

Summary of parameters with statistically significant differences (P<0.05), 1999-2009			
Parameters	Observations		Interpretation
	<i>Upper Waters (UML)</i>	<i>Lower Waters (LWL)</i>	
Secchi Disc Depth	Higher at North	N/A	
pH	Higher at North	Not different	
Specific conductance	Higher at North	Higher at North	The higher specific conductance may be related to the proximity of Ninemile Creek, which is a higher salinity inflow as compared with Metro and the southern tributaries.
Dissolved oxygen	Not different	Higher at South	
Nitrogen (Total Kjeldahl Nitrogen, Organic Nitrogen, Nitrite-N, and Nitrate-N)	Higher at South (excluding ammonia-N)	Not different	Higher concentrations of nitrogen species at South Deep are likely due to the Metro discharge.
Calcium	Higher at North	Higher at North	
Potassium	Higher at South	Not different	
Solids (Total and Dissolved)	Higher at North	Not different	
Iron	Higher at South	Not different	Higher concentrations of iron at South Deep are likely due to the Metro discharge.
Mercury (methyl)	Higher at South	Not different	Higher mercury concentrations at South Deep may be related to proximity to historic industrial discharge of mercury.
Magnesium	Higher at North	Not different	The reason for the elevated Mg concentration at North Deep is unknown.
Fecal coliforms	Higher at South	Not sampled	The higher fecal coliform bacteria concentrations at South Deep are likely due to the proximity of the larger tributaries (CSOs and urban storm water) and the requirement for seasonal disinfection of the Metro effluent.