Sample

Written Procedures Template for Conducting the Visual Assessment
State of Michigan Industrial Storm Water Program

Michigan Department of Environmental Quality (DEQ)
Water Resources Division (WRD)
Document Date: 3/3/2015

1. List the discharge point(s) (as indicated on the SWPPP map):
   001-Point of Discharge from detention pond to storm sewer on Schwarb Drive
   002-Outfall to Kammer Drain

   a) Is there substantially identical discharge points? ☐ Yes ☒ No
   If "Yes" then complete a) and b) below, if "No" go to Number 2.

   b) Describe the justification for the substantially identical discharge points determination?

   c) List the schedule for alternating the substantially identical discharge points:

2. Describe the monitoring (sampling) location for each discharge point:
   001-From surface of detention pond in front of the outlet pipe to the storm sewer
   002-From the water coming out of the culvert that goes into the Kammer Drain

3. List the Qualified Personnel that will collect the water sample:
   Mark Storm I-00158
   David Waters I-09058

4. Training for the Qualified Personnel includes viewing the Visual Assessment Webinar and/or the 3 Visual Assessment Tutorials on the DEQ, WRD Industrial Storm Water website. Check the appropriate box below:

   ☒ Yes

   ☐ No, however a copy of the training materials used are included with this procedure.

5. List the sampling equipment used for the collecting the water sample(s):
   Sampling pole and glass quart canning jars

6. Complete a) through c) below to describe the storm event information.

   a) Describe how qualifying storm events are determined (including nature of the event):
   A rain gauge is positioned on the lawn to the west of the office to record storm events. This is monitored and emptied after storm events. When a rain event occurs during working hours (Monday-Friday 700AM-5:00PM) we check to see if there has been any events in the last three days that caused a discharge. For the duration and intensity of the storm event we use the data from the NOAA web site and Channel 13 weather information.

   b) Describe how each discharge point was evaluated to determine when a discharge would begin:
   Since we have paved surfaces and relatively flat areas we determined that we get a discharge after 0.2 inches of rain at discharge point 002. On days that rain is forecasted we watch for the rain and mobilize the sampling equipment. When the rain begins we send one of the Industrial Storm Water Certified Operators out to collect the sample based on the intensity of the rain event. For discharges from discharge point 001 we look at the water level at the outlet pipe

from the detention pond. If the water level is up to the bottom of the pipe a sample is taken after the rain event begins. Determination of the beginning of the discharge is based on a visual observation from one of Industrial Storm Water Certified Operators.

For snow melt events we take a sample of the discharge on a warm afternoon when the snow is melting and it is flowing into the catch basins. If the detention pond is frozen over a sample is not collected from the detention pond.

c) Describe what would constitute an adverse weather condition that would prevent sample collection: **If there is lightning, a tornado watch, wet ice on the banks of Kammer Drain, or if the water level in the Kammer Drain is above the outfall pipe these are determined to be adverse weather conditions and the discharge will not be sampled. We then wait for a substitute storm event.**

7. Describe how the samples will be collected (Determine the timing sequence for water sample collection from the discharge points): **Discharge point 002 usually discharges before 001 so we begin monitoring 002 for the discharge before 001. The sample at 002 is taken after the water begins to discharge to the Kammer Drain then we move to 001 and take the sample from above the outlet pipe.**

8. Describe the water sampling instructions that the Qualified Personnel will follow: **Strap the quart canning jar to the sampling pole. At discharge point 002 take the sample from the stream of water falling from the pipe to the Kammer Drain. For the sample collected from the detention pond that leads to discharge point 001, place the jar parallel to the surface of the water and skim water from the surface until the jar is full. Place a lid on the quart jars after collecting the sample and take the sample to the office.**

9. Described how observations made by the Qualified Personnel will be documented during the discharge (include nature of the event): **Immediately after the sample is collected the Industrial Storm Water Certified Operator collecting the sample takes a photo of the detention pond before the point of discharge at 001 and at outfall 002 a photo is taken of the water in the Kammer drain downstream of the discharge point.**

10. Describe the sample storage procedures if applicable: **The sample is taken to the Industrial Storm Water Certified Operators desk in the office. Samples will be assessed in the office within one hour after the sample is collected so no special storage is required.**

11. Describe the procedures the Industrial Storm Water Certified Operator will follow to perform the visual assessment(s) of the water sample(s): **After recording the sample event observations the quart jar is gently swirled and the jar is placed in front of a white background and photographed with the operator's cell phone. The sample is then observed and the characteristics are recorded on the report form provided on the storm water website. Samples will be assessed in the office within one hour after the sample is collected.**

12. List the name(s) of the Industrial Storm Water Certified Operator that will be performing the water sample visual assessment(s): **Mark Storm and David Waters**

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13. The DEQ, WRD Visual Assessment Report form should be used to document each water sample visual assessment. Check the appropriate box below:

    ☒ Yes, the DEQ, WRD Visual Assessment Report form is used.

    ☐ No, the DEQ, WRD Visual Assessment Report form is not used however the form being used to meet this requirement is included with this procedure.

14. Colored photos shall be used to record the visual assessment(s). If other methods of recording observations will be used describe those methods: **Recorded on cell phone and then downloaded to the operator's computer.**

15. All visual assessment documentation should be kept with the SWPPP file. If documentation will be kept at an alternate location state that location: **Photos of discharge observations, assessment of the sample and report forms are stored on the operator's computer files which are backed up every night.**

16. Describe the follow-up actions that will be taken if unusual characteristics are observed during the visual assessment(s): **If unusual characteristics are observed in the samples a determination is made as to the possible cause. Then an inspection of the likely area is conducted to determine if there are immediate measures that can be taken to correct the problem. Corrective actions will be taken to address the issue. If it is determined that the discharge may be injurious to the designated uses of the receiving waters a call will be made to the Department of Environmental Quality, Water Resources Division, district office (616)-250-6134.**