

The MS4 Permit requires municipalities to have an inventory of all public and private stormwater facilities installed as part of a National Pollutant Discharge Elimination System (NPDES) Permit since 2003, and to make sure they are in good condition. The municipality must have a written inspection program that outlines the process and schedule to verify the performance of stormwater control measures. This can be an overwhelming task for municipal staff since many municipalities have hundreds of facilities. For projects completed more recently, a detailed operation and maintenance plan typically puts the responsibility on the landowner. However, for older projects, municipal staff may have to conduct inspections.

Who Should Inspect Stormwater Control Measures?

Municipal staff should conduct inspections—or require landowners to submit inspection reports completed by a competent individual—for stormwater facilities on a regular basis to ensure they are working properly. This can be time consuming as municipal staff must conduct regular site visits and/or send notifications and reminders to landowners for self-inspection.

How Often Should Stormwater Control Measures Be Inspected?

Municipalities can develop an inspection schedule that meets the permit requirements but does not overburden their staff. For municipalities with minimal stormwater best management practices (BMPs), conducting annual inspections can be accomplished. For municipalities with a large inventory, inspecting stormwater BMPs at least twice over the five-year permit term is reasonable. The municipality may consider conducting annual inspections for any stormwater BMPs that are not functioning or have not been maintained. The frequency of inspections should be conducted and documented as outlined in the municipality's stormwater management program.

Are There Specific Skills/Knowledge Needed to Inspect Stormwater Control Measures?

Inspectors must have a general knowledge of how stormwater management facilities work to control runoff and provide water quality benefits. The inspector must review the post-construction stormwater management plan and operation and maintenance agreement prior to conducting inspections.

Invasive cattails (lower left) should be removed as soon as they are spotted within a basin. Ponding stormwater (lower right) can eliminate vegetative growth and is an ideal habitat for mosquitoes.



HOW CAN YOU TELL IF THE STORMWATER CONTROL FACILITY IS NOT IN GOOD WORKING ORDER?

Stormwater control measures may not be functioning as designed for many reasons, including these common problems:

- ▶ Bare spots/bare earth showing due to insufficient vegetative cover. This causes erosion and sedimentation to surface streams.
- ▶ Clogged stormwater pipes into and/or out of the basin. This can cause the basin to have standing water, which can kill vegetation and provide mosquito habitat.
- ▶ Sinkholes can form and result in polluted water entering groundwater systems.
- ▶ Growth of woody shrubs and trees in the basin can damage underdrains and cause ponding. Trees and shrubs growing on the basin berms can threaten the stability of the berm.
- ▶ Invasive weeds, including cattails, can overtake native plant species and minimize biodiversity.

INTERESTED IN BMP INSPECTOR TRAINING?

RETTEW's civil/municipal team can help develop a BMP inspector training course, including classroom and field training.

Contact our team to learn more.

Jim Caldwell
Director, Civil/Municipal
(717) 431-3740
jcaldwell@rettew.com

Kara Kalupson, RLA, ASLA,
CPMSM, CBLP
Senior MS4 Coordinator
(717) 431-3706
kara.kalupson@rettew.com