

CSO 018: Extreme Event Sampling Protocol

PREPARED BY: CH2M Syracuse
DATE: July 30, 2015
REVISION: 0

The following two extreme scenarios have been encountered since start-up of the CSO 018 Constructed Wetland Facility in April 2015. This document will be a “living” document in that it will be updated throughout the two year monitoring period as extreme, or rare sampling events occur. For normal facility operations and sampling, Sampling Staff should refer to Revision 3 of the Sampling Plan for sampling procedures.

Extreme Event #1: Backflow from Harbor Brook into Cell #3

Description: Cell #3 experiences backflow from Harbor Brook.

- Under no circumstances should any of the facility’s control, electrical, or communications equipment be used by sampling staff.
- Influent/effluent samples are not to be collected by the sampling staff.
- If previous samples were collected prior to the backflow conditions, sampling staff must notify the OCDWEP Lab that back flowing in Cell #3 has occurred and that no more samples will be collected at this time. The analysis of previous samples collected can be completed by the lab.
- After a period of four (4) hours, sampling staff must return to the site to verify whether water levels have gone down and backflow conditions are no longer present in Cell #3. Once backflowing stops, sampling staff should notify CH2M/WEP personnel. Sampling will resume with the next rain event. Backflow conditions will not be sampled.

Extreme Event #2: Overflow into Harbor Brook Detention Basin

Description: The Detention Basin fills with water during a very large storm event and the wetland cells are submerged with water.

- Under no circumstances should any of the facility’s control, electrical, or communications equipment be used by sampling staff.
- Influent/effluent samples are not to be collected by the sampling staff.
- Sampling staff must demobilize from the site immediately and relocate to a safe area. After ensuring safety, sampling staff must notify CH2M and Metro Board immediately. Metro Board will notify on call plumbing control staff and WEP instrumentation and electrical staff.
- If previous samples were collected prior to the flooding conditions, sampling staff must notify the OCDWEP Lab that no more samples will be collected at this time. The analysis of previous samples collected can be completed by the lab.
- After a period of four (4) hours, sampling staff must return to the site to verify whether water levels have gone down. Once water levels have subsided, CH2M/WEP personnel will inspect the site to survey damage (if any) and decide whether the facility will be taken offline for repairs, or if the facility will remain operational. Sampling staff, WEP Lab and Metro Board will be notified accordingly.