

# **Saginaw Intermediate School District Structural Stormwater Control Operation and Maintenance Activities**

## **School System**

The Saginaw Intermediate School District has used an aerial map of its grounds as basic decision criteria for the prioritization of catch basins within its property boundaries. The Buildings and Grounds Department will look at the areas every two years to determine if there exists a need to change the priority of an area in the system due to an increase in litter or other refuse that may get into the school district's catch basins. It should be noted that this is only for catch basins owned by the school system. It does not apply to MDOT roads, county roads, or neighboring developments.

Procedure steps: Use an aerial view map and develop districts based on parking lots, maintenance areas, fan sections of athletic fields, school buildings, and open spaces in the surrounding area. Overlay the storm drainage system over this map and then proceed to prioritize the areas. Look at age of drainage systems, known drainage problems, areas in the floodway or floodplain, areas with gravel roads or parking spaces, and known areas of potential contaminants in proximity to the municipal system. Interview Buildings and Grounds staff for their opinions on problem areas, and review drainage complaints to assist in the prioritization.

This inventory will be updated annually following the construction of a catch basin or a change in the priority level.

### **High Priority:**

These areas tend to accumulate larger volumes of trash due to heavy foot traffic, material handling issues, large parking areas, or school/athletic activities. The inlet grates to the catch basins in these areas have a lot of trash in them after significant storm events. Other areas to consider are those that potentially can contribute large sediment loads in stormwater runoff and can deposit large quantities of sediment in the catch basin sumps.

Areas specific to the Saginaw Intermediate School District are as follows:

1. Vehicle maintenance areas
2. Gravel/dirt roads, parking areas

### **Low Priority:**

These areas include open spaces such as playgrounds, open fields, and the like. These areas are typically well kept up and do not generate much volume as far as trash or debris are concerned.

**Table 1. Catch basin Priority Designation Summary**

<b>Priority</b>	<b>Number of catch basins (estimate)</b>
<b>High Priority</b>	51
<b>Low Priority</b>	14
<b>Total Catch Basins =</b>	<b>65</b>

See the maps entitled SASWA\_SISD 2019 SSWC 1 and SASWA\_SISD\_2019\_SSWC\_2

The catch basin will be reprioritized after the initial inspection according to the criteria in Table 2. When inspecting individual catch basins during routine inspection cycles the following prioritization method will be used to assist in reprioritizing catch basins for inspections and maintenance:

**Table 2. Individual Catch Basin Priority Designation Table**

<b>Catch Basin Condition*</b>	<b>Priority</b>
<b>No problems - new system</b>	Low
<b>Sump has no sediment</b>	Low
<b>Sump has 6" of sediment</b>	Low
<b>Sump has 12" of sediment</b>	Medium
<b>Sump is half full of sediment (within 18 inches of the pipe invert)</b>	High
<b>Sump has sediment at pipe invert</b>	High
<b>Sump has bad odor</b>	High
<b>Catch basin interior is cracked; sand is coming into the cracks; no displacement is noted at the cracks</b>	High
<b>There is settling around the rim; the interior has gaping cracks and displacement; sinkholes are nearby; the sump is full</b>	High
<b>If built out of brick; bricks are failing; bricks are missing; the rim is settling into the street or parking lot; the sump is full</b>	High

### **Catch Basin Cleaning**

Cleaning all the catch basins at once is more economical than trying to inspect/clean some and not others on different years. The permittee will check all catch basins with a low priority once every 5 years and will clean out the catch basin(s) if sediment or debris is within 18 inches of the pipe invert (half full of sediment) \*. The permittee will check all catch basins with a medium priority once every 2 years and will clean out the catch basin(s) if sediment or debris is within 18 inches of the pipe invert (half full of sediment) \*. For the high priority catch basins, the permittee will inspect each structure every year and will clean out the catch basin if sediment or debris is within 18 inches of the pipe invert (half full of sediment) \*. When a catch basin is cleaned the depth of the sump will be documented. All documentation/reports of these activities will be presented in their permit progress reports.

Please see the Drainage System Maintenance Standard Operating Procedure for additional recommended protocols for the maintenance and cleaning of catch basin/inlet structures.

\*For purposes of this procedure, a conservative assumption will be made that the sump is 36 inches deep and the catch basin will be cleaned if sediment is within 18 inches of the pipe invert of the discharge pipe.

## **Measurable Goals**

- # of revisions or updates annually after new construction or reconstruction.
- # of individual Catch Basins prioritized after inspection annually.

Attached are aerial views of 3 of the 4 property areas showing the areas designated as low and high priority for catch basin cleaning. The 4 property areas are shown on the aerial view maps entitled SASWA\_SISD 2019 SSWC 1 and SASWA\_SISD\_2019\_SSWC\_2, which have been included with the other application attachments. The aerial view maps include the locations of all the catch basins and other structural controls.





