

Peconic River Update

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Environmental Protection Division

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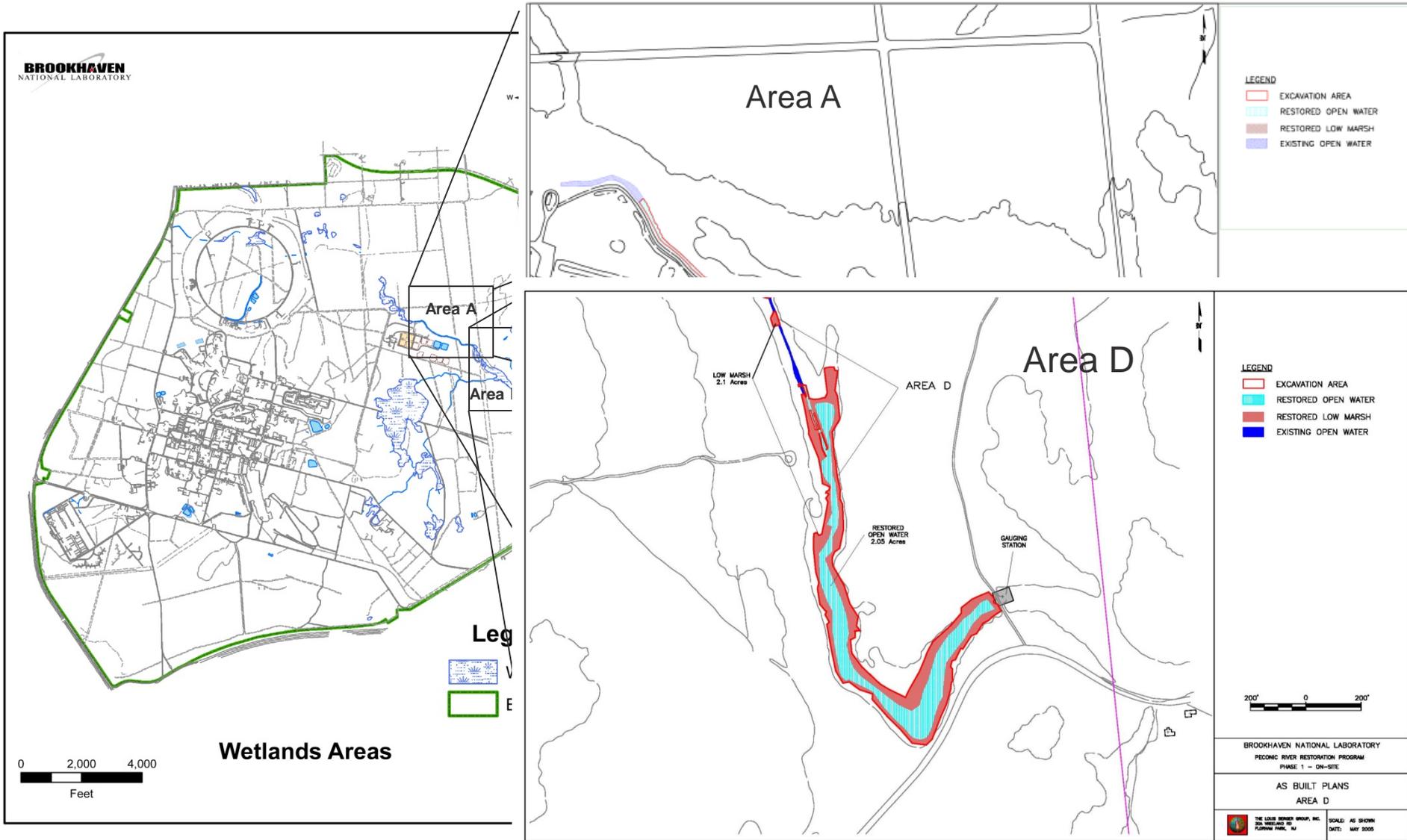
Agenda

- Quick History of the Peconic River Cleanup
- PR-WC-06 Monitoring
- Extent of Contamination
- Next Steps

Peconic River Cleanup

- 2004-2005 - ~19 acres cleaned up and restored
 - 2004 on site – Sewage Treatment Plant outfall to North Street
 - 2005 off site - Area D, Area E, Area P - Schultz Rd Area, and Manor Rd Area
 - Confirmatory samples taken at rate of 1/700 sq. ft.
 - 2,230 samples taken
- 2010-2011 - ~0.4 acre supplemental cleanup
 - Confirmatory samples taken at rate of 1/500 sq. ft.
 - 22 samples taken

Extent of cleanup maps



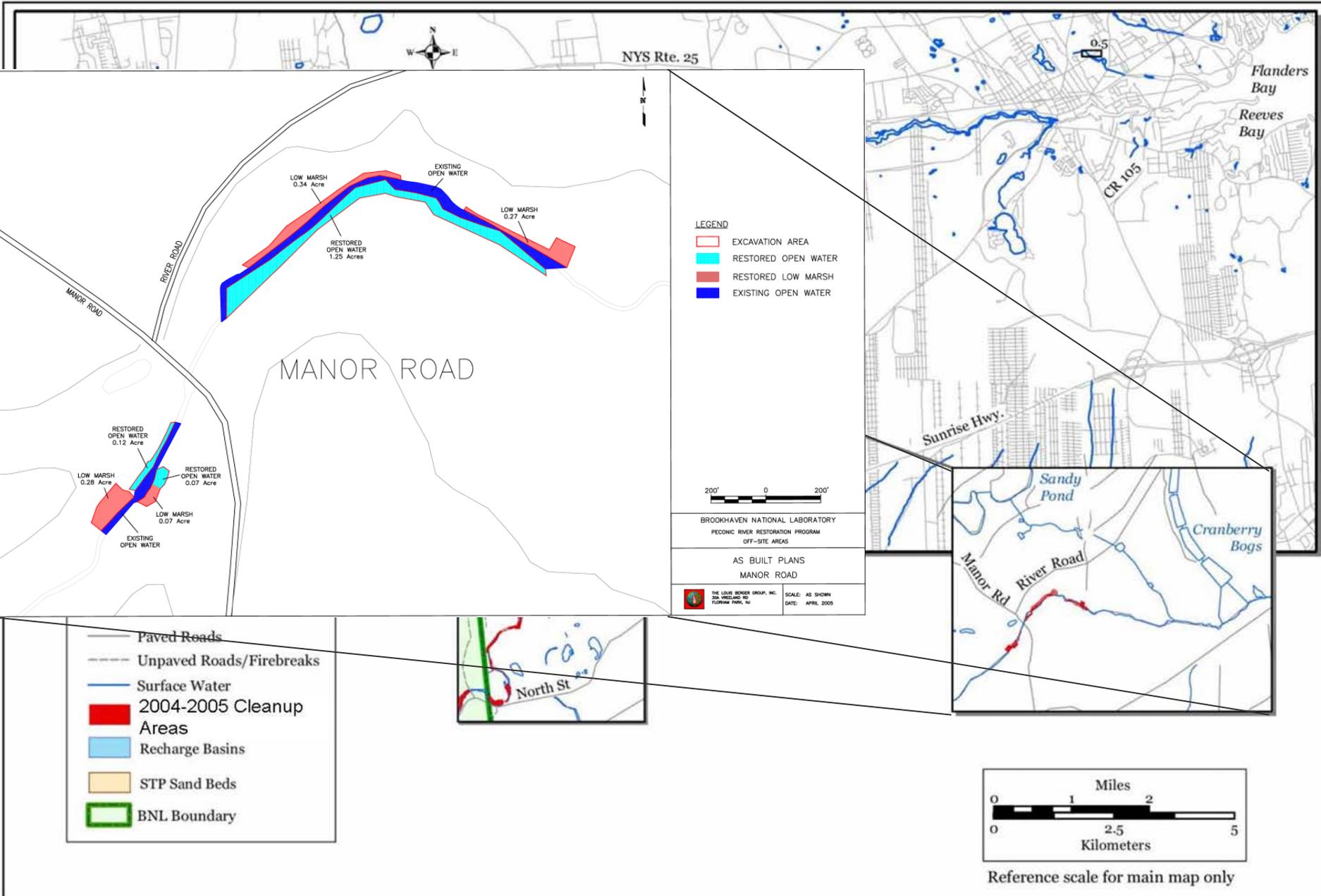
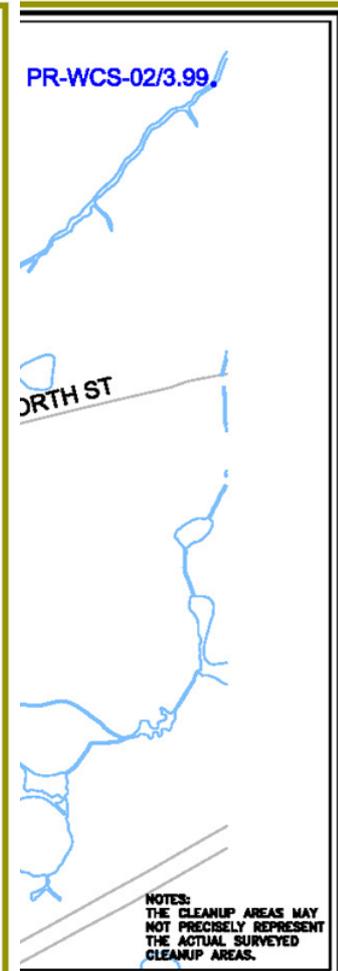
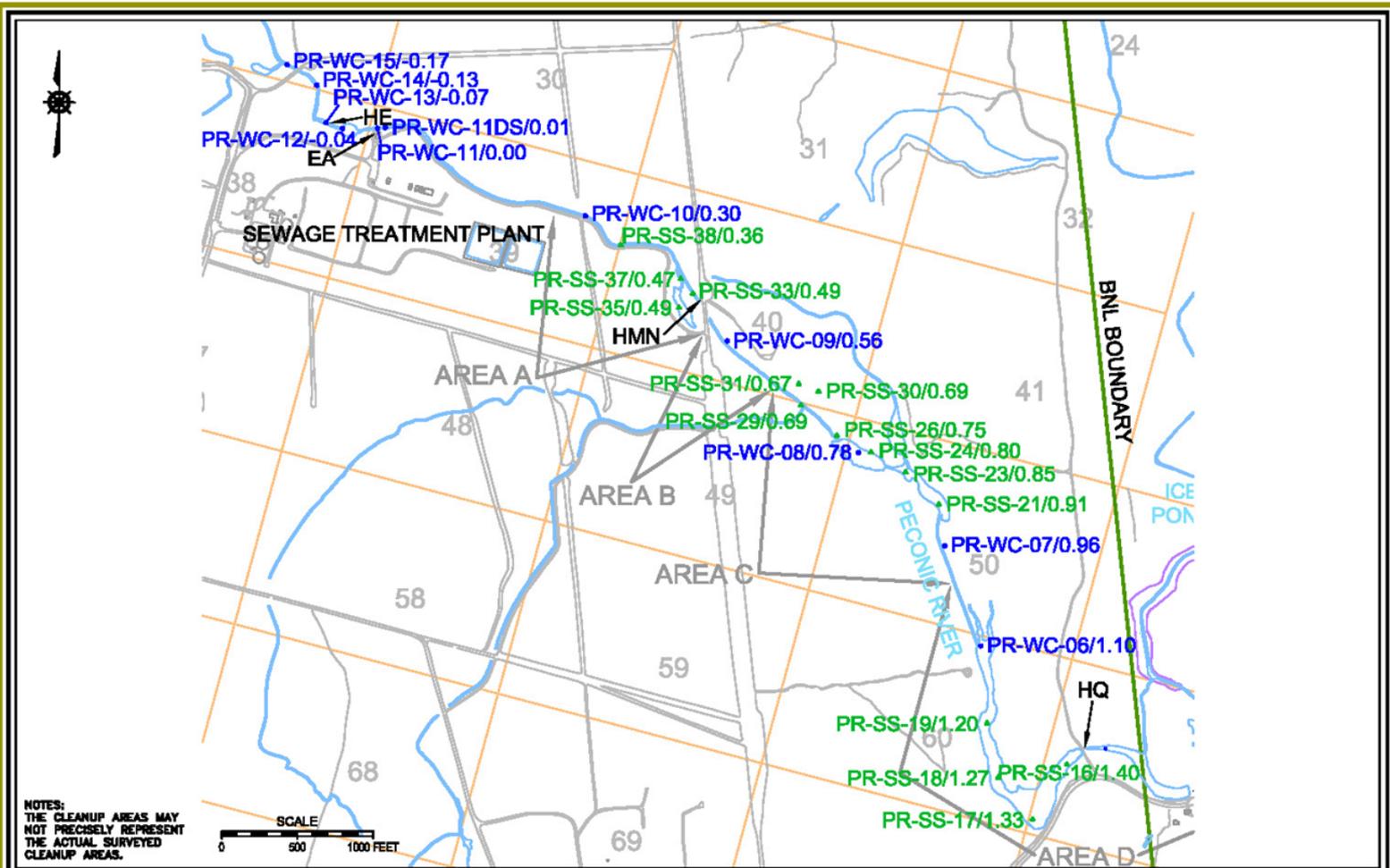


Figure 1-1. The Peconic River. The sections of the river that were remediated are indicated in the two call-out boxes, These two sections are shown in detail in Figures 1-2 and 1-3.

Peconic River Post Cleanup Monitoring

- **Following 2004/2005 original cleanup**
 - 22 Water Column Samples
 - 30 Sediment Samples
- **A few water column samples indicated potential areas with remaining contamination**
- **Sediment samples confirmed this**
 - PR-SS-10, PR-SS-15, PR-SS-18, PR-SS-19, PR-SS-33, PR-SS-38, and PR-WC-06
 - Detailed monitoring transects established at 50 foot intervals
- **2 of 7 areas identified for supplemental cleanup**
 - PR-WC-06, PR-SS-15, plus sediment dam area

Post Cleanup Monitoring



NOTES:
THE CLEANUP AREAS MAY NOT PRECISELY REPRESENT THE ACTUAL SURVEYED CLEANUP AREAS.

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LEGEND	PR-WC-12/0.04	PR-SS-38/0.36
SAMPLING STATION ID / DISTANCE TO STP DISCHARGE POINT IN MILES (POSITIVE NUMBER INDICATES DOWNSTREAM LOCATION AND NEGATIVE NUMBER INDICATES UPSTREAM LOCATION)		
BLUE SYMBOL INDICATES SURFACE WATER SAMPLE		
PURPLE SYMBOL INDICATES SEDIMENT SAMPLE		



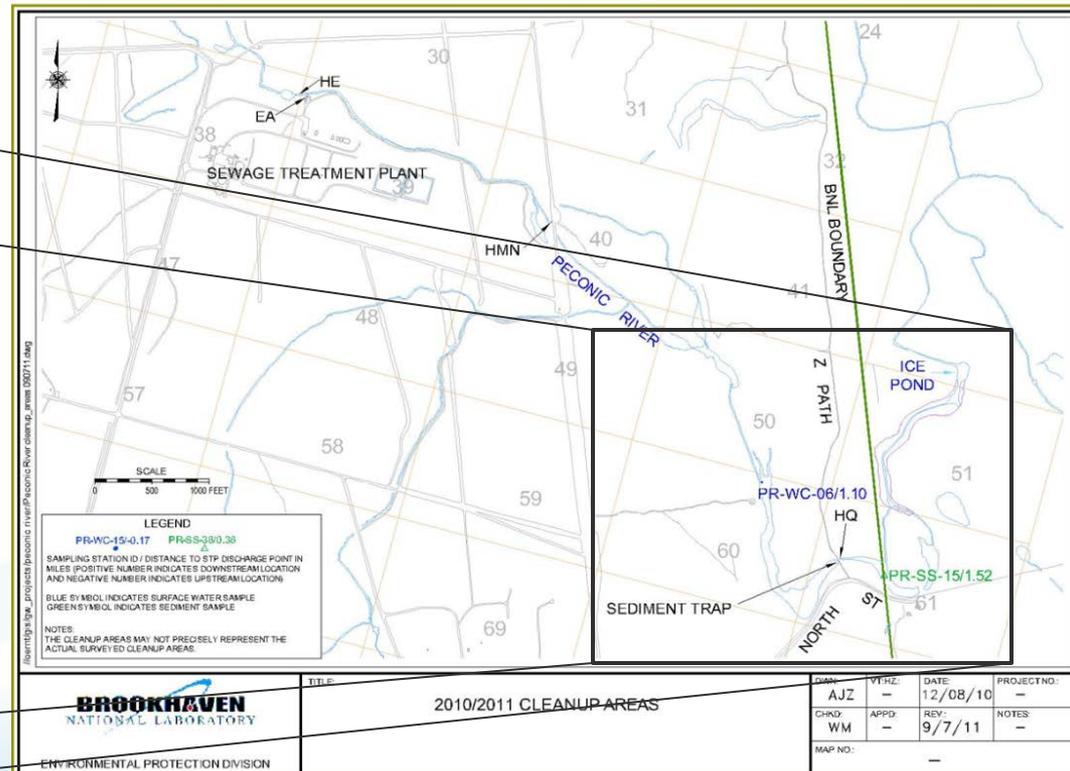
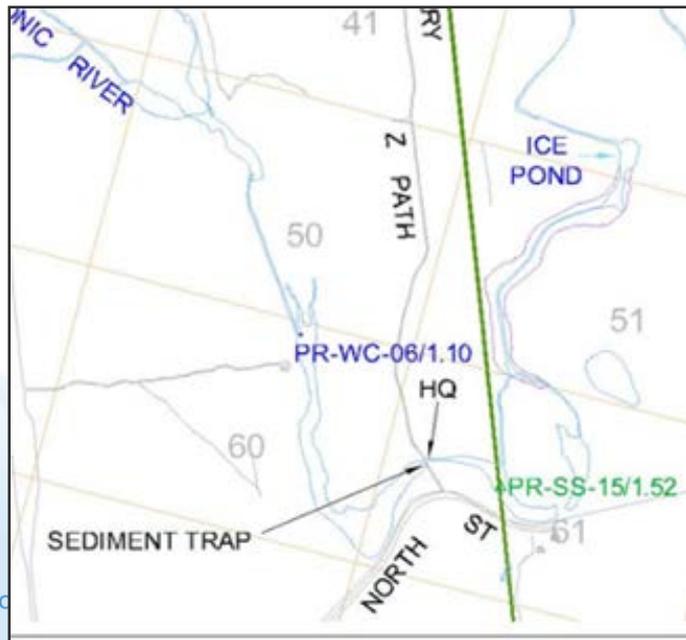
TITLE:
**FIGURE 1-4
WATER AND SEDIMENT SAMPLING STATIONS
BETWEEN PR-WC-15 AND BNL BOUNDARY
MERCURY SAMPLING STATIONS
PECONIC RIVER STUDY**

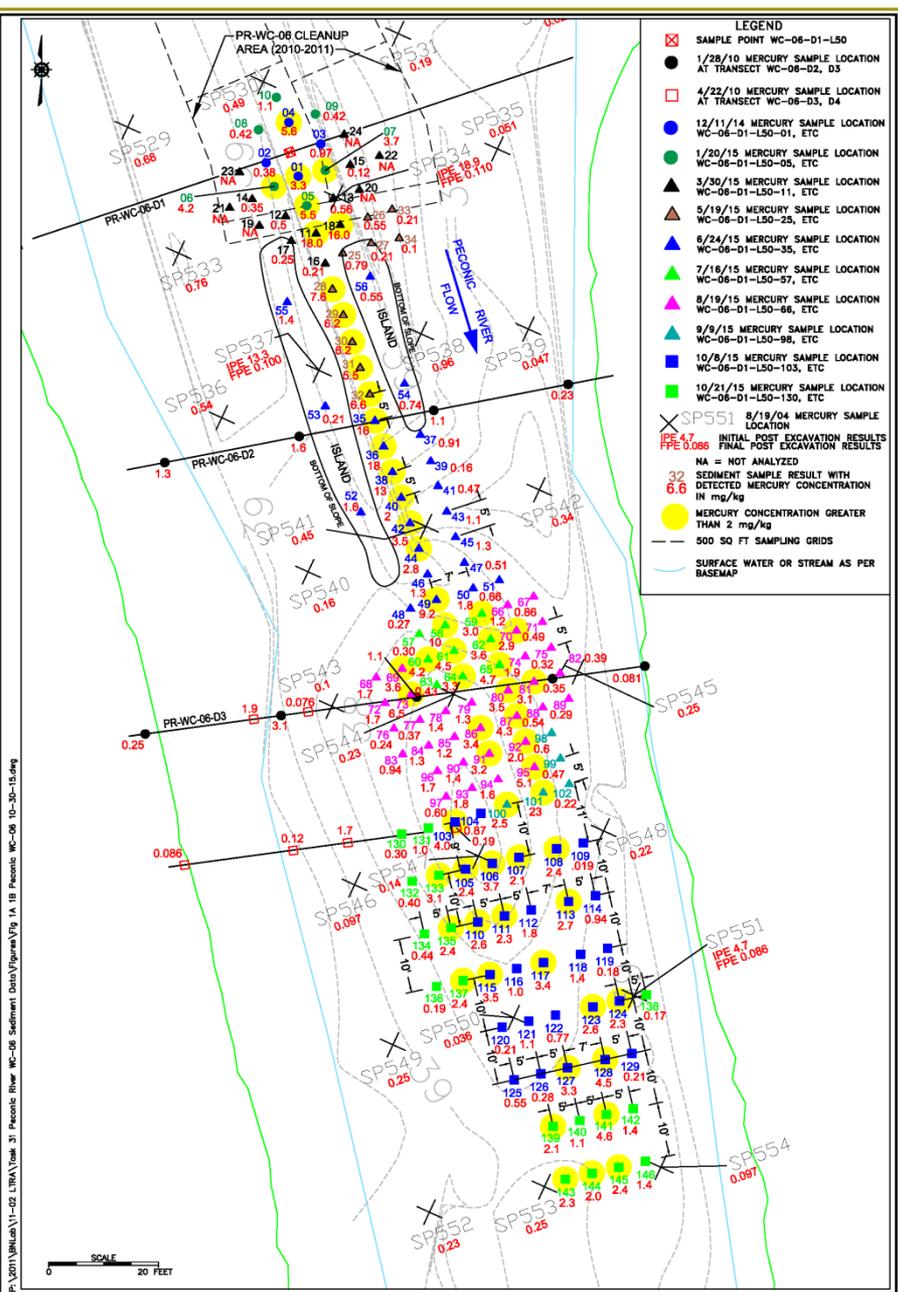
DWN: YS	VT:HZ.: -	DATE: 05/20/08	PROJECT NO.: -
CHKD: WM	APPD: -	REV.: -	NOTES: -
MAP NO.:	1-4		

VT:HZ.: -	DATE: 05/20/08	PROJECT NO.: -
APPD: -	REV.: -	NOTES: -
1-5		

Peconic River Supplemental Cleanup Monitoring

- Supplemental cleanup of three areas in 2011, followed by more confirmatory samples (~0.4 Acres, 22 samples collected, 500 square foot sampling density)
- Continued to sample the three areas annually 2011 to 2015
- Only Area WC-06 has elevated mercury, maximum of 7.4 mg/kg in June 2014

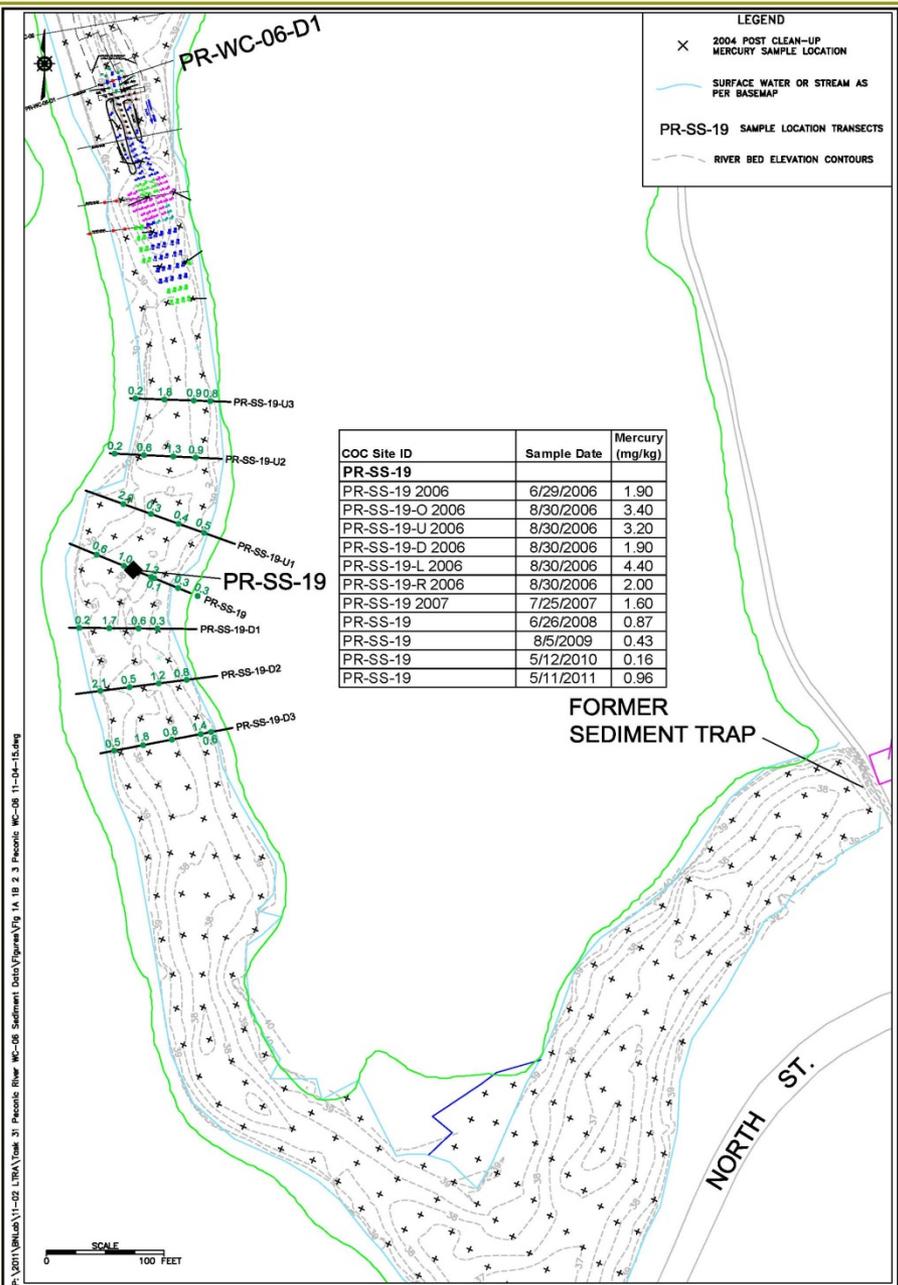




LEGEND

- ☒ SAMPLE POINT WC-06-D1-L50
- 1/28/10 MERCURY SAMPLE LOCATION AT TRANSECT WC-06-D2, D3
- ☐ 4/22/10 MERCURY SAMPLE LOCATION AT TRANSECT WC-06-D3, D4
- 12/11/14 MERCURY SAMPLE LOCATION WC-06-D1-L50-01, ETC
- 1/20/15 MERCURY SAMPLE LOCATION WC-06-D1-L50-05, ETC
- ▲ 3/30/15 MERCURY SAMPLE LOCATION WC-06-D1-L50-25, ETC
- ▲ 5/19/15 MERCURY SAMPLE LOCATION WC-06-D1-L50-35, ETC
- ▲ 6/24/15 MERCURY SAMPLE LOCATION WC-06-D1-L50-35, ETC
- ▲ 7/16/15 MERCURY SAMPLE LOCATION WC-06-D1-L50-57, ETC
- ▲ 8/19/15 MERCURY SAMPLE LOCATION WC-06-D1-L50-66, ETC
- ▲ 9/9/15 MERCURY SAMPLE LOCATION WC-06-D1-L50-98, ETC
- ▲ 10/8/15 MERCURY SAMPLE LOCATION WC-06-D1-L50-103, ETC
- ▲ 10/21/15 MERCURY SAMPLE LOCATION WC-06-D1-L50-130, ETC
- ✕ SP551 8/19/04 MERCURY SAMPLE LOCATION
- IFE 4.7 INITIAL POST EXCAVATION RESULTS
- FFE 0.066 FINAL POST EXCAVATION RESULTS
- NA = NOT ANALYZED
- 0.32 SEDIMENT SAMPLE RESULT WITH DETECTED MERCURY CONCENTRATION IN mg/kg
- 6.6 MERCURY CONCENTRATION GREATER THAN 2 mg/kg
- 500 SQ FT SAMPLING GRIDS
- SURFACE WATER OR STREAM AS PER BASEMAP

- In November 2014 the regulators agreed with a plan to collect four samples (five feet upstream, five feet downstream, five feet to the left, and five feet to the right of the area)
 - Maximum detection was 5.6 mg/kg, and average of 2.6 mg/kg
- This process continued through October 2015 with 140 samples collected
 - Maximum mercury detection of 23 mg/kg, average of 2.7 mg/kg



- Continued downstream sampling is not recommended by BNL based on monitoring as evidenced by the historical data from Area PR-SS-19
- Area PR-SS-19 data from 2006 to 2010 identified mercury above 2.0 mg/kg in six of 41 samples obtained, maximum of 4.4 mg/kg
 - Agreement reached in 2011 that no further action at PR-SS-19 is needed

PR-WC-06 Area Pictures



Peconic River – Next Steps

- Develop proposal
 - Obtain approval from regulators
- Develop detailed plan
 - Develop permitting documents
 - Title D disposal justification
- Conduct cleanup – preferably under dry conditions

Questions?

