the Abandoned Stormwater Detention Basin Adoption Optional Measure in *Chapter 6: Optional Measures* of this guidance document for more information);
- Increase street sweeping (above the minimum standard) to decrease the amount of materials entering the catch basins and other stormwater facilities; and
- Coordinate the timing of catch basin cleaning with the local mosquito control agency, where possible. So that when the mosquito control agency preforms their preventive measures, such as applying a larvicide to a catch basin to kill mosquitos in the larval stage, the process of cleaning the catch basins will not disrupt the effectiveness of the larvicide by removing the larvicide from the catch basin through the cleaning procedures.

3. Tier A Municipality Storm Drain Inlet Retrofit Measure

Minimum Standard

The Tier A Municipality shall retrofit existing Tier A Municipality owned or operated storm drain inlets that are:

- in direct contact with any repaving, repairing (excluding individual pothole repair), or resurfacing (including top coating or chip sealing with asphalt emulsion or a thin base of hot bitumen); or
- in direct contact with any reconstruction or alteration of facilities.

Storm drain inlet retrofits shall meet the standard in Attachment C (Design Standards for Storm Drain Inlets) of the Tier A MS4 NJPDES permit and found online at http://www.nj.gov/dep/dwq/tier_a.htm.

There are separate design standards for grates in pavement or other ground surfaces and for curb opening inlets. Each standard is described below.

- Grates that are used in pavement or other ground surface to collect stormwater into a storm drain or surface water body under the grate shall meet either of the following standards:
    - Use the New Jersey Department of Transportation (NJDOT) bicycle safe grate (especially for storm drain inlets along roads). This grate is described in Chapter 3.4 of the NJDOT Bicycle Compatible Roadways and Bikeways Planning and Design Guidelines at http://www.state.nj.us/transportation/publicat/bike_guidelines.htm;

or

- □ Use a grate where each "clear space" in the grate (each individual opening) is no bigger than 7 square inches, or Is no bigger than 0.5 inches ($1/2$ inch) across the smallest dimension (length or width).

Examples of storm drain inlet grates subject to this standard include grates in grate inlets, the grate portion (non-curb-opening portion) of combination inlets, grates on storm sewer manholes, ditch grates, trench grates and grates of spacer bars in slotted drains. Examples of ground surfaces include surfaces of roads (including bridges), driveways, parking areas, bikeways, plazas, sidewalks, lawns, fields, open channels and stormwater basin floors.

- If the storm drain inlet has a curb opening inlets (including curb-opening inlets in combination inlets), the clear space in that curb opening (or each individual clear space, if the curb opening has two or more clear spaces) must be no bigger than 7 square inches, or no bigger than 2 inches across the smallest dimension (length or width).

It is important to note that Attachment C of the Tier A NJPDES MS4 permit also contains a number of exemptions to the storm drain inlet retrofitting requirement. These exemptions are:

- A "Hydraulic Performance Exemption" where the Tier A Municipality determines that this standard would cause inadequate hydraulic performance (flooding) that cannot be overcome by using additional or larger storm drain inlets;

- Either of two "Alternative Device Exemptions":

    1. Where flow from the Water Quality Design Storm (WQDS), as specified in N.J.A.C. 7:8-5.5(a), is conveyed through any device or combination of devices (e.g., end of pipe netting facility, manufactured treatment device or a catch basin hood) that is designed, at a minimum, to prevent the passage of all solid and floatable materials that could not fit through one of the following:

        a. A rectangular space that is four and five-eighths ($4\ 5/8$) inches long and one and one half ($1\ 1/2$) inches wide (this option does not apply for outfall netting facilities); or

        b. A bar screen that has a $1/2$ inch (0.5 inches) opening between each bar.

    2. Where flow is conveyed through a trash rack that has parallel bars with one-inch (1.0 inch) spacing between the bars, to the elevation of the WQDS as specified in N.J.A.C. 7:8;

- A "Historic Places Exemption" where the Department determines, pursuant to the New Jersey Register of Historic Places Rules at N.J.A.C. 7:4-7.2(c), that action to meet this standard is an undertaking that constitutes an encroachment or will damage or destroy a New Jersey Register listed historic property.

Measurable Goal

The Tier A Municipality must certify in each Annual Report and Certification that a record of the number and location of storm drain inlets retrofitted, as well as the number and location of storm drain inlets exempted, is being maintained. Totals must be included in the Annual Report and Certification and records must be kept in the SPPP, or the location of such records must be noted in the SPPP.

Implementation Schedule

As indicated in Table 2.5-2, the Tier A Municipality must have fully implemented the Tier A Municipality Storm Drain Inlet Retrofit measures on the effective date of permit authorization. New permittees must implement these measures within 12 months from the effective date of permit authorization.

Additional Information

Several studies have been conducted to determine what materials are most often discharged to storm sewers. Some of the most commonly found materials were polystyrene pieces, pieces of paper, candy and food wrappers, plastic bag fragments and metal foil, with the biggest offender being plastic products. Plastic needs ultraviolet light to decompose, and can take hundreds of years to decay. In the meantime, plastic continues to accumulate in our waterways, causing the deaths of many mammals, fish, birds and reptiles each year.

Every piece of solid or floatable material that is caught before it enters or leaves a storm drainage system will benefit the environment. Minimizing the size of spaces in storm drain inlet grates and curb openings will trap certain solid and floatable materials before they reach our waterways. However, these spaces must also be large enough to provide adequate hydraulic performance.

Any time the Tier A Municipality does any repaving, repairing, reconstruction or alterations of facilities owned or operated by the municipality, storm drain inlets in direct contact with the repaving, repairing, reconstruction or alterations must be retrofitted or replaced to meet the standard contained in Attachment C of the permit, which are also outlined above. Facilities include all municipal roads, all municipal parking lots and any other area that the municipality owns or operates that has storm drain inlets. Repairing does not include the filling of individual potholes.

In most situations, the grate will need to be replaced, since there is no practical way to retrofit a grate to meet the standard. In cases where the existing grate meets the standard, but the curb opening is too large, a low-cost option is to retrofit the curb opening inlet by dividing the existing opening into two or more smaller openings (each no bigger than two inches across the smallest dimension) with a bar, rod or other piece of metal, which is permanently bolted to the existing inlet. This retrofitting technique can be seen in the image to the right.

Recommendations

The following recommendations may be beneficial but are not required by the permit:

- Retrofit existing storm drain inlets to meet the standard contained in Attachment C earlier than required by the permit (rather than waiting until repaving or other projects);
- Increase street sweeping (above the minimum standard) to reduce clogging of storm drain inlets; and/or
- Use additional devices to remove solid and floatable materials including trash racks, mesh nets, bar screens and trash booms.

Municipal Maintenance Yards and Other Ancillary Operations

In accordance with Part IV.B.5.c of the Tier A NJPDES MS4 permit, the following nine (9) best management practices (BMPs) must be implemented by a Tier A Municipality at municipal maintenance yards and other ancillary operations:

- Fueling Operations;
- Discharge of Stormwater from Secondary Containment;
- Vehicle Maintenance;
- On-Site Equipment and Vehicle Washing and Wash Wastewater Containment;
- Salt and De-icing Material Storage and Handling;
- Aggregate Material and Construction Debris Storage;
- Street Sweepings, Catch Basin Clean out, and Other Material Storage;
- Yard Trimmings and Wood Waste Management Sites that are owned and operated by the Tier A Municipality; and
- Roadside Vegetation Management.

These BMPs are also found in *Attachment E – Best Management Practices for Municipal Maintenance Yards and Other Ancillary Operations*, which is attached to the Tier A permit and found online at http://www.nj.gov/dep/dwq/tier_a.htm. Each of these BMPs is discussed individually, beginning on page 19. Table 2.5-3 below summarizes the minimum standards, measurable goals and implementation schedules of each BMP for existing and new permittees.

Table 2.5-3

Pollution Prevention/Good Housekeeping for Municipal Operators SBR For Municipal Maintenance Yards and Other Ancillary Operations			
		Implementation Schedule	
Minimum Standard	**Measurable Goal**	**Existing Permittees**	**New Permittees**
Implement the BMPs found in Attachment E, including the Inventory of Materials and Machinery, and Inspections and Good Housekeeping practices, at Municipal Maintenance Yards and Other Ancillary Operations.	Certify annually; SPPP records retention	January 1, 2018	EDPA + 12 months
BMPs must be implemented for fueling operations.	Certify annually	January 1, 2018	EDPA + 12 months
BMPs must be implemented for discharge of stormwater from secondary containment.	Certify annually	January 1, 2018	EDPA + 12 months
BMPs must be implemented for vehicle maintenance.	Certify annually	January 1, 2018	EDPA + 12 months
BMPs must be implemented for on-site equipment and vehicle washing and wash	Certify annually	January 1, 2018	EDPA + 60 months
BMPs must be implemented for salt and de-icing material storage and handling.	Certify annually	January 1, 2018	EDPA + 60 months
BMPs must be implemented for aggregate material and construction debris storage.	Certify annually	January 1, 2019	EDPA + 18 Months
BMPs must be implemented for street sweepings and catch basin clean-out material storage.	Certify annually	January 1, 2019	EDPA + 18 Months
BMPs must be implemented for yard trimmings and wood waste management sites.	Certify annually	January 1, 2019	EDPA + 18 Months
BMPs must be implemented for roadside vegetation management.	Certify annually	January 1, 2019	EDPA + 18 Months

Note: EDPA means effective date of permit authorization.

1. Fueling Operations

Minimum Standard

The Tier A Municipality shall develop and implement BMPs listed in Attachment E, to address:

- Vehicle fueling;
- Receipt of bulk fuel deliveries; and
- Inspection and maintenance of storage tanks, including the associated piping and fuel pumps.

Additional Requirements:

- Drip pans or absorbent pads must be placed under all hose and pipe connections and other area that are prone to leak during the transfer process;
- During bulk transfer, the Tier A Municipality must either block storm drain inlets, or contain tank trucks within a temporary berm or absorbent booms. If berms or booms are used, all hose connections must be within the bermed or boomed area;
- A properly trained employee from the facility must supervise the process of the bulk transfer of the fuel;
- Train staff in proper SOP's for fueling, spill prevention, and fuel cleanup practices;
- Provide spill kits and spill response equipment at the fueling sites;
- Cleanup any spills immediately using a dry, absorbent material (e.g., kitty litter and/or saw dust);
- Immediately repair or replace any equipment, tanks, pumps, piping and fuel dispensing equipment found to be leaking or in disrepair; and
- Clearly post, in a prominent area of the facility, instructions for safe operations for fueling equipment. Include all of the following:
  - □ "Topping off of vehicles, mobile fuel tanks, and storage tanks is strictly prohibited";
  - □ "Stay in view of fueling nozzle during dispensing"; and
  - □ Contact information for the person(s) responsible for spill response.

Measurable Goal

The Tier A Municipality must certify in each annual report that the BMPs in Attachment E have been implemented for fueling operations.

Implementation Schedule

As indicated in Table 2.5-3, the Tier A Municipality must implement the Tier A Municipal Maintenance Yards and Other Ancillary Operations SBRs in accordance with posted implementation schedule.

Recommendations

The following recommendations may be beneficial but are not required:

- Equip fuel nozzles with automatic shut-off to control drips;
- When installing new tanks consider aboveground storage tanks rather than underground storage tanks;
- When practical, vehicle fueling should be done at designated fueling areas rather than on location (mobile fueling) where employees are less equipped to handle spills;
- All fuel storage tanks should be in secondary containment and the fueling area should be on impervious surface. Common techniques include the use of spill berms to contain oil-filled equipment, fuel tanks, or any other places or items that may leak hazardous liquids; and
- Fueling stations can be regional or shared with other municipalities or other public agencies to help to reduce costs of operation and upgrading.

2. Discharge of Stormwater from Secondary Containment

Minimum Standard

The Tier A Municipality shall develop and implement BMPs for discharge of stormwater from secondary containment at maintenance yard operations listed in Attachment E, and described below:

- The discharge pipe or outfall must be equipped with a valve (globe, gate or equivalent) or other means to control the discharge from all containment areas;
- Ensure that the valve remains closed at all times, except when discharging;
- Perform routine inspections of the tanks, drum, vats, other containers, valves, hoses, pipes, and other equipment in the containment area to maintain their integrity and proper function and keep a log of these routine inspection;
- Perform regular maintenance of tanks, drums and other containers including any valves, hoses, pipes and appurtenances within the containment area including painting, repair and replacement;

- Prior to discharging, perform a physical inspection of the tank within the secondary containment and a visual inspection of the accumulated stormwater to determine if the stormwater has been contaminated by the contents of the tank. Visual inspections are only effective when the contents or materials stored could discolor or give the stormwater an undesirable odor, or leave a visible sheen; and

- If it cannot be determined with reasonable certainty that the stormwater in the secondary containment is uncontaminated then the accumulated stormwater shall be hauled off-site for proper disposal.

Measurable Goal

The Tier A Municipality must certify in each annual report that the BMPs in Attachment E have been implemented for discharge of stormwater from secondary containment.

Implementation Schedule

As indicated in Table 2.5-3, the Tier A Municipality must implement the Tier A Municipal Maintenance Yards and Other Ancillary Operations SBRs in accordance with posted implementation schedule.

Recommendations

It is the Tier A Municipality's responsibility to ensure that no contaminated stormwater is discharged into surface waters or an MS4. Therefore, while not specifically required, the following recommendations will help ensure and/or document that the municipality does not discharge any contaminated stormwater:

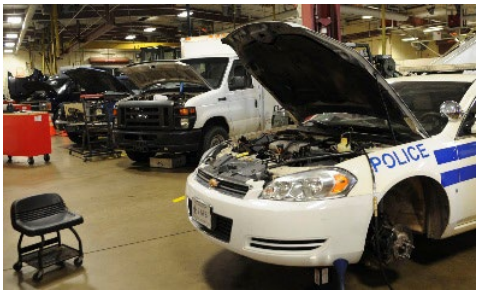
- Consider installing a lock on the discharge value that will prevents unauthorized discharge;

- Analytical testing of the stormwater may be necessary to ensure that the stormwater within the secondary containment area is uncontaminated when the tank within the secondary containment is used to store a material that cannot be detected visually; and

- Keep records of all discharges from the containment areas, include date, time, and approximate volume of the discharge. Furthermore, maintain any records of physical inspections, analytical testing, and any records of stormwater that is hauled for off-site disposal.

3. Vehicle Maintenance

Minimum Standard



The Tier A Municipality shall develop and implement BMPs for vehicle maintenance and repair activities that occur at municipal maintenance yard operations. The BMPs must include the required practices listed in Attachment E, and described below, including regular inspections of all maintenance areas and activities:

- The Tier A Municipality must maintain an inventory of materials and machinery, and must operate and maintain equipment to prevent the exposure of pollutants to stormwater;
- Whenever possible, the Tier A Municipality should perform maintenance activities indoors;
- If a vehicle maintenance activity must be performed outdoors, the following additional measures must be implemented:
  - The maintenance must be performed in a designated area away from any storm drains or the drains must be blocked by berms, sandbags, booms, or other barriers;
  - Drip pans must be used at all times; and
  - If the maintenance activity will last for more than one day, portable tents or covers shall be placed over the equipment when the equipment is not being worked on.

Measurable Goal

The Tier A Municipality must certify in each annual report that the BMPs in Attachment E have been implemented for Vehicle Maintenance operations.

Implementation Schedule

As indicated in Table 2.5-3, the Tier A Municipality must implement the Tier A Municipal Maintenance Yards and Other Ancillary Operations SBRs in accordance with noted implementation schedule.

Recommendations

- In lieu of chlorinated organic solvents, such as methylene chloride, use non-chlorinated solvents, i.e., kerosene or mineral spirits instead.
- Use a non-toxic or less toxic cleaning material. For vehicles that use hydraulic equipment, consider using a vegetable-based hydraulic oil, which is biodegradable.
- Inspect incoming equipment and vehicles for leaks.
  - Keep records of discarded of parts and materials, including transfer information.
  - Drain all liquids completely from parts before disposal.
  - Recycle degreasers, used oil, oil filters, antifreeze, cleaning solutions and hydraulic fluid.

The following information applies to floor drains:

- Floor drains within municipal maintenance garages, if connected to the MS4, are illicit connections and must be eliminated in accordance with the Tier A Municipality's Illicit Connection Elimination Program (see *Chapter 3.6: MS4 Outfall Pipe Mapping, and Illicit Discharge and Scouring Detection and Control*;

- For all other discharges from floor drains within municipal maintenance garages to surface or ground waters, the State require a separate NJPDES permit in accordance with N.J.A.C. 7:14A. Any such discharge must cease until a final effective NJPDES permit is issued by the State; and

- The Department recommends, however, that all floor drains in municipal maintenance garages be permanently sealed, and that all discharges to "motor vehicle waste disposal wells" be closed in accordance with N.J.A.C. 7:14A-8.4. If there are any questions or concerns about a floor drain or about "motor vehicle waste disposal wells," contact the NJ DEP Bureau of Nonpoint Pollution Control at (609) 633-7021.

4. On-Site Equipment and Vehicle Washing and Wash Wastewater Containment

Minimum Standard

The Tier A Municipality shall develop and implement BMPs to manage any equipment and vehicle wash wastewater. The BMPs must incorporate the required practices listed in Attachment E and described below:

- Manage any equipment and vehicle washing activities so that there are no unpermitted discharges of wash wastewater to storm sewer inlets or to waters of the state;

- Tier A Municipalities which cannot discharge wash wastewater to a sanitary sewer may temporarily contain wash wastewater prior to proper disposal under the following conditions:

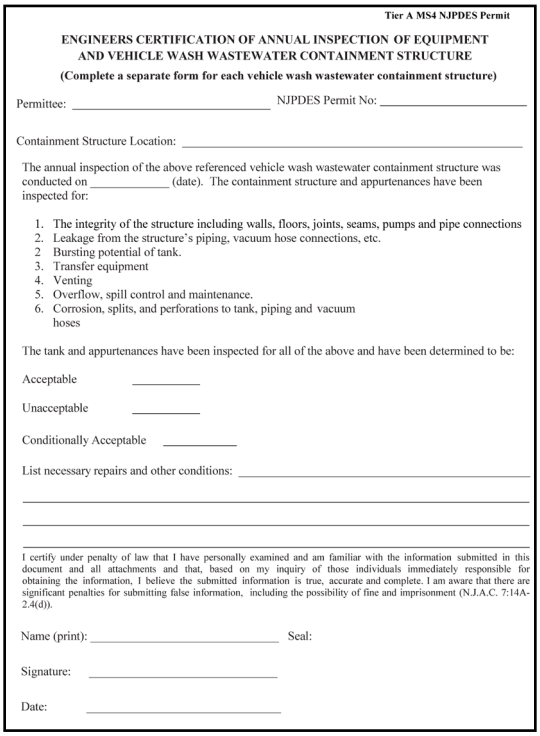
  - □ Containment structures shall not leak. Any underground tanks and associated piping shall be tested for integrity every 3 years using appropriate methods determined by "The List of Leak Detection Evaluations for Storage Tank Systems" created by the National Work Group on Leak Detection Evaluations (NWGLDE) or as determined appropriate and certified by a professional engineer for the site-specific containment structure(s);
  - □ For any cathodically protected containment system, provide a passing cathodic protection survey every three years;
  - □ Operate containment structures to prevent overfilling resulting from normal or abnormal operations, overfilling, malfunctions of equipment, and human error. Overfill prevention shall include manual sticking/gauging of the tank before each use unless system design prevents such measurement. Tank shall no longer accept wash wastewater when determined to be at 95% capacity. Record each measurement to the nearest ½ inch;
  - □ Before each use, perform inspections of all visible portions of containment structures to ensure that they are structurally sound, and to detect deterioration of the wash pad, catch basin, sump, tank, piping, risers, walls, floors, joints, seams, pumps and pipe connections or other containment devices. The wash pad, catch basin, sump and

associated drains should be kept free of debris before each use. Log dates of inspection; inspector's name, and conditions. This inspection is not required if system design prevents such inspection; and

- □ Containment structures shall be inspected annually by a NJ licensed professional engineer. The engineer shall certify the condition of all structures including: wash pad, catch basin, sump, tank, piping, risers to detect deterioration in the, walls, floors, joints, seams, pumps and pipe connections or other containment devices using the attached Engineer's Certification of Annual Inspection of Equipment and Vehicle Wash Wastewater Containment Structure. This certification may be waived for self-contained systems on a case-by-case basis. Any such waiver would be issued in writing by the Department.

Additional Requirements

Attachment E also includes sample forms for use by the Tier A Municipality. The annual inspection certification, tank use documentation and pump out logs discussed below must be retained by the municipality at the public works facility. The municipality must submit the containment structure records upon request by the Department as part of the municipality's compliance of the permit and duty to provide information pursuant to N.J.A.C. 7:14A-2.11. All completed forms and logs must be retained for a minimum of five years.



Tier A MS4 NJPDES Permit

ENGINEERS CERTIFICATION OF ANNUAL INSPECTION OF EQUIPMENT AND VEHICLE WASH WASTEWATER CONTAINMENT STRUCTURE

(Complete a separate form for each vehicle wash wastewater containment structure)

Permittee: _____ NJPDES Permit No: _____

Containment Structure Location: _____

The annual inspection of the above referenced vehicle wash wastewater containment structure was conducted on _____ (date). The containment structure and appurtenances have been inspected for:

1. The integrity of the structure including walls, floors, joints, seams, pumps and pipe connections
2. Leakage from the structure's piping, vacuum hose connections, etc.
2 Bursting potential of tank.
3. Transfer equipment
4. Venting
5. Overflow, spill control and maintenance.
6. Corrosion, splits, and perforations to tank, piping and vacuum hoses

The tank and appurtenances have been inspected for all of the above and have been determined to be:

Acceptable _____

Unacceptable _____

Conditionally Acceptable _____

List necessary repairs and other conditions: _____

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the submitted information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment (N.J.A.C. 7:14A-2.4(d)).

Name (print): _____ Seal:

Signature: _____

Date: _____

Engineers Certification of Annual Inspection of Equipment and Vehicle Wash Wastewater Containment Structure

1. Engineers Certification of Annual Inspection of Equipment and Vehicle Wash Wastewater Containment Structure

   For any municipality that performs in-house washing of equipment and/or vehicles, the discharge of wash wastewater to the surface or ground waters of the State is prohibited. Containment structures that temporarily store wash wastewater prior to proper disposal are permitted for a municipality that has one or more public work facilities not connected to a sanitary sewer system. All such containment structures must be inspected annually and maintained and serviced by the Tier A Municipality, which must document, through a record-keeping process, the annual inspection, maintenance, usage and servicing of the containment structure(s). A model record-keeping form for the certification, usage and service of such a containment structure is shown below and is found in Attachment E of the Tier A MS4 NJPDES permit, which is available from the Department's website at http://www.nj.gov/dep/dwq/tier_a.htm. The annual inspection for the containment structure must be certified by a New Jersey Licensed Professional Engineer.

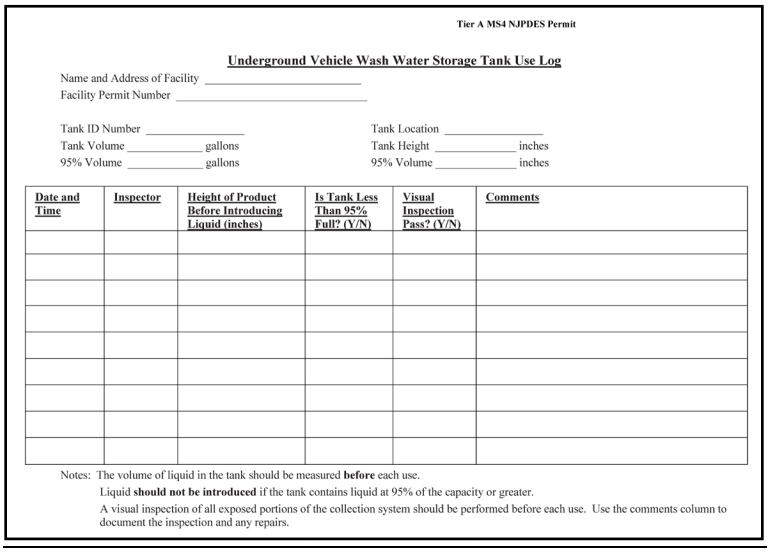
   The municipality may use its own record-keeping format, provided it includes the information noted in the Department's model. The vehicle wash wastewater containment structure

document must include information that the professional engineer would need to fill out to verify the condition of the structure, and it must be certified by a New Jersey Licensed Professional Engineer.

2. Underground Vehicle Wash Water Storage Tank Use and Pump Out Logs

   A Tier A Municipality must document the usage of underground storage tank(s) for the storage of vehicle wash water. The tank use log includes the basic information that the municipality must record for each use of a tank. If more than one tank is used, each requires a separate form

Underground Vehicle Wash Water Storage Tank Use Log



Tier A MS4 NJPDES Permit

Underground Vehicle Wash Water Storage Tank Use Log

Name and Address of Facility _____
Facility Permit Number _____

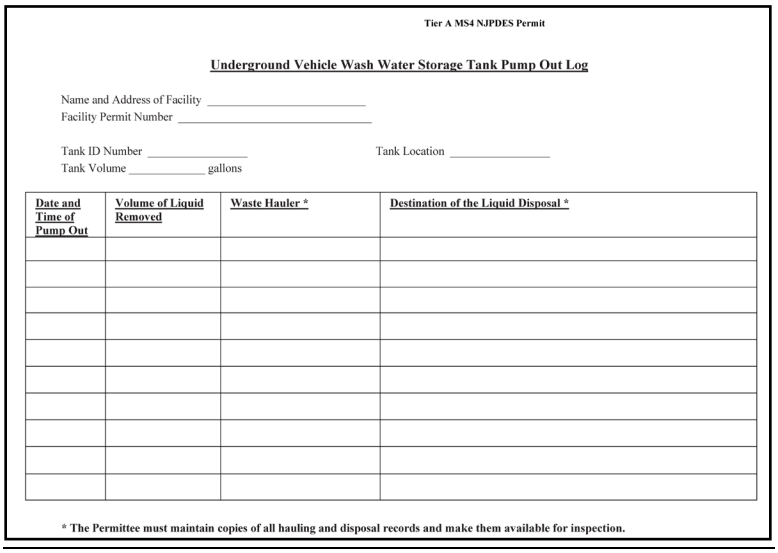
Tank ID Number _____ Tank Location _____
Tank Volume _____ gallons Tank Height _____ inches
95% Volume _____ gallons 95% Volume _____ inches

Date and Time	Inspector	Height of Product Before Introducing Liquid (inches)	Is Tank Less Than 95% Full? (Y/N)	Visual Inspection Pass? (Y/N)	Comments

Notes: The volume of liquid in the tank should be measured **before** each use.
Liquid **should not be introduced** if the tank contains liquid at 95% of the capacity or greater.
A visual inspection of all exposed portions of the collection system should be performed before each use. Use the comments column to document the inspection and any repairs.

3. If the tank is to be pumped out, the municipality must record the information noted in tank pump out log. The image of this form provided below is found in Attachment E of the Tier A MS4 NJPDES permit, which is available from the Department's website at http://www.nj.gov/dep/dwq/tier_a.htm.

Underground Vehicle Wash Water Storage Tank Pump Out Log



Tier A MS4 NJPDES Permit

Underground Vehicle Wash Water Storage Tank Pump Out Log

Name and Address of Facility _____
Facility Permit Number _____

Tank ID Number _____ Tank Location _____
Tank Volume _____ gallons

Date and Time of Pump Out	Volume of Liquid Removed	Waste Hauler *	Destination of the Liquid Disposal *

* The Permittee must maintain copies of all hauling and disposal records and make them available for inspection.

Measurable Goal

The Tier A Municipality must certify in each annual report that BMPs in Attachment E have been implemented for On-site Equipment and Vehicle Washing and Wash Wastewater Containment.

Implementation Schedule

As indicated in Table 2.5-3, the Tier A Municipality must implement the Tier A Municipal Maintenance Yards and Other Ancillary Operations SBRs in accordance with posted implementation schedule. Existing permittees should have already implemented this BMP and new permittees have a maximum of 60 months from the effective date of the permit authorization to finalize implementation.

Recommendations

The following are two methods that can be used to comply with the above requirements but are not specifically permit requirements.

1. Install a wastewater reclamation system

   There are many wastewater reclamation systems, available commercially, that recycle and treat wash wastewater for reuse and can be sized for a wide range of flows. A wastewater reclamation system usually includes a sump, or some other mechanism to collect the water, a treatment system using one or more treatment technologies to remove contaminants and a tank to store the treated water that is then reused. The Department has found that these systems offer many advantages including flexibility of design, relatively low initial capital costs, low operational costs, low disposal costs (when compared to discharges to sanitary sewer), significant reduction in water usage and no requirement for a NJPDES discharge permit, since there is no discharge to surface or ground water. Below is a list of five treatment technologies that may be used individually or in combination as part of a wastewater reclaim system:

- Electrocoagulation

  As wastewater travels through a series of cells, an electrical current is applied to the stream providing an electromotive force that allows certain compounds to approach a more stable state. Typically, the more stable state for an element or compound results in a solid form that is removed by settling or filtration. The pollutant removal efficiency of electrocoagulation systems can be maintained throughout a range of influent pollutant concentrations. This process effectively removes emulsified oils and hydrocarbons, suspended solids and heavy metals.

- Filtration

  Filters can mechanically separate various components of a waste stream. Filter selection is an important part of a facility's assessment of this technology. The different filter media used by various manufacturers are designed to remove a wide range of pollutants, but certain media are only appropriate for particular compounds. For instance, activated carbon filter media are efficient at removing sediment and volatile organic compounds, but not necessarily inorganic compounds, such as metals. Typical maintenance of these systems is the replacement of filter cartridges after a specified period of use.

- Chemical Treatment

  Certain chemicals may be added to a waste stream to remove particular pollutants of concern. Various chemicals achieve pollutant removal through a number of chemical or mechanical processes. Examples include a pH adjustment to neutralize wastewater and a pH adjustment to facilitate the precipitation of metals or the addition of flocculants to improve settling of solids. The quantity of chemicals fed into the treatment process may change depending on the strength of pollutants entering the treatment system. Chemical treatment is generally effective; however, it can be cost prohibitive and requires properly trained operators.

- Settling

  Settling is the process by which particulates, aided by gravity, settle to the bottom of a liquid and form sediment. The settling efficiency is dependent on the particle properties and the time given to the wastewater volume to remain at a low flow. Some pollutants, such as metals, may be chemically trapped in solution, and the act of settling will not reduce the concentration of these pollutants.

- Biological Treatment

  Biological treatment utilizes bacteria that feed on organic materials, reducing pollutant load, specifically nutrients, biochemical oxygen demanding (BOD) substances, oil and grease. Biological treatment is generally used to treat sanitary waste streams and requires a constant source of organic matter; therefore, it may not be suitable for treatment of wash wastewater.

2. Capture and transport the wastewater for proper disposal.

   - The Tier A Municipality may construct or use an existing impervious area with berms or other methods to facilitate the collection of wastewater and then have the wastewater hauled for proper disposal. The wastewater would need to be characterized, and based on that characterization, may be either accepted at a sewage treatment plant or disposed of as hazardous waste.

     If this option is selected, the municipality should perform routine inspections of the berms or other methods to facilitate the collection of wastewater to ensure the integrity of the structures and that there is no runoff or run through.

   - If approved by the local authorities, it may be acceptable in some areas to connect to and discharge the wastewater directly to a sanitary sewer, if available. However, facilities will need prior approval from the local sewerage authority prior to connection. The sewerage authority may require characterization of the wastewater prior to discharging and based on that characterization, it may require pretreatment of the wastewater. In addition, the sewerage authority or the Department may both require that the wastewater meet pretreatment standards, as well as, regular monitoring of the discharge to ensure the discharge meets these standards. Lastly, most sewerage authorities will require a connection fee and will charge a monthly sewerage fee.

Considerations

The following alternatives may prove to be more cost effective than the recommendations listed above.

- Cease the activity

  As an alternative, the Tier A municipality may find that ceasing the discharge of wastewater to be the easiest and most cost-effective option. If a municipality is simply washing a fleet of cars, trucks or buses, it may be more cost efficient to take them to a commercial car or truck wash facility rather than install a treatment system.

- Apply for a NJPDES permit

  The municipality does have the choice to apply for a separate NJPDES permit that will specifically authorize the wastewater discharge. NJPDES permits limit the mass and/or concentration of pollutants discharged to surface or ground water of the State. Discharges must meet effluent limitations set in the permit designed to protect surface and ground water quality. To meet the effluent limitation in the NJPDES permit, a facility would need to design and build a treatment unit. Permit holders are required to monitor the discharges, likely on a monthly basis, and submit discharge monitoring reports (DMRs). Facilities that exceed their permitted discharge limits and/or fail to submit the DMR are subject to significant mandatory penalties. In addition, NJPDES permits have an annual fee based on pollutant load. The minimum fee during fiscal year 2017 for an individual discharge to surface water (DSW) permit was $4, 200.

5. Salt and De-icing Material Storage and Handling

Minimum Standard

The Tier A Municipality shall develop and implement BMPs for Salt and De-icing Material Storage and Handling. The BMPs must incorporate the required practices listed in Attachment E, and described below. Note that these requirements do not apply to the storage of sand, which must meet the requirements for Aggregate Material and Construction Debris Storage. The required practices include the following:

- Store Salt and De-Icing Material in a permanent structure;
- Perform regular inspections and maintenance of storage structure and surrounding area;
- Minimize tracking of material from loading and unloading operations;
- During loading and unloading:
  - Conduct during dry weather, if possible;
  - Prevent and/or minimize spillage; and
  - Minimize loader travel distance between storage area and spreading vehicle;
- Sweep (or clean using other dry cleaning methods):
  - Storage areas on a regular basis;
  - Material tracked away from storage areas; and
  - Immediately after loading and unloading is complete;
- Reuse or properly discard materials collected during cleanup; and
- Temporary outdoor storage is permitted only under the following conditions:
  - A permanent structure is under construction, repair or replacement;
  - Stormwater run-on and de-icing material run-off is minimized;
  - Materials in temporary storage are tarped when not in use;
  - All of the requirements above are met; and
  - Temporary outdoor storage shall not exceed 30 days unless otherwise approved in writing by the Department.

Measurable Goal

The Tier A Municipality must certify in each annual report that the BMPs in Attachment E have been implemented for Salt and De-icing Material Storage and Handling.

Implementation Schedule

As indicated in Table 2.5-3, the Tier A Municipality must implement the Tier A Municipal Maintenance Yards and Other Ancillary Operations SBRs in accordance with posted implementation schedule. For this BMP, new permittees have a maximum of 60 months from the effective date of the permit authorization to finalize implementation.

Additional Information

The application of salt and sand on roads to improve conditions in winter weather has been a preferred practice since the 1930s. Sand is widely used in colder climates where temperatures drop below 0° F. In New Jersey, where the climate is warmer, salt is mostly used to reduce ice bonding to road surfaces. The Department understands that during the winter, the application of sand and salt is a public safety issue that outweighs the possible environmental impacts of the application. However, the proper storage and handling of these materials is something that, when done using BMPs, should have no adverse impacts to the environment. During winter weather, salt and de-icing materials are spread over large areas, but at municipal storage facilities the discharges are concentrated year-round. The Department's goal is to ensure that these materials are properly handled, stored or covered, so that they are not transported by stormwater and discharged to surface and ground waters of the State. Improper salt and de-icing material storage may result in stormwater runoff containing high amounts of sodium and other pollutants. Sodium chloride (road salt) is an effective de-icer but can be highly corrosive to stormwater facilities. Smaller waterways, such as small streams, rivers and ponds, are at a higher risk to increases in salinity. Indoor storage of salt and de-icing materials is an effective pollution prevention technique which helps to eliminate pollutant loadings to surface and groundwaters. BMPs for salt and de-icing material storage and handling have been required for Tier A Municipalities since the 2004 Tier A MS4 NJPDES Permit; therefore, for an existing permittee, the implementation schedule for this BMP is the effective date of permit authorization (EDPA). For a new permittee, EDPA + 60 months is the maximum timeframe for implementation of this BMP.

Recommendations

The following recommendations are not required by the permit, but should be taken into account when siting a new permanent structure:

- Locate the site at least 200 hundred feet away from nearby streams, wells, reservoirs and drinking water sources;
- Do not build a storage structure in designated well head protection area;
- Ensure that the top elevation of the pad for the permanent structure, as well as the access way, is higher than the 100-year flood elevation;
- Control site drainage by diverting stormwater away from storage areas (e.g., by installing curbing, berms, etc.);
- Place wind barriers at strategic areas where shipments of salt and sand are being loaded. This can help to reduce the possibility of windblown particles entering nearby areas;
- When constructing a de-icing material storage structure, include a paved, impermeable access way; and

- Work with neighboring municipalities, public complexes and/or highway agencies (such as NJ Turnpike Authority, South Jersey Transportation Authority, NJDOT, etc.) to construct joint use de-icing material storage facilities.

6. Aggregate Material and Construction Debris Storage

Minimum Standard

The Tier A Municipality shall develop and implement BMPs for Aggregate Material and Construction Debris Storage at maintenance yard operations. The BMPs must incorporate the required practices listed in Attachment E, and described below. The BMPs must include regular inspections and maintenance of all Aggregate Material and Construction Debris Storage areas.

- Store materials such as sand, gravel, stone, top soil, road millings, waste concrete, asphalt, brick, block and asphalt based roofing scrap and processed aggregate in such a manner as to minimize stormwater run-on and aggregate run-off via surface grading, dikes and/or berms (which may include sand bags, hay bales and curbing, among others) or three-sided storage bays. Where possible the open side of storage bays shall be situated on the upslope. The area in front of storage bays and adjacent to storage areas must be swept clean after loading/unloading.

- Sand, top soil, road millings and processed aggregate may only be stored outside and uncovered if in compliance with the bullet above and if a 50-foot setback is maintained from surface water bodies, storm sewer inlets and/or ditches or other stormwater conveyance channels.

- Road millings must be managed in conformance with the "*Recycled Asphalt Pavement and Asphalt Millings (RAP) Reuse Guidance*" (see www.nj.gov/dep/dshw/rrtp/asphaltguidance.pdf) or properly disposed of as solid waste pursuant to N.J.A.C. 7:26-1 et seq.

- The stockpiling of materials and construction of storage bays on certain land (including but not limited to coastal areas, wetlands and floodplains) may be subject to regulation by the Division of Land Use Regulation (see www.nj.gov/dep/landuse/ for more information).

Measurable Goal

The Tier A Municipality must certify in each annual report that the BMPs in Attachment E have been implemented for Aggregate Material and Construction Debris Storage in order to eliminate and/or minimize the amount of pollutants entering surface and ground water from Aggregate Material and Construction Debris Storage activities.

Implementation Schedule

As indicated in Table 2.5-3, the Tier A Municipality must implement the Tier A Municipal Maintenance Yards and Other Ancillary Operations SBRs in accordance with posted implementation schedule. A new permittee must implement this BMP within 18 months from the effective date of permit authorization.

7. Street Sweepings and Catch Basin Cleanout Material Storage

Minimum Standard

The Tier A Municipality shall develop and implement BMPs for Street Sweeping and Catch Basin Cleanout Material Storage at maintenance yard operations. The BMPs must incorporate the required practices listed in Attachment E of the Tier A NJPDES MS4 permit, and described below and include regular inspections and maintenance of all Street Sweepings and Catch Basin Cleanout Material Storage areas.

- This BMP is intended for road cleanup materials as well as other similar materials. Road cleanup materials may include but are not limited to street sweepings, storm sewer clean out materials, stormwater basin clean out materials, and other similar materials that may be collected during road cleanup operations. These BMPs do not cover materials such as liquids, wastes which are removed from municipal sanitary sewer systems or material which constitutes hazardous waste in accordance with N.J.A.C. 7:26G-1.1 et seq.
- Road cleanup materials must be ultimately disposed of in accordance with N.J.A.C. 7:26-1.1 et seq. See the "*Guidance Document for the Management of Street Sweepings and Other Road Cleanup Materials*" which may be found online at www.nj.gov/dep/dshw/rrtp/sweeping.htm.
- Road cleanup materials placed into storage must be, at a minimum:
  - □ Stored in leak-proof containers or on an impervious surface that is contained (e.g., bermed) to control leachate and litter; and
  - □ Removed for disposal (as above) within six (6) months of placement into storage.

Measurable Goal

The Tier A Municipality must certify in each annual report that the BMPs in Attachment E have been implemented for Street Sweepings and Catch Basin Cleanout Material Storage.

Implementation Schedule

As indicated in Table 2.5-3, the Tier A Municipality must implement the Tier A Municipal Maintenance Yards and Other Ancillary Operations SBRs in accordance with noted implementation schedule. A new permittee must implement this BMP within 18 months from the effective date of permit authorization.

8. Yard Trimmings and Wood Waste Management Sites

Minimum Standard

The Tier A Municipality shall develop and implement BMPs for Yard Trimmings and Wood Waste Management Sites at maintenance yard operations. The BMP must incorporate the required practices listed in Attachment E and described below, and include regular inspections and maintenance of all Yard Trimmings and Wood Waste Management Sites.

1. These practices are applicable to any yard trimmings or wood waste management site:

   - Owned and operated by the Tier A Municipality,

     - □ For staging, storing, composting or otherwise managing yard trimmings or
     - □ For staging, storing or otherwise managing wood waste, and

   - Operated in compliance with the Recycling Rules found at N.J.A.C. 7:26A.

   Note that any yard trimming or wood waste management site that does not meet both of the criteria above cannot be permitted through the Tier A MS4 NJPDES Permit and must obtain separate authorization.

2. Yard trimmings or wood waste management sites must be operated in a manner that:

   - Diverts stormwater away from yard trimmings and wood waste management operations and

   - Minimizes or eliminates the exposure of yard trimmings, wood waste and related materials to stormwater.

3. Yard trimmings and wood waste management site specific practices include:

   - Constructing windrows, staging and storage piles:

     - □ In such a manner that materials contained in the windrows, staging and storage piles (processed and unprocessed) do not enter waterways of the State,
     - □ On ground which is not susceptible to seasonal flooding and
     - □ In such a manner that prevents stormwater run-on and leachate run-off (e.g., use of covered areas, diversion swales, ditches or other designs to divert stormwater from contacting yard trimmings and wood waste).

   - Maintaining perimeter controls such as curbs, berms, hay bales, silt fences, jersey barriers or setbacks, to eliminate the discharge of stormwater runoff carrying leachate or litter from the site to storm sewer inlets or to surface waters of the State.

   - Preventing on-site storm drain inlets from siltation using controls such as hay bales, silt fences or filter fabric inlet protection.

   - Preventing dry weather run-off from reaching a municipal stormwater sewer system, which is an

illicit discharge. Possible sources of dry weather run-off include wetting of piles by the site operator and uncontrolled pile leachate or uncontrolled leachate from other materials stored at the site.

- Removing trash from yard trimmings and wood waste upon receipt.
- Monitoring the site for trash on a routine basis.
- Storing trash in leak-proof containers or on an impervious surface that is contained (e.g., bermed) to control leachate and litter.
- Disposing of collected trash at a permitted solid waste facility.
- Employing preventative tracking measures, such as gravel, quarry blend or rumble strips at exits.

Measurable Goal

The Tier A Municipality must certify in each annual report that BMPs in Attachment E have been implemented for Yard Trimmings and Wood Waste Management Sites.

Implementation Schedule

As indicated in Table 2.5-3, the Tier A Municipality must implement the Tier A Municipal Maintenance Yards and Other Ancillary Operations SBRs in accordance with noted implementation schedule. Existing permittees have until January 1, 2019 to implement this BMP and a new permittee must implement this BMP within 18 months from the effective date of permit authorization.

9. Roadside Vegetation Management

Minimum Standard

The Tier A Municipality shall develop and implement standard operating procedures for Roadside Vegetation Management. The BMPs must incorporate the required practices listed in Attachment E, and described below.

- Tier A Municipalities must restrict the application of herbicides along roadsides in order to prevent it from being washed by stormwater into the waters of the State and to prevent erosion caused by de-vegetation, as follows:
    - □ The Tier A Municipality shall not apply herbicides on or adjacent to storm drain inlets, on steeply sloping ground, along curb lines or along unobstructed shoulders; and
    - □ The Tier A Municipality may only apply herbicides within a 2-foot radius around structures where overgrowth presents a safety hazard and where it is unsafe to mow.

Measurable Goal

The Tier A Municipality must certify in each annual report that the BMPs in Attachment E have been implemented for Roadside Vegetation Management.

Implementation Schedule

As indicated in Table 2.5-3, the Tier A Municipality must implement the Tier A Municipal Maintenance Yards and Other Ancillary Operations SBRs in accordance with noted implementation schedule. A new permittee must implement this BMP within 18 months from the effective date of permit authorization.

Additional Information

Tier A Municipalities are required to restrict the application of herbicides along roadsides for two reasons. First, herbicide use must be restricted to prevent direct runoff of herbicide into storm drains, and thus into waters of the State. Second, herbicide use must be restricted to prevent erosion caused by elimination of the vegetation along roadways. Erosion along roadways can result in significant quantities of sediment being discharged into waters of the State. Vegetation helps to protect areas against erosion, and thus the elimination of the vegetation, by overuse of herbicides, must be avoided. Municipalities may only apply herbicides where mowing or trimming of the vegetation is not possible for safety reasons.

Stormwater Training

Stormwater training is one of the most important aspects of the permit. All the time and effort undertaken to develop a stormwater program and to write an SPPP is wasted if employees are not properly trained and do not clearly understand what is expected of them. Emphasizing training shows that the Tier A municipality is serious about its stormwater program and protecting the environment. The following three (3) stormwater training program components must be developed, implemented and monitored:

- Municipal Employee Training;
- Stormwater Management Design Review Training; and
- Municipal Board and Governing Body Member Training.

Each of these programs is discussed individually, beginning on the next page.

Table 2.5-4 below summarize the minimum standards, measurable goals and implementation schedules of each stormwater training program for existing and new permittees.

Table 2.5-4

Pollution Prevention/Good Housekeeping for Municipal Operators SBR For Stormwater Training			
		Implementation Schedule	
Minimum Standard	**Measurable Goal**	**Existing Permittees**	**New Permittees**
The Tier A Municipality shall develop, update and implement an employee training program to address Tier A MS4 NJPDES permit components at Part IV.B.5.d and SPPP requirements.	Certify annually; SPPP records retention	January 1, 2018	EDPA + 12 months
Provide training to municipal employees within 3 months of commencement of duties, and at least once every two years thereafter, to address all required components. The exceptions are Part IV.B.5.d.v, viii, and x which require annual training instead of once every two years.	Certify annually; SPPP records retention	January 1, 2018	EDPA + 12 months
Ensure that individuals that review development and redevelopment projects for compliance with N.J.A.C. 7:8 on behalf of the municipality complete Department approved training once every five years.	Certify annually; SPPP records retention	January 1, 2019	EDPA + 12 months
Ensure that current Municipal Board and Governing Body Members that review and approve applications for development and redevelopment projects complete the "Training Tool" on or before EDPA + 6 months, and by new members within 6 months of commencement of duties. Once per term of service thereafter, Municipal Board and Governing Body Members must review at least one of the tools offered under the Post-Construction Stormwater Management website.	Certify annually; SPPP records retention	July 1, 2018	EDPA + 6 months

Note: EDPA means effective date of permit authorization.

1. Municipal Employee Training Program

Minimum Standards

The Tier A Municipality shall develop and implement an employee training program for all employees on those topics applicable to their title and duties within three months of commencement of duties.

Training must occur at least once every two years, unless otherwise specified below, and must include the following topics, as well as the subjects specified under the topic name:

1. Yard Waste Collection Program (if applicable):
    - Frequency of yard waste pickups and schedule; and
    - Policy for how and when yard waste can be placed curbside.
2. Monthly Sweeping of Certain Streets in Predominantly Commercial Areas:
    - Sweeping schedules; and
    - Proper management of materials collected.
3. Illicit Connection Elimination and Outfall Pipe Mapping:
    - The impacts associated with illicit connections; and
    - Details of the program including investigation techniques, physical observations, field sampling, and mapping procedures.
4. Outfall Pipe Stream Scouring Detection and Control:
    - How to identify outfall pipe stream scouring; and
    - Contributing factors.
5. Maintenance Yard Operations (including Ancillary Operations) – Annually:
    - Inventory of materials and machinery;
    - Inspections and good housekeeping;
    - Fueling operations;
    - Discharge of stormwater from secondary containment;
    - Vehicle maintenance;
    - On-site equipment and vehicle washing and wash wastewater containment;
    - Salt and de-icing material storage and handling;
    - Aggregate material and construction debris storage;
    - Street sweeping, catch basin clean out, and other material storage; and

- Yard trimmings and wood waste management sites.

6. Waste Disposal Education:
   - The impacts associated with improper waste disposal;
   - How to respond to inquiries regarding improper waste disposal; and
   - Appropriate enforcement authority.
7. Municipal Ordinances:
   - An overview of the following:
     - □ Pet Waste Ordinance;
     - □ Wildlife Feeding Ordinance;
     - □ Litter Control Ordinance;
     - □ Improper Disposal of Waste Ordinance;
     - □ Containerized Yard Waste/Yard Waste Collection Ordinance; and
     - □ The Private Storm Drain Inlet Ordinance.
   - Enforcement policies for each of the ordinances listed above; and
   - The repercussions of non-compliance with these ordinances.
8. Stormwater Facility Maintenance – Annually
   - Maintenance of stormwater facilities; and
   - Catch basin and inlet cleaning methods.
9. Construction Activity/Post-Construction Stormwater Management in New Development and Redevelopment
   - Permitting requirements for construction activity and Post-Construction Stormwater Management in New Development and Redevelopment.
10. Annual training must be provided on the general requirements of the SPPP, including
    - Applicable recordkeeping requirements; and
    - Detailed training on any component applicable to an employee's title and duties.
11. Training may also be conducted on stormwater-related topics that serve an educational purpose for employees.

Measurable Goal

The Tier A Municipality must certify in each annual report that employee training has been conducted and maintain records including sign-in sheets, dates of training, and the training agenda. These records must be kept in the SPPP.

Implementation Schedule

As indicated in Table 2.5-4, the Tier A Municipality must implement the Tier A Employee Training SBRs in accordance with noted implementation schedule. A new permittee must implement this training program within 12 months from the effective date of permit authorization. Training seminars must begin within 12 months from the effective date of permit authorization.

Additional Information

Employee training is intended to increase employee awareness of the stormwater program and its importance, as well as their role in its implementation. It is believed that if the employees understand what is required of them and why it is being required, they will be more likely to comply with the conditions of the permit. Employees must be trained about the various topics listed above, but the education program need not be limited to those topics. All employees should be involved in the training program, but the permit requires training only on those particular topics that are relevant to their job descriptions. For example, police officers must be trained on the above listed municipal ordinances (and on fueling BMPs if officers fuel their own patrol cars at a municipal maintenance yard), but they do not need to be trained on local public education.

Overall, this training program is very important to the success of the SPPP required by this permit. Since the goal of this training is to emphasize the importance of the permit and the required practices, the training must be designed to encourage employees to take an active and environmentally responsible role in the SPPP.

In many ways, education and training may be considered the most important aspect of this program. It is widely recognized that education is the key to providing people with the knowledge, awareness, attitudes and values that will help them play their part in sustaining the environment, not only while they are at work but also throughout life. While many Statewide Basic Requirements focus on educating the public on the importance of this program, this requirement specifically targets the employees that work for Tier A Municipalities.

2. Stormwater Management Design Review Training Program

Minimum Standards

The Tier A Municipality shall ensure that all design engineers, municipal engineers, and other individuals that review the stormwater management design for development and redevelopment projects on behalf of the municipality, complete the Department approved Stormwater Management Design Review Course once every five (5) years.

Measurable Goal

The Tier A Municipality must certify in each annual report that individuals that review stormwater management designs on behalf of the municipality complete the Department approved Stormwater Management Design Review Course once every five years. The Tier municipality must maintain a list of the names of course participants and the respective dates of their course attendance in the SPPP.

Implementation Schedule

As indicated in Table 2.5-4, the Tier A Municipality must implement the Tier A Employee Training SBRs in accordance with noted implementation schedule. A new permittee must implement this training program within 12 months from the effective date of permit authorization.

Additional Information

This permit contains a new training requirement for stormwater management design review. Specifically, the Tier A Municipality must ensure that all design engineers, municipal engineers and other individuals that review stormwater management designs for development and redevelopment projects on behalf of the municipality, complete the Department approved Stormwater Management Design Review Course (see www.njstormwater.org/training.htm) once every five years. This two-day course covers the Stormwater Management rule criteria and the NJ Stormwater BMP Manual. For both designers of land use proposals and the public officials who review them, implementing the Stormwater Management rule requires an understanding of both the municipal planning requirements and the technical standards. The class is intended for those involved in the technical review process for compliance with the Stormwater Management rule. The Tier A MS4 NJPDES permit establishes an implementation schedule of 12 months from the effective date of permit authorization (EDPA) for new and existing permittees to meet this requirement. On January 1, 2019 for existing permittees (or EDPA + 12 months for new permittees), individuals that will review stormwater management designs and have not received this training within the past five years must attend the next scheduled course offering. Department led training obtained within five calendar years prior to EDPA qualifies towards this requirement. If unable to attend a scheduled course offering, the Tier A Municipality must notify the Department in writing, no later than thirty days after the missed course offering, explaining why attendance was not possible and what alternate arrangements are being made. The Department will offer this course free of charge, twice per year. This course is eligible for credits and continuing education units.

3. Municipal Board and Governing Body Member Related Training Program

Minimum Standards

The Tier A Municipality shall ensure that municipal board and governing body members that review and approve applications for development and redevelopment projects complete the "Asking the Right Questions in Stormwater Review Training Tool" within six (6) months from the effective date of permit authorization and by new members within six months of commencement of duties. Once per term of service thereafter, they must review at least one of the tools offered under the Post Construction Stormwater Management website.

Measurable Goal

The Tier A Municipality must certify in each annual report that municipal board and governing body members have completed the necessary training and maintain a list of the names and dates of completed training for each participant in the SPPP.

Implementation Schedule

As indicated in Table 2.5-4, the Tier A Municipality must implement the Tier A Employee Training SBRs in accordance with noted implementation schedule. A new permittee must implement this training

program within 6 months from the effective date of permit authorization. Training must be completed within 6 months from the effective date of permit authorization.

Additional Information

The Tier A Municipality must ensure that municipal board and governing body members that review and approve applications for development and redevelopment projects, complete the "Asking the Right Questions in Stormwater Review Training Tool" posted at www.njstormwater.org/training.htm. This free on-line interactive training tool is designed for Municipal Board and Governing Body members to provide a general understanding of post construction requirements. This training must be completed by those individuals that review any projects for compliance with Part IV.B.4 of this permit. Training must be completed by current municipal board and governing body members within six (6) months of effective date of permit authorization and by new members within six (6) months of commencing duties. Once per term of service thereafter, municipal board and governing body members must review at least of one of the tools offered under Post-Construction Stormwater Management found at the website above. As specified in Attachment A (Measurable Goals and Implementation Schedule) for existing permittees, the Tier A Municipality is required to maintain a list of the dates and names of training program participants in its SPPP. Refer to *Attachment A-1 - Measurable Goals and Implementation Schedule for New Permittees*, which is found online, appended to the Tier A MS4 permit at http://www.nj.gov/dep/dwq/tier_a.htm, for new permittees.