

STANDARD OPERATING PROCEDURE

Catch Basin Cleaning and Inspection



TARGETED POLLUTANTS

- Sediment
- Nutrients
- Trash
- Metals
- Oil and Grease
- Organics
- Low Dissolved Oxygen
- Bacteria

Board of Selectmen Meeting Record
 Date: 10-26-2020
 1st Reading

Catch basins help minimize flooding and protect water quality by removing trash, sediment, decaying debris, and other solids from stormwater runoff. Catch basin cleaning reduces foul odors, prevents clogs in the storm drain system, and reduces the loading of suspended solids, nutrients, and bacteria to receiving waters.

Suggested Standard Operating Procedures

Implement applicable suggested SOPs to reduce the influx of pollutants to the stormwater drainage system to the maximum extent practicable.

- Target cleaning for early spring.
- Clean manually or with equipment (i.e., clamshell or vactor truck).
- Properly dewater and dispose of catch basin material or store until contractor picks up cleanings (see "Management of Catch Basin Cleanings").
- Repair damaged catch basins including frames and grates.
- Install hoods if catch basins do not have them.
- Inform employees that catch basins are part of the stormwater drainage system and not the sanitary sewer system.
- The DPW should maintain an inventory of cleaning activities. Information should at a minimum include amount of cleanings removed and areas with heavily filled basins.
- Facilities should maintain a log of cleaning activities on their parking lots. Information should include date of cleaning activities, staff/contractor that performs activities, number of basins cleaned, illicit connection/odor issues, repair issues, or heavily filled catch basins.
- Report any illicit (illegal) discharges to the DPW. Report oil spills immediately to the Fire Department and DPW.

Optimization of Inspection & Cleaning

Section 2.3.7.a.iii.2 of the 2016 Small MS4 General Permit requires that Winchendon optimize routine inspections, cleaning, and maintenance of catch basins to meet the following criteria:

- Prioritize inspection and maintenance for catch basins located near construction activities and clean catch basins more frequently if excessive sediment or debris loadings is found.
- Establish a catch basin cleaning schedule that ensures no catch basin is ever more than 50 percent full.

The Town hires a contractor to clean the catch basins and dispose of the material at the Templeton Wastewater Treatment Plant, where it is used as sludge cover. If this disposal practice changes in the future, the cleanings must be disposed of as solid waste according to MassDEP guidelines, which are included at the end of this SOP.

Does the Town have a copy of the Templeton WWTP landfill permit? We would like to confirm CB cleanings are accepted. This may require additional approval from MassDEP.

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The Town will work to optimize routine inspections, cleaning, and maintenance of catch basins as follows:

- Prioritize inspection and maintenance for catch basins located near construction activities (roadway construction, residential, commercial, or industrial development or redevelopment). Clean catch basins in such areas more frequently if inspection and maintenance activities indicate excessive sediment or debris loadings.
- Inspections should be completed during routine cleaning, as part of reconstruction contracts, and through requests made by residents or other Town departments.
- Establish a cleaning schedule so that no catch basin is greater than 50 percent full.
 - A catch basin sump is more than 50 percent full if the contents within the sump exceed one half the distance between the bottom interior of the catch basin to the invert of the deepest outlet of the catch basin.
- If a catch basin sump is more than 50 percent full during two consecutive routine inspections/cleaning events, the Town shall document that finding, investigate the contributing drainage area for sources of excessive sediment loading, and to the extent practicable, abate contributing sources. The Town shall describe any actions taken in its annual report.
- The Town will improve record keeping in Permit Years 3 and 4 with metrics from each catch basin (e.g., inspection log, information about percent full, maintenance needs, evidence of illegal dumping) to reach the determination that the established plan for cleaning and maintenance is optimal for the MS4.

Reporting

- Report any repair or maintenance problems to the DPW. Repair problems may include frame and grate replacement.
- Keep a log of catch basins cleaned or inspected.
- Report in each annual report the total number of catch basins, number inspected, number cleaned, and the total volume or mass of material removed from all catch basins.
- As described above, if a catch basin sump is more than 50 percent full during two consecutive routine inspections/cleaning events, the Town must document that finding and describe any actions taken in its annual report.
- Document Town's plan for optimizing catch basin cleaning, inspection plans, or its schedule for gathering information. Documentation is required to include metrics and other information used to reach the determination that the established plan for cleaning and maintenance is optimal for the MS4.



Management of Catch Basin Cleanings (Source: <https://www.mass.gov/lists/massdep-solid-waste-policies-guidance-fact-sheets#managing-specific-solid-wastes->)

Catch basin cleanings - solid materials such as leaves, sand and twigs removed from stormwater collection systems during cleaning operations - are typically classified as a solid waste by the Department of Environmental Protection (MassDEP). Catch basin cleanings must be handled and disposed in accordance with the agency's applicable regulations, policies and guidance.

Handling and Disposal

Except as explained below, catch basin cleanings from stormwater-only drainage systems may be disposed at any landfill that is permitted by MassDEP to accept solid waste. MassDEP does not routinely require stormwater only catch basin cleanings to be tested before disposal, unless there is evidence that they have been contaminated by a spill or some other means. Contaminated catch basin cleanings must be evaluated in accordance with the Hazardous Waste Regulations, 310 CMR 30.000, and handled as hazardous waste if appropriate. Systems that collect stormwater runoff into sanitary sewers are called "combined sewers." MassDEP may require cleanings from combined sewer catch basins to be tested before disposal.

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Landfill Restrictions

The MassDEP 310 CMR 19.000: Solid Waste Management Facility Regulations (specifically see Section 19.130(7)) prohibit Massachusetts landfills from accepting materials that contain free draining liquids. When there is no free water in a truck used to transport catch basin cleanings, the agency will generally be satisfied that the material is sufficiently dry. Otherwise, the material will need to undergo a Paint Filter Liquids Test. One way to remove liquids is to use a hydraulic lift truck during catch basin cleaning operations so that the material can be decanted at the site. After material from several catch basins along the same system is loaded, the truck may be elevated so that any free draining liquid is allowed to flow back into the drainage structure. MassDEP may approve catch basin cleanings for use as grading and shaping material at landfills undergoing closure (see the agency's Revised Guidelines for Determining Closure Activities at Inactive Unlined Landfill Sites for additional information). Catch basin cleanings may be used as daily cover or grading material at active landfills only with specific MassDEP approval of the proposed use. Consult with the Solid Waste Section Chief in the appropriate MassDEP Regional Office for information about applying for an approval and/or a Beneficial Use Determination (see Section 19.060 of the 310 CMR 19.000: Solid Waste Management Facility Regulations) for other uses, including non-landfill uses.

Attachments

Example Catch Basin Cleaning Form and Instructions

Is there additional information, maps, logs, or guidance the Town would like to include in this SOP?



Catch Basin Cleaning Form Instructions

1. Fill out columns for catch basins that exhibit illicit connection/odor and O&M issues (see Items 2 and 4 below).
2. For **Column 2**, indicate if any illicit (illegal) connection or odor is found in a catch basin during cleaning. Types of Illicit Connection/Odors include the following entries. Bolded letters can be used as abbreviations on forms (if other, please describe).
 - O.** Oil Spill (*Emergency Response – call DPW immediately*)
 - S.** Sewage/Odor
 - L.** Laundry Discharge
 - P.** Pet Waste
 - Y.** Yard Waste
 - G.** Garbage
 - Other:** *describe*
3. For **Column 3**, indicate the sediment level in the catch basin. The levels include the following entries. Add “NS” after the entry if the catch basin does not have a sump.
 - 0.** No or minimal sediment buildup in catch basin sump (less than 25% full)
 - 25.** Catch basin sump is more than 25% full but less than 50%
 - 50.** Catch basin sump is 50% full or more
4. For **Column 4**, indicate any catch basin repair or pipe cleaning issues. Types of issues include the following entries. Bolded letters can be used as abbreviations on forms (if other, please describe).
 - L.** Leaching Basin
 - PF.** Pipes need flushing
 - F.** Frame & Grate need to be replaced/reset
 - G.** Grate Missing
 - C.** Catch Basin Caving In (needs to be rebuilt/replaced)
 - P.** Pipes Cracked
 - Other:** *describe*
5. **Basin Depth, Sump Depth, and Sediment Level**

The basin depth is defined as the depth from the bottom of the catch basin to top of the catch basin.

The sump is defined as the depth from the bottom of the catch basin to the invert of the lowest pipe or opening into/out of the catch basin. The figure to the right shows where the sump is.

Sediment levels can be defined according to how much sediment is in the entire catch basin or in the sump.
6. **Other Records**

Keep all invoices, cleaning records, and other documentation from the catch basin cleaning contractor. Town should estimate the amount of debris removed on an annual basis.

