FINAL
2008 PECONIC RIVER MONITORING REPORT

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September 30, 2009

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Under Contract with the United States Department of Energy

Contract No. DE-AC02-98CH10

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF APPENDICES AND ATTACHMENT

Cover Photo: NYSDEC Region 1 fishery biologists collecting fish during a BNL Peconic River fish survey. NYSDEC has provided guidance and technical support to BNL/DOE throughout the Peconic River remediation project.

EXECUTIVE SUMMARY

2008 PECONIC RIVER MONITORING REPORT

This section summarizes the major findings and recommendations relating to the 2008 Peconic River sediment, surface water, and fish monitoring, and the wetland invasive species monitoring and control. The details, on which this summary and the recommendations are based, are discussed in Section 2 through Section 6 of the report. Section 5 also includes a request for approval by EPA that federal post-mitigation wetland requirements have been met. Section 6 includes a request to implement the ROD-required removal of the sediment trap located upstream of gauging station HQ. The recommendations and requests are summarized in Table E-1.

As required by the Record of Decision, the Peconic River cleanup goals and annual monitoring program discussed in this report are as follows:

- The on-Laboratory cleanup areas are shown in Figure 1-2. On Laboratory property, this alternative would focus on sediment in designated depositional areas. For the sections of the river on Laboratory property, the average mercury concentration after remediation will be less than 1 part per million (ppm)[1], with a goal that all mercury concentrations in the remediated areas are less than 2 ppm following the cleanup. The 1 ppm limit is expected to protect human health and the environment under current conditions.
- The outside Laboratory cleanup areas are shown in Figures 1-2 and 1-3. This remedy would focus on a more stringent cleanup target concentration outside BNL property. This alternative would also allow the greatest flexibility in the uses of the area as County parkland or any potential future development. Sediment would be removed from the ponded areas where methylation leading to bioaccumulation is most likely to occur, as well as other areas containing higher concentrations of contamination between the Laboratory property line and Connecticut Avenue. The average mercury concentration within the sediment outside Laboratory property will be less than 0.75 ppm, with a goal that all mercury concentrations in the remediated areas are less than 2 ppm following the cleanup.

Within this report, the term “onsite” refers to Laboratory property, and the term “offsite” refers to property outside the Laboratory.

[1] The ROD states the cleanup requirements in terms of ppm (parts per million). This report states all concentrations in terms of the units of contaminant per unit of environmental matrix in which the contaminant is found, for example milligrams per kilogram (mg/kg). For mercury in sediment the concentration is expressed as mg of mercury per kg of sediment. The terms mg/kg and ppm are equivalent, hence one mg/kg equals one ppm.

Sediment:

Analytical results for the June 2008 routine annual sediment monitoring indicated only one sample out of 30 with a mercury concentration greater than 2.0 mg/kg (PR-SS-38, 2.1 mg/kg). The 15 sediment sampling stations located on BNL property had a 2008 average mercury concentration in the sediment of 0.48 mg/kg (vs a ROD-required average limit of 1.0 mg/kg) and the 15 sediment sampling stations located off of BNL property had a 2008 average of 0.35 mg/kg (vs a ROD-required average limit of 0.75 mg/kg) (Table 2-1).

In June 2008 the lateral extent of mercury concentrations above 2.0 mg/kg in the PR-SS-10 area was characterized by collecting seven supplemental sediment samples on the southwest ends of transects PR-SS-10 and PR-SS-10-U1 and the northeast end of transects PR-SS-10-D1 and PR-SS-10-2. The maximum mercury concentration among the seven samples was 0.74 mg/kg, with an average of 0.26 mg/kg mercury.

In June 2008, ten sediment samples collected within five feet of stations PR-SS-15-U1-L40 and PR-SS-15-U1-L65 confirmed an area of approximately 200 square feet with mercury concentrations substantially greater than 2.0 mg/kg. The average mercury concentration in the sediment samples collected was 13.4 mg/kg. In addition, the survey and sampling protocols followed during the establishment of and resampling of the transect sample points have confirmed the ability to relocate the areas of elevated mercury concentrations at sediment stations PR-SS-15-U1-L40 and PR-SS-15-U1-L65. The similarity between the June 2008 and August 2007 sample results indicate that mercury (9.8 mg/kg and 34.5 mg/kg) has remained in the sediment and not been eroded and transported downstream over the past year. Additionally, surface water sample results do not support the premise that substantial downstream transport of mercury, methylmercury or TSS has occurred under the low-flow conditions encountered during sampling. However, this statement is based on only one round of water column sampling and additional data are required to corroborate the initial sample results.

Surface Water:

The water column concentrations of total mercury repeated the historical trend of decreasing from the North Street area (PR-WC-05) to Connecticut Avenue (PR-WC-07) with the exception of the July PR-WC-03 sample. Total mercury concentrations in the section of the river between the STP outfall and PR-WC-08 were quite similar to the concentrations in the STP effluent. The June 2008 PR-WC-06 total mercury result (876 ng/L) was substantially higher than other sample results

in this section of the river, and also had an unusually high TSS result (79.1 mg/L), indicating a potential re-suspension of sediment that may have been captured in the sample vessel. The methylmercury data followed the general trend of decreasing from the upstream sections of the river to the downstream sections of the river. The sample collection method study was inconclusive, and potential sediment disturbing may actually be associated with collecting two consecutive samples in the same location.

Fish:

In 2008, fish were sampled from six stations (Area A, Area C, Area D-North Street, Area P-Schultz Road, Manor Road, and Donahue's Pond). The 2008 mercury average for the six stations was 0.26 mg/kg, with mercury concentrations trending downward with increasing distance downstream from the STP. The EPA criterion for mercury is 0.3 mg/kg of mercury in fish tissue. Several additional years of fish monitoring are necessary before the concentrations of mercury in fish will reflect the post-cleanup sediment concentrations. During this period, fish concentrations may fluctuate as older fish with higher pre-cleanup concentrations leave the population and younger fish accumulate residual contaminants in proportion to the post-cleanup levels in the sediment. The majority of the 2008 PCB results were non-detect. Because of the expected changes in post-cleanup concentrations over time mentioned above, several more years of data are necessary to determine reliable trends.

In 2008, BNL/DOE began ageing fish by counting annuli (growth rings) on fish that have scales (such as bluegills, chain pickerel, largemouth bass, and pumpkinseed) and from inner ear bone (otoliths) in brown bullheads that don't have scales. As this is the first year for which fish age is available, trends cannot yet be determined. For more detail, refer to Section 4.

Wetlands:

In 2007, BNL/DOE received NYSDEC approval that all wetland restoration requirements of the NYSDEC Permit Equivalency Application had been met. However, to satisfy federal requirements, BNL continued monitoring and controlling Phragmites in the remediated sections of the Peconic River through 2008. BNL has completed the fourth year of post-mitigation wetland monitoring and invasive species control, and requests EPA approval that the federal wetland requirements have been met. For more detail, refer to Section 5.

Sediment Trap:

As discussed in the Record of Decision[2] for the Peconic River, BNL is required to remove the sediment trap when remediation is complete and re-vegetation has been completed. The cleanup of the Peconic River was completed in 2005, and the NYSDEC requirements for re-vegetation of the river were met in 2006 and confirmed by DEC in an August 14, 2007[3] site inspection.

BNL/DOE recommends that the trap be removed at a period of low water level. Low water conditions typically occur in the Peconic River from mid-late summer to late autumn. For more detail, refer to Section 6.

[2] DOE, 2004. Final Operable Unit V Record of Decision for Area of Concern 30 (Peconic River), Brookhaven National Laboratory, Upton, NY, November 3, 2004.

[3] R. Marsh (NYSDEC Region 1) to C. B. Ng (NYSDEC Federal Project Director) email, 8-14-2007.

Table E-1. Recommendations and Requests Summary - 2008 Peconic River Post-Cleanup Monitoring	
Media	**Recommendations Summary**
Sediment	
1	Sample sediment at five-foot distances upstream, downstream, to the left, to the right of, and at PR-SS-38 to determine whether the June 2008 mercury concentration (2.1 mg/kg) indicates a larger area with mercury above the 2.0 mg/kg ROD goal.
2	The area between 150 feet upstream and 150 feet downstream of PR-SS-10 has been sufficiently characterized for the Five-Year Review evaluation. Additional characterization samples are not necessary within this area, other than the routine annual sediment monitoring at PR-SS-10.
3	The area between 150 feet upstream and 150 feet downstream of PR-SS-15 has been sufficiently characterized for the Five-Year Review evaluation. Additional characterization samples are not necessary within this area, other than the routine annual sediment monitoring at PR-SS-15.
4	BNL/DOE will initiate planning with the regulators for the remediation of the elevated mercury concentrations in the PR-SS-15 area
5	Analyze water column four times annually through 2010 for total mercury, methyl mercury and TSS upstream and downstream of PR-SS-15-U1-L40 and PR-SS-15-U1-L65 to evaluate potential downstream transport of mercury and methylmercury from this area.
Surface Water	
6	Collect a sediment sample at water column sampling station PR-WC-06 as part of the June 2009 and July/August 2009 mercury, methylmercury and TSS water column monitoring rounds.
Fish	
7	Continue to age fish by scale and otolith interpretation through the 2010 fish collection and reevaluate ageing fish beyond 2010 based on the usefulness of the 2008, 2009 and 2010 age data.
EPA Wetlands Request	
8	BNL/DOE requests approval from EPA that federal wetland requirements have been met and that BNL/DOE may cease Peconic River invasive species monitoring and control.
NYSDEC Sediment Trap Removal Request	
9	BNL/DOE requests approval from NYSDEC for removing the sediment trap located immediately upstream of HQ.

SECTION 1 – INTRODUCTION

1.1 Introduction

Brookhaven National Laboratory (BNL) is a multi-disciplinary research facility located in Suffolk County, New York. Wastewaters at BNL are directed to the Sewage Treatment Plant (STP), and are treated and discharged in accordance with State Pollutant Discharge Elimination System (SPDES) limits into the western branch of the Peconic River. Historical discharges from the STP have resulted in elevated concentrations of heavy metals, polychlorinated biphenyls (PCBs) and radionuclides in the Peconic River sediments. The Final Operable Unit V Record of Decision (ROD) for Area of Concern 30 (Peconic River) specifies the ROD-required cleanup limits and long-term monitoring requirements. Remediation of river sediments occurred in 2004 and 2005, and consisted of two phases of sediment excavation and removal, and post-excavation sampling. The sections of the river that were remediated are shown in Figures 1-1, 1-2 and 1-3.

The following three bullets excerpted from page iii of the ROD summarize the Peconic River cleanup goals which provide the basis for the annual monitoring program discussed in this report.

- The on-Laboratory cleanup areas are shown in Figure 1-2. On Laboratory property, this alternative would focus on sediment in designated depositional areas. For the sections of the river on Laboratory property, the average mercury concentration after remediation will be less than 1 ppm[4], with a goal that all mercury concentrations in the remediated areas are less than 2 ppm following the cleanup. The 1 ppm limit is expected to protect human health and the environment under current conditions.

- The outside Laboratory cleanup areas are shown in Figures 1-2 and 1-3. This remedy would focus on a more stringent cleanup target concentration outside BNL property. This alternative would also allow the greatest flexibility in the uses of the area as County parkland or any potential future development. Sediment would be removed from the ponded areas where methylation leading to bioaccumulation is most likely to occur, as well as other areas containing higher concentrations of contamination between the Laboratory property line and Connecticut Avenue. The average mercury concentration within the sediment

[4] The ROD states the cleanup requirements in terms of ppm (parts per million). This report states all concentrations in terms of the units of contaminant per unit of environmental matrix in which the contaminant is found, for example milligrams per kilogram (mg/kg). For mercury in sediment the concentration is expressed as mg of mercury per kg of sediment. The terms mg/kg and ppm are equivalent, hence one mg/kg equals one ppm.

outside Laboratory property will be less than 0.75 ppm, with a goal that all mercury concentrations in the remediated areas are less than 2 ppm following the cleanup.

- A monitoring program has been implemented to demonstrate the effectiveness of the cleanup. This includes near-term monitoring to establish the basis for the long-term monitoring program. As part of this program, the Department of Energy (DOE) will continue to evaluate all available data to determine if additional remediation is required to ensure the protection of human health and the environment. This program includes methylmercury water column sampling, sediment sampling, and fish sampling, and cover areas of interest both on and off BNL property.

In May 2004, BNL initiated a two-phased remediation effort to address contaminated sediments in the Peconic River. Phase 1, conducted between May and September 2004, removed approximately 13,000 cubic yards of river sediments from BNL property. Following the on-site cleanup, 788 post-excavation sediment monitoring points (located both within and outside the remediation areas) were sampled to evaluate the effectiveness of the Phase 1 activities. The Phase 1 activities resulted in a 96% reduction in average mercury concentration in river sediments on BNL property, from about 4.6 milligrams per kilogram (mg/kg) to 0.2 mg/kg (Envirocon, 2005). Phase 2, conducted between September 2004 and May 2005, removed approximately 8,200 cubic yards of river sediments situated outside of BNL property in Suffolk County parklands. Following the off-site cleanup, 1,442 and 149 post-excavation confirmation sediment sampling points were sampled (within and outside the cleanup areas) to evaluate the effectiveness of the Phase 2 activities in the section of the river from the BNL property line to Schultz Road, and within the Manor Road cleanup area, respectively. The Phase 2 activities resulted in a 95% reduction in average mercury concentration in river sediments downstream of the BNL property line, from 1.8 mg/kg to 0.09 mg/kg (excluding the Manor Road area). In the Manor Road area, an 83% reduction in mercury sediment concentrations was realized (from 1.08 mg/kg to 0.19 mg/kg) (Envirocon, 2005).

The long-term effectiveness of the cleanup is monitored once annually for mercury, PCBs and cesium-137 in Peconic River sediment, and mercury and radionuclides in fish tissue. Fish collected on the laboratory property are additionally analyzed for PCBs. Fish are collected from sections of the river located on BNL property when samples can be collected without negatively impacting the well being of the fish population. Surface water monitoring for total mercury and methylmercury is performed twice annually (June and July or August, depending on river water levels). Details of the sampling plan are described in the Operable Unit I Soils and Operable Unit V

Long-Term Monitoring and Maintenance Plan (LTMM Plan). The 2008 Peconic River sampling was conducted in accordance with the long-term sampling requirements stated in the Peconic River Record of Decision and formalized in the 2006 LTMM Plan. Results of the Peconic River monitoring are summarized each year in an annual Peconic River monitoring report. This document summarizes the results of the 2008 Peconic River monitoring. Sampling locations are shown on Figures 1-4, 1-5 and 1-6.

Of the analytes for which the ROD requires monitoring (mercury, methylmercury, PCBs, cesium-137), there is only a ROD-required cleanup goal for mercury in sediment. Analytes without ROD-required cleanup goals (methylmercury, PCBs, and cesium-137) are compared to their respective pre-cleanup concentrations to demonstrate the concentration trends of these contaminants since the cleanup. Additional chemical parameters that are part of the water quality monitoring are provided in the appendices. Refer to Appendix L for a description of laboratory data qualifiers. These parameters are only discussed in the text when they are relevant as supporting data for the goals of the monitoring program. Examples in the 2008 report include, but are not limited to: 1) chlorophyll-a and total organic carbon (TOC) concentrations that may indicate biologically active sections of the river and may influence the rate of conversion of total mercury to methylmercury and/or contribute to elevated Total Suspended Solids (TSS) measurements; 2) TSS measurements that may indicate potential inclusion of suspended sediment in the water column and a potential contribution to the mercury concentration of specific surface water samples; and, 3) dissolved oxygen (DO) that may influence the distribution and abundance of fish in various sections of the river.

The requirements for the Peconic River post-cleanup wetland monitoring are specified in the two New York State Department of Environmental Conservation (NYSDEC) Permit Equivalency documents under which the remediation was conducted: *ON-SITE PECONIC RIVER RESTORATION PROGRAM, NYSDEC Permit Equivalency Program, July 2004*, and *OFF-SITE PECONIC RIVER RESTORATION PROGRAM, NYSDEC Permit Equivalency Program, July 2004*. These two documents each contain a New York State and United States Army Corps of Engineers Joint Application for Permit and an Application for a NYS Wild, Scenic and Recreational Rivers Systems (WSRRS) Permit. BNL reported meeting the requirements of the Equivalency Permits in the 2006 Peconic River Monitoring Report, subject to a NYSDEC site inspection. That site inspection occurred on August 13, 2007, and NYSDEC determined that BNL had met all permit conditions. See Section 5 of the Final 2007 Peconic River Monitoring Report for more detail.

In several places within this document an average of the analytical measurements is calculated and presented either within the text or within tables and/or figures. In each case that an average is calculated from the data, it is identified as an average. Occasionally a data value will be lower than the reporting limit and is reported as a "non-detect". A value of "non-detect" cannot be used in mathematical calculations. If all of the values for an analyte are less than the detection limit the value of the average is reported as "ND" (non-detect). However, if the data contain both "non-detects" and "detects," there are three potential ways to represent the value of "non-detect" in calculations, such as the average. It could be represented as having a value of zero, as having a value equal to the reporting limit, or as having a value equal to one-half of the detection limit. The averages presented in the Final 2008 Peconic River Monitoring Report have been calculated using one-half of the reporting limits to represent non-detected values.

1.2 Report Organization

Sediment monitoring results are discussed in Section 2, water column monitoring results are discussed in Section 3, and fish monitoring results are discussed in Section 4. Section 5 summarizes the 2008 results of the wetland monitoring for invasive plants, and Section 6 discusses a BNL/DOE recommendation to remove the sediment trap. At the end of each section, recommendations are provided for that environmental medium (e.g. sediment, surface water, fish, and sediment trap).

The complete set of analytical data collected during the 2008 Peconic River Monitoring is provided in the Appendices, and a brief report summarizing the 2008 Peconic River Phragmites control activities is provided in Attachment 1.

SECTION 2 - 2008 SEDIMENT MONITORING RESULTS

2.1 Introduction

The Peconic River ROD requires that the long-term effectiveness of the cleanup be monitored once annually for mercury, PCBs and cesium-137 in sediment. The long-term sediment sampling began in June 2006 according to the procedures discussed in Section 3.0 of Appendix C of the LTMM Plan (BNL, 2006). The locations of the annual sediment and surface water stations, listed in order from upstream of the STP to downstream of Connecticut Avenue, are shown in Figures 1-4, 1-5, and 1.6. The station labels, e.g. PR-SS-38/0.36, indicate the station name (PR-SS-38) and the distance of the station in miles upstream (negative number) or downstream (positive number) of the STP (e.g., 0.36 miles downstream for PR-SS-38).

For the on-site sections of the river, the Peconic River ROD requires that the average mercury concentration in sediment samples collected after remediation be less than 1 part per million (ppm or mg/kg), with a goal that no individual sediment sample in the remediated areas exceed 2 ppm mercury. The ROD also states that the average mercury concentration in off-site sediment samples be less than 0.75 ppm, with a goal that no individual sediment sample exceed 2 ppm mercury following the cleanup.

In addition to the ROD-required analytes, 10% of the samples were also analyzed for silver and copper. These analytes do not have ROD-required cleanup goals, and are therefore compared to pre-cleanup sediment concentrations to assess cleanup effectiveness.

The 2008 sediment samples were collected to 1) evaluate potential changes in the annual concentrations of mercury in the sediment at the 30 routine sediment monitoring stations sampled each June, and 2) collect supplemental mercury distribution data for stations PR-SS-10 and PR-SS-15, both of which had elevated mercury results in previous sampling events. The 2008 routine annual sediment sampling results are discussed in Section 2.2, and the 2008 supplemental sampling results for the PR-SS-10 and PR-SS-15 areas are discussed in Section 2.3 and Section 2.4, respectively.

2.2 2008 Routine Sediment Monitoring Results

As part of the Peconic River routine annual long-term monitoring program, sediment samples were collected at the 30 sediment stations shown on Figures 1-4 to 1-6 and 2-1. The 2008

sediment monitoring results for the ROD-required analytes are summarized on Table 2-1. The 27 sediment and water column monitoring stations located upstream of Schultz Road are shown in Figure 2-1. The remaining three stations, located farther downstream near Manor Road (PR-MR-01 and PR-MR-02) and Donahue's Pond (PR-DP-01), are shown on Figure 1-6. All 30 sediment sampling stations are downstream of the STP and therefore have positive distances. Each sample was analyzed for mercury, PCBs and cesium-137, as required by the ROD. BNL also routinely analyzes 10% of the samples for silver and copper.

The 15 sediment sampling stations located on BNL property had a 2008 average mercury concentration in the sediment of 0.48 mg/kg (vs a ROD-required limit of 1.0 mg/kg) and the 15 sediment sampling stations located outside BNL had a 2008 average of 0.35 mg/kg (vs a ROD-required limit of 0.75 mg/kg) (Table 2-1). The average mercury concentration in 14 of the 15 off-site stations was 0.31 mg/kg, excluding the 0.16 mg/kg Donahue's Pond result. Donahue's Pond (PR-DP-01) was excluded from the off-site average because it is located approximately two miles downstream of the most downstream cleanup area (Manor Road). The only 2008 routine sample station that contained mercury above the 2.0 mg/kg goal was PR-SS-38 (2.1 mg/kg), which is the most upstream sample station and is located on BNL property. The 2006 and 2007 mercury results for PR-SS-38 were 1.5 mg/kg and 0.97 mg/kg, respectively. (Section 2.4 discusses the 2008 supplemental sampling results that further characterize a section of transect PR-SS-15-U1 that had elevated mercury concentration in 2007. Transect PR-SS-15-U1 is located 50 feet upstream of PR-SS-15.)

Silver, copper, PCBs and cesium-137 are co-located with mercury in depositional areas. These co-located contaminants do not have cleanup goals, and were therefore compared with their pre-cleanup averages (Table 2-1). In 2008, silver, copper and cesium-137 concentrations were substantially lower than the pre-cleanup averages, and most of the 2008 PCB results were non-detect or close to the detection limits. Refer to Appendix A, B and C for detailed metal, PCB, and radionuclide analytical results, respectively.

2.3 2008 PR-SS-10 Supplemental Sediment Sampling Results

Supplemental sediment samples were collected from the PR-SS-10 area as recommended in the Final 2007 Peconic River Monitoring Report. See that report for a complete discussion of the 2006 and 2007 PR-SS-10 sediment monitoring results.

In the PR-SS-10 area, the four transects located between 100 feet upstream and 50 feet downstream of the PR-SS-10 transect had mercury concentrations greater than 2.0 mg/kg at the

lateral extent of the transects. As shown in green on Figure 2-2, the August 2007 mercury concentrations at the southwest ends of transects PR-SS-10-U1 and PR-SS-10, and the northeast ends of transects PR-SS-10-D1 and PR-SS-10-D2 were greater than the 2.0 mg/kg goal. These data suggested that the lateral extent of mercury greater than 2.0 mg/kg might not have been sufficiently defined during the transect sampling. In June 2008, to confirm the lateral extent of mercury above 2.0 mg/kg at these four transects, each transect was extended an additional 50 feet or to the limits of the wetlands, and another one or two sediment samples were collected and analyzed for mercury. At transect PR-SS-10-U1 only one additional sample was collected, as the second sample would have been beyond the wetland limit.

The June 2008 supplemental sampling results for the PR-SS-10 area are shown in blue on Figure 2-2 and summarized on Table 2-2. For each of the four transects, mercury concentrations in the supplemental samples were less than 2.0 mg/kg. Concentrations ranged from 0.05 mg/kg on the southwest side of the PR-SS-10 transect to a maximum of 0.74 at the southwest edge of the PR-SS-10-U1 transect. Based on the 2006 – 2008 sediment data, the portion of the PR-SS-10 area with mercury concentrations in the sediment greater than or equal to 2.0 mg/kg is approximately 250 feet long by 70 feet wide.

Based on available data (35 sediment samples collected since 2006), BNL/DOE recommends that PR-SS-10 continue to be monitored annually. However, no additional sediment monitoring data (i.e., transect extension samples) are necessary to support Five-Year Review evaluations.

2.4 2008 PR-SS-15-U1 Supplemental Sediment Sampling Results

Supplemental sediment sampling was performed near transect PR-SS-15 as recommended in the Final 2007 Peconic River Monitoring Report. In August 2007, one of the seven transects (PR-SS-15-U1, circled in Figure 2-3) contained three sample points with mercury concentrations greater than 2.0 mg/kg (9.8 mg/kg, 34.5 mg/kg and 3.3 mg/kg). This transect is located 50 feet upstream of the PR-SS-15 transect. See the Final 2007 Peconic River Monitoring Report for a complete discussion of the 2006 and 2007 PR-SS-15 monitoring results.

The magnitude by which these samples exceeded the 2.0 mg/kg cleanup goal raised two issues concerning the mercury values in the PR-SS-15-U1 transect:

1) If a decision to remediate this area were deferred until the Five-Year Review in 2011, could the sediment stations with the elevated mercury concentrations be reliably relocated for potential follow-up sampling and/or remediation?

2) Were the elevated mercury concentrations being transported downstream?

Relocation of Sediment Stations with Elevated Mercury:

Issue 1 was first addressed in 2007 before the transect samples were collected. Prior to sampling, each transect was surveyed and both ends of each transect were marked with durable stakes. The locations of the samples along each transect were also precisely measured and named in reference to their distances from the transect marker on the left bank (facing upstream) to the transect marker on the right bank. For this reason, relocating each August 2007 PR-SS-15-U1 sample station and collecting additional samples in the same locations in June 2008 was straightforward and accurate. The following results support the premise that the PR-SS-15-U1-L40 and PR-SS-15-U1-L65 sample points could be confidently located again.

The success of relocating the August 2007 sample points was evaluated in June 2008 by collecting five additional sediment samples at and within 5 feet of the measured locations of the August 2007 PR-SS-15-U1-L40 (9.8 mg/kg mercury) sample and the PR-SS-15-U1-L65 (34.5 mg/kg mercury) sample (Figures 2-3 and 2-4). Close agreement between the 2007 and 2008 results not only confirmed that the original sample locations could be relocated, but also characterized the 80 to 100 square–foot-area around each of the two sample locations.

The June 2008 mercury supplemental sediment sampling results for the PR-SS-15-U1 area are shown on Figure 2-4 and are summarized on Table 2-2. These data show a close correspondence to the mercury concentrations reported for these locations in August 2007. The five sediment samples collected in June 2008 within five feet of the 9.8 mg/kg mercury detection (PR-SS-U1-L40) ranged from 0.6 to 19 mg/kg and averaged 6.3 mg/kg. The five sediment samples collected in June 2008 within five feet of the 34.5 mg/kg detection ranged from 7.3 mg/kg to 36.8 mg/kg and averaged 20.4 mg/kg. Review of the 2006 - 2008 sediment data collected within 50 yards upstream and 50 yards downstream of sediment station PR-SS-15 indicates that a section of the river approximately 100 feet long and 80 feet wide surrounding the PR-SS-15 sample station contains mercury in the sediment that may be greater than the 2.0 mg/kg goal.

Mobilization and Downstream Transport:

Addressing Issue 2 involved determining whether mercury and methylmercury[5] were being mobilized from the sediment at PR-SS-15-U1-L40 and PR-SS-15-U1-L65 and were being transported downstream in the surface water. To evaluate the potential downstream migration of mercury from these areas, BNL/DOE collected two additional water column samples upstream and two additional samples downstream. The samples were analyzed for total mercury, methylmercury and TSS. For brevity, these four water column stations are referred to as WC-1, WC-2, WC-3, and WC-4 in the following discussion and on Figures 2-5, 2-6 and 2-7.

The June 2008 results for total mercury in water column samples in the PR-SS-15 area are plotted in Figure 2-5 and summarized on Table 2-3. At station WC-1, located 15 feet downstream of PR-SS-15-U1-L40, the total mercury value was 141 nanograms per liter (ng/L). At station WC-4, located 15 feet upstream of PR-SS-15-U1-L40, the total mercury concentration was 165 ng/L, which is 24 ng/L higher than the downstream sample result. At station WC-2, located 15 feet downstream of PR-SS-15-U1-L65, the total mercury value was 111 ng/L. At station WC-3, located 15 feet upstream of PR-SS-15-U1-L65, the total mercury concentration was 103 ng/L, which is 8 ng/L lower than the downstream sample result. These relatively small changes in mercury concentrations from upstream to downstream locations may be associated with sample and/or analytical variation. However, based on the relative values for the upstream and downstream sample results, there does not appear to be a consistent correlation between mercury in PR-SS-15 sediment and mercury detected in the downstream water column. Therefore, these data alone do not suggest that mercury is being mobilized from the PR-SS-15 area and transported downstream.

The June 2008 methylmercury concentrations for the PR-SS-15 area are shown on Figure 2-6 and summarized on Table 2-3. The concentrations of methylmercury in surface water increased slightly (3.9 ng/L) from 14.8 ng/L at WC-4 to 18 ng/L at WC-1 as the water flowed past the PR-SS-15-U1-L40 area. Methylmercury concentrations also increased slightly (2.6 ng/L) as water flowed from WC-3 (16.5 ng/L) past PR-SS-15-U1-L65 to WC-2 (19.1 ng/L). Similar to the mercury values, these data show relatively small changes in methylmercury concentrations from upstream to downstream locations that may be associated with sample and/or analytical variation. However, based on the relative values for the upstream and downstream sample results, there may be a correlation between methylmercury in PR-SS-15 sediment and methylmercury detected in the downstream water column sample results.

[5] Methylmercury is the biologically toxic form of mercury that is created by conversion of inorganic mercury to methylmercury by bacteria located principally in the sediment.

The total suspended solids (TSS) results (Figure 2-7) show TSS increasing as the surface water flows from WC-4 (32.4 milligrams per liter [mg/L]) downstream past PR-SS-15-U1-L40 to WC-1 (50 mg/L), but TSS decreasing as the surface water flows from WC-3 (20.2 mg/L) downstream past PR-SS-15-U1-L65 to WC-2 (18.5 mg/L). These data do not show a correlation between increased TSS and increased mercury or methyl mercury concentrations.

2.5 Sediment Summary and Recommendations

Analytical results for the June 2008 routine annual sediment monitoring indicated only one sample out of 30 with a mercury concentration greater than 2.0 mg/kg (PR-SS-38, 2.1 mg/kg). The 15 sediment sampling stations located on BNL property had a 2008 average mercury concentration in the sediment of 0.48 mg/kg (vs a ROD-required average limit of 1.0 mg/kg) and the 15 sediment sampling stations located outside BNL had a 2008 average of 0.35 mg/kg (vs a ROD-required average limit of 0.75 mg/kg) (Table 2-1).

In June 2008 the lateral extent of mercury concentrations above 2.0 mg/kg in the PR-SS-10 area was characterized by collecting seven supplemental sediment samples on the southwest ends of transects PR-SS-10 and PR-SS-10-U1 and the northeast end of transects PR-SS-10-D1 and PR-SS-10-2. The maximum mercury concentration among the seven samples was 0.74 mg/kg, with an average of 0.26 mg/kg mercury.

In June 2008, ten sediment samples collected within five feet of stations PR-SS-15-U1-L40 and PR-SS-15-U1-L65 confirmed an area of approximately 160 to 200 square feet with mercury concentrations substantially greater than the 2.0 mg/kg goal. The average mercury concentration in the sediment samples collected was 13.4 mg/kg. In addition, the survey and sampling protocols followed during the establishment of and resampling of the transect sample points have confirmed the ability to relocate the areas of elevated mercury concentrations at sediment stations PR-SS-15-U1-L40 and PR-SS-15-U1-L65. The correlation between the June 2008 and August 2007 sample results indicate that mercury (9.8 mg/kg and 34.5 mg/kg) has remained in the sediment and not been eroded and transported downstream over the past year. Additionally, surface water sample results do not support the premise that substantial downstream transport of mercury, methylmercury or TSS has occurred under the low-flow conditions encountered during sampling. However, this statement is based on only one round of water column sampling and additional data are required to corroborate the initial sample results.

Recommendation 1 – Per the protocols established in the Data Quality Objectives (DQOs) of the LTMM plan, BNL/DOE recommends that one additional sample be collected at the location of the PR-SS-38 sediment station (2008 concentration = 2.1 mg/kg) and that four sediment samples be collected at 5-foot intervals upstream, downstream, to the left, and to the right (facing upstream) of the PR-SS-38 station. The intent of the sampling is to determine whether the slightly elevated mercury concentration of 2.1 mg/kg is indicative of a larger area of sediment with mercury concentrations greater than 2.0 mg/kg.

Recommendation 2 – On the basis of the 35 sediment samples collected since 2006 within the 300-foot section of the river centered on transect PR-SS-10, BNL/DOE conclude that the PR-SS-10 transect area has been sufficiently well characterized to support a Five-Year Review evaluation in 2011. Additional sediment characterization in the PR-SS-10 area is not necessary, and therefore not recommended. The routine annual sediment monitoring at PR-SS-10 will continue.

Recommendation 3 – On the basis of the 51 sediment samples collected since 2006 within the 300-foot section of the river centered on transect PR-SS-15, BNL/DOE recommends that the PR-SS-15 transect area has been sufficiently well characterized to support a Five-Year Review evaluation in 2011. Additional sediment characterization samples within the PR-SS-15 area are not necessary. The routine annual sediment monitoring at PR-SS-15 will continue.

Recommendation 4 - BNL/DOE will initiate planning with the regulators for the remediation of the elevated mercury concentrations in the PR-SS-15 area

Recommendation 5 – BNL/DOE recommends that monitoring the upstream and downstream concentration of total mercury, methylmercury and TSS at water column monitoring stations PR-SS-15-U1-WC-1, PR-SS-15-U1-WC-2, PR-SS-15-U1- WC-3, and PR-SS-15-U1-WC-4 occur four times annually, as flow permits, through 2010 to evaluate potential downstream transport of mercury and methylmercury from sediment in the PR-SS-15-U1 area.

SECTION 3 - 2008 WATER COLUMN MONITORING RESULTS

3.1 Introduction

The LTMM Plan indicates that in June and August of each year, 23 water column monitoring stations in the Peconic River and one reference station in the Connetquot River will be sampled for total mercury, methylmercury and TSS. Table 3-1 describes the water column locations, schedules and sampling frequencies. Table 3-2 provides the analytical results and the field data for the stations with conditions that permitted sampling. For stations that could not be sampled because of low water levels, Table 3-2 provides only the river depth. The reference sample from the Connetquot River was collected to provide information on total mercury and methylmercury levels in a nearby system that is not impacted by a known mercury source. It serves as a basis for comparison to data collected from the Peconic River upstream of the STP, but because it is only a single sample location, the Connetquot River reference station should not be considered to be representative of "background."

3.2 Data Collection Summary

The Peconic River water column monitoring stations and the Connetquot River station are sampled twice annually. Sample locations are shown in Figures 1-4, 1-5 and 1-6 together with the sediment sampling stations. Samples whose identification number begins with a "PR-WC-" are water column stations located upstream of Schultz Road. The water column stations that are downstream of Schultz Road are indicated with a "PR-WCS-" prefix. Between 2005 and 2007, the two rounds of post-remediation water column sampling have been conducted in June and August of each year. However, occasionally during the August sampling round the Peconic River water levels have been too low to collect representative samples at several of the stations. In response to field observations that indicated that water levels in the river were decreasing sufficiently rapidly to jeopardize an August collection, the second round of the 2008 routine annual mercury, methylmercury and TSS water column monitoring was accelerated to begin July 14, 2008.

In 2007, a minimum required water depth of 1 foot was established for the water sampling program to minimize potential re-suspension and sampling of river sediment during water column sampling. Sediment re-suspension may confound the interpretation of surface water analytical results. During 2008, if the water depth at a sample station was less than 1 foot, an attempt was made to relocate the sampling point to deeper water within the general area scheduled for sampling.

During the June 2008 sampling, water column samples were collected at 15 of the routine Peconic River sample stations. During July 2008, samples were collected at eight of the stations. The stations that most frequently cannot be sampled are located upstream of where the STP effluent enters the river (PR-WC-11, Figure 1-4). Where possible, samples were collected from about mid-channel at approximately one-half of the total water column depth.

All post-remediation total mercury (unfiltered), methylmercury (unfiltered), and TSS (unfiltered) samples were analyzed by Brooks Rand, LLC of Seattle, Washington, according to the methodologies summarized in the Operable Unit I/V LTMM Plan and described in greater detail in the *Sampling Plan for Mercury and Methylmercury in the Water Column of the Peconic River* (QEA, 2003) and the *2004 Sampling Plan for Mercury and Methylmercury in the Water Column of the Peconic River between Schultz Road and Connecticut Avenue* (QEA, 2004a). These two sampling plans are based on United States Environmental Protection Agency (EPA) Method 1669[6]. In addition, river flow and water quality parameters such as water temperature, dissolved oxygen, and pH, were measured at each location. Summaries of the June and July/August water column surveys conducted between 2003 and 2008 are presented in Tables 3-3 (June) and 3-4 (July/August).

Quality assurance and quality control (QA/QC) samples included collection of field blanks, field replicates and pairs of matrix spike/matrix spike duplicates (MS/MSD). Equipment blanks were not necessary, since disposable sampling equipment was used at each sampling location.

The standard method for collecting Peconic River water column samples to be analyzed for total mercury, methylmercury and TSS consists of collecting a single, large (2-liter) volume water sample at each sampling location. The collected sample is then analyzed at the Brooks Rand laboratory for analysis of the three analytes. This methodology ensures the analytical results for each water sampling location are representative of the same water mass, and aids in the interpretation of potentially anomalous results.

In addition to the mercury, methylmercury and TSS sampling, water quality sampling was also conducted to assist in the interpretation of the mercury and methylmercury data. This program collects water samples from eight stations distributed throughout the remediated sections of the river. The water quality sampling was conducted approximately two to three weeks prior to, during,

[6] U.S. EPA, 1996. *Method 1669, Sampling Ambient Water for Trace Metals at EPA Water Quality Criteria Levels,* July 1996, Office of Science and Technology, Office of Water, Engineering and Analysis Division (4303) U.S. Environmental Protection Agency, Washington DC 20460.

and two weeks after the June and July/August mercury, methylmercury and TSS sampling (Table 3-1). A total of five water quality rounds were conducted in 2008. Three of the five water-column sampling rounds were stand-alone water quality surveys (i.e. mercury and methylmercury samples were not collected), and two rounds were performed concurrent with the mercury, methylmercury and TSS water column sampling. For the three stand-alone surveys, water samples were to be collected at 8 of the 23 locations routinely monitored for mercury (Table 3-1). For the two surveys performed concurrent with the mercury sampling program, water samples were to be collected from each of the 20 Peconic River water column sampling locations, where water depth allowed. (These samples do not include the Connetquot River reference station or the STP effluent samples).

3.3 Additional Samples

In 2008, several additional water column samples were collected at temporary sample stations and/or routine sampling stations to evaluate specific issues. These samples are identified in the remainder of this sub-section and monitoring results are discussed in Sections 3.7 and 3.8.

Several additional water column samples were collected between June 2007 and July 2008 to evaluate the cause(s) of total mercury concentrations increasing in the water column between stations PR-WC-14 and PR-WC-11. These samples were collected from the STP effluent as it flowed through the STP effluent ultra-violet (UV) disinfection chamber immediately upstream of Outfall EA (Figure 1-4) before being discharged to the river. The STP effluent UV chamber sampling was performed from June 2007 to July 2008 using the same low-detection limit analytical techniques as used in the Peconic River water column samples. Samples were collected both as grab samples[7] (STP-EFF-UVG) and as 24-hour composite samples[8] (STP-EFF-UVC) approximately once every two weeks. These sample locations and sample types are independent of the routine SPDES sampling at the same location, and are discussed in Section 3.7.

To evaluate the potential for current sample collection practices to influence the suspension of sediment from the river bottom and its potential influence on water column sample results, two sample collection techniques were used at six of the 23 Peconic River water column sampling stations (PR-WC-12, PR-WC-10, PR-WC-05, PR-WC-03, PR-WCS-03, and PR-WCS-05, listed in order from upstream to downstream). These stations were sampled using both the conventional

[7] Grab samples were collected from just below the water surface with a pre-cleaned polyethylene sampling vessel.
[8] 24-hour composite samples were collected from just below the water surface with a flow-proportional peristaltic pump.

method of lowering the collection vessel below the water surface and opening the lid, but also by collecting the sample with a peristaltic pump to determine whether using a pump would be less likely to disturb the bottom, and consequently lower the TSS result. These data are discussed in Section 3.8.

As previously discussed in Section 2, additional water column sampling was performed in June 2008 to evaluate the potential downstream transport of total mercury and methylmercury from a section of transect PR-SS-15-U1 with elevated sediment mercury concentrations. Water column samples were collected from temporary sampling stations PR-SS-15-U1-WC-1, PR-SS-15-U1-WC-2, PR-SS-15-U1-WC-3, and PR-SS-15-U1-WC-4. These water column results were discussed in Section 2-4 with the associated sediment data, and are not discussed further in this section.

3.4 Monitoring Results

Analytical results and field data for each mercury, methylmercury and TSS water sample collected in June 2008 and July 2008 are summarized in Table 3-2 and detailed in Appendix D. Comparisons of the June 2008 results to those obtained in previous June sampling rounds (2003 through 2007) and the July 2008 results (i.e., the second annual sampling round) to those obtained in previous August sampling rounds (2003 to 2007) are presented on Tables 3-3 and 3-4, respectively. The locations of the sampling stations are shown in Figures 1-4 (PR-WC-15 to PR-WC-05), 1-5 (PR-WC-05 to PR-WCS-02) and 1-6 (PR-WCS-03 to PR-WCS-07). Total mercury, total mercury less than 150 ng/L, methylmercury, percent methylmercury, and TSS concentrations are plotted as a function of distance upstream (negative distances) or downstream (positive distances) from the STP on Figures 3-1, 3-2, 3-3, 3-4, and 3-5, respectively.

The Peconic River remediation was completed onsite in September 2004 and was completed offsite in May 2005. Consequently, 2008 was the fourth year of post-remediation surface water monitoring for onsite sections of the Peconic River and the third year for offsite sections of the river.

3.5 Total Mercury

The June 2008 total mercury data are shown on Table 3-2 and are plotted on Figures 3-1 and 3-2. Figure 3-1 shows the upper range of mercury concentrations. Figure 3-2 shows the lower range of mercury concentrations. The scale for the total mercury axis on Figure 3-2 has been set to

a maximum of 150 ng/L to facilitate viewing the smaller total mercury concentrations for the downstream stations. June mercury data for 2003 to 2008 are shown on Table 3-3. Due to low water levels upstream of the STP outfall, the most upstream sample collected in June 2008 was at station PR-WC-12D7, located seven feet downstream of the plotted position of PR-WC-12DS and approximately 200 feet upstream of the BNL STP outfall. Because the PR-WC-12D7 sample was collected as a substitute for the dry PR-WC-12DS sample located 7 feet upstream, its sample results are recorded as PR-WC-12DS sample results but are recorded in the database and Appendix D as PR-WC-12-D7. Two samples were collected at this station, one using conventional methods and one using a pump. Pump results are discussed in Section 3.8 of this document.

The distribution of the June 2008 data shows an increase in concentration from 25.2 ng/L total mercury at PR-WC-12D7 (PR-WC-12 DS) to 103 ng/L total mercury at PR-WC-11DS, approximately 50 feet downstream of the STP outfall. The concentrations of total mercury in the STP effluent that entered the river between these two stations were 116 ng/L for a composite sample that had been collected during the previous 24-hour period and 115 ng/L for a grab sample. Both the composite sample (STP-EFF-UVC) and the grab sample (STP-EFF-UVC) were collected between the times of collection of the PR-WC-12D7 sample and the PR-WC-11DS sample. These data and the data reported in the 2007 Peconic River Monitoring Report indicate that the source of the elevated mercury concentration at PR-WC-11DS is the STP effluent.

Total mercury concentrations in the surface water at the next two downstream stations sampled were 114 ng/L at PR-WC-10 (0.30 miles) and 111 ng/L at PR-WC-08 (0.78 miles).

At the next sampled station (PR-WC-06) the total mercury concentration was 876 ng/L. Based on historical post-cleanup (2006 – 2008) data (Tables 3-3 and 3-4), there is a direct correlation between the total mercury concentrations and TSS concentrations at PR-WC-06; as TSS increases, total mercury increases. The Table 3-2, 3-3 and 3-4 data for total mercury and TSS at station PR-WC-06 are summarized for the post-cleanup period (2005 -2008) in Table 3-5. These data suggest that a substantial percentage of the total mercury concentration in the water column at PR-WC-06 may be in a particulate form (TSS), as opposed to a dissolved form. As shown on Table 3-3, the June 2008 detection is the highest total mercury concentration measured to date in June at this station.

As shown on the top panel of Table 3-5, total mercury was detected at 1,360 ng/L at PR-WC-06 in August 2006. It is also noteworthy that the two highest mercury concentrations at PR-

WC-06 occurred in sample events with the two highest TSS values. Inspection of all data (2003 – 2008) in Tables 3-3 and 3-4 and of the post-cleanup (2005 – 2008) subset of the total water column PR-WC-06 data set (Table 3-5, top panel) suggests a direct relationship between total mercury and TSS (i.e., as TSS increases, total mercury also increases) in the water column at this location.

The major source terms for Peconic River water column mercury are mercury released from the BNL STP for upstream sections of the river and post-cleanup mercury in the sediment for all sections of the river. When sediment is suspended the mercury that is either attached to the particles composing the suspended solids or released from the sediment then enters the water column. Suspended sediment is one component of the TSS measurement. The total mercury measurement includes both mercury that is dissolved in the water column and mercury that is attached to the suspended solids. Thus it is not unexpected that elevated TSS measurements at a given location would also result in elevated total mercury measurements.

The potential sources of the elevated mercury concentrations at PR-WC-06 include downstream transport of mercury in the water column and suspension of mercury-containing sediment from the river bottom at PR-WC-06. To further evaluate the apparent relationship and the potential benefit of sampling the sediment at PR-WC-06 simultaneously with collecting water column samples at that location, BNL performed correlation analyses and significance testing on the 2005 – 2008 data set. Potential relationships between river depth and flow rate on total mercury and TSS were also investigated. These analyses were initiated with the knowledge that correlation coefficients could potentially be enhanced by both large variances associated with small sample size and by auto-correlation potentially inherent in time-series data sets. The intent of the analyses was to understand if the apparent relationship between total mercury and TSS was sufficiently large and statistically significant to justify collecting sediment samples at PR-WC-06. This could increase the apparent relationship between total mercury and TSS in the water column. The intent was not to use the limited data set (six samples for the 2005 – 2008 post-cleanup period) to predict total mercury concentrations for any other location(s) or time period(s).

Statistical analysis of the total mercury, TSS and field data collected since the completion of the cleanup in 2005 indicates that there is a direct relationship at PR-WC-06 between total mercury and TSS. Total mercury and TSS data were available for the period 2005 to 2008; but flow and depth data were available only for 2006 - 2008. Thus the tabular data in Table 3-5 are based on the 2006 – 2008 data. For completeness, the 2005 -2008 statistics for total mercury and TSS are shown in the Table 3-5 footnote "1".

The Pearson product-moment correlation coefficient[9], r, between the two variables is 0.999 for the post-cleanup period 2006 - 2008 and 0.941 for the period 2005 -2008 (Table 3-5). The Coefficients of Determination[10] for these two periods are 0.998 and 0.886, respectively. This co-occurrence could be related to several potential contributing causes, including river turbulence or flow rate, wildlife activity, sediment and mercury suspension from the river bottom caused by upwelling from water table discharge into the river, or the collection process. As discussed above the high r and R^2 also have potential statistical causes.

Evaluation of the data collected at station PR-WC-06 (Tables 3-5 also shows the relationship between total mercury in the water column and water depth (r = -0.830), and between total mercury and flow rate (r = -0.835) at the sample station. This indicates that as river depth and flow decrease, total mercury in the water column increases. The historical data also suggest that when river depth at PR-WC-06 decreases to about 1.5 feet, flow also decreases to approximately 0.01 to 0.03 feet per second. Under these conditions the ability of the river flow to re-suspend sediment from the river bottom is minimal, thus minimizing the potential contribution of current-related turbulence to raising the total mercury and TSS concentrations. Therefore, current-related turbulence cannot be the cause of the elevated concentrations. The remaining potential explanations for the direct relationship between sediment and TSS are that sediment may have been suspended from the river bottom either by discharge from the water table, as a result of the collection process or by wildlife. The above evaluation supports the importance of collecting sediment samples for mercury simultaneously with collecting water columns samples for total mercury and TSS at PR-WC-06. This will allow the evaluation of whether elevated mercury concentrations in the sediment at PR-WC-06 are sufficient to elevate the mercury concentrations in the water column to the concentrations observed in June 2008 and August 2006.

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[9] r = Pearson's Product-moment Correlation Coefficient: The magnitude of the r is an indication of a linear relationship between two variables, for example between TSS and total mercury, and can range between -1 and +1. A value of r = 1 indicates a perfect linear relationship, but does not imply causality. An r = 0 indicates no linear relationship. (The strength of linear relationships between values of r = 0 and r = 1 is expressed by the Coefficient of Determination.) Positive values of r indicate that the dependent variable (e.g. total mercury) increases, or decreases, directly with an increase, or decrease, respectively, in the independent variable (e.g. TSS). Negative r values indicate that as the independent variable increases (or decreases) the dependent variable decreases (or increases), respectively. For example, if r = -0.677 for the relationship between depth and total mercury in the water column, then as depth increases, total mercury in the water column decreases.

[10] R^2 = Coefficient of Determination: The coefficient of determination evaluates the strength of a linear relationship between two variables. It may be calculated as the square of r and is expressed as R^2. The linear relationship between the independent and dependent variables is determined by a least squares fit between the dependent and independent variables. Functionally, the R^2 expresses how well the linear model predicts the dependent variable (e.g. total mercury) based on the independent variable (e.g. TSS) and explains how much of the variance in the dependent variable is accounted for by variance in the independent variable. The fraction of the variability in the dependent variable not caused by variation in the independent variable may be expressed as $1-R^2$.

The mercury concentration at the next station, PR-WC-05, located 1.46 miles downstream of the STP, was 140 ng/L. Samples collected downstream of PR-WC-05 to Manor Road showed substantial decreases in total mercury, with the five samples ranging from 11.6 ng/L and 17.2 ng/L.

For the three most downstream stations sampled in June 2008, PR-WCS-05 (4.06 ng/L), PR-WCS-06 (4.11 ng/L) and PR-WCS-07 (4.76), the total mercury concentrations were similar to that detected at the Connetquot River reference station (4.52 ng/L).

Substantial decreases in surface water total mercury concentration with increasing distance downstream of the STP are shown in Figures 3-1 and 3-2 at PR-WC-03 [River Mile (RM) 2.10 in the June sampling event and at PR-WCS-02 (RM 3.99) in the July sampling event. There are two primary potential causes for these observations:

1. Flow over sediment with reduced mercury concentrations, for example downstream of PR-SS-05, and;
2. Dilution by discharge into the river of precipitation and related surface runoff, tributaries (e.g., the North Branch at RM 2.52), and/or the water table.

Decreases in surface water concentrations of mercury are likely to be caused by both of the above two potential causes, depending on the season, location, hydrography and mercury concentration in the sediment in that section of the river. Other potential causes of the general downstream trend of decreasing mercury include vaporization/evaporation of mercury as the river water is warmed and/or aerated as it passes through spillways, gauging stations and/or over dams on its passage downstream. In sections of the river with faster flow rates absorption of the mercury may also be decreased by the shorter residence time of the water in sections of the river with residual post-cleanup concentrations of mercury in the sediment. Quantifying each of the above potential causes of decreased mercury concentration in the water column with increasing distance downstream would require extensive additional field and laboratory investigations.

The second round of total mercury samples were collected during July 2008. The routine scheduled August 2008 collection was accelerated to begin July 14, 2008 in response to field observations that indicated water levels in the river were decreasing sufficiently rapidly to jeopardize an August collection. July 2008 total mercury data are shown on Table 3-2 and plotted on Figures 3-1 and 3-2. Figure 3-1 shows the total mercury results of samples collected in June and July 2008. The scale for the Total Mercury axis on Figure 3-2 has been set to a maximum of 150

ng/L to view the distribution of total mercury at lower concentrations. Historical data for 2003 to 2008 are shown on Table 3-4.

The most upstream total mercury sample collected during July 2008 was at PR-WC-10 (94.4 ng/L), located 0.30 miles downstream of the outfall from the BNL STP. The two samples collected from the BNL STP effluent two days later were very similar at 86.7 ng/L for the 24-hour composite sample and 94.1 ng/L for the grab sample (Table 3-2). The next sample collected was PR-WC-08 (0.78 miles downstream of the STP), with a total mercury concentration of 68.3 ng/L and a relatively high TSS concentration of 29 mg/L. The next downstream sample collected was PR-WC-03 at RM 2.10. This sample had a total mercury concentration of 374 ng/L and a TSS concentration of 165 mg/L. These are the highest PR-WC-03 concentrations observed to date for both total mercury and TSS. As with PR-WC-06, at PR-WC-03 there is a positive correlation (significance = 0.10, Table 3-6) between total mercury concentration and TSS and somewhat less strong negative correlations between total mercury and water depth, total mercury and flow, TSS and water depth, and TSS and flow. The cause(s) for the elevated TSS measurements are not known, but, similar to the June PR-WC-06 sample, could include such factors as recent disturbance by wildlife, inflow from the water table, or sediment disturbance during the sample collection. As with PR-WC-06, potential statistical contributors to the correlations between total mercury, TSS, depth and flow at PR-WC-03 include small sample size and potential time-series auto-correlation. Because these elevated total mercury and TSS results are the only such elevated samples for this station, no follow up action is suggested.

The July total mercury values for the stations at, between and including stations PR-WCS-02 and PR-WCS-07 are similar in pattern and generally somewhat lower in concentration than the June values for these stations. As discussed above, the decreases in surface water concentration with increasing distance downstream are likely to be caused by a combination of flow over sediment with lower mercury concentrations and dilution by inflow of tributaries and groundwater. Other potential minor contributors include evaporation and decreased absorption by the downstream water column associated with the increased downstream flow rates.

3.6 Methylmercury and Percent Methylmercury

The June 2008 methylmercury data are shown on Table 3-2 and are plotted on Figure 3-3. Methylmercury is the biologically toxic form of mercury that is created by conversion of inorganic mercury to methylmercury by bacteria. The percent methylmercury is an indication of the

environment's suitability for converting inorganic mercury to methylmercury. Percent methylmercury was calculated by dividing the methylmercury concentration by the total mercury concentration, then multiplying the resulting ratio by 100. Percent methylmercury is plotted on Figure 3-4.

Because of low water conditions during the June 2008 collection date, the PR-WC-12DS sample was collected seven feet downstream from the 2007 PR-WC-12DS location. (These samples were designated PR-WC-12D7). Two samples were collected at this station, one using conventional methods and one using a pump. Pump results are discussed in Section 3.8. Water column sample PR-WC-12D7 had a methylmercury concentration of 10.9 ng/L. The percent methylmercury at this station was 43 percent. This high percentage of methylmercury indicates favorable environmental conditions for conversion of mercury to methylmercury. During PR-WC-12D7 sampling, there was a no flow condition (flow =0.0 feet per second) and collection occurred within an isolated 2.0-foot depression in the riverbed. These data indicate that this is a location with little to no downstream migration and high decay of organic material such as leaves. Water quality samples indicated high total organic carbon (14.6 mg/L) together with the low dissolved oxygen (3.77 mg/L). These are all favorable conditions for the conversion of mercury to methylmercury. Note that low dissolved oxygen may also indicate disturbance of the sediment, which is likely to be anoxic in an environment with no flow and high organic carbon. The June 2007 methylmercury concentration of 10.8 ng/L at PR-WC-12DS was confirmed by the June 2008 value of 10.9 ng/L. Based on these data, the PR-WC-12DS station is in an area with favorable conditions for conversion of mercury to methylmercury.

The STP effluent enters the river downstream of PR-WC-12DS (PR-WC-12D7) and had very low methylmercury concentrations: (0.022 ng/L) for the 24-hour composite sample (STP-EFF-UVC) and 1.16 ng/L for the grab sample (STP-EFF-UVG). The low to non-detect concentrations of methylmercury in the grab samples from the STP effluent in both June and July 2008 indicate that the methylmercury concentration of the BNL STP effluent plays a minimal role in contributing methylmercury to the Peconic River at the collection location. Subsequent methylation in the water column of mercury from the STP effluent to methylmercury is uncertain. The majority of methylation is believed to occur in the sediment. While methylmercury concentrations gradually rose from 0.301 to 4.67 ng/L between PR-WC-11DS and PR-WC-06, the total mercury concentration spiked to 876 ng/L at PR-WC-06. However, methylmercury only comprised 0.53% (rounded to 1% in Tables 3-2 and 3-3) at PR-WC-06, indicating that PR-WC-06 is not a favorable

habitat for methylation. The low dissolved oxygen concentration (3.99 mg/L) in the PR-WC-06 sample is indicative of the potential disturbance of the sediment, as discussed above.

At the next sample location (PR-WC-05), the surface water has been aerated by passage over the Parshall flume at HQ and has a substantial dissolved oxygen concentration (12.4 mg/L). The PR-WC-05 section of the river has a methylmercury concentration of 8.4 ng/L, yet a substantially reduced total mercury concentration (140 ng/L) relative to upstream station PR-WC-06 (876 ng/L). Though the methylmercury was only 6%, the substantially elevated water temperature (29.0 degrees Celsius) at PR-WC-05 and no flow conditions (0.0 feet per second) are favorable conditions for methylation of mercury.

Downstream sample PR-WC-03 at mile 2.10 had substantially reduced concentrations of total mercury (17.2 ng/L) and methylmercury (2.7 ng/L) relative to PR-WC-05. This is in agreement with expectations based on the low total mercury concentration in the co-located sediment sample (0.27 mg/kg at PR-SS-06). Over the next 5.13 miles between PR-WC-03 and Connecticut Avenue (PR-WCS-07), the methylmercury concentration gradually decreased from a high of 3.2 ng/L at PR-WC-01 to a low of 0.747 ng/L at Connecticut Avenue.

The July 2008 methylmercury data are shown on Tables 3-2 and 3-4, and are plotted on Figure 3-3. Percent methylmercury is plotted on Figure 3-4. The July 2008 methylmercury concentrations for both the 24-hour composite and the grab samples collected from the STP effluent were both non-detect. As stated above, the BNL STP plays a minor role in contributing methylmercury to the Peconic River. In July 2008, the most upstream methylmercury sample was PR-WC-10 (0.605 ng/L). Methylmercury concentrations increased downstream to 3.48 ng/L at PR-WC-08 and 4.18 ng/L at PR-WC-03. These values were higher in the July round compared to June. A potential contributor to the increase in methylmercury concentration at PR-WC-03 is the markedly higher total mercury concentration during July (349 ng/L) compared to June concentration (17.2 ng/L). Samples collected 3.99 to 6.75 miles downstream of the STP had methylmercury concentrations ranging from 0.386 ng/L to 0.765 ng/L. As shown on Figure 3-4, the percent of methylmercury in water column samples tended to be lower during the July sampling round. One of several potential explanations for this observation is that wetlands may be a more suitable environment for methylation than flowing water areas such as channels. During low water periods much of the wetland area is isolated and methylmercury that may be produced has less likelihood of being flushed into the downstream river flow.

3.7 2007 – 2008 STP Effluent Sampling Results

In addition to samples collected from the Peconic River, low detection limit samples were collected from the STP effluent to evaluate potential impacts of effluent mercury on the surface water downstream. In August 2007, BNL/DOE initiated a one-year STP effluent sampling program. Samples were collected approximately twice per month for mercury and TSS analysis, applying the low detection limits used in the Peconic River post-cleanup monitoring program. These samples were collected in addition to the routine SPDES monitoring samples, but were collected at the same locations and occasionally on the same days. The mercury and TSS data from both of these monitoring programs were presented in the 2007 Peconic River Monitoring Report. Per Recommendation 6 in the 2007 Peconic River Monitoring Report, the low detection limit sampling was extended to July 2008.

The STP effluent grab samples (STP-EFF-UVG) and the 24-hour composite samples (STP-EFF-UVC) for mercury were collected between June 7, 2007 and July 17, 2008 (Table 3-7 and Appendix F). Effluent samples were collected from the UV chamber at Building 580 directly before being discharged to the river at Outfall EA. The average, minimum, and maximum concentrations for the effluent samples were 104.6 ng/L, 81.2 ng/L, and 173 ng/L total mercury, respectively. The total mercury concentrations at the STP outfall were comparable to concentrations that were collected in the river at 0.78 miles downstream during June and July 2008 (Table 3-2). In addition, methylmercury concentrations in the STP effluent are minimal, and often below the detection limit (Appendix F).

3.8 Evaluation of Bottle-Collected and Pump-Collected Sample Results

The observed relationship between elevated total mercury concentration and elevated TSS (previously discussed for PR-WC-06) has occasionally been observed at other stations. There are several potential causes of elevated mercury and TSS concentrations, other than routine downstream transport. As previously discussed, these include re-suspension/erosion of contaminated sediment from the river bottom by current, re-suspension by upstream wildlife, re-suspension by upwelling from the water table into the river, and re-suspension by disturbance of the sediment during the collection process. The no and low-flow conditions observed at PR-WC-06 during June 2008 and

at PR-WC-03 during July 2008 suggest that re-suspension by current is not a sufficient explanation. While re-suspension by upwelling and by wildlife is difficult to detect, the potential for re-suspension due to the collection process could be investigated. Previous samples were collected per EPA Method 1669 guidance using the recommended "clean hands" – "dirty hands" protocol by immersing an appropriate laboratory-supplied pre-cleaned bottle into the water, allowing it to fill rapidly and then capping it with no headspace before it is removed from the water. The alternative method used in this study involved collecting the sample with a low-flow peristaltic pump of appropriate materials as per EPA Method 1669 guidance. At six locations, samples were collected by both the bottle-sampling method and the pump-sampling method (Table 3-8 and Appendix D).

Total mercury and TSS concentrations for each collection method are graphed in Figure 3-6. At locations PR-WC-12, PR-WC-10, PR-WC-03, and PR-WCS-03, the mercury and TSS values for the June samples show minimal differences between the collection methods. At three of these four stations the pump sample had a slightly higher mercury concentration, despite having a similar or slightly lower TSS value. Only one June sample, PR-WC-05, had a substantially higher total mercury concentration (39 percent) and TSS concentration (40 percent) in the bottle collection sample compared to the pump collection sample. However, the July PR-WC-03 bottle-collected sample had substantially higher mercury and TSS concentrations (374 ng/L, 165 mg/L, respectively) than the pump-collected sample (3.23 ng/L, 88.8 mg/L, respectively). The relationship was the opposite for the July PR-WCS-03 samples, with the pump-collected sample having substantially higher concentrations of mercury (172 ng/L) compared to the bottle-collected sample (3.1 ng/L), though TSS concentrations remained stable.

In summary, the results were mixed, and no clear pattern was established for the relationship between bottle-collected samples and pump-collected samples. Likewise, the direct relationship between total mercury and TSS concentrations previously observed for samples PR-WC-06 and PR-WC-03 could not be confirmed by these data. Two potential explanations for this are: 1) The potential influence of suspended sediment is likely to be related to not only the concentration of the TSS that was suspended from the bottom (by any of the previously discussed means), but also the mercury concentration of the sediment that was suspended, and 2) The sequence in which the samples were collected. Ideally, the bottle-collection sample and the pump-collected sample should have been simultaneously collected, as opposed to approximately five minutes apart. This has the potential disadvantage that the same volume of water may not have been sampled in both

collections, possibly allowing the first-collected sample (the pump sample) to induce suspended sediment that the second-collected sample may have captured in the sample vessel.

3.9 Water Column Summary and Recommendations

The water column concentrations of total mercury repeated the historical trend of decreasing from the North Street area (PR-WC-05) with the exception of the previously discussed July PR-WC-03 sample, to Connecticut Avenue. Total mercury concentrations in the section of the river between the STP outfall and PR-WC-08 were quite similar to the concentrations in the STP effluent. The June 2008 PR-WC-06 total mercury result (876 ng/L) was substantially higher than other sample results in this section of the river, and also had an unusually high TSS result (79.1 mg/L), indicating a potential re-suspension of sediment that may have been captured in the sample vessel. The methylmercury data followed the general trend of decreasing from the upstream sections of the river to the downstream sections of the river. The sample collection method study was inconclusive, and potential sediment disturbing may actually be associated with collecting two consecutive samples in the same location.

Recommendation 6 – PR-WC-06 has shown markedly elevated total mercury and TSS concentrations on two occasions: June 2008 (876 ng/L total mercury, and 79.1 mg/L TSS) and August 2006 (1,360 ng/L total mercury and 116 mg/L TSS). These two sample results merit further investigation of a potential sediment source at the sample location. BNL/DOE recommends that a sediment sample be collected at water column sampling station PR-WC-06 as part of the June 2009 and July/August 2009 mercury, methylmercury and TSS water column monitoring rounds. The sediment sample at the PR-WC-06 station will be collected after the routine mercury, methylmercury and TSS water column and water quality samples and field data are collected.

SECTION 4 - 2008 FISH MONITORING RESULTS

4.1 Introduction

The purpose of the Peconic River fish sampling program is to monitor the effectiveness of the Peconic River cleanup and to ensure that contaminants related to BNL operations do not create a potential human health or environmental risk from fish consumption. Per the Peconic River ROD, fish must be monitored once annually for mercury and cesium-137. Fish caught on BNL property must also be monitored once annually for PCBs. Fish will be sampled in sections of the river on laboratory property when samples can be collected without negatively impacting the well-being of the fish population. The LTMM Plan states that to the extent possible, five individual fish of sufficient size to obtain an edible fillet will be collected from each of two feeding guilds within each of the five collection areas (Area A, Area D [North Street], Area P [Schultz Road], Manor Road, and Donahue's Pond) indicated on Table 4-1 and Figures 1-4 through 1-6. The LTMM Plan specifies alternate locations when conditions do not allow sampling the five indicated areas. Area C, an alternate location for Area D, was also sampled in 2008 to supplement the on-site fish data. The two feeding guilds are the top carnivore guild (e.g. chain pickerel and largemouth bass) and the bottom feeder guild (e.g. brown bullheads and creek chubsuckers). BNL also routinely samples fish at other locations as part of the BNL environmental surveillance monitoring program. The environmental surveillance monitoring data are reported each year in the BNL Site Environmental Report.

Fish Collection:

With the support of fishery biologists from NYSDEC Region 1 and the Cold Spring Harbor Fish Hatchery, fish were collected in the following areas between May 13 and June 17, 2008: Area A (downstream of the BNL STP), Area C, Area D at North Street, Area P upstream of Schultz Road, Manor Road, and Donahue's Pond. Fishery biologists from the NYSDEC collected fish at Schultz Road and Manor Road, and fishery biologists from the Cold Spring Harbor Fish Hatchery collected fish samples from Donahue's Pond. The BNL field team collected fish from Area A, Area C and Area D, and assisted Cold Spring Harbor fishery biologists with the Donahue's Pond collection. The gear used and the water chemistry results are shown on Table 4-2. For the two most upstream stations (Area A and Area C), the 2008 water temperatures were within one degree of the 2007 water temperature measurements. The dissolved oxygen concentrations of 12.3 mg/L at

Area A and 10.7 mg/L at Area C were 160 and 180 percent, respectively, of the 2007 dissolved oxygen concentrations at Area A (7.5 mg/L) and Area C (6.0 mg/L). These dissolved oxygen concentrations are very supportive conditions for successful fish habitat, as was the 2008 dissolved oxygen concentration of 6.2 mg/L measured at Donahue's Pond.

The total number of fish collected in 2008 (200 fish) was similar to the number collected in 2007 (195 fish). The numbers of fish collected at Area A (23), Area C (44), and Manor Road (31) in 2008 (Table 4-3) were also similar to the catch in 2007 (25, 41, and 20, respectively). In 2008, 40, 43 and 19 fish (Table 4-3) were collected from Area D, Schultz Road (Area P) and Donahue's Pond (versus 56, 21 and 32 fish, respectively, in 2007). The number of fish collected is larger than the number of fish samples due to the need to composite some of the fish (see below) to meet the analytical requirements of the analytical laboratory.

Fish Preparation:

All fish samples were frozen and shipped to the analytical laboratory (GEL, Inc.) for processing and preparation of fillets. Prior to freezing, fish were measured for total length and weighed. GEL contacted BNL when fillet size was inadequate for the requested analyses. BNL then sent GEL directions for combining the fillets into composites (discussed below) to meet the GEL analytical requirements.

Fish Tissue Compositing:

The Peconic River ROD requires that mercury, PCBs and radionuclides be evaluated for fish collected on BNL property, and that mercury and radionuclides be evaluated for fish collected outside BNL property. All fish samples consist only of edible tissue that was removed from the fish (filleted) by the technical staff of the analytical laboratory (GEL). The required wet weight tissue mass for mercury, PCB and radionuclide analysis are 5 grams (g), 120 g, and 50 g, respectively. Because the proportion of edible fish tissue to total body weight was highly variable depending on fish size, condition and potentially also the skill of the sample preparation technicians, an average of approximately 3 percent yield was assumed. This required that the edible tissue from two or more fish had to be composited together to obtain sufficient sample mass for some of the mercury, PCB and radionuclide analyses. A total of 21 composites were created.

BNL/DOE followed EPA guidance[11] to the extent practicable in limiting composites to fish of the same species, fish of similar lengths, and fish collected within a week of each other, and to provide a sufficient composite sample mass to meet the GEL requirements for the analytes of interest. To the extent practicable, the total length of the smallest fish was also generally equal to or greater than 75 percent of the total length of the largest fish in a composite. The guidance for a composite to consist only of fish from the same species was not followed in one of the 21 composites on the basis that insufficient sample mass was available to analyze the largemouth bass without combining the bass with other available fish (bluegills) from the same feeding guild (predator) and same approximate size. It was also assumed that a potential fish consumer would be insensitive to the same species requirement if they were eating fish of this size.

For each area from which fish were collected, Table 4-4 identifies each fish Chain of Custody (COC) for that area. The Composite ID consists of the respective COC number (for example "25791") followed by a unique identifier (for example "–bc1") for each fish that was included in a composite. Table 4-4 also identifies the Fish ID (for example 08-101) for each fish that was included in each of the 21 fish composites, as well as the species, the total length, and the age of each fish. Finally, the average age of all fish within each composite is calculated as the average of the numeric ages of each fish within the composite.

Fish Ageing:

In 2008, BNL initiated the ageing of fish to help explain potential age-related relationships between fish contaminant concentrations and the completion of the cleanup. In September 2004, the onsite river cleanup was completed, and in April 2005 the off-site river cleanup was completed. Fish of age three or four years could have been born in a cleaned up area. However, there are no year-round barriers to migration between the various sections of the river located upstream of Donahue's Pond (approximately river mile seven). None of the seasonal barriers to fish migration (e.g. the sediment trap) are sufficient to prevent fish migration during periods of high water. Therefore, it is safer to assume that three-year-old fish were born during the year that remediation was completed, and four-year-old fish were born prior to remediation being completed.

[11] U.S. EPA 2000. Guidance for Assessing Chemical Contaminant Data for Use in Fish Advisories. Volume 1 Fish Sampling and Analysis, Third Edition, EPA-823-B-00-007, November 2007.

As fish grow, growth rings (similar to tree growth rings) called "annuli" are left on the fish scales and otoliths. Counting the annuli provides an estimate of fish age. Otoliths are calcified sensory organs that function in hearing and balance. Because otolith removal and preparation for ageing are very labor intensive, fish ageing is typically done on scales for scale-bearing fish (e.g. bass, sunfish and shiners). Otolith aging is typically done for fish that do not have scales, such as catfish. For the 2008 Peconic River fish, all species except brown bullheads (a type of catfish) were aged based on scale interpretation. Brown bullheads were aged by otolith interpretation.

Under contract to BNL, an independent experienced fish biologist performed the otolith removal. The brown bullheads were transferred to the independent contractor via COC. The contractor removed the otoliths and returned the otoliths and brown bullheads to BNL custody. The otoliths and the scales were then transferred to a second independent contractor (Ecologic, LLC) under separate COCs to prepare the scales and otoliths for age interpretation. Scales were first cleaned and then pressed into a clear cellulose acetate plastic slide material to make a lasting impression. The slides were then placed into scale envelopes labeled with the BNL Fish ID.

Otoliths were cleaned and embedded in epoxy, sectioned into thin slices, then fixed onto a glass slide with clear epoxy and labeled. The ageing process was conducted using a double blind QA/QC process in which two Ecologic fishery biologists independently interpreted the ages of the complete set of fish scales and otoliths. After completing the ageing, the two biologists met to resolve any differences.

The protocol for age interpretation is described below[12]:

- For fish with no scale growth beyond the outermost annulus, ages were interpreted to be equal to the number of annuli. For example, if there were two annuli and no discernible scale growth between the outermost annulus and the outer margin of the scale, the assigned age would be two years.

- For fish with discernible growth beyond the outermost annulus, the interpreted age was based on the number of annuli with a plus sign (+) to indicate growth beyond the outermost annulus, for example 2+.

- If the scale growth from the outermost annulus to the scale margin ("M") was roughly equivalent to the scale growth shown in the previous year between the two previous annuli, then the age was based on the number of annuli plus one year, followed by an "M." For example, the age of a fish whose scale had two discernible annuli plus scale growth beyond the second annulus that was roughly equal to the growth between annulus 1 and annulus 2,

[12] BNL/DOE thanks Charles Guthrie, NYSDEC Region 1 Regional Fishery Manager for explanation of the following age interpretation convention.

would be expressed as 3M. An example of this would be a fish that was born in the late spring and had completed three years of growth, but the formation of the third annulus had not yet been completed.

Appendix G shows the age interpretation data for each of the two fishery biologists, any notes they may have recorded for a given set of scales or otoliths, and the final agreed-upon age. The analytical data in Appendices H, I, and J can be cross referenced with the age data in Appendix G by Fish ID or composite ID (Table 4-4). Whenever the assigned ages were used in calculations (such as when calculating the average age of the fish within a composite), the ages that had been assigned by the age interpreters were converted from the alpha numeric ageing code described above to a whole number. When the age of a composite sample was calculated, the result of the calculation was expressed with one decimal place. For example, if a composite consisted of fish with interpreted ages of 3M, 3, 3+ and 4M, the ages used in the calculation would be 3, 3, 3 and 4, respectively, and the average age of fish in the composite would be expressed as 3.3.

4.2 2008 Fish Monitoring Results

The detailed analytical results for each of the fish or composites in the 2008 collection are shown in Appendix H (mercury), Appendix I (PCBs) and Appendix J (cesium-137 and other radionuclides). The analytical data are discussed in two formats.

In the first format, the average analytical values for each fish sample collected between the BNL STP and Donahue's Pond is discussed without regard to species or age (Figures 4-1 and 4-2). The average concentration across the entire sampled population is indicative of the average for the entire population within this stretch of the river. The data are representative of the general population in the river between the BNL STP and Donahue's Pond, subject to the selectivity of the collection equipment and techniques. In a similar manner, but to a lesser extent, the average ages, sizes and contaminant concentrations of the fish in each of the areas represent the respective ages, sizes and contaminant concentrations for the subpopulations inhabiting those sections of the river at the times of the respective collections. All fish collection areas were sampled within a one-month period. However, because movement can occur between the various sections, depending on the water level in the river, it cannot be confidently inferred that the derived subpopulation statistics permanently apply to a given subsection of the river (for example, Area A, Area C, Area D, Schultz Road, etc.) at times other than during the collection period.

In the second format, concentration statistics and age and length data are compared on a species-specific basis for the entire sampled population. From these data, species-specific, age-specific and size-specific trends can be derived (Figures 4-3 through 4-12).

4.3 Mercury

Mercury analyses (Appendix H) were performed on 139 fish samples. BNL/DOE does not have a specific ROD-required cleanup goal associated with mercury concentrations in fish tissue, but for reference purposes BNL has included the EPA water quality criterion for mercury (0.3 mg of methylmercury per kg of fish tissue, U.S. EPA, 2001) on each of the species-specific fish mercury figures. The total body burden of mercury within fish tissue, for which BNL/DOE analyzes, is routinely assumed to be equal to the concentration of methylmercury in the tissue. All analyses are on a wet weight basis.

Samples consisting of individual fish are identified with a Fish ID consisting of the year of collection, e.g. "08", and a sequence number, for example "–01." When combined, this particular Fish ID would be "08-01." For example, Fish ID "08-01" was the first fish collected in 2008. It was collected from Area A on May 13, 2008 and was a brown bullhead with a total length of 238 mm, a weight of 252g and an age class of 3M years (Refer to Appendix G, line 1 and Appendix H, line 2). In addition to the individual fish analyzed for mercury, 12 additional analyses were conducted on composites of two or more fish typically of the same species and trophic level.

Population and Subpopulation Mercury Trends:

Figure 4-2 shows the mercury concentrations in edible fish tissue for the fish samples collected in 2008. This plot represents the range of mercury concentrations for the population of fish from Area A to Donahue's Pond, approximately seven miles downstream of the BNL STP. Although Figure 4-2 shows much variation associated with the various species, ages, sizes and locations, a clear downward trend in mercury concentration is obvious with increasing distance from the BNL STP.

This downward trend is more evident when the average mercury concentration for fish tissue within each area is calculated (Table 4-5) and plotted (Figure 4-2). Figure 4-3 is a general picture of all of the fish collected between the BNL STP and Donahue's Pond. These data also represent

the subpopulations of fish resident within each of the collection areas at the time of the collection. The average mercury concentration for the 2008 fish samples was 0.26 mg/kg and is plotted as the dashed red line in Figure 4-2 as a reference for comparison of the collection area (sub-population) data. The minimum and maximum mercury concentrations for the fish within each collection area are also plotted on Figure 4-2.

The average mercury concentration for the five fish collection areas varied from 0.15 mg/kg at Manor Road to 0.40 mg/kg at Area C. These data indicate a downward trend in mercury concentration with increasing downstream distance from Areas A and C.

Species-Specific Mercury Trends:

Tables 4-6 (mercury), 4-7 (PCBs) and 4-8 (cesium-137) provide detailed summaries of the relationships between species, age and fish tissue contaminant concentrations. Total length is provided as an indicator of the overlap in size for fish of different ages. These data are plotted on a species-specific basis on Figures 4-4 through 4-7 (mercury), 4-8 (PCBs) and 4-9 through 4-12 (cesium-137).

Figure 4-3 provides detailed information about the 59 brown bullhead samples analyzed for mercury in 2008. As shown on Figure 4-3, there is a wide range of mercury concentrations within fish of age two and age three. Also noteworthy is that within an age class there is not an evident relationship between fish length and mercury concentration. All of the age-4 to age-12 fish were collected between Schultz Road and Donahue's Pond and have relatively lower mercury concentrations than younger fish caught in the more upstream locations.

Among age-2 brown bullhead samples, the mercury concentration varied from 0.03 to 0.30 mg/kg. Only one out of 29 age-two brown bullhead samples equaled the EPA mercury criterion of 0.30 mg/kg. None of the age-2 samples exceeded the EPA criterion. A substantially broader range of mercury concentrations (0.09 to 0.87 mg/kg) was detected in the age-3 brown bullhead samples. The brown bullhead with the highest mercury concentration (0.87 mg/kg) was 238 mm long and collected in Area A. (In 2007, the highest mercury concentration [1.35 mg/kg] was detected in a pumpkinseed composite sample.) There are not a sufficient number of fishes within the age-6 (two individuals) and the age-7 to age-12 brown bullheads (only one fish in each age class) to draw conclusions about the mercury concentrations in each age class, however, the mercury concentrations in these six oldest brown bullheads ranged from only 0.06 to 0.15 mg/kg,

significantly lower than the concentration range detected in the younger fish. Based on age, this is unexpected, since mercury concentrations are expected to increase with age. However, all the age-6 to age-12 brown bullheads were collected from Donahue's Pond, the most downstream sample point and outside the cleanup area. The results for these seven fish suggest that they did not migrate into the cleanup areas before the cleanup was completed where they could have received a larger mercury exposure than in Donahue's Pond.

Figure 4-4 shows the mercury concentrations of the three blue gills collected in 2008. Two of the bluegills were age-3 (0.17 and 0.30 mg/kg mercury) and one age-4 (0.31 mg/kg mercury). Although the numbers of fish are small (three), it is interesting to observe that the mercury concentration increased with both age and size (total length). All three bluegills were collected from Area D.

Figure 4-5 shows the mercury concentrations of the 16 chain pickerel samples that were analyzed for mercury in 2008. Among the five age-1 chain pickerel that were analyzed for mercury, mercury concentrations ranged from 0.07 to 0.14 mg/kg. For age-1 fish, mercury concentrations appeared to be independent of size. In the six age-2 chain pickerels, mercury concentrations ranged from 0.21 and 0.59 mg/kg mercury. Only two age-3 and one age-4 chain pickerel samples were collected, with mercury concentrations of 0.42 age-2 average) and 0.60 mg/kg, respectively. Each of the seven (five age-2, one age-3 and one age-4) chain pickerel with mercury concentrations greater than 0.30 mg/kg had a total length greater than or equal to 260 mm. The two chain pickerel with the highest mercury concentration (0.61 mg/kg mercury, age-3, 300 mm) and 0.60 mg/kg, age-4, 570 mm) were substantially different in size and were collected in Area C and Donahue's Pond, respectively. The five other chain pickerel with mercury concentrations above 0.30 mg/kg (0.31 mg/kg to 0.59 mg/kg) were collected at Area A and Schultz Road.

Figure 4-6 shows the mercury concentrations for the 35 largemouth bass samples that were analyzed for mercury in 2008. The six age-1 largemouth bass had mercury concentrations between 0.22 mg/kg and 0.31 mg/kg. The 24 age-2 fish samples had mercury concentrations ranging from 0.19 to 0.77 mg/kg mercury. Of the 24 detections 22 were greater than or equal to the EPA mercury criterion of 0.30 mg/kg. For age-2 largemouth bass, the smallest fish contained the highest mercury concentration. The age-3 to age-7 largemouth bass had mercury concentrations from 0.11 to 0.47 mg/kg were represented by only one sample each for ages 3, 5, and 7 and two samples for age-6.

Figure 4-7 shows the mercury concentrations for the 66 pumpkinseed that were analyzed for mercury in 2008. The three age-2 pumpkinseed samples had mercury concentrations between 0.19 mg/kg and 0.36 mg/kg. The range of mercury concentrations for the 38 age-3 pumpkinseed samples was 0.05 to 0.47 mg/kg and the range of mercury concentrations for the 19 age-4 pumpkinseed samples ranged between 0.04 to 0.69 mg/kg). The three age-3 pumpkinseed samples that had mercury concentrations greater than 0.3 mg/kg were both the largest (total lengths of 143 mm to 155 mm) and the most upstream (Areas A and D) age-3 pumpkinseed samples collected. The age-4 pumpkinseed samples that had mercury concentrations greater than or equal to 0.3 mg/kg had total lengths of 143 to 171 mm (although these were not the largest of the age-4 group) and were among the most upstream (Area C and Area D) of the pumpkinseeds collected. The maximum mercury concentration detected in all of the pumpkinseeds (0.73 mg/kg) occurred in an age-5 fish with a total length of 179 mm collected in Area D. The remaining six age-5 through age-7 pumpkinseeds had mercury concentrations ranging from 0.04 (age-5) to 0.73 mg/kg (age-5).

4.4 PCBs

The Peconic River ROD requires PCBs as an analyte for fish collected on BNL property. BNL/DOE does not have a ROD-required cleanup goal for PCBs in fish. The large mass (120 g) of tissue required for PCB analysis limits the number of samples that can be analyzed and mercury samples were given preferential treatment. Consequently, fish were composited to get sufficient mass for two PCB analyses.

Figure 4-8 shows the PCB concentrations detected in the two composite samples. The Area A composite (25971-bc2) consisted of three brown bullheads, and the Area D composite (25932-bc2) consisted of six brown bullheads. The NYSDEC guidance value for PCBs in fish tissue is 0.11 ppm (i.e., 110 micrograms per kilogram [ug/kg]) for protection of piscivorous wildlife. The analytical results for Area D were non-detect (method detection limit [MDL] = 9.96 ug/kg) for each of the seven PCB isomers. The analytical results for the Area A sample was non-detect for six of the seven PCB isomers and 22.4 ug/kg for Aroclor 1254. This Aroclor 1254 value is approximately 20 percent of the NYSDEC guidance value for PCBs (Table 4-7).

4.5 Cesium-137 Results

Twenty-six brown bullhead samples (Figure 4-9) were available for analysis for cesium-137. Twenty-one of the 26 fish samples had cesium-137 activities that were below the method detection limit. The oldest fish in the collection was a 305-mm-long, age-12 bullhead collected at Donahue's Pond with a cesium-137 activity of 0.0781 picocuries per gram (pCi/g). Two composite samples collected at Manor Road were non-detect. The remaining 25 brown bullhead samples had activities ranging from 0.049 to 0.25 pCi/g. The highest cesium-137 activity level occurred in a composite sample of average age equal to 3 and a total length of 275 mm. The brown bullhead samples collected downstream of Area C had activities less than 0.2 pCi/g.

Figure 4-10 shows the cesium-137 activities for two chain pickerel. An age-3, 341 mm chain pickerel collected near Manor Road had an activity of 0.258 pCi/g and an age-4 570 mm fish collected from Donahue's Pond had an activity of 0.226 pCi/g.

Seven largemouth bass samples were analyzed for cesium-137. Results showed cesium-137 activities ranging from 0.09 pCi/g to 0.287 pCi/g. The lowest activity was detected in a 294 mm age-3 fish collected in Donahue's Pond and the highest activity was detected in a composite sample (410 mm age-2.4) collected at Area D. Only one sample had an activity greater than 0.2 pCi/g**.**

All seven pumpkinseeds analyzed for cesium-137 had activities less than 0.2 pCi/g, with the maximum being 0.19 pCi/g for an Area D composite of average age 4.0 and average length of 167 mm.

Cesium-137 activity analytical results are provided on Table 4-8.

4.6 Fish Summary and Recommendation

The average concentration of mercury in fish tissue was 0.26 mg/kg for all 2008 fish samples collected between the BNL STP and Donahue's Pond. Mercury concentrations were highest among fish collected in the most upstream locations and decreased with increasing distance downstream. Although all collected fish were analyzed, the majority of fish for most species were age-2 or age-3. With the exception of pumpkinseeds, relatively few fish older than age-3 were collected, providing insufficient data from which to draw conclusions about age-mercury concentration relationships. For the pumpkinseeds, the 38 age-3 fish samples had approximately the same average mercury concentration (0.18 mg/kg) as both the age-2 fish sample (0.25 mg/kg)

and the 13 age-4 fish samples (0.23 mg/kg) (Table 4-6). The 0.39 mg/kg mercury concentration detected for age-5 fish represented only two individuals.

For PCBs, the high sample mass required for analysis and the intentional emphasis on focusing on mercury resulted in two brown bullhead samples being analyzed for PCBs. The PCB concentration was non-detect for all seven PCB isomers in the Area D sample and non-detect for six of the seven isomers in the Area A sample. Aroclor 1254 was detected at a concentration of 22.4 ug/kg, slightly higher than the detection limit (9.96 ug/kg) and substantially lower than the 110 ug/kg NYSDEC guidance level.

All cesium-137 activities were low and ranged from below the detection limit to 0.287 pCi/g.

Recommendation 7: BNL/DOE recommends that ageing fish by scale and otolith interpretation continue through the 2010 collection and be reevaluated during the Five-Year Review, based on the usefulness of the 2008, 2009 and 2010 age data.

SECTION 5 - 2008 WETLAND MONITORING SUMMARY

5.1 Peconic River Wetland Monitoring Background

Cleanup was completed in the onsite sections of the river in 2004 and in the offsite sections of the river in 2005. The cleanup and restoration of the remediated wetlands were done in accordance with NYSDEC equivalency permits (Louis Berger, 2004a, 2004b). Initial wetland restoration (2004 – 2005) was performed by Envirocon, Inc. (Envirocon, 2005).

After grading, the planting surface, the low marsh planting zones, and ten feet outside of the limit of disturbance were seeded with a custom native seed mix (red top, *[Agrostic alba]*, ryegrass *[Lolium multiflorum]*) and barnyard grass *[Echinocloa crus-gali]*. Red top was observed within Area C, while barnyard grass was observed within Area D. Ryegrass was not observed along any of the monitoring transects. In 2004 and 2005 25,463 native Peconic River wetland plants were transplanted by Envirocon Inc. from uncontaminated un-remediated sections of the river to the onsite remediated sections of the river and an additional 17,322 native plants were transplanted into the offsite section of the river. An additional 2,215 wetland plants were installed by Roux Associates (Roux) in 2007. In addition to the transplanted wetland plants, there was also substantial "volunteerism" from dormant seed stock that resided in the un-remediated sediment that sprouted and grew.

5.2 Wetland Monitoring Summary

The 2005 and 2006 wetland vegetation restoration results for each of the NYSDEC Equivalency Permit requirements are summarized on the page 40 table. In addition to the requirements shown in the table, the equivalency permit also required that invasive wetland species cover be less than 10 percent by the end of the second growing season within any given cleanup area (i.e.,. Area A, Area B, Area C, Area D, Area E, Area P, and the Manor Road Area). The principal invasive wetland species encountered by the wetland transect surveys performed by wetland biologists from Roux Associates, Inc. were the common reed (Phragmites australis), reed canary grass *(Phalaris arundinacea)*, and purple loosestrife *(Lythrum salicaria)*. Reed canary grass was the most dominant of the invasive wetland plant species. Prior to the cleanup, canary grass was well established in sections of the river to be remediated and also in sections not to be remediated. Because control of the canary grass would require extensive use of herbicides and/or excavation in both remediated and un-remediated areas, both of which pose potential problems, NYSDEC dropped

the requirement to control reed canary grass, but recommended the control of common reed (Phragmites).

Post-cleanup wetland monitoring and invasive species control were conducted by Roux Associates, Inc between 2005 and 2008. Refer to Roux Associates, 2006 and Roux Associates, 2007 for details on the wetland restoration and invasive species monitoring results for 2005 and 2006, respectively, and to the 2007 and 2008 Peconic River Monitoring Reports for details on invasive species monitoring and control during 2007 and 2008.

The objective of the wetland monitoring was to document the status of the vegetation and of the restored areas of the Peconic River wetlands. To evaluate the post-cleanup wetland and invasive species status, Roux, Inc constructed 64 one-meter wide transects within the remediated sections of the river and surveyed them for percent cover by native vegetation and invasive species in 2005 and 2006. Refer to the 2006 and 2007 Peconic River Monitoring Reports for survey details. To address federal requirements for a three to five year period of wetland monitoring, the period of 2005 and 2006 NYSDEC invasive species monitoring was extended from two years to four years (2005 – 2008). The wetland monitoring approach was based upon a NYSDEC approved protocol, tailored specifically to the wetland resources of the Peconic River. The work elements associated with the wetland monitoring are summarized below.

Consistent with the NYSDEC wetland field delineation procedures, a project boundary, which parallels the Peconic River, was used as a baseline to establish a series of representative transects across the restored wetland areas. The 64 transects were established perpendicular to the Peconic River, from the BNL STP to Schultz Road; and a stretch of the Peconic River immediately upstream and downstream of Manor Road. Transects were spaced approximately 250 feet apart. Transect locations were adjusted where necessary to include remediation areas and shifts in the vegetative community structure. A tape measure was used to establish the transect lines. The landward extent of the emergent marsh community and the beginning edge of the shrub-forested community was permanently marked with stakes and ribbons to identify the transect locations. One fixed-point photo station was established at each transect end. Representative color photographs from each photo station were collected to document field conditions. Photographs, labeled with the location code, and the direction of view, were collected at each transect (Appendices A through H in the 2005 and the 2006 Final Peconic River Monitoring Reports).

Following establishment of each transect, a detailed survey of the vegetation along each transect was performed. Vegetative species were recorded and classified using the USFWS categories as listed under Regional and National Indicator columns in the "National List of Plant Species that Occur in Wetlands" (USFWS, 1988). The indicator status of each dominant species, together with the percent coverage of the plant species was recorded. Plants were inspected for signs of stress, deleterious insect infestation and wildlife herbivory (i.e., leaf spots, leaf damage, leaf discolorations, chlorosis, leaf wilting or curling and disease). When observed, hydrologic wetland indicators (i.e., water depth) were recorded.

The Final 2006 Wetland Monitoring Report stated that, subject to a Peconic River site inspection by the NYSDEC, BNL had met or exceeded all NYSDEC Permit Equivalency requirements related to post-cleanup restoration of the Peconic River wetlands both on and outside Laboratory property. The bases for satisfying the NYSDEC Permit Equivalency Requirements for wetland recovery, and the status of the wetland restoration at the end of the first (2005) and second year of growth (2006) following the end of the restoration, are summarized in the table below. The invasive species control requirements are discussed in Section 5.3.

Summary of the 2005 and 2006 Monitoring Survey Low Marsh Vegetation Percent Cover by Area			
On-Site Restored Area	**2005 Low Marsh Percent Cover**	**2006 Low Marsh Percent Cover**	**NYSDEC Permit Equivalency**
Area A	100	100	65
Area B	100	100	65
Area C	85	80	65
Area D On BNL Property	60	79	65
Average On BNL Property	**87**	**90**	
Off-Site Restored Area	**2005 Low Marsh Percent Cover**	**2006 Low Marsh Percent Cover**	**NYSDEC Permit Equivalency**
Area D Outside BNL Property	89	89	65
Area E	100	92	65
Area P	86	98	65
Manor Road	94	100	65
Average Outside BNL Property	**92**	**95**	
Overall Percent Cover for Peconic River Restoration	**89**	**92**	

5.3 2008 Wetland Invasive Species Monitoring and Control

Roux Associates, Inc. prepared a letter report summarizing the 2008 Phragmites monitoring and control (Attachment 1). Roux conducted the 2008 wetland invasive plant survey and removal operations between September 2 and 11, 2008. The survey was initiated about eight weeks later than previous surveys to allow the river depth to decrease to a minimal level, which in turn aided the location and removal of Phragmites. The monitoring and control activities included all remediation areas from downstream of the BNL STP outfall to the downstream limit of the Manor Road remediation area, approximately 4.8 miles downstream of the BNL STP. During the Phragmites control activities, newly emerged Phragmites shoots were hand-pulled in the remediated areas of the Peconic River, with care given to remove as much of the rhizome as possible. Special attention was given to survey transects where Phragmites had been located in previous monitoring and control activities. Phragmites shoots and rhizomes were also removed from sections of the river beyond the

remediation areas where the shoots and rhizomes could be controlled through hand removal. The removed stalks and rhizomes were placed in 42-gallon industrial garbage bags for disposal. BNL disposed of the bags of Phragmites waste at a contracted and licensed offsite sanitary landfill.

Forty-five bags of Phragmites shoots and rhizomes were removed from onsite sections of the river, and an additional 46 bags were removed from offsite sections. No Phragmites shoots were observed in the remediated Manor Road sections of the Peconic River. The increased volume of Phragmites that was removed in 2008 versus 2007 (91 and 41 bags, respectively) is accounted for by the approximately eight week later start of the monitoring and removal activities. The extra two months resulted in substantially more growth than if the plants had been removed in July.

Although no Phragmites shoots were identified in the remediated Manor Road sections of the river, the invasive plant purple loosestrife (*Lythrum salicaria*) was identified. The four plants identified were removed with shovels, placed in the garbage bags and disposed similarly to plants removed in 2007.

In August 2007 two members of the NYSDEC Region 1 Bureau of Habitat conducted a site inspection of the remediated sections of the Peconic River and determined that the wetlands met all standards set forth in the NYSDEC Equivalency Permits. The NYSEDC approval is included in Attachment B of the Final 2007 Peconic River Monitoring Report.

In review of the 2006 Peconic River Monitoring Report, EPA determined that although NYSDEC wetland monitoring requirements may have been met, Federal requirements require three to five years of post-mitigation monitoring. In response to the EPA observation, BNL committed to continue monitoring and controlling invasive species for an additional two years (through 2008) to provide four years of post-mitigation monitoring and control. BNL also offered to summarize the 2007 and 2008 common reed monitoring and control in a brief report that would be incorporated into the 2007 and 2008 Peconic River Monitoring Reports.

Recommendation 8: BNL/DOE respectfully request approval from EPA that the Federal wetland requirements of three to five years of post-mitigation invasive wetland monitoring and invasive species control have been satisfied. BNL/DOE have met the Federal requirements by completing two years of NYSDEC wetland restoration and re-vegetation monitoring and two years of wetland invasive species monitoring and control (2005 and 2006) plus two additional years of wetland invasive plant monitoring and control (2007 and 2008) for the Peconic River wetland restoration project.

SECTION 6 - SEDIMENT TRAP REMOVAL

6.1 Background and Wetland Evaluation Summary

A temporary sediment trap was installed on Laboratory property immediately upstream of stream gauging station HQ to minimize any migration of contaminants off Laboratory property until completion of the remedy. The sediment trap was constructed under the terms of a NYSDEC Equivalency Permit[13] application to: 1) protect the Peconic River downstream of HQ from potential recontamination following a pilot study remediation of that area, and 2) protect the remaining downstream sections of the river during the remediation of the Peconic River between the STP and HQ.

As discussed in the Record of Decision[14] for the Peconic River, BNL is required to remove the sediment trap when remediation is complete and re-vegetation has been completed. The ROD states that growth of vegetation and total suspended solids (TSS) in surface water will be monitored on a routine basis and be evaluated prior to the removal of the sediment trap.

Section 5.0 above details the wetland monitoring process, restoration of wetland vegetation and control of invasive species in the Peconic River since the cleanup. In summary:

Based on the results of the 2006 Wetland vegetation survey BNL/DOE have:

- Exceeded the NYSDEC equivalency permit 65 percent cover criterion for restoration of the section of the river impacted by the remediation (the low marsh) with a minimum and average percent cover of 79 per cent and 92 percent for each area and for the entire cleanup area, respectively;
- Exceeded the NYSDEC permit equivalency criterion of having no remediation area with 10 percent or greater cover by invasive wetland species by having achieved no cleanup area with invasive wetland plant (Phragmites, purple loosestrife) with as much as 1 percent cover by invasive species.

To meet Federal requirements of three to five years of post-mitigation monitoring, BNL/DOE have extended the NYSDEC-required two years (2005 and 2006) of wetland monitoring and invasive species control an additional two years (2007 and 2008) to achieve four years of

[13] DOE, 2002. Peconic River Pilot Studies Permit Equivalency Application, Brookhaven Area Site Office, February 2, 2002, Brookhaven National Laboratory, Upton, NY

[14] DOE, 2004. Final Operable Unit V Record of Decision for Area of Concern 30 (Peconic River), Brookhaven National Laboratory, Upton, NY, November 3, 2004.

wetland invasive wetland species control and removal. The additional wetland invasive species monitoring in 2007 and 2008 consisted of control of by manually removing and disposing of approximately 132, 42-gallon bags of invasive wetland plants.

BNL/DOE propose that the additional invasive wetland species control meets the Federal requirements and together with the above wetland summary meets the ROD criterion for the evaluation of wetland re-vegetation prior to removing the sediment trap.

6.2 Evaluation of TSS Upstream and Downstream of the Sediment Trap

Six stations were established and monitored for TSS between 2003 and 2008. Three stations are located upstream of the sediment trap and three additional stations are located downstream of the trap. The three downstream TSS monitoring stations are located in the south section (PR-ST-TU1), the center section (PR-ST-TU2) and the north section (PR-ST-TU3) of the trap. The three upstream TSS monitoring stations are located in the south section (PR-ST-TU4), the center section (PR-ST-TU5) and the north section (PR-ST-TU6) of the trap. The distances between each of the six stations and the trap are approximately 1 foot.

The results of all 488 TSS samples collected at the sediment trap between 2003 and 2008 are shown in Appendix K. This section evaluates the TSS monitoring data collected between 2003 and 2008 on the upstream side and on the downstream side of the sediment trap. To assist interpretation of the data, all available data are plotted for the pre-cleanup and cleanup years (2003 and 2004, Figures 6-2a and 6-2b) and for the post-cleanup years (2006-2008 Figure 6-3a and 6-3b). Because the low TSS value data are similar for upstream and downstream stations, the full range of TSS values are plotted in Figures 6-2a and 6--3a and the TSS values in the range of 0-60 mg/L are plotted in Figures 6-2b and 6-3b.

Sampling frequency was approximately once every two weeks in 2003 and 2004. There were no samples collected during 2005 when the river was piped around the cleanup areas and the sediment trap.

Table 6-1 shows the average TSS concentration by year for each of the three sample stations immediately upstream of the sediment trap and each of the three sample stations immediately downstream of the sediment trap. The annual average TSS concentration for each of the stations is plotted in Figure 6-4. Note that the average TSS concentrations for both the 2003-2004 period and the 2006 – 2008 period are substantially lower for the downstream average (PR-ST-TU1, PR-ST-TU2, PR-ST-TU3) than for the upstream average (PR-ST-TU4, PR-ST-TU5, PR-ST-TU6)

6.3 Request for Sediment Trap Removal

The cleanup of the Peconic River was completed in 2005, and the NYSDEC requirements for re-vegetation of the river were met in 2006 and confirmed by NYSDEC on August 13, 2007. In three documents (Final 2007 Peconic River Monitoring Report, June 30, 2008; July 9, 2008 transmittal letter[15]; and a follow-up email[16]), BNL/DOE requested permission to delay removal of the trap until 2011 so that it would not have to be reconstructed if upstream contamination requiring cleanup were to be identified before the Five-Year Review. A secondary result of leaving the trap in place would be limiting the movement of fish between the upstream and downstream sections of the river.

During the October 30, 2008 teleconference with BNL, DOE, and the NYSDEC Division of Fish, Wildlife, and Marine Resources (DFWMR), DFMWR pointed out aspects of leaving the trap in place that BNL/DOE had not fully evaluated. Subsequent evaluation by BNL/DOE suggested that substantially more time and effort than previously estimated would be necessary to realize the potential benefits of leaving the sediment trap in place until 2011. In addition, the ROD-required evaluation of the post-cleanup restoration of wetland vegetation (Section 5.2) and the evaluation of TSS measurements upstream and downstream of the sediment trap have been completed. Therefore, BNL/DOE has initiated the preparation of a Work Plan for the removal of the sediment trap and anticipates submitting that document to NYSDEC, EPA and Suffolk County Department of Health Services (SCDHS) during the summer of 2009.

Recommendation 9: BNL/DOE requests permission from NYSDEC to remove the sediment trap. The optimal season for removal of the trap is during the mid-late summer to late fall when Peconic River water levels are typically at a minimum.

[15] D. Pfister to C. B. Ng and D Pocze, July 9, 2008.
[16] R. Howe to C. Ng and D. Pocze, October 17, 2008.

SECTION 7 - REFERENCES

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U. S. Fish and Wildlife Services (USFWS), 1988. National List of Plant Species That Occur in Wetlands: Northeast (Region 1). Biological Report 88 926.1) United States Department of the Interior. May 1988.

Table 2-1 2008 Peconic River Annual Sediment Sampling Data Summary[1]

Sample ID			Mercury (mg/kg)	Silver* (mg/kg	Copper* (mg/kg)	PCBs (ug/kg)	Cs-137 (pCi/g
On BNL Property	(15 samples)						
2008 average			0.48	4.50	14.10	U	0.69
Pre-cleanup average			4.60	61.80	310.90	133.00	5.70
Outside BNL Property	(15 samples)						
2008 average (BNL Border - Schultz Rd)			0.35	0.65	6.40	U	0.55
Pre-cleanup average (BNL Border - Schultz Rd)			1.79	35.00	142.00	48.00	5.40
2008 average (Manor Road Area)			0.06			U	0.05
Pre-cleanup average (Manor Road Area)			1.08	9.48	44.95	Not sampled	2.88
2008 average - all 30 stations			0.39	2.58	11.04	U	0.57

Notes: mg/kg=milligrams per kilogram=parts per million, ug/kg=micrograms/kilogram = parts per billion, pCi/g=picocuries/gram. "U" is a laboratory-assigned qualifier indicating non-detection (ND).

* Silver and copper were analyzed for 10 percent of the onsite and offsite samples, 2 samples and 3 samples respectively. Averages do not include Donahue's Pond, which is located downstream of the remediated areas.

Table 2-2. 2008 Peconic River PR-SS-10 Transect Extension and Transect PR-SS-15-U1 Mercury Areal Extent Results

Site ID	Sample Date	Analyte	Value	Units	Depth (feet)
PR-SS-10 Transect Extension Results					
PR-SS-10-D2-L15	6/25/2008	Mercury	0.39	mg/kg	0.25
PR-SS-10-D2-L40	6/25/2008	Mercury	0.13	mg/kg	0.25
PR-SS-10-D1-L8	6/25/2008	Mercury	0.26	mg/kg	0.25
PR-SS-10-D1-L33	6/25/2008	Mercury	0.19	mg/kg	0.25
PR-SS-10-L120	6/25/2008	Mercury	0.052	mg/kg	0.25
PR-SS-10-L123	6/25/2008	Mercury	0.066	mg/kg	0.25
PR-SS-10-U1-L135	6/25/2008	Mercury	0.74	mg/kg	0.25
Transect PR-SS-15-U1 Mercury Areal Extent Results					
PR-SS-15-U1-L40-O*	6/25/2008	Mercury	19	mg/kg	0.25
PR-SS-15-U1-L40-U*	6/25/2008	Mercury	0.6	mg/kg	0.25
PR-SS-15-U1-L40-D*	6/25/2008	Mercury	2.1	mg/kg	0.25
PR-SS-15-U1-L40-L*	6/25/2008	Mercury	0.75	mg/kg	0.25
PR-SS-15-U1-L40-R*	6/25/2008	Mercury	9.1	mg/kg	0.25
PR-SS-15-U1-L65-O*	6/25/2008	Mercury	36.8	mg/kg	0.25
PR-SS-15-U1-L65-U*	6/25/2008	Mercury	22	mg/kg	0.25
PR-SS-15-U1-L65-D*	6/25/2008	Mercury	7.3	mg/kg	0.25
PR-SS-15-U1-L65-L*	6/25/2008	Mercury	11.2	mg/kg	0.25
PR-SS-15-U1-L65-R*	6/25/2008	Mercury	24.6	mg/kg	0.25

The PR-SS-15-U1 samples were collected at the original "-O" location of the indicated Site ID, or five feet Upstream ("-U"), Downstream ("-D)", to the Left ("-L"), or to the Right ("-R") of the original location of the ndicated Site ID.

Table 2-3. 2008 Peconic River Transect PR-SS-15-U1 Water Column Monitoring Results

Site ID	Abbreviations Used in Text and Figures	Sample Date	Analyte	Value	Detlim	Units	Lab Qual
PR-SS-15-U1-WC-1	WC-1	6/11/2008	Mercury	141	3.06	ng/L	
PR-SS-15-U1-WC-2	WC-2	6/11/2008	Mercury	111	3.06	ng/L	
PR-SS-15-U1-WC-3	WC-3	6/11/2008	Mercury	103	3.06	ng/L	
PR-SS-15-U1-WC-4	WC-4	6/11/2008	Mercury	165	3.06	ng/L	
PR-SS-15-U1-WC-1	WC-1	6/11/2008	Methyl Mercury	18	0.02	ng/L	
PR-SS-15-U1-WC-2	WC-2	6/11/2008	Methyl Mercury	19.1	0.02	ng/L	
PR-SS-15-U1-WC-3	WC-3	6/11/2008	Methyl Mercury	16.5	0.02	ng/L	
PR-SS-15-U1-WC-4	WC-4	6/11/2008	Methyl Mercury	14.8	0.02	ng/L	
PR-SS-15-U1-WC-1	WC-1	6/11/2008	TSS	50	1.1	mg/L	
PR-SS-15-U1-WC-2	WC-2	6/11/2008	TSS	18.5	0.6	mg/L	
PR-SS-15-U1-WC-3	WC-3	6/11/2008	TSS	20.2	0.7	mg/L	
PR-SS-15-U1-WC-4	WC-4	6/11/2008	TSS	32.4	0.8	mg/L	

Table 3-1

2008 Peconic River Water Quality Sampling Stations and Scheduled Sampling Frequency

		Sampling Frequency of Water Quality Survey Relative to Methylmercury (MeHg) Water Quality Survey sampling				
Site ID	**Distance Downstream of STP (miles)**	**May 29 = 2 weeks before**	**June 10-17 = MeHg[1] Sampling**	**June 31 = 2 weeks after and before**	**July 15 = MeHg[1] Sampling**	**July 31 = 2 weeks after**
PR-WC-15	-0.17		X		X	
PR-WC-14	-0.13		X		X	
PR-WC-13	-0.07		X		X	
PR-WC-12D7[2]	-0.04		X		X	
PR-WC-11DS	0.01		X		X	
PR-WC-10	0.30	X	X	X	X	X
PR-WC-09	0.56	X	X	X	X	X
PR-WC-08	0.78	X	X	X	X	X
PR-WC-07	0.96		X		X	
PR-WC-06	1.10	X	X	X	X	X
PR-WC-05	1.46		X		X	
PR-WC-04	1.70	X	X	X	X	X
PR-WC-03	2.10	X	X	X	X	X
PR-WC-02	2.52		X		X	
PR-WC-01	2.98	X	X	X	X	X
PR-WCS-01	3.42		X		X	
PR-WCS-02	3.99		X		X	
PR-WCS-03	4.44		X		X	
PR-WCS-04	4.77	X	X	X	X	X
PR-WCS-05	6.04		X		X	
PR-WCS-06	6.75		X		X	
PR-WCS-07	7.23		X		X	

[1] MeHg is an abbreviation for methylmercury. Total mercury and TSS were also analyzed.

[2] Due to low water conditions at PR-12-DS, the sample was collected seven feet downstream of the 2007 PR-WC-12-DS location and identified as PR-WC-12D7.

Table 3-2.

Results from 2008 Water Column Sampling

June 10 - June 17, 2008				Laboratory Results					Field Data			
Site ID	Date	Station Description	Dist from STP (miles)	Total Mercury (ng/L)	Methyl mercury (ng/L)	TSS (mg/L)	River Depth at Sample (feet)	Flow (feet per second)	Water Temp. (deg C)	Dissolved Oxygen (mg/L)	pH	Turbidity (NTU)
Connetquot	6/9/2008	Reference Station		4.52	0.223	16.3	2.0	0.1	17.8	7.47	6.62	7.4
PR-WC-15	6/12/2008	Upstream of Forest Path	-0.17				0.5					
PR-WC-14	6/12/2008	Upstream of STP[1]	-0.13				0.3					
PR-WC-13	6/12/2008	Upstream of STP[1]	-0.07				0.0					
PR-WC-12DS[6]	6/12/2008	Downstream of Sump	-0.04	25.2	10.9	23.1	2.0	0.0	20.2	3.77	6.53	113.0
STP-UVC	6/12/2008	24-hour composite	0.00	116	0.022	0.4	0.0					
STP-UVG	6/12/2008	Grab Sample	0.00	115	1.16	0.4	0.0					
PR-WC-11DS	6/12/2008	50' downstream of outfall	0.01	103	0.301	1.4	1.0	0.2	23.9	8.68	6.85	3.8
PR-WC-10	6/11/2008	West of HMN	0.30	114	1.22	2.4	1.4	0.2	23.5	7.18	6.72	10.0
PR-WC-09	6/11/2008	Downstream of HMN	0.56				0.3					
PR-WC-08	6/11/2008	South of Area B	0.78	111	2.79	14.3	2.7	0.0	26.4	8.56	7.32	40.4
PR-WC-07	6/11/2008	South of Area C	0.96				0.5					
PR-WC-06	6/11/2008	South of Area D	1.10	876	4.67	79.1	1.0	0.0	24.2	3.99	6.85	62.4
PR-WC-05	6/11/2008	Downstream of HQ	1.46	140	8.4	48	1.2	0.0	29.0	12.7	8.97	20.2
PR-WC-04	6/11/2008	2nd downstream of HQ	1.70				0.2					
PR-WC-03	6/11/2008	3rd west of Schultz Rd.	2.10	17.2	2.7	2.9	1.5	0.0	27.7	6.45	6.43	10.0
PR-WC-02	6/11/2008	2nd west of Schultz Rd.	2.52				0.5					
PR-WC-01	6/10/2008	Schultz Rd. (West)	2.98	16.7	3.2	7.5	2.0	0.5	25.5	4.08	6.38	15.2
PR-WCS-01[5]	6/10/2008	East of Schultz Rd.	3.42	17.6	2.71	10.5	1.0	1.8	25.5	6.14	6.56	9.9
PR-WCS-02	6/10/2008	West of Manor Rd.	3.99	13.5	2.26	9.6	2.8	0.3	23.3	2.9	6.18	16.9
PR-WCS-03	6/10/2008	Manor Rd.	4.44	11.6	2.23	8	2.0	0.4	23.7	7.5	6.19	16.4
PR-WCS-04	6/10/2008	West of Cranberry Bogs	4.77	12.4	2.8	9.1	2.8	0.4	23.2	2.18	6.18	15.9
PR-WCS-05	6/17/2008	East of Cranberry Bogs	6.04	4.06	1.22	4.4	2.5		25.0	7.76	6.63	11.7
PR-WCS-06	6/17/2008	Middle of Donahue's Pond	6.75	4.11	1.31	1.9	3.0		24.1	6.21	6.53	8.0
PR-WCS-07	6/10/2008	Downstream of Connecticut Ave	7.23	4.76	0.747	5.7						

July 14 - July 17, 2008				Laboratory Results			Field Data					
			Dist from STP (miles)	Total Mercury (ng/L)	Methyl mercury (ng/L)	TSS (mg/L)	River Depth at Sample (feet)	Flow (feet per second)	Water Temp. (deg C)	Dissolved Oxygen (mg/L)	pH	Turbidity (NTU)
Connetquot	7/14/2008	Reference Station		1.16	0.152	5.3	1.7	0.0	19.16	5.33	6.90	7.6
PR-WC-15	7/14/2008	Upstream of Forest Path	-0.17				0.0					
PR-WC-14	7/14/2008	Upstream of STP[1]	-0.13				0.0					
PR-WC-13	7/14/2008	Upstream of STP[1]	-0.07				0.0					
PR-WC-12DS	7/14/2008	Downstream of Sump	-0.04				0.0					
STP-EFF-UVC	7/17/2008	24-hour composite	0.00	86.7	0.02 U	0.3 U	0.0					
STP-EFF-UVG	7/17/2008	Grab Sample	0.00	94.1	0.02 U	0.6	0.0					
PR-WC-11DS	7/15/2008	50' downstream of outfall	0.01				0.3					
PR-WC-10	7/15/2008	West of HMN	0.30	94.4	0.605	1.4	1.2	0.1	23.39	7.50	7.32	1.6
PR-WC-09	7/15/2008	Downstream of HMN	0.56				0.0					
PR-WC-08	7/15/2008	South of Area B	0.78	68.3	3.48	29	1.8	0.0	27.62	15.15	9.30	12.4
PR-WC-07	7/15/2008	South of Area C	0.96				0.0					
PR-WC-06	7/15/2008	South of Area D	1.10				0.0					
PR-WC-05	7/15/2008	Downstream of HQ	1.46				-					
PR-WC-04	7/15/2008	2nd downstream of HQ	1.70				0.0					
PR-WC-03	7/15/2008	3rd west of Schultz Rd.	2.10	374	4.18	165	1.1	0.0	28.13	7.64	6.89	96.3
PR-WC-02	7/15/2008	2nd west of Schultz Rd.	2.52				0.7					
PR-WC-01	7/14/2008	Schultz Rd. (West)	2.98				0.3					
PR-WCS-01	7/15/2008	East of Schultz Rd.	3.42				0.8					
PR-WCS-02	7/15/2008	West of Manor Rd.	3.99	4.3	0.551	8	2.0	0.1	20.95	3.68	6.39	14.9
PR-WCS-03	7/15/2008	Manor Rd.	4.44	3.1	0.569	4.4	1.5	0.2	22.53	5.53	6.53	13.3
PR-WCS-04	7/15/2008	West of Cranberry Bogs	4.77	4.99	0.765	5.6	2.0		23.48	5.41	6.46	14.8
PR-WCS-05	7/17/2008	East of Cranberry Bogs	6.04	6.22	0.386	9.7	2.3	0.3	22.56	2.04	6.44	11.2
PR-WCS-06	7/17/2008	Middle of Donahue's Pond	6.75	2.43	0.395	3.3	3.5	0.0	26.00	5.58	6.58	0.5
PR-WCS-07		Downstream of Connecticut Ave	7.23				-					

Notes:

1. STP = Sewage Treatment Plant, ND = non-detect, detection limits: 0.1 ng/L for total mercury, 0.045ng/L for methylmercury, 1 mg/L for TSS. TSS = total Suspended solids.
2. Units: mi. - miles, deg C = degrees Celsius, mg/L = milligrams per liter, ng/L = nannograms per liter. NTU = Nephelometric Turbidity Units.
3. Results for duplicate samples shown in parentheses.
4. Samples not collected, depth < 1.0 foot.
5. Second sampling event at 1215 hrs had 1.5', 25.76, 3.58, 6.23, and 19.1 for depth, temperature, DO, pH, and Turbidity.

6. At the time of collection the water depth at PR-WC-12DS was only a few inches (depth not recorded). The June 2008 sample was collected seven feet downstream of the PR-12-DS location.

Table 3-3. Comparison of Pre-Remediation and Post-Remediation Water Column Sampling Results
(June Survey)

Site ID	Station Description	Dist from STP Outfall[1,2]	2003			2004			2005			2006			2007			2008		
			June 2003 Total Mercury (ng/L)	June 2003 Methyl mercury (ng/L)	June 2003 TSS (mg/L)	June 2004 Total Mercury (ng/L)	June 2004 Methyl mercury (ng/L)	June 2004 TSS (mg/L)	June 2005 Total Mercury (ng/L)	June 2005 Methyl mercury (ng/L)	June 2005 TSS (mg/L)	June 2006 Total Mercury (ng/L)	June 2006 Methyl mercury (ng/L)	June 2006 TSS (mg/L)	June 2007 Total Mercury (ng/L)	June 2007 Methyl mercury (ng/L)	June 2007 TSS (mg/L)	June 2008 Total Mercury (ng/L)	June 2008 Methyl mercury (ng/L)	June 2008 TSS (mg/L)
Connetquot	Reference Station		4.40	0.89	20.60	0.80	0.17	1.24	0.70	0.11	2.20	0.87	0.13	1.70	1.11	0.34	0.70	4.52	0.223	16.3
PR-WC-15	Upstream of Forest Path	-0.17	[4]	[4]	[4]	[4]	[4]	[4]	[4]	[4]	[4]	[4]	[4]	[4]	20.30	10.70	3.90	[9]	[9]	[9]
PR-WC-14	Upstream of STP[1]	-0.13	[4]	[4]	[4]	[4]	[4]	[4]	58.90	22.20	997.00	19.10	11.20	8.80	20.10	10.50	3.30	[9]	[9]	[9]
PR-WC-13	Upstream of STP[1]	-0.07	[4]	[4]	[4]	[4]	[4]	[4]	[5]	[5]	[5]	[9]	[9]	[9]	19.70	9.86	3.10	[9]	[9]	[9]
PR-WC-12	Upstream of STP[1]	-0.04	17.10	2.94	1.50 (0.91)[3]	[4]	[4]	[4]	29.30	19.00	160.00	21.70	12.40	9.80	20.10	11.00	3.10	[4]	[4]	[4]
PR-WC-12DS	Downstream of Sump	-0.04	[4]	[4]	[4]	[4]	[4]	[4]	[4]	[4]	[4]	[4]	[4]	[4]	19.60	10.80	3.50	25.20	10.90	23.10
STP-EFF-UVC	24-hour composite	0.00																116	0.022	0.4
STP-EFF-UVG	Grab Sample	0.00																115	1.16	0.4
PR-WC-11	STP Outfall	0.00	50.80	1.78	0.79	[4]	[4]	[4]	79.40	1.22	0.58	43.50	7.03	3.10	23.90	9.89	2.30			
PR-WC-11DS	50 ft downstream ofoutfall	0.01																103.00	0.30	1.40
PR-WC-10	West of HMN	0.30	36.80	2.49	2.62	[4]	[4]	[4]	93.1 (93.7)[3]	2.43 (2.82)[3]	1.09 (1.96)[3]	36.50	8.91	4.00	42.60	10.20	2.10	114.00	1.22	2.40
PR-WC-09	Downstream of HMN	0.56	59.80	2.87	3.74	[4]	[4]	[4]	769.00	3.44	9.10	46.70	7.35	3.00	36.90	9.06	2.80			
PR-WC-08	South of Area B	0.78	557.00	15.5	85.90	[4]	[4]	[4]	190.00	7.98	61.90	34.10	5.60	1.50	35.80	8.33	2.60	111.00	2.79	14.30
PR-WC-07	South of Area C	0.96	35.80	1.71	0.75	[4]	[4]	[4]	70.90	9.48	6.80	41.60	6.06	2.30	29.40	6.87	1.90			
PR-WC-06	South of Area D	1.10	37.10 (37.50)[3]	1.48(1.45)[3]	3.2 (1.29)[3]	[4]	[4]	[4]	200.00	9.93	58.10	26.60	6.27	1.90	50.70	7.08	3.50	876.00	4.67	79.10
PR-WC-05	Downstream of HQ	1.46	37.80	2.39	ND[1]	224.00	31.70	294.50	60.20	8.32	7.00	34.90	4.62	2.70	33.70	5.90	2.90	140.00	8.40	48.00
HQ	Discharge of HQ		[4]	[4]	[4]	99.50	19.30	[4]	[4]	[4]	[4]	[4]	[4]	[4]	[4]	[4]	[4]			
PR--WC-04	2nd downstream of HQ	1.70	30.40	2.08	ND[1]	381.00	[8]	135.00	160.00	25.20	34.70	28.40	6.67	1.00	28.80	4.42	4.80			
						{3429.00}[6]	{42.00}[6]	{283.00}[6,7]												
PR--WC-03	3rd west of Schultz Rd.	2.10	34.30	2.54	0.78	47.80	[8]	ND[1]	83.70	20.30	87.00	33.00	7.62	2.70	38.80	4.00	5.00	17.20	2.70	2.90
						{34.40}[6]	{5.53}[6]	{10.80}[6]												
PR--WC-02	2nd west of Schultz Rd.	2.52	26.00(27.00)[3]	1.85 (1.84)[3]	1.65 (0.77)[3]	221.00	[8]	62	229.00	9.59	5.60	47.80	9.72	8.00	32.80	2.44	2.20			
						{28.50}[6]	{4.48}[6]	{2.36}[6]												
PR--WC-01	Schultz Rd. (West)	2.98	17.30	2.77	0.88	14.30 (14.50)	[8]	ND[1] ND[1]	46.40	6.05	7.70	23.70	10.10	7.60	13.30	3.35	1.40	16.70	3.20	7.50
						[15.20 (14.90)[3]]	[5.80 (6.83)[3,6]]	[11.70 (9.54)[3,6]]												
PR--WCS-01	East of Schultz Rd.	3.44	[4]	[4]	[4]	14.30	3.29	3.38	22.20	4.76	10.80	22.70	9.29	9.00	16.60	2.60	4.10	17.60	2.71	10.50
PR--WCS-02	West of Manor Rd.	3.99	[4]	[4]	[4]	18.50	3.88	4.63	17.90	3.97	9.40	14.80	7.61	12.00	12.40	5.80	4.20	13.50	2.26	9.60
PR--WCS-03	Manor Rd.	4.44	[4]	[4]	[4]	8.18	2.52	6.62	14.00	4.02	14.00	13.60	8.05	14.00	9.75	2.64	5.40	11.60	2.23	8.00
PR--WCS-04	West of Cranberry Bogs	4.77	[4]	[4]	[4]	10.70	2.17	7.03	40.00	5.12	52.50	24.70	9.12	22.00	14.20	3.27	8.40	12.40	2.80	9.10
PR--WCS-04A	Upstream of Sandy Pond tributary	5.20	[4]	[4]	[4]	6.20	2.2	4.04	[4]	[4]	[4]	[4]	[4]	[4]	[4]	[4]	[4]			
PR--WCS-04B	Upstream of Cranberry Bogs tributary	5.42	[4]	[4]	[4]	4.80	1.23	2.31	[4]	[4]	[4]	[4]	[4]	[4]	[4]	[4]	[4]			
PR--WCS-05	East of Cranberry Bogs	6.04	[4]	[4]	[4]	3.96	0.83	0.85	10.50	4.74	12.8	9.46	4.09	3.70	[4]	[4]	[4]	4.06	1.22	4.40
PR--WCS-06	Middle of Donahue's Pond	6.75	[4]	[4]	[4]	3.4 (2.0)[3]	0.95 (0.54)[3]	3.19 (2.89)[3]	8.20	4.03	4.1	10.38	4.53	20.00	[4]	[4]	[4]	4.11	1.31	1.90
PR--WCS-07	Downstream of Connecticut Ave	7.23	[4]	[4]	[4]	4.20	0.84	2.61	6.60	2.34	1.4	7.13	2.70	3.00	6.55	2.61	1.40	4.76	0.75	5.70

Notes:

1. STP = Sewage Treatment Plant, ND = non-detect, detection limits: 0.1 ng/L for total mercury, 0.045ng/L for methylmercury, 1 mg/L for TSS.
2. Units: mi. - miles, deg C = degrees Celsius, mg/L = milligrams per liter, ng/L = nannograms per liter.
3. Results for duplicate samples shown in parentheses.
4. Not measured or not aapplicable.
5. Samples not able to be collected due to heavy vegetation or no flow.
6. Values shown within square brackets represent a second sampling effort conducted one week after initial sampling event
7. There was an apparent error in the reporting of TSS results collected on June 17. Results for PR-WC-04 (9.5 mg/L), and the blind duplicate of PR-WC-01 (283 mg/L) appeared to be switched; they were not similar to the results reported for PR-WC-04 (135 mg/L) on June 10 and for PR-WC-01 (11.7 mg/L). Upon request the laboratory personnel examined the archived Hg samples and confirmed that the TSS fir the sample from PR-WC-04 was much higher than for PR-WC-01. Values reported reflect this change.
8. Methylmercury samples not analyzed because holding times were exceeded; shipment was late to arrive at the laboatory. Stations were resampled on June 17.
9. Samples not collected, depth < 1.0 foot.

Table 3-4. Comparison of Pre-Remediation and Post-Remediation Water Column Sampling Results
(July/August Survey)

Site ID	Station Description	Distance from STP[1,2] (mi.)	2003			2004			2005			2006			2007			2008		
			Aug 2003 Total Mercury (ng/L)	Aug 2003 Methyl - mercury (ng/L)	Aug 2003 TSS (mg/L)	Aug 2004 Total Mercury (ng/L)	Aug 2004 Methyl - mercury (ng/L)	Aug 2004 TSS (mg/L)	Aug 2005 Total Mercury (ng/L)	Aug 2005 Methyl - mercury (ng/L)	Aug 2005 TSS (mg/L)	Aug 2006 Total Mercury (ng/L)	Aug 2006 Methylmercury (ng/L)	Aug 2006 TSS (mg/L)	Aug 2007 Total Mercury (ng/L)	Aug 2007 Methyl - mercury (ng/L)	Aug 2007 TSS (mg/L)	July 2008 Total Mercury (ng/L)	July 2008 Methyl - mercury (ng/L)	July 2008 TSS (mg/L)
Connetquot	Connetquot River Reference Station		2.33	0.51	3.28	0.856	0.16	4.32	3.90	0.43	ND[1]	0.930	0.11	ND[1]	1.06	0.10	1.20	1.16	0.152	5.3
PR-WC-15	Upstream of Forest Path - Unfiltered	-0.17													9.18	2.33	5.70	[4]	[4]	[4]
PR-WC-15	Upstream of Forest Path - Unfiltered	-0.17													35.30	4.27	45.00	[9]	[9]	[9]
PR-WC-15	Upstream of Forest Path - Filtered	-0.17													1.97	0.41	127.00	[9]	[9]	[9]
PR-WC-14	Upstream of STP[1]	-0.13	131	16	2485	[4]	[4]	[4]	[5]	[5]	[5]	[6]	[6]	[6]	[4]	[4]	[4]	[9]	[9]	[9]
PR-WC-13	Upstream of STP[1]	-0.07	7.77	5.25	5.14	[4]	[4]	[4]	[5]	[5]	[5]	[6]	[6]	[6]	[4]	[4]	[4]	[9]	[9]	[9]
PR-WC-12	Upstream of STP[1]	-0.04	9.59	5.19	3.47	[4]	[4]	[4]	[5]	[5]	[5]	[6]	[6]	[6]	9.92	2.42	3.70	[9]	[9]	[9]
PR-WC-12DS	Downstream of Sump	-0.04													10.20	2.52	5.50	[9]	[9]	[9]
STP-EFF-UVC	24-hour composite	0.00													96.40	0.02	0.90	86.7	0.02 U	0.3 U
STP-EFF-UVG	Grab Sample	0.00													94.80	0.02	0.30	94.1	0.02 U	0.6
PR-WC-11	STP outfall[1]	0.00	45.5	2.24	2.16	[4]	[4]	[4]	105.00	0.28	1.90	[6]	[6]	[6]	102.00	1.41	10.60	[4]	[4]	[4]
PR-WC-11DS	50 ft. downstream of STP Outfall	0.01																[9]	[9]	[9]
PR-WC-10	West of HMN	0.30	80.4	3.34	2.16	[4]	[4]	[4]	81.00	0.54	ND[1]	57.00	1.31	2.70	73.30	1.23	2.80	94.40	0.61	1.40
PR-WC-09	Downstream of HMN	0.56	63.5	3.28	2.73	[4]	[4]	[4]	81.30	0.69	1.90	[6]	[6]	[6]	84.60	1.40	4.90	[9]	[9]	[9]
PR-WC-08	South of Area B	0.78	11802	200	51.05	[4]	[4]	[4]	161.00	1.33	52.20	91.00	2.08	25.20	111.00	2.90	7.80	68.30	3.48	29.00
PR-WC-08															42.10			[9]	[9]	[9]
PR-WC-07	South of Area C	0.96	53.4	3.02	2.55	[4]	[4]	[4]	[5]	[5]	[5]	58.70	2.26	9.10	36.40	1.49	4.00	[9]	[9]	[9]
PR-WC-06	North of Area D	1.10	71.2	4.55	5.6	[4]	[4]	[4]	[5]	[5]	[5]	1360.00	13.20	116.00	47.40	2.61	7.60	[9]	[9]	[9]
PR-WC-05	Downstream of HQ	1.46	45.9	13.4	9.74	[5]	[5]	[5]	[5]	[5]	[5]	28.60	9.76	9.30	41.70	6.03	19.00	[9]	[9]	[9]
PR-WC-04	2nd Downstream of HQ	1.70	38.5	11.8	2.96	[5]	[5]	[5]	[5]	[5]	[5]	[6]	[6]	[6]				[9]	[9]	[9]
PR-WC-03	3rd west of Schultz Rd.	2.10	30	11.3	5.94	29.90	2.30	1.64	196.00	4.79	11.70	61.00	9.03	25.10	53.60	3.41	24.90	374.00	4.18	165.00
PR-WC-02	2nd west of Schultz Rd.	2.52	36.4(47.5)[3]	16.8(18.3)[3]	5.99(5.00)[3]	17.10	3.44	3.77	[5]	[5]	[5]	[6]	[6]	[6]	21.30	3.73	10.30	[9]	[9]	[9]
PR-WC-01	Schultz Rd. (West)	2.98	20.9	8.85	6.55	9.40	1.76	3.27	11.40	1.58	6.30	6.57	1.65	2.80	16.10	6.62	16.00	[9]	[9]	[9]
PR-WCS-01	East of Schultz Rd.	3.44	[4]	[4]	[4]	7.71	1.85	5.33	[5]	[5]	[5]	6.71	1.37	5.30	11.70	2.39	7.50	[9]	[9]	[9]
PR-WCS-02	West of Manor Rd.	3.99	[4]	[4]	[4]	7.97	1.62	9.59	[5]	[5]	[5]	6.12	1.55	5.70	8.56	2.39	5.40	4.30	0.55	8.00
PR-WCS-03	Manor Rd.	4.44	[4]	[4]	[4]	35.50	6.02	40.42	[5]	[5]	[5]	6.28	1.27	5.70	15.70	3.81	30.00	3.10	0.57	4.40
PR-WCS-04	West of Cranberry Bogs	4.77	[4]	[4]	[4]	[5]	[5]	[5]	[5]	[5]	[5]	17.50	1.81	17.60	24.70	3.87	39.00	4.99	0.77	5.60
PR-WCS-05	East of Cranberry Bogs	6.04	[4]	[4]	[4]	3.76	0.91	6.70	5.30	0.78	9.00	1.66	0.80	5.50	2.57	0.23		6.22	0.39	9.70
PR-WCS-06	Middle of Donahue's Pond	6.75	[4]	[4]	[4]	4.30	1.31	3.22	1.70	0.74	6.50	2.76	1.37	23.00	3.23	0.50		2.43	0.40	3.30
PR-WCS-07	Downstream of Connecticut Ave	7.23	[4]	[4]	[4]	3.67	1.19	2.14	2.50(1.30)[3]	0.43(0.43)[1,3]	ND(ND)[1,3]	0.93	0.57	5.00	4.65	1.28	10.10	[4]	[4]	[4]

Notes:
1. STP = Sewage Treatment Plant, ND = non-detect, detection limits: 0.1 ng/L for total mercury, 0.055ng/L for methylmercury, 1 mg/L for TSS.
2. Units: mi. - miles, deg C = degrees Celsius, mg/L = milligrams per liter, ng/L = nannograms per liter.
3. Results for duplicate samples shown in parentheses.
4. Not measured or not applicable.
5. Samples not able to be collected due to heavy vegetation or no flow.
6. Samples not collected, depth < 1.0 foot.

Table 3-5 PR-WC-06 Analytical and Field Data Summary 2005 - 2008

COC Site ID	Sample Date	Total Mercury (ng/L)	TSS (mg/L)	Depth (0.1 ft.)	Flow (ft./sec)
PR-WC-06	6/15/2005[1]	200	58.1	-	-
PR-WC-06	6/20/2006	26.6	1.9	2.5	0.03
PR-WC-06	8/23/2006	1360	116	1.4	0.01
PR-WC-06	6/6/2007	50.7	3.5	2.8	0.05
PR-WC-06	8/1/2007	47.4	7.6	1.9	0.04
PR-WC-06	6/11/2008	876	79.1	1.5	0.00
Correlations and significance for 2006 -2008 Data[1]					
Total Mercury	r*		0.999	-0.830	-0.835
	R^{2} **		0.998	0.689	0.698
	H_0 r = 0.0				
	$t = r\sqrt{(n-2)/(1-r^2)}$ ***		1.731	1.640	1.643
	One-tail critical t value $_{(3, 0.05)}$		2.353	2.353	2.353
	One-tail critical t value $_{(3, 0.10)}$		1.638	1.638	1.638
TSS	r*		-	-0.852	-0.849
	R^{2} **		-	0.725	0.721
	H_0 r = 0.0				
	$t = r\sqrt{(n-2)/(1-r^2)}$ ***		-	1.651	1.650
	One-tail critical t value $_{(3, 0.05)}$		-	2.353	2.353
	One-tail critical t value $_{(3, 0.10)}$		0.000	1.638	1.638
Depth	r*	-	-	-	0.833
	R^{2} **	-	-	-	0.693
	H_0 r = 0.0				
	$t = r\sqrt{(n-2)/(1-r^2)}$ ***		-	-	1.641
	One-tail critical t value $_{(3, 0.05)}$		-	-	2.353
	One-tail critical t value $_{(3, 0.10)}$		-	-	1.638

[1] Depth and flow are not available for the 6/15/2005 collection. Therefore, for consistency with the depth and flow calculations, the r and R^2 calculations for mercury and TSS shown in the table do not include the 6/15/2005 data. The r and R^2 for the complete 6/15/2005 to 6/11/2008 total mercury and TSS data set are: r = 0.941, R^2 = 0.886, t = 1.971. The correlation between TSS and mercury is significant at α = 0.10, but not at α = 0.05.

* r = Pearson's Product-moment Correlation Coefficient.

** R^2 = Coefficient of Determination: The fraction of the variability in the dependent variable not caused by variation in the independent variable may be expressed as $1-R^2$.

*** http://janda.org/c10/Lectures/topic06/L24-significanceR.htm

Table 3-6 PR-WC-03 Analytical and Field Data Summary 2005 - 2008

COC Site ID	Sample Date	Total Mercury (ng/L)	TSS (mg/L)	Depth (0.1 ft.)	Flow (ft./sec)
PR-WC-03	6/14/2005[1]	83.7	87		
PR-WC-03	8/3/2005	196	11.7		
PR-WC-03	6/20/2006	33	2.7	2.5	0.02
PR-WC-03	8/23/2006	61	24.1	1.8	0.00
PR-WC-03	6/5/2007	38.8	5	2.7	0.12
PR-WC-03	8/1/2007	53.6	24.9	2.3	0.02
PR-WC-03	6/11/2008	17.2	2.9	1.5	0.00
PR-WC-03	7/15/2008	374	165	1.1	0.00
Correlations and significance for 2006 -2008 Data[1]					
Total Mercury	r*	-	0.997	-0.677	-0.282
	R^{2} **	-	0.994	0.459	0.079
	H_0 r = 0.0				
	$t = r\sqrt{(n-2)/(1-r^2)}$ ***		1.998	1.860	1.755
	One-tail critical t value $_{(4, 0.05)}$		2.132	2.132	2.132
	One-tail critical t value $_{(4, 0.10)}$		1.533	1.533	1.533
TSS	r*	-	-	-0.705	-0.327
	R^{2} **	-	-	0.497	0.107
	H_0 r = 0.0				
	$t = r\sqrt{(n-2)/(1-r^2)}$ ***			1.870	1.763
	One-tail critical t value $_{(4, 0.05)}$			2.132	2.132
	One-tail critical t value $_{(4, 0.10)}$			1.533	1.533
Depth	r*	-	-	-	0.707
	R^{2} **	-	-	-	0.500
	H_0 r = 0.0				
	$t = r\sqrt{(n-2)/(1-r^2)}$ ***				1.871
	One-tail critical t value $_{(4, 0.05)}$				2.132
	One-tail critical t value $_{(4, 0.10)}$				1.533

[1] Depth and flow are not available for the 6/14/2005 and 8/3/2005 collections. Therefore, for consistency with the depth and flow calculations, the r and R^2 calculations for mercury, TSS, depth and flow shown in the table above do not include the 6/14/2005 and 8/3/2005 data. The r and R^2 for the complete 6/14/2005 to 6/11/2008 total mercury and TSS data are 0.816 and 0.655, respectively. The correlation between TSS and mercury is significant at α=0.10, but not at α=0.05.

* r = Pearson's Product-moment Correlation Coefficient.

** R^2 = Coefficient of Determination: The fraction of the variability in the dependent variable not caused by variation in the independent variable may be expressed as $1-R^2$.

*** http://janda.org/c10/Lectures/topic06/L24-significanceR.htm

Table 3-7. STP Effluent Mercury Sampling Results
June 7, 2007 to July 17, 2008

Sample ID	Site ID	Sample Date	Sample Time	Depth (feet)	Method	Analyte	Conc.	MDL	Units	Lab Qual.	Rev. Qual.
24320-002	STP-EFF-UVC	6/7/2007	1030	0	EPA 1631	Mercury	81.2	0.2	ng/L		
24320-003	STP-EFF-UVG	6/7/2007	1016	0	EPA 1631	Mercury	87.7	0.2	ng/L		
24652-002	STP-EFF-UVC	8/2/2007	1030	0	EPA 1631	Mercury	96.4	0.21	ng/L		
24652-003	STP-EFF-UVG	8/2/2007	1035	0.5	EPA 1631	Mercury	94.8	0.36	ng/L		
24711-001	STP-EFF-UVC	8/17/2007	1020	0	EPA 1631	Mercury	130	0.74	ng/L		
24748-001	STP-EFF-UVC	9/5/2007	956	0	EPA 1631	Mercury	83.2	1	ng/L		
24812-001	STP-EFF-UVC	9/19/2007	1045	0	EPA 1631	Mercury	83.5	0.18	ng/L		
24855-001	STP-EFF-UVC	10/5/2007	1015	0	EPA 1631	Mercury	83.1	1.5	ng/L		
24879-001	STP-EFF-UVC	10/17/2007	1100	0	EPA 1631	Mercury	84.1	1.5	ng/L		
24930-001	STP-EFF-WC	11/2/2007	1006	0	EPA 1631	Mercury	124	1.5	ng/L		
25180-001	STP-EFF-UVC	12/5/2007	1020	0	EPA 1631	Mercury	84.5	1.5	ng/L		
25221-001	STP-EFF-UVC	12/20/2007	1130	0	EPA 1631	Mercury	117	0.29	ng/L		
25431-001	STP-EFF-UVC	2/6/2008	1050	0	EPA1631	Mercury	87.2	0.3	ng/L		
25486-001	STP-EFF-UVC	2/21/2008	1420	0	EPA 1631	Mercury	83.3	0.31	ng/L		
25533-001	STP EFF-UVC	3/6/2008	1400	0	EPA 1631	Mercury	125	1.5	ng/L		
25563-001	STP-EFF-UVC	3/18/2008	1410	0	EPA 1631	Mercury	159	3	ng/L		
25579-001	STP-EFF-UVC	4/1/2008	1330	0	EPA 1631	Mercury	173	2.9	ng/L		
25717-001	STP-EFF-UVC	4/22/2008	930	0	EPA 1631	Mercury	119	3	ng/L		
25762-001	STP-EFF-UVC	5/7/2008	1100	0	EPA 1631	Mercury	95.2	1.52	ng/L		
25813-001	STP-EFF-UVC	5/20/2008	1400	0	EPA 1631	Mercury	107	1.52	ng/L		
25953-002	STP-EFF-UVC	6/12/2008	1020	0	EPA 1631	Mercury	116	0.5	ng/L		
25953-003	STP-EFF-UVG	6/12/2008	1025	0	EPA 1631	Mercury	115	0.46	ng/L		
26053-004	STP-EFF-UVC	7/17/2008	1245	0	EPA 1631	Mercury	86.7	1.01	ng/L		
26053-005	STP-EFF-UVG	7/17/2008	1250	0	EPA 1631	Mercury	94.1	1.01	ng/L		

Table 3-8. 2008 Bottle-Collected and Pump-Collected Total Mercury, Methylmercury and TSS Results

Sample ID	Site ID[1]	Sample Date	Depth (ft.)	Filt.	Method	Analyte	Conc.	MDL	Units	Lab Qual.	Rev. Qual.
June 10, 2008 to June 12, /2008											
25953-004	PR-WC-12-D7	6/12/2008	0	U	EPA 1631	Mercury	25.2	0.58	ng/L		
25953-004	PR-WC-12-D7	6/12/2008	0	U	EPA 1630	Methyl Mercury	10.9	0.053	ng/L		
25953-004	PR-WC-12-D7	6/12/2008	0	U	EPA 160.2	TSS	23.1	1.8	mg/L		
25953-009	PR-WC-12P-D7	6/12/2008	0	U	EPA 1631	Mercury	27.7	0.52	ng/L		
25953-009	PR-WC-12P-D7	6/12/2008	0	U	EPA 1630	Methyl Mercury	9.84	0.054	ng/L		
25953-009	PR-WC-12P-D7	6/12/2008	0	U	EPA 160.2	TSS	15.4	2	mg/L		
25949-005	PR-WC-10	6/11/2008	0.5	U	EPA 1631	Mercury	114	3.01	ng/L		
25949-005	PR-WC-10	6/11/2008	0.5	U	EPA 1630	Methyl Mercury	1.22	0.052	ng/L		
25949-005	PR-WC-10	6/11/2008	0.5	U	EPA 160.2	TSS	2.4	0.3	mg/L		
25949-006	PR-WC-10P	6/11/2008	0.5	U	EPA 1631	Mercury	124	2.33	ng/L		
25949-006	PR-WC-10P	6/11/2008	0.5	U	EPA 1630	Methyl Mercury	1.13	0.02	ng/L		
25949-006	PR-WC-10P	6/11/2008	0.5	U	EPA 160.2	TSS	2.3	0.3	mg/L		
25947-004	PR-WC-05	6/11/2008	0	U	EPA 1631	Mercury	140	3.06	ng/L		
25947-004	PR-WC-05	6/11/2008	0	U	EPA 1630	Methyl Mercury	8.4	0.02	ng/L		
25947-004	PR-WC-05	6/11/2008	0	U	EPA 160.3	TSS	48	1.7	mg/L		
25947-011	PR-WC-05P	6/11/2008	0	U	EPA 1631	Mercury	101	3.06	ng/L		
25947-011	PR-WC-05P	6/11/2008	0	U	EPA 1630	Methyl Mercury	8.11	0.02	ng/L		
25947-011	PR-WC-05P	6/11/2008	0	U	EPA 160.3	TSS	34.2	1.6	mg/L		
25947-010	PR-WC-03P	6/11/2008	0	U	EPA 1631	Mercury	14.7	0.31	ng/L		
25947-010	PR-WC-03P	6/11/2008	0	U	EPA 1630	Methyl Mercury	3.22	0.02	ng/L		
25947-010	PR-WC-03P	6/11/2008	0	U	EPA 160.3	TSS	2.6	0.3	mg/L		
25947-002	PR-WC-03	6/11/2008	0	U	EPA 1631	Mercury	17.2	0.3	ng/L		
25947-002	PR-WC-03	6/11/2008	0	U	EPA 1630	Methyl Mercury	2.7	0.02	ng/L		
25947-002	PR-WC-03	6/11/2008	0	U	EPA 160.3	TSS	2.9	0.3	mg/L		
25942-002	PR-WCS-03	6/10/2008	0	U	EPA 1631	Mercury	11.6	0.61	ng/L		
25942-002	PR-WCS-03	6/10/2008	0	U	EPA 1630	Methyl Mercury	2.23	0.021	ng/L		
25942-002	PR-WCS-03	6/10/2008	0	U	EPA 160.2	TSS	8	0.9	mg/L		
25942-006	PR-WCS-03P	6/10/2008	0	U	EPA 1631	Mercury	11.8	0.57	ng/L		
25942-006	PR-WCS-03P	6/10/2008	0	U	EPA 1630	Methyl Mercury	2.35	0.02	ng/L		
25942-006	PR-WCS-03P	6/10/2008	0	U	EPA 160.2	TSS	8	0.9	mg/L		
July 15, 2008											
26040-007	PR-WC-03	7/15/2008	0	U	EPA 1631	Mercury	374	3.09	ng/L		
26040-007	PR-WC-03	7/15/2008	0	U	EPA 1630	Methyl Mercury	4.18	0.02	ng/L		
26040-007	PR-WC-03	7/15/2008	0	U	EPA 160.2	TSS	165	2.9	mg/L		
26040-006	PR-WC-03P	7/15/2008	0	U	EPA 1631	Mercury	3.23	0.15	ng/L		
26040-006	PR-WC-03P	7/15/2008	0	U	EPA 1630	Methyl Mercury	0.527	0.02	ng/L		
26040-006	PR-WC-03P	7/15/2008	0	U	EPA 160.2	TSS	88.8	2.4	mg/L		
26040-002	PR-WCS-03	7/15/2008	0	U	EPA 1631	Mercury	3.1	0.15	ng/L		
26040-002	PR-WCS-03	7/15/2008	0	U	EPA 1630	Methyl Mercury	0.569	0.02	ng/L		
26040-002	PR-WCS-03	7/15/2008	0	U	EPA 160.2	TSS	4.4	0.4	mg/L		
26040-009	PR-WCS-03P	7/15/2008	0	U	EPA 1631	Mercury	172	3.06	ng/L		
26040-009	PR-WCS-03P	7/15/2008	0	U	EPA 1630	Methyl Mercury	3.65	0.02	ng/L		
26040-009	PR-WCS-03P	7/15/2008	0	U	EPA 160.2	TSS	4.2	1	mg/L		
26040-001	PR-WCS-04	7/15/2008	0	U	EPA 1631	Mercury	4.99	0.15	ng/L		
26040-001	PR-WCS-04	7/15/2008	0	U	EPA 1630	Methyl Mercury	0.765	0.021	ng/L		
26040-001	PR-WCS-04	7/15/2008	0	U	EPA 160.2	TSS	5.6	0.5	mg/L		
26040-005	PR-WCS-04P	7/15/2008	0	U	EPA 1631	Mercury	5.14	0.15	ng/L		
26040-005	PR-WCS-04P	7/15/2008	0	U	EPA 1630	Methyl Mercury	0.85	0.02	ng/L		
26040-005	PR-WCS-04P	7/15/2008	0	U	EPA 160.2	TSS	6.1	0.5	mg/L		

1. Samples for Site IDs with a "P", eg, PR-WC-12PD7, were collected with a pump. Samples without the "P" were collected with a sample bottle.

Table 4-1. Peconic River Fish Collection Locations

Remediation Area	Approximate Distance Downstream of BNL STP (miles)*	Location Description
Area A	0.3	Between stream gauging stations HE and HMN.
Area C	0.8	From approximately 260 feet downstream of PR-WC-07 to approximately 225 feet upstream of PR-SS-29. This is an alternate location for Area D that may be sampled when fish population size allows.
Area D (North Street)	1.6	Along North Street in the ponded sections of the river upstream and downstream of stream gauging station HQ. If water level or fish population size is not sufficient for fish collection the ponded section of the river in remediation Area C may be substituted.
Area P (Schultz Road.)	2.9	Upstream of Schultz Road. If water level or fish population size is not sufficient for fish collection Ice Pond, in remediation Area P may be substituted.
Manor Road	4.4	Within the section of the Peconic River between approximately 100 yards upstream and downstream of Manor Road.
Donahue's Pond	7.0	Donahue's Pond is an impounded section of the Peconic River at the Peconic River Sportsman's Club. Donahue's Pond is approximately 2 miles downstream of the Manor Road cleanup area.

* Distance is from BNL STP to the approximate mid-point of the respective fish collection area.

Table 4-2. 2008 Fish Collection Summary
Gear and Water Chemistry

	Area A	Area C	Area D (North St.)	Area P (Schultz Road)	Manor Road	Donahue's Pond
Date	13-May-08	14-May-08	05-Jun-08	27-May-08	10-Jun-08	17-Jun-08
				10-Jun-08	11-Jun-08	
Fish Collected by	BNL	BNL	BNL	DEC/BNL	DEC/BNL	Cold Spring Haebor Fish Hatchery/BNL
				DEC/BNL	DEC/BNL	
Gear Used	electro-fishing	electro-fishing	electro-fishing	fyke nets	fyke nets	gill nets and rod and reel
				fyke nets	fyke nets	
Time	15:30	nr	nr	15:02	15:00	nr
Water Temperature (degrees C)	17.4	17.8	nr	25.2	28.0	24.1
pH	6.8	7.4	nr	nr	nr	6.5
				nr	nr	
Turbidity	15.5	19	nr	Moderate	High	8.0
				nr	nr	
Conductivity (mmho/cm^3)*	241	115.0	nr	nr	68.9	nr
				nr	nr	
					nr	
Dissolved Oxygen (mg/L)	12.3	10.7	nr	7.3	2.9	6.2
				nr	nr	

* mmho/cm^3 - milli mhos per cubic centimeter.
nr = parameter not measured or not recorded.

Table 4-3. 2008 Peconic River Fish Catch

Total Fish Catch

Species	DEC Species Code	Area A	Area C	Area D (North St.)	Area P (Schultz Rd.)	Manor Road	Donahue's Pond
Brown Bullhead	444	7	10	25	20	8	8
Bluegill	598			3			
Chain Pickerel	349	10	1		1	3	1
Largemouth Bass	601	2	25	3	1	1	5
Pumpkinseed	596	4	8	9	21	19	5
Total Catch Per Area		23	44	40	43	31	19
Total Catch	200						

Table 4-4. Composition of the 2008 Fish Composites

Area	COC	SDG*	Composite ID	Average Age of Composited Fish	Individual Fish Age	Individual Fish Species	Total Length (mm)	Fish ID	UIDs*
A	25791	215615	25791-bc1	3.5	4M	Brown Bullhead	222	08-005	25791-005
					3M	Brown Bullhead	226	08-006	25791-006
A	25791	215615	25791-bc2	3.3	3M	Brown Bullhead	285	08-002	25791-002
					3M	Brown Bullhead	263	08-003	25791-003
					4M	Brown Bullhead	257	08-004	25791-004
C	25795	212377	no composites						
C	25795	215618	25795-bc1	3.0	3M	Brown Bullhead	280	08-058	25795-015
					3M	Brown Bullhead	270	08-059	25795-016
D	25931	212378	25931-c1	2.4	2+	Largemouth Bass	163	08-111	25931-001
					2M	Largemouth Bass	171	08-112	25931-002
					2M	Largemouth Bass	160	08-113	25931-003
					3+	Bluegill	158	08-124	25931-014
					3M	Bluegill	152	08-125	25931-015
D	25931	212378	25931-c2	4.0	3M	Pumpkinseed	150	08-114	25931-004
					4m	Pumpkinseed	171	08-115	25931-005
					5m	Pumpkinseed	179	08-116	25931-006
D	25931	212378	25931-c3	3.7	4+	Pumpkinseed	145	08-117	25931-007
					3+	Pumpkinseed	143	08-118	25931-008
					4M	Pumpkinseed	146	08-119	25931-009
					3M	Pumpkinseed	114	08-120	25931-010
					4M	Pumpkinseed	143	08-121	25931-011
					4+	Pumpkinseed	157	08-122	25931-012
					4+	Pumpkinseed	160	08-123	25931-013
D	25931	215612	no composites						
D	25932	215619	25932-bc1	2.0	2M	Brown Bullhead	158	08-135	25932-005
					2M	Brown Bullhead	165	08-137	25932-007
					2M	Brown Bullhead	161	08-142	25932-012
					2M	Brown Bullhead	158	08-143	25932-013
					2M	Brown Bullhead	165	08-147	25932-017
D	25932	215619	25932-bc2	2.4	3M	Brown Bullhead	240	08-131	25932-001
					3M	Brown Bullhead	246	08-132	25932-002
					2M	Brown Bullhead	170	08-136	25932-006
					2M	Brown Bullhead	165	08-137	25932-007
					2M	Brown Bullhead	165	08-147	25932-017
					no age	Brown Bullhead	166	08-148	25932-018

Table 4-4. Composition of the 2008 Fish Composites

Area	COC	SDG*	Composite ID	Average Age of Composited Fish	Individual Fish Age	Individual Fish Species	Total Length (mm)	Fish ID	UIDs*
Schultz Road	25898	215646	25898-bc1	2.3	2M	Brown Bullhead	73	08-073	25898-006
					2M	Brown Bullhead	167	08-082	25898-015
					3M	Brown Bullhead	206	08-085	25898-017
					2M	Brown Bullhead	151	08-087	25898-020
Schultz Road	25898	215646	25898-bc2	2.3	2M	Brown Bullhead	189	08-075	25898-008
					2M	Brown Bullhead	174	08-083	25898-016
					3M	Brown Bullhead	200	08-086	25898-019
Schultz Road	25898	215646	25898-bc3	2.5	2M	Brown Bullhead	210	08-081	25898-014
					3M	Brown Bullhead	206	08-085	25898-018
Schultz Road	25898	215646	25898-bc4	3.0	3M	Brown Bullhead	212	08-074	25898-007
					3M	Brown Bullhead	217	08-079	25898-012
Schultz Road	25899	212501	no composites						
Manor Road	25951	212376	25951-c1	3.0	3+	Brown Bullhead	130	08-152	25951-002
					3+	Brown Bullhead	134	08-153	25951-003
					3+	Brown Bullhead	141	08-154	25951-004
					3+	Brown Bullhead	131	08-155	25951-005
					3+	Brown Bullhead	139	08-157	25951-007
Manor Road	25958	215617	25958-bc1	3.0	3M	Brown Bullhead	221	08-192	25958-018
					3M	Brown Bullhead	224	08-198	25958-024
Manor Road	25958	215617	25958-bc2	3.0	3M	Brown Bullhead	236	08-194	25958-020
					3M	Brown Bullhead	233	08-196	25958-022
Manor Road	25958	215617	25958-bc3	4.5	6M	Brown Bullhead	253	08-193	25958-019
					3M	Brown Bullhead	239	08-195	25958-021
Manor Road	25958	212371	25958-c2	3.0	3+	Pumpkinseed	134	08-175	25958-001
					3+	Pumpkinseed	127	08-176	25958-002
					3+	Pumpkinseed	136	08-177	25958-003
					3+	Pumpkinseed	137	08-179	25958-005
					3+	Pumpkinseed	132	08-180	25958-006
					3+	Pumpkinseed	134	08-181	25958-007
					3+	Pumpkinseed	147	08-183	25958-009
					3+	Pumpkinseed	186	08-186	25958-012
					3+	Pumpkinseed	133	08-187	25958-013

Table 4-4. Composition of the 2008 Fish Composites

Area	COC	SDG*	Composite ID	Average Age of Composited Fish	Individual Fish Age	Individual Fish Species	Total Length (mm)	Fish ID	UIDs*
Manor Road	25958	212371	25958-c3	4.0	4+	Pumpkinseed	156	08-178	25958-004
					4+	Pumpkinseed	146	08-182	25958-008
					4+	Pumpkinseed	147	08-184	25958-010
Manor Road	25958	212371	25958-c5	no age	no age	Chain Pickerel	299	08-188	25958-014
					no age	Chain Pickerel	298	08-189	25958-015
Donahue's Pond	25971	212370	25971-c1	6.5	7+	Pumpkinseed	202	08-213	25971-015
					6+	Pumpkinseed	185	08-214	25971-016
Donahue's Pond	25971	212370	25971-c2	5.0	4+	Pumpkinseed	182	08-215	25971-017
					6M	Pumpkinseed	180	08-216	25971-018
					5+	Pumpkinseed	187	08-217	25971-019
Donahue's Pond	25971	215622	no composites						

* Note: The SDG is an analytical laboratory-assigned identification number for a Sample Delivery Group. Typically, SDGs are limited to not more than 20 samples per COC (Chain of Custody). There may be more than one SDG per COC. The COC number is listed in column 2. The UID consists of the COC number and the sequential number of a specific saple on the COC. mm = millimeters. 1 inch = 25.4 mm.

Table 4-5. Peconic River Fish Mercury Concentration by Fish Locations

Fish Collection Area *	Nuimber of Mercury Samples	Average Mercury Concentration (mg/kg)	Minimum Mercury Concentration (mg/kg)	Maximum Mercury Concentration (mg/kg)
All Fish Samples (Area A to Donahue's Pond)	176	0.26	0.03	0.87
Area A - 0.3 mi.	20	0.35	0.07	0.87
Area C - 0.8 mi.	43	0.40	0.16	0.77
Area D (North St.) -1.6 mi.	31	0.26	0.10	0.73
Schultz Road (Area P) - 2.9 mi.	36	0.20	0.09	0.59
Manor Road - 4.4 mi.	27	0.15	0.03	0.38
Donahue's Pond 7.0 mi.	19	0.17	0.04	0.60

* Distance is from BNL STP to the approximate mid-point of the respective fish collection area.

Table 4-6. Peconic River Fish Mercury Concentrations by Species and Age

Species	Number of Fish	Average[1] Length (mm)	Minimum[1] Length (mm)	Maximum[1] Length (mm)	Number of Analytical Samples	Average Mercury Concentration (mg/kg)[2]	Minimum Mercury Concentration (mg/kg)[2]	Maximum Mercury Concentration (mg/kg)[2]
Bluegills	3	157	152	160	3	0.26	0.17	0.31
Age 3	2	155	152	158	2	0.23	0.17	0.30
Age 4	1	160	160	160	1	0.31	0.31	0.31
Average Age = 3.3 years								
Brown Bullheads	76	203	95	351	59	0.21	0.03	0.87
Age 2	35	160	95	210	29	0.18	0.03	0.30
Age 3	26	225	143	300	16	0.32	0.09	0.87
Age 4	5	283	222	351	4	0.21	0.17	0.26
Age 5	2	282	276	288	2	0.20	0.09	0.30
Age 6	3	286	253	310	2	0.12	0.10	0.13
Age 7	1	311	311	311	1	0.06	0.06	0.06
Age 8	1	302	302	302	1	0.15	0.15	0.15
Age 9	1	333	333	333	1	0.12	0.12	0.12
Age 11	1	324	324	324	1	0.13	0.13	0.13
Age 12	1	305	305	305	1	0.08	0.08	0.08
Unaged Brown Bullheads	1	253	253	253	1	0.24	0.24	0.24
Average Age[2] = 3.2 years								
Chain Pickerel	16	262	118	570	16	0.28	0.07	0.60
Age 1	5	140	118	180	5	0.11	0.07	0.14
Age 2	6	293	260	361	6	0.44	0.27	0.61
Age 3	2	321	300	341	2	0.42	0.21	0.59
Age 4	1	570	570	570	1	0.60	0.60	0.60
Unaged Chain Pickerel	2	299	298	299	2	0.12	0.09	0.16
Average Age = 1.9 years								
Largemouth Bass	37	181	80	410	35	0.33	0.11	0.60
Age 1	6	86	80	93	5	0.27	0.22	0.31
Age 2	25	173	135	290	24	0.48	0.19	0.77
Age 3	2	260	175	310	2	0.32	0.17	0.47
Age 5	1	335	335	335	1	0.37	0.37	0.37
Age 6	2	350	350	350	2	0.24	0.12	0.36
Age 7	1	410	410	410	1	0.11	0.11	0.11
Average Age[2] = 2.4 years								
Pumpkinseed	70	145	105	202	66	0.22	0.04	0.73
Age 2	3	117	107	125	3	0.27	0.19	0.36
Age 3	42	137	114	166	38	0.18	0.05	0.47
Age 4	20	156	105	200	19	0.29	0.04	0.69
Age 5	2	183	179	187	2	0.39	0.04	0.73
Age 6	2	183	180	185	2	0.06	0.05	0.07
Age 7	1	202	202	202	1	0.14	0.14	0.14
Unaged Pumpkinseed	1	138	138	138	1	0.20	0.20	0.20
Average Age[2] = 3.5 years								

[1] Average Length, Minimum Length and Maximum Length were calcilated for all aged fish.

[2] The average, minimum and maxixum concentrations and the average ages in this table represent only the fish that were analyzed for mercury.

Table 4-7. Peconic River Fish PCB Concentrations by Species and Age

Species	Number of Fish	Average[1] Length (mm)	Minimum[1] Length (mm)	Maximum[1] Length (mm)	Number of Analytical Samples	Conc. (ug/kg)	MDL (ug/kg)	Lab Qual.
Area A Brown Bullheads								
Composite 25791-bc2	3	274	257	285	1			
Aroclor 1016						9.96	9.96	Uh
Aroclor 1221						9.96	9.96	Uh
Aroclor 1232						9.96	9.96	Uh
Aroclor 1248						9.96	9.96	Uh
Aroclor 1254						22.40	9.96	h
Aroclor 1260						9.96	9.96	Uh
Aroclor-1242						9.96	9.96	Uh
Average Age of Composited Fish 3.3 years								
Area D Brown Bullheads								
Composite 25932-bc2	6	185	158	246	1	10	10	Uh
Aroclor 1016						9.91	9.91	Uh
Aroclor 1221						9.91	9.91	Uh
Aroclor 1232						9.91	9.91	Uh
Aroclor 1248						9.91	9.91	Uh
Aroclor 1254						9.91	9.91	Uh
Aroclor 1260						9.91	9.91	Uh
Aroclor-1242								
Average Age of Composited Fish 2.4 years								

[1] Average length is the average for all aged fish.

Table 4-8. 2008 Peconic River Fish Samples
Cesium-137 and Potassium-40 by Area

Area	BNL Fish ID or Composite ID[1]	Analyte	Activity (pCi/g)	Error (pCi/g)	MDL (pCi/g)	Lab Qual.	Rev. Qual.	Species[2]	Length[3] (mm)	Weight[3] (g)	Age[4]
A	25791-bc1	Cesium-137	0.652	0.145	0.107			BB	224	220	3.5
A	25791-bc1	Potassium-40	0.000	2.070	0.936	DL		BB	224	220	3.5
A	25791-bc2	Cesium-137	0.139	0.0288	0.0182			BB	274	325	3.3
A	25791-bc2	Potassium-40	2.95	0.424	0.195			BB	274	325	3.3
C	25795-bc1	Cesium-137	0.25	0.0483	0.0272			BB	275	288	3.0
C	25795-bc1	Potassium-40	2.89	0.531	0.392			BB	275	288	3.0
D	25931-c1	Cesium-137	0.287	0.043	0.023			LB & BG	161	71	2.4
D	25931-c1	Potassium-40	3.900	0.523	0.254			LB & BG	161	71	2.4
D	25931-c2	Cesium-137	0.187	0.047	0.033			PS	167	117	4.0
D	25931-c2	Potassium-40	2.260	0.742	0.440			PS	167	117	4.0
D	25931-c3	Cesium-137	0.152	0.031	0.021			PS	144	76	3.7
D	25931-c3	Potassium-40	2.820	0.458	0.235			PS	144	76	3.7
D	25932-bc1	Cesium-137	0.124	0.0347	0.0274			BB	160	50	2.0
D	25932-bc1	Potassium-40	2.65	0.578	0.283			BB	160	50	2.0
SR	'08-68	Cesium-137	0.101	0.025	0.0223			BB	300	410	3M
SR	'08-68	Potassium-40	3.76	0.527	0.256			BB	300	410	3M
SR	'08-70	Cesium-137	0.131	0.0288	0.0251			BB	351	279	4M
SR	'08-70	Potassium-40	3.19	0.519	0.236			BB	351	279	4M
SR	'08-71	Cesium-137	0.0831	0.0283	0.0218			BB	245	262	3M
SR	'08-71	Potassium-40	3.13	0.47	0.209			BB	245	262	3M
SR	'08-72	Cesium-137	0.0836	0.0273	0.0206			BB	270	323	4M
SR	'08-72	Potassium-40	3.33	0.503	0.218			BB	270	323	4M
SR	'08-77	Cesium-137	0.0953	0.0236	0.0178			BB	253	245	no age
SR	'08-77	Potassium-40	3.33	0.45	0.214			BB	253	245	no age
SR	'08-78	Cesium-137	0.0944	0.0275	0.0222			BB	276	265	5M
SR	'08-78	Potassium-40	3.44	0.52	0.237			BB	276	265	5M
SR	25898-bc1	Cesium-137	0.0898	0.0238	0.0193			BB	165	69	2.3
SR	25898-bc1	Potassium-40	3.14	0.504	0.254			BB	165	69	2.3
SR	25898-bc2	Cesium-137	0.0689	0.0214	0.0202			BB	188	109	2.3
SR	25898-bc2	Potassium-40	2.98	0.453	0.229			BB	188	109	2.3
SR	25898-bc3	Cesium-137	0.107	0.0294	0.0212			BB	208	158	2.5
SR	25898-bc3	Potassium-40	2.71	0.439	0.189			BB	208	158	2.5
SR	25898-bc4	Cesium-137	0.0699	0.0265	0.0244			BB	215	158	3.0
SR	25898-bc4	Potassium-40	3.16	0.47	0.221			BB	215	158	3.0
MR	'08-151	Cesium-137	0.258	0.039	0.020			CP	341	228	3+
MR	'08-151	Potassium-40	2.980	0.463	0.197			CP	341	228	3+
MR	'08-156	Cesium-137	0.056	0.027	0.027			PS	174	135	4+
MR	'08-156	Potassium-40	2.510	0.620	0.285			PS	174	135	4+
MR	08-185	Cesium-137	0.033	0.035	0.057	DL		PS	105	111	4+
MR	08-185	Potassium-40	2.690	0.857	0.582			PS	105	111	4+
MR	'08-190	Cesium-137	0.156	0.026	0.020			LB	290	355	2+
MR	'08-190	Potassium-40	2.420	0.483	0.210			LB	290	355	2+
MR	'08-191	Cesium-137	0.13	0.0357	0.0258			BB	286	344	5M
MR	'08-191	Potassium-40	2.37	0.515	0.326			BB	286	344	5M
MR	25951-c1	Cesium-137	0.094	0.029	0.036			PS	134	66	3.0
MR	25951-c1	Potassium-40	2.580	0.555	0.357			PS	134	66	3.0
MR	25958-bc1	Cesium-137	0.049	0.022	0.023			BB	223	149	3.0
MR	25958-bc1	Potassium-40	1.800	0.459	0.208			BB	223	149	3.0
MR	25958-bc2	Cesium-137	0.043	0.053	0.038	UI		BB	235	178	3.0
MR	25958-bc2	Potassium-40	1.530	0.696	0.369			BB	235	178	3.0
MR	25958-bc3	Cesium-137	0.060	0.044	0.035			BB	246	212	4.5
MR	25958-bc3	Potassium-40	2.780	0.576	0.303			BB	246	212	4.5
DP	'08-199	Cesium-137	0.226	0.040	0.025			CP	570	1490	4+
DP	'08-199	Potassium-40	2.830	0.564	0.241			CP	570	1490	4+
DP	'08-200	Cesium-137	0.0781	0.0295	0.026			BB	305	596	12M
DP	'08-200	Potassium-40	2.62	0.584	0.279			BB	305	596	12M
DP	'08-201	Cesium-137	0.0847	0.0357	0.028			BB	296	522	6M
DP	'08-201	Potassium-40	3.1	0.518	0.303			BB	296	522	6M
DP	'08-202	Cesium-137	0.107	0.038	0.0325			BB	302	418	8M
DP	'08-202	Potassium-40	2.72	0.685	0.449			BB	302	418	8M
DP	'08-203	Cesium-137	0.0692	0.0319	0.0341			BB	310	452	6M
DP	'08-203	Potassium-40	3.01	0.581	0.326			BB	310	452	6M
DP	'08-204	Cesium-137	0.0948	0.0251	0.0286			BB	324	572	11M
DP	'08-204	Potassium-40	2.51	0.547	0.304			BB	324	572	11M
DP	'08-205	Cesium-137	0.0969	0.0299	0.0222			BB	333	628	9M
DP	'08-205	Potassium-40	3.21	0.488	0.249			BB	333	628	9M
DP	'08-206	Cesium-137	0.0699	0.0258	0.0287			BB	311	520	7M
DP	'08-206	Potassium-40	2.89	0.488	0.306			BB	311	520	7M
DP	'08-207	Cesium-137	0.25	0.0483	0.0272			BB	290	452	4M
DP	'08-207	Potassium-40	3.48	0.605	0.248			BB	290	452	4M
DP	'08-208	Cesium-137	0.132	0.029	0.017			LB	335	466	5+

Table 4-8. 2008 Peconic River Fish Samples
Cesium-137 and Potassium-40 by Area

Area	BNL Fish ID or Composite ID[1]	Analyte	Activity (pCi/g)	Error (pCi/g)	MDL (pCi/g)	Lab Qual.	Rev. Qual.	Species[2]	Length[3] (mm)	Weight[3] (g)	Age[4]
DP	'08-208	Potassium-40	3.370	0.448	0.171			LB	335	466	5+
DP	'08-209	Cesium-137	0.151	0.029	0.015			LB	350	626	6+
DP	'08-209	Potassium-40	3.180	0.460	0.209			LB	350	626	6+
DP	'08-210	Cesium-137	0.113	0.022	0.013			LB	410	976	7+
DP	'08-210	Potassium-40	2.810	0.363	0.142			LB	410	976	7+
DP	'08-211	Cesium-137	0.112	0.044	0.028			LB	286	360	2+
DP	'08-211	Potassium-40	3.090	0.650	0.346			LB	286	360	2+
DP	'08-212	Cesium-137	0.094	0.023	0.018			LB	294	406	3+
DP	'08-212	Potassium-40	2.770	0.435	0.193			LB	294	406	3+
DP	25971-c1	Cesium-137	0.100	0.036	0.032			PS	194	176	6.5
DP	25971-c1	Potassium-40	2.350	0.590	0.328			PS	194	176	6.5
DP	25971-c2	Cesium-137	0.058	0.026	0.023			PS	183	151	5.0
DP	25971-c2	Potassium-40	2.910	0.485	0.250			PS	183	151	5.0

[1] The BNL Fish ID consists of a two digit year ollowed by a dash and the sequence number in which the fish was collected. If If the BNL Fish ID (e.g. 08-68) is not shown in this column then the data is for a compositie of fillets obtained from two or more fish. The composite ID consists of the Chain of Custody(COC) ID followed by a dash, (e.g. 25791-) followed by a one or two letter composite code (c or bc) and a sequence number composite within the given COC. For example, Composite ID 25898-bc4 is the fourth composite of bullhead fillets within COC 25898.

[2]Species Footnotes: BG=Bluegill, BB=Brown Bullhead, LB= Largemouth Bass, PS= Pumpkinseed. Composites were constructed from fish of the same species and approximate total length, unless otherwise noted. When necessary to composite fish of different sizes or different species, the composites were composed of fish of the approximate same size from the same fieeding guild.

[3]For composites, Total Length amd Weight were calculated as the averages of the Total Length and Weight for the individual fish contained in a composite.

[4]For composited fish samples, the reported age is the average age for each fish in the composite. See Table 4-4.

Table 6-1. Total Suspended Solids (TSS) Upstream and Downstream of Sediment Trap 2003 - 2008

	Upstream of Sediment Trap			Downstream of Sediment Trap		
Site ID	**PR-ST-TU6**	**PR-ST-TU5**	**PR-ST-TU4**	**PR-ST-TU3**	**PR-ST-TU2**	**PR-ST-TU1**
Position	**North**	**Center**	**South**	**North**	**Center**	**South**
2003 Minimum (mg/L)	0.7	0.1995	0.5	0.191	0.495	0.412
2003 Maximum (mg/L)	551	40	368	22.8	54	20
2003 Average (mg/L)	28.7	5.6	32.5	4.4	6.2	3.7
Number	43	43	43	43	43	43
2004 Minimum (mg/L)	3	0.5	1	0.5	0.5	0.5
2004 Maximum (mg/L)	1220	134	496	206	105	24.8
2004 Average (mg/L)	130.8	17.9	136.1	22.3	10.8	8.9
Number	21	21	21	21	21	21
	PR-ST-TU6, PR-ST-TU5, PR-ST-TU4			PR-ST-TU3, PR-ST-TU2, PR-ST-TU1		
2003 - 2004 All Sample Average (mg/L):		46.1			7.8	
2003 - 2004 Number of Samples:		192			192	
2006 Minimum (mg/L)	0.5	5	3	-	2	-
2006 Maximum (mg/L)	272	5	235	-	56	-
2006 Average (mg/L)	49.6	5.0	48.8	-	10.8	-
Number	12	1	12	-	13	-
2007 Minimum (mg/L)	2	-	3	-	0.5	-
2007 Maximum (mg/L)	17	-	24	-	24	-
2007 Average (mg/L)	8.1	-	11	-	6.1	-
Number	10	-	10	-	10	-
2008 Minimum (mg/L)	5	-	1	5	-	5
2008 Maximum (mg/L)	99	-	91	86	-	91
2008 Average (mg/L)	38.1	-	30.4	28.4	-	29.9
Number	9	-	9	9	-	9
	PR-ST-TU6, PR-ST-TU5, PR-ST-TU4			PR-ST-TU3, PR-ST-TU2, PR-ST-TU1		
2006 - 2008 All Sample Average (mg/L):		31.7			17.70	
2006 - 2008 Number of Samples:		63			41	

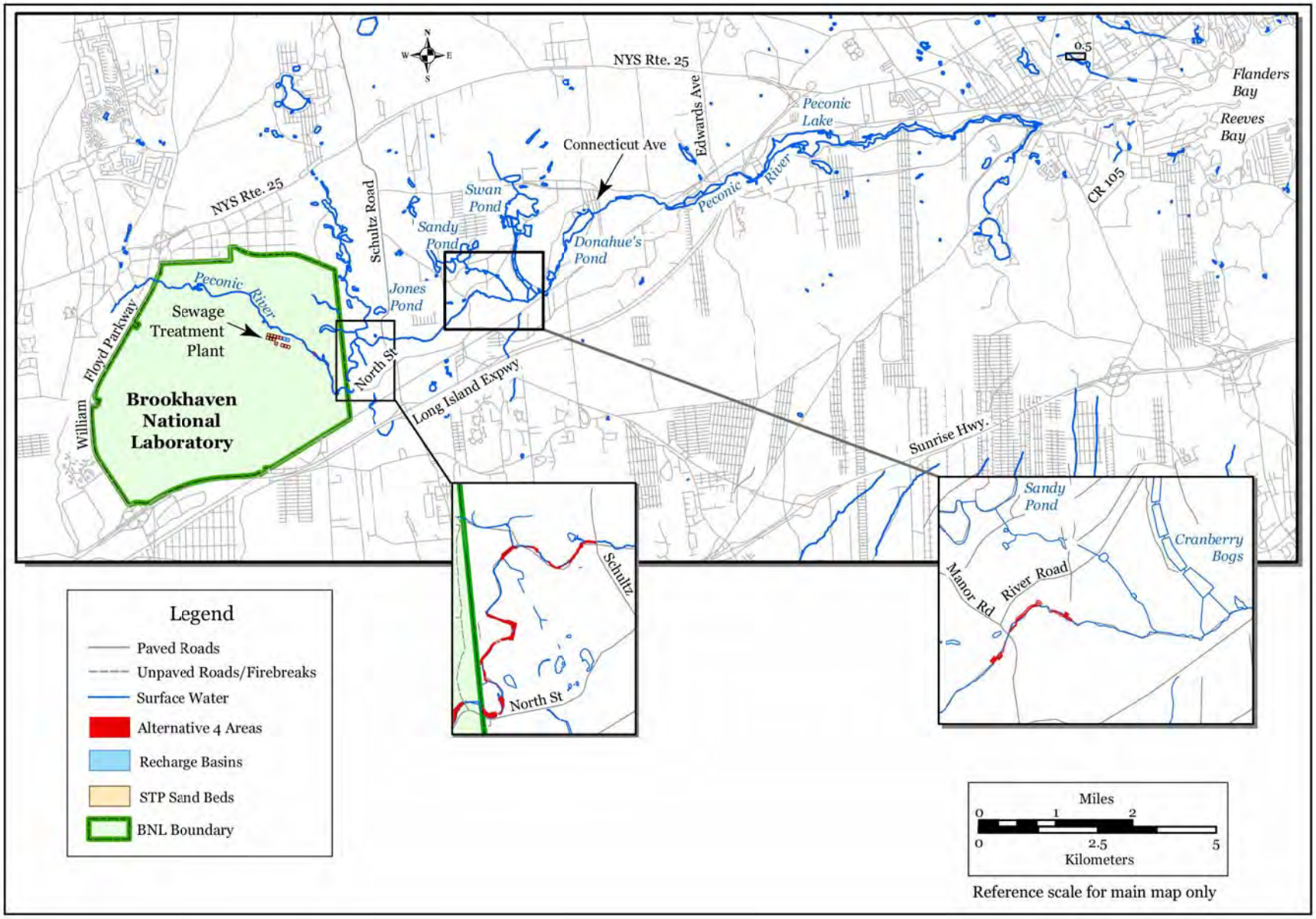


Figure 1-1. The Peconic River. The sections of the river that were remediated are indicated in the two call-out boxes, These two sections are shown in detail in Figures 1-2 and 1-3.

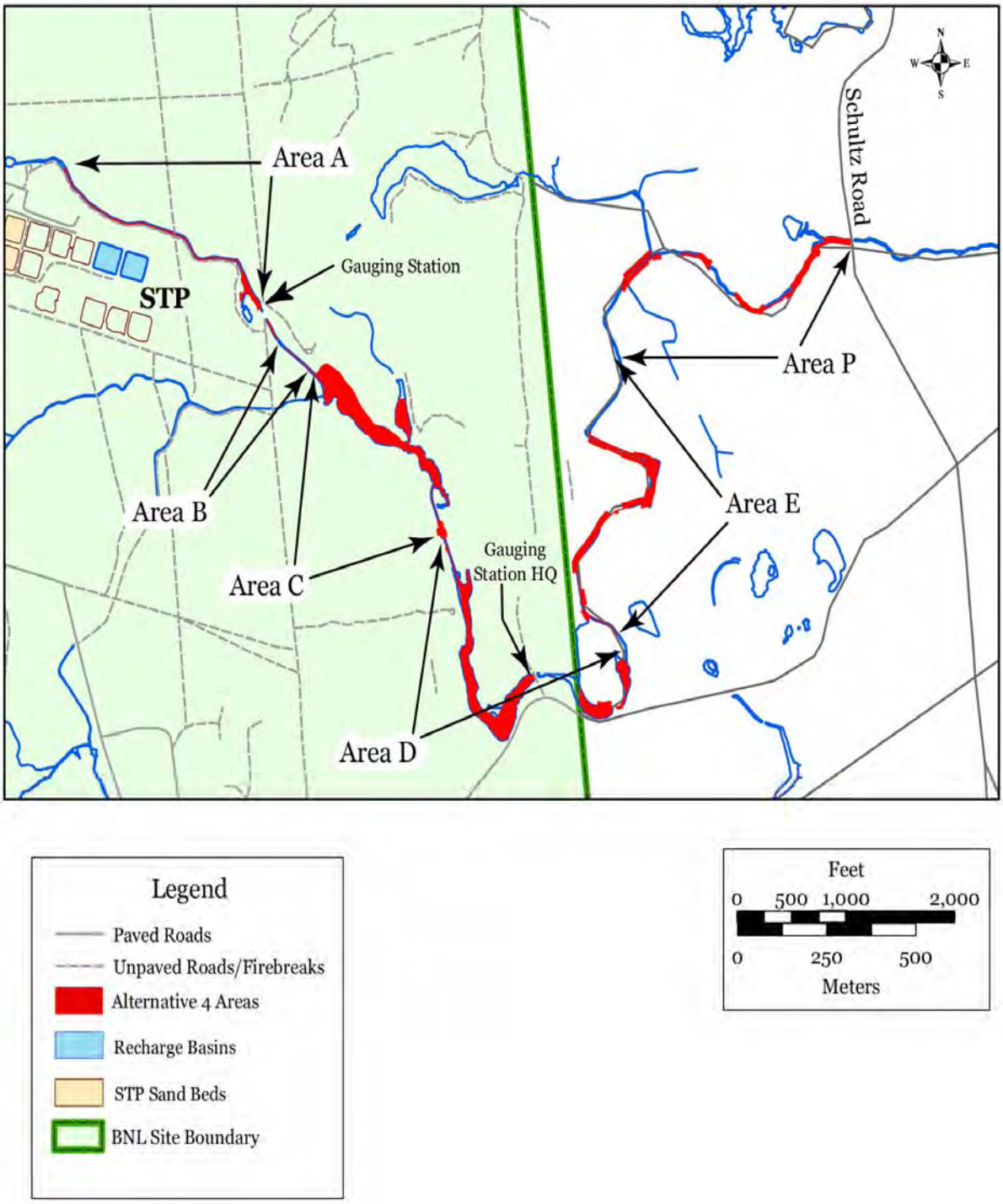


Figure 1-2. Peconic River Cleanup Areas between the BNL Sewage Treatment Plant and Schultz Road.

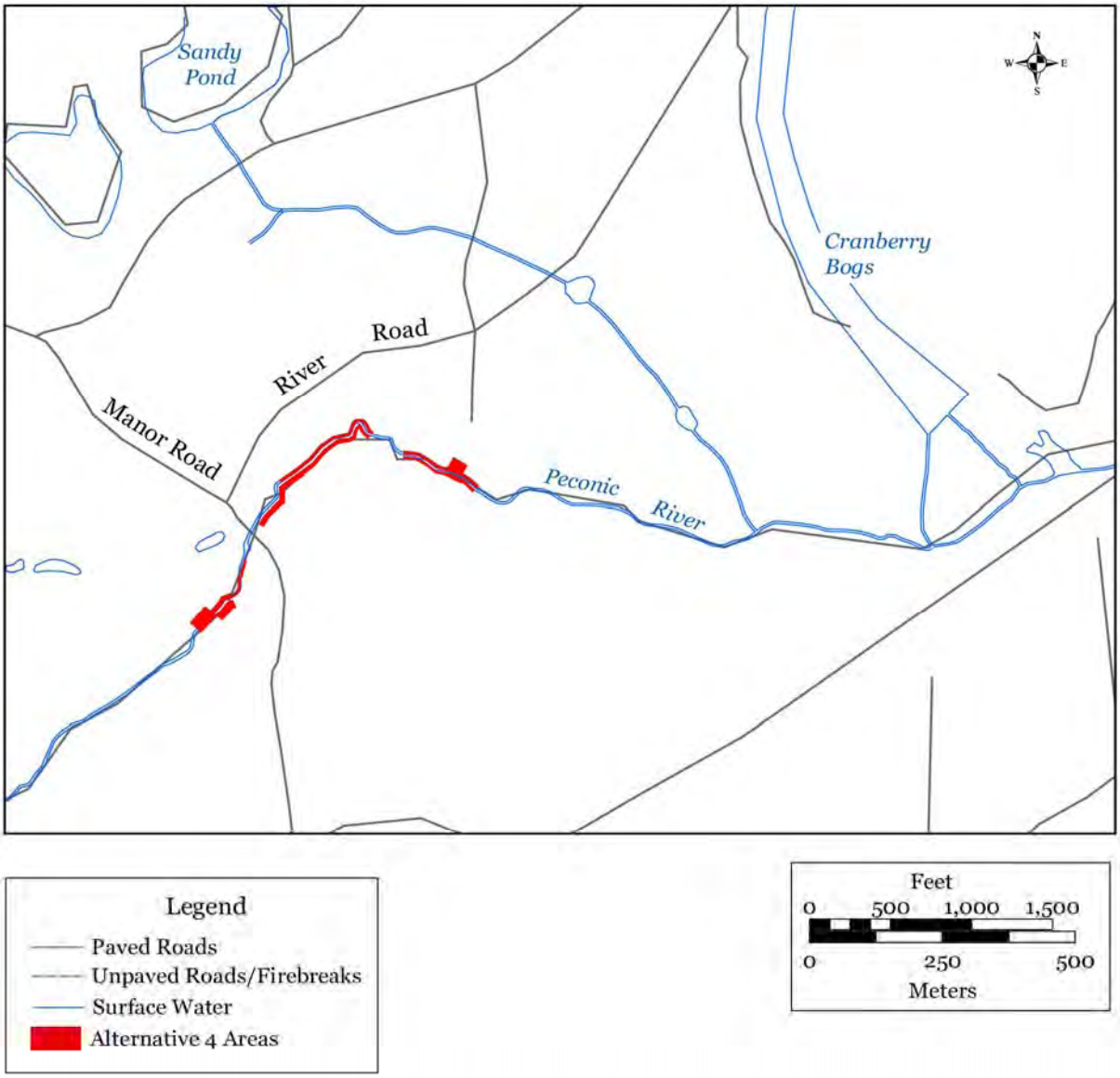
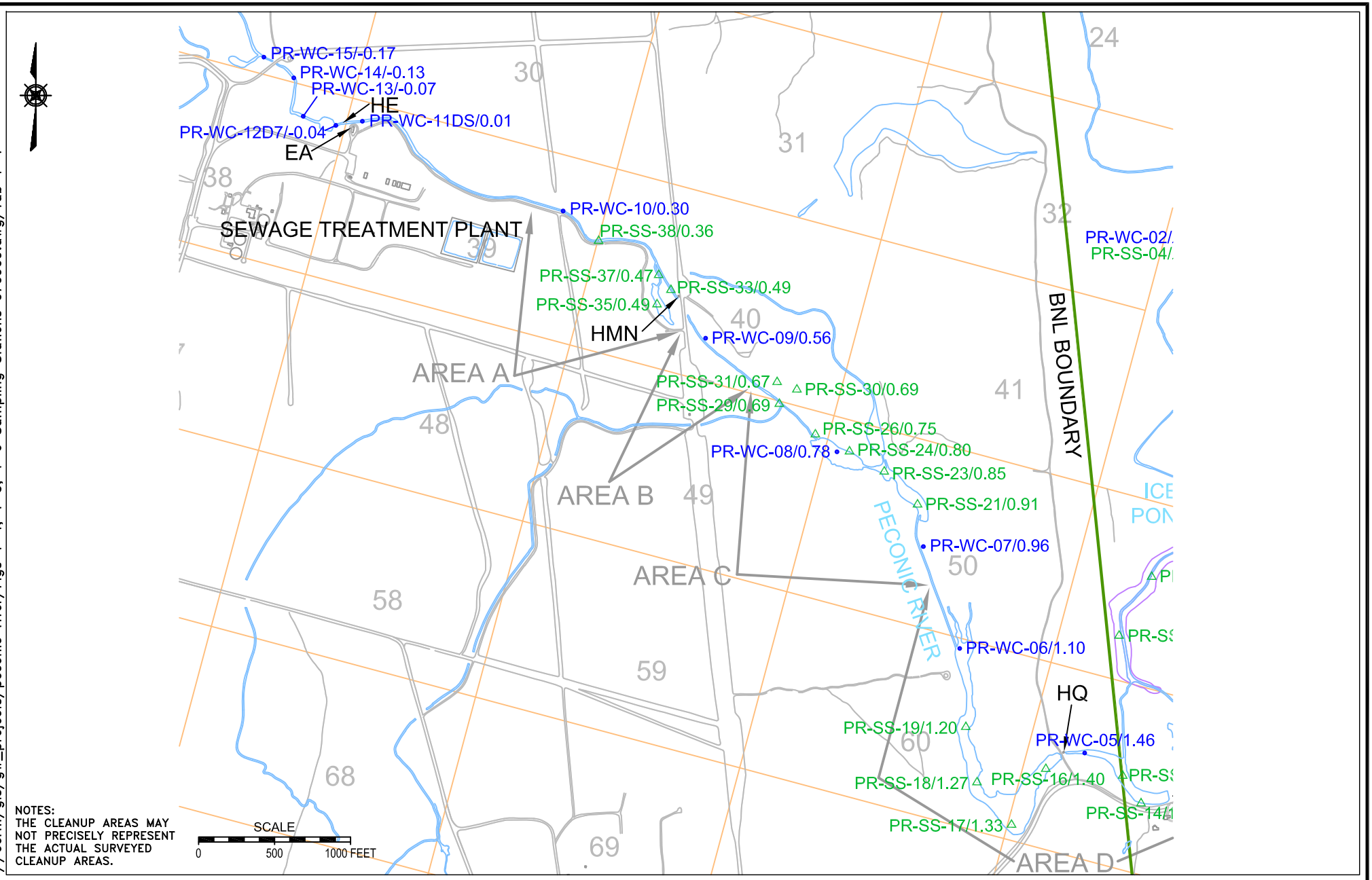


Figure 1-3. Peconic River Cleanup Areas Adjacent to Manor Road



//oernt/gis/gw_projects/peconic river/Figs 1-4, 1-5, 1-6 Sampling Stations 070909.dwg/Tab 1-4

LEGEND

PR-WC-15/-0.17 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
GREEN SYMBOL INDICATES SEDIMENT SAMPLE

BROOKHAVEN NATIONAL LABORATORY

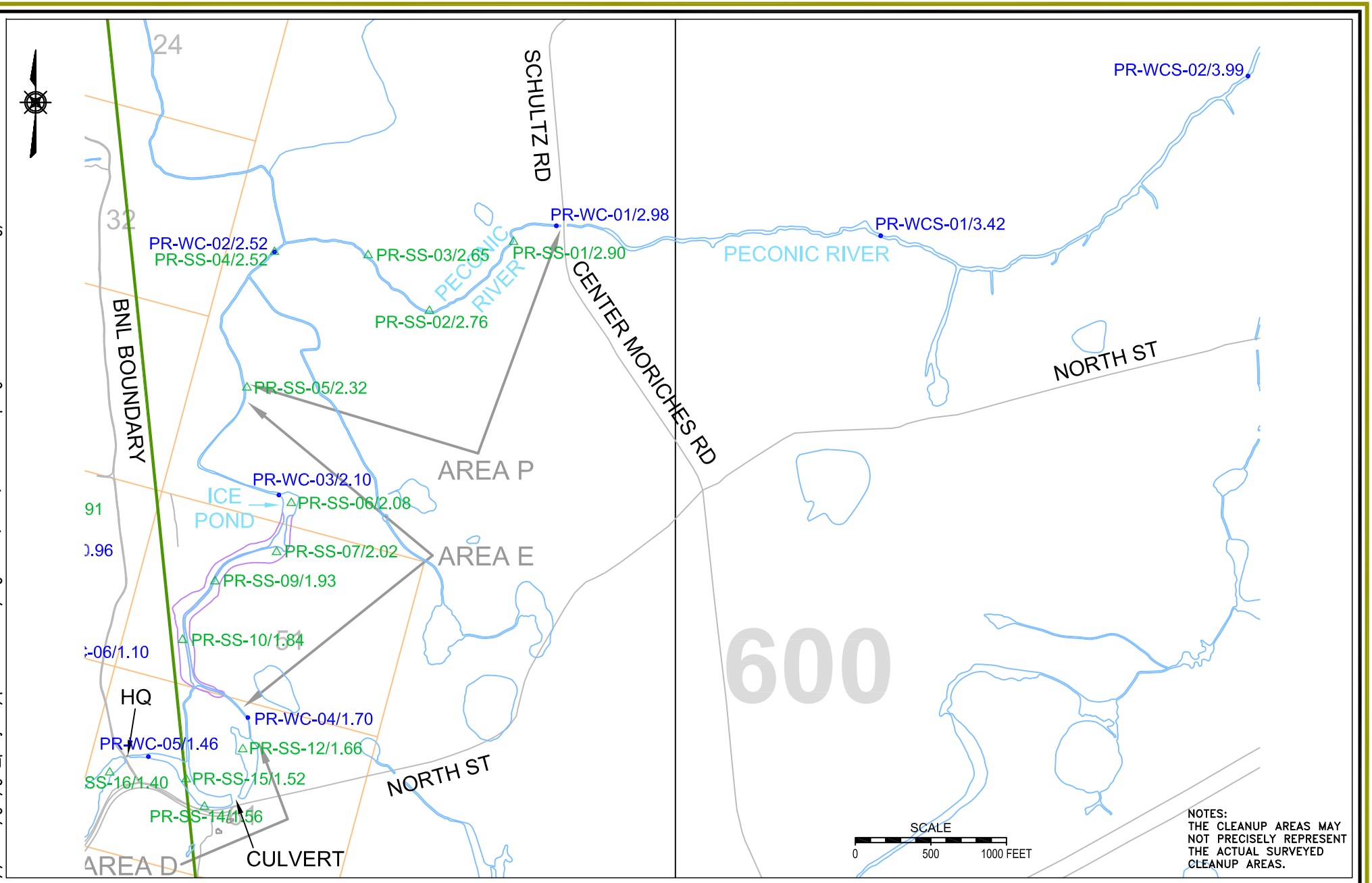
ENVIRONMENTAL PROTECTION DIVISION

TITLE:

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

DWN:	VT: HZ.:	DATE:	PROJECT NO.:
AJZ	–	07/09/09	–
CHKD:	APPD:	REV.:	NOTES:
WM	–	–	–

MAP NO.: 1-4



//oernt/gis/gw_projects/peconic river/Figs 1-4, 1-5, 1-6 Sampling Stations 070909.dwg/Tab 1-5

LEGEND

PR-WC-15/-0.17 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
GREEN SYMBOL INDICATES SEDIMENT SAMPLE

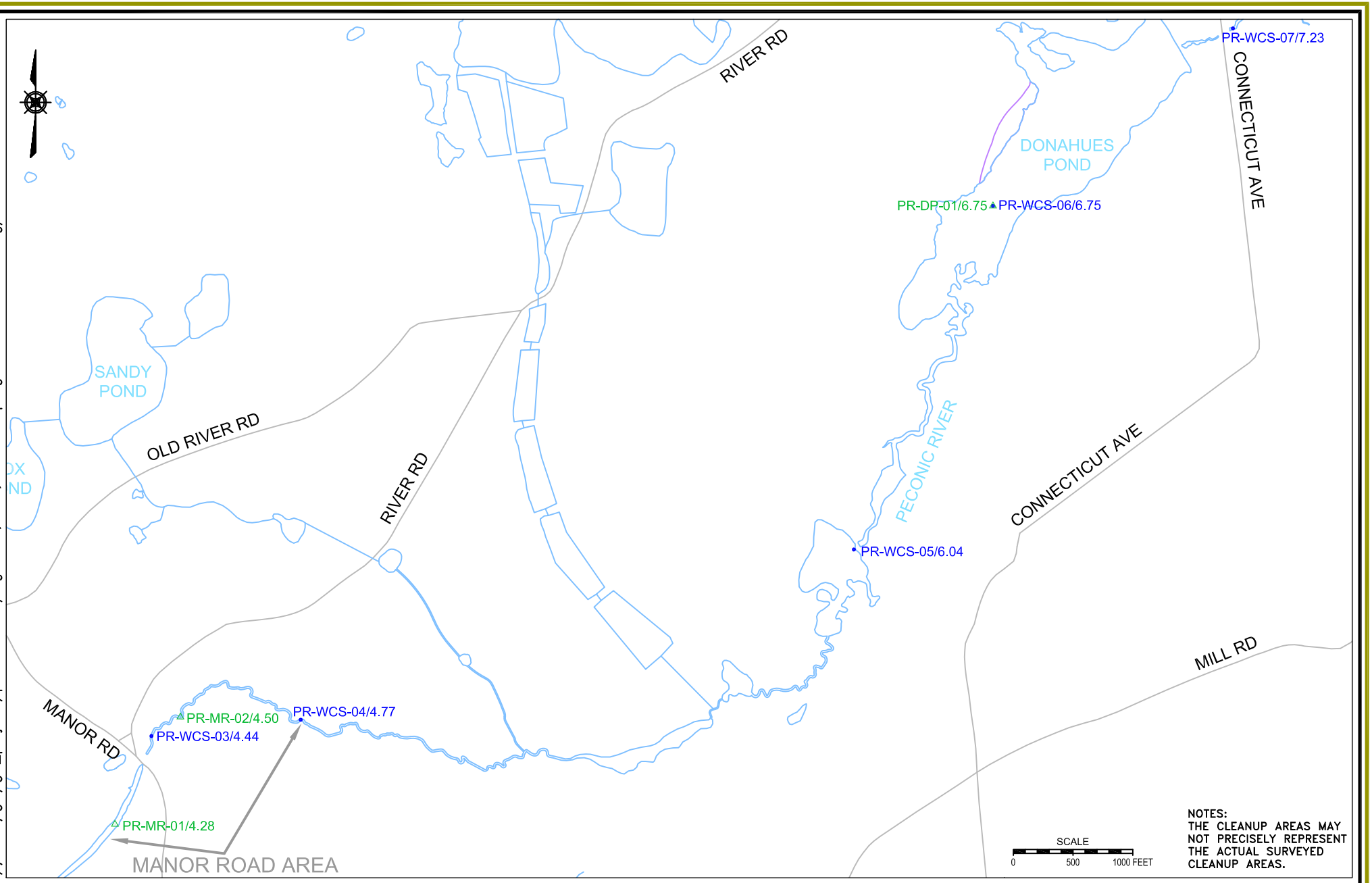
BROOKHAVEN NATIONAL LABORATORY

ENVIRONMENTAL PROTECTION DIVISION

TITLE:

FIGURE 1-5
WATER AND SEDIMENT SAMPLING STATIONS BETWEEN BNL BOUNDARY AND SCHULTZ ROAD
MERCURY SAMPLING STATIONS
PECONIC RIVER STUDY

DWN:	VT: HZ.:	DATE:	PROJECT NO.:
AJZ	–	07/09/09	–
CHKD:	APPD:	REV.:	NOTES:
WM	–	–	–
MAP NO.:			
1-5			



//oernt/gis/gw_projects/peconic river/Figs 1-4, 1-5, 1-6 Sampling Stations 070909.dwg/Tab 1-6

LEGEND

PR-WC-15/-0.17 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
GREEN SYMBOL INDICATES SEDIMENT SAMPLE

BROOKHAVEN NATIONAL LABORATORY

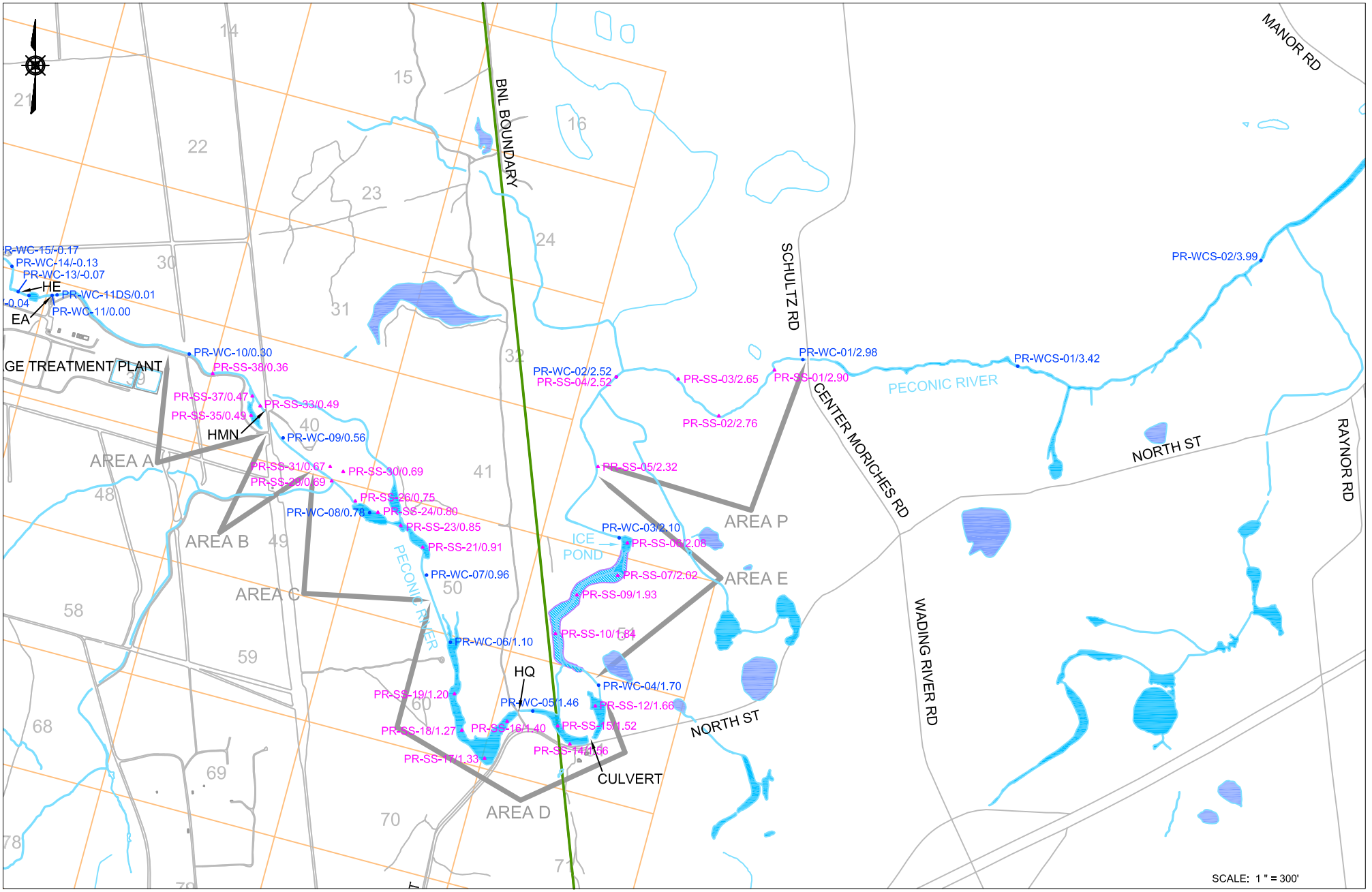
ENVIRONMENTAL PROTECTION DIVISION

TITLE:

FIGURE 1-6
WATER AND SEDIMENT SAMPLING STATIONS BETWEEN MANOR RD AND CONNECTICUT AVE
MERCURY SAMPLING STATIONS
PECONIC RIVER STUDY

DWN:	VT: HZ.:	DATE:	PROJECT NO.:
AJZ	–	07/09/09	–
CHKD:	APPD:	REV.:	NOTES:
WM	–	–	–

MAP NO.: 1-6



LEGEND

PR-WC-12/-0.04 — SURFACE WATER SAMPLING STATION ID

PR-SS-38/0.36 — SEDIMENT SAMPLING STATION ID

SAMPLING STATION ID / DISTANCE TO STP DISCHARGE POINT IN MILES (POSITIVE NUMBER INDICATES DOWNSTREAM LOCATION AND NEGATIVE NUMBER INDICATES UPSTREAM LOCATION)

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

- PECONIC RIVER
- ISOLATED POND
- MARSH AREAS

BROOKHAVEN NATIONAL LABORATORY

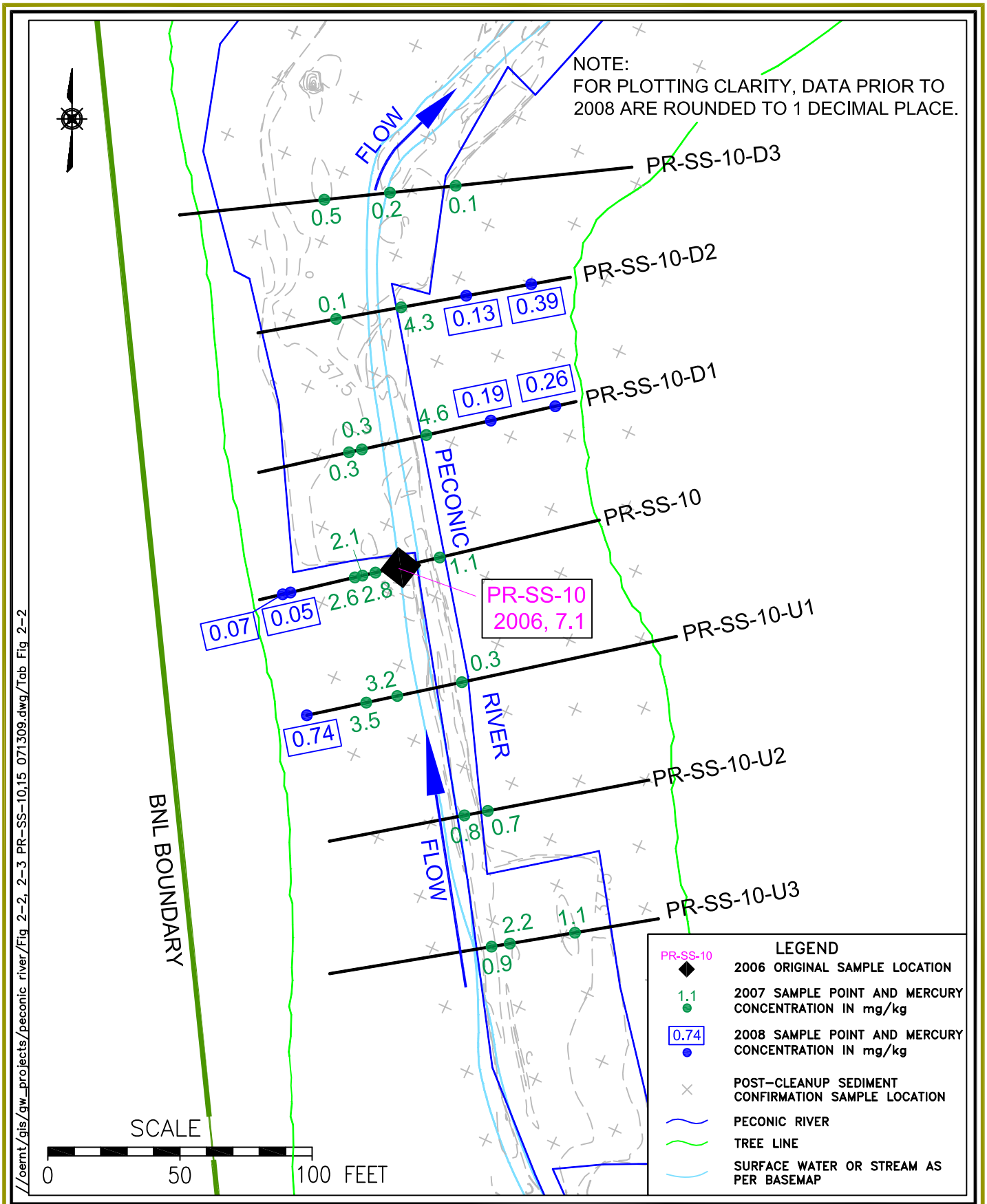
ENVIRONMENTAL PROTECTION DIVISION

TITLE:

Figure 2–1 Peconic River Surface Water and Sediment Sampling Stations – BNL STP to Manor Road.

DWN:	VT: HZ.:	DATE:	PROJECT NO.:
YS	–	05/20/08	–
CHKD:	APPD:	REV.:	NOTES:
WM	–	09/28/09	–

FIGURE NO.: 2–1



//oernt/gis/gw_projects/peconic_river/Fig 2-2, 2-3 PR-SS-10,15 071309.dwg/Tab Fig 2-2

BROOKHAVEN NATIONAL LABORATORY
ENVIRONMENTAL PROTECTION DIVISION

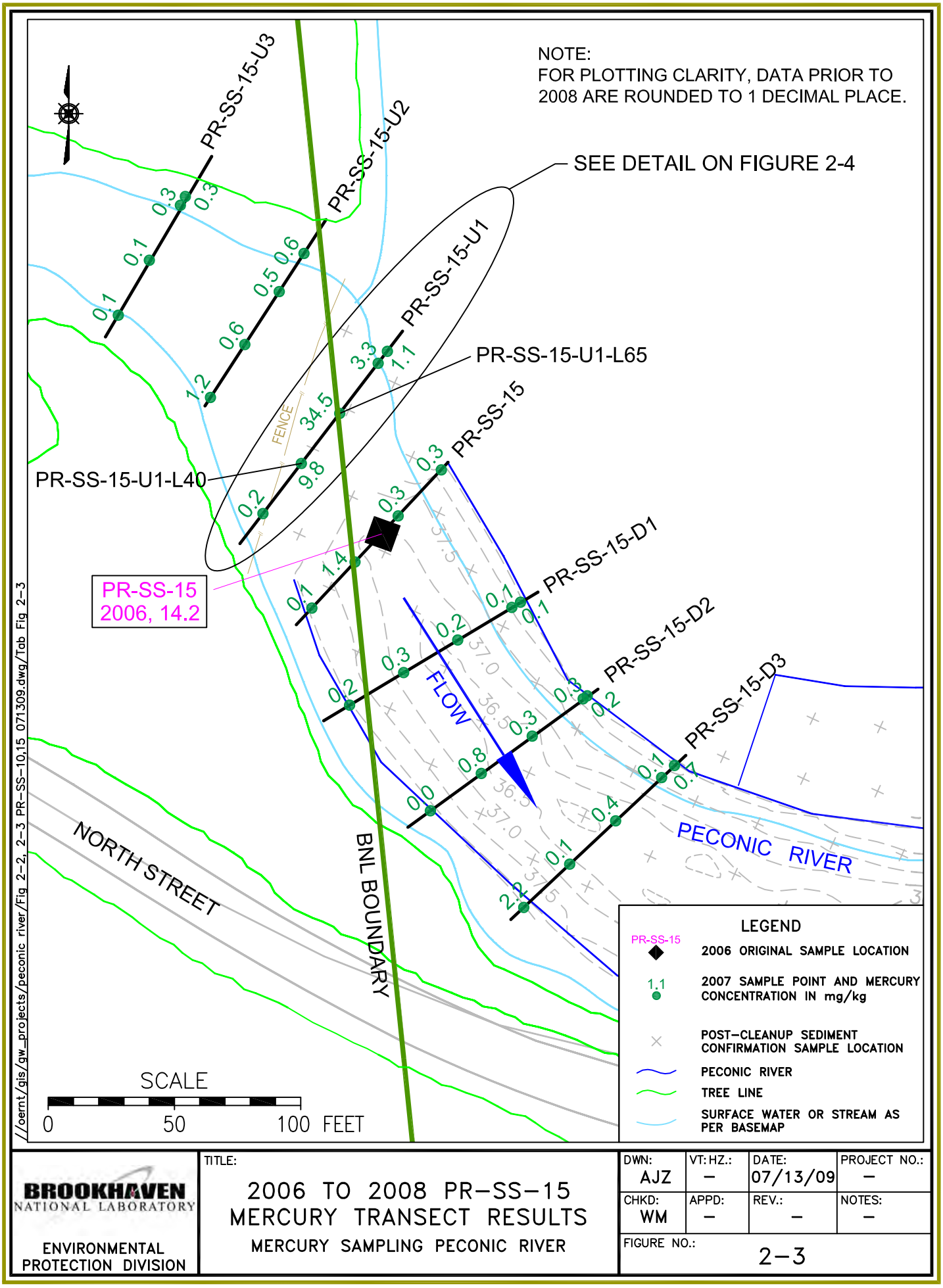
TITLE:

2006 TO 2008 PR-SS-10 MERCURY TRANSECT RESULTS

MERCURY SAMPLING PECONIC RIVER

DWN:	VT: HZ.:	DATE:	PROJECT NO.:
AJZ	–	07/13/09	–
CHKD:	APPD:	REV.:	NOTES:
WM	–	–	–

FIGURE NO.: 2-2



BROOKHAVEN NATIONAL LABORATORY
ENVIRONMENTAL PROTECTION DIVISION

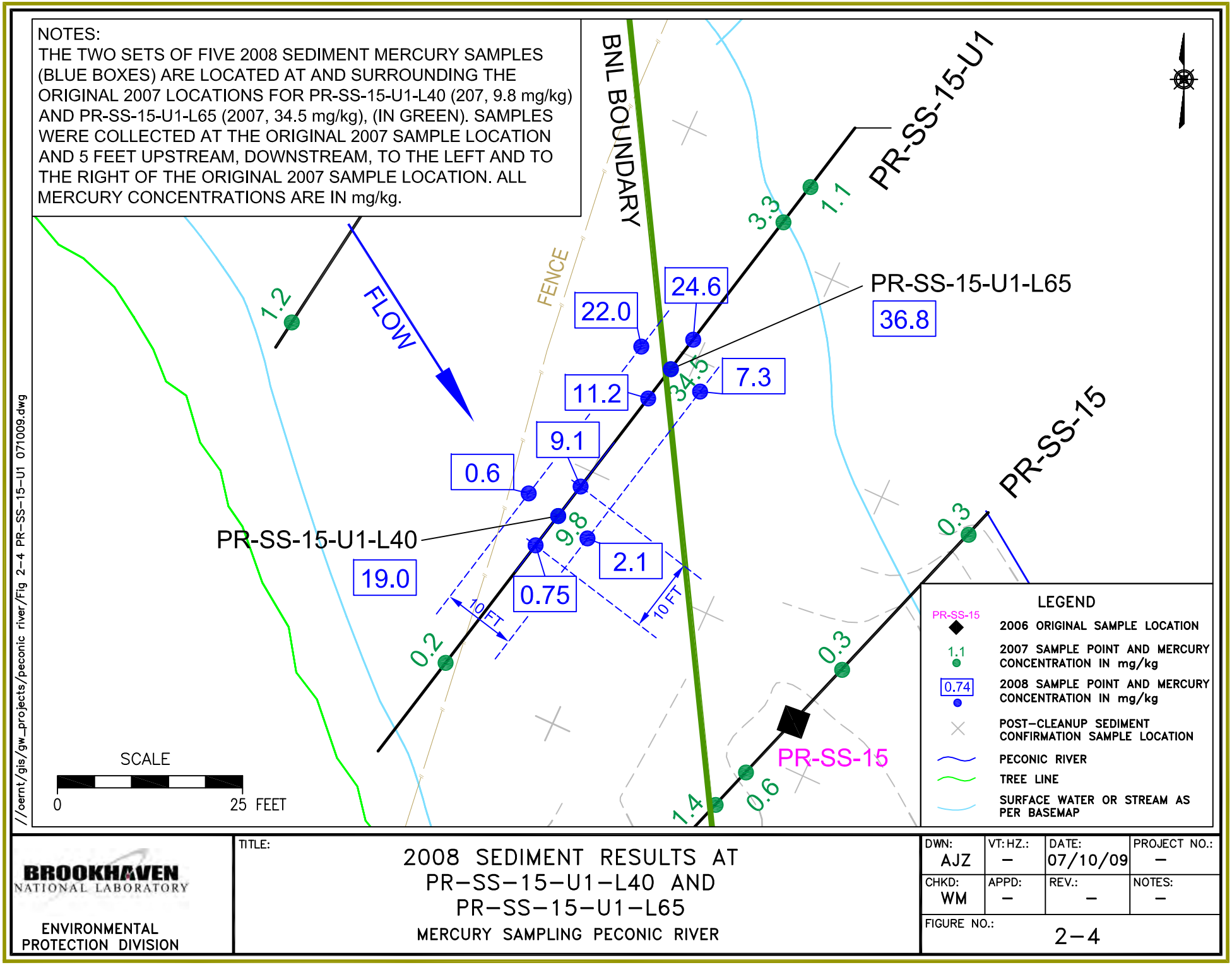
TITLE:

2006 TO 2008 PR-SS-15 MERCURY TRANSECT RESULTS

MERCURY SAMPLING PECONIC RIVER

DWN:	VT: HZ.:	DATE:	PROJECT NO.:
AJZ	–	07/13/09	–
CHKD:	APPD:	REV.:	NOTES:
WM	–	–	–

FIGURE NO.: 2-3



BROOKHAVEN NATIONAL LABORATORY
ENVIRONMENTAL PROTECTION DIVISION

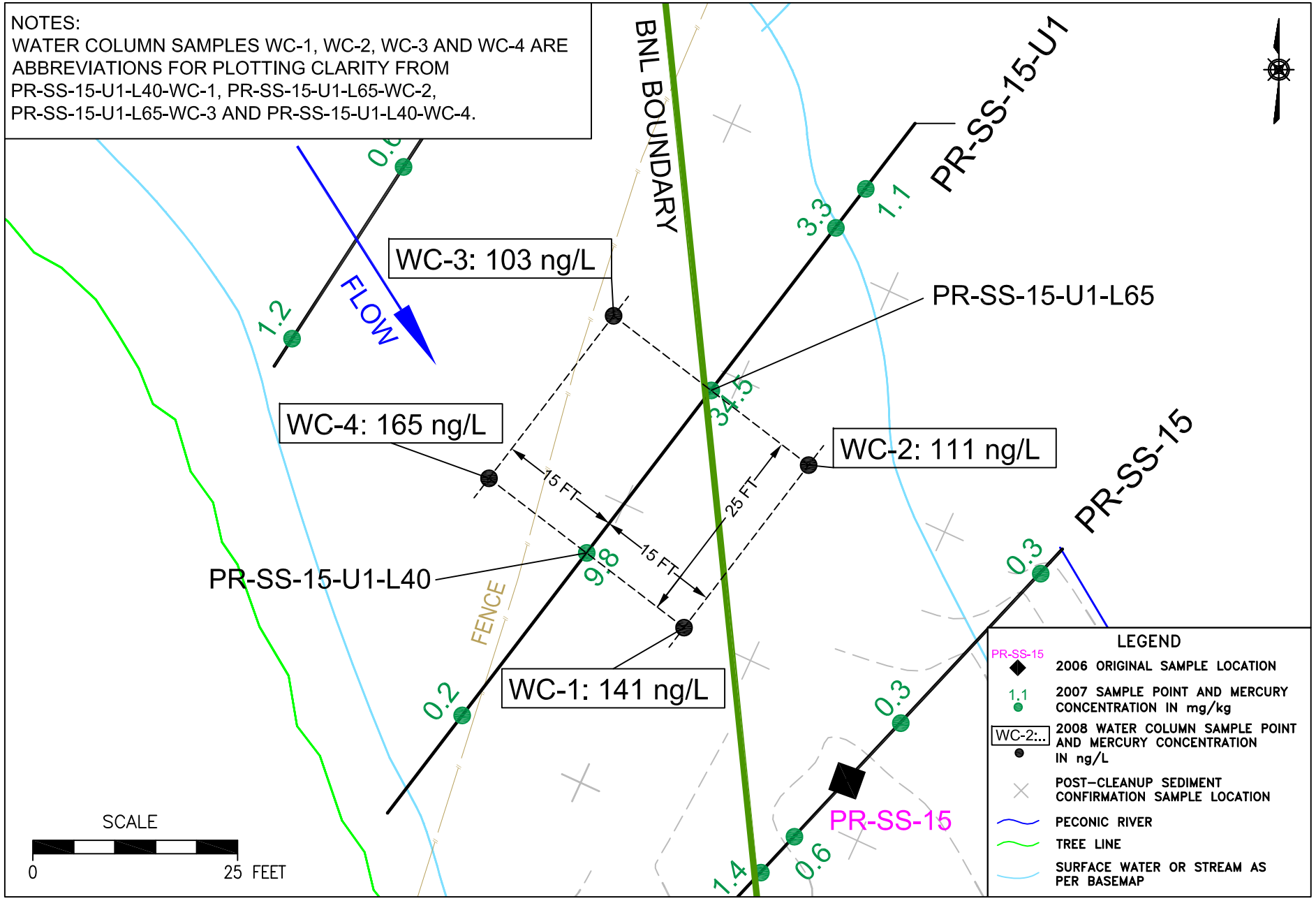
TITLE:

2008 SEDIMENT RESULTS AT PR-SS-15-U1-L40 AND PR-SS-15-U1-L65

MERCURY SAMPLING PECONIC RIVER

DWN:	VT:HZ.:	DATE:	PROJECT NO.:
AJZ	–	07/10/09	–
CHKD:	APPD:	REV.:	NOTES:
WM	–	–	–

FIGURE NO.: 2-4



BROOKHAVEN NATIONAL LABORATORY
ENVIRONMENTAL PROTECTION DIVISION

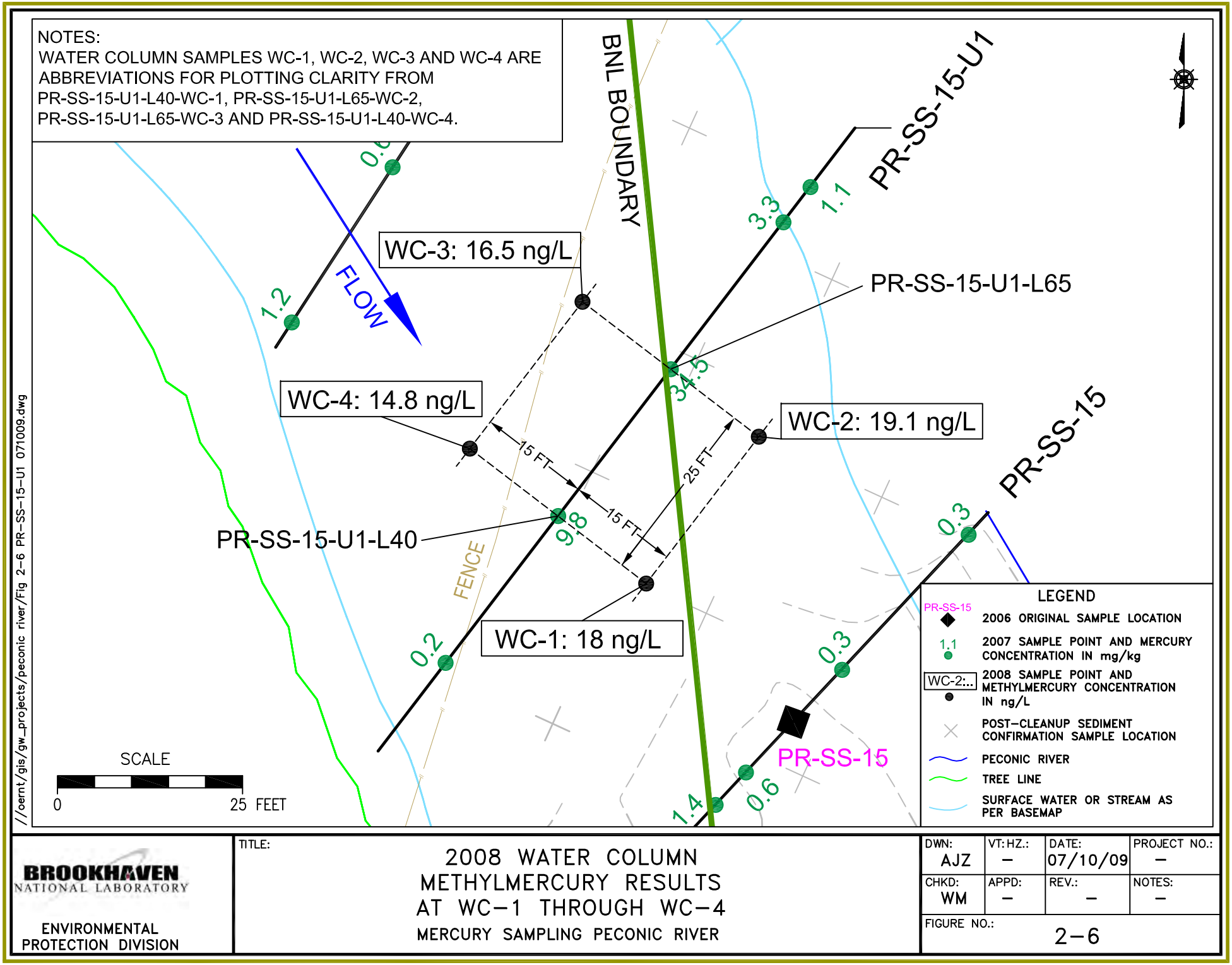
TITLE:

2008 WATER COLUMN TOTAL MERCURY RESULTS AT WC-1 THROUGH WC-4

MERCURY SAMPLING PECONIC RIVER

DWN:	VT:HZ.:	DATE:	PROJECT NO.:
AJZ	–	07/10/09	–
CHKD:	APPD:	REV.:	NOTES:
WM	–	–	–

FIGURE NO.: 2-5



BROOKHAVEN NATIONAL LABORATORY

ENVIRONMENTAL PROTECTION DIVISION

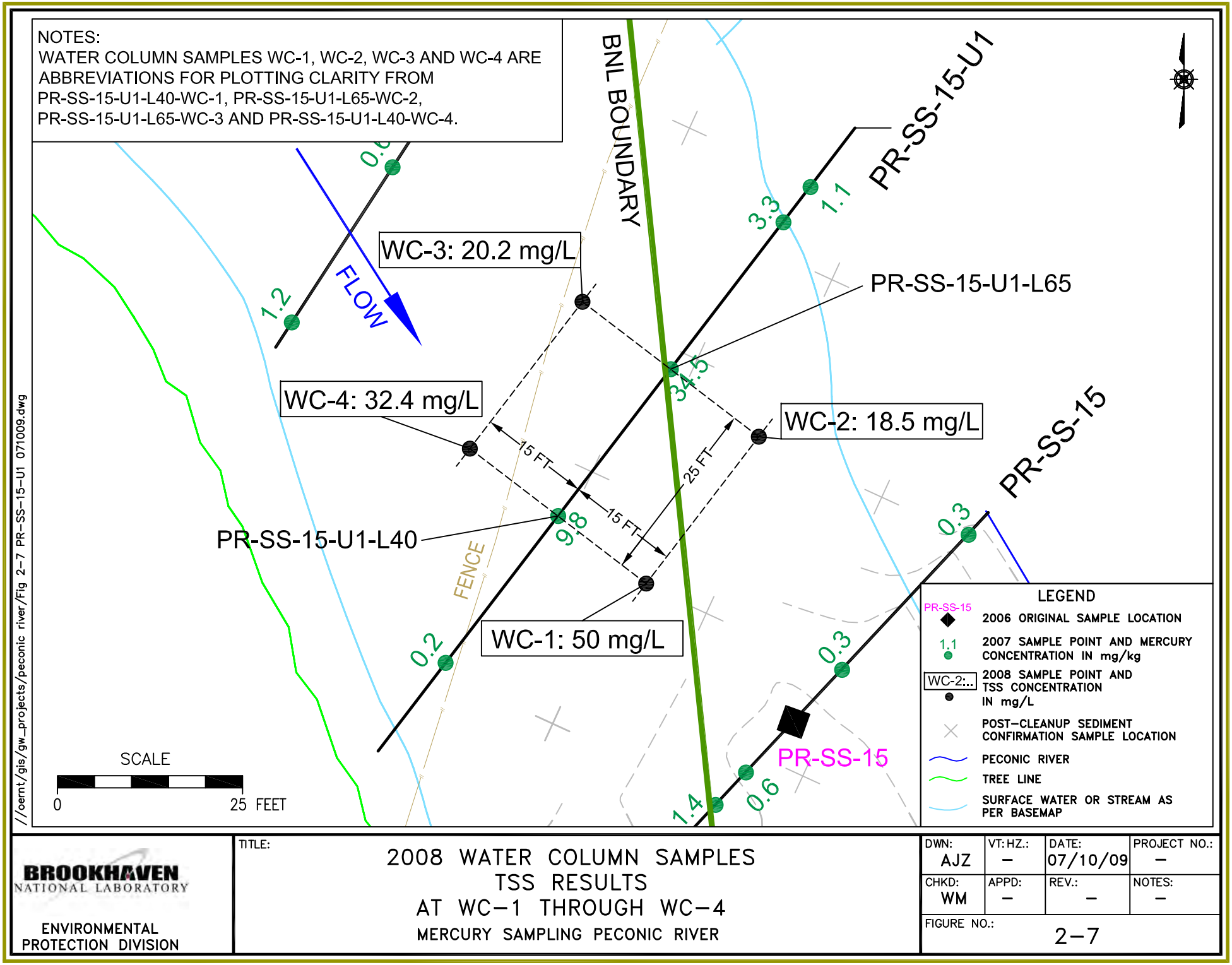
TITLE:

2008 WATER COLUMN METHYLMERCURY RESULTS AT WC-1 THROUGH WC-4

MERCURY SAMPLING PECONIC RIVER

DWN:	VT:HZ.:	DATE:	PROJECT NO.:
AJZ	–	07/10/09	–
CHKD:	APPD:	REV.:	NOTES:
WM	–	–	–

FIGURE NO.: 2-6



BROOKHAVEN NATIONAL LABORATORY
ENVIRONMENTAL PROTECTION DIVISION

TITLE:

2008 WATER COLUMN SAMPLES TSS RESULTS AT WC-1 THROUGH WC-4

MERCURY SAMPLING PECONIC RIVER

DWN:	VT: HZ.:	DATE:	PROJECT NO.:
AJZ	–	07/10/09	–
CHKD:	APPD:	REV.:	NOTES:
WM	–	–	–

FIGURE NO.: 2-7

Figure 3-1. 2008 Peconic River Surface Water Total Mercury

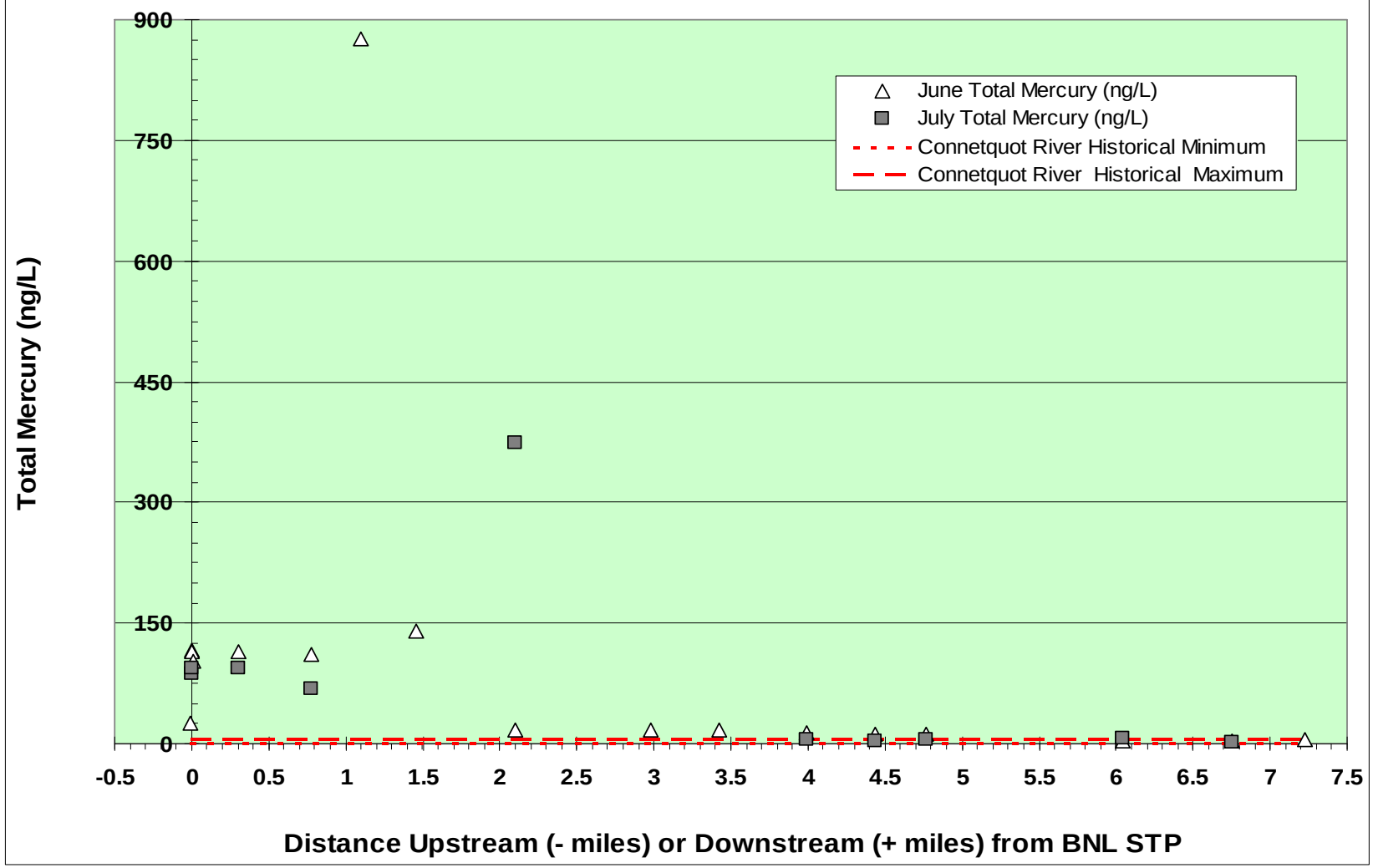


Figure 3-2. 2008 Peconic River Surface Water Total Mercury Less than 150 ng/L

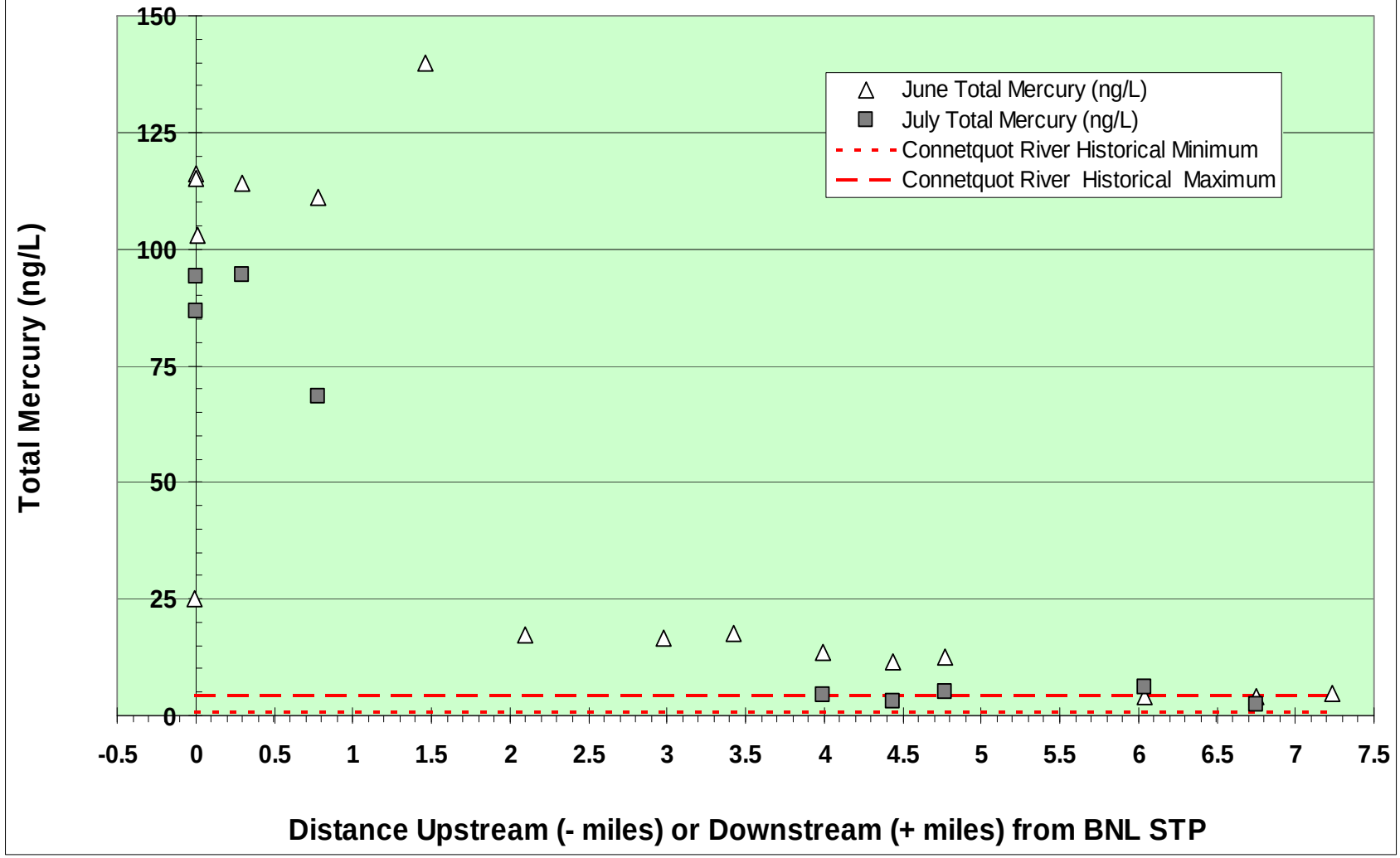


Figure 3-3. 2008 Peconic River Surface Water Methylmercury

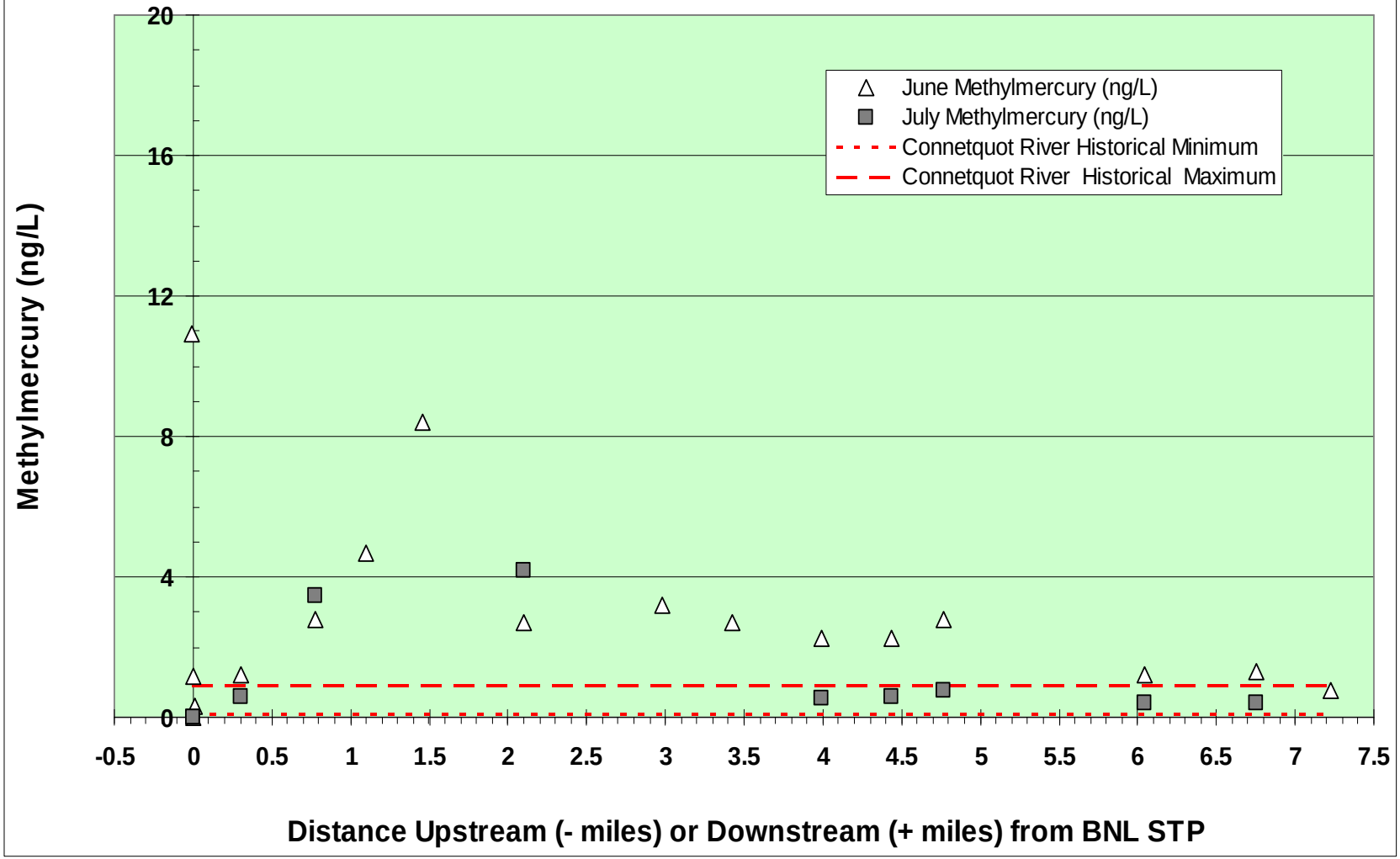


Figure 3-4. 2008 Peconic River Surface Water Percent Methylmercury

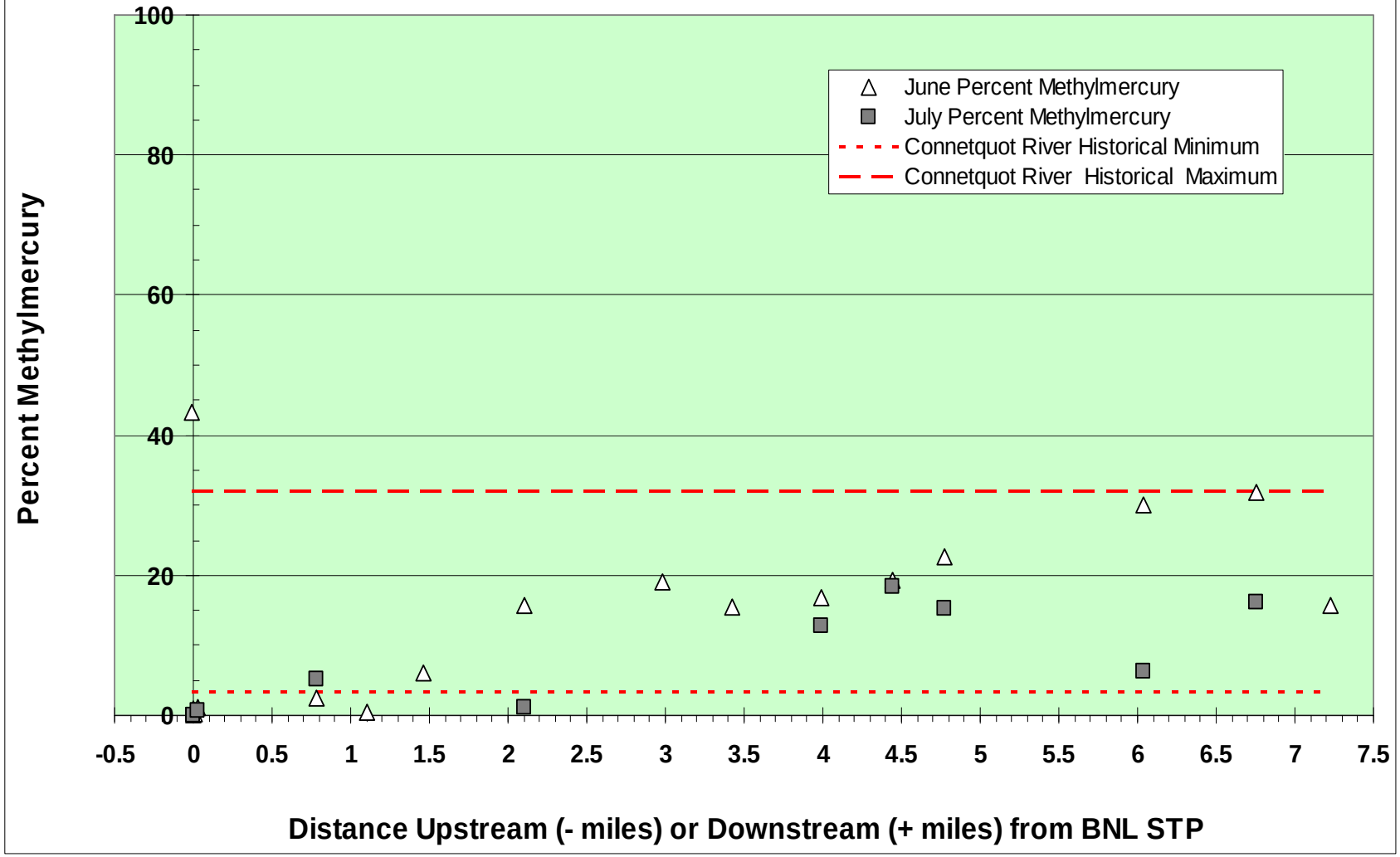


Figure 3-5. 2008 Peconic River Surface Water Total Suspended Solids (TSS)

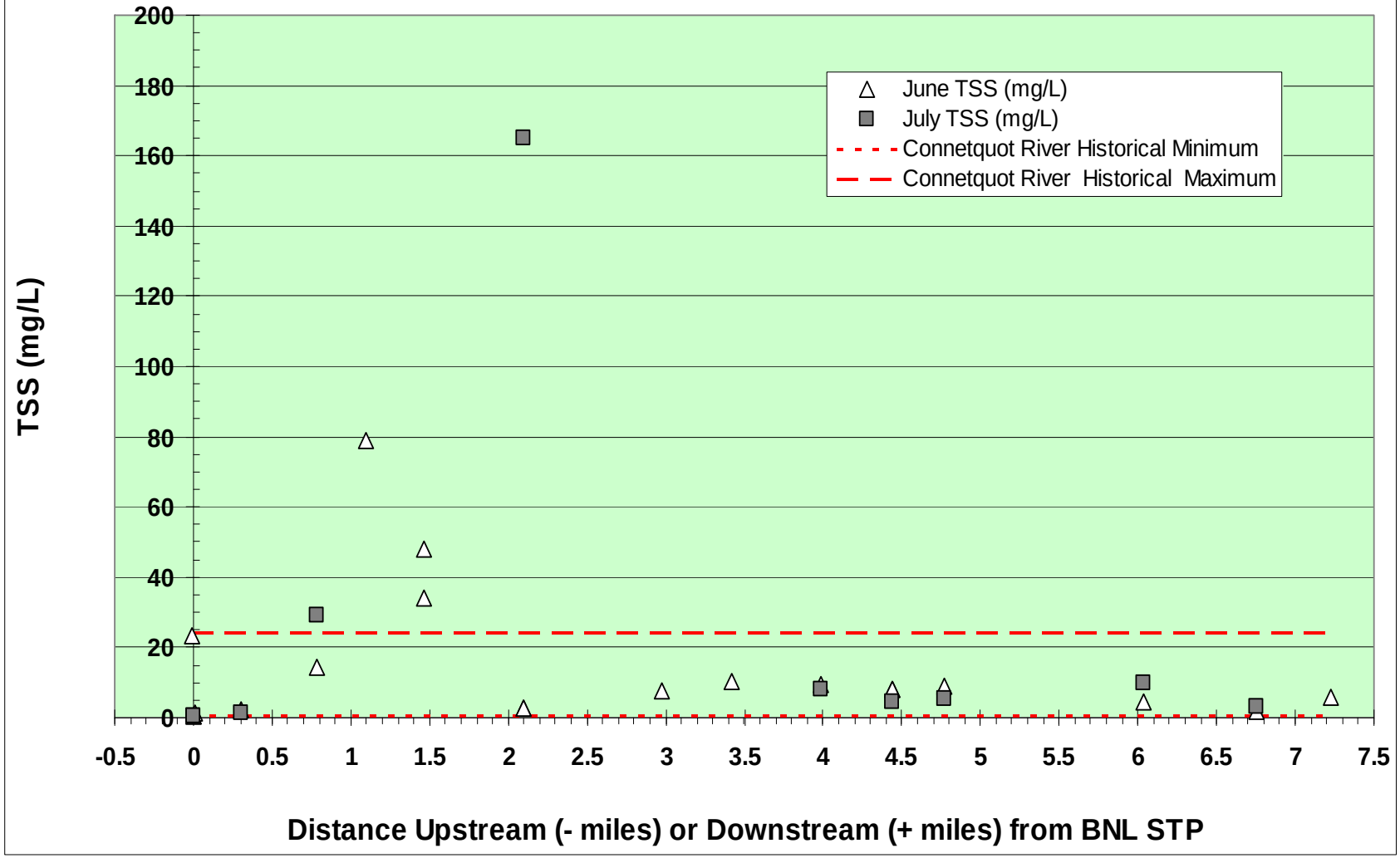
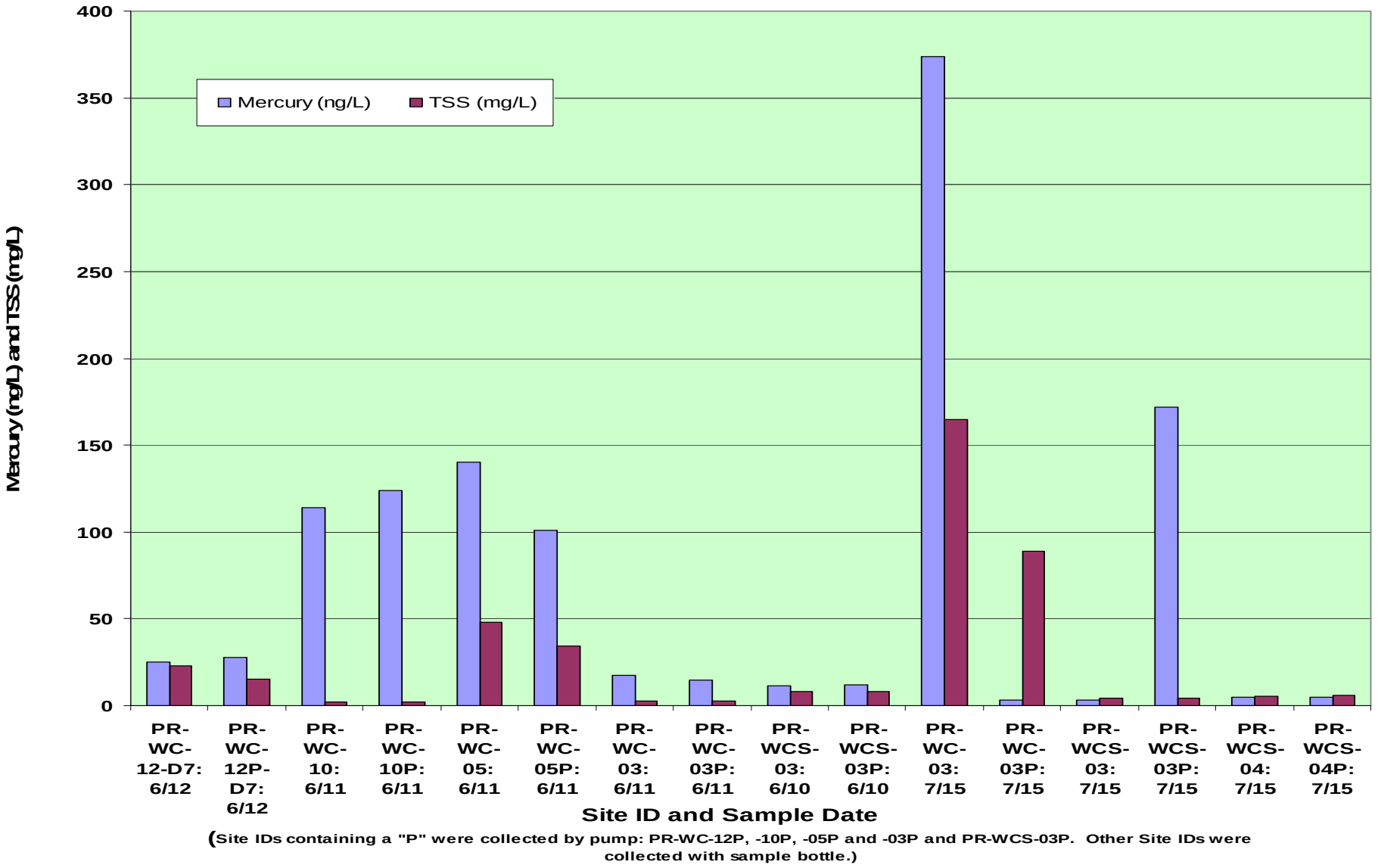


Figure 3-6. Evaluation of Bottle-Collected and Pump-Collected Samples on Mercury and TSS Concentrations



(Site IDs containing a "P" were collected by pump: PR-WC-12P, -10P, -05P and -03P and PR-WCS-03P. Other Site IDs were collected with sample bottle.)

Figure 4-1 2008 Peconic River Fish Tissue - Mercury

(Sorted by Area and Mercury Concentration)

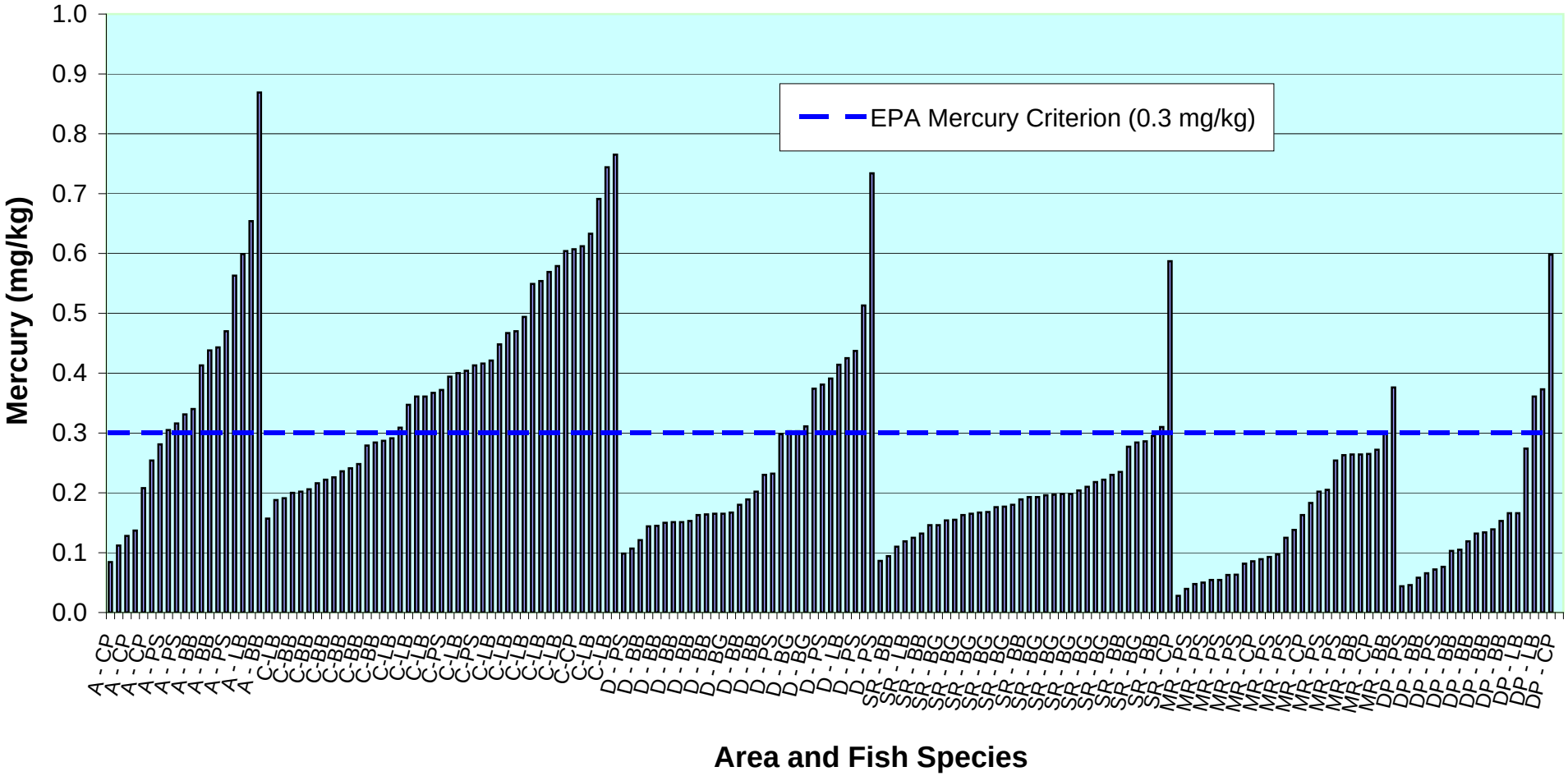
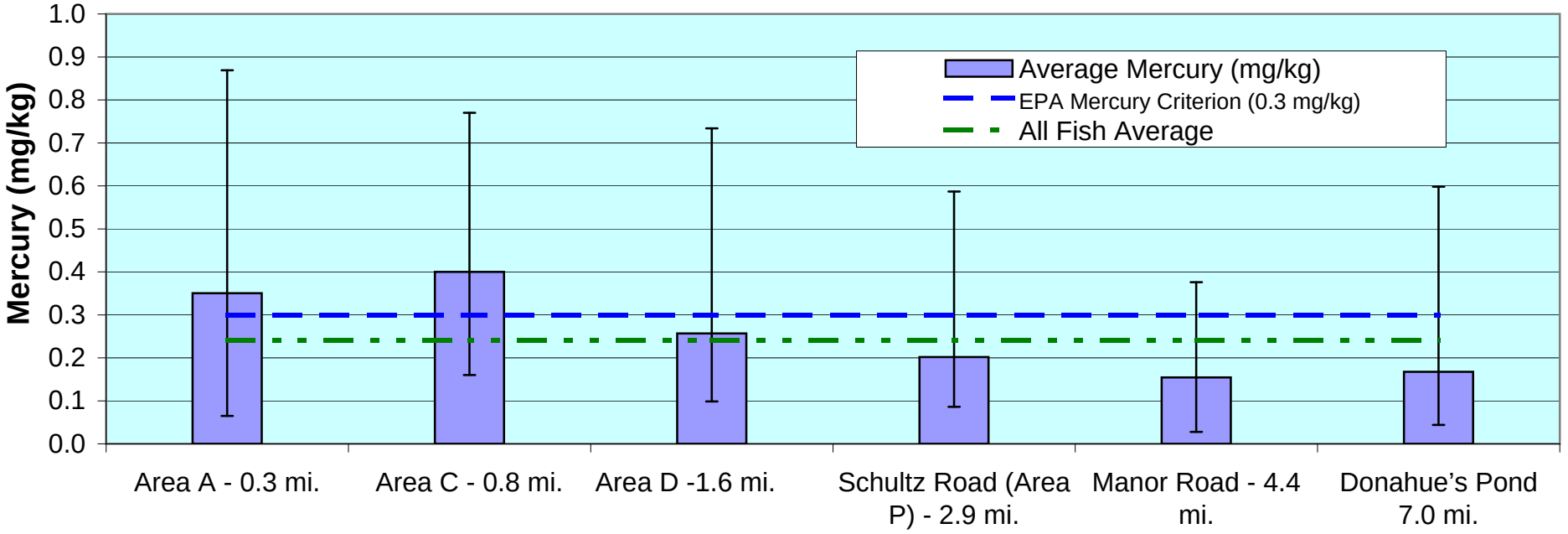


Figure 4-2 2008 Peconic River -
Average Fish Tissue Mercury



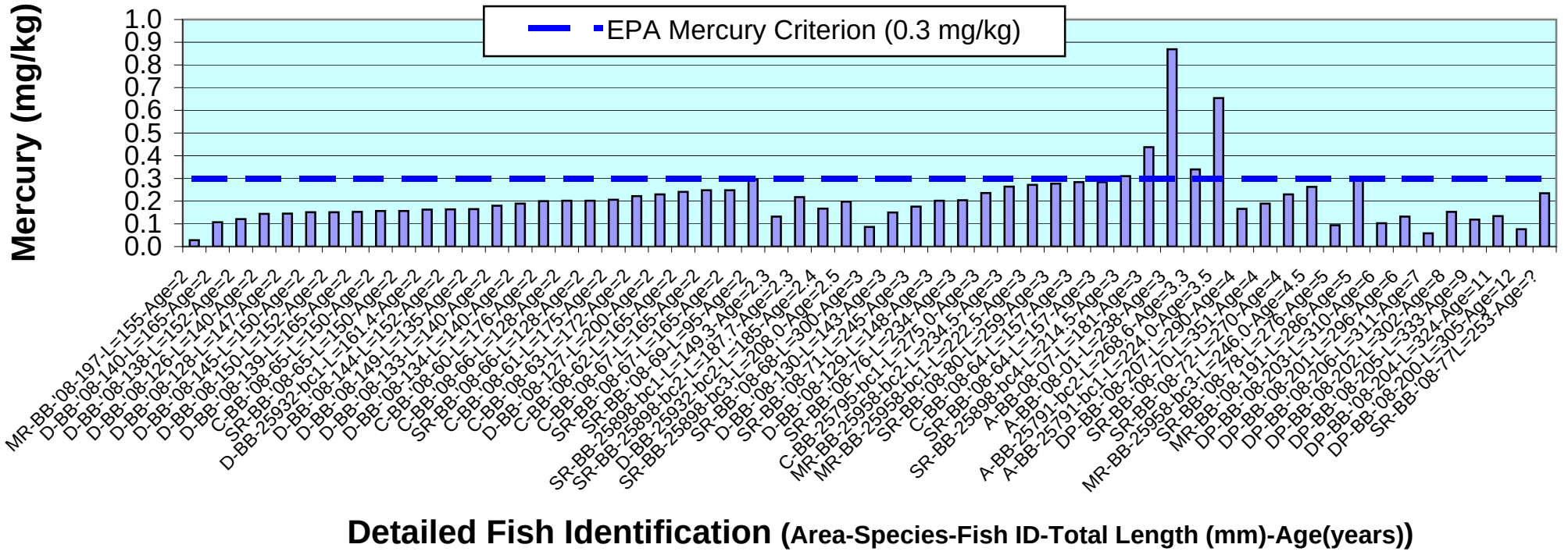
Collection Area and Approximate Downstream Distance

(Error Bars show the minimum and maximum for each location.)

Distance is from BNL STP to mid-point of fish colleciton area.

Figure 4-3 2008 Peconic River Brown Bullheads - Mercury

(Sorted by Age - Mercury Concentration - Area)



Detailed Fish Identification (Area-Species-Fish ID-Total Length (mm)-Age(years))

Figure 4-4 2008 Peconic River Bluegills - Mercury
(Sorted by Age-Mercury Concentration-Area)

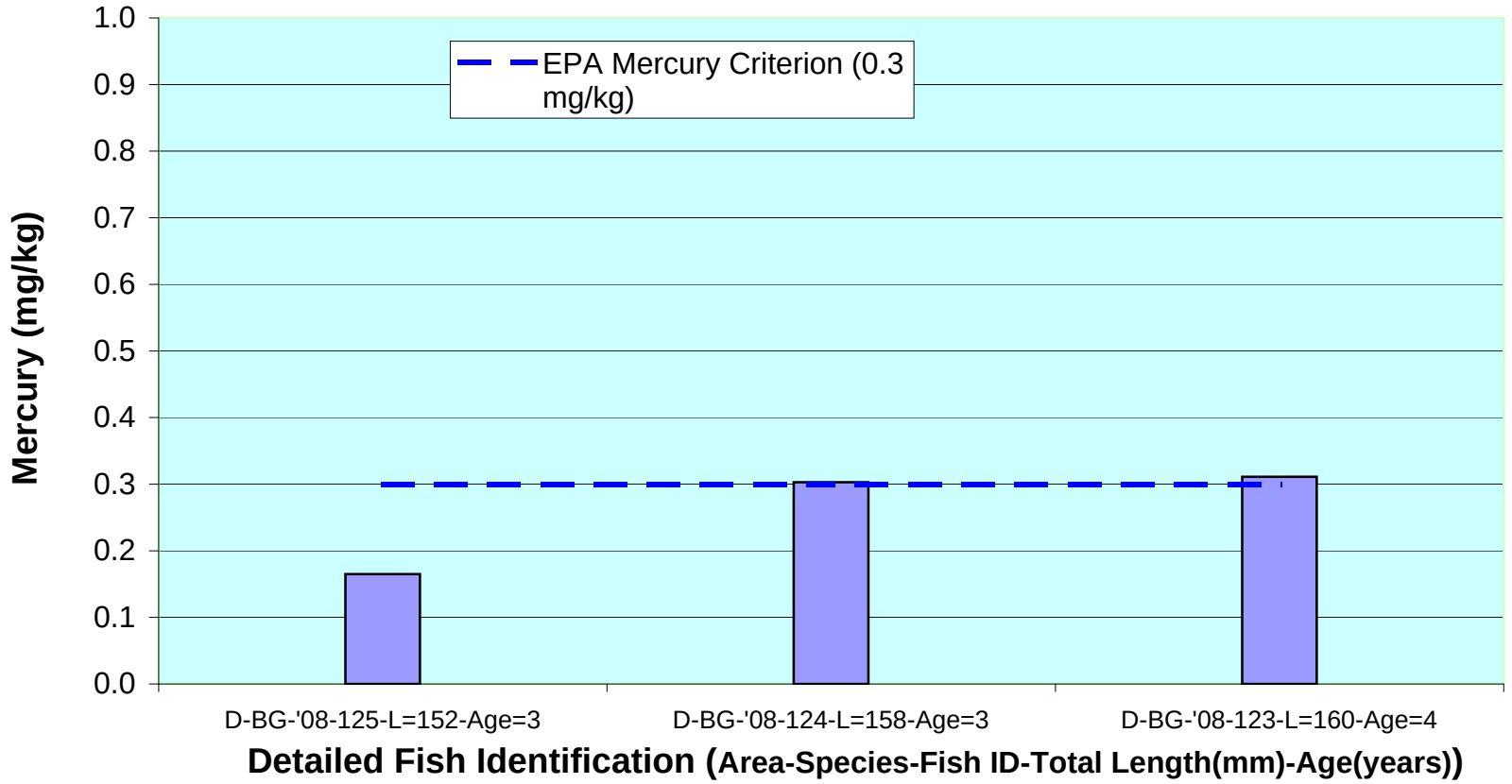


Figure 4-5 2008 Peconic River Chain Pickerel - Mercury
(Sorted by Age - Mercury Concentration - Area)

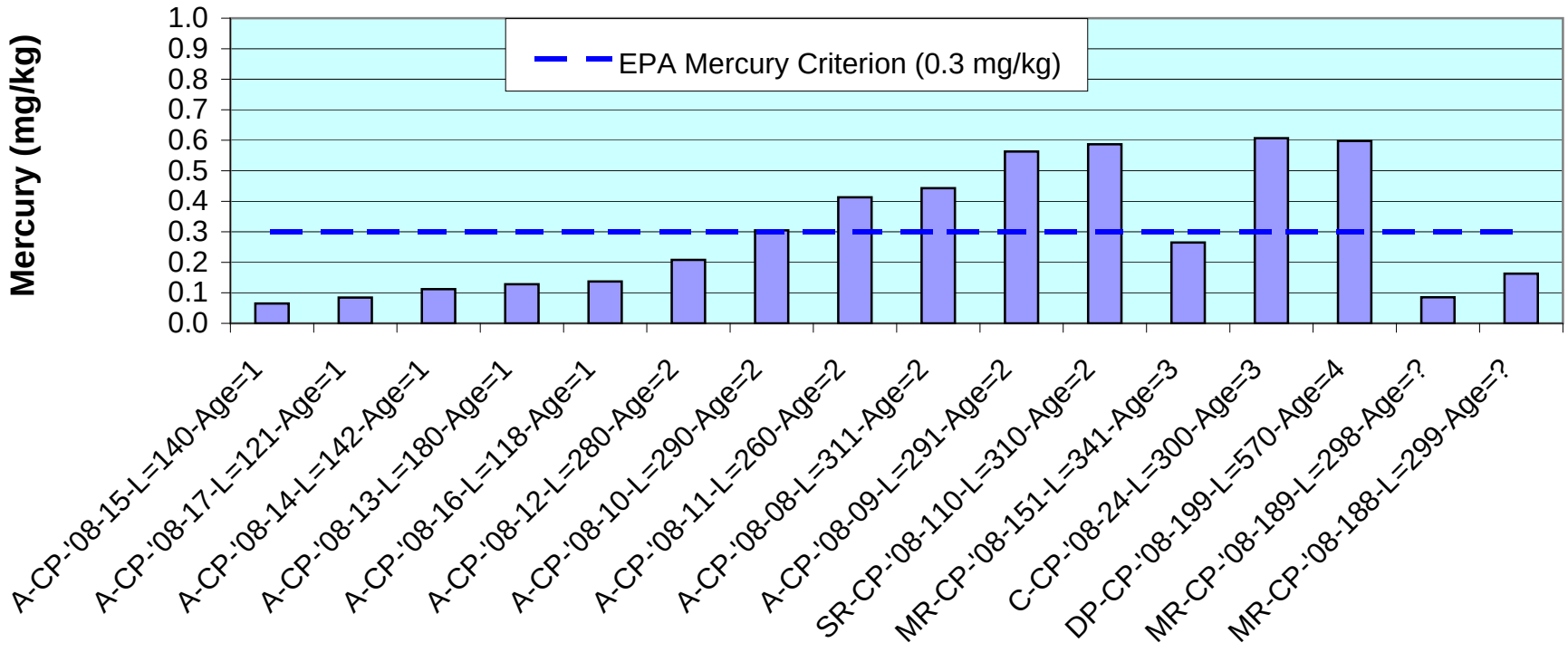
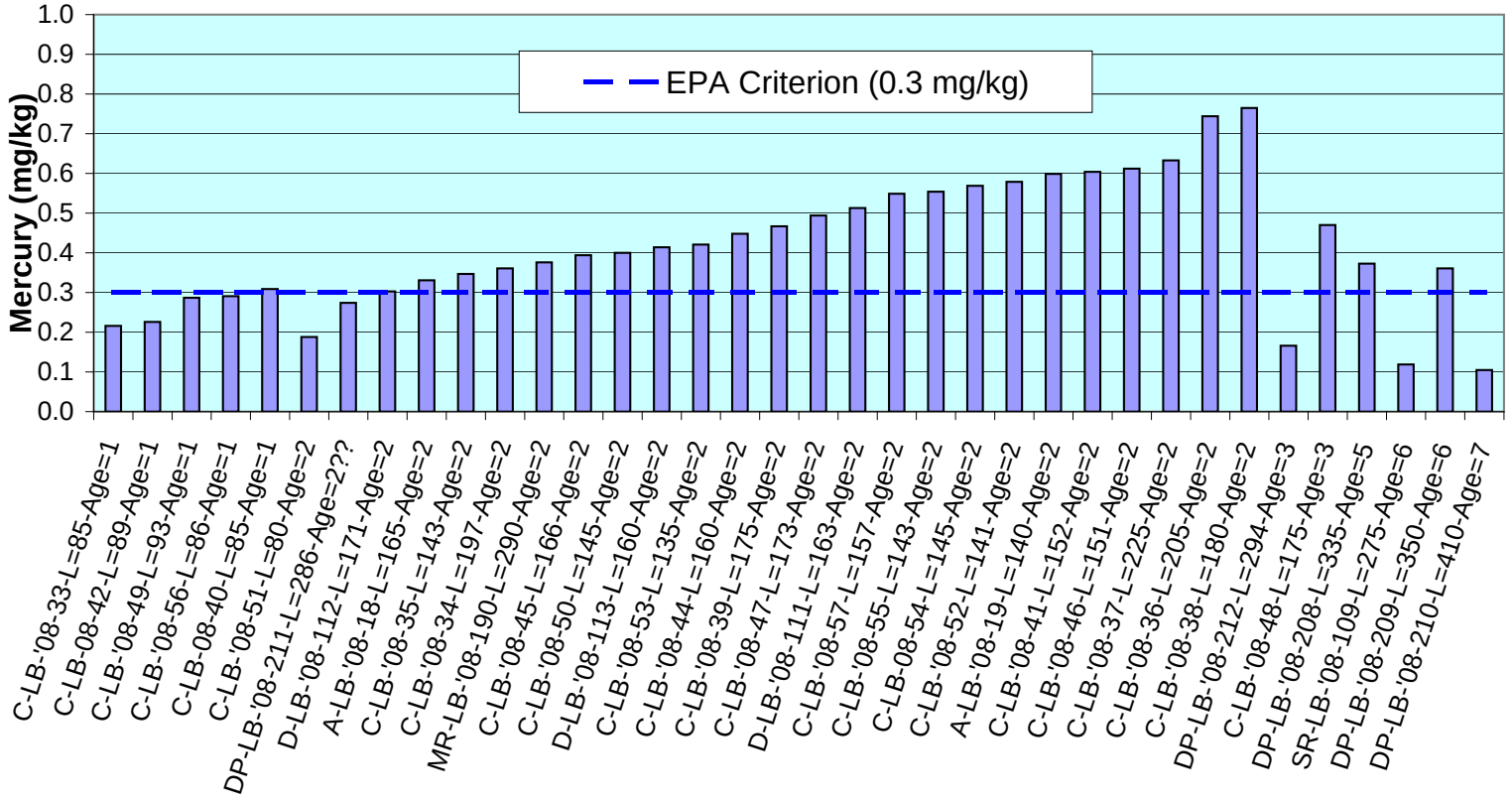


Figure 4-6 2008 Peconic River Largemouth Bass - Mercury

(Sorted by Age - Mercury Concentration - Area)



Detailed Fish Identification (Area-Species-Fish ID-Total Length (mm)-Age (years))

Figure 4-7 2008 Peconic River Pumpkinseed - Mercury

(Sorted by Age - Mercury Concentration - Area)

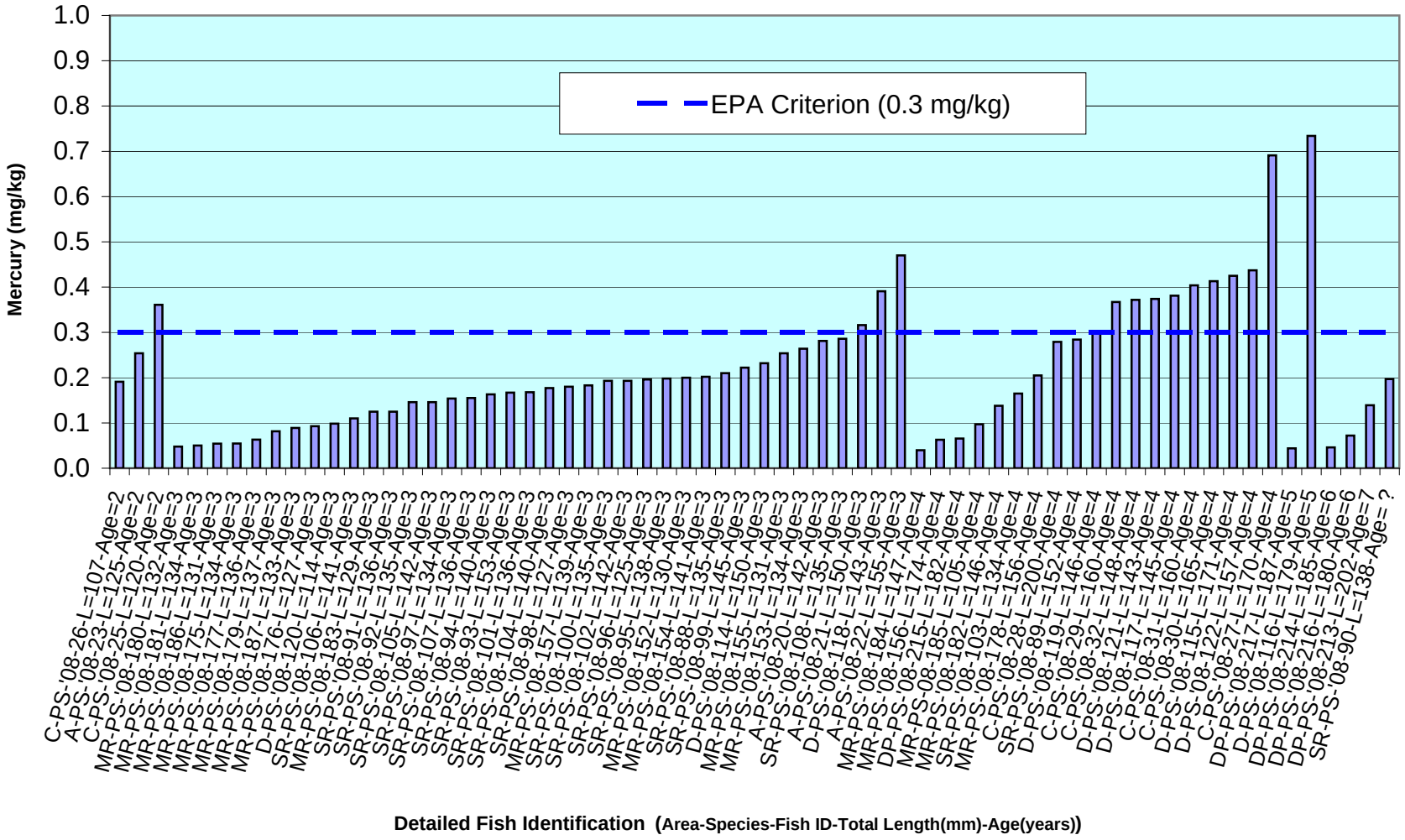


Figure 4-8 2008 Peconic River Brown Bullheads - PCBs
(Sorted by Analyte-Age-Area)

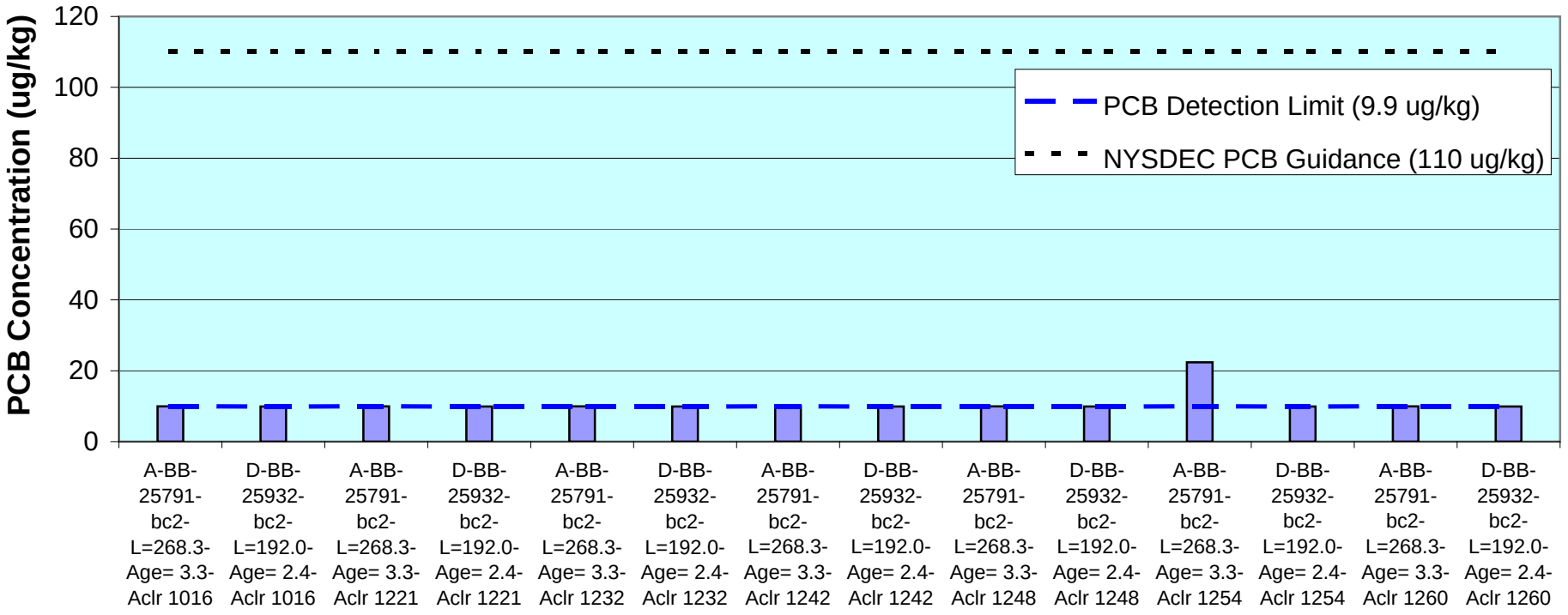
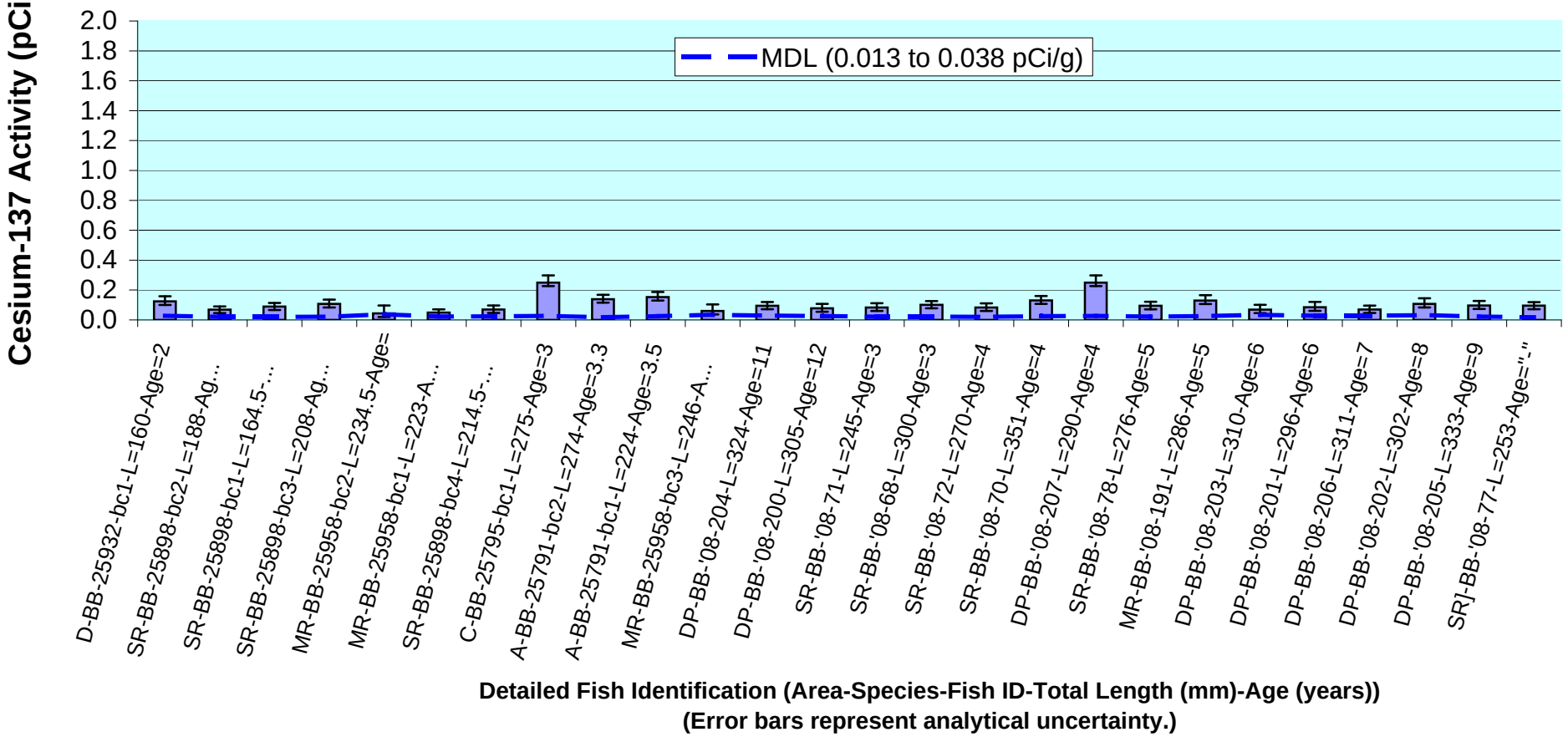


Figure 4-9 Peconic River Brown Bullhead - Cesium-137

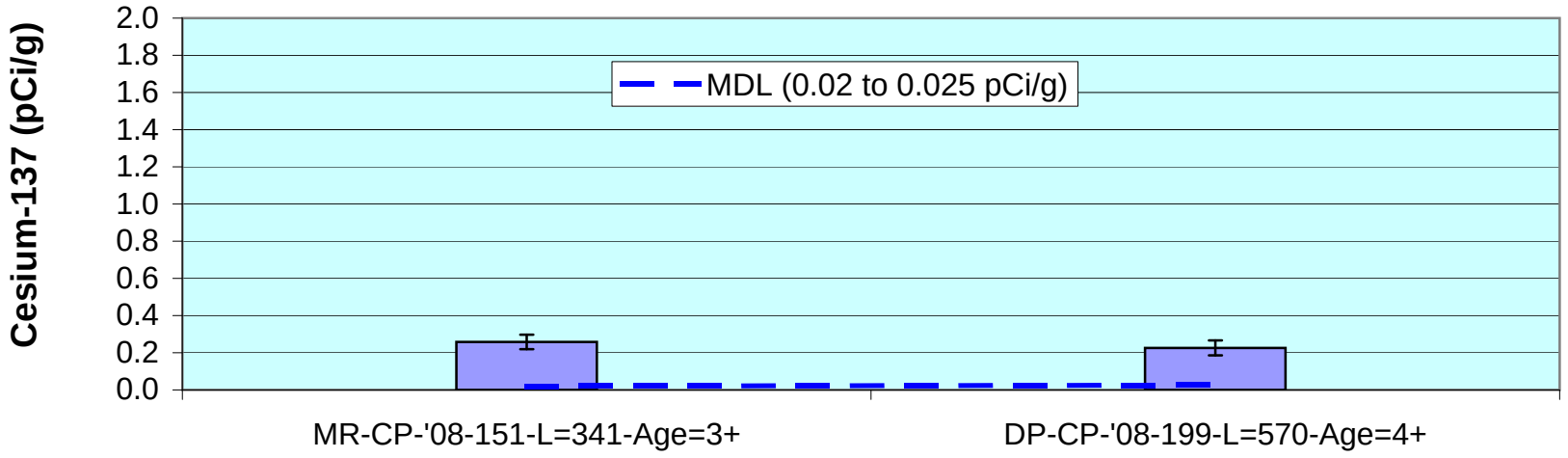
(Sorted by Age-Cesium-137 Activity-Area)



Detailed Fish Identification (Area-Species-Fish ID-Total Length (mm)-Age (years))

(Error bars represent analytical uncertainty.)

Figure 4-10 2008 Peconic River Chain Pickerel - Cesium-137 (Sorted by Age)

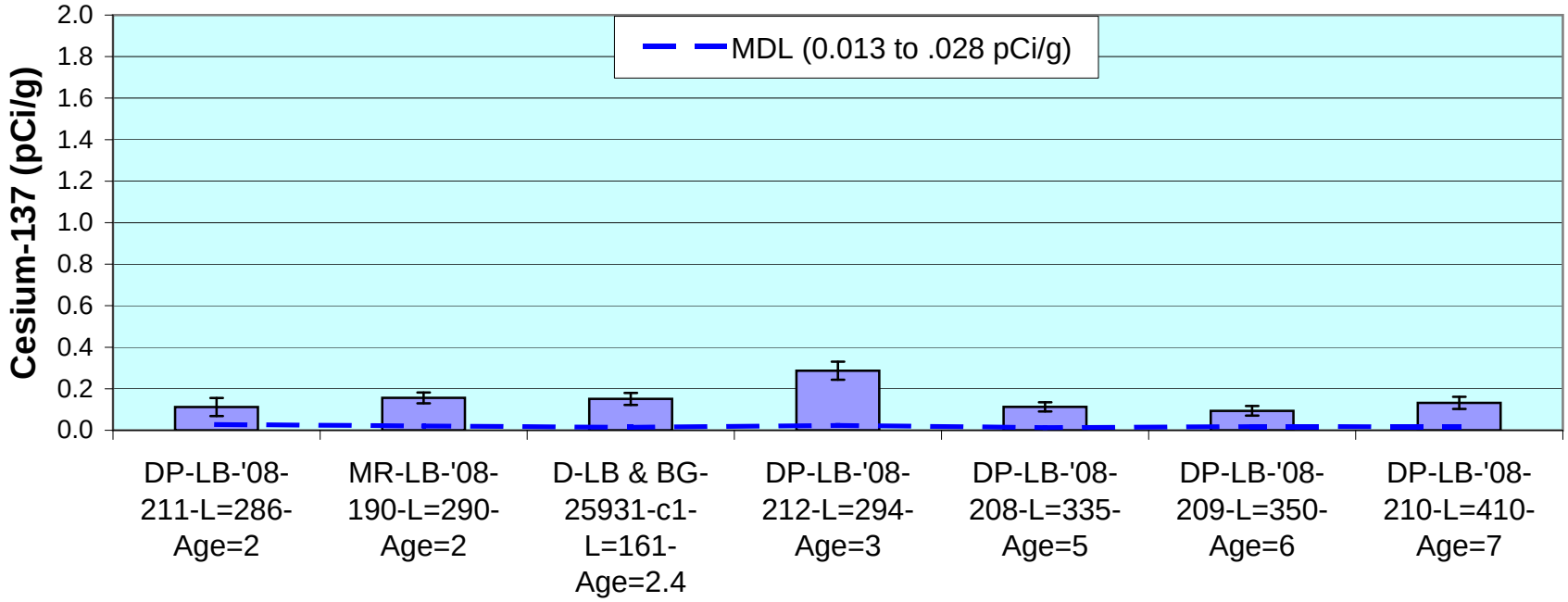


Detailed Fish Identification (Area-Species-Fish ID-Total Length (mm)-Age (years))

(Error bars represent analytical uncertainty.)

Figure 4-11 2008 Peconic River Largemouth Bass - Cesium-137

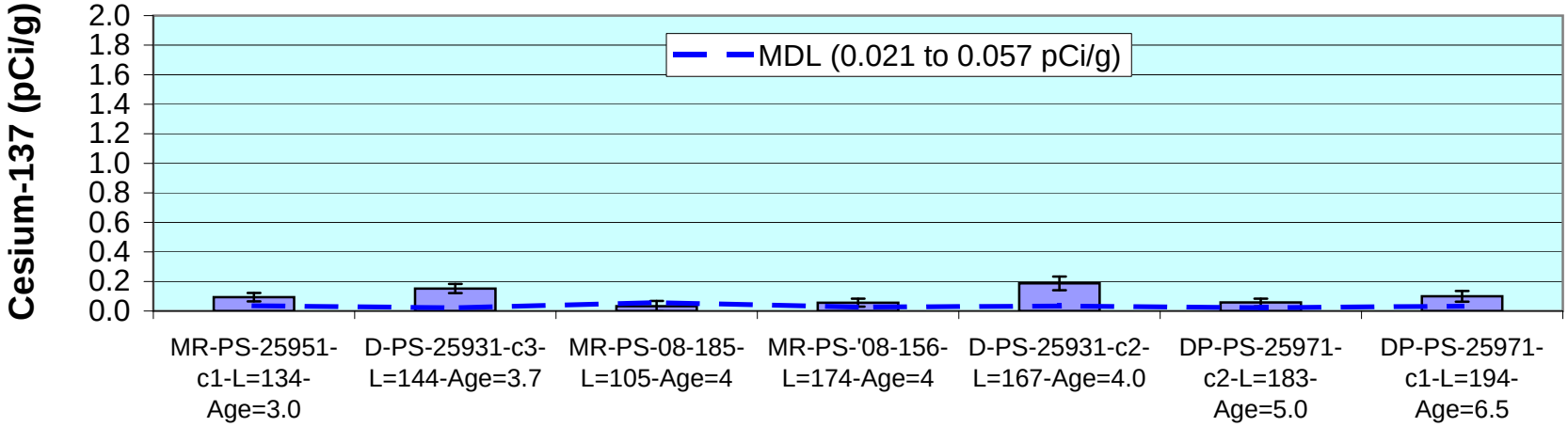
(Sorted by Age-Cesium-137 Activity-Area)



Detailed Fish Identification (Area-Species-Fish ID-Total Length (mm)-Age (years))
(Error bars represent analytical uncertainty.)

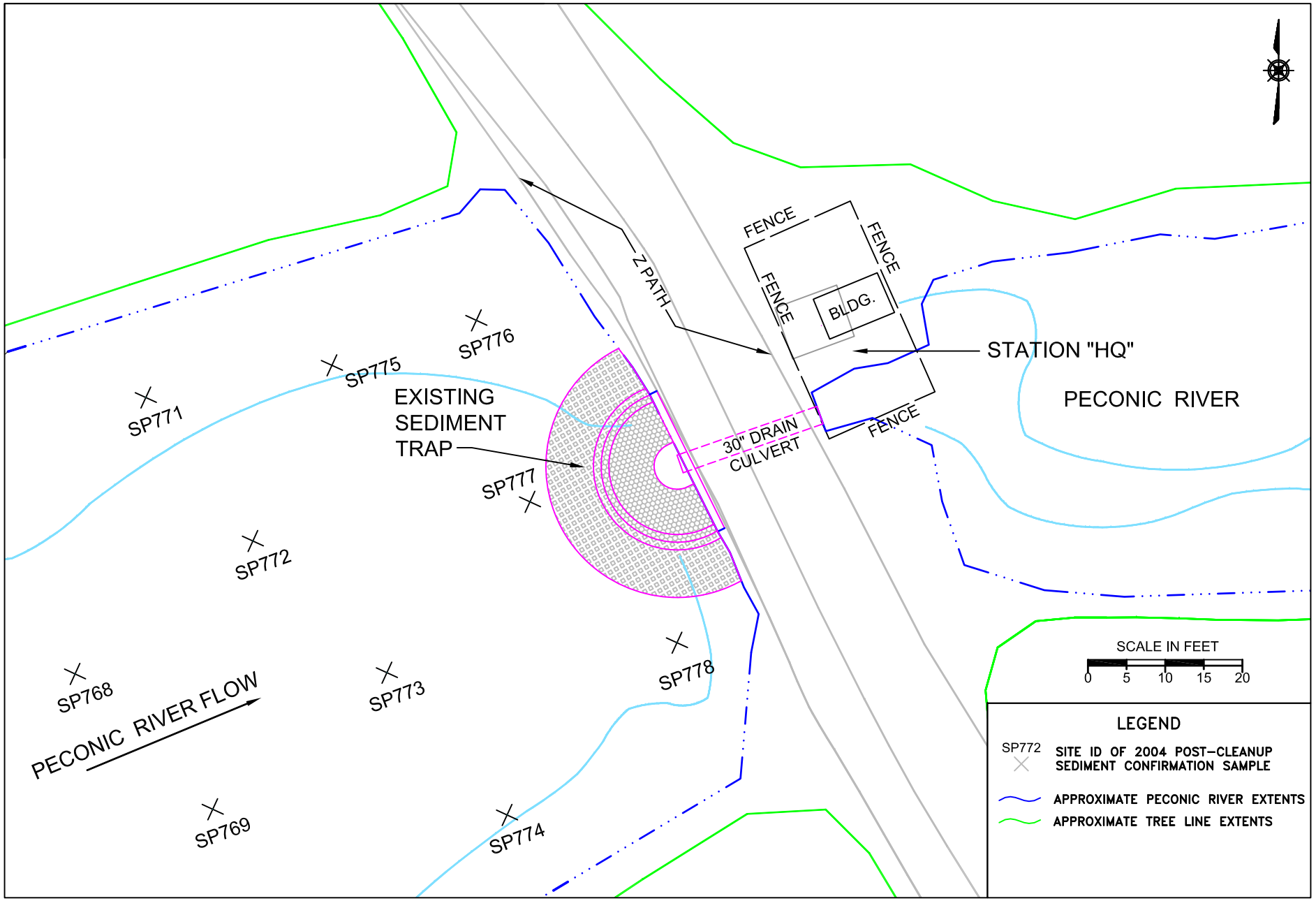
Figure 4-12 2008 Peconic River Pumpkinseed - Cesium-137

(Sorted by Age-Cesium-137 Activity-Area)



Detailed Fish Identification (Area-Species-Fish ID-Total Length (mm)-Age (years))

(Error bars represent analytical uncertainty.)



//oernt/gis/gw_projects/peconic river/2008 Report/fig 6-1.dwg

BROOKHAVEN NATIONAL LABORATORY

ENVIRONMENTAL PROTECTION DIVISION

TITLE:

SEDIMENT TRAP UPSTREAM OF STREAM GAUGING STATION HQ

MERCURY SAMPLING PECONIC RIVER

DWN:	VT: HZ.:	DATE:	PROJECT NO.:
AJZ	–	08/04/09	–
CHKD:	APPD:	REV.:	NOTES:
WM	–	–	–

FIGURE NO.: 6-1

Figure 6-2a 2003 - 2004 TSS Upstream (PR-ST-TU4, -TU5, and -TU6) and Downstream (PR-ST-TU1, -TU2 and -TU3) of Sediment Trap

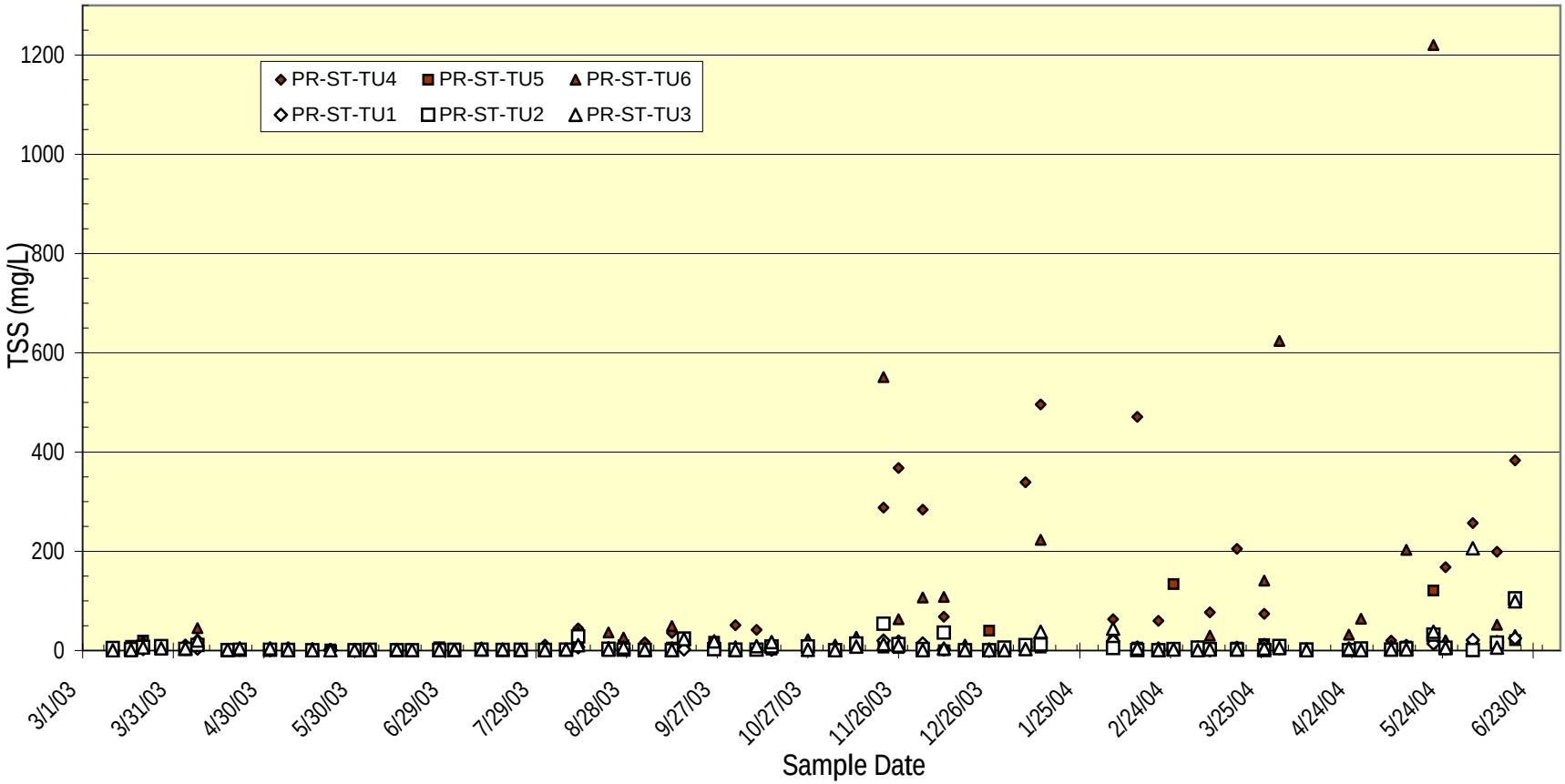


Figure 6-2b 2003 - 2004 TSS Upstream (PR-ST-TU4, -TU5 and -TU6) and Downstream (PR-ST-TU1, -TU2 and -TU3) of Sediment Trap

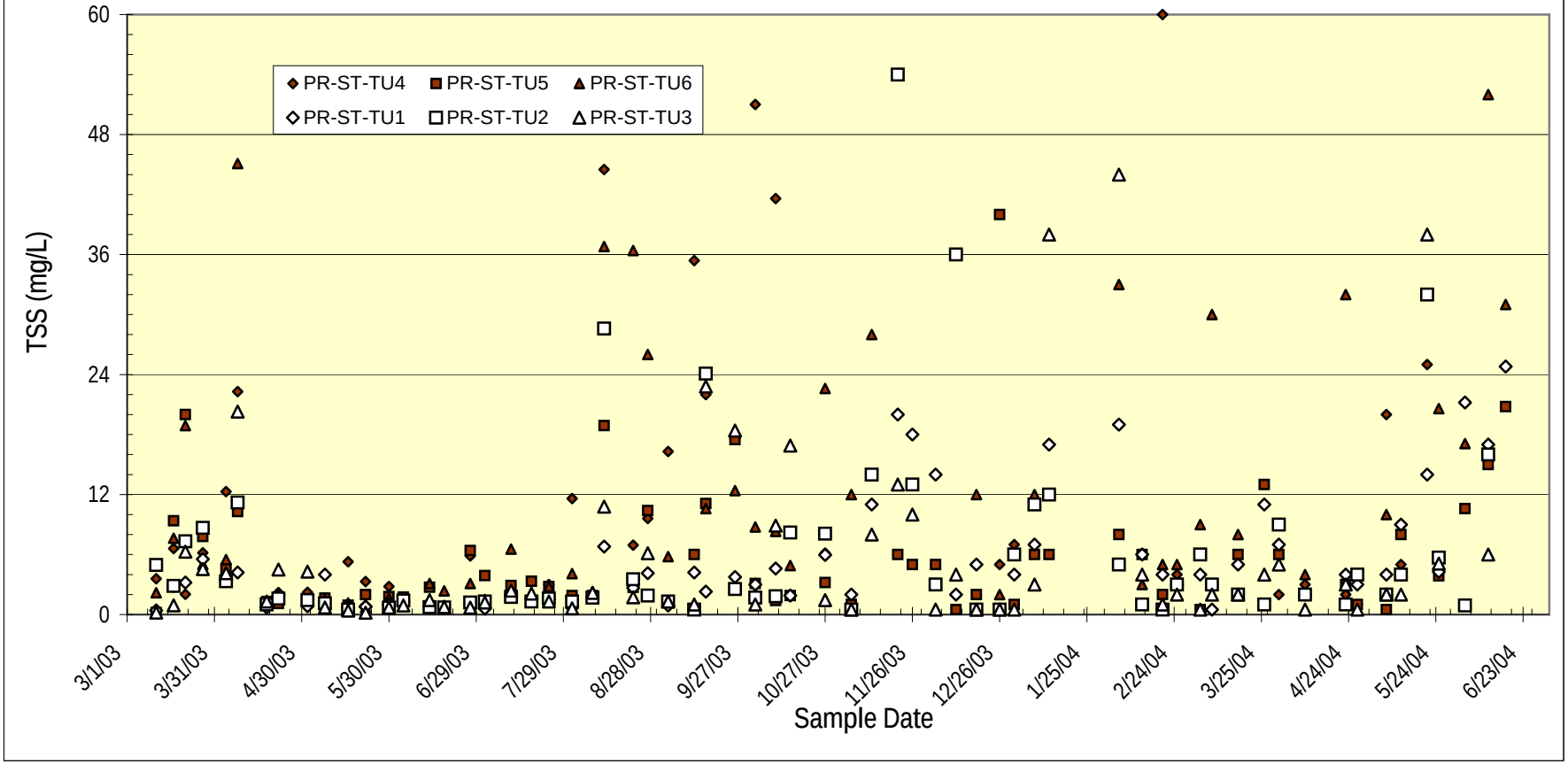


Figure 6-3a 2006 - 2008 TSS Upstream (PR-ST-TU4, -TU5 and -TU6) and Downstream (PR-ST-TU1, -TU2 and -TU3) of Sediment Trap

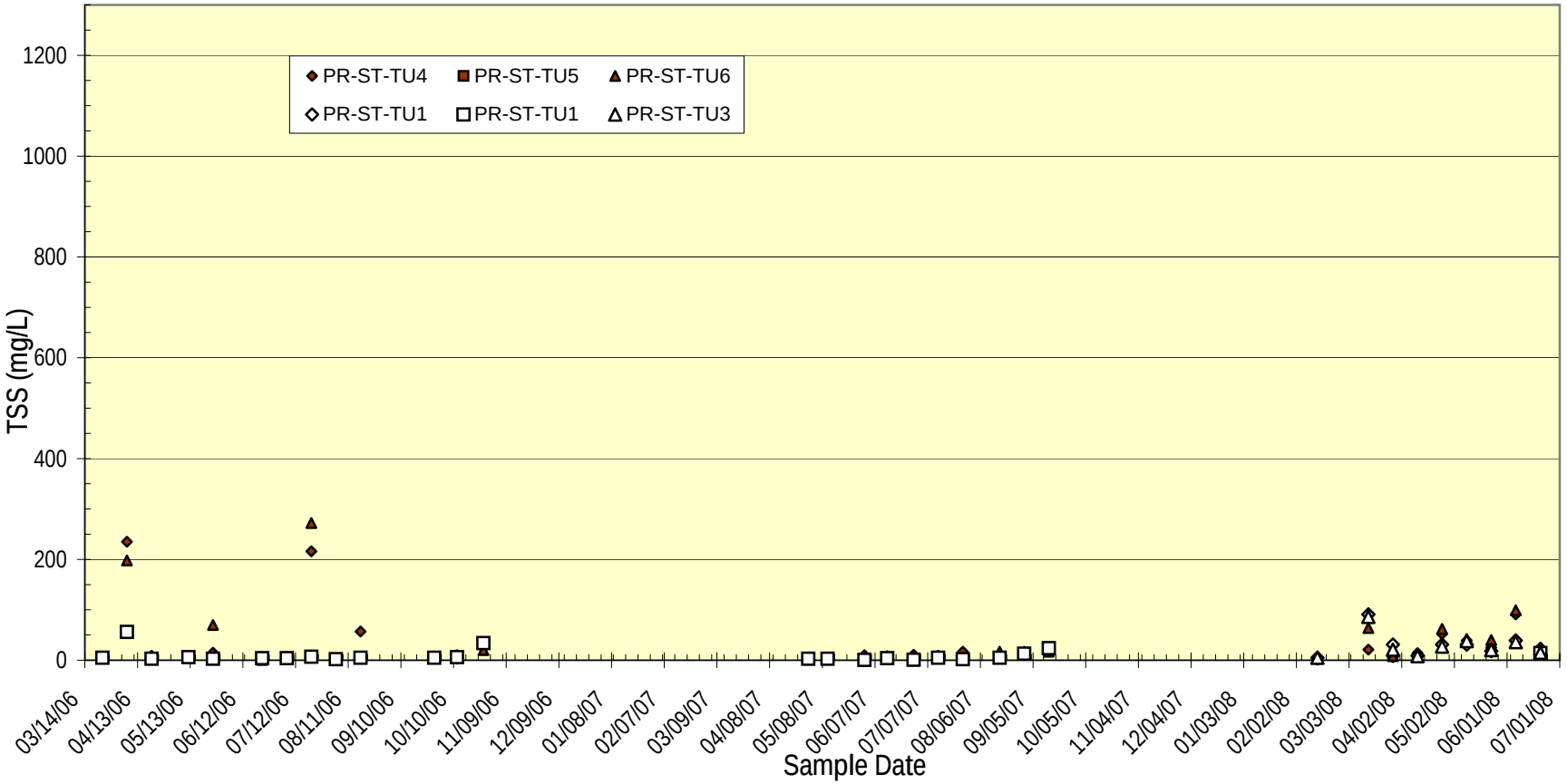


Figure 6-3b 2006 - 2008 TSS Upstream (PR-ST-TU-4, -TU-5 and -TU-6) and Downstream (PR-ST-TU1, -TU2 and -TU3) of Sediment Trap

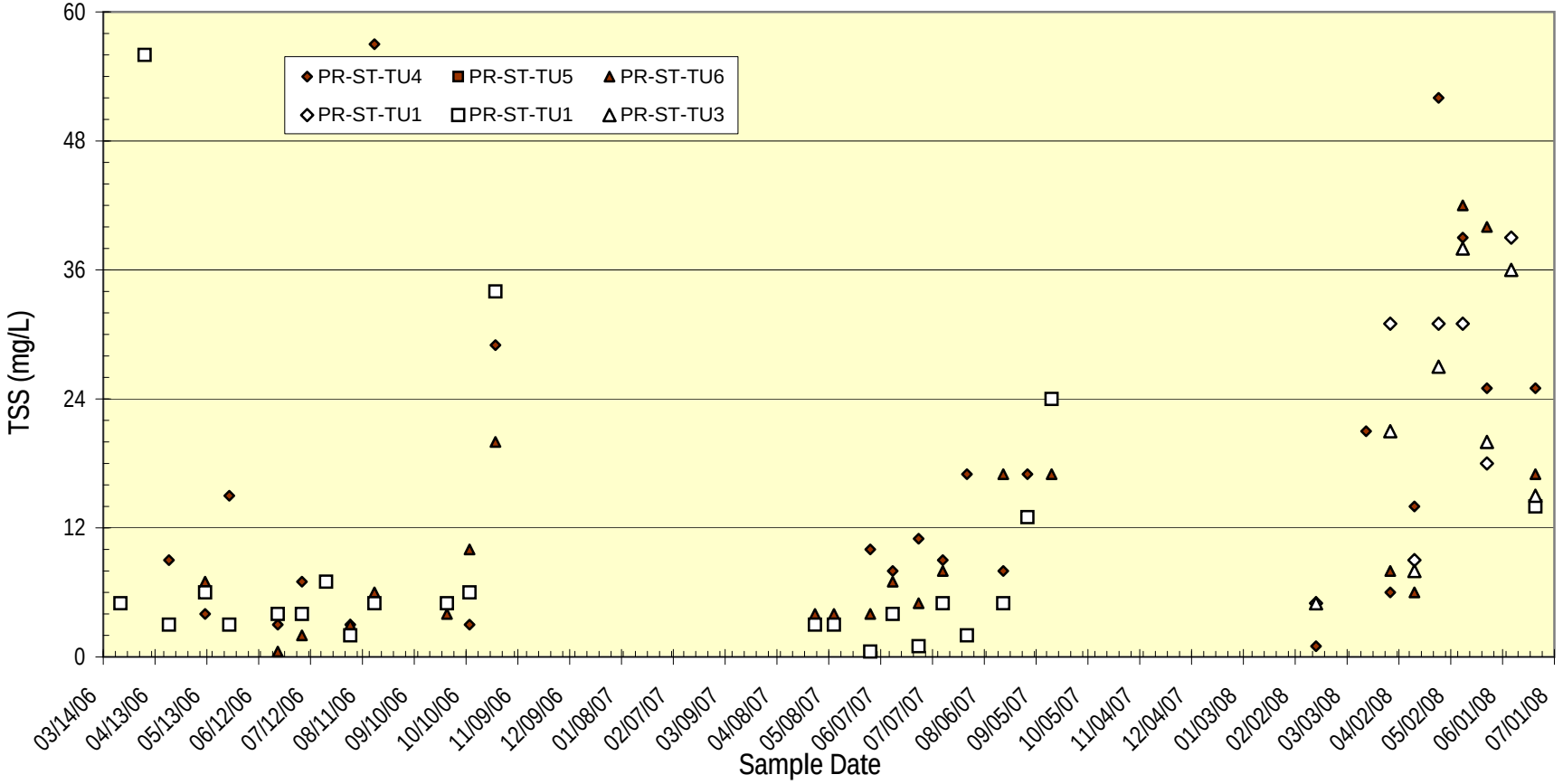
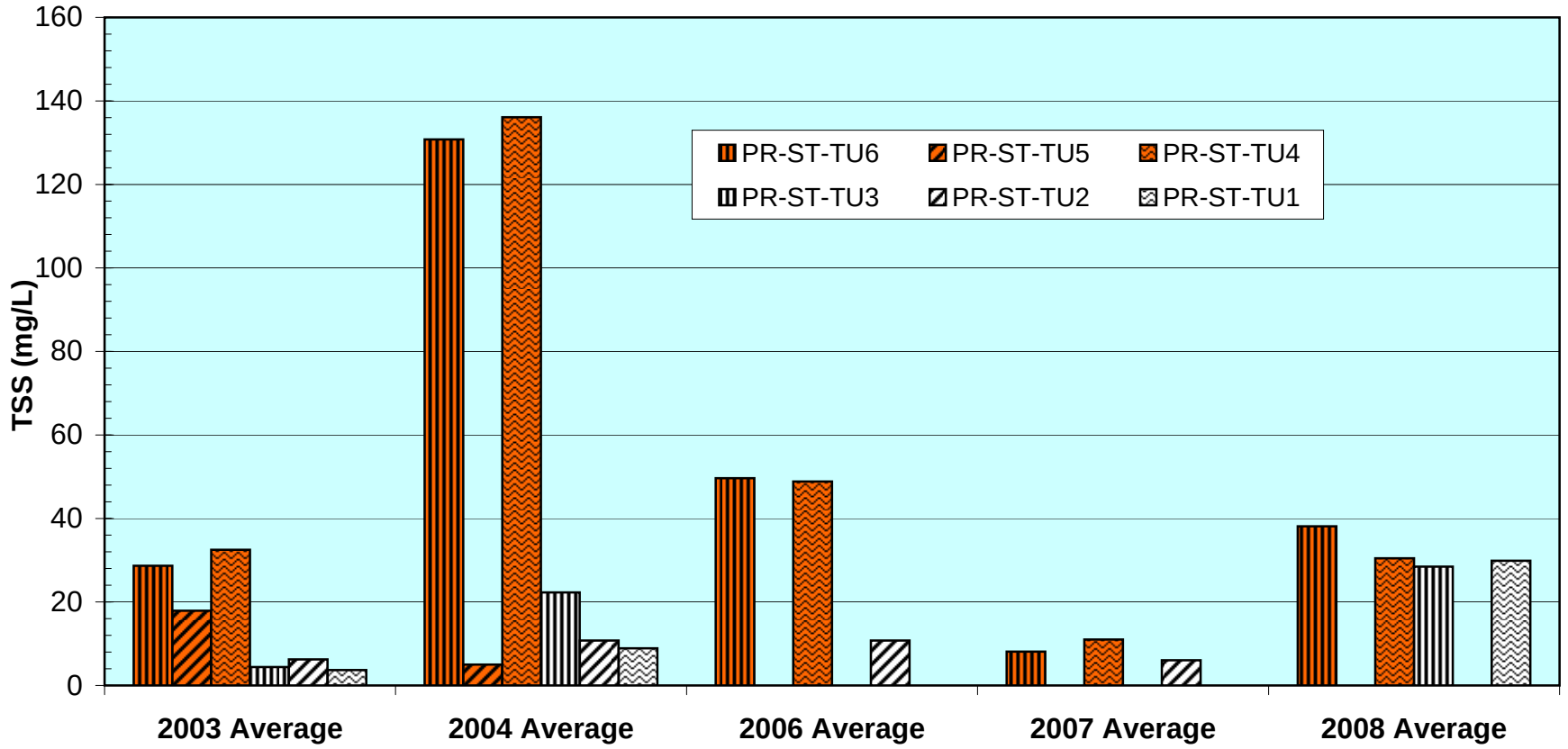


Figure 6-4 Annual Average TSS Upstream (PR-ST-TU6, 5, 4) and Downstream (PR-ST-TU3, 2, 1) of Sediment Trap



Appendix A - 2008 Peconic River Sediment Samples
Metals

Sample ID	COC Site ID	Sample Date	Sample Time	Method	Analyte	Conc.	MDL	Units	Lab Qual.	Rev. Qual.
25990-016	PR-SS-38	6/26/2008	1435	EPA 7471A	Mercury	2.10	0.0204	MG/KG	*	
25990-015	PR-SS-37	6/26/2008	1425	EPA 7471A	Mercury	0.09	0.00194	MG/KG	B*	
25990-014	PR-SS-35	6/26/2008	1400	EPA 7471A	Mercury	0.50	0.00199	MG/KG	*	
25990-013	PR-SS-33	6/26/2008	1410	EPA 3050B/6010B	Copper	7.60	0.419	MG/KG		
25990-013	PR-SS-33	6/26/2008	1410	EPA 7471A	Mercury	0.32	0.00173	MG/KG	*	
25990-013	PR-SS-33	6/26/2008	1410	EPA 3050B/6010B	Silver	3.00	0.14	MG/KG		
25990-012	PR-SS-31	6/26/2008	1345	EPA 7471A	Mercury	0.04	0.00183	MG/KG	B*	
25990-011	PR-SS-30	6/26/2008	1335	EPA 7471A	Mercury	0.06	0.00171	MG/KG	B*	
25990-010	PR-SS-29	6/26/2008	1325	EPA 7471A	Mercury	0.16	0.00174	MG/KG	B*	
25990-009	PR-SS-26	6/26/2008	1315	EPA 7471A	Mercury	0.87	0.00437	MG/KG	*	
25990-007	PR-SS-24	6/26/2008	1305	EPA 7471A	Mercury	0.15	0.00169	MG/KG	B*	
25990-006	PR-SS-23	6/26/2008	1258	EPA 7471A	Mercury	0.18	0.00175	MG/KG	B*	
25990-005	PR-SS-21	6/26/2008	1245	EPA 7471A	Mercury	0.05	0.00162	MG/KG	B*	
25990-004	PR-SS-19	6/26/2008	1235	EPA 7471A	Mercury	0.87	0.00381	MG/KG	*	
25990-003	PR-SS-18	6/26/2008	1225	EPA 7471A	Mercury	0.17	0.00168	MG/KG	B*	
25990-002	PR-SS-17	6/26/2008	1157	EPA 7471A	Mercury	1.20	0.024	MG/KG	*	
25990-001	PR-SS-16	6/26/2008	1136	EPA 3050B/6010B	Copper	20.60	0.382	MG/KG		
25990-001	PR-SS-16	6/26/2008	1136	EPA 7471A	Mercury	0.45	0.00183	MG/KG	*	
25990-001	PR-SS-16	6/26/2008	1136	EPA 3050B/6010B	Silver	6.00	0.127	MG/KG		
25988-003	PR-SS-15-U1-L65-U	6/25/2008	1350	EPA 7471A	Mercury	22.00	0.305	MG/KG	N	
25988-004	PR-SS-15-U1-L65-R	6/25/2008	1400	EPA 7471A	Mercury	24.60	0.314	MG/KG	N	
25988-002	PR-SS-15-U1-L65-O	6/25/2008	1342	EPA 7471A	Mercury	36.80	0.495	MG/KG	N	
25988-005	PR-SS-15-U1-L65-L	6/25/2008	1355	EPA 7471A	Mercury	11.20	0.156	MG/KG	N	
25988-006	PR-SS-15-U1-L65-D	6/25/2008	1352	EPA 7471A	Mercury	7.30	0.134	MG/KG	N	
25988-008	PR-SS-15-U1-L40-U	6/25/2008	1408	EPA 7471A	Mercury	0.60	0.0022	MG/KG	N	
25988-009	PR-SS-15-U1-L40-R	6/25/2008	1405	EPA 7471A	Mercury	9.10	0.0887	MG/KG	N	
25988-007	PR-SS-15-U1-L40-O	6/25/2008	1358	EPA 7471A	Mercury	19.00	0.173	MG/KG	N	
25988-010	PR-SS-15-U1-L40-L	6/25/2008	1402	EPA 7471A	Mercury	0.75	0.00275	MG/KG	N	
25988-011	PR-SS-15-U1-L40-D	6/25/2008	1359	EPA 7471A	Mercury	2.10	0.0342	MG/KG	N	
25988-001	PR-SS-15	6/25/2008	1355	EPA 7471A	Mercury	0.31	0.00196	MG/KG	N	
25987-012	PR-SS-14	6/25/2008	1340	EPA 7471A	Mercury	0.16	0.00181	MG/KG	B*N	
25987-011	PR-SS-12	6/25/2008	1326	EPA 3050B/6010B	Copper	2.16	0.356	MG/KG	*	
25987-011	PR-SS-12	6/25/2008	1326	EPA 7471A	Mercury	0.06	0.00181	MG/KG	B*N	
25987-011	PR-SS-12	6/25/2008	1326	EPA 3050B/6010B	Silver	0.27	0.119	MG/KG	B	
25987-007	PR-SS-10-U1-L135	6/25/2008	1255	EPA 7471A	Mercury	0.74	0.00338	MG/KG	*N	
25987-002	PR-SS-10-D2-L40	6/25/2008	1147	EPA 7471A	Mercury	0.13	0.00206	MG/KG	B*N	
25987-001	PR-SS-10-D2-L15	6/25/2008	1135	EPA 7471A	Mercury	0.39	0.0022	MG/KG	*N	
25987-004	PR-SS-10-D1-L8	6/25/2008	1200	EPA 7471A	Mercury	0.26	0.00204	MG/KG	*N	
25987-003	PR-SS-10-D1-L33	6/25/2008	1210	EPA 7471A	Mercury	0.19	0.0021	MG/KG	B*N	
25987-005	PR-SS-10-D1-L123	6/25/2008	1232	EPA 7471A	Mercury	0.07	0.00265	MG/KG	B*N	
25987-006	PR-SS-10-D1-L120	6/25/2008	1228	EPA 7471A	Mercury	0.05	0.00334	MG/KG	B*N	
25987-010	PR-SS-10	6/25/2008	1243	EPA 7471A	Mercury	1.80	0.0281	MG/KG	*N	
25984-008	PR-SS-09	6/24/2008	1300	EPA 7471A	Mercury	0.33	0.0019	MG/KG		
25984-007	PR-SS-07	6/24/2008	1235	EPA 7471A	Mercury	0.06	0.00182	MG/KG	B	
25984-006	PR-SS-06	6/24/2008	1225	EPA 7471A	Mercury	0.27	0.00166	MG/KG		
25984-005	PR-SS-05	6/24/2008	1212	EPA 7471A	Mercury	0.85	0.00268	MG/KG		
25984-004	PR-SS-04	6/24/2008	1140	EPA 7471A	Mercury	0.05	0.0027	MG/KG	B	
25984-003	PR-SS-03	6/24/2008	1130	EPA 7471A	Mercury	0.08	0.002	MG/KG	B	
25984-002	PR-SS-02	6/24/2008	1115	EPA 7471A	Mercury	0.11	0.00224	MG/KG	B	
25984-001	PR-SS-01	6/24/2008	1100	EPA 3050B/6010B	Copper	10.60	0.631	MG/KG		
25984-001	PR-SS-01	6/24/2008	1100	EPA 7471A	Mercury	0.11	0.00286	MG/KG	B	
25984-001	PR-SS-01	6/24/2008	1100	EPA 3050B/6010B	Silver	0.97	0.21	MG/KG	B	
25984-009	PR-MR-01	6/24/2008	1020	EPA 7471A	Mercury	0.04	0.00241	MG/KG	B	
25984-010	PR-MR-02	6/24/2008	1000	EPA 7471A	Mercury	0.07	0.0022	MG/KG	B	
25967-001	DONAHUES POND	6/17/2008	1805	EPA 3050B/6010B	Aluminum	3090.00	51.6	MG/KG		
25967-001	DONAHUES POND	6/17/2008	1805	EPA 3050B/6010B	Antimony	2.38	2.35	MG/KG	B	
25967-001	DONAHUES POND	6/17/2008	1805	EPA 3050B/6020	Arsenic	11.00	2.26	MG/KG		
25967-001	DONAHUES POND	6/17/2008	1805	EPA 3050B/6010B	Barium	60.40	0.759	MG/KG		
25967-001	DONAHUES POND	6/17/2008	1805	EPA 3050B/6010B	Beryllium	0.93	0.759	MG/KG	B	
25967-001	DONAHUES POND	6/17/2008	1805	EPA 3050B/6010B	Cadmium	0.79	0.759	MG/KG	B	

Appendix A - 2008 Peconic River Sediment Samples

Metals

Sample ID	COC Site ID	Sample Date	Sample Time	Method	Analyte	Conc.	MDL	Units	Lab Qual.	Rev. Qual.
25967-001	DONAHUES POND	6/17/2008	1805	EPA 3050B/6010B	Calcium	3930.00	22.8	MG/KG		
25967-001	DONAHUES POND	6/17/2008	1805	EPA 3050B/6010B	Chromium	15.90	0.759	MG/KG		
25967-001	DONAHUES POND	6/17/2008	1805	EPA 3050B/6010B	Cobalt	4.20	1.52	MG/KG		
25967-001	DONAHUES POND	6/17/2008	1805	EPA 3050B/6010B	Copper	14.20	2.28	MG/KG		
25967-001	DONAHUES POND	6/17/2008	1805	EPA 3050B/6010B	Iron	8100.00	19	MG/KG		
25967-001	DONAHUES POND	6/17/2008	1805	EPA 3050B/6020	Lead	28.80	0.753	MG/KG		
25967-001	DONAHUES POND	6/17/2008	1805	EPA 3050B/6010B	Magnesium	764.00	64.5	MG/KG		
25967-001	DONAHUES POND	6/17/2008	1805	EPA 3050B/6010B	Manganese	101.00	1.52	MG/KG		
25967-001	DONAHUES POND	6/17/2008	1805	EPA 7471A	Mercury	0.16	0.0115	MG/KG		
25967-001	DONAHUES POND	6/17/2008	1805	EPA 3050B/6010B	Nickel	5.56	0.759	MG/KG		
25967-001	DONAHUES POND	6/17/2008	1805	EPA 3050B/6010B	Potassium	78.10	38	MG/KG	B	
25967-001	DONAHUES POND	6/17/2008	1805	EPA 3050B/6020	Selenium	3.77	3.77	MG/KG	U	
25967-001	DONAHUES POND	6/17/2008	1805	EPA 3050B/6010B	Silver	0.76	0.759	MG/KG	U	
25967-001	DONAHUES POND	6/17/2008	1805	EPA 3050B/6010B	Sodium	167.00	34.2	MG/KG		
25967-001	DONAHUES POND	6/17/2008	1805	EPA 3050B/6020	Thallium	0.30	0.301	MG/KG	U	
25967-001	DONAHUES POND	6/17/2008	1805	EPA 3050B/6010B	Vanadium	72.70	0.759	MG/KG		
25967-001	DONAHUES POND	6/17/2008	1805	EPA 3050B/6010B	Zinc	54.30	1.52	MG/KG		

Appendix B - 2008 Peconic River Sediment Samples

PCBs

Sample ID	COC Site ID	Sample Date	Sample Time	Method	Analyte	Conc.	MDL	Units	Lab Qual.	Rev. Qual.
25990-016	PR-SS-38	6/26/2008	1435	EPA 8082	Aroclor 1016	4.76	4.76	UG/KG	U	
25990-016	PR-SS-38	6/26/2008	1435	EPA 8082	Aroclor 1221	4.76	4.76	UG/KG	U	
25990-016	PR-SS-38	6/26/2008	1435	EPA 8082	Aroclor 1232	4.76	4.76	UG/KG	U	
25990-016	PR-SS-38	6/26/2008	1435	EPA 8082	Aroclor 1242	4.76	4.76	UG/KG	U	
25990-016	PR-SS-38	6/26/2008	1435	EPA 8082	Aroclor 1248	4.76	4.76	UG/KG	U	
25990-016	PR-SS-38	6/26/2008	1435	EPA 8082	Aroclor 1254	168	4.76	UG/KG		
25990-016	PR-SS-38	6/26/2008	1435	EPA 8082	Aroclor 1260	48.5	4.76	UG/KG		
25990-015	PR-SS-37	6/26/2008	1425	EPA 8082	Aroclor 1016	4.55	4.55	UG/KG	U	
25990-015	PR-SS-37	6/26/2008	1425	EPA 8082	Aroclor 1221	4.55	4.55	UG/KG	U	
25990-015	PR-SS-37	6/26/2008	1425	EPA 8082	Aroclor 1232	4.55	4.55	UG/KG	U	
25990-015	PR-SS-37	6/26/2008	1425	EPA 8082	Aroclor 1242	4.55	4.55	UG/KG	U	
25990-015	PR-SS-37	6/26/2008	1425	EPA 8082	Aroclor 1248	4.55	4.55	UG/KG	U	
25990-015	PR-SS-37	6/26/2008	1425	EPA 8082	Aroclor 1254	2.4	4.55	UG/KG	J	
25990-015	PR-SS-37	6/26/2008	1425	EPA 8082	Aroclor 1260	4.55	4.55	UG/KG	U	
25990-014	PR-SS-35	6/26/2008	1400	EPA 8082	Aroclor 1016	4.56	4.56	UG/KG	U	
25990-014	PR-SS-35	6/26/2008	1400	EPA 8082	Aroclor 1221	4.56	4.56	UG/KG	U	
25990-014	PR-SS-35	6/26/2008	1400	EPA 8082	Aroclor 1232	4.56	4.56	UG/KG	U	
25990-014	PR-SS-35	6/26/2008	1400	EPA 8082	Aroclor 1242	4.56	4.56	UG/KG	U	
25990-014	PR-SS-35	6/26/2008	1400	EPA 8082	Aroclor 1248	4.56	4.56	UG/KG	U	
25990-014	PR-SS-35	6/26/2008	1400	EPA 8082	Aroclor 1254	5.8	4.56	UG/KG		
25990-014	PR-SS-35	6/26/2008	1400	EPA 8082	Aroclor 1260	2.9	4.56	UG/KG	J	
25990-013	PR-SS-33	6/26/2008	1410	EPA 8082	Aroclor 1016	4.12	4.12	UG/KG	U	
25990-013	PR-SS-33	6/26/2008	1410	EPA 8082	Aroclor 1221	4.12	4.12	UG/KG	U	
25990-013	PR-SS-33	6/26/2008	1410	EPA 8082	Aroclor 1232	4.12	4.12	UG/KG	U	
25990-013	PR-SS-33	6/26/2008	1410	EPA 8082	Aroclor 1242	4.12	4.12	UG/KG	U	
25990-013	PR-SS-33	6/26/2008	1410	EPA 8082	Aroclor 1248	56.6	4.12	UG/KG		
25990-013	PR-SS-33	6/26/2008	1410	EPA 8082	Aroclor 1254	27.2	4.12	UG/KG		
25990-013	PR-SS-33	6/26/2008	1410	EPA 8082	Aroclor 1260	5.2	4.12	UG/KG		
25990-012	PR-SS-31	6/26/2008	1345	EPA 8082	Aroclor 1016	4.14	4.14	UG/KG	U	
25990-012	PR-SS-31	6/26/2008	1345	EPA 8082	Aroclor 1221	4.14	4.14	UG/KG	U	
25990-012	PR-SS-31	6/26/2008	1345	EPA 8082	Aroclor 1232	4.14	4.14	UG/KG	U	
25990-012	PR-SS-31	6/26/2008	1345	EPA 8082	Aroclor 1242	4.14	4.14	UG/KG	U	
25990-012	PR-SS-31	6/26/2008	1345	EPA 8082	Aroclor 1248	4.14	4.14	UG/KG	U	
25990-012	PR-SS-31	6/26/2008	1345	EPA 8082	Aroclor 1254	4.14	4.14	UG/KG	U	
25990-012	PR-SS-31	6/26/2008	1345	EPA 8082	Aroclor 1260	4.14	4.14	UG/KG	U	
25990-011	PR-SS-30	6/26/2008	1335	EPA 8082	Aroclor 1016	3.91	3.91	UG/KG	U	
25990-011	PR-SS-30	6/26/2008	1335	EPA 8082	Aroclor 1221	3.91	3.91	UG/KG	U	
25990-011	PR-SS-30	6/26/2008	1335	EPA 8082	Aroclor 1232	3.91	3.91	UG/KG	U	
25990-011	PR-SS-30	6/26/2008	1335	EPA 8082	Aroclor 1242	3.91	3.91	UG/KG	U	
25990-011	PR-SS-30	6/26/2008	1335	EPA 8082	Aroclor 1248	3.91	3.91	UG/KG	U	
25990-011	PR-SS-30	6/26/2008	1335	EPA 8082	Aroclor 1254	1.6	3.91	UG/KG	J	
25990-011	PR-SS-30	6/26/2008	1335	EPA 8082	Aroclor 1260	3.91	3.91	UG/KG	U	
25990-010	PR-SS-29	6/26/2008	1325	EPA 8082	Aroclor 1016	4	4	UG/KG	U	
25990-010	PR-SS-29	6/26/2008	1325	EPA 8082	Aroclor 1221	4	4	UG/KG	U	
25990-010	PR-SS-29	6/26/2008	1325	EPA 8082	Aroclor 1232	4	4	UG/KG	U	
25990-010	PR-SS-29	6/26/2008	1325	EPA 8082	Aroclor 1242	4	4	UG/KG	U	
25990-010	PR-SS-29	6/26/2008	1325	EPA 8082	Aroclor 1248	4	4	UG/KG	U	
25990-010	PR-SS-29	6/26/2008	1325	EPA 8082	Aroclor 1254	2.5	4	UG/KG	J	
25990-010	PR-SS-29	6/26/2008	1325	EPA 8082	Aroclor 1260	4	4	UG/KG	U	
25990-009	PR-SS-26	6/26/2008	1315	EPA 8082	Aroclor 1016	5.04	5.04	UG/KG	U	
25990-009	PR-SS-26	6/26/2008	1315	EPA 8082	Aroclor 1221	5.04	5.04	UG/KG	U	
25990-009	PR-SS-26	6/26/2008	1315	EPA 8082	Aroclor 1232	5.04	5.04	UG/KG	U	
25990-009	PR-SS-26	6/26/2008	1315	EPA 8082	Aroclor 1242	5.04	5.04	UG/KG	U	

Appendix B - 2008 Peconic River Sediment Samples

PCBs

Sample ID	COC Site ID	Sample Date	Sample Time	Method	Analyte	Conc.	MDL	Units	Lab Qual.	Rev. Qual.
25990-009	PR-SS-26	6/26/2008	1315	EPA 8082	Aroclor 1248	5.04	5.04	UG/KG	U	
25990-009	PR-SS-26	6/26/2008	1315	EPA 8082	Aroclor 1254	14.7	5.04	UG/KG		
25990-009	PR-SS-26	6/26/2008	1315	EPA 8082	Aroclor 1260	6.3	5.04	UG/KG	P	
25990-007	PR-SS-24	6/26/2008	1305	EPA 8082	Aroclor 1016	3.99	3.99	UG/KG	U	
25990-007	PR-SS-24	6/26/2008	1305	EPA 8082	Aroclor 1221	3.99	3.99	UG/KG	U	
25990-007	PR-SS-24	6/26/2008	1305	EPA 8082	Aroclor 1232	3.99	3.99	UG/KG	U	
25990-007	PR-SS-24	6/26/2008	1305	EPA 8082	Aroclor 1242	3.99	3.99	UG/KG	U	
25990-007	PR-SS-24	6/26/2008	1305	EPA 8082	Aroclor 1248	3.99	3.99	UG/KG	U	
25990-007	PR-SS-24	6/26/2008	1305	EPA 8082	Aroclor 1254	4.9	3.99	UG/KG		
25990-007	PR-SS-24	6/26/2008	1305	EPA 8082	Aroclor 1260	3.99	3.99	UG/KG	U	
25990-006	PR-SS-23	6/26/2008	1258	EPA 8082	Aroclor 1016	4.27	4.27	UG/KG	U	
25990-006	PR-SS-23	6/26/2008	1258	EPA 8082	Aroclor 1221	4.27	4.27	UG/KG	U	
25990-006	PR-SS-23	6/26/2008	1258	EPA 8082	Aroclor 1232	4.27	4.27	UG/KG	U	
25990-006	PR-SS-23	6/26/2008	1258	EPA 8082	Aroclor 1242	4.27	4.27	UG/KG	U	
25990-006	PR-SS-23	6/26/2008	1258	EPA 8082	Aroclor 1248	4.27	4.27	UG/KG	U	
25990-006	PR-SS-23	6/26/2008	1258	EPA 8082	Aroclor 1254	4.2	4.27	UG/KG	J	
25990-006	PR-SS-23	6/26/2008	1258	EPA 8082	Aroclor 1260	4.27	4.27	UG/KG	U	
25990-005	PR-SS-21	6/26/2008	1245	EPA 8082	Aroclor 1016	4.02	4.02	UG/KG	U	
25990-005	PR-SS-21	6/26/2008	1245	EPA 8082	Aroclor 1221	4.02	4.02	UG/KG	U	
25990-005	PR-SS-21	6/26/2008	1245	EPA 8082	Aroclor 1232	4.02	4.02	UG/KG	U	
25990-005	PR-SS-21	6/26/2008	1245	EPA 8082	Aroclor 1242	4.02	4.02	UG/KG	U	
25990-005	PR-SS-21	6/26/2008	1245	EPA 8082	Aroclor 1248	4.02	4.02	UG/KG	U	
25990-005	PR-SS-21	6/26/2008	1245	EPA 8082	Aroclor 1254	4.02	4.02	UG/KG	U	
25990-005	PR-SS-21	6/26/2008	1245	EPA 8082	Aroclor 1260	4.02	4.02	UG/KG	U	
25990-004	PR-SS-19	6/26/2008	1235	EPA 8082	Aroclor 1016	4.56	4.56	UG/KG	U	
25990-004	PR-SS-19	6/26/2008	1235	EPA 8082	Aroclor 1221	4.56	4.56	UG/KG	U	
25990-004	PR-SS-19	6/26/2008	1235	EPA 8082	Aroclor 1232	4.56	4.56	UG/KG	U	
25990-004	PR-SS-19	6/26/2008	1235	EPA 8082	Aroclor 1242	4.56	4.56	UG/KG	U	
25990-004	PR-SS-19	6/26/2008	1235	EPA 8082	Aroclor 1248	4.56	4.56	UG/KG	U	
25990-004	PR-SS-19	6/26/2008	1235	EPA 8082	Aroclor 1254	15.4	4.56	UG/KG		
25990-004	PR-SS-19	6/26/2008	1235	EPA 8082	Aroclor 1260	6.2	4.56	UG/KG	P	
25990-003	PR-SS-18	6/26/2008	1225	EPA 8082	Aroclor 1016	4.2	4.2	UG/KG	U	
25990-003	PR-SS-18	6/26/2008	1225	EPA 8082	Aroclor 1221	4.2	4.2	UG/KG	U	
25990-003	PR-SS-18	6/26/2008	1225	EPA 8082	Aroclor 1232	4.2	4.2	UG/KG	U	
25990-003	PR-SS-18	6/26/2008	1225	EPA 8082	Aroclor 1242	4.2	4.2	UG/KG	U	
25990-003	PR-SS-18	6/26/2008	1225	EPA 8082	Aroclor 1248	4.2	4.2	UG/KG	U	
25990-003	PR-SS-18	6/26/2008	1225	EPA 8082	Aroclor 1254	8.8	4.2	UG/KG		
25990-003	PR-SS-18	6/26/2008	1225	EPA 8082	Aroclor 1260	3.7	4.2	UG/KG	J	
25990-002	PR-SS-17	6/26/2008	1157	EPA 8082	Aroclor 1016	5.41	5.41	UG/KG	U	
25990-002	PR-SS-17	6/26/2008	1157	EPA 8082	Aroclor 1221	5.41	5.41	UG/KG	U	
25990-002	PR-SS-17	6/26/2008	1157	EPA 8082	Aroclor 1232	5.41	5.41	UG/KG	U	
25990-002	PR-SS-17	6/26/2008	1157	EPA 8082	Aroclor 1242	5.41	5.41	UG/KG	U	
25990-002	PR-SS-17	6/26/2008	1157	EPA 8082	Aroclor 1248	5.41	5.41	UG/KG	U	
25990-002	PR-SS-17	6/26/2008	1157	EPA 8082	Aroclor 1254	11.4	5.41	UG/KG		
25990-002	PR-SS-17	6/26/2008	1157	EPA 8082	Aroclor 1260	5.6	5.41	UG/KG	P	
25990-001	PR-SS-16	6/26/2008	1136	EPA 8082	Aroclor 1016	4.47	4.47	UG/KG	U	
25990-001	PR-SS-16	6/26/2008	1136	EPA 8082	Aroclor 1221	4.47	4.47	UG/KG	U	
25990-001	PR-SS-16	6/26/2008	1136	EPA 8082	Aroclor 1232	4.47	4.47	UG/KG	U	
25990-001	PR-SS-16	6/26/2008	1136	EPA 8082	Aroclor 1242	4.47	4.47	UG/KG	U	
25990-001	PR-SS-16	6/26/2008	1136	EPA 8082	Aroclor 1248	4.47	4.47	UG/KG	U	
25990-001	PR-SS-16	6/26/2008	1136	EPA 8082	Aroclor 1254	13.8	4.47	UG/KG		
25990-001	PR-SS-16	6/26/2008	1136	EPA 8082	Aroclor 1260	5.9	4.47	UG/KG	P	
25988-001	PR-SS-15	6/25/2008	1355	EPA 8082	Aroclor 1016	5.02	5.02	UG/KG	U	

Appendix B - 2008 Peconic River Sediment Samples

PCBs

Sample ID	COC Site ID	Sample Date	Sample Time	Method	Analyte	Conc.	MDL	Units	Lab Qual.	Rev. Qual.
25988-001	PR-SS-15	6/25/2008	1355	EPA 8082	Aroclor 1221	5.02	5.02	UG/KG	U	
25988-001	PR-SS-15	6/25/2008	1355	EPA 8082	Aroclor 1232	5.02	5.02	UG/KG	U	
25988-001	PR-SS-15	6/25/2008	1355	EPA 8082	Aroclor 1242	5.02	5.02	UG/KG	U	
25988-001	PR-SS-15	6/25/2008	1355	EPA 8082	Aroclor 1248	131	5.02	UG/KG		
25988-001	PR-SS-15	6/25/2008	1355	EPA 8082	Aroclor 1254	5.02	5.02	UG/KG	U	
25988-001	PR-SS-15	6/25/2008	1355	EPA 8082	Aroclor 1260	8.6	5.02	UG/KG		
25987-012	PR-SS-14	6/25/2008	1340	EPA 8082	Aroclor 1016	4.46	4.46	UG/KG	U	
25987-012	PR-SS-14	6/25/2008	1340	EPA 8082	Aroclor 1221	4.46	4.46	UG/KG	U	
25987-012	PR-SS-14	6/25/2008	1340	EPA 8082	Aroclor 1232	4.46	4.46	UG/KG	U	
25987-012	PR-SS-14	6/25/2008	1340	EPA 8082	Aroclor 1242	4.46	4.46	UG/KG	U	
25987-012	PR-SS-14	6/25/2008	1340	EPA 8082	Aroclor 1248	4.46	4.46	UG/KG	U	
25987-012	PR-SS-14	6/25/2008	1340	EPA 8082	Aroclor 1254	4.46	4.46	UG/KG	U	
25987-012	PR-SS-14	6/25/2008	1340	EPA 8082	Aroclor 1260	4.46	4.46	UG/KG	U	
25987-011	PR-SS-12	6/25/2008	1326	EPA 8082	Aroclor 1016	4.05	4.05	UG/KG	U	
25987-011	PR-SS-12	6/25/2008	1326	EPA 8082	Aroclor 1221	4.05	4.05	UG/KG	U	
25987-011	PR-SS-12	6/25/2008	1326	EPA 8082	Aroclor 1232	4.05	4.05	UG/KG	U	
25987-011	PR-SS-12	6/25/2008	1326	EPA 8082	Aroclor 1242	4.05	4.05	UG/KG	U	
25987-011	PR-SS-12	6/25/2008	1326	EPA 8082	Aroclor 1248	4.05	4.05	UG/KG	U	
25987-011	PR-SS-12	6/25/2008	1326	EPA 8082	Aroclor 1254	4.05	4.05	UG/KG	U	
25987-011	PR-SS-12	6/25/2008	1326	EPA 8082	Aroclor 1260	4.05	4.05	UG/KG	U	
25987-010	PR-SS-10	6/25/2008	1243	EPA 8082	Aroclor 1016	6.7	6.7	UG/KG	U	
25987-010	PR-SS-10	6/25/2008	1243	EPA 8082	Aroclor 1221	6.7	6.7	UG/KG	U	
25987-010	PR-SS-10	6/25/2008	1243	EPA 8082	Aroclor 1232	6.7	6.7	UG/KG	U	
25987-010	PR-SS-10	6/25/2008	1243	EPA 8082	Aroclor 1242	6.7	6.7	UG/KG	U	
25987-010	PR-SS-10	6/25/2008	1243	EPA 8082	Aroclor 1248	6.7	6.7	UG/KG	U	
25987-010	PR-SS-10	6/25/2008	1243	EPA 8082	Aroclor 1254	12.7	6.7	UG/KG	P	
25987-010	PR-SS-10	6/25/2008	1243	EPA 8082	Aroclor 1260	8	6.7	UG/KG	P	
25984-008	PR-SS-09	6/24/2008	1300	EPA 8082	Aroclor 1016	4.48	4.48	UG/KG	U	
25984-008	PR-SS-09	6/24/2008	1300	EPA 8082	Aroclor 1221	4.48	4.48	UG/KG	U	
25984-008	PR-SS-09	6/24/2008	1300	EPA 8082	Aroclor 1232	4.48	4.48	UG/KG	U	
25984-008	PR-SS-09	6/24/2008	1300	EPA 8082	Aroclor 1242	4.48	4.48	UG/KG	U	
25984-008	PR-SS-09	6/24/2008	1300	EPA 8082	Aroclor 1248	4.48	4.48	UG/KG	U	
25984-008	PR-SS-09	6/24/2008	1300	EPA 8082	Aroclor 1254	4.57	4.48	UG/KG	P	
25984-008	PR-SS-09	6/24/2008	1300	EPA 8082	Aroclor 1260	4.48	4.48	UG/KG	U	
25984-007	PR-SS-07	6/24/2008	1235	EPA 8082	Aroclor 1016	4.41	4.41	UG/KG	U	
25984-007	PR-SS-07	6/24/2008	1235	EPA 8082	Aroclor 1221	4.41	4.41	UG/KG	U	
25984-007	PR-SS-07	6/24/2008	1235	EPA 8082	Aroclor 1232	4.41	4.41	UG/KG	U	
25984-007	PR-SS-07	6/24/2008	1235	EPA 8082	Aroclor 1242	4.41	4.41	UG/KG	U	
25984-007	PR-SS-07	6/24/2008	1235	EPA 8082	Aroclor 1248	13.9	4.41	UG/KG		
25984-007	PR-SS-07	6/24/2008	1235	EPA 8082	Aroclor 1254	4.41	4.41	UG/KG	U	
25984-007	PR-SS-07	6/24/2008	1235	EPA 8082	Aroclor 1260	4.41	4.41	UG/KG	U	
25984-006	PR-SS-06	6/24/2008	1225	EPA 8082	Aroclor 1016	4.17	4.17	UG/KG	U	
25984-006	PR-SS-06	6/24/2008	1225	EPA 8082	Aroclor 1221	4.17	4.17	UG/KG	U	
25984-006	PR-SS-06	6/24/2008	1225	EPA 8082	Aroclor 1232	4.17	4.17	UG/KG	U	
25984-006	PR-SS-06	6/24/2008	1225	EPA 8082	Aroclor 1242	4.17	4.17	UG/KG	U	
25984-006	PR-SS-06	6/24/2008	1225	EPA 8082	Aroclor 1248	4.17	4.17	UG/KG	U	
25984-006	PR-SS-06	6/24/2008	1225	EPA 8082	Aroclor 1254	4.17	4.17	UG/KG	U	
25984-006	PR-SS-06	6/24/2008	1225	EPA 8082	Aroclor 1260	4.17	4.17	UG/KG	U	
25984-005	PR-SS-05	6/24/2008	1212	EPA 8082	Aroclor 1016	6.37	6.37	UG/KG	U	
25984-005	PR-SS-05	6/24/2008	1212	EPA 8082	Aroclor 1221	6.37	6.37	UG/KG	U	
25984-005	PR-SS-05	6/24/2008	1212	EPA 8082	Aroclor 1232	6.37	6.37	UG/KG	U	
25984-005	PR-SS-05	6/24/2008	1212	EPA 8082	Aroclor 1242	6.37	6.37	UG/KG	U	
25984-005	PR-SS-05	6/24/2008	1212	EPA 8082	Aroclor 1248	6.37	6.37	UG/KG	U	

Appendix B - 2008 Peconic River Sediment Samples

PCBs

Sample ID	COC Site ID	Sample Date	Sample Time	Method	Analyte	Conc.	MDL	Units	Lab Qual.	Rev. Qual.
25984-005	PR-SS-05	6/24/2008	1212	EPA 8082	Aroclor 1254	12.4	6.37	UG/KG	P	
25984-005	PR-SS-05	6/24/2008	1212	EPA 8082	Aroclor 1260	5.5	6.37	UG/KG	J	
25984-004	PR-SS-04	6/24/2008	1140	EPA 8082	Aroclor 1016	6.71	6.71	UG/KG	U	
25984-004	PR-SS-04	6/24/2008	1140	EPA 8082	Aroclor 1221	6.71	6.71	UG/KG	U	
25984-004	PR-SS-04	6/24/2008	1140	EPA 8082	Aroclor 1232	6.71	6.71	UG/KG	U	
25984-004	PR-SS-04	6/24/2008	1140	EPA 8082	Aroclor 1242	6.71	6.71	UG/KG	U	
25984-004	PR-SS-04	6/24/2008	1140	EPA 8082	Aroclor 1248	6.71	6.71	UG/KG	U	
25984-004	PR-SS-04	6/24/2008	1140	EPA 8082	Aroclor 1254	6.71	6.71	UG/KG	U	
25984-004	PR-SS-04	6/24/2008	1140	EPA 8082	Aroclor 1260	6.71	6.71	UG/KG	U	
25984-003	PR-SS-03	6/24/2008	1130	EPA 8082	Aroclor 1016	5.02	5.02	UG/KG	U	
25984-003	PR-SS-03	6/24/2008	1130	EPA 8082	Aroclor 1221	5.02	5.02	UG/KG	U	
25984-003	PR-SS-03	6/24/2008	1130	EPA 8082	Aroclor 1232	5.02	5.02	UG/KG	U	
25984-003	PR-SS-03	6/24/2008	1130	EPA 8082	Aroclor 1242	5.02	5.02	UG/KG	U	
25984-003	PR-SS-03	6/24/2008	1130	EPA 8082	Aroclor 1248	5.02	5.02	UG/KG	U	
25984-003	PR-SS-03	6/24/2008	1130	EPA 8082	Aroclor 1254	2.8	5.02	UG/KG	JP	
25984-003	PR-SS-03	6/24/2008	1130	EPA 8082	Aroclor 1260	5.02	5.02	UG/KG	U	
25984-002	PR-SS-02	6/24/2008	1115	EPA 8082	Aroclor 1016	5.47	5.47	UG/KG	U	
25984-002	PR-SS-02	6/24/2008	1115	EPA 8082	Aroclor 1221	5.47	5.47	UG/KG	U	
25984-002	PR-SS-02	6/24/2008	1115	EPA 8082	Aroclor 1232	5.47	5.47	UG/KG	U	
25984-002	PR-SS-02	6/24/2008	1115	EPA 8082	Aroclor 1242	5.47	5.47	UG/KG	U	
25984-002	PR-SS-02	6/24/2008	1115	EPA 8082	Aroclor 1248	5.47	5.47	UG/KG	U	
25984-002	PR-SS-02	6/24/2008	1115	EPA 8082	Aroclor 1254	3.1	5.47	UG/KG	JP	
25984-002	PR-SS-02	6/24/2008	1115	EPA 8082	Aroclor 1260	5.47	5.47	UG/KG	U	
25984-001	PR-SS-01	6/24/2008	1100	EPA 8082	Aroclor 1016	7.19	7.19	UG/KG	U	
25984-001	PR-SS-01	6/24/2008	1100	EPA 8082	Aroclor 1221	7.19	7.19	UG/KG	U	
25984-001	PR-SS-01	6/24/2008	1100	EPA 8082	Aroclor 1232	7.19	7.19	UG/KG	U	
25984-001	PR-SS-01	6/24/2008	1100	EPA 8082	Aroclor 1242	7.19	7.19	UG/KG	U	
25984-001	PR-SS-01	6/24/2008	1100	EPA 8082	Aroclor 1248	7.19	7.19	UG/KG	U	
25984-001	PR-SS-01	6/24/2008	1100	EPA 8082	Aroclor 1254	7.19	7.19	UG/KG	U	
25984-001	PR-SS-01	6/24/2008	1100	EPA 8082	Aroclor 1260	7.19	7.19	UG/KG	U	
25984-009	PR-MR-01	6/24/2008	1020	EPA 8082	Aroclor 1016	5.93	5.93	UG/KG	U	
25984-009	PR-MR-01	6/24/2008	1020	EPA 8082	Aroclor 1221	5.93	5.93	UG/KG	U	
25984-009	PR-MR-01	6/24/2008	1020	EPA 8082	Aroclor 1232	5.93	5.93	UG/KG	U	
25984-009	PR-MR-01	6/24/2008	1020	EPA 8082	Aroclor 1242	5.93	5.93	UG/KG	U	
25984-009	PR-MR-01	6/24/2008	1020	EPA 8082	Aroclor 1248	5.93	5.93	UG/KG	U	
25984-009	PR-MR-01	6/24/2008	1020	EPA 8082	Aroclor 1254	5.93	5.93	UG/KG	U	
25984-009	PR-MR-01	6/24/2008	1020	EPA 8082	Aroclor 1260	5.93	5.93	UG/KG	U	
25984-010	PR-MR-02	6/24/2008	1000	EPA 8082	Aroclor 1016	5.07	5.07	UG/KG	U	
25984-010	PR-MR-02	6/24/2008	1000	EPA 8082	Aroclor 1221	5.07	5.07	UG/KG	U	
25984-010	PR-MR-02	6/24/2008	1000	EPA 8082	Aroclor 1232	5.07	5.07	UG/KG	U	
25984-010	PR-MR-02	6/24/2008	1000	EPA 8082	Aroclor 1242	5.07	5.07	UG/KG	U	
25984-010	PR-MR-02	6/24/2008	1000	EPA 8082	Aroclor 1248	5.07	5.07	UG/KG	U	
25984-010	PR-MR-02	6/24/2008	1000	EPA 8082	Aroclor 1254	5.07	5.07	UG/KG	U	
25984-010	PR-MR-02	6/24/2008	1000	EPA 8082	Aroclor 1260	5.07	5.07	UG/KG	U	
25967-001	PR-DP-01	6/17/2008	1805	EPA 8082	Aroclor 1016	26.2	26.2	UG/KG	U	
25967-001	PR-DP-01	6/17/2008	1805	EPA 8082	Aroclor 1221	26.2	26.2	UG/KG	U	
25967-001	PR-DP-01	6/17/2008	1805	EPA 8082	Aroclor 1232	26.2	26.2	UG/KG	U	
25967-001	PR-DP-01	6/17/2008	1805	EPA 8082	Aroclor 1242	26.2	26.2	UG/KG	U	
25967-001	PR-DP-01	6/17/2008	1805	EPA 8082	Aroclor 1248	26.2	26.2	UG/KG	U	
25967-001	PR-DP-01	6/17/2008	1805	EPA 8082	Aroclor 1254	26.2	26.2	UG/KG	U	
25967-001	PR-DP-01	6/17/2008	1805	EPA 8082	Aroclor 1260	26.2	26.2	UG/KG	U	
25967-001	PR-DP-01	6/17/2008	1805	EPA 8081A	4,4''-DDD	6.78	10.5	UG/KG	J	
25967-001	PR-DP-01	6/17/2008	1805	EPA 8081A	4,4''-DDE	4.94	10.5	UG/KG	J	

Appendix B - 2008 Peconic River Sediment Samples

PCBs

Sample ID	COC Site ID	Sample Date	Sample Time	Method	Analyte	Conc.	MDL	Units	Lab Qual.	Rev. Qual.
25967-001	PR-DP-01	6/17/2008	1805	EPA 8081A	4,4''-DDT	10.5	10.5	UG/KG	U	
25967-001	PR-DP-01	6/17/2008	1805	EPA 8081A	alpha-BHC	5.24	5.24	UG/KG	U	
25967-001	PR-DP-01	6/17/2008	1805	EPA 8081A	beta-BHC	5.24	5.24	UG/KG	U	
25967-001	PR-DP-01	6/17/2008	1805	EPA 8081A	Chlordane	65.5	65.5	UG/KG	U	
25967-001	PR-DP-01	6/17/2008	1805	EPA 8081A	delta-BHC	5.24	5.24	UG/KG	U	
25967-001	PR-DP-01	6/17/2008	1805	EPA 8081A	Dieldrin	10.5	10.5	UG/KG	U	
25967-001	PR-DP-01	6/17/2008	1805	EPA 8081A	Endosulfan I	5.24	5.24	UG/KG	U	
25967-001	PR-DP-01	6/17/2008	1805	EPA 8081A	Endosulfan II	10.5	10.5	UG/KG	U	
25967-001	PR-DP-01	6/17/2008	1805	EPA 8081A	Endosulfan sulfate	10.5	10.5	UG/KG	U	
25967-001	PR-DP-01	6/17/2008	1805	EPA 8081A	Endrin	10.5	10.5	UG/KG	U	
25967-001	PR-DP-01	6/17/2008	1805	EPA 8081A	Endrin aldehyde	10.5	10.5	UG/KG	U	
25967-001	PR-DP-01	6/17/2008	1805	EPA 8081A	Endrin ketone	10.5	10.5	UG/KG	U	
25967-001	PR-DP-01	6/17/2008	1805	EPA 8081A	Heptachlor	5.24	5.24	UG/KG	U	
25967-001	PR-DP-01	6/17/2008	1805	EPA 8081A	Heptachlor epoxide	5.24	5.24	UG/KG	U	
25967-001	PR-DP-01	6/17/2008	1805	EPA 8081A	Lindane	5.24	5.24	UG/KG	U	
25967-001	PR-DP-01	6/17/2008	1805	EPA 8081A	Methoxychlor	52.4	52.4	UG/KG	U	
25967-001	PR-DP-01	6/17/2008	1805	EPA 8081A	Toxaphene	262	262	UG/KG	U	

Appendix C - 2008 Peconic River Sediment Samples

Radionuclides

Sample ID	COC Site ID	Sample Date	Sample Time	Method	Analyte	Conc.	Error	MDL	Units	Lab Qual.	Rev. Qual.
25990-016	PR-SS-38	6/26/2008	1435	HASL-300, 4.5.2.3	Actinium-228	0.635	0.106	0.0465	PCI/G		
25990-016	PR-SS-38	6/26/2008	1435	HASL-300, 4.5.2.3	Beryllium-7	-0.00604	0.0963	0.166	PCI/G	DL	
25990-016	PR-SS-38	6/26/2008	1435	HASL-300, 4.5.2.3	Bismuth-214	0.401	0.0526	0.0257	PCI/G		
25990-016	PR-SS-38	6/26/2008	1435	HASL-300, 4.5.2.3	Cesium-137	0.867	0.0709	0.0147	PCI/G		
25990-016	PR-SS-38	6/26/2008	1435	HASL-300, 4.5.2.3	Co-60	0.0133	0.00856	0.0154	PCI/G	DL	
25990-016	PR-SS-38	6/26/2008	1435	HASL-300, 4.5.2.3	Cobalt-57	0.0027	0.00527	0.00943	PCI/G	DL	
25990-016	PR-SS-38	6/26/2008	1435	HASL-300, 4.5.2.3	Lead-212	0.631	0.0534	0.0215	PCI/G		
25990-016	PR-SS-38	6/26/2008	1435	HASL-300, 4.5.2.3	Lead-214	0.48	0.0537	0.027	PCI/G		
25990-016	PR-SS-38	6/26/2008	1435	HASL-300, 4.5.2.3	Manganese-54	-0.000424	0.00828	0.0143	PCI/G	DL	
25990-016	PR-SS-38	6/26/2008	1435	HASL-300, 4.5.2.3	Potassium-40	5.38	0.489	0.125	PCI/G		
25990-016	PR-SS-38	6/26/2008	1435	HASL-300, 4.5.2.3	Radium-226	0.401	0.0526	0.0257	PCI/G		
25990-016	PR-SS-38	6/26/2008	1435	HASL-300, 4.5.2.3	Radium-228	0.635	0.106	0.0465	PCI/G		
25990-016	PR-SS-38	6/26/2008	1435	HASL-300, 4.5.2.3	Sodium-22	0.00531	0.00905	0.0156	PCI/G	DL	
25990-016	PR-SS-38	6/26/2008	1435	HASL-300, 4.5.2.3	Thallium-208	0.203	0.0248	0.0143	PCI/G		
25990-016	PR-SS-38	6/26/2008	1435	HASL-300, 4.5.2.3	Thorium-228	0.631	0.0534	0.0215	PCI/G		
25990-016	PR-SS-38	6/26/2008	1435	HASL-300, 4.5.2.3	Thorium-230	0.401	0.0526	0.0257	PCI/G		
25990-016	PR-SS-38	6/26/2008	1435	HASL-300, 4.5.2.3	Thorium-232	0.613	0.0519	0.0209	PCI/G		
25990-016	PR-SS-38	6/26/2008	1435	HASL-300, 4.5.2.3	Uranium-234	0.466	0.0777	0.0502	PCI/G		
25990-015	PR-SS-37	6/26/2008	1425	HASL-300, 4.5.2.3	Actinium-228	0.613	0.0906	0.0445	PCI/G		
25990-015	PR-SS-37	6/26/2008	1425	HASL-300, 4.5.2.3	Beryllium-7	0.0205	0.0877	0.153	PCI/G	DL	
25990-015	PR-SS-37	6/26/2008	1425	HASL-300, 4.5.2.3	Bismuth-214	0.345	0.0475	0.0271	PCI/G		
25990-015	PR-SS-37	6/26/2008	1425	HASL-300, 4.5.2.3	Cesium-137	0.332	0.0274	0.0149	PCI/G		
25990-015	PR-SS-37	6/26/2008	1425	HASL-300, 4.5.2.3	Co-60	0.0119	0.00923	0.0164	PCI/G	DL	
25990-015	PR-SS-37	6/26/2008	1425	HASL-300, 4.5.2.3	Cobalt-57	-0.0017	0.0056	0.00997	PCI/G	DL	
25990-015	PR-SS-37	6/26/2008	1425	HASL-300, 4.5.2.3	Lead-212	0.57	0.0489	0.0222	PCI/G		
25990-015	PR-SS-37	6/26/2008	1425	HASL-300, 4.5.2.3	Lead-214	0.37	0.0489	0.0266	PCI/G		
25990-015	PR-SS-37	6/26/2008	1425	HASL-300, 4.5.2.3	Manganese-54	0.00741	0.0147	0.0133	PCI/G	DL	
25990-015	PR-SS-37	6/26/2008	1425	HASL-300, 4.5.2.3	Potassium-40	4.58	0.422	0.125	PCI/G		
25990-015	PR-SS-37	6/26/2008	1425	HASL-300, 4.5.2.3	Radium-226	0.345	0.0475	0.0271	PCI/G		
25990-015	PR-SS-37	6/26/2008	1425	HASL-300, 4.5.2.3	Radium-228	0.613	0.0906	0.0445	PCI/G		
25990-015	PR-SS-37	6/26/2008	1425	HASL-300, 4.5.2.3	Sodium-22	-0.0102	0.00889	0.0136	PCI/G	DL	
25990-015	PR-SS-37	6/26/2008	1425	HASL-300, 4.5.2.3	Thallium-208	0.183	0.0231	0.0141	PCI/G		
25990-015	PR-SS-37	6/26/2008	1425	HASL-300, 4.5.2.3	Thorium-228	0.57	0.0489	0.0221	PCI/G		
25990-015	PR-SS-37	6/26/2008	1425	HASL-300, 4.5.2.3	Thorium-230	0.345	0.0475	0.0271	PCI/G		
25990-015	PR-SS-37	6/26/2008	1425	HASL-300, 4.5.2.3	Thorium-232	0.554	0.0475	0.0215	PCI/G		
25990-015	PR-SS-37	6/26/2008	1425	HASL-300, 4.5.2.3	Uranium-234	0.344	0.0658	0.0495	PCI/G		
25990-014	PR-SS-35	6/26/2008	1400	HASL-300, 4.5.2.3	Actinium-228	0.65	0.116	0.0715	PCI/G		
25990-014	PR-SS-35	6/26/2008	1400	HASL-300, 4.5.2.3	Beryllium-7	0.0288	0.149	0.251	PCI/G	DL	
25990-014	PR-SS-35	6/26/2008	1400	HASL-300, 4.5.2.3	Bismuth-214	0.421	0.0609	0.0409	PCI/G		
25990-014	PR-SS-35	6/26/2008	1400	HASL-300, 4.5.2.3	Cesium-137	0.738	0.0558	0.0215	PCI/G		
25990-014	PR-SS-35	6/26/2008	1400	HASL-300, 4.5.2.3	Co-60	0.000326	0.0126	0.0211	PCI/G	DL	
25990-014	PR-SS-35	6/26/2008	1400	HASL-300, 4.5.2.3	Cobalt-57	0.000585	0.00781	0.0135	PCI/G	DL	
25990-014	PR-SS-35	6/26/2008	1400	HASL-300, 4.5.2.3	Lead-212	0.742	0.0784	0.0307	PCI/G		
25990-014	PR-SS-35	6/26/2008	1400	HASL-300, 4.5.2.3	Lead-214	0.493	0.0626	0.0403	PCI/G		
25990-014	PR-SS-35	6/26/2008	1400	HASL-300, 4.5.2.3	Manganese-54	-0.00592	0.013	0.0213	PCI/G	DL	
25990-014	PR-SS-35	6/26/2008	1400	HASL-300, 4.5.2.3	Potassium-40	5.04	0.539	0.185	PCI/G		
25990-014	PR-SS-35	6/26/2008	1400	HASL-300, 4.5.2.3	Radium-226	0.421	0.0609	0.0409	PCI/G		
25990-014	PR-SS-35	6/26/2008	1400	HASL-300, 4.5.2.3	Radium-228	0.65	0.116	0.0715	PCI/G		
25990-014	PR-SS-35	6/26/2008	1400	HASL-300, 4.5.2.3	Sodium-22	-0.00241	0.0132	0.022	PCI/G	DL	
25990-014	PR-SS-35	6/26/2008	1400	HASL-300, 4.5.2.3	Thallium-208	0.228	0.0323	0.0211	PCI/G		
25990-014	PR-SS-35	6/26/2008	1400	HASL-300, 4.5.2.3	Thorium-228	0.742	0.0784	0.0307	PCI/G		
25990-014	PR-SS-35	6/26/2008	1400	HASL-300, 4.5.2.3	Thorium-230	0.421	0.0609	0.0409	PCI/G		
25990-014	PR-SS-35	6/26/2008	1400	HASL-300, 4.5.2.3	Thorium-232	0.722	0.0762	0.0298	PCI/G		
25990-014	PR-SS-35	6/26/2008	1400	HASL-300, 4.5.2.3	Uranium-234	0.521	0.0952	0.0757	PCI/G		
25990-013	PR-SS-33	6/26/2008	1410	HASL-300, 4.5.2.3	Actinium-228	0.694	0.104	0.0578	PCI/G		
25990-013	PR-SS-33	6/26/2008	1410	HASL-300, 4.5.2.3	Beryllium-7	0.0387	0.107	0.183	PCI/G	DL	
25990-013	PR-SS-33	6/26/2008	1410	HASL-300, 4.5.2.3	Bismuth-214	0.367	0.0503	0.0302	PCI/G		
25990-013	PR-SS-33	6/26/2008	1410	HASL-300, 4.5.2.3	Cesium-137	0.601	0.0427	0.0164	PCI/G		
25990-013	PR-SS-33	6/26/2008	1410	HASL-300, 4.5.2.3	Co-60	0.015	0.0101	0.018	PCI/G	DL	
25990-013	PR-SS-33	6/26/2008	1410	HASL-300, 4.5.2.3	Cobalt-57	-0.00514	0.00674	0.0118	PCI/G	DL	
25990-013	PR-SS-33	6/26/2008	1410	HASL-300, 4.5.2.3	Lead-212	0.749	0.0772	0.0253	PCI/G		
25990-013	PR-SS-33	6/26/2008	1410	HASL-300, 4.5.2.3	Lead-214	0.445	0.0585	0.0317	PCI/G		
25990-013	PR-SS-33	6/26/2008	1410	HASL-300, 4.5.2.3	Manganese-54	0.00915	0.00985	0.0172	PCI/G	DL	
25990-013	PR-SS-33	6/26/2008	1410	HASL-300, 4.5.2.3	Potassium-40	5.07	0.482	0.13	PCI/G		
25990-013	PR-SS-33	6/26/2008	1410	HASL-300, 4.5.2.3	Radium-226	0.367	0.0503	0.0302	PCI/G		
25990-013	PR-SS-33	6/26/2008	1410	HASL-300, 4.5.2.3	Radium-228	0.694	0.104	0.0578	PCI/G		
25990-013	PR-SS-33	6/26/2008	1410	HASL-300, 4.5.2.3	Sodium-22	-0.00355	0.0101	0.0168	PCI/G	DL	

Appendix C - 2008 Peconic River Sediment Samples

Radionuclides

Sample ID	COC Site ID	Sample Date	Sample Time	Method	Analyte	Conc.	Error	MDL	Units	Lab Qual.	Rev. Qual.
25990-013	PR-SS-33	6/26/2008	1410	HASL-300, 4.5.2.3	Thallium-208	0.225	0.028	0.0158	PCI/G		
25990-013	PR-SS-33	6/26/2008	1410	HASL-300, 4.5.2.3	Thorium-228	0.749	0.0772	0.0253	PCI/G		
25990-013	PR-SS-33	6/26/2008	1410	HASL-300, 4.5.2.3	Thorium-230	0.367	0.0503	0.0302	PCI/G		
25990-013	PR-SS-33	6/26/2008	1410	HASL-300, 4.5.2.3	Thorium-232	0.728	0.0751	0.0246	PCI/G		
25990-013	PR-SS-33	6/26/2008	1410	HASL-300, 4.5.2.3	Uranium-234	0.479	0.0813	0.0597	PCI/G		
25990-012	PR-SS-31	6/26/2008	1345	HASL-300, 4.5.2.3	Actinium-228	1.01	0.132	0.0574	PCI/G		
25990-012	PR-SS-31	6/26/2008	1345	HASL-300, 4.5.2.3	Beryllium-7	0.0757	0.107	0.185	PCI/G	DL	
25990-012	PR-SS-31	6/26/2008	1345	HASL-300, 4.5.2.3	Bismuth-214	0.632	0.0704	0.0333	PCI/G		
25990-012	PR-SS-31	6/26/2008	1345	HASL-300, 4.5.2.3	Cesium-137	0.048	0.014	0.0172	PCI/G		
25990-012	PR-SS-31	6/26/2008	1345	HASL-300, 4.5.2.3	Co-60	0.00401	0.0108	0.0188	PCI/G	DL	
25990-012	PR-SS-31	6/26/2008	1345	HASL-300, 4.5.2.3	Cobalt-57	0.00373	0.00745	0.0133	PCI/G	DL	
25990-012	PR-SS-31	6/26/2008	1345	HASL-300, 4.5.2.3	Lead-212	1	0.0804	0.0276	PCI/G		
25990-012	PR-SS-31	6/26/2008	1345	HASL-300, 4.5.2.3	Lead-214	0.776	0.0768	0.0338	PCI/G		
25990-012	PR-SS-31	6/26/2008	1345	HASL-300, 4.5.2.3	Manganese-54	-0.00394	0.011	0.0186	PCI/G	DL	
25990-012	PR-SS-31	6/26/2008	1345	HASL-300, 4.5.2.3	Potassium-40	8.23	0.637	0.147	PCI/G		
25990-012	PR-SS-31	6/26/2008	1345	HASL-300, 4.5.2.3	Radium-226	0.632	0.0704	0.0333	PCI/G		
25990-012	PR-SS-31	6/26/2008	1345	HASL-300, 4.5.2.3	Radium-228	1.01	0.132	0.0574	PCI/G		
25990-012	PR-SS-31	6/26/2008	1345	HASL-300, 4.5.2.3	Sodium-22	0.0034	0.0112	0.0195	PCI/G	DL	
25990-012	PR-SS-31	6/26/2008	1345	HASL-300, 4.5.2.3	Thallium-208	0.294	0.0307	0.0175	PCI/G		
25990-012	PR-SS-31	6/26/2008	1345	HASL-300, 4.5.2.3	Thorium-228	1	0.0804	0.0276	PCI/G		
25990-012	PR-SS-31	6/26/2008	1345	HASL-300, 4.5.2.3	Thorium-230	0.632	0.0704	0.0333	PCI/G		
25990-012	PR-SS-31	6/26/2008	1345	HASL-300, 4.5.2.3	Thorium-232	0.975	0.0782	0.0268	PCI/G		
25990-012	PR-SS-31	6/26/2008	1345	HASL-300, 4.5.2.3	Uranium-234	0.722	0.0818	0.0633	PCI/G		
25990-011	PR-SS-30	6/26/2008	1335	HASL-300, 4.5.2.3	Actinium-228	0.751	0.113	0.0528	PCI/G		
25990-011	PR-SS-30	6/26/2008	1335	HASL-300, 4.5.2.3	Beryllium-7	-0.0106	0.0993	0.17	PCI/G	DL	
25990-011	PR-SS-30	6/26/2008	1335	HASL-300, 4.5.2.3	Bismuth-214	0.445	0.0542	0.0298	PCI/G		
25990-011	PR-SS-30	6/26/2008	1335	HASL-300, 4.5.2.3	Cesium-137	0.12	0.0194	0.017	PCI/G		
25990-011	PR-SS-30	6/26/2008	1335	HASL-300, 4.5.2.3	Co-60	0.0103	0.0095	0.0169	PCI/G	DL	
25990-011	PR-SS-30	6/26/2008	1335	HASL-300, 4.5.2.3	Cobalt-57	0.00157	0.00544	0.0101	PCI/G	DL	
25990-011	PR-SS-30	6/26/2008	1335	HASL-300, 4.5.2.3	Lead-212	0.662	0.0537	0.0231	PCI/G		
25990-011	PR-SS-30	6/26/2008	1335	HASL-300, 4.5.2.3	Lead-214	0.477	0.058	0.0296	PCI/G		
25990-011	PR-SS-30	6/26/2008	1335	HASL-300, 4.5.2.3	Manganese-54	0.00551	0.0139	0.0182	PCI/G	DL	
25990-011	PR-SS-30	6/26/2008	1335	HASL-300, 4.5.2.3	Potassium-40	5.88	0.55	0.125	PCI/G		
25990-011	PR-SS-30	6/26/2008	1335	HASL-300, 4.5.2.3	Radium-226	0.445	0.0542	0.0298	PCI/G		
25990-011	PR-SS-30	6/26/2008	1335	HASL-300, 4.5.2.3	Radium-228	0.751	0.113	0.0528	PCI/G		
25990-011	PR-SS-30	6/26/2008	1335	HASL-300, 4.5.2.3	Sodium-22	-0.00222	0.0101	0.017	PCI/G	DL	
25990-011	PR-SS-30	6/26/2008	1335	HASL-300, 4.5.2.3	Thallium-208	0.226	0.0282	0.0152	PCI/G		
25990-011	PR-SS-30	6/26/2008	1335	HASL-300, 4.5.2.3	Thorium-228	0.662	0.0537	0.0231	PCI/G		
25990-011	PR-SS-30	6/26/2008	1335	HASL-300, 4.5.2.3	Thorium-230	0.445	0.0542	0.0298	PCI/G		
25990-011	PR-SS-30	6/26/2008	1335	HASL-300, 4.5.2.3	Thorium-232	0.643	0.0522	0.0224	PCI/G		
25990-011	PR-SS-30	6/26/2008	1335	HASL-300, 4.5.2.3	Uranium-234	0.516	0.0715	0.054	PCI/G		
25990-010	PR-SS-29	6/26/2008	1325	HASL-300, 4.5.2.3	Actinium-228	0.642	0.0922	0.0366	PCI/G		
25990-010	PR-SS-29	6/26/2008	1325	HASL-300, 4.5.2.3	Beryllium-7	-0.0335	0.0746	0.13	PCI/G	DL	
25990-010	PR-SS-29	6/26/2008	1325	HASL-300, 4.5.2.3	Bismuth-212	0.387	0.107	0.0844	PCI/G		
25990-010	PR-SS-29	6/26/2008	1325	HASL-300, 4.5.2.3	Bismuth-214	0.432	0.046	0.0227	PCI/G		
25990-010	PR-SS-29	6/26/2008	1325	HASL-300, 4.5.2.3	Cesium-137	0.797	0.0476	0.0117	PCI/G		
25990-010	PR-SS-29	6/26/2008	1325	HASL-300, 4.5.2.3	Co-60	0.00185	0.00688	0.0119	PCI/G	DL	
25990-010	PR-SS-29	6/26/2008	1325	HASL-300, 4.5.2.3	Cobalt-57	0.00266	0.00532	0.00946	PCI/G	DL	
25990-010	PR-SS-29	6/26/2008	1325	HASL-300, 4.5.2.3	Lead-212	0.658	0.0498	0.0189	PCI/G		
25990-010	PR-SS-29	6/26/2008	1325	HASL-300, 4.5.2.3	Lead-214	0.463	0.0475	0.0232	PCI/G		
25990-010	PR-SS-29	6/26/2008	1325	HASL-300, 4.5.2.3	Manganese-54	-0.000115	0.00704	0.0122	PCI/G	DL	
25990-010	PR-SS-29	6/26/2008	1325	HASL-300, 4.5.2.3	Potassium-40	6.49	0.475	0.103	PCI/G		
25990-010	PR-SS-29	6/26/2008	1325	HASL-300, 4.5.2.3	Radium-226	0.432	0.046	0.0227	PCI/G		
25990-010	PR-SS-29	6/26/2008	1325	HASL-300, 4.5.2.3	Radium-228	0.642	0.0922	0.0366	PCI/G		
25990-010	PR-SS-29	6/26/2008	1325	HASL-300, 4.5.2.3	Sodium-22	-0.000552	0.00747	0.0128	PCI/G	DL	
25990-010	PR-SS-29	6/26/2008	1325	HASL-300, 4.5.2.3	Thallium-208	0.199	0.0214	0.0113	PCI/G		
25990-010	PR-SS-29	6/26/2008	1325	HASL-300, 4.5.2.3	Thorium-228	0.658	0.0498	0.0189	PCI/G		
25990-010	PR-SS-29	6/26/2008	1325	HASL-300, 4.5.2.3	Thorium-230	0.432	0.046	0.0227	PCI/G		
25990-010	PR-SS-29	6/26/2008	1325	HASL-300, 4.5.2.3	Thorium-232	0.64	0.0484	0.0184	PCI/G		
25990-010	PR-SS-29	6/26/2008	1325	HASL-300, 4.5.2.3	Uranium-234	0.429	0.0607	0.0426	PCI/G		
25990-009	PR-SS-26	6/26/2008	1315	HASL-300, 4.5.2.3	Actinium-228	0.814	0.13	0.0585	PCI/G		
25990-009	PR-SS-26	6/26/2008	1315	HASL-300, 4.5.2.3	Beryllium-7	-0.0953	0.134	0.222	PCI/G	DL	
25990-009	PR-SS-26	6/26/2008	1315	HASL-300, 4.5.2.3	Bismuth-214	0.606	0.0699	0.036	PCI/G		
25990-009	PR-SS-26	6/26/2008	1315	HASL-300, 4.5.2.3	Cesium-137	0.876	0.0593	0.019	PCI/G		
25990-009	PR-SS-26	6/26/2008	1315	HASL-300, 4.5.2.3	Co-60	0.01	0.0118	0.0204	PCI/G	DL	
25990-009	PR-SS-26	6/26/2008	1315	HASL-300, 4.5.2.3	Cobalt-57	0.00467	0.00835	0.0148	PCI/G	DL	
25990-009	PR-SS-26	6/26/2008	1315	HASL-300, 4.5.2.3	Lead-212	0.836	0.079	0.0321	PCI/G		

Appendix C - 2008 Peconic River Sediment Samples

Radionuclides

Sample ID	COC Site ID	Sample Date	Sample Time	Method	Analyte	Conc.	Error	MDL	Units	Lab Qual.	Rev. Qual.
25990-009	PR-SS-26	6/26/2008	1315	HASL-300, 4.5.2.3	Lead-214	0.7	0.0813	0.0394	PCI/G		
25990-009	PR-SS-26	6/26/2008	1315	HASL-300, 4.5.2.3	Manganese-54	-0.00906	0.0177	0.0196	PCI/G	DL	
25990-009	PR-SS-26	6/26/2008	1315	HASL-300, 4.5.2.3	Potassium-40	8.38	0.752	0.163	PCI/G		
25990-009	PR-SS-26	6/26/2008	1315	HASL-300, 4.5.2.3	Radium-226	0.606	0.0699	0.036	PCI/G		
25990-009	PR-SS-26	6/26/2008	1315	HASL-300, 4.5.2.3	Radium-228	0.814	0.13	0.0585	PCI/G		
25990-009	PR-SS-26	6/26/2008	1315	HASL-300, 4.5.2.3	Sodium-22	-0.00329	0.0124	0.0203	PCI/G	DL	
25990-009	PR-SS-26	6/26/2008	1315	HASL-300, 4.5.2.3	Thallium-208	0.292	0.0364	0.0189	PCI/G		
25990-009	PR-SS-26	6/26/2008	1315	HASL-300, 4.5.2.3	Thorium-228	0.836	0.079	0.0321	PCI/G		
25990-009	PR-SS-26	6/26/2008	1315	HASL-300, 4.5.2.3	Thorium-230	0.606	0.0699	0.036	PCI/G		
25990-009	PR-SS-26	6/26/2008	1315	HASL-300, 4.5.2.3	Thorium-232	0.813	0.0768	0.0312	PCI/G		
25990-009	PR-SS-26	6/26/2008	1315	HASL-300, 4.5.2.3	Uranium-234	0.688	0.111	0.0731	PCI/G		
25990-007	PR-SS-24	6/26/2008	1305	HASL-300, 4.5.2.3	Actinium-228	0.742	0.11	0.0704	PCI/G		
25990-007	PR-SS-24	6/26/2008	1305	HASL-300, 4.5.2.3	Beryllium-7	0.11	0.137	0.246	PCI/G	DL	
25990-007	PR-SS-24	6/26/2008	1305	HASL-300, 4.5.2.3	Bismuth-214	0.413	0.0686	0.0399	PCI/G		
25990-007	PR-SS-24	6/26/2008	1305	HASL-300, 4.5.2.3	Cesium-137	0.769	0.072	0.0208	PCI/G		
25990-007	PR-SS-24	6/26/2008	1305	HASL-300, 4.5.2.3	Co-60	-0.0192	0.0202	0.0247	PCI/G	DL	
25990-007	PR-SS-24	6/26/2008	1305	HASL-300, 4.5.2.3	Cobalt-57	0.00757	0.00806	0.0147	PCI/G	DL	
25990-007	PR-SS-24	6/26/2008	1305	HASL-300, 4.5.2.3	Lead-212	0.61	0.0569	0.0309	PCI/G		
25990-007	PR-SS-24	6/26/2008	1305	HASL-300, 4.5.2.3	Lead-214	0.433	0.0556	0.0413	PCI/G		
25990-007	PR-SS-24	6/26/2008	1305	HASL-300, 4.5.2.3	Manganese-54	0.011	0.0124	0.0225	PCI/G	DL	
25990-007	PR-SS-24	6/26/2008	1305	HASL-300, 4.5.2.3	Potassium-40	5.45	0.477	0.171	PCI/G		
25990-007	PR-SS-24	6/26/2008	1305	HASL-300, 4.5.2.3	Radium-226	0.413	0.0686	0.0399	PCI/G		
25990-007	PR-SS-24	6/26/2008	1305	HASL-300, 4.5.2.3	Radium-228	0.742	0.11	0.0704	PCI/G		
25990-007	PR-SS-24	6/26/2008	1305	HASL-300, 4.5.2.3	Sodium-22	-0.00112	0.0131	0.0221	PCI/G	DL	
25990-007	PR-SS-24	6/26/2008	1305	HASL-300, 4.5.2.3	Thallium-208	0.212	0.0326	0.0215	PCI/G		
25990-007	PR-SS-24	6/26/2008	1305	HASL-300, 4.5.2.3	Thorium-228	0.61	0.0569	0.0309	PCI/G		
25990-007	PR-SS-24	6/26/2008	1305	HASL-300, 4.5.2.3	Thorium-230	0.413	0.0686	0.0399	PCI/G		
25990-007	PR-SS-24	6/26/2008	1305	HASL-300, 4.5.2.3	Thorium-232	0.593	0.0553	0.0301	PCI/G		
25990-007	PR-SS-24	6/26/2008	1305	HASL-300, 4.5.2.3	Uranium-234	0.472	0.0752	0.0753	PCI/G		
25990-006	PR-SS-23	6/26/2008	1258	HASL-300, 4.5.2.3	Actinium-228	0.52	0.0832	0.0388	PCI/G		
25990-006	PR-SS-23	6/26/2008	1258	HASL-300, 4.5.2.3	Beryllium-7	-0.0408	0.11	0.136	PCI/G	DL	
25990-006	PR-SS-23	6/26/2008	1258	HASL-300, 4.5.2.3	Bismuth-214	0.378	0.0464	0.0232	PCI/G		
25990-006	PR-SS-23	6/26/2008	1258	HASL-300, 4.5.2.3	Cesium-137	0.616	0.0466	0.0131	PCI/G		
25990-006	PR-SS-23	6/26/2008	1258	HASL-300, 4.5.2.3	Co-60	0.000719	0.00719	0.0125	PCI/G	DL	
25990-006	PR-SS-23	6/26/2008	1258	HASL-300, 4.5.2.3	Cobalt-57	0.00189	0.00496	0.00921	PCI/G	DL	
25990-006	PR-SS-23	6/26/2008	1258	HASL-300, 4.5.2.3	Lead-212	0.579	0.049	0.0201	PCI/G		
25990-006	PR-SS-23	6/26/2008	1258	HASL-300, 4.5.2.3	Lead-214	0.369	0.0436	0.0253	PCI/G		
25990-006	PR-SS-23	6/26/2008	1258	HASL-300, 4.5.2.3	Manganese-54	0.00636	0.00819	0.0126	PCI/G	DL	
25990-006	PR-SS-23	6/26/2008	1258	HASL-300, 4.5.2.3	Potassium-40	5.46	0.534	0.0974	PCI/G		
25990-006	PR-SS-23	6/26/2008	1258	HASL-300, 4.5.2.3	Radium-226	0.378	0.0464	0.0232	PCI/G		
25990-006	PR-SS-23	6/26/2008	1258	HASL-300, 4.5.2.3	Radium-228	0.52	0.0832	0.0388	PCI/G		
25990-006	PR-SS-23	6/26/2008	1258	HASL-300, 4.5.2.3	Sodium-22	-0.00451	0.00768	0.0123	PCI/G	DL	
25990-006	PR-SS-23	6/26/2008	1258	HASL-300, 4.5.2.3	Thallium-208	0.187	0.0224	0.012	PCI/G		
25990-006	PR-SS-23	6/26/2008	1258	HASL-300, 4.5.2.3	Thorium-228	0.579	0.049	0.0201	PCI/G		
25990-006	PR-SS-23	6/26/2008	1258	HASL-300, 4.5.2.3	Thorium-230	0.378	0.0464	0.0232	PCI/G		
25990-006	PR-SS-23	6/26/2008	1258	HASL-300, 4.5.2.3	Thorium-232	0.563	0.0476	0.0196	PCI/G		
25990-006	PR-SS-23	6/26/2008	1258	HASL-300, 4.5.2.3	Uranium-234	0.402	0.0656	0.0482	PCI/G		
25990-005	PR-SS-21	6/26/2008	1245	HASL-300, 4.5.2.3	Actinium-228	0.423	0.083	0.0452	PCI/G		
25990-005	PR-SS-21	6/26/2008	1245	HASL-300, 4.5.2.3	Beryllium-7	0.0473	0.0951	0.166	PCI/G	DL	
25990-005	PR-SS-21	6/26/2008	1245	HASL-300, 4.5.2.3	Bismuth-214	0.248	0.0386	0.0275	PCI/G		
25990-005	PR-SS-21	6/26/2008	1245	HASL-300, 4.5.2.3	Cesium-137	0.635	0.0472	0.015	PCI/G		
25990-005	PR-SS-21	6/26/2008	1245	HASL-300, 4.5.2.3	Co-60	0.0108	0.0115	0.0153	PCI/G	DL	
25990-005	PR-SS-21	6/26/2008	1245	HASL-300, 4.5.2.3	Cobalt-57	-0.00445	0.00619	0.0107	PCI/G	DL	
25990-005	PR-SS-21	6/26/2008	1245	HASL-300, 4.5.2.3	Lead-212	0.441	0.0405	0.0233	PCI/G		
25990-005	PR-SS-21	6/26/2008	1245	HASL-300, 4.5.2.3	Lead-214	0.282	0.0411	0.0294	PCI/G		
25990-005	PR-SS-21	6/26/2008	1245	HASL-300, 4.5.2.3	Manganese-54	-0.00161	0.00848	0.0145	PCI/G	DL	
25990-005	PR-SS-21	6/26/2008	1245	HASL-300, 4.5.2.3	Potassium-40	3.81	0.368	0.125	PCI/G		
25990-005	PR-SS-21	6/26/2008	1245	HASL-300, 4.5.2.3	Radium-226	0.248	0.0386	0.0275	PCI/G		
25990-005	PR-SS-21	6/26/2008	1245	HASL-300, 4.5.2.3	Radium-228	0.423	0.083	0.0452	PCI/G		
25990-005	PR-SS-21	6/26/2008	1245	HASL-300, 4.5.2.3	Sodium-22	0.00268	0.00872	0.0148	PCI/G	DL	
25990-005	PR-SS-21	6/26/2008	1245	HASL-300, 4.5.2.3	Thallium-208	0.136	0.0236	0.0138	PCI/G		
25990-005	PR-SS-21	6/26/2008	1245	HASL-300, 4.5.2.3	Thorium-228	0.441	0.0405	0.0233	PCI/G		
25990-005	PR-SS-21	6/26/2008	1245	HASL-300, 4.5.2.3	Thorium-230	0.248	0.0386	0.0275	PCI/G		
25990-005	PR-SS-21	6/26/2008	1245	HASL-300, 4.5.2.3	Thorium-232	0.43	0.0394	0.0227	PCI/G		
25990-005	PR-SS-21	6/26/2008	1245	HASL-300, 4.5.2.3	Uranium-234	0.306	0.0623	0.0529	PCI/G		
25990-004	PR-SS-19	6/26/2008	1235	HASL-300, 4.5.2.3	Actinium-228	0.554	0.103	0.088	PCI/G		
25990-004	PR-SS-19	6/26/2008	1235	HASL-300, 4.5.2.3	Beryllium-7	0.111	0.173	0.301	PCI/G	DL	

Appendix C - 2008 Peconic River Sediment Samples

Radionuclides

Sample ID	COC Site ID	Sample Date	Sample Time	Method	Analyte	Conc.	Error	MDL	Units	Lab Qual.	Rev. Qual.
25990-004	PR-SS-19	6/26/2008	1235	HASL-300, 4.5.2.3	Cesium-137	1.38	0.122	0.0257	PCI/G		
25990-004	PR-SS-19	6/26/2008	1235	HASL-300, 4.5.2.3	Co-60	-0.0116	0.0261	0.0333	PCI/G	DL	
25990-004	PR-SS-19	6/26/2008	1235	HASL-300, 4.5.2.3	Cobalt-57	0.00558	0.00946	0.0159	PCI/G	DL	
25990-004	PR-SS-19	6/26/2008	1235	HASL-300, 4.5.2.3	Lead-212	0.546	0.0579	0.0361	PCI/G		
25990-004	PR-SS-19	6/26/2008	1235	HASL-300, 4.5.2.3	Lead-214	0.382	0.0643	0.0519	PCI/G		
25990-004	PR-SS-19	6/26/2008	1235	HASL-300, 4.5.2.3	Manganese-54	0.00796	0.0146	0.0258	PCI/G	DL	
25990-004	PR-SS-19	6/26/2008	1235	HASL-300, 4.5.2.3	Potassium-40	5.16	0.53	0.2	PCI/G		
25990-004	PR-SS-19	6/26/2008	1235	HASL-300, 4.5.2.3	Radium-226	0.41	0.0736	0.0485	PCI/G		
25990-004	PR-SS-19	6/26/2008	1235	HASL-300, 4.5.2.3	Radium-228	0.554	0.103	0.088	PCI/G		
25990-004	PR-SS-19	6/26/2008	1235	HASL-300, 4.5.2.3	Sodium-22	-0.00389	0.0149	0.0245	PCI/G	DL	
25990-004	PR-SS-19	6/26/2008	1235	HASL-300, 4.5.2.3	Thallium-208	0.185	0.0401	0.0259	PCI/G		
25990-004	PR-SS-19	6/26/2008	1235	HASL-300, 4.5.2.3	Thorium-228	0.546	0.0579	0.0361	PCI/G		
25990-004	PR-SS-19	6/26/2008	1235	HASL-300, 4.5.2.3	Thorium-230	0.41	0.0736	0.0485	PCI/G		
25990-004	PR-SS-19	6/26/2008	1235	HASL-300, 4.5.2.3	Thorium-232	0.531	0.0563	0.0351	PCI/G		
25990-004	PR-SS-19	6/26/2008	1235	HASL-300, 4.5.2.3	Uranium-234	0.45	0.0939	0.0879	PCI/G		
25990-003	PR-SS-18	6/26/2008	1225	HASL-300, 4.5.2.3	Actinium-228	0.486	0.0762	0.0445	PCI/G		
25990-003	PR-SS-18	6/26/2008	1225	HASL-300, 4.5.2.3	Beryllium-7	0.0955	0.0887	0.157	PCI/G	DL	
25990-003	PR-SS-18	6/26/2008	1225	HASL-300, 4.5.2.3	Bismuth-214	0.364	0.0429	0.0259	PCI/G		
25990-003	PR-SS-18	6/26/2008	1225	HASL-300, 4.5.2.3	Cesium-137	0.559	0.0463	0.0132	PCI/G		
25990-003	PR-SS-18	6/26/2008	1225	HASL-300, 4.5.2.3	Co-60	0.00633	0.00798	0.014	PCI/G	DL	
25990-003	PR-SS-18	6/26/2008	1225	HASL-300, 4.5.2.3	Cobalt-57	-0.0033	0.00547	0.00944	PCI/G	DL	
25990-003	PR-SS-18	6/26/2008	1225	HASL-300, 4.5.2.3	Lead-212	0.562	0.0463	0.0215	PCI/G		
25990-003	PR-SS-18	6/26/2008	1225	HASL-300, 4.5.2.3	Lead-214	0.357	0.0434	0.0262	PCI/G		
25990-003	PR-SS-18	6/26/2008	1225	HASL-300, 4.5.2.3	Manganese-54	0.0029	0.00796	0.014	PCI/G	DL	
25990-003	PR-SS-18	6/26/2008	1225	HASL-300, 4.5.2.3	Potassium-40	4.38	0.362	0.121	PCI/G		
25990-003	PR-SS-18	6/26/2008	1225	HASL-300, 4.5.2.3	Radium-226	0.364	0.0429	0.0259	PCI/G		
25990-003	PR-SS-18	6/26/2008	1225	HASL-300, 4.5.2.3	Radium-228	0.486	0.0762	0.0445	PCI/G		
25990-003	PR-SS-18	6/26/2008	1225	HASL-300, 4.5.2.3	Sodium-22	0.00416	0.00799	0.0139	PCI/G	DL	
25990-003	PR-SS-18	6/26/2008	1225	HASL-300, 4.5.2.3	Thallium-208	0.169	0.0227	0.0132	PCI/G		
25990-003	PR-SS-18	6/26/2008	1225	HASL-300, 4.5.2.3	Thorium-228	0.562	0.0463	0.0215	PCI/G		
25990-003	PR-SS-18	6/26/2008	1225	HASL-300, 4.5.2.3	Thorium-230	0.364	0.0429	0.0259	PCI/G		
25990-003	PR-SS-18	6/26/2008	1225	HASL-300, 4.5.2.3	Thorium-232	0.546	0.045	0.0209	PCI/G		
25990-003	PR-SS-18	6/26/2008	1225	HASL-300, 4.5.2.3	Uranium-234	0.37	0.0561	0.0489	PCI/G		
25990-002	PR-SS-17	6/26/2008	1157	HASL-300, 4.5.2.3	Actinium-228	0.615	0.0912	0.0539	PCI/G		
25990-002	PR-SS-17	6/26/2008	1157	HASL-300, 4.5.2.3	Beryllium-7	-0.0435	0.132	0.217	PCI/G	DL	
25990-002	PR-SS-17	6/26/2008	1157	HASL-300, 4.5.2.3	Bismuth-214	0.344	0.0562	0.0336	PCI/G		
25990-002	PR-SS-17	6/26/2008	1157	HASL-300, 4.5.2.3	Cesium-137	1.37	0.0926	0.0171	PCI/G		
25990-002	PR-SS-17	6/26/2008	1157	HASL-300, 4.5.2.3	Co-60	0.0121	0.00979	0.0179	PCI/G	DL	
25990-002	PR-SS-17	6/26/2008	1157	HASL-300, 4.5.2.3	Cobalt-57	0.00663	0.00732	0.0131	PCI/G	DL	
25990-002	PR-SS-17	6/26/2008	1157	HASL-300, 4.5.2.3	Lead-212	0.512	0.0494	0.0281	PCI/G		
25990-002	PR-SS-17	6/26/2008	1157	HASL-300, 4.5.2.3	Lead-214	0.373	0.0559	0.0375	PCI/G		
25990-002	PR-SS-17	6/26/2008	1157	HASL-300, 4.5.2.3	Manganese-54	-0.0000452	0.0105	0.0177	PCI/G	DL	
25990-002	PR-SS-17	6/26/2008	1157	HASL-300, 4.5.2.3	Potassium-40	4.17	0.419	0.164	PCI/G		
25990-002	PR-SS-17	6/26/2008	1157	HASL-300, 4.5.2.3	Radium-226	0.344	0.0562	0.0336	PCI/G		
25990-002	PR-SS-17	6/26/2008	1157	HASL-300, 4.5.2.3	Radium-228	0.615	0.0912	0.0539	PCI/G		
25990-002	PR-SS-17	6/26/2008	1157	HASL-300, 4.5.2.3	Sodium-22	-0.00984	0.0108	0.0175	PCI/G	DL	
25990-002	PR-SS-17	6/26/2008	1157	HASL-300, 4.5.2.3	Thallium-208	0.186	0.0292	0.0173	PCI/G		
25990-002	PR-SS-17	6/26/2008	1157	HASL-300, 4.5.2.3	Thorium-228	0.512	0.0494	0.0281	PCI/G		
25990-002	PR-SS-17	6/26/2008	1157	HASL-300, 4.5.2.3	Thorium-230	0.344	0.0562	0.0336	PCI/G		
25990-002	PR-SS-17	6/26/2008	1157	HASL-300, 4.5.2.3	Thorium-232	0.498	0.048	0.0273	PCI/G		
25990-002	PR-SS-17	6/26/2008	1157	HASL-300, 4.5.2.3	Uranium-234	0.383	0.0708	0.0667	PCI/G		
25990-001	PR-SS-16	6/26/2008	1136	HASL-300, 4.5.2.3	Actinium-228	0.521	0.0845	0.0474	PCI/G		
25990-001	PR-SS-16	6/26/2008	1136	HASL-300, 4.5.2.3	Beryllium-7	0.0884	0.09	0.157	PCI/G	DL	
25990-001	PR-SS-16	6/26/2008	1136	HASL-300, 4.5.2.3	Bismuth-214	0.4	0.0498	0.0255	PCI/G		
25990-001	PR-SS-16	6/26/2008	1136	HASL-300, 4.5.2.3	Cesium-137	0.638	0.0465	0.0141	PCI/G		
25990-001	PR-SS-16	6/26/2008	1136	HASL-300, 4.5.2.3	Co-60	-0.00155	0.00897	0.0148	PCI/G	DL	
25990-001	PR-SS-16	6/26/2008	1136	HASL-300, 4.5.2.3	Cobalt-57	-0.00377	0.00417	0.00737	PCI/G	DL	
25990-001	PR-SS-16	6/26/2008	1136	HASL-300, 4.5.2.3	Lead-210	0.488	0.164	0.14	PCI/G		
25990-001	PR-SS-16	6/26/2008	1136	HASL-300, 4.5.2.3	Lead-212	0.601	0.0541	0.0183	PCI/G		
25990-001	PR-SS-16	6/26/2008	1136	HASL-300, 4.5.2.3	Lead-214	0.415	0.0476	0.0251	PCI/G		
25990-001	PR-SS-16	6/26/2008	1136	HASL-300, 4.5.2.3	Manganese-54	-0.00403	0.00835	0.0138	PCI/G	DL	
25990-001	PR-SS-16	6/26/2008	1136	HASL-300, 4.5.2.3	Potassium-40	4.44	0.386	0.13	PCI/G		
25990-001	PR-SS-16	6/26/2008	1136	HASL-300, 4.5.2.3	Radium-226	0.4	0.0498	0.0255	PCI/G		
25990-001	PR-SS-16	6/26/2008	1136	HASL-300, 4.5.2.3	Radium-228	0.521	0.0845	0.0474	PCI/G		
25990-001	PR-SS-16	6/26/2008	1136	HASL-300, 4.5.2.3	Sodium-22	-0.00309	0.00905	0.0149	PCI/G	DL	
25990-001	PR-SS-16	6/26/2008	1136	HASL-300, 4.5.2.3	Thallium-208	0.176	0.023	0.0131	PCI/G		
25990-001	PR-SS-16	6/26/2008	1136	HASL-300, 4.5.2.3	Thorium-228	0.601	0.0541	0.0183	PCI/G		

Appendix C - 2008 Peconic River Sediment Samples

Radionuclides

Sample ID	COC Site ID	Sample Date	Sample Time	Method	Analyte	Conc.	Error	MDL	Units	Lab Qual.	Rev. Qual.
25990-001	PR-SS-16	6/26/2008	1136	HASL-300, 4.5.2.3	Thorium-230	0.4	0.0498	0.0255	PCI/G		
25990-001	PR-SS-16	6/26/2008	1136	HASL-300, 4.5.2.3	Thorium-232	0.584	0.0526	0.0178	PCI/G		
25990-001	PR-SS-16	6/26/2008	1136	HASL-300, 4.5.2.3	Uranium-234	0.383	0.0567	0.0465	PCI/G		
25988-001	PR-SS-15	6/25/2008	1355	HASL-300, 4.5.2.3	Actinium-228	0.515	0.0832	0.0506	PCI/G	J	
25988-001	PR-SS-15	6/25/2008	1355	HASL-300, 4.5.2.3	Beryllium-7	-0.0634	0.0935	0.162	PCI/G	DL	
25988-001	PR-SS-15	6/25/2008	1355	HASL-300, 4.5.2.3	Bismuth-212	0.387	0.111	0.11	PCI/G	J	
25988-001	PR-SS-15	6/25/2008	1355	HASL-300, 4.5.2.3	Bismuth-214	0.399	0.0481	0.0275	PCI/G		
25988-001	PR-SS-15	6/25/2008	1355	HASL-300, 4.5.2.3	Cesium-137	0.504	0.0431	0.0147	PCI/G		
25988-001	PR-SS-15	6/25/2008	1355	HASL-300, 4.5.2.3	Co-60	0.00652	0.00834	0.0147	PCI/G	DL	
25988-001	PR-SS-15	6/25/2008	1355	HASL-300, 4.5.2.3	Cobalt-57	0.000355	0.00596	0.0103	PCI/G	DL	
25988-001	PR-SS-15	6/25/2008	1355	HASL-300, 4.5.2.3	Lead-212	0.582	0.0489	0.0236	PCI/G		
25988-001	PR-SS-15	6/25/2008	1355	HASL-300, 4.5.2.3	Lead-214	0.477	0.0528	0.0293	PCI/G		
25988-001	PR-SS-15	6/25/2008	1355	HASL-300, 4.5.2.3	Manganese-54	-0.00267	0.0089	0.0148	PCI/G	DL	
25988-001	PR-SS-15	6/25/2008	1355	HASL-300, 4.5.2.3	Potassium-40	4.74	0.423	0.118	PCI/G		
25988-001	PR-SS-15	6/25/2008	1355	HASL-300, 4.5.2.3	Radium-226	0.399	0.0481	0.0275	PCI/G		
25988-001	PR-SS-15	6/25/2008	1355	HASL-300, 4.5.2.3	Radium-228	0.515	0.0832	0.0506	PCI/G		
25988-001	PR-SS-15	6/25/2008	1355	HASL-300, 4.5.2.3	Sodium-22	-0.0112	0.00896	0.014	PCI/G	DL	
25988-001	PR-SS-15	6/25/2008	1355	HASL-300, 4.5.2.3	Thallium-208	0.207	0.0255	0.0143	PCI/G		
25988-001	PR-SS-15	6/25/2008	1355	HASL-300, 4.5.2.3	Thorium-228	0.582	0.0489	0.0236	PCI/G		
25988-001	PR-SS-15	6/25/2008	1355	HASL-300, 4.5.2.3	Thorium-230	0.399	0.0481	0.0275	PCI/G	J	
25988-001	PR-SS-15	6/25/2008	1355	HASL-300, 4.5.2.3	Thorium-232	0.566	0.0475	0.0229	PCI/G	J	
25988-001	PR-SS-15	6/25/2008	1355	HASL-300, 4.5.2.3	Uranium-234	0.422	0.0644	0.0541	PCI/G	J	
25987-012	PR-SS-14	6/25/2008	1340	HASL-300, 4.5.2.3	Actinium-228	0.479	0.0829	0.0377	PCI/G	J	
25987-012	PR-SS-14	6/25/2008	1340	HASL-300, 4.5.2.3	Beryllium-7	-0.002	0.0958	0.169	PCI/G	DL	
25987-012	PR-SS-14	6/25/2008	1340	HASL-300, 4.5.2.3	Bismuth-214	0.407	0.047	0.0233	PCI/G		
25987-012	PR-SS-14	6/25/2008	1340	HASL-300, 4.5.2.3	Cesium-137	2.19	0.168	0.0134	PCI/G		
25987-012	PR-SS-14	6/25/2008	1340	HASL-300, 4.5.2.3	Co-60	0.00453	0.00703	0.0122	PCI/G	DL	
25987-012	PR-SS-14	6/25/2008	1340	HASL-300, 4.5.2.3	Cobalt-57	0.00196	0.00475	0.00882	PCI/G	DL	
25987-012	PR-SS-14	6/25/2008	1340	HASL-300, 4.5.2.3	Lead-212	0.523	0.0444	0.0204	PCI/G		
25987-012	PR-SS-14	6/25/2008	1340	HASL-300, 4.5.2.3	Lead-214	0.445	0.0452	0.0261	PCI/G		
25987-012	PR-SS-14	6/25/2008	1340	HASL-300, 4.5.2.3	Manganese-54	0.00541	0.00781	0.0119	PCI/G	DL	
25987-012	PR-SS-14	6/25/2008	1340	HASL-300, 4.5.2.3	Potassium-40	4.09	0.378	0.108	PCI/G		
25987-012	PR-SS-14	6/25/2008	1340	HASL-300, 4.5.2.3	Radium-226	0.407	0.047	0.0233	PCI/G		
25987-012	PR-SS-14	6/25/2008	1340	HASL-300, 4.5.2.3	Radium-228	0.479	0.0829	0.0377	PCI/G	J	
25987-012	PR-SS-14	6/25/2008	1340	HASL-300, 4.5.2.3	Sodium-22	0.0021	0.0075	0.0128	PCI/G	DL	
25987-012	PR-SS-14	6/25/2008	1340	HASL-300, 4.5.2.3	Thallium-208	0.158	0.0204	0.0127	PCI/G		
25987-012	PR-SS-14	6/25/2008	1340	HASL-300, 4.5.2.3	Thorium-228	0.523	0.0444	0.0204	PCI/G		
25987-012	PR-SS-14	6/25/2008	1340	HASL-300, 4.5.2.3	Thorium-230	0.407	0.047	0.0233	PCI/G	J	
25987-012	PR-SS-14	6/25/2008	1340	HASL-300, 4.5.2.3	Thorium-232	0.508	0.0432	0.0198	PCI/G	J	
25987-012	PR-SS-14	6/25/2008	1340	HASL-300, 4.5.2.3	Uranium-234	0.434	0.0701	0.0484	PCI/G	J	
25987-011	PR-SS-12	6/25/2008	1326	HASL-300, 4.5.2.3	Actinium-228	0.449	0.0746	0.0401	PCI/G	J	
25987-011	PR-SS-12	6/25/2008	1326	HASL-300, 4.5.2.3	Beryllium-7	0.0117	0.0765	0.136	PCI/G	DL	
25987-011	PR-SS-12	6/25/2008	1326	HASL-300, 4.5.2.3	Bismuth-214	0.308	0.0425	0.0221	PCI/G		
25987-011	PR-SS-12	6/25/2008	1326	HASL-300, 4.5.2.3	Cesium-137	0.27	0.0215	0.0116	PCI/G		
25987-011	PR-SS-12	6/25/2008	1326	HASL-300, 4.5.2.3	Co-60	-0.00396	0.00699	0.0112	PCI/G	DL	
25987-011	PR-SS-12	6/25/2008	1326	HASL-300, 4.5.2.3	Cobalt-57	0.0029	0.00471	0.00889	PCI/G	DL	
25987-011	PR-SS-12	6/25/2008	1326	HASL-300, 4.5.2.3	Lead-212	0.473	0.0404	0.0184	PCI/G		
25987-011	PR-SS-12	6/25/2008	1326	HASL-300, 4.5.2.3	Lead-214	0.301	0.0408	0.0235	PCI/G		
25987-011	PR-SS-12	6/25/2008	1326	HASL-300, 4.5.2.3	Manganese-54	0.00298	0.00658	0.0118	PCI/G	DL	
25987-011	PR-SS-12	6/25/2008	1326	HASL-300, 4.5.2.3	Potassium-40	3.33	0.313	0.0967	PCI/G		
25987-011	PR-SS-12	6/25/2008	1326	HASL-300, 4.5.2.3	Radium-226	0.308	0.0425	0.0221	PCI/G		
25987-011	PR-SS-12	6/25/2008	1326	HASL-300, 4.5.2.3	Radium-228	0.449	0.0746	0.0401	PCI/G	J	
25987-011	PR-SS-12	6/25/2008	1326	HASL-300, 4.5.2.3	Sodium-22	-0.000465	0.00699	0.0117	PCI/G	DL	
25987-011	PR-SS-12	6/25/2008	1326	HASL-300, 4.5.2.3	Thallium-208	0.129	0.0178	0.0119	PCI/G		
25987-011	PR-SS-12	6/25/2008	1326	HASL-300, 4.5.2.3	Thorium-228	0.473	0.0404	0.0184	PCI/G		
25987-011	PR-SS-12	6/25/2008	1326	HASL-300, 4.5.2.3	Thorium-230	0.308	0.0425	0.0221	PCI/G	J	
25987-011	PR-SS-12	6/25/2008	1326	HASL-300, 4.5.2.3	Thorium-232	0.459	0.0391	0.0178	PCI/G	J	
25987-011	PR-SS-12	6/25/2008	1326	HASL-300, 4.5.2.3	Uranium-234	0.256	0.0493	0.0438	PCI/G	J	
25987-010	PR-SS-10	6/25/2008	1243	HASL-300, 4.5.2.3	Actinium-228	0.496	0.0907	0.0486	PCI/G	J	
25987-010	PR-SS-10	6/25/2008	1243	HASL-300, 4.5.2.3	Beryllium-7	0.183	0.124	0.219	PCI/G	DL	
25987-010	PR-SS-10	6/25/2008	1243	HASL-300, 4.5.2.3	Bismuth-214	0.43	0.0541	0.0306	PCI/G		
25987-010	PR-SS-10	6/25/2008	1243	HASL-300, 4.5.2.3	Cesium-137	1.67	0.103	0.0163	PCI/G		
25987-010	PR-SS-10	6/25/2008	1243	HASL-300, 4.5.2.3	Co-60	0.00267	0.00934	0.0156	PCI/G	DL	
25987-010	PR-SS-10	6/25/2008	1243	HASL-300, 4.5.2.3	Cobalt-57	-0.00171	0.00646	0.0112	PCI/G	DL	
25987-010	PR-SS-10	6/25/2008	1243	HASL-300, 4.5.2.3	Lead-212	0.538	0.0489	0.026	PCI/G		
25987-010	PR-SS-10	6/25/2008	1243	HASL-300, 4.5.2.3	Lead-214	0.414	0.0527	0.0336	PCI/G		
25987-010	PR-SS-10	6/25/2008	1243	HASL-300, 4.5.2.3	Manganese-54	-0.00777	0.00987	0.0163	PCI/G	DL	

Appendix C - 2008 Peconic River Sediment Samples

Radionuclides

Sample ID	COC Site ID	Sample Date	Sample Time	Method	Analyte	Conc.	Error	MDL	Units	Lab Qual.	Rev. Qual.
25987-010	PR-SS-10	6/25/2008	1243	HASL-300, 4.5.2.3	Potassium-40	3.88	0.397	0.149	PCI/G		
25987-010	PR-SS-10	6/25/2008	1243	HASL-300, 4.5.2.3	Radium-226	0.43	0.0541	0.0306	PCI/G		
25987-010	PR-SS-10	6/25/2008	1243	HASL-300, 4.5.2.3	Radium-228	0.496	0.0907	0.0486	PCI/G	J	
25987-010	PR-SS-10	6/25/2008	1243	HASL-300, 4.5.2.3	Sodium-22	0.00665	0.00979	0.0168	PCI/G	DL	
25987-010	PR-SS-10	6/25/2008	1243	HASL-300, 4.5.2.3	Thallium-208	0.16	0.0249	0.0169	PCI/G		
25987-010	PR-SS-10	6/25/2008	1243	HASL-300, 4.5.2.3	Thorium-228	0.538	0.0489	0.026	PCI/G		
25987-010	PR-SS-10	6/25/2008	1243	HASL-300, 4.5.2.3	Thorium-230	0.43	0.0541	0.0306	PCI/G	J	
25987-010	PR-SS-10	6/25/2008	1243	HASL-300, 4.5.2.3	Thorium-232	0.523	0.0475	0.0253	PCI/G	J	
25987-010	PR-SS-10	6/25/2008	1243	HASL-300, 4.5.2.3	Uranium-234	0.523	0.091	0.0602	PCI/G	J	
25984-008	PR-SS-09	6/24/2008	1300	HASL-300, 4.5.2.3	Beryllium-7	-0.00359	0.118	0.2	PCI/G	DL	
25984-008	PR-SS-09	6/24/2008	1300	HASL-300, 4.5.2.3	Cesium-137	0.313	0.0366	0.0211	PCI/G		
25984-008	PR-SS-09	6/24/2008	1300	HASL-300, 4.5.2.3	Co-60	0.017	0.0131	0.0229	PCI/G	DL	
25984-008	PR-SS-09	6/24/2008	1300	HASL-300, 4.5.2.3	Cobalt-57	0.00622	0.00598	0.011	PCI/G	DL	
25984-008	PR-SS-09	6/24/2008	1300	HASL-300, 4.5.2.3	Manganese-54	0.0163	0.0127	0.0213	PCI/G	DL	
25984-008	PR-SS-09	6/24/2008	1300	HASL-300, 4.5.2.3	Potassium-40	3.99	0.393	0.176	PCI/G		
25984-008	PR-SS-09	6/24/2008	1300	HASL-300, 4.5.2.3	Radium-226	0.375	0.0621	0.038	PCI/G		
25984-008	PR-SS-09	6/24/2008	1300	HASL-300, 4.5.2.3	Sodium-22	0.00643	0.0129	0.022	PCI/G	DL	
25984-008	PR-SS-09	6/24/2008	1300	HASL-300, 4.5.2.3	Thorium-228	0.593	0.0526	0.0253	PCI/G		
25984-007	PR-SS-07	6/24/2008	1235	HASL-300, 4.5.2.3	Beryllium-7	0.0255	0.106	0.182	PCI/G	DL	
25984-007	PR-SS-07	6/24/2008	1235	HASL-300, 4.5.2.3	Cesium-137	0.115	0.0214	0.0182	PCI/G		
25984-007	PR-SS-07	6/24/2008	1235	HASL-300, 4.5.2.3	Co-60	0.0142	0.0107	0.0193	PCI/G	DL	
25984-007	PR-SS-07	6/24/2008	1235	HASL-300, 4.5.2.3	Cobalt-57	0.00144	0.00645	0.0115	PCI/G	DL	
25984-007	PR-SS-07	6/24/2008	1235	HASL-300, 4.5.2.3	Manganese-54	-0.00625	0.0111	0.0183	PCI/G	DL	
25984-007	PR-SS-07	6/24/2008	1235	HASL-300, 4.5.2.3	Potassium-40	4.44	0.445	0.159	PCI/G		
25984-007	PR-SS-07	6/24/2008	1235	HASL-300, 4.5.2.3	Radium-226	0.334	0.0513	0.0348	PCI/G		
25984-007	PR-SS-07	6/24/2008	1235	HASL-300, 4.5.2.3	Sodium-22	0.00431	0.0106	0.0184	PCI/G	DL	
25984-007	PR-SS-07	6/24/2008	1235	HASL-300, 4.5.2.3	Thorium-228	0.624	0.0655	0.0266	PCI/G		
25984-006	PR-SS-06	6/24/2008	1225	HASL-300, 4.5.2.3	Beryllium-7	0.055	0.0783	0.135	PCI/G	DL	
25984-006	PR-SS-06	6/24/2008	1225	HASL-300, 4.5.2.3	Cesium-137	0.214	0.022	0.0151	PCI/G		
25984-006	PR-SS-06	6/24/2008	1225	HASL-300, 4.5.2.3	Co-60	-0.00588	0.0122	0.0146	PCI/G	DL	
25984-006	PR-SS-06	6/24/2008	1225	HASL-300, 4.5.2.3	Cobalt-57	0.00235	0.00394	0.00714	PCI/G	DL	
25984-006	PR-SS-06	6/24/2008	1225	HASL-300, 4.5.2.3	Manganese-54	0.00264	0.00882	0.015	PCI/G	DL	
25984-006	PR-SS-06	6/24/2008	1225	HASL-300, 4.5.2.3	Potassium-40	3.39	0.336	0.114	PCI/G		
25984-006	PR-SS-06	6/24/2008	1225	HASL-300, 4.5.2.3	Radium-226	0.287	0.0447	0.0248	PCI/G		
25984-006	PR-SS-06	6/24/2008	1225	HASL-300, 4.5.2.3	Sodium-22	-0.00583	0.00881	0.0141	PCI/G	DL	
25984-006	PR-SS-06	6/24/2008	1225	HASL-300, 4.5.2.3	Thorium-228	0.513	0.047	0.0176	PCI/G		
25984-005	PR-SS-05	6/24/2008	1212	HASL-300, 4.5.2.3	Beryllium-7	0.023	0.131	0.22	PCI/G	DL	
25984-005	PR-SS-05	6/24/2008	1212	HASL-300, 4.5.2.3	Cesium-137	0.827	0.078	0.0199	PCI/G		
25984-005	PR-SS-05	6/24/2008	1212	HASL-300, 4.5.2.3	Co-60	0.00464	0.0146	0.0246	PCI/G	DL	
25984-005	PR-SS-05	6/24/2008	1212	HASL-300, 4.5.2.3	Cobalt-57	0.00123	0.00616	0.0103	PCI/G	DL	
25984-005	PR-SS-05	6/24/2008	1212	HASL-300, 4.5.2.3	Manganese-54	-0.00892	0.0136	0.0223	PCI/G	DL	
25984-005	PR-SS-05	6/24/2008	1212	HASL-300, 4.5.2.3	Potassium-40	3.23	0.365	0.214	PCI/G		
25984-005	PR-SS-05	6/24/2008	1212	HASL-300, 4.5.2.3	Radium-226	0.275	0.0583	0.0382	PCI/G		
25984-005	PR-SS-05	6/24/2008	1212	HASL-300, 4.5.2.3	Sodium-22	-0.0118	0.0149	0.0233	PCI/G	DL	
25984-005	PR-SS-05	6/24/2008	1212	HASL-300, 4.5.2.3	Thorium-228	0.475	0.0487	0.0271	PCI/G		
25984-004	PR-SS-04	6/24/2008	1140	HASL-300, 4.5.2.3	Beryllium-7	0.0239	0.0946	0.156	PCI/G	DL	
25984-004	PR-SS-04	6/24/2008	1140	HASL-300, 4.5.2.3	Cesium-137	0.095	0.0181	0.0154	PCI/G		
25984-004	PR-SS-04	6/24/2008	1140	HASL-300, 4.5.2.3	Co-60	0.00226	0.00919	0.0159	PCI/G	DL	
25984-004	PR-SS-04	6/24/2008	1140	HASL-300, 4.5.2.3	Cobalt-57	0.00156	0.00597	0.0104	PCI/G	DL	
25984-004	PR-SS-04	6/24/2008	1140	HASL-300, 4.5.2.3	Manganese-54	0.0016	0.0094	0.0159	PCI/G	DL	
25984-004	PR-SS-04	6/24/2008	1140	HASL-300, 4.5.2.3	Potassium-40	3.78	0.437	0.132	PCI/G		
25984-004	PR-SS-04	6/24/2008	1140	HASL-300, 4.5.2.3	Radium-226	0.3	0.0509	0.029	PCI/G		
25984-004	PR-SS-04	6/24/2008	1140	HASL-300, 4.5.2.3	Sodium-22	0.00129	0.00954	0.0157	PCI/G	DL	
25984-004	PR-SS-04	6/24/2008	1140	HASL-300, 4.5.2.3	Thorium-228	0.482	0.0469	0.0236	PCI/G		
25984-003	PR-SS-03	6/24/2008	1130	HASL-300, 4.5.2.3	Beryllium-7	-0.0496	0.0819	0.141	PCI/G	DL	
25984-003	PR-SS-03	6/24/2008	1130	HASL-300, 4.5.2.3	Cesium-137	0.0994	0.0174	0.0144	PCI/G		
25984-003	PR-SS-03	6/24/2008	1130	HASL-300, 4.5.2.3	Co-60	0.0131	0.0095	0.0172	PCI/G	DL	
25984-003	PR-SS-03	6/24/2008	1130	HASL-300, 4.5.2.3	Cobalt-57	-0.000259	0.00564	0.0101	PCI/G	DL	
25984-003	PR-SS-03	6/24/2008	1130	HASL-300, 4.5.2.3	Manganese-54	-0.0000644	0.00914	0.0154	PCI/G	DL	
25984-003	PR-SS-03	6/24/2008	1130	HASL-300, 4.5.2.3	Potassium-40	6.08	0.51	0.139	PCI/G		
25984-003	PR-SS-03	6/24/2008	1130	HASL-300, 4.5.2.3	Radium-226	0.443	0.0529	0.0278	PCI/G		
25984-003	PR-SS-03	6/24/2008	1130	HASL-300, 4.5.2.3	Sodium-22	-0.0014	0.00918	0.0155	PCI/G	DL	
25984-003	PR-SS-03	6/24/2008	1130	HASL-300, 4.5.2.3	Thorium-228	0.661	0.0585	0.0231	PCI/G		
25984-002	PR-SS-02	6/24/2008	1115	HASL-300, 4.5.2.3	Beryllium-7	0.0164	0.0752	0.13	PCI/G	DL	
25984-002	PR-SS-02	6/24/2008	1115	HASL-300, 4.5.2.3	Cesium-137	0.221	0.0203	0.0135	PCI/G		
25984-002	PR-SS-02	6/24/2008	1115	HASL-300, 4.5.2.3	Co-60	-0.0136	0.0117	0.0133	PCI/G	DL	
25984-002	PR-SS-02	6/24/2008	1115	HASL-300, 4.5.2.3	Cobalt-57	-0.00129	0.00589	0.00985	PCI/G	DL	

Appendix C - 2008 Peconic River Sediment Samples

Radionuclides

Sample ID	COC Site ID	Sample Date	Sample Time	Method	Analyte	Conc.	Error	MDL	Units	Lab Qual.	Rev. Qual.
25984-002	PR-SS-02	6/24/2008	1115	HASL-300, 4.5.2.3	Manganese-54	-0.00218	0.00819	0.0138	PCI/G	DL	
25984-002	PR-SS-02	6/24/2008	1115	HASL-300, 4.5.2.3	Potassium-40	3.86	0.356	0.117	PCI/G		
25984-002	PR-SS-02	6/24/2008	1115	HASL-300, 4.5.2.3	Radium-226	0.298	0.0428	0.0263	PCI/G		
25984-002	PR-SS-02	6/24/2008	1115	HASL-300, 4.5.2.3	Sodium-22	-0.00561	0.00802	0.0131	PCI/G	DL	
25984-002	PR-SS-02	6/24/2008	1115	HASL-300, 4.5.2.3	Thorium-228	0.55	0.0464	0.02	PCI/G		
25984-001	PR-SS-01	6/24/2008	1100	HASL-300, 4.5.2.3	Beryllium-7	0.0329	0.101	0.169	PCI/G	DL	
25984-001	PR-SS-01	6/24/2008	1100	HASL-300, 4.5.2.3	Cesium-137	0.102	0.0185	0.0182	PCI/G		
25984-001	PR-SS-01	6/24/2008	1100	HASL-300, 4.5.2.3	Co-60	-0.0088	0.0102	0.016	PCI/G	DL	
25984-001	PR-SS-01	6/24/2008	1100	HASL-300, 4.5.2.3	Cobalt-57	-0.0012	0.00692	0.0114	PCI/G	DL	
25984-001	PR-SS-01	6/24/2008	1100	HASL-300, 4.5.2.3	Manganese-54	-0.000308	0.0126	0.0184	PCI/G	DL	
25984-001	PR-SS-01	6/24/2008	1100	HASL-300, 4.5.2.3	Potassium-40	4.36	0.421	0.152	PCI/G		
25984-001	PR-SS-01	6/24/2008	1100	HASL-300, 4.5.2.3	Radium-226	0.46	0.0589	0.0325	PCI/G		
25984-001	PR-SS-01	6/24/2008	1100	HASL-300, 4.5.2.3	Sodium-22	0.00126	0.0106	0.0178	PCI/G	DL	
25984-001	PR-SS-01	6/24/2008	1100	HASL-300, 4.5.2.3	Thorium-228	0.678	0.0576	0.0253	PCI/G		
25984-009	PR-MR-01	6/24/2008	1020	HASL-300, 4.5.2.3	Beryllium-7	-0.0632	0.103	0.169	PCI/G	DL	
25984-009	PR-MR-01	6/24/2008	1020	HASL-300, 4.5.2.3	Cesium-137	0.0541	0.0167	0.0185	PCI/G		
25984-009	PR-MR-01	6/24/2008	1020	HASL-300, 4.5.2.3	Co-60	0.0014	0.0124	0.0207	PCI/G	DL	
25984-009	PR-MR-01	6/24/2008	1020	HASL-300, 4.5.2.3	Cobalt-57	-0.00153	0.00504	0.00852	PCI/G	DL	
25984-009	PR-MR-01	6/24/2008	1020	HASL-300, 4.5.2.3	Manganese-54	-0.00513	0.011	0.0185	PCI/G	DL	
25984-009	PR-MR-01	6/24/2008	1020	HASL-300, 4.5.2.3	Potassium-40	2.8	0.326	0.178	PCI/G		
25984-009	PR-MR-01	6/24/2008	1020	HASL-300, 4.5.2.3	Radium-226	0.263	0.0482	0.0343	PCI/G		
25984-009	PR-MR-01	6/24/2008	1020	HASL-300, 4.5.2.3	Sodium-22	-0.00729	0.0129	0.0207	PCI/G	DL	
25984-009	PR-MR-01	6/24/2008	1020	HASL-300, 4.5.2.3	Thorium-228	0.333	0.037	0.0218	PCI/G		
25984-010	PR-MR-02	6/24/2008	1000	HASL-300, 4.5.2.3	Beryllium-7	0.048	0.121	0.206	PCI/G	DL	
25984-010	PR-MR-02	6/24/2008	1000	HASL-300, 4.5.2.3	Cesium-137	0.173	0.0362	0.0192	PCI/G		
25984-010	PR-MR-02	6/24/2008	1000	HASL-300, 4.5.2.3	Co-60	0.0388	0.0145	0.0276	PCI/G	UI	
25984-010	PR-MR-02	6/24/2008	1000	HASL-300, 4.5.2.3	Cobalt-57	0.00219	0.0068	0.0114	PCI/G	DL	
25984-010	PR-MR-02	6/24/2008	1000	HASL-300, 4.5.2.3	Manganese-54	0.0000308	0.0119	0.0204	PCI/G	DL	
25984-010	PR-MR-02	6/24/2008	1000	HASL-300, 4.5.2.3	Potassium-40	2.97	0.378	0.178	PCI/G		
25984-010	PR-MR-02	6/24/2008	1000	HASL-300, 4.5.2.3	Radium-226	0.192	0.0527	0.0381	PCI/G		
25984-010	PR-MR-02	6/24/2008	1000	HASL-300, 4.5.2.3	Sodium-22	0.0084	0.0115	0.0202	PCI/G	DL	
25984-010	PR-MR-02	6/24/2008	1000	HASL-300, 4.5.2.3	Thorium-228	0.284	0.0394	0.0259	PCI/G		
25967-001	PR-DP-01	6/17/2008	1805	HASL-300, 4.5.2.3	Cesium-137	0.19	0.0692	0.0713	PCI/G	J	
25967-001	PR-DP-01	6/17/2008	1805	HASL-300, 4.5.2.3	Potassium-40	1.23	1	0.757	PCI/G		

Appendix D
2008 Water Column Total Mercury, Methylmercury and TSS Data

Sample ID	COC Site ID	Sample Date	Depth (ft.)	Filt.	Method	Analyte	Conc.	MDL	Units	Lab Qual.	Rev. Qual.
25953-009	PR-WC-12P-D7	6/12/2008	0	U	EPA 1631	Mercury	27.7	0.52	NG/L		
25953-009	PR-WC-12P-D7	6/12/2008	0	U	EPA 1630	Methyl Mercury	9.84	0.054	NG/L		
25953-009	PR-WC-12P-D7	6/12/2008	0	U	EPA 160.2	TSS	15.4	2	MG/L		
25953-004	PR-WC-12-D7	6/12/2008	0	U	EPA 1631	Mercury	25.2	0.58	NG/L		
25953-004	PR-WC-12-D7	6/12/2008	0	U	EPA 1630	Methyl Mercury	10.9	0.053	NG/L		
25953-004	PR-WC-12-D7	6/12/2008	0	U	EPA 160.2	TSS	23.1	1.8	MG/L		
25953-001	PR-WC-11DS	6/12/2008	0	U	EPA 1631	Mercury	103	1.52	NG/L		
25953-001	PR-WC-11DS	6/12/2008	0	U	EPA 1630	Methyl Mercury	0.301	0.02	NG/L		
25953-001	PR-WC-11DS	6/12/2008	0	U	EPA 160.2	TSS	1.4	0.3	MG/L		
25949-006	PR-WC-10P	6/11/2008	0.5	U	EPA 1631	Mercury	124	2.33	NG/L		
25949-006	PR-WC-10P	6/11/2008	0.5	U	EPA 1630	Methyl Mercury	1.13	0.02	NG/L		
25949-006	PR-WC-10P	6/11/2008	0.5	U	EPA 160.2	TSS	2.3	0.3	MG/L		
25949-005	PR-WC-10	6/11/2008	0.5	U	EPA 1631	Mercury	114	3.01	NG/L		
25949-005	PR-WC-10	6/11/2008	0.5	U	EPA 1630	Methyl Mercury	1.22	0.052	NG/L		
25949-005	PR-WC-10	6/11/2008	0.5	U	EPA 160.2	TSS	2.4	0.3	MG/L		
26046-003	PR-WC-10	7/15/2008	1.3	U	EPA 1631	Mercury	94.4	3.03	NG/L		
26046-003	PR-WC-10	7/15/2008	1.3	U	EPA 1630	Methyl Mercury	0.605	0.02	NG/L		
26046-003	PR-WC-10	7/15/2008	1.3	U	EPA 160.2	TSS	1.4	0.3	MG/L		
25949-003	PR-WC-08	6/11/2008	0.5	U	EPA 1631	Mercury	111	0.3	NG/L		
25949-003	PR-WC-08	6/11/2008	0.5	U	EPA 1630	Methyl Mercury	2.79	0.02	NG/L		
25949-003	PR-WC-08	6/11/2008	0.5	U	EPA 160.2	TSS	14.3	0.6	MG/L		
26046-005	PR-WC-08	7/15/2008	1.9	U	EPA 1631	Mercury	68.3	3.03	NG/L		
26046-005	PR-WC-08	7/15/2008	1.9	U	EPA 1630	Methyl Mercury	3.48	0.021	NG/L		
26046-005	PR-WC-08	7/15/2008	1.9	U	EPA 160.2	TSS	29	1.2	MG/L		
25949-001	PR-WC-06	6/11/2008	0.5	U	EPA 1631	Mercury	876	6.12	NG/L		
25949-001	PR-WC-06	6/11/2008	0.5	U	EPA 1630	Methyl Mercury	4.67	0.02	NG/L		
25949-001	PR-WC-06	6/11/2008	0.5	U	EPA 160.2	TSS	79.1	2	MG/L		
25947-011	PR-WC-05P	6/11/2008	0	U	EPA 1631	Mercury	101	3.06	NG/L		
25947-011	PR-WC-05P	6/11/2008	0	U	EPA 1630	Methyl Mercury	8.11	0.02	NG/L		
25947-011	PR-WC-05P	6/11/2008	0	U	EPA 160.3	TSS	34.2	1.6	MG/L		
25947-004	PR-WC-05	6/11/2008	0	U	EPA 1631	Mercury	140	3.06	NG/L		
25947-004	PR-WC-05	6/11/2008	0	U	EPA 1630	Methyl Mercury	8.4	0.02	NG/L		
25947-004	PR-WC-05	6/11/2008	0	U	EPA 160.3	TSS	48	1.7	MG/L		
25947-006	PR-SS-15-U1-WC-1	6/11/2008	0	U	EPA 1631	Mercury	141	3.06	NG/L		
25947-006	PR-SS-15-U1-WC-1	6/11/2008	0	U	EPA 1630	Methyl Mercury	18	0.02	NG/L		
25947-006	PR-SS-15-U1-WC-1	6/11/2008	0	U	EPA 160.3	TSS	50	1.1	MG/L		
25947-007	PR-SS-15-U1-WC-2	6/11/2008	0	U	EPA 1631	Mercury	111	3.06	NG/L		
25947-007	PR-SS-15-U1-WC-2	6/11/2008	0	U	EPA 1630	Methyl Mercury	19.1	0.02	NG/L		
25947-007	PR-SS-15-U1-WC-2	6/11/2008	0	U	EPA 160.3	TSS	18.5	0.6	MG/L		
25947-008	PR-SS-15-U1-WC-3	6/11/2008	0	U	EPA 1631	Mercury	103	3.06	NG/L		
25947-008	PR-SS-15-U1-WC-3	6/11/2008	0	U	EPA 1630	Methyl Mercury	16.5	0.02	NG/L		
25947-008	PR-SS-15-U1-WC-3	6/11/2008	0	U	EPA 160.3	TSS	20.2	0.7	MG/L		
25947-009	PR-SS-15-U1-WC-4	6/11/2008	0	U	EPA 1631	Mercury	165	3.06	NG/L		
25947-009	PR-SS-15-U1-WC-4	6/11/2008	0	U	EPA 1630	Methyl Mercury	14.8	0.02	NG/L		
25947-009	PR-SS-15-U1-WC-4	6/11/2008	0	U	EPA 160.3	TSS	32.4	0.8	MG/L		
25947-010	PR-WC-03P	6/11/2008	0	U	EPA 1631	Mercury	14.7	0.31	NG/L		
25947-010	PR-WC-03P	6/11/2008	0	U	EPA 1630	Methyl Mercury	3.22	0.02	NG/L		
25947-010	PR-WC-03P	6/11/2008	0	U	EPA 160.3	TSS	2.6	0.3	MG/L		
26040-006	PR-WC-03P	7/15/2008	0	U	EPA 1631	Mercury	3.23	0.15	NG/L		
26040-006	PR-WC-03P	7/15/2008	0	U	EPA 1630	Methyl Mercury	0.527	0.02	NG/L		
26040-006	PR-WC-03P	7/15/2008	0	U	EPA 160.2	TSS	88.8	2.4	MG/L		
25947-002	PR-WC-03	6/11/2008	0	U	EPA 1631	Mercury	17.2	0.3	NG/L		
25947-002	PR-WC-03	6/11/2008	0	U	EPA 1630	Methyl Mercury	2.7	0.02	NG/L		
25947-002	PR-WC-03	6/11/2008	0	U	EPA 160.3	TSS	2.9	0.3	MG/L		

Appendix D
2008 Water Column Total Mercury, Methylmercury and TSS Data

Sample ID	COC Site ID	Sample Date	Depth (ft.)	Filt.	Method	Analyte	Conc.	MDL	Units	Lab Qual.	Rev. Qual.
26040-007	PR-WC-03	7/15/2008	0	U	EPA 1631	Mercury	374	3.09	NG/L		
26040-007	PR-WC-03	7/15/2008	0	U	EPA 1630	Methyl Mercury	4.18	0.02	NG/L		
26040-007	PR-WC-03	7/15/2008	0	U	EPA 160.2	TSS	165	2.9	MG/L		
25944-002	PR-WC-01	6/10/2008	0	U	EPA 1631	Mercury	16.7	0.3	NG/L		
25944-002	PR-WC-01	6/10/2008	0	U	EPA 1630	Methyl Mercury	3.2	0.021	NG/L		
25944-002	PR-WC-01	6/10/2008	0	U	EPA 160.2	TSS	7.5	0.6	MG/L		
25942-004	PR-WCS-01	6/10/2008	0	U	EPA 1631	Mercury	17.6	0.6	NG/L		
25942-004	PR-WCS-01	6/10/2008	0	U	EPA 1630	Methyl Mercury	2.71	0.021	NG/L		
25942-004	PR-WCS-01	6/10/2008	0	U	EPA 160.2	TSS	10.5	0.7	MG/L		
25942-003	PR-WCS-02	6/10/2008	0	U	EPA 1631	Mercury	13.5	0.6	NG/L		
25942-003	PR-WCS-02	6/10/2008	0	U	EPA 1630	Methyl Mercury	2.26	0.02	NG/L		
25942-003	PR-WCS-02	6/10/2008	0	U	EPA 160.2	TSS	9.6	1.1	MG/L		
26040-003	PR-WCS-02	7/15/2008	0	U	EPA 1631	Mercury	4.3	0.15	NG/L		
26040-003	PR-WCS-02	7/15/2008	0	U	EPA 1630	Methyl Mercury	0.551	0.02	NG/L		
26040-003	PR-WCS-02	7/15/2008	0	U	EPA 160.2	TSS	8	0.8	MG/L		
25942-002	PR-WCS-03	6/10/2008	0	U	EPA 1631	Mercury	11.6	0.61	NG/L		
25942-002	PR-WCS-03	6/10/2008	0	U	EPA 1630	Methyl Mercury	2.23	0.021	NG/L		
25942-002	PR-WCS-03	6/10/2008	0	U	EPA 160.2	TSS	8	0.9	MG/L		
26040-002	PR-WCS-03	7/15/2008	0	U	EPA 1631	Mercury	3.1	0.15	NG/L		
26040-002	PR-WCS-03	7/15/2008	0	U	EPA 1630	Methyl Mercury	0.569	0.02	NG/L		
26040-002	PR-WCS-03	7/15/2008	0	U	EPA 160.2	TSS	4.4	0.4	MG/L		
25942-006	PR-WCS-03P	6/10/2008	0	U	EPA 1631	Mercury	11.8	0.57	NG/L		
25942-006	PR-WCS-03P	6/10/2008	0	U	EPA 1630	Methyl Mercury	2.35	0.02	NG/L		
25942-006	PR-WCS-03P	6/10/2008	0	U	EPA 160.2	TSS	8	0.9	MG/L		
26040-006	PR-WCS-03P	7/15/2008	0	U	EPA 1631	Mercury	3.23	0.15	NG/L		
26040-009	PR-WCS-03P	7/15/2008	0	U	EPA 1631	Mercury	172	3.06	NG/L		
26040-006	PR-WCS-03P	7/15/2008	0	U	EPA 1630	Methyl Mercury	0.527	0.02	NG/L		
26040-009	PR-WCS-03P	7/15/2008	0	U	EPA 1630	Methyl Mercury	3.65	0.02	NG/L		
26040-009	PR-WCS-03P	7/15/2008	0	U	EPA 160.2	TSS	4.2	1	MG/L		
26040-006	PR-WCS-03P	7/15/2008	0	U	EPA 160.2	TSS	88.8	2.4	MG/L		
25942-001	PR-WCS-04	6/10/2008	0	U	EPA 1631	Mercury	12.4	0.31	NG/L		
25942-001	PR-WCS-04	6/10/2008	0	U	EPA 1630	Methyl Mercury	2.8	0.02	NG/L		
25942-001	PR-WCS-04	6/10/2008	0	U	EPA 160.2	TSS	9.1	0.9	MG/L		
26040-001	PR-WCS-04	7/15/2008	0	U	EPA 1631	Mercury	4.99	0.15	NG/L		
26040-001	PR-WCS-04	7/15/2008	0	U	EPA 1630	Methyl Mercury	0.765	0.021	NG/L		
26040-001	PR-WCS-04	7/15/2008	0	U	EPA 160.2	TSS	5.6	0.5	MG/L		
26040-005	PR-WCS-04P	7/15/2008	0	U	EPA 1631	Mercury	5.14	0.15	NG/L		
26040-005	PR-WCS-04P	7/15/2008	0	U	EPA 1630	Methyl Mercury	0.85	0.02	NG/L		
26040-005	PR-WCS-04P	7/15/2008	0	U	EPA 160.2	TSS	6.1	0.5	MG/L		
25968-002	PR-WCS-05	6/17/2008	0	U	EPA 1631	Mercury	4.06	0.15	NG/L		
25968-002	PR-WCS-05	6/17/2008	0	U	EPA 1630	Methyl Mercury	1.22	0.053	NG/L		
25968-002	PR-WCS-05	6/17/2008	0	U	EPA 160.2	TSS	4.4	0.8	MG/L		
26053-002	PR-WCS-05	7/17/2008	0	U	EPA 1631	Mercury	6.22	0.16	NG/L		
26053-002	PR-WCS-05	7/17/2008	0	U	EPA 1630	Methyl Mercury	0.386	0.02	NG/L		
26053-002	PR-WCS-05	7/17/2008	0	U	EPA 160.2	TSS	9.7	1.5	MG/L		
25968-001	PR-WCS-06	6/17/2008	0	U	EPA 1631	Mercury	4.11	0.15	NG/L		
25968-001	PR-WCS-06	6/17/2008	0	U	EPA 1630	Methyl Mercury	1.31	0.053	NG/L		
25968-001	PR-WCS-06	6/17/2008	0	U	EPA 160.2	TSS	1.9	0.6	MG/L	B	
26053-001	PR-WCS-06	7/17/2008	0	U	EPA 1631	Mercury	2.43	0.16	NG/L		
26053-001	PR-WCS-06	7/17/2008	0	U	EPA 1630	Methyl Mercury	0.395	0.02	NG/L		
26053-001	PR-WCS-06	7/17/2008	0	U	EPA 160.2	TSS	3.3	0.6	MG/L		
25944-001	PR-WCS-07	6/10/2008	0	U	EPA 1631	Mercury	4.76	0.15	NG/L		
25944-001	PR-WCS-07	6/10/2008	0	U	EPA 1630	Methyl Mercury	0.747	0.02	NG/L		
25944-001	PR-WCS-07	6/10/2008	0	U	EPA 160.2	TSS	5.7	0.8	MG/L		

Appendix E
2008 Water Quality Analytical Data

Sample ID	COC Site ID	Sample Date	Depth (ft.)	Filt.	Method	Analyte	Conc.	MDL	Units	Lab Qual.	Rev. Qual.
Round 1 - May 29, 2008											
25895-004	PR-WC-10	5/29/2008	0	U	10200 H	Chlorophyll a	0.68	10	UG/L	B	
25895-004	PR-WC-10	5/29/2008	0	U	300.0A	Nitrate (as N)	3.6	0.4	MG/L		
25895-004	PR-WC-10	5/29/2008	0	U	300.0A	Nitrite (as N)	0.4	0.4	MG/L	U	
25895-004	PR-WC-10	5/29/2008	0	U	300	Nitrogen	4	0.15	MG/L		
25895-004	PR-WC-10	5/29/2008	0	U	365.2	Phosphorus	825	200	UG/L		
25895-004	PR-WC-10	5/29/2008	0	U	9060	TOC	3.6	1	MG/L		
25895-004	PR-WC-10	5/29/2008	0	U	160.2	TSS	1	1	MG/L		
25895-003	PR-WC-09	5/29/2008	0	U	10200 H	Chlorophyll a	2.5	10	UG/L	B	
25895-003	PR-WC-09	5/29/2008	0	U	300.0A	Nitrate (as N)	2.8	0.4	MG/L		
25895-003	PR-WC-09	5/29/2008	0	U	300.0A	Nitrite (as N)	0.4	0.4	MG/L	U	
25895-003	PR-WC-09	5/29/2008	0	U	300	Nitrogen	3.3	0.15	MG/L		
25895-003	PR-WC-09	5/29/2008	0	U	365.2	Phosphorus	1210	200	UG/L		
25895-003	PR-WC-09	5/29/2008	0	U	9060	TOC	4.1	1	MG/L		
25895-003	PR-WC-09	5/29/2008	0	U	160.2	TSS	3	1	MG/L		
25895-002	PR-WC-08	5/29/2008	0	U	10200 H	Chlorophyll a	1.4	10	UG/L	B	
25895-002	PR-WC-08	5/29/2008	0	U	300.0A	Nitrate (as N)	0.92	0.2	MG/L		
25895-002	PR-WC-08	5/29/2008	0	U	300.0A	Nitrite (as N)	0.2	0.2	MG/L	U	
25895-002	PR-WC-08	5/29/2008	0	U	300	Nitrogen	0.97	0.15	MG/L		
25895-002	PR-WC-08	5/29/2008	0	U	365.2	Phosphorus	983	200	UG/L		
25895-002	PR-WC-08	5/29/2008	0	U	9060	TOC	4.7	1	MG/L		
25895-002	PR-WC-08	5/29/2008	0	U	160.2	TSS	13	1	MG/L		
25895-001	PR-WC-06	5/29/2008	0	U	10200 H	Chlorophyll a	9	10	UG/L	B	
25895-001	PR-WC-06	5/29/2008	0	U	300.0A	Nitrate (as N)	0.57	0.2	MG/L		
25895-001	PR-WC-06	5/29/2008	0	U	300.0A	Nitrite (as N)	0.2	0.2	MG/L	U	
25895-001	PR-WC-06	5/29/2008	0	U	300	Nitrogen	1.7	0.15	MG/L		
25895-001	PR-WC-06	5/29/2008	0	U	365.2	Phosphorus	910	100	UG/L		
25895-001	PR-WC-06	5/29/2008	0	U	9060	TOC	6.5	1	MG/L		
25895-001	PR-WC-06	5/29/2008	0	U	160.2	TSS	56	1	MG/L		
25895-005	PR-WC-03	5/29/2008	0	U	10200 H	Chlorophyll a	3.5	10	UG/L	B	
25895-005	PR-WC-03	5/29/2008	0	U	300.0A	Nitrate (as N)	0.02	0.02	MG/L	U	
25895-005	PR-WC-03	5/29/2008	0	U	300.0A	Nitrite (as N)	0.2	0.2	MG/L	U	
25895-005	PR-WC-03	5/29/2008	0	U	300	Nitrogen	0.53	0.15	MG/L		
25895-005	PR-WC-03	5/29/2008	0	U	365.2	Phosphorus	127	50	UG/L		
25895-005	PR-WC-03	5/29/2008	0	U	9060	TOC	4.9	1	MG/L		
25895-005	PR-WC-03	5/29/2008	0	U	160.2	TSS	3	1	MG/L		
25895-008	PR-WC-01	5/29/2008	0	U	10200 H	Chlorophyll a	1.5	10	UG/L	B	
25895-008	PR-WC-01	5/29/2008	0	U	300.0A	Nitrate (as N)	0.012	0.02	MG/L	B	
25895-008	PR-WC-01	5/29/2008	0	U	300.0A	Nitrite (as N)	0.04	0.04	MG/L	U	
25895-008	PR-WC-01	5/29/2008	0	U	300	Nitrogen	0.55	0.15	MG/L		
25895-008	PR-WC-01	5/29/2008	0	U	365.2	Phosphorus	65.9	50	UG/L		
25895-008	PR-WC-01	5/29/2008	0	U	9060	TOC	5.7	1	MG/L		
25895-008	PR-WC-01	5/29/2008	0	U	160.2	TSS	2	1	MG/L		
25895-007	PR-WCS-04	5/29/2008	0	U	10200 H	Chlorophyll a	0.61	10	UG/L	B	
25895-007	PR-WCS-04	5/29/2008	0	U	300.0A	Nitrate (as N)	0.026	0.02	MG/L		
25895-007	PR-WCS-04	5/29/2008	0	U	300.0A	Nitrite (as N)	0.1	0.1	MG/L	U	
25895-007	PR-WCS-04	5/29/2008	0	U	300	Nitrogen	0.85	0.15	MG/L		
25895-007	PR-WCS-04	5/29/2008	0	U	365.2	Phosphorus	110	50	UG/L		
25895-007	PR-WCS-04	5/29/2008	0	U	9060	TOC	6	1	MG/L		

Appendix E
2008 Water Quality Analytical Data

Sample ID	COC Site ID	Sample Date	Depth (ft.)	Filt.	Method	Analyte	Conc.	MDL	Units	Lab Qual.	Rev. Qual.
25895-007	PR-WCS-04	5/29/2008	0	U	160.2	TSS	3	1	MG/L		
Round 2 - June 10 to June 17, 2008											
25954-002	PR-WC-12-D7	6/12/2008	0	U	10200 H	Chlorophyll a	10	10	UG/L	U	
25954-002	PR-WC-12-D7	6/12/2008	0	U	300.0A	Nitrate (as N)	0.02	0.02	MG/L	U	
25954-002	PR-WC-12-D7	6/12/2008	0	U	300.0A	Nitrite (as N)	0.1	0.1	MG/L	U	
25954-002	PR-WC-12-D7	6/12/2008	0	U	300	Nitrogen	0.93	0.15	MG/L		
25954-002	PR-WC-12-D7	6/12/2008	0	U	365.2	Phosphorus	38	50	UG/L	B	
25954-002	PR-WC-12-D7	6/12/2008	0	U	9060	TOC	14.6	2	MG/L		
25954-001	PR-WC-11DS	6/12/2008	0	U	10200 H	Chlorophyll a	10	10	UG/L	U	
25954-001	PR-WC-11DS	6/12/2008	0	U	300.0A	Nitrate (as N)	2	0.4	MG/L		
25954-001	PR-WC-11DS	6/12/2008	0	U	300.0A	Nitrite (as N)	0.4	0.4	MG/L	U	
25954-001	PR-WC-11DS	6/12/2008	0	U	300	Nitrogen	2.3	0.15	MG/L		
25954-001	PR-WC-11DS	6/12/2008	0	U	365.2	Phosphorus	662	100	UG/L		
25954-001	PR-WC-11DS	6/12/2008	0	U	9060	TOC	2.7	1	MG/L		
25950-005	PR-WC-10	6/11/2008	0.5	U	10200 H	Chlorophyll a	0.69	10	UG/L	B	
25950-005	PR-WC-10	6/11/2008	0.5	U	300.0A	Nitrate (as N)	1.4	0.02	MG/L		
25950-005	PR-WC-10	6/11/2008	0.5	U	300.0A	Nitrite (as N)	0.4	0.4	MG/L	U	
25950-005	PR-WC-10	6/11/2008	0.5	U	300	Nitrogen	1.6	0.15	MG/L		
25950-005	PR-WC-10	6/11/2008	0.5	U	365.2	Phosphorus	625	100	UG/L		
25950-005	PR-WC-10	6/11/2008	0.5	U	9060	TOC	3	1	MG/L		
25950-003	PR-WC-08	6/11/2008	0.5	U	10200 H	Chlorophyll a	4.3	10	UG/L	B	
25950-003	PR-WC-08	6/11/2008	0.5	U	300.0A	Nitrate (as N)	0.59	0.02	MG/L		
25950-003	PR-WC-08	6/11/2008	0.5	U	300.0A	Nitrite (as N)	0.4	0.4	MG/L	U	
25950-003	PR-WC-08	6/11/2008	0.5	U	300	Nitrogen	1.2	0.15	MG/L		
25950-003	PR-WC-08	6/11/2008	0.5	U	365.2	Phosphorus	625	100	UG/L		
25950-003	PR-WC-08	6/11/2008	0.5	U	9060	TOC	5	1	MG/L		
25950-001	PR-WC-06	6/11/2008	0.5	U	10200 H	Chlorophyll a	6	10	UG/L	B	
25950-001	PR-WC-06	6/11/2008	0.5	U	300.0A	Nitrate (as N)	0.47	0.02	MG/L		
25950-001	PR-WC-06	6/11/2008	0.5	U	300.0A	Nitrite (as N)	0.4	0.4	MG/L	U	
25950-001	PR-WC-06	6/11/2008	0.5	U	300	Nitrogen	1.4	0.15	MG/L		
25950-001	PR-WC-06	6/11/2008	0.5	U	365.2	Phosphorus	503	100	UG/L		
25950-001	PR-WC-06	6/11/2008	0.5	U	9060	TOC	5.6	1	MG/L		
25948-003	PR-WC-05	6/11/2008	0	U	10200 H	Chlorophyll a	236	10	UG/L		
25948-003	PR-WC-05	6/11/2008	0	U	300.0A	Nitrate (as N)	0.02	0.02	MG/L	U	
25948-003	PR-WC-05	6/11/2008	0	U	300.0A	Nitrite (as N)	0.4	0.4	MG/L	U	
25948-003	PR-WC-05	6/11/2008	0	U	300	Nitrogen	1.7	0.15	MG/L		
25948-003	PR-WC-05	6/11/2008	0	U	365.2	Phosphorus	461	100	UG/L		
25948-003	PR-WC-05	6/11/2008	0	U	9060	TOC	7.6	1	MG/L		
25948-002	PR-WC-03	6/11/2008	0	U	10200 H	Chlorophyll a	3.6	10	UG/L	B	
25948-002	PR-WC-03	6/11/2008	0	U	300.0A	Nitrate (as N)	0.02	0.02	MG/L	U	
25948-002	PR-WC-03	6/11/2008	0	U	300.0A	Nitrite (as N)	0.1	0.1	MG/L	U	
25948-002	PR-WC-03	6/11/2008	0	U	300	Nitrogen	0.045	0.15	MG/L	B	
25948-002	PR-WC-03	6/11/2008	0	U	365.2	Phosphorus	115	50	UG/L		
25948-002	PR-WC-03	6/11/2008	0	U	9060	TOC	5	1	MG/L		
25945-002	PR-WC-01	6/10/2008	1	U	10200 H	Chlorophyll a	10	10	UG/L	U	
25945-002	PR-WC-01	6/10/2008	1	U	300.0A	Nitrate (as N)	0.017	0.02	MG/L	B	
25945-002	PR-WC-01	6/10/2008	1	U	300.0A	Nitrite (as N)	0.04	0.04	MG/L	U	
25945-002	PR-WC-01	6/10/2008	1	U	300	Nitrogen	0.61	0.15	MG/L		
25945-002	PR-WC-01	6/10/2008	1	U	365.2	Phosphorus	120	50	UG/L		

Appendix E
2008 Water Quality Analytical Data

Sample ID	COC Site ID	Sample Date	Depth (ft.)	Filt.	Method	Analyte	Conc.	MDL	Units	Lab Qual.	Rev. Qual.
25945-002	PR-WC-01	6/10/2008	1	U	9060	TOC	8.4	1	MG/L		
25943-004	PR-WCS-01	6/10/2008	0	U	10200 H	Chlorophyll a	2.1	10	UG/L	B J	
25943-004	PR-WCS-01	6/10/2008	0	U	300.0A	Nitrate (as N)	0.026	0.02	MG/L		
25943-004	PR-WCS-01	6/10/2008	0	U	300.0A	Nitrite (as N)	0.04	0.04	MG/L	U	
25943-004	PR-WCS-01	6/10/2008	0	U	300	Nitrogen	0.75	0.15	MG/L		
25943-004	PR-WCS-01	6/10/2008	0	U	365.2	Phosphorus	225	50	UG/L		
25943-004	PR-WCS-01	6/10/2008	0	U	9060	TOC	7.6	1	MG/L		
25943-003	PR-WCS-02	6/10/2008	0	U	10200 H	Chlorophyll a	10	10	UG/L	U	
25943-003	PR-WCS-02	6/10/2008	0	U	300.0A	Nitrate (as N)	0.03	0.02	MG/L		
25943-003	PR-WCS-02	6/10/2008	0	U	300.0A	Nitrite (as N)	0.04	0.04	MG/L	U	
25943-003	PR-WCS-02	6/10/2008	0	U	300	Nitrogen	0.65	0.15	MG/L		
25943-003	PR-WCS-02	6/10/2008	0	U	365.2	Phosphorus	188	50	UG/L		
25943-003	PR-WCS-02	6/10/2008	0	U	9060	TOC	8.6	1	MG/L		
25943-002	PR-WCS-03	6/10/2008	0	U	10200 H	Chlorophyll a	1.4	10	UG/L	B J	
25943-002	PR-WCS-03	6/10/2008	0	U	300.0A	Nitrate (as N)	0.032	0.02	MG/L		
25943-002	PR-WCS-03	6/10/2008	0	U	300.0A	Nitrite (as N)	0.04	0.04	MG/L	U	
25943-002	PR-WCS-03	6/10/2008	0	U	300	Nitrogen	0.67	0.15	MG/L		
25943-002	PR-WCS-03	6/10/2008	0	U	365.2	Phosphorus	181	50	UG/L		
25943-002	PR-WCS-03	6/10/2008	0	U	9060	TOC	9.1	1	MG/L		
25969-002	PR-WCS-05	6/17/2008	0	U	10200 H	Chlorophyll a	1.6	10	UG/L	B	
25969-002	PR-WCS-05	6/17/2008	0	U	300.0A	Nitrate (as N)	0.02	0.02	MG/L	U	
25969-002	PR-WCS-05	6/17/2008	0	U	300.0A	Nitrite (as N)	0.2	0.2	MG/L	U	
25969-002	PR-WCS-05	6/17/2008	0	U	300	Nitrogen	0.3	0.15	MG/L		
25969-002	PR-WCS-05	6/17/2008	0	U	365.2	Phosphorus	113	50	UG/L		
25969-002	PR-WCS-05	6/17/2008	0	U	9060	TOC	6.7	1	MG/L		
25969-001	PR-WCS-06	6/17/2008	0	U	10200 H	Chlorophyll a	0.96	10	UG/L	B	
25969-001	PR-WCS-06	6/17/2008	0	U	300.0A	Nitrate (as N)	0.02	0.02	MG/L	U	
25969-001	PR-WCS-06	6/17/2008	0	U	300.0A	Nitrite (as N)	0.2	0.2	MG/L	U	
25969-001	PR-WCS-06	6/17/2008	0	U	300	Nitrogen	0.41	0.15	MG/L		
25969-001	PR-WCS-06	6/17/2008	0	U	365.2	Phosphorus	104	50	UG/L		
25969-001	PR-WCS-06	6/17/2008	0	U	9060	TOC	7.7	1	MG/L		
25945-001	PR-WCS-07	6/10/2008	0.5	U	10200 H	Chlorophyll a	3	10	UG/L	B J	
25945-001	PR-WCS-07	6/10/2008	0.5	U	300.0A	Nitrate (as N)	0.02	0.02	MG/L	U	
25945-001	PR-WCS-07	6/10/2008	0.5	U	300.0A	Nitrite (as N)	0.04	0.04	MG/L	U	
25945-001	PR-WCS-07	6/10/2008	0.5	U	300	Nitrogen	0.49	0.15	MG/L		
25945-001	PR-WCS-07	6/10/2008	0.5	U	365.2	Phosphorus	73.1	50	UG/L		
25945-001	PR-WCS-07	6/10/2008	0.5	U	9060	TOC	6.8	1	MG/L		
Round 3 - July 15 to July 17, 2008											
26045-003	PR-WC-10	7/15/2008	1.3	U	10200 H	Chlorophyll a	10	10	UG/L	U	
26045-003	PR-WC-10	7/15/2008	1.3	U	300.0A	Nitrate (as N)	3.1	0.2	MG/L		
26045-003	PR-WC-10	7/15/2008	1.3	U	300.0A	Nitrite (as N)	0.4	0.4	MG/L	U	
26045-003	PR-WC-10	7/15/2008	1.3	U	300	Nitrogen	3.4	0.15	MG/L		
26045-003	PR-WC-10	7/15/2008	1.3	U	365.2	Phosphorus	972	250	UG/L		
26045-003	PR-WC-10	7/15/2008	1.3	U	9060	TOC	3.1	1	MG/L		
26045-003	PR-WC-10	7/15/2008	1.3	U	EPA 351.2	Total Kjeldahl Nitrogen	0.33	1	MG/L	J	
26045-005	PR-WC-08	7/15/2008	1.9	U	10200 H	Chlorophyll a	10	10	UG/L	U	
26045-005	PR-WC-08	7/15/2008	1.9	U	300.0A	Nitrate (as N)	0.25	0.02	MG/L		
26045-005	PR-WC-08	7/15/2008	1.9	U	300.0A	Nitrite (as N)	0.4	0.4	MG/L	U	

Appendix E
2008 Water Quality Analytical Data

Sample ID	COC Site ID	Sample Date	Depth (ft.)	Filt.	Method	Analyte	Conc.	MDL	Units	Lab Qual.	Rev. Qual.
26045-005	PR-WC-08	7/15/2008	1.9	U	300	Nitrogen	1.8	0.15	MG/L		
26045-005	PR-WC-08	7/15/2008	1.9	U	365.2	Phosphorus	999	250	UG/L		
26045-005	PR-WC-08	7/15/2008	1.9	U	9060	TOC	5.5	1	MG/L		
26045-005	PR-WC-08	7/15/2008	1.9	U	EPA 351.2	Total Kjeldahl Nitrogen	1.5	1	MG/L		
26044-003	PR-WCS-02	7/15/2008	1	U	10200 H	Chlorophyll a	10	10	UG/L	U	
26044-003	PR-WCS-02	7/15/2008	1	U	300.0A	Nitrate (as N)	0.053	0.02	MG/L		
26044-003	PR-WCS-02	7/15/2008	1	U	300.0A	Nitrite (as N)	0.1	0.1	MG/L	U	
26044-003	PR-WCS-02	7/15/2008	1	U	300	Nitrogen	0.5	0.15	MG/L		
26044-003	PR-WCS-02	7/15/2008	1	U	365.2	Phosphorus	186	50	UG/L		
26044-003	PR-WCS-02	7/15/2008	1	U	9060	TOC	4.1	1	MG/L		
26044-003	PR-WCS-02	7/15/2008	1	U	EPA 351.2	Total Kjeldahl Nitrogen	0.45	1	MG/L	J	
26044-002	PR-WCS-03	7/15/2008	0.75	U	10200 H	Chlorophyll a	10	10	UG/L	U	
26044-002	PR-WCS-03	7/15/2008	0.75	U	300.0A	Nitrate (as N)	0.06	0.02	MG/L		
26044-002	PR-WCS-03	7/15/2008	0.75	U	300.0A	Nitrite (as N)	0.1	0.1	MG/L	U	
26044-002	PR-WCS-03	7/15/2008	0.75	U	300	Nitrogen	0.39	0.15	MG/L		
26044-002	PR-WCS-03	7/15/2008	0.75	U	365.2	Phosphorus	192	50	UG/L		
26044-002	PR-WCS-03	7/15/2008	0.75	U	9060	TOC	3.9	1	MG/L		
26044-002	PR-WCS-03	7/15/2008	0.75	U	EPA 351.2	Total Kjeldahl Nitrogen	0.33	1	MG/L	J	
26044-001	PR-WCS-04	7/15/2008	1	U	10200 H	Chlorophyll a	27.2	10	UG/L		
26044-001	PR-WCS-04	7/15/2008	1	U	300.0A	Nitrate (as N)	0.052	0.02	MG/L		
26044-001	PR-WCS-04	7/15/2008	1	U	300.0A	Nitrite (as N)	0.1	0.1	MG/L	U	
26044-001	PR-WCS-04	7/15/2008	1	U	300	Nitrogen	0.37	0.15	MG/L		
26044-001	PR-WCS-04	7/15/2008	1	U	365.2	Phosphorus	194	50	UG/L		
26044-001	PR-WCS-04	7/15/2008	1	U	9060	TOC	4.2	1	MG/L		
26044-001	PR-WCS-04	7/15/2008	1	U	EPA 351.2	Total Kjeldahl Nitrogen	0.32	1	MG/L	J	
26054-002	PR-WCS-05	7/17/2008	0.75	U	10200 H	Chlorophyll a	10	10	UG/L	U	
26054-002	PR-WCS-05	7/17/2008	0.75	U	300.0A	Nitrate (as N)	0.02	0.02	MG/L	U	
26054-002	PR-WCS-05	7/17/2008	0.75	U	300.0A	Nitrite (as N)	0.1	0.1	MG/L	U	
26054-002	PR-WCS-05	7/17/2008	0.75	U	300	Nitrogen	0.45	0.15	MG/L		
26054-002	PR-WCS-05	7/17/2008	0.75	U	365.2	Phosphorus	183	50	UG/L		
26054-002	PR-WCS-05	7/17/2008	0.75	U	9060	TOC	6.5	1	MG/L		
26054-002	PR-WCS-05	7/17/2008	0.75	U	EPA 351.2	Total Kjeldahl Nitrogen	0.45	1	MG/L	J	
26054-001	PR-WCS-06	7/17/2008	1	U	10200 H	Chlorophyll a	10	10	UG/L	U	
26054-001	PR-WCS-06	7/17/2008	1	U	300.0A	Nitrate (as N)	0.02	0.02	MG/L	U	
26054-001	PR-WCS-06	7/17/2008	1	U	300.0A	Nitrite (as N)	0.1	0.1	MG/L	U	
26054-001	PR-WCS-06	7/17/2008	1	U	300	Nitrogen	0.59	0.15	MG/L		
26054-001	PR-WCS-06	7/17/2008	1	U	365.2	Phosphorus	91.3	50	UG/L		
26054-001	PR-WCS-06	7/17/2008	1	U	9060	TOC	8	1	MG/L		
26054-001	PR-WCS-06	7/17/2008	1	U	EPA 351.2	Total Kjeldahl Nitrogen	0.59	1	MG/L		
Round 4 - July 31, 2008											
26140-004	PR-WC-10	7/31/2008	0	U	10200 H	Chlorophyll a	10	10	UG/L	U	
26140-004	PR-WC-10	7/31/2008	0	U	300.0A	Nitrate (as N)	4	0.2	MG/L		
26140-004	PR-WC-10	7/31/2008	0	U	300.0A	Nitrite (as N)	0.02	0.02	MG/L	U	

Appendix E
2008 Water Quality Analytical Data

Sample ID	COC Site ID	Sample Date	Depth (ft.)	Filt.	Method	Analyte	Conc.	MDL	Units	Lab Qual.	Rev. Qual.
26140-004	PR-WC-10	7/31/2008	0	U	300	Nitrogen	4.3	0.15	MG/L		
26140-004	PR-WC-10	7/31/2008	0	U	365.2	Phosphorus	733	100	UG/L		
26140-004	PR-WC-10	7/31/2008	0	U	9060	TOC	1.9	1	MG/L		
26140-004	PR-WC-10	7/31/2008	0	U	160.2	TSS	1	1	MG/L	U	
26140-002	PR-WC-08	7/31/2008	0	U	10200 H	Chlorophyll a	31.7	10	UG/L		
26140-002	PR-WC-08	7/31/2008	0	U	300.0A	Nitrate (as N)	0.83	0.02	MG/L		
26140-002	PR-WC-08	7/31/2008	0	U	300.0A	Nitrite (as N)	0.018	0.02	MG/L	B	
26140-002	PR-WC-08	7/31/2008	0	U	300	Nitrogen	2	0.15	MG/L		
26140-002	PR-WC-08	7/31/2008	0	U	365.2	Phosphorus	653	100	UG/L		
26140-002	PR-WC-08	7/31/2008	0	U	9060	TOC	4.5	1	MG/L		
26140-002	PR-WC-08	7/31/2008	0	U	160.2	TSS	8	1	MG/L		
26140-005	PR-WC-03	7/31/2008	0	U	10200 H	Chlorophyll a	256	10	UG/L		
26140-005	PR-WC-03	7/31/2008	0	U	300.0A	Nitrate (as N)	0.02	0.02	MG/L	U	
26140-005	PR-WC-03	7/31/2008	0	U	300.0A	Nitrite (as N)	0.02	0.02	MG/L	U	
26140-005	PR-WC-03	7/31/2008	0	U	300	Nitrogen	1.5	0.15	MG/L		
26140-005	PR-WC-03	7/31/2008	0	U	365.2	Phosphorus	152	50	UG/L		
26140-005	PR-WC-03	7/31/2008	0	U	9060	TOC	11.4	1	MG/L		
26140-005	PR-WC-03	7/31/2008	0	U	160.2	TSS	18	1	MG/L		
26140-008	PR-WC-01	7/31/2008	0	U	10200 H	Chlorophyll a	44.9	10	UG/L		
26140-008	PR-WC-01	7/31/2008	0	U	300.0A	Nitrate (as N)	0.052	0.02	MG/L		
26140-008	PR-WC-01	7/31/2008	0	U	300.0A	Nitrite (as N)	0.02	0.02	MG/L	U	
26140-008	PR-WC-01	7/31/2008	0	U	300	Nitrogen	1	0.15	MG/L		
26140-008	PR-WC-01	7/31/2008	0	U	365.2	Phosphorus	113	50	UG/L		
26140-008	PR-WC-01	7/31/2008	0	U	9060	TOC	8.9	1	MG/L		
26140-008	PR-WC-01	7/31/2008	0	U	160.2	TSS	3	1	MG/L		
26140-007	PR-WCS-04	7/31/2008	0	U	10200 H	Chlorophyll a	16.8	10	UG/L		
26140-007	PR-WCS-04	7/31/2008	0	U	300.0A	Nitrate (as N)	0.019	0.02	MG/L	B	
26140-007	PR-WCS-04	7/31/2008	0	U	300.0A	Nitrite (as N)	0.02	0.02	MG/L	U	
26140-007	PR-WCS-04	7/31/2008	0	U	300	Nitrogen	0.7	0.15	MG/L		
26140-007	PR-WCS-04	7/31/2008	0	U	365.2	Phosphorus	156	50	UG/L		
26140-007	PR-WCS-04	7/31/2008	0	U	9060	TOC	10	1	MG/L		
26140-007	PR-WCS-04	7/31/2008	0	U	160.2	TSS	5	1	MG/L		

Appendix F STP Effluent Mercury, Methylmercury, TSS

June 7, 2007 to July 17, 2008

Sample ID	COC Site ID	Sample Date	Method	Analyte	Conc.	MDL	Units	Lab Qual.
24320-002	STP-EFF-UVC	6/7/2007	EPA 1631	Mercury	81.2	0.2	NG/L	
24320-002	STP-EFF-UVC	6/7/2007	EPA 1630	Methyl Mercury	0.03	0.02	UG/L	B
24320-002	STP-EFF-UVC	6/7/2007	EPA 160.2	TSS	0.3	0.3	MG/L	U
24320-003	STP-EFF-UVC	6/7/2007	EPA 1631	Mercury	87.7	0.2	NG/L	
24320-003	STP-EFF-UVC	6/7/2007	EPA 1630	Methyl Mercury	0.02	0.02	NG/L	U
24320-003	STP-EFF-UVC	6/7/2007	EPA 160.2	TSS	0.3	0.3	MG/L	U
24652-002	STP-EFF-UVC	8/2/2007	EPA 1631	Mercury	96.4	0.21	NG/L	
24652-002	STP-EFF-UVC	8/2/2007	EPA 1630	Methyl Mercury	0.023	0.02	NG/L	B
24652-002	STP-EFF-UVC	8/2/2007	EPA 160.2	TSS	0.9	0.3	MG/L	B
24652-003	STP-EFF-UVC	8/2/2007	EPA 1631	Mercury	94.8	0.36	NG/L	
24652-003	STP-EFF-UVC	8/2/2007	EPA 1630	Methyl Mercury	0.02	0.02	NG/L	U
24652-003	STP-EFF-UVC	8/2/2007	EPA 160.2	TSS	0.3	0.3	MG/L	U
24711-001	STP-EFF-UVC	8/17/2007	EPA 1631	Mercury	130	0.74	NG/L	
24711-001	STP-EFF-UVC	8/17/2007	EPA 160.2	TSS	0.7	0.7	MG/L	U
24748-001	STP-EFF-UVC	9/5/2007	EPA 1631	Mercury	83.2	1	NG/L	
24748-001	STP-EFF-UVC	9/5/2007	EPA 160.2	TSS	0.6	0.6	MG/L	U
24812-001	STP-EFF-UVC	9/19/2007	EPA 1631	Mercury	83.5	0.18	NG/L	
24812-001	STP-EFF-UVC	9/19/2007	EPA 160.2	TSS	0.5	0.5	MG/L	U
24855-001	STP-EFF-UVC	10/5/2007	EPA 1631	Mercury	83.1	1.5	NG/L	
24855-001	STP-EFF-UVC	10/5/2007	EPA 160.2	TSS	0.8	0.6	MG/L	B
24879-001	STP-EFF-UVC	10/17/2007	EPA 1631	Mercury	84.1	1.5	NG/L	
24879-001	STP-EFF-UVC	10/17/2007	EPA 1631	TSS	0.3	0.3	MG/L	U
24930-001	STP-EFF-WC	11/2/2007	EPA 1631	Mercury	124	1.5	NG/L	
24930-001	STP-EFF-WC	11/2/2007	EPA 160.2	TSS	0.3	0.3	MG/L	U
25180-001	STP-EFF-UVC	12/5/2007	EPA 1631	Mercury	84.5	1.5	NG/L	
25180-001	STP-EFF-UVC	12/5/2007	EPA 160.3	TSS	0.3	0.3	MG/L	U
25221-001	STP-EFF-UVC	12/20/2007	EPA 1631	Mercury	117	0.29	NG/L	
25221-001	STP-EFF-UVC	12/20/2007	EPA 160.3	TSS	0.3	0.3	MG/L	U
25431-001	STP-EFF-UVC	2/6/2008	EPA1631	Mercury	87.2	0.3	NG/L	
25431-001	STP-EFF-UVC	2/6/2008	EPA 160.3	TSS	0.3	0.3	MG/L	U
25486-001	STP-EFF-UVC	2/21/2008	EPA 1631	Mercury	83.3	0.31	NG/L	
25486-001	STP-EFF-UVC	2/21/2008	EPA 160.3	TSS	0.3	0.3	MG/L	U
25533-001	STP EFF-UVC	3/6/2008	EPA 1631	Mercury	125	1.5	NG/L	
25533-001	STP EFF-UVC	3/6/2008	EPA 160.3	TSS	0.3	0.3	MG/L	U
25563-001	STP-EFF-UVC	3/18/2008	EPA 1631	Mercury	159	3	NG/L	
25563-001	STP-EFF-UVC	3/18/2008	EPA 160.3	TSS	0.3	0.3	MG/L	U
25579-001	STP-EFF-UVC	4/1/2008	EPA 1631	Mercury	173	2.9	NG/L	
25579-001	STP-EFF-UVC	4/1/2008	EPA 160.3	TSS	0.7	0.3	MG/L	B
25717-001	STP-EFF-UVC	4/22/2008	EPA 1631	Mercury	119	3	NG/L	
25717-001	STP-EFF-UVC	4/22/2008	EPA 160.3	TSS	0.7	0.3	MG/L	B
25762-001	STP-EFF-UVC	5/7/2008	EPA 1631	Mercury	95.2	1.52	NG/L	
25762-001	STP-EFF-UVC	5/7/2008	EPA 160.3	TSS	0.3	0.3	MG/L	U
25813-001	STP-EFF-UVC	5/20/2008	EPA 1631	Mercury	107	1.52	NG/L	
25813-001	STP-EFF-UVC	5/20/2008	EPA 160.3	TSS	0.3	0.3	MG/L	U
25953-002	STP-EFF-UVC	6/12/2008	EPA 1631	Mercury	116	0.5	NG/L	
25953-002	STP-EFF-UVC	6/12/2008	EPA 1630	Methyl Mercury	0.022	0.02	NG/L	B
25953-002	STP-EFF-UVC	6/12/2008	EPA 160.2	TSS	0.4	0.3	MG/L	B
25953-003	STP-EFF-UVC	6/12/2008	EPA 1631	Mercury	115	0.46	NG/L	
25953-003	STP-EFF-UVC	6/12/2008	EPA 1630	Methyl Mercury	1.16	0.02	NG/L	
25953-003	STP-EFF-UVC	6/12/2008	EPA 160.2	TSS	0.4	0.3	MG/L	B
26053-004	STP-EFF-UVC	7/17/2008	EPA 1631	Mercury	86.7	1.01	NG/L	
26053-004	STP-EFF-UVC	7/17/2008	EPA 1630	Methyl Mercury	0.02	0.02	NG/L	U
26053-004	STP-EFF-UVC	7/17/2008	EPA 160.2	TSS	0.3	0.3	MG/L	U
26053-005	STP-EFF-UVC	7/17/2008	EPA 1631	Mercury	94.1	1.01	NG/L	
26053-005	STP-EFF-UVC	7/17/2008	EPA 1630	Methyl Mercury	0.02	0.02	NG/L	U
26053-005	STP-EFF-UVC	7/17/2008	EPA 160.2	TSS	0.6	0.3	MG/L	B

Appendix G - 2008 Peconic River Fish Scale and Otolith Age Interpretation[1]

Area	Species	Date Collected	ID No.	Length (mm)	Age Interpretor 1	Age Interpretor 2	Final Agreed # Annuli	Notes Interpretor 1	Notes Interpretor 2
A	Brown Bullhead	5/13/2008	08-001	238	3M	3M	3M		
A	Brown Bullhead	5/13/2008	08-002	285	3M	3M	3M		
A	Brown Bullhead	5/13/2008	08-003	263	3M	3M	3M		
A	Brown Bullhead	5/13/2008	08-004	257	2M	4M	4M		
A	Brown Bullhead	5/13/2008	08-005	222	4M	4M	4M		
A	Brown Bullhead	5/13/2008	08-006	226	3M	3M	3M		
A	Brown Bullhead	5/13/2008	08-007	181	3M	3M	3M		
A	Chain Pickerel	5/13/2008	08-008	361	2	2	2+	Seems large for a 2-year old, but could not find a third annulus	
A	Chain Pickerel	5/13/2008	08-009	291	2	2	2+		
A	Chain Pickerel	5/13/2008	08-010	290	2	2	2+		
A	Chain Pickerel	5/13/2008	08-011	260	2	2	2+		
A	Chain Pickerel	5/13/2008	08-012	280	2	2	2+		
A	Chain Pickerel	5/13/2008	08-013	180	1	1	1+		
A	Chain Pickerel	5/13/2008	08-014	142	1	1	1+		
A	Chain Pickerel	5/13/2008	08-015	140	1	1	1+		
A	Chain Pickerel	5/13/2008	08-016	118	1	1	1+		
A	Chain Pickerel	5/13/2008	08-017	121	1	0	1+		
A	Largemouth Bass	5/13/2008	08-018	165	2	2	2+		
A	Largemouth Bass	5/13/2008	08-019	140	2	1	2M		
A	Pumpkinseed	5/13/2008	08-020	142	3	3	3+		2 or 3, probably 3
A	Pumpkinseed	5/13/2008	08-021	150	3	3	3+		
A	Pumpkinseed	5/13/2008	08-022	155	3	3	3+		
A	Pumpkinseed	5/13/2008	08-023	125	2	2	2+		
C	Chain Pickerel	5/13/2008	08-024	300	2	3	3+		Unsure: some scales appear to have only 2 annuli?
C	Pumpkinseed	5/13/2008	08-025	120	2	2	2+		
C	Pumpkinseed	5/13/2008	08-026	107	2	3	2+		
C	Pumpkinseed	5/13/2008	08-027	170	3	3	4M		
C	Pumpkinseed	5/13/2008	08-028	200	3	3	4M		
C	Pumpkinseed	5/13/2008	08-029	160	3	3	4M		
C	Pumpkinseed	5/13/2008	08-030	165	3	3	4M		
C	Pumpkinseed	5/13/2008	08-031	160	3	3	4M		3 or 4
C	Pumpkinseed	5/13/2008	08-032	148	3	3	4M	Possibly a 4th annulus right at margin. Have consistently not been counting an annulus at the edge for the PS.	
C	Largemouth Bass	5/13/2008	08-033	85	0	0	1M		
C	Largemouth Bass	5/13/2008	08-034	197	1	1	2M		
C	Largemouth Bass	5/13/2008	08-035	143	1	0	2M		
C	Largemouth Bass	5/13/2008	08-036	205	1	1	2M		
C	Largemouth Bass	5/13/2008	08-037	225	1	1	2M		
C	Largemouth Bass	5/13/2008	08-038	180	1	1	2M		Appears to be annulus at edge
C	Largemouth Bass	5/13/2008	08-039	175	1	1	2M		
C	Largemouth Bass	5/13/2008	08-040	85	1	0	1+	Annulus right at edge; a 2007 year-class fish	
C	Largemouth Bass	5/13/2008	08-041	153	1	1	2M		
C	Largemouth Bass	5/13/2008	08-042	89	0	0	1M		
C	Largemouth Bass	5/13/2008	08-043	151	1	1	2M		Appears to be annulus at edge
C	Largemouth Bass	5/13/2008	08-044	160	1	1	2M		
C	Largemouth Bass	5/13/2008	08-045	166	1	1	2M		
C	Largemouth Bass	5/13/2008	08-046	151	1	1	2M		
C	Largemouth Bass	5/13/2008	08-047	173	1	1	2M		
C	Largemouth Bass	5/13/2008	08-048	175	1	2	3M		
C	Largemouth Bass	5/13/2008	08-049	93	1	0	1+	Annulus right at edge; a 2007 year-class fish	

Appendix G - 2008 Peconic River Fish Scale and Otolith Age Interpretation[1]

Area	Species	Date Collected	ID No.	Length (mm)	Age Interpretor 1	Age Interpretor 2	Final Agreed # Annuli	Notes Interpretor 1	Notes Interpretor 2
C	Largemouth Bass	5/13/2008	08-050	145	1	0	2M		Seems too large for a 0 but can't see an annulus
C	Largemouth Bass	5/13/2008	08-051	80	0	0	1M		Maybe an annulus at edge
C	Largemouth Bass	5/13/2008	08-052	141	1	1	2M		
C	Largemouth Bass	5/13/2008	08-053	135	1	1	2M		
C	Largemouth Bass	5/13/2008	08-054	145	1	1	2M		Maybe an annulus at edge
C	Largemouth Bass	5/13/2008	08-055	143	1	1	2M		
C	Largemouth Bass	5/13/2008	08-056	86	0	0	1M		
C	Largemouth Bass	5/13/2008	08-057	157	1	1	2M		
C	Brown Bullhead	5/13/2008	08-058	280	3M	3M	3M		
C	Brown Bullhead	5/13/2008	08-059	270	3M	3M	3M		
C	Brown Bullhead	5/13/2008	08-060	176	2M	2M	2M		
C	Brown Bullhead	5/13/2008	08-061	175	2M	2M	2M		
C	Brown Bullhead	5/13/2008	08-062	165	2M	2M	2M		
C	Brown Bullhead	5/13/2008	08-063	172	2M	2M	2M		
C	Brown Bullhead	5/13/2008	08-064	157	3M	3M	3M		
C	Brown Bullhead	5/13/2008	08-065	150	2M	2M	2M		
C	Brown Bullhead	5/13/2008	08-066	128	2M	2M	2M		
C	Brown Bullhead	5/13/2008	08-067	165	2M	2M	2M		
SR	Brown Bullhead	5/29/2008	08-068	300	3M	3M	3M		
SR	Brown Bullhead	5/29/2008	08-069	95	2M	2M	2M		
SR	Brown Bullhead	5/29/2008	08-070	351	4M	4M	4M	1st annulus very close to focus	
SR	Brown Bullhead	5/29/2008	08-071	245	3M	3M	3M		
SR	Brown Bullhead	5/29/2008	08-072	270	3M	4M	4M	Malformed (vateritic?), difficult to read	Poor quality-hard to read
SR	Brown Bullhead	5/29/2008	08-073	170	2M	2M	2M		
SR	Brown Bullhead	5/29/2008	08-074	212	3M	3M	3M		
SR	Brown Bullhead	5/29/2008	08-075	189	2M	1M	2M		
SR	Brown Bullhead	5/29/2008	08-076	234	3M	?	3M	Poor-quality otolith (vateritic?)	Poor quality-unable to read
SR	Brown Bullhead	5/29/2008	08-078	276	5M	5M	5M		
SR	Brown Bullhead	5/29/2008	08-079	217	3M	3M	3M		
SR	Brown Bullhead	5/29/2008	08-080	259	3M	3M	3M		
SR	Brown Bullhead	5/29/2008	08-081	210	2M	2M	2M		
SR	Brown Bullhead	5/29/2008	08-082	167	2M	1M	2M		
SR	Brown Bullhead	5/29/2008	08-083	174	2M	2M	2M		
SR	Brown Bullhead	5/29/2008	08-084	170	2M	2M	2M		
SR	Brown Bullhead	5/29/2008	08-085	206	3M	3M	3M		
SR	Brown Bullhead	5/29/2008	08-086	200	3M	3M	3M		
SR	Brown Bullhead	5/29/2008	08-087	151	2M	2M	2M		
SR	Pumpkinseed	5/29/2008	08-088	135	4M	3+	3+		
SR	Pumpkinseed	5/29/2008	08-089	152	4M	4+	4+	Possible annulus at edge	
SR	Pumpkinseed	5/29/2008	08-091	136	4M	3+	3+	Possible annulus at edge	
SR	Pumpkinseed	5/29/2008	08-092	135	4M	3+	3+	Length and Weight different on envelope; 148mm 62g	
SR	Pumpkinseed	5/29/2008	08-093	153	5M	3+	3+		
SR	Pumpkinseed	5/29/2008	08-094	140	4M	3+	3+	Possible annulus at edge	
SR	Pumpkinseed	5/29/2008	08-095	138	4M	3+	3+	Possible annulus at edge	
SR	Pumpkinseed	5/29/2008	08-096	125	4M	3+	3+	Possible annulus at edge	
SR	Pumpkinseed	5/29/2008	08-097	134	4M	3+	3+	Possible annulus at edge	
SR	Pumpkinseed	5/29/2008	08-098	127	4M?	3+	3+	Possible annulus at edge	
SR	Pumpkinseed	5/29/2008	08-099	145	4M	3+	3+	Possible annulus at edge	
SR	Pumpkinseed	5/29/2008	08-100	135	4M	3+	3+	Possible annulus at edge	

Appendix G - 2008 Peconic River Fish Scale and Otolith Age Interpretation[1]

Area	Species	Date Collected	ID No.	Length (mm)	Age Interpretor 1	Age Interpretor 2	Final Agreed # Annuli	Notes Interpretor 1	Notes Interpretor 2
SR	Pumpkinseed	5/29/2008	08-101	136	4M	3+	3+	Possible annulus at edge	
SR	Pumpkinseed	5/29/2008	08-102	142	4M	3+	3+	Possible annulus at edge	
SR	Pumpkinseed	5/29/2008	08-103	134	4M	4+	4+		
SR	Pumpkinseed	5/29/2008	08-104	140	4M	3+	3+	Possible annulus at edge	
SR	Pumpkinseed	5/29/2008	08-105	142	4M	3+	3+	Possible annulus at edge	
SR	Pumpkinseed	5/29/2008	08-106	141	4M	3+	3+	Possible annulus at edge	
SR	Pumpkinseed	5/29/2008	08-107	136	4M	3+	3+	Possible annulus at edge	
SR	Pumpkinseed	5/29/2008	08-108	135	3M	3+	3+	Possible annulus at edge	
SR	Largemouth Bass	5/29/2008	08-109	310	5M	6+	6+		
SR	Chain Pickerel	5/29/2008	08-110	275	3M	2+	2+	Possible annulus at edge	
D	Largemouth Bass	6/5/2008	08-111	163	2M	2+	2+	1st Annulus not obvious	
D	Largemouth Bass	6/5/2008	08-112	171	2M	2m	2M	2nd Annulus not obvious	
D	Largemouth Bass	6/5/2008	08-113	160	2M	2m	2M	3rd Annulus not obvious	
D	Pumpkinseed	6/5/2008	08-114	150	3M	4+	3M		
D	Pumpkinseed	6/5/2008	08-115	171	4M	5m	4m		
D	Pumpkinseed	6/5/2008	08-116	179	5M?	4+	5m		
D	Pumpkinseed	6/5/2008	08-117	145	3M	4+	4+		
D	Pumpkinseed	6/5/2008	08-118	143	4M	3+	3+		
D	Pumpkinseed	6/5/2008	08-119	146	4M	4m	4M		
D	Pumpkinseed	6/5/2008	08-120	114	3M	4m	3M		
D	Pumpkinseed	6/5/2008	08-121	143	4M	4m	4M		
D	Pumpkinseed	6/5/2008	08-122	157	4M	4+	4+		

Appendix G - 2008 Peconic River Fish Scale and Otolith Age Interpretation[1]

Area	Species	Date Collected	ID No.	Length (mm)	Age Interpretor 1	Age Interpretor 2	Final Agreed # Annuli	Notes Interpretor 1	Notes Interpretor 2
D	Pumpkinseed	6/5/2008	08-123	160	4M	4+	4+		
D	Bluegill	6/5/2008	08-124	158	3M	3+	3+	Possible annulus at edge	
D	Bluegill	6/5/2008	08-125	152	3M	4m	3M		
D	Brown Bullhead*	6/5/2008	08-126	152	2M	2M	2M	This fish was not included in length-weight spreadsheet	
D	Brown Bullhead	6/5/2008	08-127	200	2M	2M	2M		
D	Brown Bullhead	6/5/2008	08-128	147	2M	2M	2M		
D	Brown Bullhead	6/5/2008	08-129	148	2M	3M	3M		
D	Brown Bullhead	6/5/2008	08-130	143	3M	3M	3M		
D	Brown Bullhead	6/5/2008	08-131	240	3M	3M	3M		
D	Brown Bullhead	6/5/2008	08-132	246	3M	3M	3M		
D	Brown Bullhead	6/5/2008	08-133	140	2M	1M	2M		
D	Brown Bullhead	6/5/2008	08-134	140	2M	2M	2M		
D	Brown Bullhead	6/5/2008	08-135	155	2M	2M	2M		
D	Brown Bullhead	6/5/2008	08-136	170	2M	2M	2M		
D	Brown Bullhead	6/5/2008	08-137	165	2M	2M	2M		
D	Brown Bullhead	6/5/2008	08-138	152	2M	2M	2M		
D	Brown Bullhead	6/5/2008	08-139	165	2M	2M	2M		
D	Brown Bullhead	6/5/2008	08-140	165	2M	2M	2M		
D	Brown Bullhead	6/5/2008	08-141	160	2M	2M	2M		
D	Brown Bullhead	6/5/2008	08-142	161	2M	2M	2M		
D	Brown Bullhead	6/5/2008	08-143	158	2M	2M	2M		
D	Brown Bullhead	6/5/2008	08-144	152	2M	2M	2M		
D	Brown Bullhead	6/5/2008	08-145	150	2M	2M	2M		
D	Brown Bullhead	6/5/2008	08-146	157	2M	2M	2M		
D	Brown Bullhead	6/5/2008	08-147	165	2M	2M	2M		
D	Brown Bullhead	6/5/2008	08-149	135	2M	1M	2M		
D	Brown Bullhead	6/5/2008	08-150	152	2M	2M	2M		
MR	Chain Pickerel	6/11/2008	08-151	341	3+	4+	3+		
MR	Pumpkinseed	6/11/2008	08-152	130	3+	3+	3+		
MR	Pumpkinseed	6/11/2008	08-153	134	3+	3+	3+		
MR	Pumpkinseed	6/11/2008	08-154	141	2+	3+	3+	Did not count an annulus close to the focus; if one is there, it is poorly defined	
MR	Pumpkinseed	6/11/2008	08-155	131	3+	3+	3+		
MR	Pumpkinseed	6/11/2008	08-156	174	3+	4+	4+		
MR	Pumpkinseed	6/11/2008	08-157	139	3+	3+	3+		
MR	Pumpkinseed	6/12/2008	08-157	139	4M	3+	3+	Possible annulus at edge	
MR	Pumpkinseed	6/12/2008	08-175	134	3+	3+	3+		
MR	Pumpkinseed	6/12/2008	08-176	127	3+	3+	3+		
MR	Pumpkinseed	6/12/2008	08-177	136	3+	3+	3+		
MR	Pumpkinseed	6/12/2008	08-178	156	4+	4+	4+		
MR	Pumpkinseed	6/12/2008	08-179	137	3+	3+	3+		
MR	Pumpkinseed	6/12/2008	08-180	132	3+	3+	3+		
MR	Pumpkinseed	6/12/2008	08-181	134	3+	3+	3+		
MR	Pumpkinseed	6/12/2008	08-182	146	4+	4+	4+		
MR	Pumpkinseed	6/12/2008	08-183	129	3+	3+	3+		
MR	Pumpkinseed	6/12/2008	08-184	147	3+	4+	4+		
MR	Pumpkinseed	6/12/2008	08-185	105	4+	4+	4+	Data sheet had length as 105 envelope has 165	Data sheet had length as 105 envelope has 165
MR	Pumpkinseed	6/12/2008	08-186	131	3+	3+	3+		
MR	Pumpkinseed	6/12/2008	08-187	133	3+	3+	3+		
MR	Largemouth Bass	6/12/2008	08-190	290	2+	3+	2+	Given the size, this fish is probably older than 2+, but I cannot see another annulus	
MR	Brown Bullhead*	6/12/2008	08-191	288	5M	5M	5M	This fish was not included in length-weight spreadsheet	

Appendix G - 2008 Peconic River Fish Scale and Otolith Age Interpretation[1]

Area	Species	Date Collected	ID No.	Length (mm)	Age Interpretor 1	Age Interpretor 2	Final Agreed # Annuli	Notes Interpretor 1	Notes Interpretor 2
MR	Brown Bullhead*	6/12/2008	08-192	221	3M	3M	3M	This fish was not included in length-weight spreadsheet	
MR	Brown Bullhead	6/12/2008	08-193	253	6M	6M	6M		
MR	Brown Bullhead	6/12/2008	08-194	236	3M	3M	3M		
MR	Brown Bullhead	6/12/2008	08-195	239	3M	3M	3M		
MR	Brown Bullhead	6/12/2008	08-196	233	3M	3M	3M		
MR	Brown Bullhead	g	08-197	155	2M	2M	2M		
MR	Brown Bullhead	6/12/2008	08-198	224	3M	3M	3M		
DP	Chain Pickerel	6/17/2008	08-199	570	4+	4+	4+	Could not age on first attempt; poor-quality scales/mounts	Re-pressed all scales but still only two barely readable scales, others either regenerated of lateral line pore. Size of fish suggets that it should be older, but scales in such poor condition that cannot verify annuli.
DP	Brown Bullhead	6/17/2008	08-200	305	12M	12M	12M		
DP	Brown Bullhead	6/17/2008	08-201	296	6M	6M	6M		
DP	Brown Bullhead	6/17/2008	08-202	302	8M	8M	8M		
DP	Brown Bullhead	6/17/2008	08-203	310	6M	6M	6M		
DP	Brown Bullhead	6/17/2008	08-204	324	11M	12M	11M		
DP	Brown Bullhead	6/17/2008	08-205	333	9M	9M	9M		
DP	Brown Bullhead	6/17/2008	08-206	311	7M	7M	7M		
DP	Brown Bullhead	6/17/2008	08-207	290	4M	4M	4M		
DP	Largemouth Bass	6/17/2008	08-208	335	6+	5+	5+		
DP	Largemouth Bass	6/17/2008	08-209	350	6+	6+	6+		
DP	Largemouth Bass	6/17/2008	08-210	410	7+	8+	7+		Probably at least this old.
DP	Largemouth Bass	6/17/2008	08-211	286	3M	2+	2+		
DP	Largemouth Bass	6/17/2008	08-212	294	3+	3+	3+		
DP	Pumpkinseed	6/17/2008	08-213	202	7+	6+	7+	Poor-quality mounts	Scales in poor condition. Re-mounted all scales but results were not better.
DP	Pumpkinseed	6/17/2008	08-214	185	6+	6+	6+		
DP	Pumpkinseed	6/17/2008	08-215	182	4+	4+	4+		
DP	Pumpkinseed	6/17/2008	08-216	180	6M	5+	6M		
DP	Pumpkinseed	6/17/2008	08-217	187	5+	5+	5+		
	Pumpkinseed	6/12/2008	08-N103	135	4M	3+	3+	Possible annulus at edge	
	Pumpkinseed	6/12/2008	08-N117	122	4M	3+	3+	Possible annulus at edge	
	Pumpkinseed	6/12/2008	08-N122	166	4M	3+	3+	Possible annulus at edge	

[1] Scale and Otolith age interpretation performed by Ecologic, LLC, Cazenovia, New York.

* Length from COC

Appendix H - 2008 Peconic River Fish Samples
Mercury

Area	Sample ID	Fish ID or Composite ID[1]	SDG	Sample Date	Sample Time	Method	Analyte	Conc. (mg/kg)	MDL (mg/kg)	Lab Qual.	Rev. Qual.
A	25791-007	08-07	215615	5/13/2008	1530	EPA 7471A	Mercury	0.44	0.002		J
A	25791-001	'08-01	215615	5/13/2008	1530	EPA 7471A	Mercury	0.87	0.017		J
A	25791-024	25791-bc1	215615	5/13/2008	1530	EPA 7471A	Mercury	0.65	0.004		J
A	25791-025	25791-bc2	215615	5/13/2008	1530	EPA 7471A	Mercury	0.34	0.002		J
A	25791-008	'08-08	212503	5/13/2008	1530	EPA 7471A	Mercury	0.44	0.001	*	J
A	25791-009	'08-09	212503	5/13/2008	1530	EPA 7471A	Mercury	0.56	0.003	*	J
A	25791-010	'08-10	212503	5/13/2008	1530	EPA 7471A	Mercury	0.31	0.001	*	J
A	25791-011	'08-11	212503	5/13/2008	1530	EPA 7471A	Mercury	0.41	0.001	*	J
A	25791-012	'08-12	212503	5/13/2008	1530	EPA 7471A	Mercury	0.21	0.001	*	J
A	25791-013	'08-13	212503	5/13/2008	1530	EPA 7471A	Mercury	0.13	0.001	*	J
A	25791-014	'08-14	212503	5/13/2008	1530	EPA 7471A	Mercury	0.11	0.002	*	J
A	25791-015	'08-15	212503	5/13/2008	1530	EPA 7471A	Mercury	0.07	0.001	*	J
A	25791-016	'08-16	212503	5/13/2008	1530	EPA 7471A	Mercury	0.14	0.001	*	J
A	25791-017	'08-17	212503	5/13/2008	1530	EPA 7471A	Mercury	0.08	0.002	*	J
A	25791-018	'08-18	212503	5/13/2008	1530	EPA 7471A	Mercury	0.33	0.001	*	J
A	25791-019	'08-19	212503	5/13/2008	1530	EPA 7471A	Mercury	0.60	0.003	*	J
A	25791-020	'08-20	212503	5/13/2008	1530	EPA 7471A	Mercury	0.28	0.001	*	J
A	25791-021	'08-21	212503	5/13/2008	1530	EPA 7471A	Mercury	0.32	0.001	*	J
A	25791-022	'08-22	212503	5/13/2008	1530	EPA 7471A	Mercury	0.47	0.001	*	J
A	25791-023	'08-23	212503	5/13/2008	1530	EPA 7471A	Mercury	0.25	0.001	*	J
C	25794-001	'08-24	212505	5/14/2008	1500	EPA 7471A	Mercury	0.607	0.00295		J
C	25794-002	'08-25	212505	5/14/2008	1500	EPA 7471A	Mercury	0.361	0.00148		J
C	25794-003	'08-26	212505	5/14/2008	1500	EPA 7471A	Mercury	0.191	0.0014		J
C	25794-004	'08-27	212505	5/14/2008	1500	EPA 7471A	Mercury	0.691	0.0029		J
C	25794-005	'08-28	212505	5/14/2008	1500	EPA 7471A	Mercury	0.279	0.00142		J
C	25794-006	'08-29	212505	5/14/2008	1500	EPA 7471A	Mercury	0.367	0.0013		J
C	25794-007	'08-30	212505	5/14/2008	1500	EPA 7471A	Mercury	0.413	0.00148		J
C	25794-008	'08-31	212505	5/14/2008	1500	EPA 7471A	Mercury	0.404	0.00138		J
C	25794-009	'08-32	212505	5/14/2008	1500	EPA 7471A	Mercury	0.372	0.0015		J
C	25794-010	'08-33	212505	5/14/2008	1500	EPA 7471A	Mercury	0.216	0.00134		J
C	25794-011	'08-34	212505	5/14/2008	1500	EPA 7471A	Mercury	0.361	0.00149		J
C	25794-012	'08-35	212505	5/14/2008	1500	EPA 7471A	Mercury	0.347	0.00146		J
C	25794-013	'08-36	212505	5/14/2008	1500	EPA 7471A	Mercury	0.744	0.0148		J
C	25794-014	'08-37	212505	5/14/2008	1500	EPA 7471A	Mercury	0.633	0.00289		J
C	25794-015	'08-38	212505	5/14/2008	1500	EPA 7471A	Mercury	0.765	0.0139		J
C	25794-016	'08-39	212505	5/14/2008	1500	EPA 7471A	Mercury	0.467	0.00148		J
C	25794-017	'08-40	212505	5/14/2008	1500	EPA 7471A	Mercury	0.309	0.00149		J
C	25794-018	'08-41	212505	5/14/2008	1500	EPA 7471A	Mercury	0.604	0.00269		J
C	25794-019	'08-42	212505	5/14/2008	1500	EPA 7471A	Mercury	0.226	0.00133		J
C	25794-020	'08-43	212505	5/14/2008	1500	EPA 7471A	Mercury	0.416	0.00141		J
C	25795-001	'08-44	212377	5/14/2008	1500	EPA 7471A	Mercury	0.448	0.00141		
C	25795-002	'08-45	212377	5/14/2008	1500	EPA 7471A	Mercury	0.394	0.00142		
C	25795-003	'08-46	212377	5/14/2008	1500	EPA 7471A	Mercury	0.612	0.00292		
C	25795-004	'08-47	212377	5/14/2008	1500	EPA 7471A	Mercury	0.494	0.00293		
C	25795-005	'08-48	212377	5/14/2008	1500	EPA 7471A	Mercury	0.47	0.00146		
C	25795-006	'08-49	212377	5/14/2008	1500	EPA 7471A	Mercury	0.287	0.00139		
C	25795-007	'08-50	212377	5/14/2008	1500	EPA 7471A	Mercury	0.4	0.00147		

Appendix H - 2008 Peconic River Fish Samples
Mercury

Area	Sample ID	Fish ID or Composite ID[1]	SDG	Sample Date	Sample Time	Method	Analyte	Conc. (mg/kg)	MDL (mg/kg)	Lab Qual.	Rev. Qual.
C	25795-008	'08-51	212377	5/14/2008	1500	EPA 7471A	Mercury	0.188	0.00143		
C	25795-009	'08-52	212377	5/14/2008	1500	EPA 7471A	Mercury	0.579	0.00288		
C	25795-010	'08-53	212377	5/14/2008	1500	EPA 7471A	Mercury	0.421	0.00137		
C	25795-011	'08-54	212377	5/14/2008	1500	EPA 7471A	Mercury	0.569	0.00264		
C	25795-012	'08-55	212377	5/14/2008	1500	EPA 7471A	Mercury	0.554	0.00271		
C	25795-013	'08-56	212377	5/14/2008	1500	EPA 7471A	Mercury	0.291	0.0015		
C	25795-014	'08-57	212377	5/14/2008	1500	EPA 7471A	Mercury	0.549	0.00296		
C	25795-017	'08-60	215618	5/14/2008	1500	EPA 7471A	Mercury	0.2	0.0017	N	
C	25795-018	'08-61	215618	5/14/2008	1500	EPA 7471A	Mercury	0.206	0.00165	N	
C	25795-019	'08-62	215618	5/14/2008	1500	EPA 7471A	Mercury	0.241	0.00158	N	
C	25795-020	'08-63	215618	5/14/2008	1500	EPA 7471A	Mercury	0.222	0.00165	N	
C	25795-021	25795-bc1	215618	5/14/2008	1500	EPA 7471A	Mercury	0.24	0.002	N	J
C	25796-001	'08-64	215620	5/14/2008	1500	EPA 7471A	Mercury	0.284	0.00165		J
C	25796-002	'08-65	215620	5/14/2008	1500	EPA 7471A	Mercury	0.157	0.0015		J
C	25796-003	'08-66	215620	5/14/2008	1500	EPA 7471A	Mercury	0.202	0.00173		J
C	25796-004	'08-67	215620	5/14/2008	1500	EPA 7471A	Mercury	0.248	0.0017		J
D	25931-001	'08-111	212378	6/5/2008	1400	EPA 7471A	Mercury	0.51	0.003	*E	J
D	25931-002	'08-112	212378	6/5/2008	1400	EPA 7471A	Mercury	0.30	0.001	*E	J
D	25931-003	'08-113	212378	6/5/2008	1400	EPA 7471A	Mercury	0.41	0.001	*E	J
D	25931-016	'08-126	215612	6/5/2008	1400	EPA 7471A	Mercury	0.14	0.002		J
D	25931-017	'08-127	215612	6/5/2008	1400	EPA 7471A	Mercury	0.23	0.002		J
D	25931-018	'08-128	215612	6/5/2008	1400	EPA 7471A	Mercury	0.15	0.002		J
D	25931-019	'08-129	215612	6/5/2008	1400	EPA 7471A	Mercury	0.20	0.002		J
D	25931-020	'08-130	215612	6/5/2008	1400	EPA 7471A	Mercury	0.15	0.002		J
D	25932-003	'08-133	215619	6/5/2008	1400	EPA 7471A	Mercury	0.18	0.002	N	J
D	25932-004	'08-134	215619	6/5/2008	1400	EPA 7471A	Mercury	0.19	0.002	N	J
D	25932-008	'08-138	215619	6/5/2008	1400	EPA 7471A	Mercury	0.12	0.002	N	J
D	25932-009	'08-139	215619	6/5/2008	1400	EPA 7471A	Mercury	0.15	0.002	N	J
D	25932-010	'08-140	215619	6/5/2008	1400	EPA 7471A	Mercury	0.11	0.002	N	J
D	25932-014	'08-144	215619	6/5/2008	1400	EPA 7471A	Mercury	0.16	0.002	N	J
D	25932-015	'08-145	215619	6/5/2008	1400	EPA 7471A	Mercury	0.15	0.002	N	J
D	25932-019	'08-149	215619	6/5/2008	1400	EPA 7471A	Mercury	0.17	0.002	N	J
D	25932-020	'08-150	215619	6/5/2008	1400	EPA 7471A	Mercury	0.15	0.002	N	J
D	25932-021	25932-bc1	215619	6/5/2008	1400	EPA 7471A	Mercury	0.16	0.002	N	J
D	25932-022	25932-bc2	215619	6/5/2008	1400	EPA 7471A	Mercury	0.17	0.002	N	J
D	25931-013	'08-123	212378	6/5/2008	1400	EPA 7471A	Mercury	0.31	0.001	*E	J
D	25931-014	'08-124	212378	6/5/2008	1400	EPA 7471A	Mercury	0.30	0.001	*E	J
D	25931-015	'08-125	212378	6/5/2008	1400	EPA 7471A	Mercury	0.17	0.001	*E	J
D	25931-004	'08-114	212378	6/5/2008	1400	EPA 7471A	Mercury	0.23	0.001	*E	J
D	25931-005	'08-115	212378	6/5/2008	1400	EPA 7471A	Mercury	0.43	0.001	*E	J
D	25931-006	'08-116	212378	6/5/2008	1400	EPA 7471A	Mercury	0.73	0.014	*E	J
D	25931-007	'08-117	212378	6/5/2008	1400	EPA 7471A	Mercury	0.38	0.001	*E	J
D	25931-008	'08-118	212378	6/5/2008	1400	EPA 7471A	Mercury	0.39	0.001	*E	J
D	25931-009	'08-119	212378	6/5/2008	1400	EPA 7471A	Mercury	0.30	0.001	*E	J
D	25931-010	'08-120	212378	6/5/2008	1400	EPA 7471A	Mercury	0.10	0.001	*E	J
D	25931-011	'08-121	212378	6/5/2008	1400	EPA 7471A	Mercury	0.37	0.001	*E	J
D	25931-012	'08-122	212378	6/5/2008	1400	EPA 7471A	Mercury	0.44	0.001	*E	J

Appendix H - 2008 Peconic River Fish Samples
Mercury

Area	Sample ID	Fish ID or Composite ID[1]	SDG	Sample Date	Sample Time	Method	Analyte	Conc. (mg/kg)	MDL (mg/kg)	Lab Qual.	Rev. Qual.
SR	25796-002	'08-65	215620	5/14/2008	1500	EPA 7471A	Mercury	0.16	0.002		J
SR	25796-003	'08-66	215620	5/14/2008	1500	EPA 7471A	Mercury	0.20	0.002		J
SR	25796-004	'08-67	215620	5/14/2008	1500	EPA 7471A	Mercury	0.25	0.002		J
SR	25898-002	'08-69	215646	6/5/2008	1100	EPA 7471A	Mercury	0.30	0.002	N	J
SR	25898-021	25898-bc1	215646	5/27/2008	1100	EPA 7471A	Mercury	0.13	0.002	N	J
SR	25898-022	25898-bc2	215646	5/27/2008	1100	EPA 7471A	Mercury	0.22	0.002	N	J
SR	25898-023	25898-bc3		5/27/2008	1100	EPA 7471A	Mercury	0.20	0.002	N	J
SR	25796-001	'08-64	215620	5/14/2008	1500	EPA 7471A	Mercury	0.28	0.002		J
SR	25898-001	'08-68	215646	5/27/2008	1100	EPA 7471A	Mercury	0.09	0.002	N	J
SR	25898-004	'08-71	215646	5/27/2008	1100	EPA 7471A	Mercury	0.18	0.002	N	J
SR	25898-009	'08-76	215646	5/27/2008	1100	EPA 7471A	Mercury	0.20	0.002	N	J
SR	25898-013	'08-80	215646	5/27/2008	1100	EPA 7471A	Mercury	0.28	0.002	N	J
SR	25898-024	25898-bc4	215646	5/27/2008	1100	EPA 7471A	Mercury	0.31	0.002	N	J
SR	25898-003	'08-70	215646	5/27/2008	1100	EPA 7471A	Mercury	0.19	0.002	N	J
SR	25898-005	'08-72	215646	5/27/2008	1100	EPA 7471A	Mercury	0.23	0.002	N	J
SR	25898-011	'08-78	215646	5/27/2008	1100	EPA 7471A	Mercury	0.09	0.002	N	J
SR	25898-010	'08-77	215646	5/27/2008	1100	EPA 7471A	Mercury	0.24	0.002	N	J
SR	25899-013	'08-100	212501	5/27/2008	1100	EPA 7471A	Mercury	0.19	0.001	N	J
SR	25899-014	'08-101	212501	5/27/2008	1100	EPA 7471A	Mercury	0.17	0.001	N	J
SR	25899-015	'08-102	212501	5/27/2008	1100	EPA 7471A	Mercury	0.19	0.001	N	J
SR	25899-017	'08-104	212501	5/27/2008	1100	EPA 7471A	Mercury	0.18	0.001	N	J
SR	25899-018	'08-105	212501	5/27/2008	1100	EPA 7471A	Mercury	0.15	0.001	N	J
SR	25899-019	'08-106	212501	5/27/2008	1100	EPA 7471A	Mercury	0.11	0.001	N	J
SR	25899-020	'08-107	212501	5/27/2008	1100	EPA 7471A	Mercury	0.16	0.001	N	J
SR	25899-021	'08-108	25899	5/27/2008	1100	EPA 7471A	Mercury	0.29	0.001	EN	J
SR	25899-001	'08-88	212501	5/27/2008	1100	EPA 7471A	Mercury	0.21	0.002	N	J
SR	25899-004	'08-91	212501	5/27/2008	1100	EPA 7471A	Mercury	0.13	0.001	N	J
SR	25899-005	'08-92	212501	5/27/2008	1100	EPA 7471A	Mercury	0.15	0.002	N	J
SR	25899-006	'08-93	212501	5/27/2008	1100	EPA 7471A	Mercury	0.17	0.001	N	J
SR	25899-007	'08-94	212501	5/27/2008	1100	EPA 7471A	Mercury	0.16	0.001	N	J
SR	25899-008	'08-95	212501	5/27/2008	1100	EPA 7471A	Mercury	0.20	0.001	N	J
SR	25899-009	'08-96	212501	5/27/2008	1100	EPA 7471A	Mercury	0.20	0.001	N	J
SR	25899-010	'08-97	212501	5/27/2008	1100	EPA 7471A	Mercury	0.15	0.002	N	J
SR	25899-011	'08-98	212501	5/27/2008	1100	EPA 7471A	Mercury	0.18	0.001	N	J
SR	25899-012	'08-99	212501	5/27/2008	1100	EPA 7471A	Mercury	0.22	0.001	N	J
SR	25899-016	'08-103	212501	5/27/2008	1100	EPA 7471A	Mercury	0.17	0.001	N	J
SR	25899-002	'08-89	212501	5/27/2008	1100	EPA 7471A	Mercury	0.28	0.001	N	J
SR	25899-003	'08-90	212501	5/27/2008	1100	EPA 7471A	Mercury	0.20	0.001	N	J
SR	25899-023	'08-110	25899	5/27/2008	1100	EPA 7471A	Mercury	0.59	0.003	EN	J
SR	25899-022	'08-109	25899	5/27/2008	1100	EPA 7471A	Mercury	0.12	0.001	EN	J
MR	25958-017	'08-191	215617	6/12/2008	1430	EPA 7471A	Mercury	0.30	0.002		J
MR	25958-023	'08-197	215617	6/12/2008	1430	EPA 7471A	Mercury	0.03	0.002		J
MR	25958-025	25958-bc1	215617	6/12/2008	1430	EPA 7471A	Mercury	0.27	0.002		J
MR	25958-026	25958-bc2	215617	6/12/2008	1430	EPA 7471A	Mercury	0.26	0.002		J
MR	25958-027	25958-bc3	215617	6/12/2008	1430	EPA 7471A	Mercury	0.26	0.002		J
MR	25951-001	'08-151	212376	6/11/2008	1600	EPA 7471A	Mercury	0.27	0.001	N	J
MR	25958-014	'08-188	212371	6/12/2008	1430	EPA 7471A	Mercury	0.16	0.001	*N	J

Appendix H - 2008 Peconic River Fish Samples
Mercury

Area	Sample ID	Fish ID or Composite ID[1]	SDG	Sample Date	Sample Time	Method	Analyte	Conc. (mg/kg)	MDL (mg/kg)	Lab Qual.	Rev. Qual.
MR	25958-015	'08-189	212371	6/12/2008	1430	EPA 7471A	Mercury	0.09	0.002	*N	J
MR	25958-016	'08-190	212371	6/12/2008	1430	EPA 7471A	Mercury	0.38	0.001	*N	J
MR	25951-002	'08-152	212376	6/11/2008	1600	EPA 7471A	Mercury	0.20	0.001	N	J
MR	25951-003	'08-153	212376	6/11/2008	1600	EPA 7471A	Mercury	0.26	0.002	N	J
MR	25951-004	'08-154	212376	6/11/2008	1600	EPA 7471A	Mercury	0.20	0.001	N	J
MR	25951-005	'08-155	212376	6/11/2008	1600	EPA 7471A	Mercury	0.25	0.001	N	J
MR	25951-006	'08-156	212376	6/11/2008	1600	EPA 7471A	Mercury	0.06	0.001	N	J
MR	25951-007	'08-157		6/11/2008	1600	EPA 7471A	Mercury	0.18	0.001	N	J
MR	25958-001	'08-175	212371	6/12/2008	1430	EPA 7471A	Mercury	0.05	0.001	*N	J
MR	25958-002	'08-176	212371	6/12/2008	1430	EPA 7471A	Mercury	0.09	0.001	*N	J
MR	25958-003	'08-177	212371	6/12/2008	1430	EPA 7471A	Mercury	0.06	0.001	*N	J
MR	25958-004	'08-178	212371	6/12/2008	1430	EPA 7471A	Mercury	0.21	0.001	*N	J
MR	25958-005	'08-179	212371	6/12/2008	1430	EPA 7471A	Mercury	0.08	0.001	*N	J
MR	25958-006	'08-180	212371	6/12/2008	1430	EPA 7471A	Mercury	0.05	0.001	*N	J
MR	25958-007	'08-181	212371	6/12/2008	1430	EPA 7471A	Mercury	0.05	0.001	*N	J
MR	25958-008	'08-182	212371	6/12/2008	1430	EPA 7471A	Mercury	0.14	0.001	*N	J
MR	25958-009	'08-183	212371	6/12/2008	1430	EPA 7471A	Mercury	0.13	0.001	*N	J
MR	25958-010	'08-184	212371	6/12/2008	1430	EPA 7471A	Mercury	0.04	0.001	*N	J
MR	25958-011	08-185	212371	6/12/2008	1430	EPA 7471A	Mercury	0.10	0.001	*N	J
MR	25958-012	'08-186	212371	6/12/2008	1430	EPA 7471A	Mercury	0.05	0.001	*N	J
MR	25958-013	'08-187	212371	6/12/2008	1430	EPA 7471A	Mercury	0.09	0.001	*N	J
DP	25971-002	'08-200	215622	6/17/2008	2000	EPA 7471A	Mercury	0.08	0.002	N	J
DP	25971-003	'08-201	215622	6/17/2008	2000	EPA 7471A	Mercury	0.13	0.002	N	J
DP	25971-004	'08-202	215622	6/17/2008	2000	EPA 7471A	Mercury	0.15	0.002	N	J
DP	25971-005	'08-203	215622	6/17/2008	2000	EPA 7471A	Mercury	0.10	0.002	N	J
DP	25971-006	'08-204	215622	6/17/2008	2000	EPA 7471A	Mercury	0.13	0.002	N	J
DP	25971-007	'08-205	215622	6/17/2008	2000	EPA 7471A	Mercury	0.12	0.002	N	J
DP	25971-008	'08-206	215622	6/17/2008	2000	EPA 7471A	Mercury	0.06	0.002	N	J
DP	25971-009	'08-207	215622	6/17/2008	2000	EPA 7471A	Mercury	0.17	0.002	N	J
DP	25971-001	'08-199	212370	6/17/2008	2000	EPA 7471A	Mercury	0.60	0.003		J
DP	25971-010	'08-208	212370	6/17/2008	2000	EPA 7471A	Mercury	0.37	0.001		J

Appendix H - 2008 Peconic River Fish Samples
Mercury

Area	Sample ID	Fish ID or Composite ID[1]	SDG	Sample Date	Sample Time	Method	Analyte	Conc. (mg/kg)	MDL (mg/kg)	Lab Qual.	Rev. Qual.
DP	25971-011	'08-209	212370	6/17/2008	2000	EPA 7471A	Mercury	0.36	0.001		J
DP	25971-012	'08-210	212370	6/17/2008	2000	EPA 7471A	Mercury	0.11	0.001		J
DP	25971-013	'08-211	212370	6/17/2008	2000	EPA 7471A	Mercury	0.27	0.001		J
DP	25971-014	'08-212	212370	6/17/2008	2000	EPA 7471A	Mercury	0.17	0.001		J
DP	25971-015	'08-213	212370	6/17/2008	2000	EPA 7471A	Mercury	0.14	0.001		J
DP	25971-016	'08-214	212370	6/17/2008	2000	EPA 7471A	Mercury	0.05	0.001		J
DP	25971-017	'08-215	212370	6/17/2008	2000	EPA 7471A	Mercury	0.07	0.002		J
DP	25971-018	'08-216	212370	6/17/2008	2000	EPA 7471A	Mercury	0.07	0.001		J
DP	25971-019	'08-217	212370	6/17/2008	2000	EPA 7471A	Mercury	0.04	0.001		J

[1] The BNL Fish ID consists of a two digit year ollowed by a dash and the sequence number in which the fish was collected. If If the BNL Fish ID (e.g. 08-68) is not shown in this column then the data is for a compositie of fillets obtained from two or more fish. The composite ID consists of the Chain of Custody(COC) ID followed by a dash, (e.g. 25791-) followed by a one or two letter composite code (c or bc) and a sequence number composite within the given COC. For example, Composite ID 25898-bc4 is the fourth composite of bullhead fillets within COC 25898.

Appendix I - 2008 Peconic River Fish Samples
PCBs

Area	Sample ID	Fish ID or Composite ID[1]	SDG	Sample Date	Sample Time	Method	Analyte	Conc. (ug/kg)	MDL (ug/kg)	Lab Qual.	Rev. Qual.
A	25791-025	25791-bc2	215615	5/13/2008	1530	EPA 8082	Aroclor 1016	9.96	9.96	Uh	
A	25791-025	25791-bc2	215615	5/13/2008	1530	EPA 8082	Aroclor 1221	9.96	9.96	Uh	
A	25791-025	25791-bc2	215615	5/13/2008	1530	EPA 8082	Aroclor 1232	9.96	9.96	Uh	
A	25791-025	25791-bc2	215615	5/13/2008	1530	EPA 8082	Aroclor 1248	9.96	9.96	Uh	
A	25791-025	25791-bc2	215615	5/13/2008	1530	EPA 8082	Aroclor 1254	22.4	9.96	h	
A	25791-025	25791-bc2	215615	5/13/2008	1530	EPA 8082	Aroclor 1260	9.96	9.96	Uh	
A	25791-025	25791-bc2	215615	5/13/2008	1530	EPA 8082	Aroclor-1242	9.96	9.96	Uh	
D	25932-022	25932-bc2	215619	6/5/2008	1400	EPA 8082	Aroclor 1016	9.91	9.91	Uh	
D	25932-022	25932-bc2	215619	6/5/2008	1400	EPA 8082	Aroclor 1221	9.91	9.91	Uh	
D	25932-022	25932-bc2	215619	6/5/2008	1400	EPA 8082	Aroclor 1232	9.91	9.91	Uh	
D	25932-022	25932-bc2	215619	6/5/2008	1400	EPA 8082	Aroclor 1248	9.91	9.91	Uh	
D	25932-022	25932-bc2	215619	6/5/2008	1400	EPA 8082	Aroclor 1254	9.91	9.91	Uh	
D	25932-022	25932-bc2	215619	6/5/2008	1400	EPA 8082	Aroclor 1260	9.91	9.91	Uh	
D	25932-022	25932-bc2	215619	6/5/2008	1400	EPA 8082	Aroclor-1242	9.91	9.91	Uh	

[1] The BNL Fish ID consists of a two digit year ollowed by a dash and the sequence number in which the fish was collected. If If the BNL Fish ID (e.g. 08-68) is not shown in this column then the data is for a compositie of fillets obtained from two or more fish. The composite ID consists of the Chain of Custody(COC) ID followed by a dash, (e.g. 25791-) followed by a one or two letter composite code (c or bc) and a sequence number composite within the given COC. For example, Composite ID 25898-bc4 is the fourth composite of bullhead fillets within COC 25898.

Appendix J - 2008 Peconic River Fish Samples
Radionuclides

Area	Sample ID	BNL Fish ID or Composite ID[1]	SDG	Method	Analyte	Activity (pCi/g)	Error (pCi/g)	MDL (pCi/g)	Lab Qual.	Rev. Qual.
A	25791-bc1	25791-024	215615	HASL-300, 4.5.2.3	Beryllium-7	0.254	0.737	1.23	DL	
A	25791-bc1	25791-024	215615	HASL-300, 4.5.2.3	Cesium-137	0.153	0.0341	0.025		
A	25791-bc1	25791-024	215615	HASL-300, 4.5.2.3	Co-60	-0.0003	0.0175	0.029	DL	
A	25791-bc1	25791-024	215615	HASL-300, 4.5.2.3	Cobalt-57	-0.002	0.0116	0.0192	DL	
A	25791-bc1	25791-024	215615	HASL-300, 4.5.2.3	Manganese-54	0.0193	0.0207	0.0363	DL	
A	25791-bc1	25791-024	215615	HASL-300, 4.5.2.3	Potassium-40	3.52	0.485	0.219		
A	25791-bc1	25791-024	215615	HASL-300, 4.5.2.3	Radium-226	-0.0091	0.0451	0.0523	DL	
A	25791-bc1	25791-024	215615	HASL-300, 4.5.2.3	Sodium-22	0.00077	0.0186	0.0312	DL	
A	25791-bc1	25791-024	215615	HASL-300, 4.5.2.3	Thorium-228	0	0.0432	0.0361		
A	25791-bc2	25791-025	215615	HASL-300, 4.5.2.3	Beryllium-7	-0.32	0.563	0.923	DL	
A	25791-bc2	25791-025	215615	HASL-300, 4.5.2.3	Cesium-137	0.139	0.0288	0.0182		
A	25791-bc2	25791-025	215615	HASL-300, 4.5.2.3	Co-60	0.00337	0.0135	0.0229	DL	
A	25791-bc2	25791-025	215615	HASL-300, 4.5.2.3	Cobalt-57	-0.001	0.00761	0.013	DL	
A	25791-bc2	25791-025	215615	HASL-300, 4.5.2.3	Manganese-54	0.0148	0.0149	0.0273	DL	
A	25791-bc2	25791-025	215615	HASL-300, 4.5.2.3	Potassium-40	2.95	0.424	0.195		
A	25791-bc2	25791-025	215615	HASL-300, 4.5.2.3	Radium-226	0.0225	0.0364	0.0441	DL	
A	25791-bc2	25791-025	215615	HASL-300, 4.5.2.3	Sodium-22	0.0136	0.0141	0.0257	DL	
A	25791-bc2	25791-025	215615	HASL-300, 4.5.2.3	Thorium-228	-0.0275	0.026	0.0335	DL	
C	25795-bc1	25795-021	215618	HASL-300, 4.5.2.3	Beryllium-7	-0.749	0.892	1.4	DL	
C	25795-bc1	25795-021	215618	HASL-300, 4.5.2.3	Cesium-137	0.25	0.0483	0.0272		
C	25795-bc1	25795-021	215618	HASL-300, 4.5.2.3	Co-60	0.0187	0.0266	0.0469	DL	
C	25795-bc1	25795-021	215618	HASL-300, 4.5.2.3	Cobalt-57	-0.0024	0.00947	0.0154	DL	
C	25795-bc1	25795-021	215618	HASL-300, 4.5.2.3	Manganese-54	0.00194	0.0249	0.0426	DL	
C	25795-bc1	25795-021	215618	HASL-300, 4.5.2.3	Potassium-40	2.89	0.531	0.392		
C	25795-bc1	25795-021	215618	HASL-300, 4.5.2.3	Radium-226	0.11	0.0551	0.0494		
C	25795-bc1	25795-021	215618	HASL-300, 4.5.2.3	Sodium-22	0.00417	0.0242	0.0409	DL	
C	25795-bc1	25795-021	215618	HASL-300, 4.5.2.3	Thorium-228	0.00048	0.0356	0.04	DL	
D	25931-C1	25931-021	212378	HASL-300, 4.5.2.3	Beryllium-7	-0.138	0.18	0.278	DL	
D	25931-C1	25931-021	212378	HASL-300, 4.5.2.3	Cesium-137	0.287	0.0433	0.0234		
D	25931-C1	25931-021	212378	HASL-300, 4.5.2.3	Co-60	-0.0119	0.0165	0.0255	DL	
D	25931-C1	25931-021	212378	HASL-300, 4.5.2.3	Cobalt-57	-0.008	0.00976	0.0141	DL	
D	25931-C1	25931-021	212378	HASL-300, 4.5.2.3	Manganese-54	0.00102	0.0158	0.0257	DL	
D	25931-C1	25931-021	212378	HASL-300, 4.5.2.3	Potassium-40	3.9	0.523	0.254		
D	25931-C1	25931-021	212378	HASL-300, 4.5.2.3	Radium-226	0.0194	0.0478	0.0473	DL	
D	25931-C1	25931-021	212378	HASL-300, 4.5.2.3	Sodium-22	-0.0104	0.0176	0.0278	DL	
D	25931-C1	25931-021	212378	HASL-300, 4.5.2.3	Thorium-228	0.0209	0.0387	0.0325	DL	
D	25931-C3	25931-022	212378	HASL-300, 4.5.2.3	Beryllium-7	0.0767	0.177	0.281	DL	
D	25931-C3	25931-022	212378	HASL-300, 4.5.2.3	Cesium-137	0.152	0.0312	0.0213		
D	25931-C3	25931-022	212378	HASL-300, 4.5.2.3	Co-60	0.00555	0.0155	0.0261	DL	
D	25931-C3	25931-022	212378	HASL-300, 4.5.2.3	Cobalt-57	-0.0034	0.00927	0.0141	DL	
D	25931-C3	25931-022	212378	HASL-300, 4.5.2.3	Manganese-54	-0.0049	0.0144	0.0231	DL	
D	25931-C3	25931-022	212378	HASL-300, 4.5.2.3	Potassium-40	2.82	0.458	0.235		
D	25931-C3	25931-022	212378	HASL-300, 4.5.2.3	Radium-226	0.00775	0.0462	0.0446	DL	
D	25931-C3	25931-022	212378	HASL-300, 4.5.2.3	Sodium-22	0.00762	0.016	0.0272	DL	
D	25931-C3	25931-022	212378	HASL-300, 4.5.2.3	Thorium-228	0.012	0.0316	0.0298	DL	
D	25932-bc1	25932-021	215619	HASL-300, 4.5.2.3	Beryllium-7	0.148	0.67	1.11	DL	
D	25932-bc1	25932-021	215619	HASL-300, 4.5.2.3	Cesium-137	0.124	0.0347	0.0274		
D	25932-bc1	25932-021	215619	HASL-300, 4.5.2.3	Co-60	-0.0014	0.0198	0.033	DL	
D	25932-bc1	25932-021	215619	HASL-300, 4.5.2.3	Cobalt-57	-0.0036	0.0128	0.021	DL	
D	25932-bc1	25932-021	215619	HASL-300, 4.5.2.3	Manganese-54	0.0116	0.0203	0.0351	DL	
D	25932-bc1	25932-021	215619	HASL-300, 4.5.2.3	Potassium-40	2.65	0.578	0.283		
D	25932-bc1	25932-021	215619	HASL-300, 4.5.2.3	Radium-226	0.0442	0.0518	0.048	DL	
SR	'08-68	25898-001	215646	HASL-300, 4.5.2.3	Beryllium-7	0.201	0.547	0.958	DL	
SR	'08-68	25898-001	215646	HASL-300, 4.5.2.3	Cesium-137	0.101	0.025	0.0223		
SR	'08-68	25898-001	215646	HASL-300, 4.5.2.3	Co-60	-0.0015	0.0148	0.0244	DL	
SR	'08-68	25898-001	215646	HASL-300, 4.5.2.3	Cobalt-57	0.00437	0.0114	0.0166	DL	
SR	'08-68	25898-001	215646	HASL-300, 4.5.2.3	Manganese-54	0.00053	0.0179	0.0296	DL	
SR	'08-68	25898-001	215646	HASL-300, 4.5.2.3	Potassium-40	3.76	0.527	0.256		
SR	'08-68	25898-001	215646	HASL-300, 4.5.2.3	Radium-226	0.0347	0.0469	0.0495	DL	
SR	'08-68	25898-001	215646	HASL-300, 4.5.2.3	Sodium-22	-0.0104	0.017	0.0267	DL	
SR	'08-68	25898-001	215646	HASL-300, 4.5.2.3	Thorium-228	0.00932	0.0343	0.0321	DL	
SR	'08-70	25898-003	215646	HASL-300, 4.5.2.3	Beryllium-7	-0.13	0.654	1.06	DL	
SR	'08-70	25898-003	215646	HASL-300, 4.5.2.3	Cesium-137	0.131	0.0288	0.0251		
SR	'08-70	25898-003	215646	HASL-300, 4.5.2.3	Co-60	-0.0023	0.0189	0.0314	DL	
SR	'08-70	25898-003	215646	HASL-300, 4.5.2.3	Cobalt-57	-0.0041	0.011	0.018	DL	
SR	'08-70	25898-003	215646	HASL-300, 4.5.2.3	Manganese-54	-0.0131	0.0201	0.0317	DL	
SR	'08-70	25898-003	215646	HASL-300, 4.5.2.3	Potassium-40	3.19	0.519	0.236		
SR	'08-70	25898-003	215646	HASL-300, 4.5.2.3	Radium-226	0	0.06	0.0566		
SR	'08-70	25898-003	215646	HASL-300, 4.5.2.3	Sodium-22	-0.0078	0.0176	0.0282	DL	
SR	'08-70	25898-003	215646	HASL-300, 4.5.2.3	Thorium-228	0.00652	0.0505	0.0371	DL	

Appendix J - 2008 Peconic River Fish Samples
Radionuclides

Area	Sample ID	BNL Fish ID or Composite ID[1]	SDG	Method	Analyte	Activity (pCi/g)	Error (pCi/g)	MDL (pCi/g)	Lab Qual.	Rev. Qual.
SR	'08-71	25898-004	215646	HASL-300, 4.5.2.3	Beryllium-7	-0.0881	0.612	1.01	DL	
SR	'08-71	25898-004	215646	HASL-300, 4.5.2.3	Cesium-137	0.0831	0.0283	0.0218		
SR	'08-71	25898-004	215646	HASL-300, 4.5.2.3	Co-60	0.0142	0.018	0.032	DL	
SR	'08-71	25898-004	215646	HASL-300, 4.5.2.3	Cobalt-57	0.00722	0.0114	0.0193	DL	
SR	'08-71	25898-004	215646	HASL-300, 4.5.2.3	Manganese-54	-0.0054	0.0182	0.0302	DL	
SR	'08-71	25898-004	215646	HASL-300, 4.5.2.3	Potassium-40	3.13	0.47	0.209		
SR	'08-71	25898-004	215646	HASL-300, 4.5.2.3	Radium-226	0.00082	0.0398	0.0503	DL	
SR	'08-71	25898-004	215646	HASL-300, 4.5.2.3	Sodium-22	-0.0054	0.0184	0.0296	DL	
SR	'08-71	25898-004	215646	HASL-300, 4.5.2.3	Thorium-228	0.0172	0.0389	0.035	DL	
SR	'08-72	25898-005	215646	HASL-300, 4.5.2.3	Beryllium-7	-0.23	0.507	0.835	DL	
SR	'08-72	25898-005	215646	HASL-300, 4.5.2.3	Cesium-137	0.0836	0.0273	0.0206		
SR	'08-72	25898-005	215646	HASL-300, 4.5.2.3	Co-60	-0.011	0.016	0.0244	DL	
SR	'08-72	25898-005	215646	HASL-300, 4.5.2.3	Cobalt-57	0.00978	0.00914	0.0163	DL	
SR	'08-72	25898-005	215646	HASL-300, 4.5.2.3	Manganese-54	-0.0075	0.0145	0.0237	DL	
SR	'08-72	25898-005	215646	HASL-300, 4.5.2.3	Potassium-40	3.33	0.503	0.218		
SR	'08-72	25898-005	215646	HASL-300, 4.5.2.3	Radium-226	0.042	0.05	0.0478	DL	
SR	'08-72	25898-005	215646	HASL-300, 4.5.2.3	Sodium-22	-0.0103	0.0191	0.0263	DL	
SR	'08-72	25898-005	215646	HASL-300, 4.5.2.3	Thorium-228	0.0289	0.0384	0.0305	DL	
SR	'08-77	25898-010	215646	HASL-300, 4.5.2.3	Beryllium-7	0.0357	0.427	0.728	DL	
SR	'08-77	25898-010	215646	HASL-300, 4.5.2.3	Cesium-137	0.0953	0.0236	0.0178		
SR	'08-77	25898-010	215646	HASL-300, 4.5.2.3	Co-60	0.011	0.0123	0.0225	DL	
SR	'08-77	25898-010	215646	HASL-300, 4.5.2.3	Cobalt-57	0.00352	0.00751	0.0131	DL	
SR	'08-77	25898-010	215646	HASL-300, 4.5.2.3	Manganese-54	-0.0019	0.0143	0.0243	DL	
SR	'08-77	25898-010	215646	HASL-300, 4.5.2.3	Potassium-40	3.33	0.45	0.214		
SR	'08-77	25898-010	215646	HASL-300, 4.5.2.3	Radium-226	0.0691	0.0434	0.0347		
SR	'08-77	25898-010	215646	HASL-300, 4.5.2.3	Sodium-22	0.00602	0.0132	0.023	DL	
SR	'08-77	25898-010	215646	HASL-300, 4.5.2.3	Thorium-228	-0.0216	0.0259	0.034	DL	
SR	'08-78	25898-011	215646	HASL-300, 4.5.2.3	Beryllium-7	0.207	0.572	1	DL	
SR	'08-78	25898-011	215646	HASL-300, 4.5.2.3	Cesium-137	0.0944	0.0275	0.0222		
SR	'08-78	25898-011	215646	HASL-300, 4.5.2.3	Co-60	-0.0002	0.0171	0.0285	DL	
SR	'08-78	25898-011	215646	HASL-300, 4.5.2.3	Cobalt-57	-0.009	0.0116	0.0158	DL	
SR	'08-78	25898-011	215646	HASL-300, 4.5.2.3	Manganese-54	0.007	0.0188	0.0319	DL	
SR	'08-78	25898-011	215646	HASL-300, 4.5.2.3	Potassium-40	3.44	0.52	0.237		
SR	'08-78	25898-011	215646	HASL-300, 4.5.2.3	Radium-226	0.0274	0.0572	0.0421	DL	
SR	'08-78	25898-011	215646	HASL-300, 4.5.2.3	Sodium-22	-0.0091	0.017	0.0269	DL	
SR	'08-78	25898-011	215646	HASL-300, 4.5.2.3	Thorium-228	0.00107	0.0292	0.0338	DL	
SR	25898-bc1	25898-021	215646	HASL-300, 4.5.2.3	Beryllium-7	0.0663	0.532	0.896	DL	
SR	25898-bc1	25898-021	215646	HASL-300, 4.5.2.3	Cesium-137	0.0898	0.0238	0.0193		
SR	25898-bc1	25898-021	215646	HASL-300, 4.5.2.3	Co-60	0.0113	0.016	0.0286	DL	
SR	25898-bc1	25898-021	215646	HASL-300, 4.5.2.3	Cobalt-57	0.00749	0.0097	0.0164	DL	
SR	25898-bc1	25898-021	215646	HASL-300, 4.5.2.3	Manganese-54	-0.0004	0.0171	0.0292	DL	
SR	25898-bc1	25898-021	215646	HASL-300, 4.5.2.3	Potassium-40	3.14	0.504	0.254		
SR	25898-bc1	25898-021	215646	HASL-300, 4.5.2.3	Radium-226	-0.0043	0.0337	0.0454	DL	
SR	25898-bc1	25898-021	215646	HASL-300, 4.5.2.3	Sodium-22	-0.0057	0.0169	0.0273	DL	
SR	25898-bc1	25898-021	215646	HASL-300, 4.5.2.3	Thorium-228	-0.0223	0.0326	0.0385	DL	
SR	25898-bc2	25898-022	215646	HASL-300, 4.5.2.3	Beryllium-7	0.477	0.516	0.925	DL	
SR	25898-bc2	25898-022	215646	HASL-300, 4.5.2.3	Cesium-137	0.0689	0.0214	0.0202		
SR	25898-bc2	25898-022	215646	HASL-300, 4.5.2.3	Co-60	0.0104	0.0154	0.0276	DL	
SR	25898-bc2	25898-022	215646	HASL-300, 4.5.2.3	Cobalt-57	0.00546	0.00851	0.0149	DL	
SR	25898-bc2	25898-022	215646	HASL-300, 4.5.2.3	Manganese-54	0.00356	0.017	0.0286	DL	
SR	25898-bc2	25898-022	215646	HASL-300, 4.5.2.3	Potassium-40	2.98	0.453	0.229		
SR	25898-bc2	25898-022	215646	HASL-300, 4.5.2.3	Radium-226	-0.0064	0.0358	0.0459	DL	
SR	25898-bc2	25898-022	215646	HASL-300, 4.5.2.3	Sodium-22	-0.0124	0.0164	0.0257	DL	
SR	25898-bc2	25898-022	215646	HASL-300, 4.5.2.3	Thorium-228	0.0178	0.0324	0.0293	DL	
SR	25898-bc3	25898-023	215646	HASL-300, 4.5.2.3	Beryllium-7	0.154	0.513	0.858	DL	
SR	25898-bc3	25898-023	215646	HASL-300, 4.5.2.3	Cesium-137	0.107	0.0294	0.0212		
SR	25898-bc3	25898-023	215646	HASL-300, 4.5.2.3	Co-60	0.00253	0.0157	0.0273	DL	
SR	25898-bc3	25898-023	215646	HASL-300, 4.5.2.3	Cobalt-57	0.00127	0.00931	0.0162	DL	
SR	25898-bc3	25898-023	215646	HASL-300, 4.5.2.3	Manganese-54	0.00482	0.0165	0.0283	DL	
SR	25898-bc3	25898-023	215646	HASL-300, 4.5.2.3	Potassium-40	2.71	0.439	0.189		
SR	25898-bc3	25898-023	215646	HASL-300, 4.5.2.3	Radium-226	0.0115	0.0357	0.0478	DL	
SR	25898-bc3	25898-023	215646	HASL-300, 4.5.2.3	Sodium-22	-0.0039	0.0166	0.0265	DL	
SR	25898-bc3	25898-023	215646	HASL-300, 4.5.2.3	Thorium-228	0.00082	0.0306	0.0418	DL	
SR	25898-bc4	25898-024	215646	HASL-300, 4.5.2.3	Beryllium-7	0.56	0.587	1.05	DL	
SR	25898-bc4	25898-024	215646	HASL-300, 4.5.2.3	Cesium-137	0.0699	0.0265	0.0244		
SR	25898-bc4	25898-024	215646	HASL-300, 4.5.2.3	Co-60	0.00549	0.0153	0.0263	DL	
SR	25898-bc4	25898-024	215646	HASL-300, 4.5.2.3	Cobalt-57	0.0137	0.0102	0.0182	DL	
SR	25898-bc4	25898-024	215646	HASL-300, 4.5.2.3	Manganese-54	0.00691	0.0174	0.0306	DL	
SR	25898-bc4	25898-024	215646	HASL-300, 4.5.2.3	Potassium-40	3.16	0.47	0.221		
SR	25898-bc4	25898-024	215646	HASL-300, 4.5.2.3	Radium-226	0	0.0496	0.0417		

Appendix J - 2008 Peconic River Fish Samples
Radionuclides

Area	Sample ID	BNL Fish ID or Composite ID[1]	SDG	Method	Analyte	Activity (pCi/g)	Error (pCi/g)	MDL (pCi/g)	Lab Qual.	Rev. Qual.
SR	25898-bc4	25898-024	215646	HASL-300, 4.5.2.3	Sodium-22	0.00349	0.0217	0.0325	DL	
SR	25898-bc4	25898-024	215646	HASL-300, 4.5.2.3	Thorium-228	0.0153	0.0351	0.0327	DL	
D	25932-bc1	25932-021	215619	HASL-300, 4.5.2.3	Sodium-22	0.00167	0.021	0.0356	DL	
D	25932-bc1	25932-021	215619	HASL-300, 4.5.2.3	Thorium-228	-0.009	0.0376	0.0484	DL	
MR	'08-151	25951-001	212376	HASL-300, 4.5.2.3	Beryllium-7	0.226	0.262	0.429	DL	
MR	'08-151	25951-001	212376	HASL-300, 4.5.2.3	Cesium-137	0.258	0.0387	0.0197		
MR	'08-151	25951-001	212376	HASL-300, 4.5.2.3	Co-60	0.00704	0.0151	0.0259	DL	
MR	'08-151	25951-001	212376	HASL-300, 4.5.2.3	Cobalt-57	0.00782	0.00915	0.0145	DL	
MR	'08-151	25951-001	212376	HASL-300, 4.5.2.3	Manganese-54	-0.0049	0.0149	0.0234	DL	
MR	'08-151	25951-001	212376	HASL-300, 4.5.2.3	Potassium-40	2.98	0.463	0.197		
MR	'08-151	25951-001	212376	HASL-300, 4.5.2.3	Radium-226	0.00956	0.0537	0.0502	DL	
MR	'08-151	25951-001	212376	HASL-300, 4.5.2.3	Sodium-22	-0.0066	0.0167	0.0265	DL	
MR	'08-151	25951-001	212376	HASL-300, 4.5.2.3	Thorium-228	0.00087	0.0295	0.0297	DL	
MR	'08-156	25951-006	212376	HASL-300, 4.5.2.3	Beryllium-7	0.25	0.341	0.546	DL	
MR	'08-156	25951-006	212376	HASL-300, 4.5.2.3	Cesium-137	0.0564	0.0269	0.0268		
MR	'08-156	25951-006	212376	HASL-300, 4.5.2.3	Co-60	0.0137	0.0235	0.0398	DL	
MR	'08-156	25951-006	212376	HASL-300, 4.5.2.3	Cobalt-57	0.00814	0.0118	0.0181	DL	
MR	'08-156	25951-006	212376	HASL-300, 4.5.2.3	Manganese-54	0.00263	0.021	0.0335	DL	
MR	'08-156	25951-006	212376	HASL-300, 4.5.2.3	Potassium-40	2.51	0.62	0.285		
MR	'08-156	25951-006	212376	HASL-300, 4.5.2.3	Radium-226	0.00061	0.0477	0.0633	DL	
MR	'08-156	25951-006	212376	HASL-300, 4.5.2.3	Sodium-22	-0.0058	0.0212	0.0333	DL	
MR	'08-156	25951-006	212376	HASL-300, 4.5.2.3	Thorium-228	0.00506	0.0524	0.0389	DL	
MR	25951-C1	25951-008	212376	HASL-300, 4.5.2.3	Beryllium-7	-0.625	0.481	0.58	DL	
MR	25951-C1	25951-008	212376	HASL-300, 4.5.2.3	Cesium-137	0.0937	0.0289	0.036		
MR	25951-C1	25951-008	212376	HASL-300, 4.5.2.3	Co-60	0.0106	0.0255	0.0424	DL	
MR	25951-C1	25951-008	212376	HASL-300, 4.5.2.3	Cobalt-57	0.00784	0.0146	0.0229	DL	
MR	25951-C1	25951-008	212376	HASL-300, 4.5.2.3	Manganese-54	-0.008	0.0233	0.0366	DL	
MR	25951-C1	25951-008	212376	HASL-300, 4.5.2.3	Potassium-40	2.58	0.555	0.357		
MR	25951-C1	25951-008	212376	HASL-300, 4.5.2.3	Radium-226	-0.0563	0.0711	0.0829	DL	
MR	25951-C1	25951-008	212376	HASL-300, 4.5.2.3	Sodium-22	-0.0049	0.0256	0.0401	DL	
MR	25951-C1	25951-008	212376	HASL-300, 4.5.2.3	Thorium-228	-0.0939	0.065	0.0754	DL	
MR	'08-185	25958-011	212371	HASL-300, 4.5.2.3	Beryllium-7	0.0284	0.56	0.866	DL	
MR	'08-185	25958-011	212371	HASL-300, 4.5.2.3	Cesium-137	0.0328	0.0352	0.0573	DL	
MR	'08-185	25958-011	212371	HASL-300, 4.5.2.3	Co-60	-0.0531	0.0437	0.0617	DL	
MR	'08-185	25958-011	212371	HASL-300, 4.5.2.3	Cobalt-57	0.00464	0.0203	0.0293	DL	
MR	'08-185	25958-011	212371	HASL-300, 4.5.2.3	Manganese-54	-0.0114	0.036	0.0567	DL	
MR	'08-185	25958-011	212371	HASL-300, 4.5.2.3	Potassium-40	2.69	0.857	0.582		
MR	'08-185	25958-011	212371	HASL-300, 4.5.2.3	Radium-226	-0.134	0.104	0.105	DL	
MR	'08-185	25958-011	212371	HASL-300, 4.5.2.3	Sodium-22	0.034	0.0403	0.0698	DL	
MR	'08-185	25958-011	212371	HASL-300, 4.5.2.3	Thorium-228	0.0441	0.0764	0.0664	DL	
MR	'08-190	25958-016	212371	HASL-300, 4.5.2.3	Beryllium-7	-0.23	0.217	0.333	DL	
MR	'08-190	25958-016	212371	HASL-300, 4.5.2.3	Cesium-137	0.156	0.026	0.0204		
MR	'08-190	25958-016	212371	HASL-300, 4.5.2.3	Co-60	0.0107	0.0143	0.0252	DL	
MR	'08-190	25958-016	212371	HASL-300, 4.5.2.3	Cobalt-57	0.00024	0.00679	0.0107	DL	
MR	'08-190	25958-016	212371	HASL-300, 4.5.2.3	Manganese-54	0.00128	0.0151	0.0244	DL	
MR	'08-190	25958-016	212371	HASL-300, 4.5.2.3	Potassium-40	2.42	0.483	0.21		
MR	'08-190	25958-016	212371	HASL-300, 4.5.2.3	Radium-226	0.0167	0.0293	0.0407	DL	
MR	'08-190	25958-016	212371	HASL-300, 4.5.2.3	Sodium-22	-0.0025	0.0147	0.0238	DL	
MR	'08-190	25958-016	212371	HASL-300, 4.5.2.3	Thorium-228	0.00185	0.0265	0.0307	DL	
MR	'08-191	25958-017	215617	HASL-300, 4.5.2.3	Beryllium-7	0.21	0.559	0.951	DL	
MR	'08-191	25958-017	215617	HASL-300, 4.5.2.3	Cesium-137	0.13	0.0357	0.0258		
MR	'08-191	25958-017	215617	HASL-300, 4.5.2.3	Co-60	0.0156	0.021	0.0376	DL	
MR	'08-191	25958-017	215617	HASL-300, 4.5.2.3	Cobalt-57	-0.0002	0.00854	0.014	DL	
MR	'08-191	25958-017	215617	HASL-300, 4.5.2.3	Manganese-54	0.0177	0.0221	0.0395	DL	
MR	'08-191	25958-017	215617	HASL-300, 4.5.2.3	Potassium-40	2.37	0.515	0.326		
MR	'08-191	25958-017	215617	HASL-300, 4.5.2.3	Radium-226	0.012	0.0577	0.058	DL	
MR	'08-191	25958-017	215617	HASL-300, 4.5.2.3	Sodium-22	0.0224	0.0235	0.0427	DL	
MR	'08-191	25958-017	215617	HASL-300, 4.5.2.3	Thorium-228	0.00965	0.0297	0.0417	DL	
MR	25958-BC1	25958-025	212371	HASL-300, 4.5.2.3	Beryllium-7	-0.112	0.239	0.356	DL	
MR	25958-BC1	25958-025	212371	HASL-300, 4.5.2.3	Cesium-137	0.0491	0.0215	0.0226		
MR	25958-BC1	25958-025	212371	HASL-300, 4.5.2.3	Co-60	0.00632	0.0154	0.0267	DL	
MR	25958-BC1	25958-025	212371	HASL-300, 4.5.2.3	Cobalt-57	-0.0097	0.00854	0.0127	DL	
MR	25958-BC1	25958-025	212371	HASL-300, 4.5.2.3	Manganese-54	-0.0115	0.0156	0.0236	DL	
MR	25958-BC1	25958-025	212371	HASL-300, 4.5.2.3	Potassium-40	1.8	0.459	0.208		
MR	25958-BC1	25958-025	212371	HASL-300, 4.5.2.3	Radium-226	0.0365	0.0282	0.0485	DL	
MR	25958-BC1	25958-025	212371	HASL-300, 4.5.2.3	Sodium-22	-0.0066	0.0156	0.0234	DL	
MR	25958-BC1	25958-025	212371	HASL-300, 4.5.2.3	Thorium-228	0.00983	0.0358	0.0424	DL	
MR	25958-BC2	25958-026	212371	HASL-300, 4.5.2.3	Beryllium-7	0.0117	0.418	0.656	DL	
MR	25958-BC2	25958-026	212371	HASL-300, 4.5.2.3	Cesium-137	0.0434	0.0528	0.0379	UI	
MR	25958-BC2	25958-026	212371	HASL-300, 4.5.2.3	Co-60	0.0545	0.0644	0.0664	DL	

Appendix J - 2008 Peconic River Fish Samples
Radionuclides

Area	Sample ID	BNL Fish ID or Composite ID[1]	SDG	Method	Analyte	Activity (pCi/g)	Error (pCi/g)	MDL (pCi/g)	Lab Qual.	Rev. Qual.
MR	25958-BC2	25958-026	212371	HASL-300, 4.5.2.3	Cobalt-57	-0.0095	0.0189	0.0186	DL	
MR	25958-BC2	25958-026	212371	HASL-300, 4.5.2.3	Manganese-54	0.0149	0.0289	0.0483	DL	
MR	25958-BC2	25958-026	212371	HASL-300, 4.5.2.3	Potassium-40	1.53	0.696	0.369		
MR	25958-BC2	25958-026	212371	HASL-300, 4.5.2.3	Radium-226	0.0178	0.0486	0.0773	DL	
MR	25958-BC2	25958-026	212371	HASL-300, 4.5.2.3	Sodium-22	-0.0039	0.0262	0.0418	DL	
MR	25958-BC2	25958-026	212371	HASL-300, 4.5.2.3	Thorium-228	0.069	0.0743	0.0433	UI	
MR	25958-BC3	25958-027	212371	HASL-300, 4.5.2.3	Beryllium-7	0.381	0.392	0.659	DL	
MR	25958-BC3	25958-027	212371	HASL-300, 4.5.2.3	Cesium-137	0.0599	0.0443	0.0346		
MR	25958-BC3	25958-027	212371	HASL-300, 4.5.2.3	Co-60	0.00989	0.0487	0.0568	DL	
MR	25958-BC3	25958-027	212371	HASL-300, 4.5.2.3	Cobalt-57	-0.0063	0.0152	0.0182	DL	
MR	25958-BC3	25958-027	212371	HASL-300, 4.5.2.3	Manganese-54	0.00725	0.027	0.0454	DL	
MR	25958-BC3	25958-027	212371	HASL-300, 4.5.2.3	Potassium-40	2.78	0.576	0.303		
MR	25958-BC3	25958-027	212371	HASL-300, 4.5.2.3	Radium-226	0.00638	0.0461	0.0737	DL	
MR	25958-BC3	25958-027	212371	HASL-300, 4.5.2.3	Sodium-22	0.00108	0.0258	0.0421	DL	
MR	25958-BC3	25958-027	212371	HASL-300, 4.5.2.3	Thorium-228	0.0199	0.0577	0.0435	DL	
DP	'08-199	25971-001	212370	HASL-300, 4.5.2.3	Beryllium-7	-0.298	0.259	0.377	DL	
DP	'08-199	25971-001	212370	HASL-300, 4.5.2.3	Cesium-137	0.226	0.0404	0.0254		
DP	'08-199	25971-001	212370	HASL-300, 4.5.2.3	Co-60	0.0119	0.017	0.0293	U	
DP	'08-199	25971-001	212370	HASL-300, 4.5.2.3	Cobalt-57	0.00212	0.00995	0.0159	DL	
DP	'08-199	25971-001	212370	HASL-300, 4.5.2.3	Manganese-54	-0.0015	0.0173	0.028	DL	
DP	'08-199	25971-001	212370	HASL-300, 4.5.2.3	Potassium-40	2.83	0.564	0.241		
DP	'08-199	25971-001	212370	HASL-300, 4.5.2.3	Radium-226	-0.0804	0.0535	0.0588	DL	
DP	'08-199	25971-001	212370	HASL-300, 4.5.2.3	Sodium-22	0.00114	0.0173	0.0281	DL	
DP	'08-199	25971-001	212370	HASL-300, 4.5.2.3	Thorium-228	0.0899	0.062	0.0341		
DP	'08-200	25971-002	215622	HASL-300, 4.5.2.3	Beryllium-7	0.0275	0.551	0.908	DL	
DP	'08-200	25971-002	215622	HASL-300, 4.5.2.3	Cesium-137	0.0781	0.0295	0.026		
DP	'08-200	25971-002	215622	HASL-300, 4.5.2.3	Co-60	0.0107	0.02	0.0351	DL	
DP	'08-200	25971-002	215622	HASL-300, 4.5.2.3	Cobalt-57	0.0101	0.0126	0.0214	DL	
DP	'08-200	25971-002	215622	HASL-300, 4.5.2.3	Manganese-54	0.00507	0.0186	0.0316	DL	
DP	'08-200	25971-002	215622	HASL-300, 4.5.2.3	Potassium-40	2.62	0.584	0.279		
DP	'08-200	25971-002	215622	HASL-300, 4.5.2.3	Radium-226	-0.0115	0.0469	0.0591	DL	
DP	'08-200	25971-002	215622	HASL-300, 4.5.2.3	Sodium-22	0.0271	0.0211	0.0393	DL	
DP	'08-200	25971-002	215622	HASL-300, 4.5.2.3	Thorium-228	-0.0209	0.0372	0.0471	DL	
DP	'08-201	25971-003	215622	HASL-300, 4.5.2.3	Beryllium-7	0.325	0.568	0.967	DL	
DP	'08-201	25971-003	215622	HASL-300, 4.5.2.3	Cesium-137	0.0847	0.0357	0.028		
DP	'08-201	25971-003	215622	HASL-300, 4.5.2.3	Co-60	0.00453	0.0211	0.0355	DL	
DP	'08-201	25971-003	215622	HASL-300, 4.5.2.3	Cobalt-57	0.0066	0.0125	0.0219	DL	
DP	'08-201	25971-003	215622	HASL-300, 4.5.2.3	Manganese-54	-0.0068	0.0209	0.0344	DL	
DP	'08-201	25971-003	215622	HASL-300, 4.5.2.3	Potassium-40	3.1	0.518	0.303		
DP	'08-201	25971-003	215622	HASL-300, 4.5.2.3	Radium-226	0.00161	0.0592	0.0714	DL	
DP	'08-201	25971-003	215622	HASL-300, 4.5.2.3	Sodium-22	0.0116	0.0201	0.0352	DL	
DP	'08-201	25971-003	215622	HASL-300, 4.5.2.3	Thorium-228	-0.0868	0.0525	0.0687	DL	
DP	'08-202	25971-004	215622	HASL-300, 4.5.2.3	Beryllium-7	0	0.848	0.981		
DP	'08-202	25971-004	215622	HASL-300, 4.5.2.3	Cesium-137	0.107	0.038	0.0325		
DP	'08-202	25971-004	215622	HASL-300, 4.5.2.3	Co-60	-0.0033	0.0295	0.0483	DL	
DP	'08-202	25971-004	215622	HASL-300, 4.5.2.3	Cobalt-57	-0.0003	0.0103	0.0169	DL	
DP	'08-202	25971-004	215622	HASL-300, 4.5.2.3	Manganese-54	-0.0034	0.0261	0.0438	DL	
DP	'08-202	25971-004	215622	HASL-300, 4.5.2.3	Potassium-40	2.72	0.685	0.449		
DP	'08-202	25971-004	215622	HASL-300, 4.5.2.3	Radium-226	0.00477	0.0495	0.0712	DL	
DP	'08-202	25971-004	215622	HASL-300, 4.5.2.3	Sodium-22	0.00029	0.0285	0.0474	DL	
DP	'08-202	25971-004	215622	HASL-300, 4.5.2.3	Thorium-228	-0.0001	0.0363	0.0501	DL	
DP	'08-203	25971-005	215622	HASL-300, 4.5.2.3	Beryllium-7	-0.585	0.652	1.03	DL	
DP	'08-203	25971-005	215622	HASL-300, 4.5.2.3	Cesium-137	0.0692	0.0319	0.0341		
DP	'08-203	25971-005	215622	HASL-300, 4.5.2.3	Co-60	-0.0194	0.0259	0.0344	DL	
DP	'08-203	25971-005	215622	HASL-300, 4.5.2.3	Cobalt-57	0.00477	0.0116	0.0202	DL	
DP	'08-203	25971-005	215622	HASL-300, 4.5.2.3	Manganese-54	-0.0034	0.0271	0.0448	DL	
DP	'08-203	25971-005	215622	HASL-300, 4.5.2.3	Potassium-40	3.01	0.581	0.326		
DP	'08-203	25971-005	215622	HASL-300, 4.5.2.3	Radium-226	-0.0042	0.053	0.0676	DL	
DP	'08-203	25971-005	215622	HASL-300, 4.5.2.3	Sodium-22	-0.0094	0.0235	0.0378	DL	
DP	'08-203	25971-005	215622	HASL-300, 4.5.2.3	Thorium-228	-0.0301	0.0445	0.0516	DL	
DP	'08-208	25971-010	212370	HASL-300, 4.5.2.3	Beryllium-7	0.12	0.174	0.29	DL	
DP	'08-208	25971-010	212370	HASL-300, 4.5.2.3	Cesium-137	0.132	0.0294	0.0171		
DP	'08-208	25971-010	212370	HASL-300, 4.5.2.3	Co-60	-0.0017	0.0132	0.0215	DL	
DP	'08-208	25971-010	212370	HASL-300, 4.5.2.3	Cobalt-57	0.00527	0.00776	0.0121	DL	
DP	'08-208	25971-010	212370	HASL-300, 4.5.2.3	Manganese-54	-0.0014	0.0131	0.0212	DL	
DP	'08-208	25971-010	212370	HASL-300, 4.5.2.3	Potassium-40	3.37	0.448	0.171		
DP	'08-208	25971-010	212370	HASL-300, 4.5.2.3	Radium-226	-0.0245	0.0331	0.0412	DL	
DP	'08-208	25971-010	212370	HASL-300, 4.5.2.3	Sodium-22	-0.0009	0.0141	0.0232	DL	
DP	'08-208	25971-010	212370	HASL-300, 4.5.2.3	Thorium-228	0.00994	0.0283	0.0257	DL	
DP	'08-209	25971-011	212370	HASL-300, 4.5.2.3	Beryllium-7	0.0256	0.169	0.279	DL	

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Radionuclides

Area	Sample ID	BNL Fish ID or Composite ID[1]	SDG	Method	Analyte	Activity (pCi/g)	Error (pCi/g)	MDL (pCi/g)	Lab Qual.	Rev. Qual.
DP	'08-209	25971-011	212370	HASL-300, 4.5.2.3	Cesium-137	0.151	0.0292	0.0145		
DP	'08-209	25971-011	212370	HASL-300, 4.5.2.3	Co-60	0.0113	0.0133	0.0236	DL	
DP	'08-209	25971-011	212370	HASL-300, 4.5.2.3	Cobalt-57	0.0009	0.00606	0.00973	DL	
DP	'08-209	25971-011	212370	HASL-300, 4.5.2.3	Manganese-54	-0.0017	0.0126	0.02	DL	
DP	'08-209	25971-011	212370	HASL-300, 4.5.2.3	Potassium-40	3.18	0.46	0.209		
DP	'08-209	25971-011	212370	HASL-300, 4.5.2.3	Radium-226	0.00086	0.0268	0.0367	DL	
DP	'08-209	25971-011	212370	HASL-300, 4.5.2.3	Sodium-22	-0.0014	0.0135	0.0221	DL	
DP	'08-209	25971-011	212370	HASL-300, 4.5.2.3	Thorium-228	-0.0163	0.0234	0.0265	DL	
DP	'08-210	25971-012	212370	HASL-300, 4.5.2.3	Beryllium-7	0.0704	0.134	0.219	DL	
DP	'08-210	25971-012	212370	HASL-300, 4.5.2.3	Cesium-137	0.113	0.0222	0.0131		
DP	'08-210	25971-012	212370	HASL-300, 4.5.2.3	Co-60	-0.0027	0.00899	0.0146	DL	
DP	'08-210	25971-012	212370	HASL-300, 4.5.2.3	Cobalt-57	-0.0037	0.00511	0.00815	DL	
DP	'08-210	25971-012	212370	HASL-300, 4.5.2.3	Manganese-54	-0.004	0.00948	0.015	DL	
DP	'08-210	25971-012	212370	HASL-300, 4.5.2.3	Potassium-40	2.81	0.363	0.142		
DP	'08-210	25971-012	212370	HASL-300, 4.5.2.3	Radium-226	0.0169	0.0164	0.0285	DL	
DP	'08-210	25971-012	212370	HASL-300, 4.5.2.3	Sodium-22	0.00688	0.0106	0.0181	DL	
DP	'08-210	25971-012	212370	HASL-300, 4.5.2.3	Thorium-228	0.00066	0.0206	0.0249	DL	
DP	'08-211	25971-013	212370	HASL-300, 4.5.2.3	Beryllium-7	-0.292	0.293	0.433	DL	
DP	'08-211	25971-013	212370	HASL-300, 4.5.2.3	Cesium-137	0.112	0.0435	0.0276		
DP	'08-211	25971-013	212370	HASL-300, 4.5.2.3	Co-60	0.00984	0.0227	0.0384	DL	
DP	'08-211	25971-013	212370	HASL-300, 4.5.2.3	Cobalt-57	-0.0028	0.00774	0.0115	DL	
DP	'08-211	25971-013	212370	HASL-300, 4.5.2.3	Manganese-54	0.00323	0.021	0.0347	DL	
DP	'08-211	25971-013	212370	HASL-300, 4.5.2.3	Potassium-40	3.09	0.65	0.346		
DP	'08-211	25971-013	212370	HASL-300, 4.5.2.3	Radium-226	0.0993	0.0518	0.066	UI	
DP	'08-211	25971-013	212370	HASL-300, 4.5.2.3	Sodium-22	0.0128	0.0246	0.0418	DL	
DP	'08-211	25971-013	212370	HASL-300, 4.5.2.3	Thorium-228	0.00161	0.0418	0.0366	DL	
DP	'08-212	25971-014	212370	HASL-300, 4.5.2.3	Beryllium-7	-0.0419	0.179	0.277	DL	
DP	'08-212	25971-014	212370	HASL-300, 4.5.2.3	Cesium-137	0.0937	0.0233	0.0179		
DP	'08-212	25971-014	212370	HASL-300, 4.5.2.3	Co-60	0.00222	0.0119	0.0198	DL	
DP	'08-212	25971-014	212370	HASL-300, 4.5.2.3	Cobalt-57	0.00031	0.00767	0.012	DL	
DP	'08-212	25971-014	212370	HASL-300, 4.5.2.3	Manganese-54	0.00222	0.0124	0.0206	DL	
DP	'08-212	25971-014	212370	HASL-300, 4.5.2.3	Potassium-40	2.77	0.435	0.193		
DP	'08-212	25971-014	212370	HASL-300, 4.5.2.3	Radium-226	0.00311	0.0357	0.0408	DL	
DP	'08-212	25971-014	212370	HASL-300, 4.5.2.3	Sodium-22	0.00352	0.0118	0.0199	DL	
DP	'08-212	25971-014	212370	HASL-300, 4.5.2.3	Thorium-228	0.00108	0.0224	0.0304	DL	
DP	'08-204	25971-006	215622	HASL-300, 4.5.2.3	Beryllium-7	-0.0453	0.566	0.925	DL	
DP	'08-204	25971-006	215622	HASL-300, 4.5.2.3	Cesium-137	0.0948	0.0251	0.0286		
DP	'08-204	25971-006	215622	HASL-300, 4.5.2.3	Co-60	0.00578	0.021	0.0363	DL	
DP	'08-204	25971-006	215622	HASL-300, 4.5.2.3	Cobalt-57	0.00447	0.012	0.0202	DL	
DP	'08-204	25971-006	215622	HASL-300, 4.5.2.3	Manganese-54	-0.022	0.0211	0.0319	DL	
DP	'08-204	25971-006	215622	HASL-300, 4.5.2.3	Potassium-40	2.51	0.547	0.304		
DP	'08-204	25971-006	215622	HASL-300, 4.5.2.3	Radium-226	0.0438	0.0648	0.0484	DL	
DP	'08-204	25971-006	215622	HASL-300, 4.5.2.3	Sodium-22	-0.0096	0.0192	0.0304	DL	
DP	'08-204	25971-006	215622	HASL-300, 4.5.2.3	Thorium-228	-0.0101	0.0357	0.0491	DL	
DP	'08-205	25971-007	215622	HASL-300, 4.5.2.3	Beryllium-7	0.164	0.469	0.786	DL	
DP	'08-205	25971-007	215622	HASL-300, 4.5.2.3	Cesium-137	0.0969	0.0299	0.0222		
DP	'08-205	25971-007	215622	HASL-300, 4.5.2.3	Co-60	0.00471	0.0171	0.0296	DL	
DP	'08-205	25971-007	215622	HASL-300, 4.5.2.3	Cobalt-57	0.00111	0.00914	0.0152	DL	
DP	'08-205	25971-007	215622	HASL-300, 4.5.2.3	Manganese-54	0.00053	0.018	0.0301	DL	
DP	'08-205	25971-007	215622	HASL-300, 4.5.2.3	Potassium-40	3.21	0.488	0.249		
DP	'08-205	25971-007	215622	HASL-300, 4.5.2.3	Radium-226	0.0149	0.041	0.0496	DL	
DP	'08-205	25971-007	215622	HASL-300, 4.5.2.3	Sodium-22	0.00881	0.0162	0.0288	DL	
DP	'08-205	25971-007	215622	HASL-300, 4.5.2.3	Thorium-228	-0.025	0.03	0.0463	DL	
DP	'08-206	25971-008	215622	HASL-300, 4.5.2.3	Beryllium-7	-0.201	0.547	0.889	DL	
DP	'08-206	25971-008	215622	HASL-300, 4.5.2.3	Cesium-137	0.0699	0.0258	0.0287		
DP	'08-206	25971-008	215622	HASL-300, 4.5.2.3	Co-60	0.0221	0.0218	0.0394	DL	
DP	'08-206	25971-008	215622	HASL-300, 4.5.2.3	Cobalt-57	0.00533	0.0128	0.0215	DL	
DP	'08-206	25971-008	215622	HASL-300, 4.5.2.3	Manganese-54	-0.0154	0.021	0.0336	DL	
DP	'08-206	25971-008	215622	HASL-300, 4.5.2.3	Potassium-40	2.89	0.488	0.306		
DP	'08-206	25971-008	215622	HASL-300, 4.5.2.3	Radium-226	-0.0488	0.0499	0.0592	DL	
DP	'08-206	25971-008	215622	HASL-300, 4.5.2.3	Sodium-22	-0.0103	0.019	0.0295	DL	
DP	'08-206	25971-008	215622	HASL-300, 4.5.2.3	Thorium-228	0.00993	0.0445	0.0425	DL	
DP	'08-207	25971-009	215622	HASL-300, 4.5.2.3	Beryllium-7	-0.365	0.495	0.801	DL	
DP	'08-207	25971-009	215622	HASL-300, 4.5.2.3	Cesium-137	0.0639	0.031	0.0251		
DP	'08-207	25971-009	215622	HASL-300, 4.5.2.3	Co-60	0.00908	0.0172	0.03	DL	
DP	'08-207	25971-009	215622	HASL-300, 4.5.2.3	Cobalt-57	0.00373	0.0103	0.0179	DL	
DP	'08-207	25971-009	215622	HASL-300, 4.5.2.3	Manganese-54	-0.0051	0.0169	0.0281	DL	
DP	'08-207	25971-009	215622	HASL-300, 4.5.2.3	Potassium-40	3.48	0.605	0.248		
DP	'08-207	25971-009	215622	HASL-300, 4.5.2.3	Radium-226	0.00431	0.0488	0.0581	DL	
DP	'08-207	25971-009	215622	HASL-300, 4.5.2.3	Sodium-22	-0.0012	0.024	0.035	DL	

Appendix J - 2008 Peconic River Fish Samples
Radionuclides

Area	Sample ID	BNL Fish ID or Composite ID[1]	SDG	Method	Analyte	Activity (pCi/g)	Error (pCi/g)	MDL (pCi/g)	Lab Qual.	Rev. Qual.
DP	'08-207	25971-009	215622	HASL-300, 4.5.2.3	Thorium-228	0.00767	0.0365	0.0389	DL	
DP	25971-c1	25971-020	212370	HASL-300, 4.5.2.3	Beryllium-7	0.0931	0.323	0.512	DL	
DP	25971-c1	25971-020	212370	HASL-300, 4.5.2.3	Cesium-137	0.0996	0.0361	0.0324		
DP	25971-c1	25971-020	212370	HASL-300, 4.5.2.3	Co-60	0.00067	0.0248	0.0403	DL	
DP	25971-c1	25971-020	212370	HASL-300, 4.5.2.3	Cobalt-57	0.00811	0.0102	0.0163	DL	
DP	25971-c1	25971-020	212370	HASL-300, 4.5.2.3	Manganese-54	-0.0185	0.0255	0.0387	DL	
DP	25971-c1	25971-020	212370	HASL-300, 4.5.2.3	Potassium-40	2.35	0.59	0.328		
DP	25971-c1	25971-020	212370	HASL-300, 4.5.2.3	Radium-226	0.0131	0.0515	0.0693	DL	
DP	25971-c1	25971-020	212370	HASL-300, 4.5.2.3	Sodium-22	0.00192	0.0211	0.0346	DL	
DP	25971-c1	25971-020	212370	HASL-300, 4.5.2.3	Thorium-228	-0.0074	0.0359	0.0454	DL	
DP	25971-c2	25971-021	212370	HASL-300, 4.5.2.3	Beryllium-7	0.135	0.211	0.348	DL	
DP	25971-c2	25971-021	212370	HASL-300, 4.5.2.3	Cesium-137	0.0576	0.0262	0.0228		
DP	25971-c2	25971-021	212370	HASL-300, 4.5.2.3	Co-60	0.00498	0.0159	0.0267	DL	
DP	25971-c2	25971-021	212370	HASL-300, 4.5.2.3	Cobalt-57	0.00608	0.00969	0.0148	DL	
DP	25971-c2	25971-021	212370	HASL-300, 4.5.2.3	Manganese-54	0.00183	0.0152	0.0249	DL	
DP	25971-c2	25971-021	212370	HASL-300, 4.5.2.3	Potassium-40	2.91	0.485	0.25		
DP	25971-c2	25971-021	212370	HASL-300, 4.5.2.3	Radium-226	0.0147	0.0481	0.0462	DL	
DP	25971-c2	25971-021	212370	HASL-300, 4.5.2.3	Sodium-22	-0.0003	0.0173	0.0285	DL	
DP	25971-c2	25971-021	212370	HASL-300, 4.5.2.3	Thorium-228	0.0124	0.0373	0.0302	DL	

[1] The BNL Fish ID consists of a two digit year ollowed by a dash and the sequence number in which the fish was collected. If If the BNL Fish ID (e.g. 08-68) is not shown in this column then the data is for a compositie of fillets obtained from two or more fish. The composite ID consists of the Chain of Custody(COC) ID followed by a dash, (e.g. 25791-) followed by a one or two letter composite code (c or bc) and a sequence number composite within the given COC. For example, Composite ID 25898-bc4 is the fourth composite of bullhead fillets within COC 25898.

[2] The lab qualifier DL indicates that the detection limits were not met. The data qualityhas not been qualified has not been qualified. UI indicates uncertain identification for gamma spectroscopy. Radionuclide peaks were detected but failed to meet positive identification criteria.

Appendix K - 2003 - 2008 TSS Upstream and Downstream of Sediment Trap

Sample ID	COC Site ID*	Sample Date	Sample Time	Filt.	Method	Analyte	Conc.	MDL	Units	Lab Qual.
16293-001	PR-ST-TU1	3/27/2003	909	U	EPA 160.2	TSS	5.54	0.588	MG/L	
16322-001	PR-ST-TU1	4/4/2003	909	U	EPA 160.2	TSS	3.45	0.527	MG/L	
16335-001	PR-ST-TU1	4/8/2003	1025	U	EPA 160.2	TSS	4.2	0.433	MG/L	
16363-001	PR-ST-TU1	4/18/2003	1034	U	EPA 160.2	TSS	0.7	0.382	MG/L	J
16374-001	PR-ST-TU1	4/22/2003	1420	U	EPA 160.2	TSS	1.9	0.382	MG/L	J
16408-001	PR-ST-TU1	5/2/2003	1400	U	EPA 160.2	TSS	0.833	0.398	MG/L	J
16428-001	PR-ST-TU1	5/8/2003	1105	U	EPA 160.2	TSS	4	0.382	MG/L	
16671-001	PR-ST-TU1	5/16/2003	1023	U	EPA 160.2	TSS	0.686	0.374	MG/L	J
17013-001	PR-ST-TU1	5/22/2003	1048	U	EPA 160.2	TSS	0.8	0.382	MG/L	J
17025-001	PR-ST-TU1	5/30/2003	1038	U	EPA 160.2	TSS	1	0.382	MG/L	J
17042-001	PR-ST-TU1	6/4/2003	1137	U	EPA 160.2	TSS	1.3	0.382	MG/L	J
17075-001	PR-ST-TU1	6/13/2003	1005	U	EPA 160.2	TSS	0.704	0.384	MG/L	J
17085-001	PR-ST-TU1	6/18/2003	1335	U	EPA 160.2	TSS	0.635	0.404	MG/L	J
17104-001	PR-ST-TU1	6/27/2003	1024	U	EPA 160.2	TSS	1.1	0.382	MG/L	HJ
17121-001	PR-ST-TU1	7/2/2003	934	U	EPA 160.2	TSS	0.6	0.382	MG/L	J
17145-001	PR-ST-TU1	7/11/2003	1047	U	EPA 160.2	TSS	2	0.424	MG/L	J
17175-001	PR-ST-TU1	7/18/2003	916	U	EPA 160.2	TSS	1.6	0.382	MG/L	J
17199-001	PR-ST-TU1	7/24/2003	940	U	EPA 160.2	TSS	1.5	0.382	MG/L	J
17229-001	PR-ST-TU1	8/1/2003	835	U	EPA 160.2	TSS	0.7	0.382	MG/L	J
17248-001	PR-ST-TU1	8/8/2003	1030	U	EPA 160.2	TSS	1.8	0.382	MG/L	J
17257-001	PR-ST-TU1	8/12/2003	808	U	EPA 160.2	TSS	6.8	0.764	MG/L	
17536-001	PR-ST-TU1	8/22/2003	1106	U	EPA 160.2	TSS	2.66	0.483	MG/L	J
17548-001	PR-ST-TU1	8/27/2003	743	U	EPA 160.2	TSS	4.13	0.477	MG/L	
17566-001	PR-ST-TU1	9/3/2003	1106	U	EPA 160.2	TSS	0.9	0.382	MG/L	J
17605-001	PR-ST-TU1	9/12/2003	910	U	EPA 160.2	TSS	4.21	0.402	MG/L	
17618-001	PR-ST-TU1	9/16/2003	1038	U	EPA 160.2	TSS	2.3	0.382	MG/L	J
17648-001	PR-ST-TU1	9/26/2003	852	U	EPA 160.2	TSS	3.75	0.398	MG/L	
17668-001	PR-ST-TU1	10/3/2003	1018	U	EPA 160.2	TSS	3	0.382	MG/L	
17693-001	PR-ST-TU1	10/10/2003	1014	U	EPA 160.2	TSS	4.6	0.382	MG/L	
17710-001	PR-ST-TU1	10/15/2003	1034	U	EPA 160.2	TSS	1.9	0.382	MG/L	J
17739-001	PR-ST-TU1	10/27/2003	1358	U	EPA 160.2	TSS	5.96	0.386	MG/L	
17782-001	PR-ST-TU1	11/5/2003	942	U	160.2	TSS	2	1	MG/L	
17496-001	PR-ST-TU1	11/12/2003	1020	U	160.2	TSS	11	1	MG/L	
17521-001	PR-ST-TU1	11/21/2003	815	U	160.2	TSS	20	1	MG/L	
18303-001	PR-ST-TU1	11/26/2003	1000	U	160.2	TSS	18	1	MG/L	
18322-001	PR-ST-TU1	12/4/2003	924	U	160.2	TSS	14	1	MG/L	
18341-001	PR-ST-TU1	12/11/2003	1038	U	160.2	TSS	2	1	MG/L	
18361-001	PR-ST-TU1	12/18/2003	1028	U	160.2	TSS	5	1	MG/L	
18378-001	PR-ST-TU1	12/26/2003	926	U	160.2	TSS	1	1	MG/L	U
18385-001	PR-ST-TU1	12/31/2003	913	U	160.2	TSS	4	1	MG/L	
18410-001	PR-ST-TU1	1/7/2004	925	U	160.2	TSS	7	1	MG/L	
18427-001	PR-ST-TU1	1/12/2004	1016	U	160.2	TSS	17	1	MG/L	
18496-001	PR-ST-TU1	2/5/2004	1103	U	160.2	TSS	19	1	MG/L	
18515-001	PR-ST-TU1	2/13/2004	1018	U	160.2	TSS	6	1	MG/L	
18526-001	PR-ST-TU1	2/20/2004	1056	U	160.2	TSS	4	1	MG/L	
18600-001	PR-ST-TU1	2/25/2004	1030	U	160.2	TSS	3	1	MG/L	

Appendix K - 2003 - 2008 TSS Upstream and Downstream of Sediment Trap

Sample ID	COC Site ID*	Sample Date	Sample Time	Filt.	Method	Analyte	Conc.	MDL	Units	Lab Qual.
18802-001	PR-ST-TU1	3/4/2004	1050	U	160.2	TSS	4	1	MG/L	
18809-001	PR-ST-TU1	3/8/2004	1022	U	160.2	TSS	1	1	MG/L	U
18836-001	PR-ST-TU1	3/17/2004	956	U	160.2	TSS	5	1	MG/L	
18855-001	PR-ST-TU1	3/26/2004	1054	U	160.2	TSS	11	1	MG/L	
18878-001	PR-ST-TU1	3/31/2004	1038	U	160.2	TSS	7	1	MG/L	
18902-001	PR-ST-TU1	4/9/2004	1004	U	160.2	TSS	2	1	MG/L	
18921-001	PR-ST-TU1	4/23/2004	1005	U	160.2	TSS	4	1	MG/L	
18949-001	PR-ST-TU1	4/27/2004	842	U	160.2	TSS	3	1	MG/L	
18988-001	PR-ST-TU1	5/7/2004	950	U	160.2	TSS	4	1	MG/L	
19001-001	PR-ST-TU1	5/12/2004	1035	U	160.2	TSS	9	1	MG/L	
19032-001	PR-ST-TU1	5/21/2004	1404	U	160.2	TSS	14	1	MG/L	J
19314-001	PR-ST-TU1	5/25/2004	1346	U	EPA 160.2	TSS	4.28	0.5	MG/L	
19345-001	PR-ST-TU1	6/3/2004	946	U	EPA 160.2	TSS	21.2	0.5	MG/L	
19372-001	PR-ST-TU1	6/11/2004	1040	U	160.2	TSS	17	1	MG/L	
19391-001	PR-ST-TU1	6/17/2004	1040	U	EPA 160.2	TSS	24.8	0.5	MG/L	
16293-002	PR-ST-TU2	3/27/2003	914	U	EPA 160.2	TSS	8.67	0.849	MG/L	
16322-002	PR-ST-TU2	4/4/2003	914	U	EPA 160.2	TSS	3.33	0.509	MG/L	
16335-002	PR-ST-TU2	4/8/2003	1026	U	EPA 160.2	TSS	11.2	0.637	MG/L	
16363-002	PR-ST-TU2	4/18/2003	1037	U	EPA 160.2	TSS	1	0.382	MG/L	J
16374-002	PR-ST-TU2	4/22/2003	1422	U	EPA 160.2	TSS	1.6	0.382	MG/L	J
16408-002	PR-ST-TU2	5/2/2003	1402	U	EPA 160.2	TSS	1.44	0.392	MG/L	J
16428-002	PR-ST-TU2	5/8/2003	1108	U	EPA 160.2	TSS	1.12	0.39	MG/L	J
16671-002	PR-ST-TU2	5/16/2003	1025	U	EPA 160.2	TSS	0.495	0.378	MG/L	J
17013-002	PR-ST-TU2	5/22/2003	1050	U	EPA 160.2	TSS	0.8	0.382	MG/L	J
17025-002	PR-ST-TU2	5/30/2003	1039	U	EPA 160.2	TSS	0.7	0.382	MG/L	J
17042-002	PR-ST-TU2	6/4/2003	1139	U	EPA 160.2	TSS	1.4	0.382	MG/L	J
17075-002	PR-ST-TU2	6/13/2003	1007	U	EPA 160.2	TSS	0.733	0.4	MG/L	J
17085-002	PR-ST-TU2	6/18/2003	1337	U	EPA 160.2	TSS	0.714	0.39	MG/L	J
17104-002	PR-ST-TU2	6/27/2003	1028	U	EPA 160.2	TSS	1.2	0.382	MG/L	HJ
17121-002	PR-ST-TU2	7/2/2003	936	U	EPA 160.2	TSS	1.3	0.382	MG/L	J
17145-002	PR-ST-TU2	7/11/2003	1049	U	EPA 160.2	TSS	1.76	0.449	MG/L	J
17175-002	PR-ST-TU2	7/18/2003	918	U	EPA 160.2	TSS	1.3	0.382	MG/L	J
17199-002	PR-ST-TU2	7/24/2003	942	U	EPA 160.2	TSS	1.6	0.382	MG/L	J
17229-002	PR-ST-TU2	8/1/2003	837	U	EPA 160.2	TSS	1.3	0.382	MG/L	J
17248-002	PR-ST-TU2	8/8/2003	1032	U	EPA 160.2	TSS	1.68	0.402	MG/L	J
17257-002	PR-ST-TU2	8/12/2003	810	U	EPA 160.2	TSS	28.6	1.09	MG/L	
17536-002	PR-ST-TU2	8/22/2003	1108	U	EPA 160.2	TSS	3.53	0.562	MG/L	J
17548-002	PR-ST-TU2	8/27/2003	747	U	EPA 160.2	TSS	1.9	0.382	MG/L	J
17566-002	PR-ST-TU2	9/3/2003	1108	U	EPA 160.2	TSS	1.3	0.382	MG/L	J
17605-002	PR-ST-TU2	9/12/2003	912	U	EPA 160.2	TSS	0.5	0.382	MG/L	J
17618-002	PR-ST-TU2	9/16/2003	1040	U	EPA 160.2	TSS	24.1	0.432	MG/L	
17648-002	PR-ST-TU2	9/26/2003	855	U	EPA 160.2	TSS	2.55	0.39	MG/L	
17668-002	PR-ST-TU2	10/3/2003	1020	U	EPA 160.2	TSS	1.7	0.382	MG/L	J
17693-002	PR-ST-TU2	10/10/2003	1016	U	EPA 160.2	TSS	1.83	0.388	MG/L	J
17710-002	PR-ST-TU2	10/15/2003	1036	U	EPA 160.2	TSS	8.2	0.382	MG/L	
17739-002	PR-ST-TU2	10/27/2003	1359	U	EPA 160.2	TSS	8.09	0.417	MG/L	

Appendix K - 2003 - 2008 TSS Upstream and Downstream of Sediment Trap

Sample ID	COC Site ID*	Sample Date	Sample Time	Filt.	Method	Analyte	Conc.	MDL	Units	Lab Qual.
17782-002	PR-ST-TU2	11/5/2003	944	U	160.2	TSS	1	1	MG/L	U
17496-002	PR-ST-TU2	11/12/2003	1022	U	160.2	TSS	14	1	MG/L	
17521-002	PR-ST-TU2	11/21/2003	818	U	160.2	TSS	54	1	MG/L	
18303-002	PR-ST-TU2	11/26/2003	1002	U	160.2	TSS	13	1	MG/L	
18322-002	PR-ST-TU2	12/4/2003	926	U	160.2	TSS	3	1	MG/L	
18341-002	PR-ST-TU2	12/11/2003	1039	U	160.2	TSS	36	1	MG/L	
18361-002	PR-ST-TU2	12/18/2003	1029	U	160.2	TSS	1	1	MG/L	U
18378-002	PR-ST-TU2	12/26/2003	928	U	160.2	TSS	1	1	MG/L	U
18385-002	PR-ST-TU2	12/31/2003	914	U	160.2	TSS	6	1	MG/L	
18410-002	PR-ST-TU2	1/7/2004	926	U	160.2	TSS	11	1	MG/L	
18427-002	PR-ST-TU2	1/12/2004	1018	U	160.2	TSS	12	1	MG/L	
18496-002	PR-ST-TU2	2/5/2004	1105	U	160.2	TSS	5	1	MG/L	
18515-002	PR-ST-TU2	2/13/2004	1020	U	160.2	TSS	1	1	MG/L	
18526-002	PR-ST-TU2	2/20/2004	1058	U	160.2	TSS	1	1	MG/L	U
18600-002	PR-ST-TU2	2/25/2004	1032	U	160.2	TSS	3	1	MG/L	
18802-002	PR-ST-TU2	3/4/2004	1052	U	160.2	TSS	6	1	MG/L	
18809-002	PR-ST-TU2	3/8/2004	1024	U	160.2	TSS	3	1	MG/L	
18836-002	PR-ST-TU2	3/17/2004	958	U	160.2	TSS	2	1	MG/L	
18855-002	PR-ST-TU2	3/26/2004	1056	U	160.2	TSS	1	1	MG/L	
18878-002	PR-ST-TU2	3/31/2004	1040	U	160.2	TSS	9	1	MG/L	
18902-002	PR-ST-TU2	4/9/2004	1006	U	160.2	TSS	2	1	MG/L	
18921-002	PR-ST-TU2	4/23/2004	1007	U	160.2	TSS	1	1	MG/L	
18949-002	PR-ST-TU2	4/27/2004	844	U	160.2	TSS	4	1	MG/L	
18988-002	PR-ST-TU2	5/7/2004	952	U	160.2	TSS	2	1	MG/L	
19001-002	PR-ST-TU2	5/12/2004	1037	U	160.2	TSS	4	1	MG/L	
19032-002	PR-ST-TU2	5/21/2004	1406	U	160.2	TSS	32	1	MG/L	J
19314-002	PR-ST-TU2	5/25/2004	1348	U	EPA 160.2	TSS	5.69	0.5	MG/L	
19345-002	PR-ST-TU2	6/3/2004	948	U	EPA 160.2	TSS	0.91	0.5	MG/L	B
19372-002	PR-ST-TU2	6/11/2004	1042	U	160.2	TSS	16	1	MG/L	
19391-002	PR-ST-TU2	6/17/2004	1042	U	EPA 160.2	TSS	105	0.5	MG/L	
22450-002	PR-ST-TU2	3/24/2006	955	U	160.2	TSS	5	1	MG/L	
22501-001	PR-ST-TU2	4/7/2006	1015	U	160.2	TSS	56	1	MG/L	
22579-001	PR-ST-TU2	4/21/2006	856	U	160.2	TSS	3	1	MG/L	
22647-001	PR-ST-TU2	5/12/2006	1500	U	160.2	TSS	6	1	MG/L	
22683-001	PR-ST-TU2	5/26/2006	1100	U	160.2	TSS	3	1	MG/L	
22871-001	PR-ST-TU2	6/23/2006	1040	U	160.2	TSS	4	1	MG/L	
22912-001	PR-ST-TU2	7/7/2006	825	U	160.2	TSS	4	1	MG/L	
16293-003	PR-ST-TU3	3/27/2003	916	U	EPA 160.2	TSS	4.55	0.694	MG/L	
16322-003	PR-ST-TU3	4/4/2003	917	U	EPA 160.2	TSS	4.13	0.509	MG/L	
16335-003	PR-ST-TU3	4/8/2003	1027	U	EPA 160.2	TSS	20.3	0.955	MG/L	
16363-003	PR-ST-TU3	4/18/2003	1039	U	EPA 160.2	TSS	1.3	0.382	MG/L	J
16374-003	PR-ST-TU3	4/22/2003	1424	U	EPA 160.2	TSS	4.5	0.382	MG/L	
16408-003	PR-ST-TU3	5/2/2003	1404	U	EPA 160.2	TSS	4.29	0.39	MG/L	
16428-003	PR-ST-TU3	5/8/2003	1111	U	EPA 160.2	TSS	0.711	0.388	MG/L	J
16671-003	PR-ST-TU3	5/16/2003	1027	U	EPA 160.2	TSS	0.392	0.374	MG/L	J
17013-003	PR-ST-TU3	5/22/2003	1052	U	EPA 160.2	TSS	0.382	0.382	MG/L	U

Appendix K - 2003 - 2008 TSS Upstream and Downstream of Sediment Trap

Sample ID	COC Site ID*	Sample Date	Sample Time	Filt.	Method	Analyte	Conc.	MDL	Units	Lab Qual.
17025-003	PR-ST-TU3	5/30/2003	1042	U	EPA 160.2	TSS	0.7	0.382	MG/L	J
17042-003	PR-ST-TU3	6/4/2003	1141	U	EPA 160.2	TSS	0.905	0.384	MG/L	J
17075-003	PR-ST-TU3	6/13/2003	1009	U	EPA 160.2	TSS	1.44	0.394	MG/L	J
17085-003	PR-ST-TU3	6/18/2003	1341	U	EPA 160.2	TSS	0.745	0.406	MG/L	J
17104-003	PR-ST-TU3	6/27/2003	1030	U	EPA 160.2	TSS	0.7	0.382	MG/L	HJ
17121-003	PR-ST-TU3	7/2/2003	938	U	EPA 160.2	TSS	1.2	0.382	MG/L	J
17145-003	PR-ST-TU3	7/11/2003	1051	U	EPA 160.2	TSS	2.4	0.509	MG/L	J
17175-003	PR-ST-TU3	7/18/2003	920	U	EPA 160.2	TSS	2.1	0.382	MG/L	J
17199-003	PR-ST-TU3	7/24/2003	944	U	EPA 160.2	TSS	1.3	0.382	MG/L	J
17229-003	PR-ST-TU3	8/1/2003	839	U	EPA 160.2	TSS	0.619	0.394	MG/L	J
17248-003	PR-ST-TU3	8/8/2003	1034	U	EPA 160.2	TSS	2.17	0.637	MG/L	J
17257-003	PR-ST-TU3	8/12/2003	812	U	EPA 160.2	TSS	10.8	0.796	MG/L	
17536-003	PR-ST-TU3	8/22/2003	1110	U	EPA 160.2	TSS	1.73	0.509	MG/L	J
17548-003	PR-ST-TU3	8/27/2003	750	U	EPA 160.2	TSS	6.13	0.509	MG/L	
17566-003	PR-ST-TU3	9/3/2003	1110	U	EPA 160.2	TSS	1.3	0.382	MG/L	J
17605-003	PR-ST-TU3	9/12/2003	914	U	EPA 160.2	TSS	1	0.382	MG/L	J
17618-003	PR-ST-TU3	9/16/2003	1042	U	EPA 160.2	TSS	22.8	0.486	MG/L	
17648-003	PR-ST-TU3	9/26/2003	905	U	EPA 160.2	TSS	18.4	0.388	MG/L	
17668-003	PR-ST-TU3	10/3/2003	1022	U	EPA 160.2	TSS	1	0.382	MG/L	J
17693-003	PR-ST-TU3	10/10/2003	1018	U	EPA 160.2	TSS	8.9	0.382	MG/L	
17710-003	PR-ST-TU3	10/15/2003	1038	U	EPA 160.2	TSS	16.9	0.382	MG/L	
17739-003	PR-ST-TU3	10/27/2003	1400	U	EPA 160.2	TSS	1.44	0.424	MG/L	J
17782-003	PR-ST-TU3	11/5/2003	946	U	160.2	TSS	1	1	MG/L	U
17496-003	PR-ST-TU3	11/12/2003	1024	U	160.2	TSS	8	1	MG/L	
17521-003	PR-ST-TU3	11/21/2003	820	U	160.2	TSS	13	1	MG/L	
18303-003	PR-ST-TU3	11/26/2003	1006	U	160.2	TSS	10	1	MG/L	
18322-003	PR-ST-TU3	12/4/2003	928	U	160.2	TSS	1	1	MG/L	U
18341-003	PR-ST-TU3	12/11/2003	1040	U	160.2	TSS	4	1	MG/L	
18361-003	PR-ST-TU3	12/18/2003	1030	U	160.2	TSS	1	1	MG/L	U
18378-003	PR-ST-TU3	12/26/2003	930	U	160.2	TSS	1	1	MG/L	U
18385-003	PR-ST-TU3	12/31/2003	915	U	160.2	TSS	1	1	MG/L	U
18410-003	PR-ST-TU3	1/7/2004	927	U	160.2	TSS	3	1	MG/L	
18427-003	PR-ST-TU3	1/12/2004	1020	U	160.2	TSS	38	1	MG/L	
18496-003	PR-ST-TU3	2/5/2004	1107	U	160.2	TSS	44	1	MG/L	
18515-003	PR-ST-TU3	2/13/2004	1022	U	160.2	TSS	4	1	MG/L	
18526-003	PR-ST-TU3	2/20/2004	1100	U	160.2	TSS	1	1	MG/L	
18600-003	PR-ST-TU3	2/25/2004	1034	U	160.2	TSS	2	1	MG/L	
18802-003	PR-ST-TU3	3/4/2004	1054	U	160.2	TSS	1	1	MG/L	U
18809-003	PR-ST-TU3	3/8/2004	1026	U	160.2	TSS	2	1	MG/L	
18836-003	PR-ST-TU3	3/17/2004	1000	U	160.2	TSS	2	1	MG/L	
18855-003	PR-ST-TU3	3/26/2004	1058	U	160.2	TSS	4	1	MG/L	
18878-003	PR-ST-TU3	3/31/2004	1042	U	160.2	TSS	5	1	MG/L	
18902-003	PR-ST-TU3	4/9/2004	1008	U	160.2	TSS	1	1	MG/L	U
18921-003	PR-ST-TU3	4/23/2004	1009	U	160.2	TSS	3	1	MG/L	
18949-003	PR-ST-TU3	4/27/2004	846	U	160.2	TSS	1	1	MG/L	U
18988-003	PR-ST-TU3	5/7/2004	954	U	160.2	TSS	2	1	MG/L	

Appendix K - 2003 - 2008 TSS Upstream and Downstream of Sediment Trap

Sample ID	COC Site ID*	Sample Date	Sample Time	Filt.	Method	Analyte	Conc.	MDL	Units	Lab Qual.
19001-003	PR-ST-TU3	5/12/2004	1039	U	160.2	TSS	2	1	MG/L	
19032-003	PR-ST-TU3	5/21/2004	1408	U	160.2	TSS	38	1	MG/L	J
19314-003	PR-ST-TU3	5/25/2004	1350	U	EPA 160.2	TSS	5.1	0.5	MG/L	
19345-003	PR-ST-TU3	6/3/2004	950	U	EPA 160.2	TSS	206	0.5	MG/L	
19372-003	PR-ST-TU3	6/11/2004	1044	U	160.2	TSS	6	1	MG/L	
19391-003	PR-ST-TU3	6/17/2004	1044	U	EPA 160.2	TSS	99.2	0.5	MG/L	
16293-004	PR-ST-TU4	3/27/2003	907	U	EPA 160.2	TSS	6.18	0.694	MG/L	
16322-004	PR-ST-TU4	4/4/2003	911	U	EPA 160.2	TSS	12.3	0.588	MG/L	
16335-004	PR-ST-TU4	4/8/2003	1030	U	EPA 160.2	TSS	22.3	0.955	MG/L	
16363-004	PR-ST-TU4	4/18/2003	1050	U	EPA 160.2	TSS	1.1	0.382	MG/L	J
16374-004	PR-ST-TU4	4/22/2003	1426	U	EPA 160.2	TSS	2.2	0.382	MG/L	J
16408-004	PR-ST-TU4	5/2/2003	1406	U	EPA 160.2	TSS	2.22	0.404	MG/L	J
16428-004	PR-ST-TU4	5/8/2003	1113	U	EPA 160.2	TSS	1.66	0.396	MG/L	J
16671-004	PR-ST-TU4	5/16/2003	1029	U	EPA 160.2	TSS	5.29	0.374	MG/L	
17013-004	PR-ST-TU4	5/22/2003	1054	U	EPA 160.2	TSS	3.3	0.382	MG/L	
17025-004	PR-ST-TU4	5/30/2003	1045	U	EPA 160.2	TSS	2.8	0.382	MG/L	
17042-004	PR-ST-TU4	6/4/2003	1143	U	EPA 160.2	TSS	0.816	0.39	MG/L	J
17075-004	PR-ST-TU4	6/13/2003	1011	U	EPA 160.2	TSS	1.25	0.398	MG/L	J
17085-004	PR-ST-TU4	6/18/2003	1342	U	EPA 160.2	TSS	0.909	0.386	MG/L	J
17104-004	PR-ST-TU4	6/27/2003	1033	U	EPA 160.2	TSS	5.87	0.509	MG/L	H
17121-004	PR-ST-TU4	7/2/2003	940	U	EPA 160.2	TSS	1.2	0.382	MG/L	J
17145-004	PR-ST-TU4	7/11/2003	1053	U	EPA 160.2	TSS	2.4	0.509	MG/L	J
17175-004	PR-ST-TU4	7/18/2003	922	U	EPA 160.2	TSS	1.56	0.424	MG/L	J
17199-004	PR-ST-TU4	7/24/2003	946	U	EPA 160.2	TSS	3	0.382	MG/L	
17229-004	PR-ST-TU4	8/1/2003	841	U	EPA 160.2	TSS	11.6	0.509	MG/L	
17248-004	PR-ST-TU4	8/8/2003	1036	U	EPA 160.2	TSS	1.68	0.493	MG/L	J
17257-004	PR-ST-TU4	8/12/2003	814	U	EPA 160.2	TSS	44.5	1.91	MG/L	
17536-004	PR-ST-TU4	8/22/2003	1112	U	EPA 160.2	TSS	6.94	0.53	MG/L	
17548-004	PR-ST-TU4	8/27/2003	757	U	EPA 160.2	TSS	9.6	0.509	MG/L	
17566-004	PR-ST-TU4	9/3/2003	1112	U	EPA 160.2	TSS	16.3	0.637	MG/L	
17605-004	PR-ST-TU4	9/12/2003	916	U	EPA 160.2	TSS	35.4	0.764	MG/L	
17618-004	PR-ST-TU4	9/16/2003	1044	U	EPA 160.2	TSS	22	0.382	MG/L	
17648-004	PR-ST-TU4	9/26/2003	847	U	EPA 160.2	TSS	17.6	0.764	MG/L	
17668-004	PR-ST-TU4	10/3/2003	1024	U	EPA 160.2	TSS	51	1.27	MG/L	
17693-004	PR-ST-TU4	10/10/2003	1020	U	EPA 160.2	TSS	41.6	0.764	MG/L	
17710-004	PR-ST-TU4	10/15/2003	1040	U	EPA 160.2	TSS	8.3	0.382	MG/L	
17739-004	PR-ST-TU4	10/27/2003	1401	U	EPA 160.2	TSS	6.15	0.42	MG/L	
17782-004	PR-ST-TU4	11/5/2003	948	U	160.2	TSS	2	1	MG/L	
17496-004	PR-ST-TU4	11/12/2003	1026	U	160.2	TSS	14	1	MG/L	
17521-004	PR-ST-TU4	11/21/2003	823	U	160.2	TSS	288	1	MG/L	
18303-004	PR-ST-TU4	11/26/2003	1008	U	160.2	TSS	368	1	MG/L	
18322-004	PR-ST-TU4	12/4/2003	930	U	160.2	TSS	284	1	MG/L	
18341-004	PR-ST-TU4	12/11/2003	1041	U	160.2	TSS	68	1	MG/L	
18361-004	PR-ST-TU4	12/18/2003	1031	U	160.2	TSS	1	1	MG/L	U
18378-004	PR-ST-TU4	12/26/2003	932	U	160.2	TSS	5	1	MG/L	
18385-004	PR-ST-TU4	12/31/2003	916	U	160.2	TSS	7	1	MG/L	

Appendix K - 2003 - 2008 TSS Upstream and Downstream of Sediment Trap

Sample ID	COC Site ID*	Sample Date	Sample Time	Filt.	Method	Analyte	Conc.	MDL	Units	Lab Qual.
18410-004	PR-ST-TU4	1/7/2004	928	U	160.2	TSS	339	1	MG/L	
18427-004	PR-ST-TU4	1/12/2004	1023	U	160.2	TSS	496	1	MG/L	
18496-004	PR-ST-TU4	2/5/2004	1109	U	160.2	TSS	63	1	MG/L	
18515-004	PR-ST-TU4	2/13/2004	1024	U	160.2	TSS	471	1	MG/L	
18526-004	PR-ST-TU4	2/20/2004	1102	U	160.2	TSS	60	1	MG/L	
18600-004	PR-ST-TU4	2/25/2004	1036	U	160.2	TSS	4	1	MG/L	
18802-004	PR-ST-TU4	3/4/2004	1056	U	160.2	TSS	4	1	MG/L	
18809-004	PR-ST-TU4	3/8/2004	1028	U	160.2	TSS	77	1	MG/L	
18836-004	PR-ST-TU4	3/17/2004	1002	U	160.2	TSS	205	1	MG/L	
18855-004	PR-ST-TU4	3/26/2004	1100	U	160.2	TSS	74	1	MG/L	
18878-004	PR-ST-TU4	3/31/2004	1044	U	160.2	TSS	2	1	MG/L	
18902-004	PR-ST-TU4	4/9/2004	1010	U	160.2	TSS	3	1	MG/L	
18921-004	PR-ST-TU4	4/23/2004	1011	U	160.2	TSS	2	1	MG/L	
18949-004	PR-ST-TU4	4/27/2004	848	U	160.2	TSS	1	1	MG/L	
18988-004	PR-ST-TU4	5/7/2004	956	U	160.2	TSS	20	1	MG/L	
19001-004	PR-ST-TU4	5/12/2004	1042	U	160.2	TSS	5	1	MG/L	
19032-004	PR-ST-TU4	5/21/2004	1410	U	160.2	TSS	25	1	MG/L	J
19314-004	PR-ST-TU4	5/25/2004	1352	U	EPA 160.2	TSS	168	0.5	MG/L	
19345-004	PR-ST-TU4	6/3/2004	952	U	EPA 160.2	TSS	257	0.5	MG/L	
19372-004	PR-ST-TU4	6/11/2004	1046	U	160.2	TSS	199	1	MG/L	
19391-004	PR-ST-TU4	6/17/2004	1046	U	EPA 160.2	TSS	383	0.5	MG/L	
22501-002	PR-ST-TU4	4/7/2006	1017	U	160.2	TSS	235	1	MG/L	
22579-002	PR-ST-TU4	4/21/2006	858	U	160.2	TSS	9	1	MG/L	
22647-002	PR-ST-TU4	5/12/2006	1502	U	160.2	TSS	4	1	MG/L	
22683-002	PR-ST-TU4	5/26/2006	1102	U	160.2	TSS	15	1	MG/L	
22871-002	PR-ST-TU4	6/23/2006	1041	U	160.2	TSS	3	1	MG/L	
22912-002	PR-ST-TU4	7/7/2006	827	U	160.2	TSS	7	1	MG/L	
16293-005	PR-ST-TU5	3/27/2003	908	U	EPA 160.2	TSS	7.8	0.764	MG/L	
16322-005	PR-ST-TU5	4/4/2003	922	U	EPA 160.2	TSS	4.57	0.546	MG/L	
16335-005	PR-ST-TU5	4/8/2003	1031	U	EPA 160.2	TSS	10.3	0.546	MG/L	
16363-005	PR-ST-TU5	4/18/2003	1046	U	EPA 160.2	TSS	1.3	0.382	MG/L	J
16374-005	PR-ST-TU5	4/22/2003	1428	U	EPA 160.2	TSS	1.1	0.382	MG/L	J
16408-005	PR-ST-TU5	5/2/2003	1408	U	EPA 160.2	TSS	1.56	0.398	MG/L	J
16428-005	PR-ST-TU5	5/8/2003	1115	U	EPA 160.2	TSS	1.64	0.392	MG/L	J
16671-005	PR-ST-TU5	5/16/2003	1031	U	EPA 160.2	TSS	0.928	0.394	MG/L	J
17013-005	PR-ST-TU5	5/22/2003	1056	U	EPA 160.2	TSS	2	0.382	MG/L	J
17025-005	PR-ST-TU5	5/30/2003	1048	U	EPA 160.2	TSS	1.8	0.382	MG/L	J
17042-005	PR-ST-TU5	6/4/2003	1145	U	EPA 160.2	TSS	1.74	0.392	MG/L	J
17075-005	PR-ST-TU5	6/13/2003	1013	U	EPA 160.2	TSS	2.74	0.388	MG/L	
17085-005	PR-ST-TU5	6/18/2003	1331	U	EPA 160.2	TSS	0.6	0.382	MG/L	J
17104-005	PR-ST-TU5	6/27/2003	1040	U	EPA 160.2	TSS	6.4	0.509	MG/L	H
17121-005	PR-ST-TU5	7/2/2003	942	U	EPA 160.2	TSS	3.9	0.382	MG/L	
17145-005	PR-ST-TU5	7/11/2003	1055	U	EPA 160.2	TSS	2.91	0.694	MG/L	J
17175-005	PR-ST-TU5	7/18/2003	924	U	EPA 160.2	TSS	3.33	0.424	MG/L	
17199-005	PR-ST-TU5	7/24/2003	948	U	EPA 160.2	TSS	2.8	0.382	MG/L	
17229-005	PR-ST-TU5	8/1/2003	843	U	EPA 160.2	TSS	1.9	0.382	MG/L	J

Appendix K - 2003 - 2008 TSS Upstream and Downstream of Sediment Trap

Sample ID	COC Site ID*	Sample Date	Sample Time	Filt.	Method	Analyte	Conc.	MDL	Units	Lab Qual.
17248-005	PR-ST-TU5	8/8/2003	1038	U	EPA 160.2	TSS	1.9	0.382	MG/L	J
17257-005	PR-ST-TU5	8/12/2003	816	U	EPA 160.2	TSS	18.9	1.09	MG/L	
17536-005	PR-ST-TU5	8/22/2003	1114	U	EPA 160.2	TSS	2.72	0.471	MG/L	J
17548-005	PR-ST-TU5	8/27/2003	755	U	EPA 160.2	TSS	10.4	0.477	MG/L	
17566-005	PR-ST-TU5	9/3/2003	1114	U	EPA 160.2	TSS	1.3	0.382	MG/L	J
17605-005	PR-ST-TU5	9/12/2003	918	U	EPA 160.2	TSS	6	0.382	MG/L	
17618-005	PR-ST-TU5	9/16/2003	1046	U	EPA 160.2	TSS	11.1	0.382	MG/L	
17648-005	PR-ST-TU5	9/26/2003	858	U	EPA 160.2	TSS	17.5	0.637	MG/L	
17668-005	PR-ST-TU5	10/3/2003	1026	U	EPA 160.2	TSS	3.1	0.382	MG/L	
17693-005	PR-ST-TU5	10/10/2003	1022	U	EPA 160.2	TSS	1.4	0.382	MG/L	J
17710-005	PR-ST-TU5	10/15/2003	1042	U	EPA 160.2	TSS	1.9	0.382	MG/L	J
17739-005	PR-ST-TU5	10/27/2003	1402	U	EPA 160.2	TSS	3.2	0.422	MG/L	
17782-005	PR-ST-TU5	11/5/2003	950	U	160.2	TSS	1	1	MG/L	
17496-005	PR-ST-TU5	11/12/2003	1028	U	160.2	TSS	14	1	MG/L	
17521-005	PR-ST-TU5	11/21/2003	825	U	160.2	TSS	6	1	MG/L	
18303-005	PR-ST-TU5	11/26/2003	1010	U	160.2	TSS	5	1	MG/L	
18322-005	PR-ST-TU5	12/4/2003	932	U	160.2	TSS	5	1	MG/L	
18341-005	PR-ST-TU5	12/11/2003	1042	U	160.2	TSS	1	1	MG/L	U
18361-005	PR-ST-TU5	12/18/2003	1032	U	160.2	TSS	2	1	MG/L	
18378-005	PR-ST-TU5	12/26/2003	934	U	160.2	TSS	40	1	MG/L	
18385-005	PR-ST-TU5	12/31/2003	917	U	160.2	TSS	1	1	MG/L	
18410-005	PR-ST-TU5	1/7/2004	929	U	160.2	TSS	6	1	MG/L	
18427-005	PR-ST-TU5	1/12/2004	1025	U	160.2	TSS	6	1	MG/L	
18496-005	PR-ST-TU5	2/5/2004	1111	U	160.2	TSS	8	1	MG/L	
18515-005	PR-ST-TU5	2/13/2004	1026	U	160.2	TSS	6	1	MG/L	
18526-005	PR-ST-TU5	2/20/2004	1104	U	160.2	TSS	2	1	MG/L	
18600-005	PR-ST-TU5	2/25/2004	1038	U	160.2	TSS	134	1	MG/L	
18802-005	PR-ST-TU5	3/4/2004	1058	U	160.2	TSS	1	1	MG/L	U
18809-005	PR-ST-TU5	3/8/2004	1030	U	160.2	TSS	3	1	MG/L	
18836-005	PR-ST-TU5	3/17/2004	1004	U	160.2	TSS	6	1	MG/L	
18855-005	PR-ST-TU5	3/26/2004	1102	U	160.2	TSS	13	1	MG/L	
18878-005	PR-ST-TU5	3/31/2004	1046	U	160.2	TSS	6	1	MG/L	
18902-005	PR-ST-TU5	4/9/2004	1012	U	160.2	TSS	2	1	MG/L	
18921-005	PR-ST-TU5	4/23/2004	1013	U	160.2	TSS	3	1	MG/L	
18949-005	PR-ST-TU5	4/27/2004	850	U	160.2	TSS	1	1	MG/L	
18988-005	PR-ST-TU5	5/7/2004	958	U	160.2	TSS	1	1	MG/L	U
19001-005	PR-ST-TU5	5/12/2004	1044	U	160.2	TSS	8	1	MG/L	
19032-005	PR-ST-TU5	5/21/2004	1412	U	160.2	TSS	121	1	MG/L	J
19314-005	PR-ST-TU5	5/25/2004	1354	U	EPA 160.2	TSS	3.86	0.5	MG/L	
19345-005	PR-ST-TU5	6/3/2004	954	U	EPA 160.2	TSS	10.6	0.5	MG/L	
19372-005	PR-ST-TU5	6/11/2004	1048	U	160.2	TSS	15	1	MG/L	
19391-005	PR-ST-TU5	6/17/2004	1048	U	EPA 160.2	TSS	20.8	0.5	MG/L	
22450-001	PR-ST-TU5	3/24/2006	953	U	160.2	TSS	5	1	MG/L	
16293-006	PR-ST-TU6	3/27/2003	911	U	EPA 160.2	TSS	5	0.546	MG/L	
16322-006	PR-ST-TU6	4/4/2003	925	U	EPA 160.2	TSS	5.5	0.477	MG/L	
16335-006	PR-ST-TU6	4/8/2003	1032	U	EPA 160.2	TSS	45.1	1.09	MG/L	

Appendix K - 2003 - 2008 TSS Upstream and Downstream of Sediment Trap

Sample ID	COC Site ID*	Sample Date	Sample Time	Filt.	Method	Analyte	Conc.	MDL	Units	Lab Qual.
16363-006	PR-ST-TU6	4/18/2003	1042	U	EPA 160.2	TSS	1.1	0.382	MG/L	J
16374-006	PR-ST-TU6	4/22/2003	1430	U	EPA 160.2	TSS	1.7	0.382	MG/L	J
16408-006	PR-ST-TU6	5/2/2003	1410	U	EPA 160.2	TSS	1.33	0.39	MG/L	J
16428-006	PR-ST-TU6	5/8/2003	1118	U	EPA 160.2	TSS	1.5	0.382	MG/L	J
16671-006	PR-ST-TU6	5/16/2003	1033	U	EPA 160.2	TSS	1.16	0.369	MG/L	J
17013-006	PR-ST-TU6	5/22/2003	1058	U	EPA 160.2	TSS	0.7	0.382	MG/L	J
17025-006	PR-ST-TU6	5/30/2003	1050	U	EPA 160.2	TSS	1.6	0.382	MG/L	J
17042-006	PR-ST-TU6	6/4/2003	1147	U	EPA 160.2	TSS	0.829	0.396	MG/L	J
17075-006	PR-ST-TU6	6/13/2003	1015	U	EPA 160.2	TSS	3.1	0.382	MG/L	
17085-006	PR-ST-TU6	6/18/2003	1336	U	EPA 160.2	TSS	2.36	0.392	MG/L	J
17104-006	PR-ST-TU6	6/27/2003	1042	U	EPA 160.2	TSS	3.1	0.382	MG/L	H
17121-006	PR-ST-TU6	7/2/2003	944	U	EPA 160.2	TSS	1.5	0.382	MG/L	J
17145-006	PR-ST-TU6	7/11/2003	1057	U	EPA 160.2	TSS	6.55	0.694	MG/L	
17175-006	PR-ST-TU6	7/18/2003	926	U	EPA 160.2	TSS	2	0.382	MG/L	J
17199-006	PR-ST-TU6	7/24/2003	950	U	EPA 160.2	TSS	2.8	0.382	MG/L	
17229-006	PR-ST-TU6	8/1/2003	845	U	EPA 160.2	TSS	4.1	0.382	MG/L	
17248-006	PR-ST-TU6	8/8/2003	1040	U	EPA 160.2	TSS	2.3	0.382	MG/L	J
17257-006	PR-ST-TU6	8/12/2003	818	U	EPA 160.2	TSS	36.8	1.53	MG/L	
17536-006	PR-ST-TU6	8/22/2003	1116	U	EPA 160.2	TSS	36.4	1.36	MG/L	
17548-006	PR-ST-TU6	8/27/2003	753	U	EPA 160.2	TSS	26	0.849	MG/L	
17566-006	PR-ST-TU6	9/3/2003	1116	U	EPA 160.2	TSS	5.8	0.382	MG/L	
17605-006	PR-ST-TU6	9/12/2003	920	U	EPA 160.2	TSS	49.2	0.764	MG/L	
17618-006	PR-ST-TU6	9/16/2003	1048	U	EPA 160.2	TSS	10.6	0.382	MG/L	
17648-006	PR-ST-TU6	9/26/2003	903	U	EPA 160.2	TSS	12.4	0.382	MG/L	
17668-006	PR-ST-TU6	10/3/2003	1028	U	EPA 160.2	TSS	8.75	0.477	MG/L	
17693-006	PR-ST-TU6	10/10/2003	1024	U	EPA 160.2	TSS	8.32	0.388	MG/L	
17710-006	PR-ST-TU6	10/15/2003	1044	U	EPA 160.2	TSS	4.9	0.382	MG/L	
17739-006	PR-ST-TU6	10/27/2003	1403	U	EPA 160.2	TSS	22.6	0.664	MG/L	
17782-006	PR-ST-TU6	11/5/2003	952	U	160.2	TSS	12	1	MG/L	
17496-006	PR-ST-TU6	11/12/2003	1030	U	160.2	TSS	28	1	MG/L	
17521-006	PR-ST-TU6	11/21/2003	827	U	160.2	TSS	551	1	MG/L	
18303-006	PR-ST-TU6	11/26/2003	1012	U	160.2	TSS	63	1	MG/L	
18322-006	PR-ST-TU6	12/4/2003	934	U	160.2	TSS	107	1	MG/L	
18341-006	PR-ST-TU6	12/11/2003	1043	U	160.2	TSS	108	1	MG/L	
18361-006	PR-ST-TU6	12/18/2003	1033	U	160.2	TSS	12	1	MG/L	
18378-006	PR-ST-TU6	12/26/2003	936	U	160.2	TSS	2	1	MG/L	
18385-006	PR-ST-TU6	12/31/2003	918	U	160.2	TSS	6	1	MG/L	
18410-006	PR-ST-TU6	1/7/2004	930	U	160.2	TSS	12	1	MG/L	
18427-006	PR-ST-TU6	1/12/2004	1027	U	160.2	TSS	223	1	MG/L	
18496-006	PR-ST-TU6	2/5/2004	1113	U	160.2	TSS	33	1	MG/L	
18515-006	PR-ST-TU6	2/13/2004	1028	U	160.2	TSS	3	1	MG/L	
18526-006	PR-ST-TU6	2/20/2004	1106	U	160.2	TSS	5	1	MG/L	
18600-006	PR-ST-TU6	2/25/2004	1040	U	160.2	TSS	5	1	MG/L	
18802-006	PR-ST-TU6	3/4/2004	1100	U	160.2	TSS	9	1	MG/L	
18809-006	PR-ST-TU6	3/8/2004	1032	U	160.2	TSS	30	1	MG/L	
18836-006	PR-ST-TU6	3/17/2004	1006	U	160.2	TSS	8	1	MG/L	

Appendix K - 2003 - 2008 TSS Upstream and Downstream of Sediment Trap

Sample ID	COC Site ID*	Sample Date	Sample Time	Filt.	Method	Analyte	Conc.	MDL	Units	Lab Qual.
18855-006	PR-ST-TU6	3/26/2004	1104	U	160.2	TSS	141	1	MG/L	
18878-006	PR-ST-TU6	3/31/2004	1048	U	160.2	TSS	624	1	MG/L	
18902-006	PR-ST-TU6	4/9/2004	1014	U	160.2	TSS	4	1	MG/L	
18921-006	PR-ST-TU6	4/23/2004	1015	U	160.2	TSS	32	1	MG/L	
18949-006	PR-ST-TU6	4/27/2004	852	U	160.2	TSS	64	1	MG/L	
18988-006	PR-ST-TU6	5/7/2004	1000	U	160.2	TSS	10	1	MG/L	
19001-006	PR-ST-TU6	5/12/2004	1046	U	160.2	TSS	203	1	MG/L	
19032-006	PR-ST-TU6	5/21/2004	1414	U	160.2	TSS	1220	1	MG/L	J
19314-006	PR-ST-TU6	5/25/2004	1356	U	EPA 160.2	TSS	20.6	0.5	MG/L	
19345-006	PR-ST-TU6	6/3/2004	956	U	EPA 160.2	TSS	17.1	0.5	MG/L	
19372-006	PR-ST-TU6	6/11/2004	1050	U	160.2	TSS	52	1	MG/L	
19391-006	PR-ST-TU6	6/17/2004	1050	U	EPA 160.2	TSS	31	0.5	MG/L	
22501-003	PR-ST-TU6	4/7/2006	1018	U	160.2	TSS	198	1	MG/L	
22579-003	PR-ST-TU6	4/21/2006	900	U	160.2	TSS	3	1	MG/L	
22647-003	PR-ST-TU6	5/12/2006	1504	U	160.2	TSS	7	1	MG/L	
22683-003	PR-ST-TU6	5/26/2006	1104	U	160.2	TSS	70	1	MG/L	
22871-003	PR-ST-TU6	6/23/2006	1042	U	160.2	TSS	1	1	MG/L	U
22912-003	PR-ST-TU6	7/7/2006	829	U	160.2	TSS	2	1	MG/L	
16261-001	PR-ST-TU1	3/11/2003	1530	U	EPA 160.2	TSS	0.412	0.394	MG/L	J
16287-001	PR-ST-TU1	3/21/2003	946	U	EPA 160.2	TSS	3.2	0.509	MG/L	J
16261-002	PR-ST-TU2	3/11/2003	1531	U	EPA 160.2	TSS	4.96	0.403	MG/L	
16287-002	PR-ST-TU2	3/21/2003	952	U	EPA 160.2	TSS	7.33	0.849	MG/L	
16261-003	PR-ST-TU3	3/11/2003	1532	U	EPA 160.2	TSS	0.399	0.399	MG/L	U
16287-003	PR-ST-TU3	3/21/2003	956	U	EPA 160.2	TSS	6.29	1.09	MG/L	J
16261-004	PR-ST-TU4	3/11/2003	1533	U	EPA 160.2	TSS	3.58	0.39	MG/L	
16287-004	PR-ST-TU4	3/21/2003	1001	U	EPA 160.2	TSS	2.02	0.386	MG/L	J
16261-005	PR-ST-TU5	3/11/2003	1534	U	EPA 160.2	TSS	0.399	0.399	MG/L	U
16287-005	PR-ST-TU5	3/21/2003	1005	U	EPA 160.2	TSS	20	0.955	MG/L	
16261-006	PR-ST-TU6	3/11/2003	1535	U	EPA 160.2	TSS	2.18	0.396	MG/L	J
16287-006	PR-ST-TU6	3/21/2003	1010	U	EPA 160.2	TSS	18.9	1.09	MG/L	
16272-001	PR-ST-TU1	3/17/2003	1000	U	EPA 160.2	TSS	2.86	0.39	MG/L	
16272-002	PR-ST-TU2	3/17/2003	1007	U	EPA 160.2	TSS	2.86	0.39	MG/L	
16272-003	PR-ST-TU3	3/17/2003	1015	U	EPA 160.2	TSS	0.918	0.39	MG/L	J
16272-004	PR-ST-TU4	3/17/2003	1021	U	EPA 160.2	TSS	6.6	0.394	MG/L	
16272-005	PR-ST-TU5	3/17/2003	1019	U	EPA 160.2	TSS	9.38	0.394	MG/L	
16272-006	PR-ST-TU6	3/17/2003	1017	U	EPA 160.2	TSS	7.63	0.394	MG/L	
24710-001	PR-ST-TU2	8/17/2007	937	U	160.2	TSS	5	1	MG/L	
24710-002	PR-ST-TU4	8/17/2007	939	U	160.2	TSS	8	1	MG/L	
24710-003	PR-ST-TU6	8/17/2007	941	U	160.2	TSS	17	1	MG/L	
25464-001	PR-ST-TU1	2/14/2008	1032	U	160.2	TSS	5	1	MG/L	
25552-001	PR-ST-TU1	3/14/2008	1006	U	160.2	TSS	91	1	MG/L	
25586-001	PR-ST-TU1	3/28/2008	947	U	160.2	TSS	31	1	MG/L	
25683-001	PR-ST-TU1	4/11/2008	930	U	160.2	TSS	9	1	MG/L	
25727-001	PR-ST-TU1	4/25/2008	1244	U	160.2	TSS	31	1	MG/L	
25771-001	PR-ST-TU1	5/9/2008	956	U	160.2	TSS	31	1	MG/L	
25825-001	PR-ST-TU1	5/23/2008	920	U	160.2	TSS	18	1	MG/L	

Appendix K - 2003 - 2008 TSS Upstream and Downstream of Sediment Trap

Sample ID	COC Site ID*	Sample Date	Sample Time	Filt.	Method	Analyte	Conc.	MDL	Units	Lab Qual.
25930-001	PR-ST-TU1	6/6/2008	915	U	160.2	TSS	39	1	MG/L	
25975-001	PR-ST-TU1	6/20/2008	838	U	160.2	TSS	14	1	MG/L	
22951-001	PR-ST-TU2	7/21/2006	1110	U	160.2	TSS	7	1	MG/L	
22992-001	PR-ST-TU2	8/4/2006	700	U	160.2	TSS	2	1	MG/L	
23031-001	PR-ST-TU2	8/18/2006	1112	U	160.2	TSS	5	1	MG/L	
23294-001	PR-ST-TU2	9/29/2006	930	U	160.2	TSS	5	1	MG/L	
23338-001	PR-ST-TU2	10/12/2006	900	U	160.2	TSS	6	1	MG/L	
23459-001	PR-ST-TU2	10/27/2006	1020	U	160.2	TSS	34	1	MG/L	
24175-001	PR-ST-TU2	4/30/2007	1022	U	160.2	TSS	3	1	MG/L	
24220-001	PR-ST-TU2	5/11/2007	1035	U	160.2	TSS	3	1	MG/L	
24313-001	PR-ST-TU2	6/1/2007	930	U	160.2	TSS	1	1	MG/L	U
24345-001	PR-ST-TU2	6/14/2007	1017	U	160.2	TSS	4	1	MG/L	
24402-001	PR-ST-TU2	6/29/2007	1101	U	160.2	TSS	1	1	MG/L	
24440-001	PR-ST-TU2	7/13/2007	1053	U	160.2	TSS	5	1	MG/L	
24491-001	PR-ST-TU2	7/27/2007	1054	U	160.2	TSS	2	1	MG/L	
24747-001	PR-ST-TU2	8/31/2007	911	U	160.2	TSS	13	1	MG/L	
24790-001	PR-ST-TU2	9/14/2007	1000	U	160.2	TSS	24	1	MG/L	
25464-002	PR-ST-TU3	2/14/2008	1035	U	160.2	TSS	5	1	MG/L	
25552-002	PR-ST-TU3	3/14/2008	1008	U	160.2	TSS	86	1	MG/L	
25586-002	PR-ST-TU3	3/28/2008	950	U	160.2	TSS	21	1	MG/L	
25683-002	PR-ST-TU3	4/11/2008	932	U	160.2	TSS	8	1	MG/L	
25727-002	PR-ST-TU3	4/25/2008	1245	U	160.2	TSS	27	1	MG/L	
25771-002	PR-ST-TU3	5/9/2008	957	U	160.2	TSS	38	1	MG/L	
25825-002	PR-ST-TU3	5/23/2008	922	U	160.2	TSS	20	1	MG/L	
25930-002	PR-ST-TU3	6/6/2008	920	U	160.2	TSS	36	1	MG/L	
25975-002	PR-ST-TU3	6/20/2008	839	U	160.2	TSS	15	1	MG/L	
22951-002	PR-ST-TU4	7/21/2006	1112	U	160.2	TSS	216	1	MG/L	
22992-002	PR-ST-TU4	8/4/2006	705	U	160.2	TSS	3	1	MG/L	
23031-002	PR-ST-TU4	8/18/2006	1114	U	160.2	TSS	57	1	MG/L	
23294-002	PR-ST-TU4	9/29/2006	932	U	160.2	TSS	5	1	MG/L	
23338-002	PR-ST-TU4	10/12/2006	902	U	160.2	TSS	3	1	MG/L	
23459-002	PR-ST-TU4	10/27/2006	1022	U	160.2	TSS	29	1	MG/L	
24175-002	PR-ST-TU4	4/30/2007	1024	U	160.2	TSS	3	1	MG/L	
24220-002	PR-ST-TU4	5/11/2007	1037	U	160.2	TSS	3	1	MG/L	
24313-002	PR-ST-TU4	6/1/2007	932	U	160.2	TSS	10	1	MG/L	
24345-002	PR-ST-TU4	6/14/2007	1019	U	160.2	TSS	8	1	MG/L	
24402-002	PR-ST-TU4	6/29/2007	1103	U	160.2	TSS	11	1	MG/L	
24440-002	PR-ST-TU4	7/13/2007	1055	U	160.2	TSS	9	1	MG/L	
24491-002	PR-ST-TU4	7/27/2007	1056	U	160.2	TSS	17	1	MG/L	
24747-002	PR-ST-TU4	8/31/2007	916	U	160.2	TSS	17	1	MG/L	
24790-002	PR-ST-TU4	9/14/2007	1002	U	160.2	TSS	24	1	MG/L	
25464-003	PR-ST-TU4	2/14/2008	1037	U	160.2	TSS	1	1	MG/L	
25552-003	PR-ST-TU4	3/14/2008	1010	U	160.2	TSS	21	1	MG/L	
25586-003	PR-ST-TU4	3/28/2008	953	U	160.2	TSS	6	1	MG/L	
25683-003	PR-ST-TU4	4/11/2008	934	U	160.2	TSS	14	1	MG/L	
25727-003	PR-ST-TU4	4/25/2008	1246	U	160.2	TSS	52	1	MG/L	

Appendix K - 2003 - 2008 TSS Upstream and Downstream of Sediment Trap

Sample ID	COC Site ID*	Sample Date	Sample Time	Filt.	Method	Analyte	Conc.	MDL	Units	Lab Qual.
25771-003	PR-ST-TU4	5/9/2008	958	U	160.2	TSS	39	1	MG/L	
25825-003	PR-ST-TU4	5/23/2008	924	U	160.2	TSS	25	1	MG/L	
25930-003	PR-ST-TU4	6/6/2008	925	U	160.2	TSS	91	1	MG/L	
25975-003	PR-ST-TU4	6/20/2008	840	U	160.2	TSS	25	1	MG/L	
22951-003	PR-ST-TU6	7/21/2006	1114	U	160.2	TSS	272	1	MG/L	
22992-003	PR-ST-TU6	8/4/2006	707	U	160.2	TSS	3	1	MG/L	
23031-003	PR-ST-TU6	8/18/2006	1116	U	160.2	TSS	6	1	MG/L	
23294-003	PR-ST-TU6	9/29/2006	934	U	160.2	TSS	4	1	MG/L	
23338-003	PR-ST-TU6	10/12/2006	904	U	160.2	TSS	10	1	MG/L	
23459-003	PR-ST-TU6	10/27/2006	1024	U	160.2	TSS	20	1	MG/L	
24175-003	PR-ST-TU6	4/30/2007	1026	U	160.2	TSS	4	1	MG/L	
24220-003	PR-ST-TU6	5/11/2007	1041	U	160.2	TSS	4	1	MG/L	
24313-003	PR-ST-TU6	6/1/2007	934	U	160.2	TSS	4	1	MG/L	
24345-003	PR-ST-TU6	6/14/2007	1021	U	160.2	TSS	7	1	MG/L	
24402-003	PR-ST-TU6	6/29/2007	1105	U	160.2	TSS	5	1	MG/L	
24440-003	PR-ST-TU6	7/13/2007	1057	U	160.2	TSS	8	1	MG/L	
24491-003	PR-ST-TU6	7/27/2007	1058	U	160.2	TSS	2	1	MG/L	
24747-003	PR-ST-TU6	8/31/2007	918	U	160.2	TSS	13	1	MG/L	
24790-003	PR-ST-TU6	9/14/2007	1004	U	160.2	TSS	17	1	MG/L	
25464-004	PR-ST-TU6	2/14/2008	1039	U	160.2	TSS	5	1	MG/L	
25552-004	PR-ST-TU6	3/14/2008	1012	U	160.2	TSS	64	1	MG/L	
25586-004	PR-ST-TU6	3/28/2008	956	U	160.2	TSS	8	1	MG/L	
25683-004	PR-ST-TU6	4/11/2008	936	U	160.2	TSS	6	1	MG/L	
25727-004	PR-ST-TU6	4/25/2008	1247	U	160.2	TSS	62	1	MG/L	
25771-004	PR-ST-TU6	5/9/2008	959	U	160.2	TSS	42	1	MG/L	
25825-004	PR-ST-TU6	5/23/2008	926	U	160.2	TSS	40	1	MG/L	
25930-004	PR-ST-TU6	6/6/2008	930	U	160.2	TSS	99	1	MG/L	
25975-004	PR-ST-TU6	6/20/2008	842	U	160.2	TSS	17	1	MG/L	

***TSS Sample Site Locations**

Upstream of Sediment Trap	Downstream of Sediment	Section of Sedime
PR-ST-TU6	PR-ST-TU3	North
PR-ST-TU5	PR-ST-TU2	Central
PR-ST-TU4	PR-ST-TU1	South

All samples collected within one foot of sediment trap. .

APPENDIX L –
LABORATORY DATA QUALIFIERS

Organic Analytical Data (e.g. PCBs, PESTICIDES)

U Indicates that the compound was analyzed for but not detected. The sample quantitation limit must be corrected for dilution. For a soil/sediment sample, the value must also be corrected for percent moisture.

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds (TICs) where a 1:1 response is assumed, or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the sample quantitation limit but greater than zero.

N Indicates presumptive evidence of a compound. This flag is used only for TICs, where the identification is based on a mass spectral library search.

P Used for pesticide/Aroclor target analytes when there is greater than 25% difference for detected concentrations between the two gas chromatograph (GC) columns.

C Applies to pesticide results where the identification has been confirmed by gas chromatography/mass spectrometry (GC/MS). If GC/MS confirmation was attempted but was unsuccessful, this flag is not applied; a laboratory-defined flag is used instead.

B Used when the analyte is found in the associated blank as well as in the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action. This flag must be used for TICs as well as for positively identified target compounds.

E Identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for that specific analysis.

D Identifies all compounds identified in an analysis at a secondary dilution factor. This flag alerts data users that any discrepancies between the concentrations reported may be due to dilution of the sample or extract.

A Indicates that a TIC is a suspected aldol-condensation product.

X Other specific flags may be required to properly define the results. If used, they must be fully described and such description must be attached to the Sample Data Summary Package and the sample delivery group (SDG) narrative.

h Holding time exceeded.

APPENDIX L
LABORATORY DATA QUALIFIERS, cont.

Inorganic Analytical Data

B Indicates that the reported value was obtained from a reading that was less than the Contract Required Detection Limit (CRDL), but greater than or equal to the Instrument Detection Limit (IDL).

U Indicates that the analyte was analyzed for but not detected.

E Used when the reported value is estimated because of the presence of interference.

M Indicates that the duplicate injection precision was not met.

N Indicates that the spiked sample recovery is not within control limits.

S Indicates that the reported value was determined by the method of standard additions (MSA).

W Used when the post-digestion spike for furnace atomic absorption analysis is not within control limits (85%-115%), while sample absorbance is less than 50% of spike absorbance.

* Indicates that the duplicate analysis is not within control limits.

+ Indicates that the correlation coefficient for the MSA is less than 0.995.

APPENDIX L
LABORATORY DATA QUALIFIERS, cont.

Radiologic Analytical Data

J The associated numerical value is an estimated quantity.

JN Presumptive evidence of the presence of the material at an estimated quantity.

DL Detection limit requirements not met. Data quality objectives may not be met.

R The data are unusable (radionuclide may or may not be present).

UI (Uncertain identification for gamma spectroscopy) - Radionuclide peaks that are detected but fail to meet the positive identification criteria.

ENVIRONMENTAL CONSULTING & MANAGEMENT
ROUX ASSOCIATES INC

209 SHAFTER STREET
ISLANDIA, NEW YORK 11749-5074 TEL: 631-232-2600 FAX: 631-232-9898

October 3, 2008

Mr. William Medeiros
Long Term Environmental Operations, Safety and Security Group
Building 51
Brookhaven National Laboratory
Upton, New York 11973

Re: Summary of 2008 Phragmites Removal Activities
Brookhaven National Laboratory
Upton, New York

Dear Mr. Medeiros:

Roux Associates, Inc (Roux Associates) is pleased to provide Brookhaven National Laboratory (BNL) the following update on invasive species control measures.

Between September 2, 2008 and September 11, 2008, Roux Associates personnel removed common reed (*Phragmites australis*) shoots throughout all remediation areas within the Peconic River between the BNL Sewage Treatment Plant (STP) and the Manor Road remediation area, approximately 4.8 miles downstream of the STP. Special attention was given to transect areas where common reed was encountered during previous inspections. Phragmites shoots and rhizomes were also removed from sections of the river located beyond the remediation areas where common reed shoots could be controlled through hand removal. Shoots were hand-pulled at the base of the stalk, being careful to remove as much of the rhizome as possible. All stalks and rhizomes were placed into 42-gallon industrial garbage bags for disposal. Photos of removal activities are provided in Attachment 1.

A total of 91 (42-gallon) bags were removed from the on-site and off-site areas; 45 of which were from the onsite areas. This is approximately double the number of bags that were removed last year. Increased removal volumes are likely attributed to the timing of the removal. Removal activities were started during July of 2007, whereas removal activities in 2008 commenced in September. The 2008 removal activities were delayed to allow the river depth to decrease which in turn aided the location and removal of Phragmites shoots and rhizomes. The later removal allowed more growth time, thus producing more biomass to remove.

No *Phragmites* shoots were observed within the remediation areas located upstream and downstream of Manor Road. However, four purple loosestrife (*Lythrum salicaria*) plants

were observed and removed (stems and roots) from the haul road located at the eastern extent of the Manor Road remediation area.

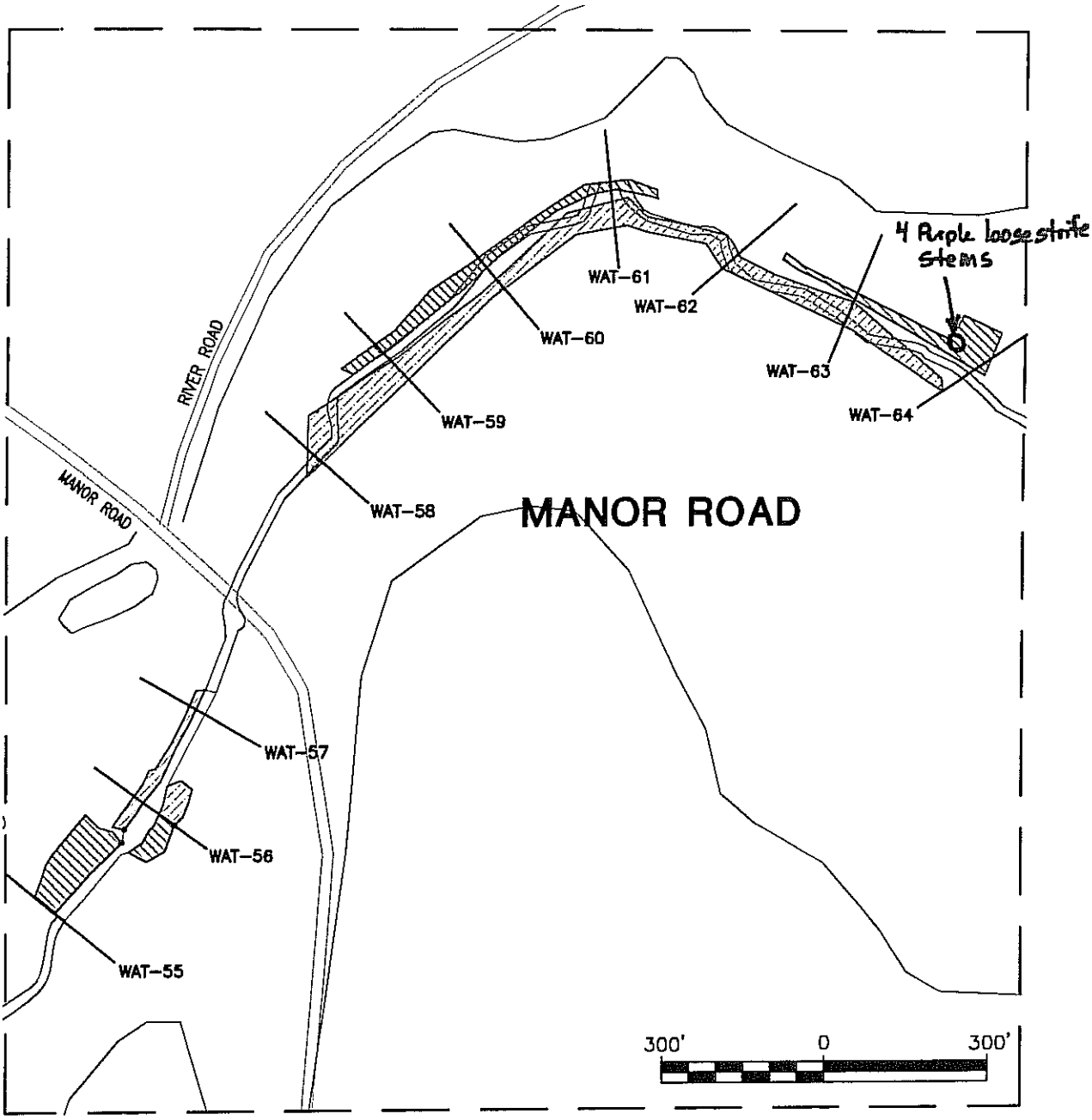
Roux Associates greatly appreciates the continued opportunity to provide BNL with environmental consulting services. If you have any questions, please do not hesitate to contact Kathryn Sommo at (631) 232-2600.

Sincerely,

ROUX ASSOCIATES, INC.

Kathryn Sommo
Project Biologist/
Project Manager

Amanda Ludlow
Principal Scientist


RIVER ROAD
MANOR ROAD
MANOR ROAD
WAT–55
WAT–56
WAT–57
WAT–58
WAT–59
WAT–60
WAT–61
WAT–62
WAT–63
WAT–64
4 Purple loosestrife stems
300'
0
300'

AREA C

Photo 1. Wetland transect WAT-20 prior to hand removal of *Phragmites* shoots

Photo 2. Wetland transect WAT-20 after *Phragmites* removal

AREA C

Photo 3. Wetland transect WAT-22 prior to hand removal of *Phragmites* shoots

Photo 4. Wetland transect WAT-22 after *Phragmites* removal

AREA C

Photo 5. Wetland transect WAT-23 prior to hand removal of *Phragmites* shoots

Photo 6. Wetland transect WAT-23 after *Phragmites* removal

AREA E

Photo 7. Wetland transect WAT-40 prior to hand removal of *Phragmites* shoots

Photo 8. Wetland transect WAT-40 after *Phragmites* removal

AREA P

Photo 9. Wetland transect WAT-53 prior to hand removal of *Phragmites* shoots

Photo 10. Wetland transect WAT-53 after *Phragmites* removal