



# Benchmark Monitoring Fact Sheet

Note: Benchmark Monitoring is reflected as intervention limits in the Limits and Monitoring section of each individual NPDES/SDS permit. Benchmark monitoring results must comply with intervention limits as required.

## Benchmark monitoring requirements

- A. The Permittee shall monitor each benchmark monitoring location for all benchmark parameters specified in the Permittee's individual National Pollutant Discharge Elimination System (NPDES) State Disposal System (SDS) permit.

An exceedance of an applicable benchmark value does not constitute a violation under this permit. However, the Permittee is required to perform any necessary corrective action(s) to address stormwater control measures, including the maintenance of implementation of Best Management Practices, when an exceedance of an applicable benchmark value occurs. Failure to respond to benchmark value exceedances is a violation of the permit.

- B. Monitoring for benchmark parameters at each benchmark monitoring location shall be conducted according to the following procedures.

### 1. Monitoring procedures and sample collection methods

- a. The Permittee is required to take a representative sample of industrial stormwater at each benchmark location at the location identified in the NPDES/SDS permit.
- b. The Permittee shall ensure that a laboratory certified by the Minnesota Department of Health and/or registered by the Minnesota Pollution Control Agency (MPCA) conducts the analyses required by this permit. Analyses of dissolved oxygen, pH, temperature and total residual oxidants (chlorine, bromine) are not required to be completed by a certified laboratory, but shall comply with manufacturer's specifications for equipment calibration and use. (Minn. Stat. §§ 144.97 and 144.98 and Minn. R. 474.2010 and 4740.2050 through 4740.2120)
- c. Samples shall be collected at each benchmark monitoring location and analyzed for each benchmark parameter specified in the individual NPDES/SDS permit in order to determine the concentration for each benchmark parameter for facility discharges. Dependent on your sampling frequency, the samples shall be collected on separate events. For quarterly sampling, the sampling events must be one per three-month interval during the year. At the Permittee's discretion, more than the required number of samples may be taken during separate runoff events and used to determine the average benchmark parameter concentration for facility discharges.
- d. For averaging purposes, the Permittee shall use a value of zero for any individual sample parameter that is determined to be less than the method detection limit. For sample values that fall between the method detection level and the quantitation limit (i.e. a confirmed detection, but below the level that can be reliably quantified), the Permittee shall use a value halfway between zero and the quantitation limit.
- e. For quarterly and semi-annually sampling frequencies, the intervals correspond to periods beginning 12 months after the individual NPDES/SDS permit is issued. Samples shall be collected in each of the required intervals of a sampling year and shall be collected during the first 30 minutes of a measurable runoff event at a benchmark monitoring location within a sampling interval to the extent feasible. For every interval

the Permittee is required to conduct sampling; a Discharge Monitoring Report (DMR) shall be submitted to the MPCA (even if a measurable runoff during a sampling interval is not sufficient to obtain a sample).

- f. If more than one sample is taken at a benchmark monitoring location during a sampling year, all samples taken shall be reported and used to determine the average benchmark parameter concentration, and the data shall be included in the DMR submitted to the MPCA.
- g. Samples shall be collected from a measurable runoff event (precipitation or snow melt) at a benchmark monitoring location, provided that the interval since the preceding measurable runoff event is at least 72 hours.
- h. If it is not possible to collect the sample within the first 30 minutes of a measurable runoff event at the benchmark monitoring location, the sample shall be collected as soon as practicable after the first 30 minutes and documentation must be included with the DMR that explains why it was not possible to collect samples within the first 30 minutes of a measurable runoff event.
- i. Samples shall either be taken manually by grab method, or by automated sampling. If automated sampling is used, the device shall either collect one sample during the first 30 minutes of discharge or a series of samples collected throughout the discharge period, combined as a composite sample.

## **2. Benchmark monitoring data reporting**

- a. The Permittee shall submit the results of benchmark monitoring required by the individual NPDES/SDS permit on a DMR form provided by the MPCA. The information must be recorded in the specified areas on the form and in the units specified (Minn. R. 7001.1090, subp. 1(D), Minn. R. 7001.0150, subp. 2(B)).

If during the sampling period, measurable runoff is such that a sample cannot be acquired (due to weather conditions and/or site soil characteristics); the Permittee shall check the "No Flow" box on the DMR and note the condition on the Notes portion of the DMR.

- b. The Permittee shall submit the DMR to the MPCA by the 21<sup>st</sup> day of the month following the sampling interval. The Permittee must submit the Forms using the electronic submittal process.
- c. The Permittee shall immediately submit an amended DMR to the MPCA upon discovery by the Permittee or notification by the MPCA that the Permittee has submitted an incomplete or incorrect report. The amended report shall contain the missing or corrected data along with a cover letter explaining the circumstances of the incomplete or incorrect report (Minn. R. 7001.0150, subp. 3(G)).