

# Appendix 4B-14: Draft Monitoring Plan for the STA-3/4 PSTA Demonstration Project

1. Monitor water quality parameters on a routine basis at the inflow and outflow points to each cell, with a total of 7 locations for the project (refer to table presented below). The monitoring includes complete field and laboratory quality assurance/quality control (QA/QC).

Parameter	# Sites	Annual Frequency	Sample Type
Total P	7	52	Auto-sampler
Total Dissolved P	7	52	Grab
Soluble Reactive P	7	52	Grab
NO <sub>x</sub> -N	7	12	Grab
NH <sub>4</sub> -N	7	12	Grab
TKN	7	12	Grab
Calcium	7	12	Grab
Chloride	7	12	Grab
Total Suspended Solids	7	12	Grab
Dissolved Oxygen	7	Continuous	Hydrolab
Temperature	7	Continuous	Hydrolab
pH	7	Continuous	Hydrolab
Conductivity	7	Continuous	Hydrolab

2. Continuous flow measurements at all inflow and outflow points.
3. Continuous stage measurements to calculate headwater and tailwater stage and depth in each cell.
4. Continuous meteorological data (temperature, rainfall, humidity, and solar insolation) from weather station established for Stormwater Treatment Area 3/4 (STA-3/4).
5. Monitor sediment accretion and annual sediment analysis with phosphorus (P) fractionation at all inlet and outlet points.
6. Periodic surveys in each cell for vegetation coverage (bimonthly), biomass (quarterly), and tissue nutrient content (quarterly). Annual vegetation map of site produced as part of the routine STA-3/4 monitoring.
7. Annual hydraulic tracer test of each cell.
8. Seepage monitoring along dividing levees (if necessary).
9. As-built bottom topography at  $\pm 5$  cm.
10. Intensive TP monitoring if dry-out occurs – event driven.
11. Intensive TP monitoring during several pumping events each year.