Final Report 24-Hour Time Series Analysis of Dissolved Copper in Shelter Island Yacht Basin Amec Foster Wheeler Project No. 1715100611

March 2018

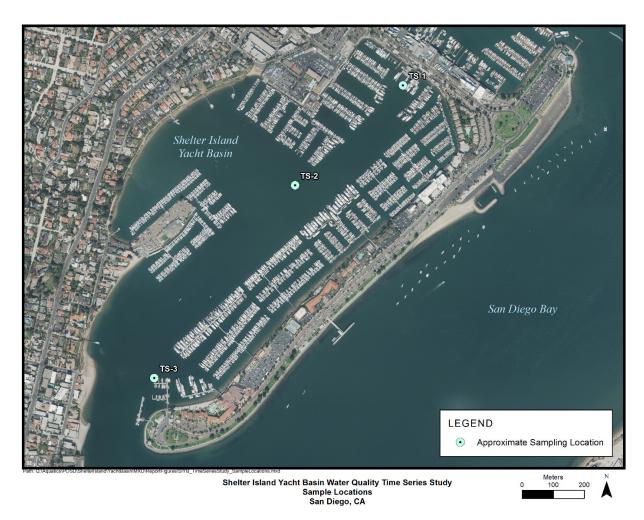


Figure 2-1. Shelter Island Yacht Basin Time Series Study Sampling Locations

2.1.2 Collection Schedule

Sample collections at the three stations were performed synchronously throughout the full semidiurnal tidal cycle on January 3 and 4, 2018. As discussed, the sampling date was selected primarily on the basis of the tidal range (i.e., tidal heights similar to those selected for TMDL sampling events) and practicality (i.e., a non-holiday or weekend day for reduced vessel traffic). Table 2-2 provides the tide times and heights for the Time Series Study and the most recent TMDL monitoring event.

Table 2-2.

Tide Times and Heights for the Time Series Study and Annual TMDL Monitoring Events

Date	Low Tide	High Tide	Low Tide	High Tide	Low Tide	
Date	time/height [feet]					
1/3/2018 (Primary)	16:42 (-1.9 ft)	23:11 (+7.0 ft)	04:15 (+1.6 ft)	10:24 (+7.0 ft)	17:29 (-1.4 ft)	
8/23/2017 (2017 TMDL)	5:19 (+1.4 ft)	11:33 (+5.6 ft)	18:06 (+0.9 ft)			

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Table 3-1.

Dissolved Copper Concentrations during the SIYB Time Series Study

Sample Sequence	Station TS-1	Station TS-2	Station TS-3		
	(Pearson's Fuel Dock)	(Mid-Channel)	(Transient Dock)		
	Concentration (μg/L)				
TO	9.5	5.5	2.7		
T1	9.5	6.4	3.2		
T2	9.1	4.1	4.1		
T3	9.4	5.0	4.8		
T4	9.6	5.7	3.5		
T5	9.3	5.3	4.1		
T6	9.5	5.4	3.9		
<i>T7</i>	9.0	5.5	2.1		
T8	8.9	6.4	1.2		
T9	10	2.0	1.0		
T10	9.8	6.2	1.4		
T11	9.9	6.6	3.0		
T12	9.9	7.1	3.9		
T12-REP	10	7.0	3.9		
ER	0.059	0.025	0.044		
FB	ND	0.023	0.028		

Notes:

 μ g/L = micrograms per liter; SIYB = Shelter Island Yacht Basin; TS = time series; ER = equipment rinsate; FB = field blank



