



Short-Term Storm Water Characterization Study Guidance

State of Michigan Industrial Storm Water Program

Water Resources Division (WRD)

EGLE Environmental Assistance Center 800-662-9278

Michigan.gov/EGLE

The Short-Term Storm Water Characterization Study (STSWCS) is additional monitoring requirements for a facility that requests authorization, through a Notice of Intent (NOI) or National Pollutant Discharge Elimination System (NPDES) application, to discharge storm water from designated special-use areas. Special-use areas include, but are not limited, to the following:

- ✓ **Secondary containment structures required by state or federal law** – A STSWCS is required if storm water is discharged from secondary containment structures to surface water of the state. The results of the STSWCS will help determine if the tanks, piping, or other equipment within the secondary containment structure are leaking pollutants. Many facilities have been able to forgo a STSWCS by rerouting storm water which collects in secondary containment structures, and discharge either to the sanitary sewer (with permission from the local wastewater treatment plant) or to the ground (e.g. in a grassy area which infiltrates and does not run off into surface waters). In order to discharge to the ground, the facility must implement pollution prevention measures and verify that the water is not contaminated by leaks or spills prior to discharge.
- ✓ **Lands on Michigan’s List of Sites of Environmental Contamination pursuant to Part 201, Environmental Remediation of the National Resources and Environmental Protection Act, 1994 PA as amended** – A STSWCS is required if there is a potential for storm water to contact the area(s) of known contamination. Typically, a STSWCS would be required if the contamination is present in the top 6 inches of the soil. A STSWCS may also be required in situations where contaminants are present at lower soil depths and may reach surface water through infiltration into storm sewers or footing drain discharges. The results of the STSWCS will determine if the pollutants associated with the known contamination is negatively impacting the storm water discharged from the site.
- ✓ **Other areas with activities that may contribute pollutants to storm water** – A STSWCS may be required for a facility that has compliance issues and the Department of Environment, Great Lakes, and Energy (EGLE’s) Water Resources Division (WRD) staff have reason to believe the storm water discharge may be violating Water Quality Standards. Another example would be if WRD staff have reason to believe a facility is discharging storm water that may be negatively impacting the receiving waters Total Maximum Daily Load (TMDL). For more information related to TMDL and how they relate to storm water permits, please see the compliance assistance document, [“Understanding Total Maximum Daily Load \(TMDL\) Requirements as they relate to the Industrial Storm Water Permit.”](#)

The purpose of the STSWCS is to evaluate the quality of the storm water being discharged from a special use area to surface waters of the state. Within six (6) months of the effective date of a Certificate of Coverage (COC) or a NPDES Individual Permit, the permittee shall submit to the WRD an approvable STSWCS plan developed in accordance with the permit conditions. The permittee's Storm Water Pollution Prevention Plan (SWPPP) should be submitted along with the STSWCS plan. Upon approval of the STSWCS plan, the permittee shall begin monitoring the authorized discharge as specified in the STSWCS plan. If the WRD does not take action to approve or comment on the STSWCS plan within 90 days after submittal, the permittee shall begin storm water monitoring in accordance with the STSWCS plan submitted. The STSWCS results and all permit related documents are required to be submitted to the WRD via [MiWaters](#).

It is important to consider these requirements prior to completing the STSWCS plan:

- ✓ For secondary containment structures or detention basins with detention periods greater than 24 hours, samples shall be collected from the water within a structure/basin, or of the discharge prior to mixing with the receiving water or other waste streams. Grab samples shall be collected unless the WRD specifies other sampling methods.
- ✓ For sites of environmental contamination or areas with other activities (without secondary containment or 24 hour detention) that may contribute pollutants to the storm water for which the WRD determines monitoring is needed, samples shall be collected from a discharge resulting from a qualifying storm event. A qualifying storm event is any precipitation event that results in an offsite discharge of storm water from the facility's discharge points. Typically, the sampling efforts will include grab samples collected at the discharge points during the first 30 minutes of the discharge. However, in some cases composite samples may be required by the WRD to adequately characterize the pollutants discharged from the site.

To ensure that the STSWCS provides useful data, specific steps must be followed in designing and carrying out the STSWCS. A STSWCS Template and Checklist has been developed by the WRD and is available on the [EGLE WRD Industrial Storm Water Web page](#). Permittees are encouraged to use the resources provided by the WRD to comply with this permit requirement. The results from the STSWCS will be evaluated by the WRD to determine if the discharge is in compliance with the permit conditions and the Water Quality Standards. Please review the NPDES Wastewater Discharge General Permit for Storm Water Discharges Associated with Special-Use Areas for specific information on this requirement. If permittees have questions related to the STSWCS requirements, it is important that they contact their WRD industrial storm water staff.

Pollutant Test Method Information:

Test methods for the analysis of pollutants shall conform to regulations promulgated pursuant to Section 304(h) of the Federal Act (40 CFR Part 136 – Guidelines Establishing Test Procedures for the Analysis of Pollutants), unless specified otherwise in the permit. Test methods used shall be sufficiently sensitive to determine compliance with applicable Water Quality Standards. Requests to use test methods not promulgated under 40 CFR Part 136 for pollutant monitoring required by this permit shall be made in accordance with the Alternate Test Procedures regulations specified in 40 CFR 136.4. These requests shall be submitted to the Manager of the EGLE WRD, Permits Section, P.O. Box 30458, Lansing, Michigan, 48909-7958 or discussed with the district industrial storm water staff. The permittee may use such procedures upon approval.

Common Pollutants and Methods:

The list below are examples of pollutants and the associated test methods that could be included in a STSWCS. Note that it is important to monitor for the pollutants that will help determine if storm water is negatively impacted by the pollutants associated with the special use area.

- ✓ Michigan 10 Metals except Hg (As, Ba, Cd, Cr, Cu, Pb, Se, Ag, Zn), United States Environmental Protection Agency (USEPA) Method 200.8
- ✓ Oil & Grease, USEPA Method 1664
- ✓ Volatile Organics, USEPA Method 624.0
- ✓ Ethanol, USEPA Method 624.0
- ✓ BTEX (gasoline detection), USEPA Method 624.0
- ✓ Semi Volatile Organics, USEPA Method 625.0
- ✓ Polynuclear Aromatics (PNAs) (diesel detection), USEPA Method 625.0
- ✓ Phosphorus, USEPA Method 365.4

*NOTE: The USEPA may update these test methods. Please see [40 CFR Part 136.3](#) for the most up-to-date methods.

If you need this information in an alternate format, contact EGLE-Accessibility@Michigan.gov or call 800-662-9278.

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