cuyahoga SOIL&WATER conservation district

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Field Review
Technical Advisory Report
Long-Term Operation & Maintenance

Report Delivered: ☑

Site Name:	Chesapeake Drive - 035	**Report Date:**	2021-04-26
Location:	Facility 035	**Inspection Date:**	2021-03-30
Permit Holder:	Chesapeake HOA	**Reviewed By:**	Jakob Hamlescher
Contact:	John Graven	**Site NPDES Number:**	N/A
Address:	18104 Heritage Trail Strongsville OH 44136	**Application No:**	N/A

Stormwater Control Measure Field Review of Conditions and Compliance Activities performed through a Memorandum of Understanding in accordance with Ohio Revised Code, Chapter 940 and North Royalton Codified Ordinances

Site Condition Summary

View of the basin.

Needed Maintenance Activity Details:

Please provide the appropriate contact and email address for future inspection reports to Carla Regener at cregener@cuyahogswcd.org.
As a stormwater control measure (SCM) owner/operator in the Northeast Ohio Regional Sewer District's (NEORSD) stormwater service area, you may be eligible for a stormwater fee credit. The credit is a conditional reduction in the NEORSD stormwater fee if an account holder takes measures to reduce the stormwater rate or volume and/or protect the water quality of runoff flowing from their property to the regional stormwater system. The credit can be obtained through continued use, operation, and maintenance of approved SCMs. To find out more details about the credit program and to apply for credit you can find details online at: https://www.neorsd.org/fee-credit/, or contact Chris Hartman with NEORSD at 216-881-6600 X6656.
See needed maintenance activity details below.

Additional Information:

Stormwater control measures (SCMs) are manmade structures that help reduce flooding by holding back and slowly releasing water during rain events. They include man-made retention ponds, dry detention basins, and underground detention devices. Sites with a constructed SCM are responsible for maintaining the structure. A guidance document has been compiled by local stormwater experts to assist private owners with inspection and maintenance and is available online at the following link:
http://www.neohiostormwater.com/uploads/3/0/9/8/3098302/compressed_scm_om_manual_final_8-21-15.pdf

Inflow Structure

View of the inlet structure to the basin. There is a large amount or erosion on the around the headwall and in the flow path. There needs to be soil added around the head wall and it needs to be re-seeded. The flow path may need to be armored with rock to stop erosion/scour.

View of the scour.

View of the headwall erosion.

View of the erosion falling into the basin.

Needed Maintenance Activity Details:

Monitor for erosion near the inflow structure, repair as needed to prevent sedimentation of the stormwater control measure.
Monitor for erosion around the inflow structure, repair as needed to prevent failure of infrastructure and sedimentation of the stormwater control measure.
Stabilization maintenance around the inflow structure headwall is necessary to prevent further damage.
Repair damaged infrastructure.
Ensure that inflow structures are kept clear of overgrown plants to minimize the blockage of flow.

Additional Information:

Inflow structures (pipes, culverts, curb cuts, etc.) direct stormwater runoff into stormwater control measures. These inflow structures can become clogged by overgrown plants, accumulation of sediment, floating trash and debris. A clogged inflow structure can result in erosion and blocked flow. Unclogging the inflow structure is relatively simple. Remove overgrown plants, accumulated sediment, and debris with a shovel, rake, a pole or your hand. Inspect inflow areas regularly as they can become clogged at any time.

Permanent Stabilization

View of erosion rills in the basin berm. This needs to have soil added and be re-seeded.

View of erosion rill. Check around the basin for other erosion rills or bare areas that need to be stabilized.

Needed Maintenance Activity Details:

Stabilize eroding areas to prevent further erosion and sedimentation of the stormwater control measure.

Additional Information:

Permanent uniform plant cover and other protective measures (e.g. landscape mulching, turf reinforcement matting, rocks, etc.) stabilize soil and prevent soil loss. The land on site should be monitored to ensure there is always at least 70% uniform coverage of soil with plants or protective measures. In places where soil is bare and exposed to accelerated soil loss, steps should be taken to repair and/or re-seed and re-mulch. If plant cover is patchy and in need of repair, identify the cause of failure and take corrective actions (e.g. a soil fertility analysis and apply necessary lime and fertilizer while preparing the seedbed).

Trash and Debris

View of trash in the basin. Monitor and remove trash and debris as it accumulates.

Needed Maintenance Activity Details:

Remove trash from the stormwater control measure as needed to ensure proper function and aesthetic quality.

Additional Information:

Excessive amounts of trash and plant debris can clog stormwater control measures and should be removed on a routine basis for proper function, safety, and aesthetic quality.

Sediment

View of sediment accumulation in the basin. This needs to be dredged soon.

Needed Maintenance Activity Details:

Wet (retention) basins are designed to catch and settle sediment to prevent it from traveling into nearby streams/sewer systems. Owners should budget for eventual dredging which typically is needed every 15-20 years.

Additional Information:

Stormwater control measures are designed to capture sediment and will need periodic sediment removal to maintain proper water storage volume. Sediment should be removed when the designed storage volume has been reduced by 25%, or the pond becomes nutrient enriched (e.g. excessive floating plants). Trapped sediment is usually clean enough for on-site use. However, laboratory analysis of sediment should be performed if the pond has received spills, is in a highly industrial area, or if the watershed has intensive traffic.

Comments:

Well planned, designed and constructed stormwater control measures remove pollutants, protect stream channels, and mitigate floods. To accomplish these goals and keep these features safe, aesthetic, and mosquito free, they must be maintained. Maintenance items listed above are needed to achieve permit compliance.

Please feel free to contact Carla Regener (cregener@cuyahogaswcd.org), Natural Resource Program Manager, at the Cuyahoga SWCD if you have any questions.

CC: