Peconic River Update

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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
  - 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
Expanded monitoring - Post Cleanup (examples)
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
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 original sample) to delineate 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
The higher mercury concentrations (avg. of 5.7 mg/kg) is an area of approximately 1,350 square feet

Potential cleanup approach

- Depth of excavation would be to the sediment/sand interface (approximately 6 to 18 inches)
- Collect confirmation samples every 100 square feet to ensure concentrations are less than 2.0 mg/kg
- Allow vegetation to recover naturally
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?