

# Saginaw County Road Commission

## Drainage System Maintenance

### OVERVIEW

As a consequence of its function, the stormwater conveyance system collects and transports urban runoff that may contain certain pollutants. Maintaining catch basins, detention basins / retention basins, vegetated swales, rain gardens, stormwater inlets, and other stormwater conveyance structures on a regular basis will remove pollutants, prevent clogging of the downstream conveyance system, restore catch basins' sediment trapping capacity, and ensure the system functions properly hydraulically to avoid flooding. To ensure proper maintenance and effectiveness of these drainage systems, please review and apply the following approaches, protocols, and requirements below. This procedure requires that all controls be maintained to reduce to the maximum extent practicable the contribution of pollutants to stormwater. This maintenance standard operating procedure shall be reviewed and updated/ revised annually following the implementation of a new structural storm water control. This standard operating procedure shall be reviewed and updated/ revised by either the Saginaw County Road Commission's appointed Stormwater Program Manager and/or the County's designee. Any updates will be included in future progress reports submitted to the Michigan Department of Environment, Great Lakes, and Energy (MDEGLE).

### APPROACH

#### Procedure

##### *Catch Basin/Inlet Structures*

- Conduct inspections based on the Saginaw County Road Commission Procedure for prioritizing Catch Basins for routine inspection, maintenance, and cleaning based on preventing or reducing pollutant runoff.
- Remove sediment and debris from the catch basin when the catch basin is 50% full.
- Document the depth of the catch basin sump after cleaning.
- Keep accurate logs of the number of catch basins cleaned.
- Update maintenance logs to include new structures on an as needed basis.
- Accumulated pollutants are not to be discharged during cleaning.
- Catch basin cleaning material will be dewatered at the Road Commission's facility located at 1905 Hess Avenue, Saginaw, MI. This facility is a cold storage area with a paved parking lot in the combined sewer area. Once dewatered, the material will then be taken to Waste Management (Landfill) located at 4143 East Rathbun Road, Birch Run, MI 48415.
- Record the amount of waste collected.

##### *Vegetated Swales/Bio-Swales (non-roadside drainage)*

- Inspect pea gravel in French drain for clogging and remove any sediment, replace gravel as needed, this can be 5 to 10 yrs. NOTE: this pea gravel is NOT for a check dam but as an augment to the underdrain of these systems in areas with heavy soils, (aka Saginaw Valley).

- Inspect grass alongside slopes and the bed of the swale for erosion and the formation of rills and gullies; attend to and correct on an as needed basis.
- Remove trash and debris.
- Replenish vegetation, grass species, and wetland species on an as needed basis.
- Grass will be mowed to a height of 3-4 inches to provide sufficient performance of removing pollutants.
- Any necessary maintenance warranted from inspections will be performed on an as needed basis. Any maintenance waste material extracted will be disposed of properly.

***Open Channels/Swales (Roadside ditches)***

- Inspection will be conducted during the second calendar quarter.
- The inspections will be conducted by trained Saginaw County Road Commission personnel to determine if maintenance is required.
- The Saginaw County Road Commission Roadside Ditch Maintenance Form will be used to determine the priority for maintenance of a section of roadside ditch.
- Priority for the maintenance of a section of roadside ditch will be based on the Criteria in Table 1 of the Saginaw County Road Commission Procedure for inspecting and maintaining other storm water structural controls.
- Areas of Roadside Ditches designated with high priority will be scheduled for maintenance within 60 days of the inspection.
- Areas of Roadside Ditches designated with medium priority will be scheduled for maintenance during the next construction season.
- Areas of Roadside Ditches designated with low priority will be addressed when that section of road is scheduled for maintenance.
- The sediment, which contains trash will be taken to a licensed landfill.
- Sediment free of trash will be given to local landowners for fill material or hauled to an approved location for reuse.
- The material will be placed in an area graded such that the sediment and water cannot leave the site.
- Sediment will be allowed to dry in place and left at the site.
- Trash and other materials will be hauled to a facility for proper beneficial reuse or disposal.
- The amount of materials removed will be documented and included in upcoming progress reports.
- After any sediment removal to re-establish flowlines, seed the bare soils, apply mulch to slopes to prevent erosion or hydro-seed.
- Channel modification/improvements will be conducted in accordance with existing laws.