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August 3, 2007

Susan Svirsky
U.S. Environmental Protection Agency
c/o Weston Solutions, Inc.
10 Lyman Street
Pittsfield, MA 01201

Re: GE-Pittsfield/Housatonic River Site
Rest of River (GECD850)
Corrective Measures Study – Supplement to Model Input Addendum

Dear Ms. Svirsky:

As you know, GE's April 16, 2007 Model Input Addendum (MIA) to the Corrective Measures Study (CMS) Proposal for the Rest of River described a number of the input parameters and values that GE proposed to apply in the model simulations of sediment remedial alternatives in the CMS. With respect to the East Branch PCB boundary conditions, the MIA described GE's general approach, but proposed to conduct supplemental sediment and water column sampling in the East Branch to assist in developing that boundary condition, and stated that, after review of those data, GE would submit an additional deliverable summarizing those data and proposing current and future boundary conditions for the East Branch. EPA approved the MIA, subject to a number of conditions, in a letter dated May 24, 2007.

GE conducted the supplemental sediment sampling in the Upper ½ Mile Reach in late May 2007, and has conducted supplemental water column sampling at the Pomeroy Avenue station from late April through July. In addition, GE has received from EPA the data from the surface sediment samples that EPA collected in the 1½ Mile Reach in late May. After considering those data, GE has developed a revised approach to estimating current and future PCB boundary conditions for the East Branch.

Enclosed is a Supplement to the MIA, which presents and evaluates the results of the supplemental sediment and water column sampling. The Supplement also describes the methodology that GE has used to develop an estimate of East Branch PCB boundary conditions, both under current conditions and after completion of the remedial actions affecting the East Branch; and it identifies the resulting PCB inputs to the Rest of River from the East Branch that GE proposes to use in the model simulations in the CMS.

EPA's May 24, 2007 conditional approval letter also directed GE not to use the approach proposed in the MIA for simulating direct-drainage (runoff) PCB loads from the watershed, and instead to use a revised approach developed by EPA. That letter further stated that, as part of the supplemental deliverable, GE should propose a method for incorporating into the direct-drainage simulations reductions in floodplain soil PCB concentrations resulting from proposed floodplain remediation scenarios. As GE and EPA have discussed, GE does not agree with the revised direct-drainage simulation approach that EPA has directed GE to use. However, given EPA's directive, GE has made a preliminary evaluation of EPA's approach. Based on that preliminary evaluation, GE has determined that, using EPA's approach, the direct-drainage inputs would not have an appreciable impact on the model results. In these circumstances, GE has determined that, if that approach is required, GE will not include any direct-drainage PCB inputs in the model simulations. Accordingly, GE has not included in this Supplement a method for incorporating into that approach reductions in floodplain soil PCB concentrations resulting from floodplain remediation. However, GE reserves its right to dispute EPA's directive to use the revised direct-drainage approach, as noted below.

As documented in my June 6, 2007 letter to you, GE and EPA previously agreed that the time for GE to initiate dispute resolution proceedings under the RCRA Permit on EPA's May 24, 2007 conditional approval letter for the MIA would be extended until 14 days after GE receives EPA's approval, conditional approval, disapproval, or modification of this Supplement to the MIA. Accordingly, GE reserves the right to invoke such dispute resolution on any directives or conditions in EPA's May 24, 2007 letter, as well as any directives or conditions in EPA's letter on review of the enclosed Supplement.

Please let me know if you have any questions about the enclosed Supplement or would like to discuss any issues.

Very truly yours,

Andrew T. Silfer, P.E.
GE Project Coordinator

Enclosure

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Supplement to Model Input Addendum

Housatonic Rest of River CMS Proposal

Prepared for:

General Electric Company

Pittsfield, MA

Prepared by:

Quantitative Environmental Analysis, LLC

Liverpool, NY

and

ARCADIS BBL

Syracuse, NY

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Job Number:

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SECTION 1
INTRODUCTION

On February 26, 2007, General Electric Company (GE) submitted to the United States Environmental Protection Agency (EPA) a Corrective Measures Study (CMS) Proposal for the Rest of River portion of the GE-Pittsfield/Housatonic River Site (ABBL and QEA, 2007). The CMS Proposal described a study of potential remedial actions to address polychlorinated biphenyls (PCBs) within the Rest of River portion of the Housatonic River and its floodplain, which are located downstream of the confluence of the East and West Branches of the Housatonic River (the Confluence). It identified the corrective measures that GE proposed to study, provided justification for their selection, and presented GE's proposed methodology for evaluating them. The CMS Proposal was submitted to EPA for approval in accordance with the July 18, 2000 Resource Conservation and Recovery Act (RCRA) Permit issued to GE by EPA as part of the comprehensive agreement embodied in the Consent Decree (CD) for the GE-Pittsfield/Housatonic River Site. On April 13, 2007, EPA conditionally approved the CMS Proposal.

As required by the RCRA Permit, GE stated in the CMS Proposal that it would use EPA's PCB fate, transport, and bioaccumulation model to evaluate the remedial alternatives addressing in-river sediments (including erodible riverbanks). In order to use the EPA model to conduct a comparative evaluation of such remedial alternatives, it is necessary to establish boundary conditions to estimate the PCB loads entering the Rest of River from outside that area under both current and future conditions. The most significant of these is the East Branch PCB boundary condition (i.e., the PCB load entering the Rest of River area from the East Branch of the Housatonic River) both under current conditions and following completion of ongoing remedial actions. EPA considered and began to develop an "Upstream Model" to project the future PCB load entering the Rest of River from the East Branch, but it did not complete that model. Instead, EPA specified PCB loads during model calibration and validation using a data-based approach, described in Appendix B.2 of the Final Model Documentation Report (EPA, 2006b). This approach specified East Branch (as well as West Branch) PCB boundary conditions during periods when data were not available based on equations developed from relationships between particulate-phase PCB concentrations and river flow rate. As discussed in the CMS Proposal and as EPA recognized in its Responsiveness Summary to the Peer Review of Model Validation (EPA, 2006a, p. 6-7), while this approach was appropriate for specifying PCB loads for the model calibration and validation, it cannot be used directly during the simulation of future conditions in the Rest of River, because it does not account for reductions in PCB loading that have resulted and will result from the various remedial measures conducted and to be conducted by GE and EPA within and near the upper two miles of the river.

Given these circumstances, it was necessary for GE to develop an approach for specifying the East Branch boundary condition that could be used in the CMS. To address this issue, as well as other necessary inputs to the model, GE submitted a Model Input Addendum (MIA; QEA and ABBL, 2007) to EPA on April 16, 2007. The MIA described a number of the input parameters and values that GE proposed to apply during model simulations of sediment remedial alternatives as part of the CMS, including a description of GE's proposed approach to estimating the East Branch PCB boundary condition. To assist in developing this boundary condition, GE also proposed in the MIA to collect additional water column data from the East Branch at Pomeroy Avenue (using a lower detection limit than previously used) and surface sediment data from the Upper ½ Mile Reach. GE stated that, following review of those data, it would submit an additional deliverable presenting the results of the supplemental sampling and describing the proposed current and future boundary condition values for the East Branch. EPA issued a letter to GE on May 24, 2007 "conditionally approving" the MIA, but specifying a number of conditions relating to the development of the East Branch boundary condition.

GE commenced the supplemental water column sampling in late April 2007 (based on preliminary EPA approval) and has continued that sampling to date. GE conducted the sediment sampling in the Upper ½ Mile Reach in late May 2007. Concurrently, EPA conducted sampling of the restored surface sediments in the 1½ Mile Reach of the River.

This report, which constitutes a Supplement to the MIA, presents the results of the supplemental water column and sediment sampling program (see Section 2), including an interpretive analysis of those data (see Section 3). It also describes GE's proposed approach to specifying the PCB loads entering the Rest of River from the East Branch over the duration of the future projections conducted with the EPA model to simulate the impacts of sediment remedial alternatives during the CMS (see Section 4).

SECTION 2
SUPPLEMENTAL SAMPLING PROGRAM SUMMARY

This section provides an overview of the supplemental sediment and water column sampling activities performed in the Upper ½ Mile and 1½ Mile Reaches of the Housatonic River during 2007. Surface water sampling and sediment sampling conducted in the Upper ½ Mile Reach were performed by ARCADIS BBL (ABBL) on behalf of GE, with sample analysis performed by Northeast Analytical, Inc. (NEA) and Geotechnics, Inc. (grain size only). Weston Solutions, Inc. (Weston) performed sediment sampling in the 1½ Mile Reach on behalf of EPA.

2.1 SEDIMENT SAMPLING

2.1.1 Upper ½ Mile Reach

GE collected post-remediation sediment samples from the Upper ½ Mile Reach of the East Branch. Sediment sampling was conducted on May 24-25, 2007 during low flow conditions, at a time that did not coincide with water column monitoring at Pomeroy Avenue. Sampling was performed in accordance with the procedures described in the MIA, as modified by EPA's conditional approval letter of May 24, 2007, and also satisfied the CD's requirements for the monitoring of restored sediments, as set forth in Section 11.5.4 of the *Removal Action Work Plan for Upper ½ Mile Reach of Housatonic River* (BBL, 1999) (Attachment F to the CD). A summary of the sampling procedures is provided below.

1. Sediment samples were collected from 39 locations in this reach of the river, as identified on Figure 2-1. Samples were collected using either Lexan® core tubes or a grab sampling device.

2. Sediment samples were collected in such a way so as to sample (to the extent practical) the full sediment inventory deposited on top of the armor stone at a given location. As a result, the sampled sediment thickness differed from location to location. Samples were collected from the 0- to 6-inch interval and 6- to X-inch interval, where X is the depth to the armor stone.

3. All samples collected were submitted for analysis of total PCBs and total organic carbon (TOC) in accordance with GE's current *Field Sampling Plan/Quality Assurance Project Plan* (FSP/QAPP; ARCADIS BBL, 2007). In addition, 23 samples were submitted for grain size analysis. Weston collected 12 split samples for analysis on behalf of EPA.

Sediment thicknesses observed during sampling ranged from 2 to 25 inches. PCB and TOC results are summarized in Table 2-1, and grain size results are presented in Table 2-2.

2.1.2 1½ Mile Reach

In conjunction with the Upper ½ Mile Reach sampling event conducted by GE, Weston collected sediment samples from the 1½ Mile Reach on behalf of EPA. Cores were collected by Weston at the locations shown on Figure 2-2. Sampling was performed from May 24-31, 2007 during low flow conditions. A total of 97 samples were collected from the top 6 inches at 200-foot intervals down the River, and submitted for analysis of PCBs and TOC. One-third of the samples collected (i.e., 35 samples) were also submitted for grain size analysis. In addition, ABBL collected 12 split samples for analysis of PCBs on behalf of GE. EPA's PCB, TOC, and grain size results are summarized in Table 2-3.

2.2 WATER COLUMN SAMPLING

Supplemental water column monitoring was initiated by GE at a station just below the Pomeroy Avenue Bridge during late spring 2007 (and is continuing through summer 2007) to help develop the East Branch PCB boundary condition for the model projections. This monitoring was implemented as a supplement to GE's regular monthly water column monitoring program, which includes monitoring at a number of stations in the East Branch (including Pomeroy Avenue Bridge) and the Rest of River, and which GE has been conducting for several years. Due to the relationship between PCB concentrations and river flow, the supplemental water column sampling program included both routine and storm event-based components, with periodic flow monitoring.

2.2.1 Routine Sampling

As part of the supplemental water column monitoring, routine sampling at Pomeroy Avenue Bridge was initiated on April 20, 2007 and continued through July 2007.[1] Samples were collected on a twice-weekly basis (except during storm events or when Upper ½ Mile Reach sediment sampling activities were planned) and analyzed for total PCBs, total suspended solids (TSS), particulate organic carbon (POC), and (starting in May 2007) volatile suspended solids (VSS). The sample collection protocols used in this supplemental routine sampling were the same as those used during GE's regular monthly water column monitoring program, which are described in detail in Appendix E of GE's FSP/QAPP. The analytical methods used for TSS (EPA160.2), POC (SM 19th Edition 5310B Modified), and VSS (EPA160.4) were also unchanged from the normal quantitation methods for these analyses. Total PCBs were quantified by NEA using an EPA Aroclor-based analytical method (EPA SW-846 Method 8082), as in the monthly monitoring program. However, while the quantification of PCBs in surface water samples collected during the monthly monitoring program is typically conducted using a nominal detection limit of 22 ng/L (per Aroclor) in accordance with GE's approved FSP/QAPP, the detection limit was reduced for the samples collected at Pomeroy Avenue as part of this supplemental monitoring program. Specifically, for this program, the total PCB method detection limit (MDL) was first reduced to approximately 11 ng/L, then later to 5.5 ng/L (on May 15, 2007), as discussed further below.

Field data collected as part of routine sampling through July 10, 2007 are summarized in Table 2-4; analytical results are summarized in Table 2-5.[2]

[1] This supplemental routine sampling will be continued through the rest of the summer of 2007 at a lesser frequency (i.e., weekly).

[2] Routine monitoring analytical results collected after June 14, 2007 have not been validated at the time of this report (8 samples). In addition, during final production of this document, analytical results were received for three additional routine sampling events that were conducted on July 13, July 18, and July 20, 2007. Results from these samples have not been included in the analyses presented herein. PCB concentrations in these samples are 20, 17, and 52 ng/L, respectively; TSS concentrations are 6.0, 3.8, and 12.0 mg/L; and POC concentrations are 0.46, 0.67, and 0.99 mg/L. Pomeroy Avenue stage height data are not yet available for those dates so as to allow inclusion of these samples in the boundary condition analysis; however, preliminary review of these data indicates that their inclusion would not significantly change the results of the boundary condition analysis presented in Section 4. In the event that further evaluation of these data indicates a different result, GE will so advise EPA.

2.2.2 Storm Event Sampling

Sampling of two storm events during late spring and early summer 2007 was performed to augment the routine sampling described above. Specifically, storm-event sampling was performed during April 15-18, 2007 and June 4-5, 2007. Sampling was initiated based on the monitoring of weather and river forecast center web sites,[3] with the trigger for high flow sampling set as a predicted flow rate at the USGS Coltsville gage (#01197000) in excess of 200 cfs.[4] Sampling during each event attempted to capture both the rising and falling limbs of the hydrograph for an approximate 24- to 48-hour period. Samples were collected every two hours during the rising limb and peak of the hydrograph, and every two to four hours during the falling limb, with less frequent sampling occurring during the beginning and/or end of the events based on river flow conditions.

Sample collection protocols used for the storm event sampling were generally consistent with the EPA standard operating procedure (SOP) for surface water sample collection during the Supplemental Modeling Study that was conducted by EPA in March 2003 (EPA, 2003). One modification to the EPA SOP is that depth-integrated samples were collected above the thalweg of the river using a USDH-76 sampler, rather than the mid-depth grab sampling protocol described in the original SOP. The sampler (containing a 1-L collection bottle) was lowered from the bridge at a constant rate (using a winch and cable system) from the water surface to a depth of 6 inches above the sediment bed, and then slowly back to the surface at a constant rate, allowing the bottle to fill approximately ¾ full. After each retrieval, the sample collection bottle was closed and shaken, with the bottle contents subsequently split equally into sample bottles for analysis. The sampler was deployed and retrieved as many times as necessary to fill the required sample containers. Samples collected during the two storm events were submitted for analysis of PCBs, TSS, POC, and (starting with the June event) VSS, utilizing the analytical methods for routine monitoring previously described in Section 2.2.1. Field data collected as part of storm event sampling are summarized in Table 2-6; analytical results are summarized in Table 2-7.

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[3] NOAA Advanced Hydrologic Prediction Service web site: http://newweb.erh.noaa.gov/ahps2/hydrograph.php?wfo=aly&gage=ctvm3&view=1,1,1,1,1,1

[4] While the criterion for storm event sampling was predicted flows at Coltsville greater than 200 cfs, the objective of the sampling was to capture events greater than 300 cfs at Coltsville; ideally, storm event sampling would capture an event closer to 1,000 cfs.

2.2.3 Flow Monitoring

Flow monitoring was conducted at Pomeroy Avenue at various times, starting in spring 2007, with the objective of capturing a range of flow rates that would facilitate the development of a revised stage-discharge rating curve (later specified in EPA's May 24, 2007 MIA conditional approval letter as flows corresponding to 0.5-foot changes in surface water elevation). The monitoring was conducted using a method that is generally consistent with that described in the EPA Supplemental Modeling Study SOP (EPA, 2003), as proposed in Appendix A to the MIA. Slight modifications to the method specified in Appendix A of the MIA were made based on field conditions and discussions with EPA/Weston. Measurements of river velocity, water depth, and river width were made along the transect at the bridge and used to calculate river flow rates.

Velocity measurements were made using a portable electronic current meter, and recorded in accordance with USGS protocols (Buchanan et al., 1969) at 5-foot intervals across the river channel according to the following protocol:

a. First, the elevation of the water surface was determined by measuring the distance from an established benchmark on the bridge down to the surface of the water.
b. The water depth at each of the 5-foot intervals across the river was measured.
c. Velocity measurements were taken at different depths in the water column depending on the total water depth at a given position.
    - *Water depth equal to 1 foot or less*: velocity measured at 6/10 of the water depth from the surface.
    - *Water depth greater than 1 foot*: velocity measured at 2/10 and 8/10 of the water depth from the surface.

To date, seven velocity profiles have been measured at Pomeroy Avenue Bridge as part of this supplemental sampling program (Table 2-8). Total discharge (flow rate) was calculated for each event and ranged from 48 cfs to 2,037 cfs.

In addition to the flow measurements conducted by GE described above, EPA deployed a pressure transducer in the river at Pomeroy Avenue on April 13, 2007, to provide a continuous record of river stage height measurements at 15-minute intervals.

SECTION 3
DATA INTERPRETATION

3.1 SEDIMENT DATA

3.1.1 Overview

Summary statistics for the sediment sampling conducted in 2007 by GE in the Upper ½ Mile Reach and by EPA in the 1½ Mile Reach are presented in Table 3-1. (That table also presents, for later discussion in the data analysis, the arithmetic means and area-weighted averages of the Upper ½ Mile Reach sediment data that also include data collected by GE/EPA in 1998 from portions of that reach that did not require remediation, as well as the area-weighted averages of the 1½ Mile sediment data.) The statistics based on the 2007 data indicate that surface sediments (i.e., samples collected within the top 6 inches) have similar characteristics in both the Upper ½ Mile and 1½ Mile Reaches, with average PCB concentrations of 0.24 mg/kg and 0.17 mg/kg, and organic carbon-normalized PCB (PCB-OC) concentrations of approximately 93 and 61 mg/kg, respectively.[5] PCB concentrations in samples obtained from deeper sediments (i.e., below 6 inches) in the Upper ½ Mile Reach were generally higher than those measured in surface sediment, with an average concentration of 1.8 mg/kg. The reason for this apparent difference between PCB concentrations of the surface and deep samples from the Upper ½ Mile is unclear, although the size of the deep sample data set is limited and the relatively high average is driven by a relatively small number of samples. Probability distributions of PCB, fraction organic carbon (f_{oc}, which is TOC expressed on a percentage basis), and PCB-OC for both reaches by sediment depth are presented in Figure 3-1. The sediment PCB, f_{oc}, and PCB-OC data exhibit variability typical of other data sets collected within the system, and the log-linear relationships on probability plots are indicative of log-normal distributions. Nonetheless, the probability plots in Figure 3-1 further demonstrate that the Upper ½ Mile and 1½ Mile data sets exhibit similar statistical distributions.

[5] Statistics shown for PCBs in Table 3-1 include non-detects at ½ the method detection limit. As indicated in Table 3-1, the average concentrations for the Upper ½ Mile Reach when the data from the non-remediated sections of that reach are included are similar to those based only on the supplemental data.

3.1.2 Spatial Distribution

A spatial profile of PCB concentrations within the surface sediments sampled in 2007 in the Upper ½ Mile and 1½ Mile Reaches is shown on Figure 3-2. Included on this plot, for reference, are data from the non-remediated portions of the Upper ½ Mile collected by GE/EPA in 1998. With the exception of the data from the non-remediated portions of the Upper ½ Mile and four samples exhibiting relatively high concentrations (two in the Upper ½ Mile and two in the upper section of the 1½ Mile Reach), sediment PCBs in the East Branch exhibit levels in the range of <0.1 to 0.5 mg/kg, with no strong spatial pattern.

3.2 FLOW DATA

As stated above, periodic monitoring of river flow was conducted to support the development of a revised post-remediation stage-discharge rating curve at Pomeroy Avenue. As described in Section 2.2.3, cross-channel velocity and channel geometry were measured during seven events; these measurements were subsequently used to estimate flows during each sampling event (see Table 2-8). A rating curve relating flow and stage height at Pomeroy Avenue was developed based on the 2007 data using a least squares fit of a power function, as shown on Figure 3-3. The mathematical function used to establish the rating curve for the 2007 data is similar to that used by EPA in the model for pre-remediation conditions at Pomeroy Avenue (Attachment B.1 of the EPA Model Calibration Report [MCR]; EPA, 2004), which is also plotted in Figure 3-3. These two rating curves differ slightly from one another, and tend to diverge at higher flows.[6] The reason for these differences could be related to changes in river cross section geometry associated with the East Branch remediation, although the relatively limited size of the 2007 data set precludes drawing any conclusions in this regard.

Flow at Pomeroy Avenue during the supplemental sampling period was estimated using both the EPA model rating curve (i.e., pre-remediation) and the rating curve developed based on

[6] One difference between the 2007 rating curve and the rating curve established by EPA in the model for pre-remediation conditions is that the elevation corresponding to zero flow has been set at 957 feet in the 2007 rating curve (this corresponds to the average minimum bed elevation measured during the 2007 flow monitoring events), rather than the elevation of 958 feet used for the pre-remediation condition.

the 2007 flow measurements (Figure 3-4). Flow estimates at Pomeroy Avenue were calculated using EPA's continuous stage height monitoring data collected during the supplemental water-column sampling program and the 2007 rating curve shown in Figure 3-3. For comparison, flow at the Coltsville USGS gage prorated by a factor of 1.19, to account for additional drainage area between Coltsville and Pomeroy Avenue (Appendix E-1 of the *RCRA Facility Investigation Report* [RFI Report]; BBL and QEA, 2003), is shown on Figure 3-4. This figure shows that the flows estimated using all three methods are generally comparable, with the largest differences associated with the peak and shape of the hydrograph during the April 2007 storm event. Given the similarity in these hydrographs, the post-remediation rating curve developed from the 2007 flow data has been used in the development of the East Branch boundary condition described below.

3.3 WATER COLUMN DATA

3.3.1 Overview

During the routine twice-weekly water column sampling at Pomeroy Avenue, PCBs were not detected in the seven samples collected between April 20 and May 10, 2007, which were analyzed using an MDL of 11 ng/L. Beginning with the May 15, 2007 sampling event, the MDL was reduced to 5.5 ng/L. PCBs were then detected at concentrations ranging from 5.5 to 43.9 ng/L (Figure 3-5) during 13 of the 14 routine sampling events performed using the lower MDL. Water column TSS and organic carbon fractions (i.e., f_{oc} = POC divided by TSS) ranged from 1 to 14 mg/L and 4 to 22%, respectively.

As discussed in Section 2.2.2, storm sampling was conducted during two events in 2007. A high flow event with a return frequency of approximately 2 to 5 years (see Table 2-3 of the CMS Proposal) occurred between April 15 and April 18, 2007; peak flow during this event was approximately 2,200 cfs at Coltsville, while the estimated peak flow at Pomeroy Avenue based on the 2007 flow-stage rating curve was approximately 1,800 cfs (Figure 3-6a).[7] PCB and TSS

[7] Note that the instantaneous peak flow at Pomeroy Avenue was lower than the peak at Coltsville. This is likely due to attenuation and broadening of the "flood wave" as it moved downstream; similar behavior was observed by EPA during high flow monitoring conducted during the model validation period.

concentrations and f_{oc} during this event ranged from non-detect to 273 ng/L, 24 to 446 mg/L, and 1 to 10%, respectively. A second smaller storm event was also sampled during June 4 and 5, 2007; peak flow at Coltsville for that event was approximately 340 cfs (estimated peak at Pomeroy Avenue of approximately 320 cfs), corresponding to a return frequency of less than one year. PCBs were detected in all six of the samples collected during this second event, ranging from 31 to 166 ng/L (Figure 3-6b); TSS and f_{oc} during this event ranged from 16 to 215 mg/L, and 3 to 11%, respectively.

3.3.2 Temporal Patterns

PCB concentrations were relatively high during the two sampled storm events and tracked TSS concentrations closely, exhibiting similar increases with flow (Figures 3-6a and 3-6b). During the larger (April) storm event, a "first flush" effect is evident whereby PCB and TSS concentrations peaked early in the storm in association with the initial rise in river flow (the initial rise in river flow was not captured during the second, smaller storm event). This pattern was also observed during storm events previously sampled by EPA at Pomeroy Avenue (Figure 3-14 of the RFI Report), and is indicative of runoff from the proximate watershed as well as the onset of in-river sediment and bank erosion processes, which typically occur along the rising limb of the hydrograph.

During the routine twice-weekly sampling (which generally occurred at lower flows), PCB concentrations in all but two samples were below the MDL of 22 ng/L used during GE's regular monthly water column monitoring. The general increase in concentration over the study (i.e., levels below 11 ng/L during the first eight sampling events, followed by higher concentrations) may be attributable to dilution, since the lower PCB concentrations observed in the earlier samples were associated with higher river flows.

3.3.3 Estimated Water Column Particulate-Phase PCBs

As discussed in the MIA, EPA's boundary condition for the validation period was developed based on a relationship between water column particulate-phase PCB concentrations and river flow. Consistent with EPA's approach, particulate-phase PCB concentrations (*r*) have been estimated for each of the supplemental water column samples collected in 2007 by applying the three-phase partitioning formulations described by EPA in Section 2.3.3.2.1 and Appendix B.2 of the FMDR. Non-detect PCBs were set to ½ the MDL in these calculations. Calculated *r* values differ between routine and higher flow conditions, as shown on Figure 3-7. They are significantly less variable during the higher flow events, for which the *r* values tend to be in the range of 0.2 to 0.9 mg/kg, and average 0.52 mg/kg (excluding three relatively higher values greater than 1 mg/kg that occurred at flows less than 550 cfs). Under lower flow conditions, *r* values tend to be relatively higher and quite variable; much of this variability is likely associated with variations in TSS and POC concentrations, as well as dilution. For example, for a given whole water PCB concentration, a factor of two change in TSS or f_{oc} will result in an approximate twofold change in the calculated *r* value. Likewise, for a given set of TSS and f_{oc} values, the calculated *r* value will increase linearly with whole water PCB concentration, which explains the general increase in *r* values calculated from the routine twice-weekly sampling (Figure 3-7, bottom panel), as this temporal pattern is consistent with that of the whole water PCB data (Figure 3-5, bottom panel).

3.4 COMPARISON OF SURFACE SEDIMENT AND WATER COLUMN PCBS

The surface sediment data were examined to determine whether the East Branch surface sediments could be the primary source of the PCBs in the water column, either through diffusion from pore water or high flow erosion.

The PCB flux associated with diffusion from sediment pore water was estimated using the surface sediment data from the Upper ½ Mile (including the unremediated portions of the river) and 1½ Mile Reaches. The area-weighted average of these surface sediment PCB-OC data (see Table 3-1) and the parameters used by EPA to represent diffusion in its PCB fate and transport model (e.g., k_f = 1.5 cm/d, log K_{oc} = 6.5; see Section 2.3.3.2.3 of the FMDR) were used to calculate diffusive flux. Based on this calculation, the low flow PCB diffusion load from the Upper ½ Mile and 1½ Mile Reach sediments is approximately 0.11 g/d, which would produce a water column PCB concentration in the river at low flow (i.e., 50 to 100 cfs) in the neighborhood of 0.5 to 1 ng/L. However, the low flow water column PCB concentrations observed during supplemental sampling were in the range of 10 to 40 ng/L (Figure 3-5). This comparison indicates that sediment diffusive flux is a minor contributor to the PCB loading observed under low flow conditions.

During high flow conditions, it is expected that sediment erosion is a source of PCBs to the water column. However, the high flow water column data collected at Pomeroy Avenue indicate that resuspension of sediments from the East Branch cannot account for the total PCB load to the Rest of River under high flow conditions. As discussed in Section 3.3.3, the average water column particulate-phase PCB concentration measured at higher flows was 0.52 mg/kg. This value is approximately double the area-weighted average surface sediment PCB concentrations within the 2-Mile portion of the East Branch, which average 0.26 and 0.18 mg/kg for the Upper ½ Mile and 1½ Mile Reaches, respectively (see Table 3-1). In addition, the solids during storm event sampling contained on average approximately 5% organic carbon (ranging from 1 to 11%; Figures 3-6a and 3-6b), whereas the surface sediments of the Upper ½ Mile and 1½ Mile Reaches average approximately 0.3% and 0.5% organic carbon, respectively (Table 3-1). The observed difference in organic carbon is particularly significant because it is unlikely that bulk sediments with a few tenths of a percent organic carbon could contain a sufficient quantity of high carbon content fine particles to account for the carbon content measured in the river's suspended solids. These factors confirm that there are sources of solids and PCBs to the water column other than the East Branch sediments.

Based on the combined evaluation of the supplemental water column and sediment data described above, the sediments in the East Branch cannot fully account for the PCB load to the Rest of River measured during the supplemental water column monitoring. As a result, additional potential sources of PCBs have been considered in the development of the proposed model boundary conditions described in Section 4.

SECTION 4
PROPOSED EAST BRANCH PCB BOUNDARY CONDITIONS

4.1 OVERALL APPROACH

As discussed in Section 1, in order to use the EPA model to conduct a comparative evaluation of sediment remedial alternatives, it is necessary to establish projected PCB boundary conditions for the East Branch under both current and future conditions. In developing the model, EPA did not establish such boundary conditions in a way that can be used in the CMS. As explained in Section 1, EPA did not complete an upstream model to project the future East Branch PCB load; and as EPA has recognized (EPA, 2006a), the East Branch boundary condition that EPA specified during the model calibration and validation cannot be used directly during the simulation of future conditions in the Rest of River since it does not account for reductions in PCB loading resulting from the remedial measures conducted and to be conducted within and near the upper two miles of the river. Accordingly, it was necessary for GE to develop an approach for specifying a PCB boundary condition for the East Branch to be used in the model projections. Given time constraints, it was not feasible for GE to develop an upstream model; rather, it was necessary to develop an alternate approach. This section thus describes GE's proposed approach for projecting that boundary condition.

Consistent with the approach used by EPA in model calibration/validation and proposed by GE in the MIA, the proposed East Branch boundary condition is based on water column particulate-phase PCB concentrations, for both current and projected future conditions. In the model, particulate-phase PCB concentrations are assigned to the water column suspended solids (i.e., particulate-phase PCBs are applied to the East Branch TSS boundary condition specified in the EFDC model [Section 2.2 of the MIA]) and the corresponding dissolved-phase PCB concentrations are calculated based on three-phase PCB partitioning theory as applied by EPA for the model validation period. To account for the anticipated reduction in PCB load at the East Branch boundary following planned remedial projects in areas affecting the East Branch, GE has estimated current particulate-phase PCB concentrations for that boundary, and then linearly adjusted the concentrations downward over a 10-year period to estimated future particulate-phase PCB concentrations (as described in the CMS Proposal and MIA). Current particulate-phase PCB concentrations have been established using the water column data discussed in Section 3.3. Future particulate-phase PCB concentrations have been estimated based on a qualitative assessment of the reduction in PCB loads anticipated through the completion of remaining remedial actions.

4.2 CURRENT CONDITION

Based on the analysis of the supplemental sampling data described in Section 3, GE has developed the current East Branch boundary condition based primarily on the supplemental water column data. As described in Section 3.4, the sediments in the East Branch cannot fully account for the PCB load to the Rest of River; therefore the water column data provide a representation of sources that are not accounted for in the Upper ½ Mile and 1½ Mile Reach sediment data. Furthermore, the water column data represent a direct measurement of the current PCB load to the Rest of River. The boundary condition proposed in this section uses an approach similar to that developed by EPA for the model validation, in which a relationship between water column particulate-phase PCB concentrations (i.e., *r*) and river flow is used to define the water column PCB concentrations entering the Rest of River from the East Branch. The function proposed to be used for the current boundary condition is plotted in Figure 4-1[8] and uses the Pomeroy Avenue flows estimated from the 2007 stage heights and rating curve described in Section 3.2). This function includes two components that reflect the flow-dependence of *r* values:

- The low flow component (< 550 cfs at Pomeroy Avenue) is based on a log-log regression of *r* versus flow rate, which accounts for dilution of low flow loads. The slope of this regression line was adjusted slightly to match the high flow value at a flow of 550 cfs.
- The high flow component (> 550 cfs at Pomeroy Avenue) utilizes a constant particulate-phase PCB concentration of approximately 0.52 mg/kg (the average concentration from the 2007 high flow data with flows > 550 cfs; see Section 3.3.3), since the *r* values

[8] For reference, the relationship between *r* and flow used by EPA during the model validation period is also plotted on Figure 4-1.

calculated for the supplemental water column data exhibit no evident relationship with river flow.

4.3 FUTURE CONDITION

4.3.1 Background

In the MIA, GE proposed to estimate the future water column PCB boundary condition from the current condition based upon reductions associated with planned remediation activities in the areas near the East Branch. Current conditions would linearly transition to future conditions over a 10-year period to account for the time required to complete the remediation, as well as time for levels to attenuate to a future steady-state condition. Since the majority of the model projection period (42 of the 52 years simulated) will use East Branch boundary conditions at this future condition, the assumed future water column particulate-phase PCB concentration is important for the model projections. In the MIA, GE proposed that that future concentration would be developed based on a qualitative assessment of the reduction in PCB loads due to the remaining remediation activities affecting the East Branch, but would be no lower than the PCB concentrations observed in sediments between the Hubbard Avenue and Newell Street Bridges, which are upstream of most major historical GE Plant area sources.

In its conditional approval letter for the MIA, EPA stated that it “concurred” with the use of the Newell Street to Hubbard Avenue sediment PCB data as a starting point for determination of the future particulate-phase PCB boundary condition. The letter went on to describe an alternate methodology for dealing with non-detect values to derive an alternate, and lower, mean PCB concentration. However, GE did not propose to use the Hubbard Avenue to Newell Street sediment data as the starting point for determining future conditions, but rather as a floor to limit the estimates of future conditions based on the anticipated reduction in PCB loadings due to remediation of PCB sources contributing to the current conditions. It is not appropriate to directly use the Hubbard Avenue to Newell Street sediment data as an estimate of future conditions since such an approach implicitly assumes that past and future remediation activities within the East Branch region of the river were, or will be, 100% effective at eliminating PCB inputs to the river.

In fact, the future condition in the East Branch is dependent on the remaining sources. Areas that have been, or will be, remediated to the cleanup standards deemed protective of human health and the environment under the CD or the state Administrative Consent Order (ACO) will still contain residual amounts of PCBs (as recognized by those standards) and thus will still contribute PCBs to the East Branch, albeit at much reduced levels. Such areas include the Upper ½ Mile Reach banks, portions of the GE Plant Area, Unkamet Brook, Silver Lake, the Former Oxbow Areas, the 1½ Mile banks and floodplain properties, and certain off-site "fill" areas. In addition, the upstream watershed and sediments within the East Branch itself, including the portions upstream of Newell Street, will continue to contribute some amount of PCBs to the river, principally due to regional background contamination.

Future conditions in the East Branch are difficult to estimate for a number of reasons. First, as noted above, since EPA's "Upstream Model" of the East Branch was discontinued, there is no validated model available for use in forecasting future conditions in the East Branch. Second, the relative contribution of PCBs to the East Branch from each of the various sources listed above is unknown. Third, since the remediation of a number of those sources has not yet been commenced or completed, there is no reliable way to predict with confidence the extent of the reduction in their contribution of PCBs to the East Branch. Finally, any predictions of future conditions cannot be verified by water column data from the East Branch. For these reasons, the future conditions in the East Branch cannot be known with certainty until the remaining remediation work has been completed, the system has reached equilibrium with PCB inputs, and water column data from the East Branch can be obtained. Nonetheless, a future condition needs to be specified now in order to conduct the model simulations of the proposed CMS alternatives.

4.3.2 Development of Future Condition

Based on the above, GE proposes to apply a qualitative approach for estimating the future condition by applying reduction factors to the current condition. Using this approach, the current condition will be adjusted by a percentage that has been derived based on the anticipated reductions from remaining remediation projects affecting the East Branch; while remediation of most sites is complete, a few large areas remain (e.g., East Street Area 2-South, Unkamet Brook Area, Silver Lake). Since different sources act under different flow conditions, separate low and high flow reduction factors have been developed. Given the substantial uncertainty in estimating such future reductions, these reduction factors have been based on a qualitative assessment of the potential sources and the potential reductions from them, using best professional judgment.

4.3.2.1 Low Flow Reduction Factor

Development of the low flow reduction factor was based on a qualitative assessment of the various sources that currently contribute PCBs to the East Branch under low flow conditions. Potential low flow sources to the East Branch include advection from upstream, diffusion from East Branch sediments, and inflow from Unkamet Brook and Silver Lake, as well as other small diffuse inputs such as groundwater inputs.

While the available PCB data on potential contributions from these sources are limited, they indicate that Unkamet Brook and Silver Lake likely dominate the known sources listed above (on a relative basis) under low flow conditions. For example, low flow PCB concentrations in water column samples collected from the Silver Lake Outfall between May 2006 and March 2007 ranged from 100 to 690 ng/L, and averaged approximately 330 ng/L over this time period. Moreover, low flow PCB concentrations in Unkamet Brook water column samples collected between August 2002 and August 2003 ranged from non-detect to 365 ng/L, and averaged approximately 207 ng/L over that sampling period. In contrast, PCB contributions for other inputs are likely much lower. For example, as noted in Section 3.4 above, diffusion from East Branch sediments was estimated to produce low flow PCB concentrations of 1 ng/L (or less) at Pomeroy Avenue. Considering these concentrations in light of current measured values in the East Branch (which are generally in the 10 to 20 ng/L range in the river at Pomeroy Avenue during low flow), it appears that Unkamet Brook and Silver Lake likely account for the majority of the PCB load currently measured during low flow conditions.

Remediation of both Unkamet Brook and Silver Lake has not yet been completed. It is anticipated that the planned capping of Silver Lake sediments will greatly reduce or largely eliminate this PCB source. Also, assuming that the predominant source of the loadings from Unkamet Brook originates from the sediments, these sediments will be remediated to a cleanup standard of 1 mg/kg from a current average concentration of approximately 15 mg/kg (a reduction of 93%). Based on this general qualitative assessment of these remaining sources and the potential reductions in PCB loads that may occur from future activities, it is estimated, as a matter of best professional judgment and for purposes of developing an East Branch boundary condition to use in the model simulations in the CMS, that these additional remedial actions will achieve an approximate order-of-magnitude reduction in PCB loads during low flow periods (i.e., a low flow reduction of 90%).

4.3.2.2 High Flow Reduction Factor

As described in Section 3.4, resuspension of East Branch sediments cannot fully account for the current observed high flow PCB loading at Pomeroy Avenue. Reasons for this, based on the assessment of the supplemental water column and sediment data, include:

- The TSS patterns during storm event sampling are not consistent with that of solids loads associated with sediment resuspension (i.e., the peak in TSS concentration occurs prior to the peak in flow, as shown in Figure 3-6a).
- Water column PCB concentrations were as high in the smaller storm event #2 (Pomeroy peak flow ~320 cfs) as observed in the larger storm event #1 (Pomeroy peak flow ~1,800 cfs). This suggests the absence of a fine sediment layer with relatively high PCB concentration that might be resuspended, and is more indicative of precipitation-driven PCB inputs from the surrounding watershed.
- The observed differences between high flow water column particulate data and East Branch sediment data indicate that PCB concentrations on water column particulates during high flow were approximately twofold higher than East Branch sediments, and

that water column particulate f_{oc} was approximately tenfold greater than levels measured in the surface sediments.

For these reasons, the high flow PCB load observed at Pomeroy Avenue is likely dominated by diffuse remaining source areas (largely watershed or plant site source areas; see Section 4.3.1), for which there are insufficient data to estimate loadings. Due to a lack of data for these sources, the estimated future reduction was estimated based on a qualitative assessment of future reductions in particulate-phase PCB loads anticipated through the completion of remediation within the East Branch watershed.

There are a number of areas which have PCB-containing surface soils that could affect the East Branch (directly or via Unkamet Brook) through runoff and at which remediation activities under the CD or the state ACO have not yet been conducted (or completed). These include the Removal Action Areas known as East Street Area 2-South, East Street Area 2-North, Hill 78 Area-Remainder, the Unkamet Brook Area, and the Lyman Street Area east of Lyman Street, as well as the ACO sites known as the Commercial Street Site (adjacent to the East Branch) and the Dalton Avenue Site (adjacent to the upper portion of Unkamet Brook). It is anticipated that soil remediation at these sites will reduce high flow loadings to the East Branch. In addition, there are various planned Best Management Practices (BMPs) that GE has agreed to implement to mitigate plant site stormwater PCB discharges.

As described in Section 4.3.1, the relative contribution of PCBs to the East Branch from these remaining contributing sources is unknown. Further, there is no reliable way to predict with confidence the extent to which the planned soil remediation and/or stormwater BMPs will reduce their contribution of PCBs to the East Branch. Based on a general qualitative assessment of these remaining sources and the potential reductions in PCB loads that may occur from future activities, it is estimated, as a matter of best professional judgment and for purposes of developing an East Branch boundary condition to use in the model simulations in the CMS, that these additional remedial actions will achieve a two-fold reduction in PCB loads during periods of higher flow (i.e., a high flow reduction of 50%).

4.3.2.3 Half-Life

In the conditional approval of the MIA, EPA directed GE to exponentially reduce the East Branch boundary condition for the duration of the model projections, using an assumed 20-year PCB half-life based on a value that GE estimated for the West Branch in the MIA.

The EPA directive to apply a half-life to East Branch particulate-phase PCB concentrations is not appropriate. The use of a half-life is a simple means of simulating natural recovery processes that are occurring in a riverine system (i.e., burial in depositional environments, scour losses downstream, and dilution with upstream clean solids). The use of such a half-life, however, does not apply to upland soil sources, which are not subject to the types of natural recovery processes that occur in the dynamic system of a river, but should remain in more or less their post-remediation condition.

In light of these factors, GE proposed to apply a half-life to the West Branch boundary condition, because GE’s proposed remediation for the West Branch will address the major remaining sources affecting the West Branch (the river sediments and bank soils adjacent to Dorothy Amos Park) by remediating them to non-detect or very low PCB levels. Thus, the half-life proposed for the West Branch will reflect the anticipated natural recovery rate of sediments within the West Branch following that remediation. By contrast, while natural recovery processes are certainly occurring in the East Branch, they will be tempered by continuing contributions from the sources identified in Section 4.3.1 above (e.g., soils in areas adjacent to or near the East Branch that have been or will be remediated to cleanup standards that contemplate the presence of residual PCBs). The available mass of PCBs in the surface soil of these areas following remediation is not expected to decline appreciably during the model projection period since such upland soils are not subject to the same types of natural recovery processes that occur within the river. Therefore, application of a half-life to the East Branch boundary condition is not appropriate.

4.3.2.4 Proposed Future Condition

The flow-stratified reduction factors described in the sections above were used to construct the future boundary condition by applying the estimated low flow reduction (90%) and high flow reduction (50%) to the particulate-phase PCB-flow relationship presented in Figure 4-1. Application of these reduction factors to the low flow and high flow particulate-phase PCB relationships is shown in Figure 4-2.

4.4 FINAL BOUNDARY CONDITION

Water column PCB concentrations developed for the East Branch boundary based on the methods described above are plotted over the 52-year projection period in Figure 4-3. The boundary condition was developed by assigning the *r* value from the fitting lines in Figure 4-2 (based on model flow as presented in Section 2.1 of the MIA), and multiplying that *r* value by the associated TSS concentration for the boundary condition (as presented in Section 2.2 of the MIA). Multiplication of particulate-phase PCB concentration by TSS produces a volumetric water column particulate-phase PCB concentration (in µg/L). The corresponding dissolved-phase component was then calculated based on the particulate-phase PCB concentration and the three-phase partitioning equations used by EPA for the validation period boundary conditions (see FMDR Appendix B.2). The dissolved and particulate fractions were summed to compute the whole-water PCB concentration that will be input to the model.

The resulting boundary condition shown in Figure 4-3 exhibits variability with river flow, and ranges between 20 and 200 ng/L (with an annual average of approximately 40 ng/L) at the beginning of the projection period, and decreases over ten years to the future values, which generally range between 1 and 100 ng/L (with an annual average of approximately 5 to 6 ng/L).

SECTION 5
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TABLES

Table 2-1. Summary of sediment sampling results - Upper 1/2 Mile Reach.
(Results are presented in dry weight parts per million, ppm).

Sample ID: Sample Depth (inches): Parameter Date Collected:	RS-C1 0-3 05/25/07	RS-C4 0-7 05/25/07	RS-C7 0-5 05/25/07	RS-C10 0-3 05/25/07	RS-C14 0-6 05/25/07	RS-C17 0-6 05/25/07	RS-C17 6-25 05/25/07	RS-C26 0-6 05/24/07
PCBs								
Aroclor-1221	ND(0.023)	ND(0.024)	ND(0.024) [ND(0.023)]	ND(0.066)	ND(0.024)	ND(0.023)	ND(0.26)	ND(0.028)
Aroclor-1242	ND(0.023)	ND(0.024)	ND(0.024) [ND(0.023)]	ND(0.066)	ND(0.024)	ND(0.023)	ND(0.26)	ND(0.028)
Aroclor-1248	0.060 J	0.025 J	ND(0.024) [ND(0.023)]	0.19 J	ND(0.024)	ND(0.023)	1.1 J	0.063 J
Aroclor-1254	0.088	0.039	ND(0.024) [ND(0.023)]	0.54	0.055	0.046	2.3	0.098
Aroclor-1260	0.032	0.097	0.061 J [0.036 J]	1.3	0.11	0.11	7.2	0.16
Total PCBs	0.18 J	0.161 J	0.061 J [0.036 J]	2.03 J	0.165	0.156	10.6 J	0.321 J
Total Organic Carbon								
TOC - Replicate 1	2100	3500	1900 [2100]	2600	2300	2400	5600	5300
TOC - Replicate 2	1800	6700	2500 [7700]	2200	2300	1300	13000	4800
TOC - Replicate 3	1600	2500	2700 [4000]	2300	1700	1900	9400	3600
TOC - Replicate 4	NA	2100	NA [1600]	NA	NA	1200	5700	NA
TOC - Average	1800	3700	2400 [3800]	2400	2100	1700	8500	4550 J
TOC - % RSD	14	56	18 [72]	11	17	33	43	20

Table 2-1. Summary of sediment sampling results - Upper 1/2 Mile Reach.
(Results are presented in dry weight parts per million, ppm).

Parameter — Sample ID: / Sample Depth (inches): / Date Collected:	RS-C29 0-6 05/24/07	RS-C29 6-8 05/24/07	RS-C31 0-6 05/24/07	RS-C34 0-6 05/24/07	RS-C37 0-6 05/24/07	RS-C37 6-8 05/24/07	RS-N2 0-3 05/25/07	RS-N5 0-6 05/25/07
PCBs								
Aroclor-1221	ND(0.024)	ND(0.23) [ND(0.093)]	ND(0.023)	ND(0.023)	ND(0.024)	ND(0.024)	ND(0.023)	ND(0.024)
Aroclor-1242	ND(0.024)	ND(0.23) [ND(0.093)]	ND(0.023)	ND(0.023)	ND(0.024)	ND(0.024)	ND(0.023)	ND(0.024)
Aroclor-1248	ND(0.024)	ND(0.23) [0.43 J]	ND(0.023)	ND(0.023)	ND(0.024)	ND(0.024)	0.045 J	ND(0.024)
Aroclor-1254	0.024	ND(0.23) [0.49]	0.026	0.094	ND(0.024)	ND(0.024)	0.033	0.033
Aroclor-1260	0.091	4.6 J [2.5 J]	0.045	0.064	0.038	0.033	0.051	0.095
Total PCBs	0.115	4.6 J [3.42 J]	0.071	0.158	0.038	0.033	0.129 J	0.128
Total Organic Carbon								
TOC - Replicate 1	4500	14000 [27000]	1300	3100	3600	8100	3000	1500
TOC - Replicate 2	3000	13000 [37000]	3700	2700	5200	4800	6400	1700
TOC - Replicate 3	2600	21000 [24000]	1600	2300	2800	6200	4000	2000
TOC - Replicate 4	4200	18000 [NA]	1500	NA	1700	5000	6300	NA
TOC - Average	3600	16300 J [29500 J]	2000	2700	3310 J	6000	4900	1800
TOC - % RSD	25	23 [24]	57	15	45	25	35	13

Table 2-1. Summary of sediment sampling results - Upper 1/2 Mile Reach.
(Results are presented in dry weight parts per million, ppm).

Parameter / Sample ID: / Sample Depth (inches): / Date Collected:	RS-N8 0-2 05/25/07	RS-N11 0-6 05/25/07	RS-N11 6-10 05/25/07	RS-N12 0-5 05/25/07	RS-N15 0-6 05/25/07	RS-N15 6-9 05/25/07	RS-N18 0-6 05/24/07	RS-N18 6-14 05/24/07	RS-N27 0-6 05/24/07
PCBs									
Aroclor-1221	ND(0.022)	ND(0.023)	ND(0.095)	ND(0.024)	ND(0.024)	ND(0.024)	ND(0.025)	ND(0.024)	ND(0.022)
Aroclor-1242	ND(0.022)	ND(0.023)	ND(0.095)	ND(0.024)	ND(0.024)	ND(0.024)	ND(0.025)	ND(0.024)	ND(0.022)
Aroclor-1248	0.023 J	ND(0.023)	ND(0.095)	0.20 J	0.025 J	0.35 J	0.078 J	0.11 J	ND(0.022)
Aroclor-1254	0.25	0.069	1	0.59	0.064	0.96	0.18	0.048	ND(0.022)
Aroclor-1260	0.17	0.19	1.9	0.32	0.085	0.2	0.11	0.068	0.034
Total PCBs	0.443 J	0.259	2.9	1.11 J	0.174 J	1.51 J	0.368 J	0.226 J	0.034
Total Organic Carbon									
TOC - Replicate 1	2400	1300	3800	2000	2000	2000	2600	1400	1900
TOC - Replicate 2	2300	12000	12000	3000	33000	2200	5100	2600	1400
TOC - Replicate 3	7700	4500	2500	2000	2100	2000	3400	1700	1300
TOC - Replicate 4	4500	NA	2500	NA	1500	NA	2000	1600	NA
TOC - Average	4200	5500	5100	2300	9700	2100	3300	1800	1500
TOC - % RSD	60	80	86	24	160	4.4	41	28	21

Table 2-1. Summary of sediment sampling results - Upper 1/2 Mile Reach.
(Results are presented in dry weight parts per million, ppm).

Sample ID: Sample Depth (inches): Parameter Date Collected:	RS-N30 0-4 05/24/07	RS-N32 0-6 05/24/07	RS-N32 6-9 05/24/07	RS-N35 0-6 05/24/07	RS-N35 6-8 05/24/07	RS-S3 0-6 05/25/07	RS-S6 0-3 05/25/07	RS-S9 0-3 05/25/07	RS-S13 0-3 05/25/07
PCBs									
Aroclor-1221	ND(0.023)	ND(0.022)	ND(0.025)	ND(0.023)	ND(0.023)	ND(0.022)	ND(0.021)	ND(0.024)	ND(0.025)
Aroclor-1242	ND(0.023)	ND(0.022)	ND(0.025)	ND(0.023)	ND(0.023)	0.042 J	ND(0.021)	ND(0.024)	ND(0.025)
Aroclor-1248	0.025 J	ND(0.022)	0.039 J	ND(0.023)	0.039 J	ND(0.022)	ND(0.021)	ND(0.024)	ND(0.025)
Aroclor-1254	0.1	ND(0.022)	0.046	ND(0.023)	0.073	0.044	0.058	ND(0.024)	0.049
Aroclor-1260	0.04	ND(0.022)	0.14	0.044	0.12	0.034	0.24	ND(0.024)	0.074
Total PCBs	0.165 J	ND(0.022)	0.225 J	0.044	0.232 J	0.12 J	0.298	ND(0.024)	0.123
Total Organic Carbon									
TOC - Replicate 1	16000	1500	2600	1600	3500	3300	2400	1500	1900
TOC - Replicate 2	2900	1700	2500	1300	2600	1900	3100	1700	3900
TOC - Replicate 3	4300	2100	2200	2400	2500	1300	2600	1200	1100
TOC - Replicate 4	2500	NA	NA	2700	NA	1400	NA	NA	1700
TOC - Average	6500	1700	2400	2000	2900	2000	2700	1400	2200
TOC - % RSD	100	17	7.5	32	20	47	14	17	58

Table 2-1. Summary of sediment sampling results - Upper 1/2 Mile Reach.

(Results are presented in dry weight parts per million, ppm).

Parameter / Sample ID: / Sample Depth (inches): / Date Collected:	RS-S16 0-6 05/25/07	RS-S16 6-11 05/25/07	RS-S19 0-6 05/25/07	RS-S20 0-6 05/24/07	RS-S20 6-10 05/24/07	RS-S21 0-6 05/24/07	RS-S22 0-6 05/24/07	RS-S23 0-6 05/24/07
PCBs								
Aroclor-1221	ND(0.025)	ND(0.027)	ND(0.020)	ND(0.022)	ND(0.022)	ND(0.025)	ND(0.024) [0.051 J]	ND(0.023)
Aroclor-1242	ND(0.025)	ND(0.027)	0.12 J	ND(0.022)	ND(0.022)	ND(0.025)	ND(0.024) [ND(0.024)]	ND(0.023)
Aroclor-1248	ND(0.025)	0.17 J	ND(0.020)	ND(0.022)	ND(0.022)	ND(0.025)	ND(0.024) [0.025 J]	0.024 J
Aroclor-1254	0.047	0.2	0.076	ND(0.022)	0.026	0.044	0.047 [0.06]	0.11
Aroclor-1260	0.094	0.35	0.048	ND(0.022)	0.024	0.08	0.13 J [0.047 J]	0.028
Total PCBs	0.141	0.72 J	0.244 J	ND(0.022)	0.050	0.124	0.177 J [0.183 J]	0.162 J
Total Organic Carbon								
TOC - Replicate 1	1500	8700	880	3900	4100	3600	3000 [7500]	1600
TOC - Replicate 2	1900	11000	970	1400	1200	7900	3100 [7200]	1200
TOC - Replicate 3	1500	9000	24000	2100	1100	2000	3900 [13000]	1000
TOC - Replicate 4	NA	NA	2100	30000	1300	2000	NA [5300]	NA
TOC - Average	1660 J	9600	7000	9400	1900	3900	3340 J [8110 J]	1300
TOC - % RSD	15	14	160	150	76	72	15 [38]	21

Table 2-1. Summary of sediment sampling results - Upper 1/2 Mile Reach.

(Results are presented in dry weight parts per million, ppm).

Parameter — Sample ID: / Sample Depth (inches): / Date Collected:	RS-S23 6-11 05/24/07	RS-S24 0-6 05/24/07	RS-S24 6-9 05/24/07	RS-S25 0-4 05/24/07	RS-S28 0-6 05/24/07	RS-S33 0-5 05/24/07	RS-S36 0-5 05/24/07	RS-XXX 0-6 05/24/07	RS-YYY 0-3 05/25/07
PCBs									
Aroclor-1221	ND(0.024)	ND(0.026)	ND(0.022)	ND(0.025)	ND(0.025)	ND(0.024)	ND(0.024)	ND(0.023)	ND(0.023)
Aroclor-1242	ND(0.024)	ND(0.026)	ND(0.022)	ND(0.025)	ND(0.025)	ND(0.024)	ND(0.024)	ND(0.023)	ND(0.023)
Aroclor-1248	0.047 J	ND(0.026)	0.062 J	0.040 J	0.030 J	ND(0.024)	0.076 J	0.044 J	0.066 J
Aroclor-1254	0.073	ND(0.026)	0.27	0.054	0.047	0.056	0.18	0.11	0.14
Aroclor-1260	0.083	0.052	0.11	0.2	0.073	0.032	0.11	0.16	0.26
Total PCBs	0.203 J	0.052	0.442 J	0.294 J	0.15 J	0.088	0.366 J	0.314 J	0.466 J
Total Organic Carbon									
TOC - Replicate 1	4300	2200	1700	1500	8100	3500	1600	2600	3300
TOC - Replicate 2	4400	4000	1100	1800	3200	2900	1400	1300	1700
TOC - Replicate 3	3700	2500	1500	5500	3800	2300	2000	2300	3100
TOC - Replicate 4	NA	11000	NA	1200	3900	NA	NA	1300	2600
TOC - Average	4100	4900	1400	2500	4700	2900	1700	1900	2600
TOC - % RSD	8.0	84	22	80	48	21	17	36	27

Notes:

1. *Samples were collected by ARCADIS BBL, and submitted to Northeast Analytical, Inc. for analysis of PCBs and total organic carbon (TOC).*
2. *Samples have been validated as per Field Sampling Plan/Quality Assurance Project Plan (FSP/QAPP), General Electric Company, Pittsfield, MA, ARCADIS BBL (approved March 15, 2007 and re-submitted March 30, 2007).*
3. *% RSD - Percent relative standard deviation.*
4. *NA - Not analyzed - TOC Replicate 4 is only analyzed and reported by laboratory when the % RSD of Replicate 1 thru Replicate 3 is greater than 25%.*
5. *ND(0.025) - Analyte was not detected. The number in parentheses is the associated detection limit.*
6. *Only those constituents detected in one or more samples are summarized.*

Data Qualifiers:

J - Indicates that the associated numerical value is an estimated concentration.

Table 2-2. Summary of sediment grain size analysis results - Upper 1/2 Mile Reach.
(Results are in percent material passing through sieve).

Sample ID	Depth (inches)	Date Collected	SIEVE OPENING (mm)															
			300	150	75	50	37.5	25	19	12.5	9.5	4.75	2	0.85	0.425	0.25	0.106	0.075
RS-C4	0-7	5/25/2007	100.00	100.00	100.00	100.00	100.00	100.00	100.00	89.87	84.39	68.45	48.04	32.32	13.16	4.26	1.55	1.12
RS-C10	0-3	5/25/2007	100.00	100.00	100.00	100.00	100.00	97.02	89.49	81.29	73.68	58.41	41.53	23.50	10.99	5.56	1.93	1.27
RS-C14	0-6	5/25/2007	100.00	100.00	100.00	100.00	100.00	100.00	100.00	98.07	95.42	88.19	74.60	55.26	26.70	6.87	1.51	0.98
RS-C17	0-6	5/25/2007	100.00	100.00	100.00	100.00	100.00	100.00	100.00	99.73	98.91	96.42	85.14	59.77	34.84	15.91	2.95	1.61
RS-C17	6-25	5/25/2007	100.00	100.00	100.00	100.00	100.00	100.00	100.00	99.43	99.13	97.12	94.45	91.66	85.74	68.51	16.80	9.69
RS-C26	0-6	5/24/2007	100.00	100.00	100.00	100.00	100.00	100.00	100.00	97.64	95.58	87.76	75.85	56.25	34.75	14.90	4.78	3.60
RS-C29	0-6	5/24/2007	100.00	100.00	100.00	100.00	100.00	100.00	100.00	99.90	99.80	96.12	71.54	36.06	8.89	2.60	0.65	0.46
RS-C31	0-6	5/24/2007	100.00	100.00	100.00	100.00	100.00	100.00	100.00	99.58	99.29	96.24	74.91	37.97	9.63	2.05	0.55	0.44
RS-C34	0-6	5/24/2007	100.00	100.00	100.00	100.00	100.00	100.00	100.00	99.43	98.96	94.58	73.06	49.69	26.07	11.68	2.40	1.41
RS-N5	0-6	5/25/2007	100.00	100.00	100.00	100.00	100.00	100.00	100.00	99.64	97.37	91.67	80.44	59.84	28.61	7.61	1.67	1.17
RS-N11	0-6	5/25/2007	100.00	100.00	100.00	100.00	100.00	100.00	100.00	99.37	97.65	87.74	65.12	42.16	21.80	6.84	2.17	1.71
RS-N11	6-10	5/25/2007	100.00	100.00	100.00	100.00	100.00	92.99	92.08	91.58	89.10	77.80	58.48	39.18	21.19	7.29	2.18	1.64
RS-N12	0-5	5/25/2007	100.00	100.00	100.00	100.00	100.00	100.00	100.00	99.10	95.43	84.35	57.75	29.60	11.32	4.92	1.34	0.85
RS-N27	0-6	5/24/2007	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	99.83	91.87	49.39	22.94	10.70	4.89	1.43	0.96
RS-N32	0-6	5/24/2007	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	99.95	97.43	55.42	2.89	0.84	0.29	0.20
RS-N32	6-9	5/24/2007	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	99.93	97.06	89.15	45.83	7.11	3.92	1.14	0.73
RS-S3	0-6	5/25/2007	100.00	100.00	100.00	100.00	100.00	100.00	97.34	85.74	79.71	57.47	29.40	10.89	4.04	2.16	0.82	0.61
RS-S19	0-6	5/25/2007	100.00	100.00	100.00	100.00	100.00	100.00	100.00	99.67	99.12	72.51	16.10	3.86	2.86	2.24	0.59	0.35
RS-S21	0-6	5/24/2007	100.00	100.00	100.00	100.00	100.00	100.00	100.00	99.22	98.68	94.39	77.21	43.50	14.60	3.30	1.26	0.94
RS-S23	0-6	5/24/2007	100.00	100.00	100.00	100.00	100.00	100.00	100.00	99.81	99.81	98.69	81.99	29.72	7.02	2.32	0.63	0.44
RS-S23	6-11	5/24/2007	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	99.96	98.63	88.69	64.39	48.32	21.04	8.09	5.06
RS-S25	0-4	5/24/2007	100.00	100.00	100.00	100.00	100.00	100.00	97.50	96.38	95.15	94.46	93.94	79.58	24.99	9.09	2.21	1.21
RS-S36	0-5	5/24/2007	100.00	100.00	100.00	100.00	100.00	100.00	100.00	99.68	99.62	98.08	89.63	49.64	13.52	3.39	1.14	0.93

Notes:
1. Samples were collected by ARCADIS BBL, and submitted to Geotechnics, Inc. for grain size analysis.

Table 2-3. Summary of EPA sediment sampling results - 1 1/2 Mile Reach.
(Results are presented in dry weight parts per million, ppm, except as noted).

Site ID Location ID Field Sample ID Date Collected Depth (inches) Analyte Source	T066 SE001674 H2-SE001674-0-0000 05/31/2007 0-4 EPA_COE	T066 SE001675 H2-SE001675-0-0000 05/31/2007 0-5 EPA_COE	T066 SE001676 H2-SE001676-0-0000 05/31/2007 0-3 EPA_COE	T070 SE001671 H2-SE001671-0-0000 05/31/2007 0-6 EPA_COE	T070 SE001672 H2-SE001672-0-0000 05/31/2007 0-6 EPA_COE	T070 SE001673 H2-SE001673-0-0000 05/31/2007 0-2 EPA_COE
PCBS						
PCB, Total	1.9	.082	.5	.48	.13	.1
Aroclor-1016	.23 U	.019 U	.041 U	.042 U	.02 U	.02 U
Aroclor-122	.23 U	.019 U	.041 U	.042 U	.02 U	.02 U
Aroclor-1232	.23 U	.019 U	.041 U	.042 U	.02 U	.02 U
Aroclor-1242	.23 U	.019 U	.041 U	.042 U	.02 U	.02 U
Aroclor-1248	.23 U	.019 U	.041 U	.042 U	.02 U	.02 U
Aroclor-1254	1.2	.05	.051	.067	.063	.058
Aroclor-1260	.71	.032	.45	.41	.071	.045
Total Organic Carbon						
TOC	5110	2090	1240	1720	889	1630
Grain Size						
Clay (%)	1.2	0.20	0.20	NA	NA	NA
Coarse Sand (%)	0.10	18.6	13.7	NA	NA	NA
Fine Sand (%)	72.0	10.0	9.3	NA	NA	NA
Gravel (%)	0.10	3.4	1.0	NA	NA	NA
Medium Sand (%)	23.3	65.7	73.8	NA	NA	NA
Silt (%)	3.3	2.1	2.1	NA	NA	NA
Inorganics						
Percent Solids (%)	72.9	87.6	81.7	78.6	82.3	83.6

Table 2-3. Summary of EPA sediment sampling results - 1 1/2 Mile Reach.

(Results are presented in dry weight parts per million, ppm, except as noted)

Site ID	T074	T074	T074	T074	T078	T078
Location ID	SE001668	SE001669	SE001669	SE001670	SE001665	SE001666
Field Sample ID	H2-SE001668-0-0000	H2-SE001669-0-0000	H2-SE001669-1-0000	H2-SE001670-0-0000	H2-SE001665-0-0000	H2-SE001666-0-0000
Date Collected	05/31/2007	05/31/2007	05/31/2007	05/31/2007	05/31/2007	05/31/2007
Depth (inches)	0-0	0-6	0-6	0-4	0-5	0-6
Analyte Source	EPA_COE	EPA_COE	EPA_COE	EPA_COE	EPA_COE	EPA_COE
PCBS						
PCB, Total	.32	.1	.34	.13	1.3	.071
Aroclor-1016	.028 U	.021 U	.02 U	.021 U	.047 U	.021 U
Aroclor-122	.028 U	.021 U	.02 U	.021 U	.047 U	.021 U
Aroclor-1232	.028 U	.021 U	.02 U	.021 U	.047 U	.021 U
Aroclor-1242	.028 U	.021 U	.02 U	.021 U	.047 U	.021 U
Aroclor-1248	.028 U	.021 U	.02 U	.021 U	.047 U	.021 U
Aroclor-1254	.16	.07 J	.23	.062	.73	.025
Aroclor-1260	.16	.033 J	.11	.072	.56	.046
Total Organic Carbon						
TOC	28200	1260	1360	1880	7440	3060
Grain Size						
Clay (%)	NA	NA	NA	NA	2.6	0.10
Coarse Sand (%)	NA	NA	NA	NA	1.4	10.8
Fine Sand (%)	NA	NA	NA	NA	65.9	5.0
Gravel (%)	NA	NA	NA	NA	16.0	1.3
Medium Sand (%)	NA	NA	NA	NA	5.8	79.8
Silt (%)	NA	NA	NA	NA	8.3	3.1
Inorganics						
Percent Solids (%)	60.4	78.7	82.7	78.8	70.6	77.9

Table 2-3. Summary of EPA sediment sampling results - 1 1/2 Mile Reach.

(Results are presented in dry weight parts per million, ppm, except as noted).

Site ID	T078	T082	T082	T082	T086	T086
Location ID	SE001667	SE001662	SE001663	SE001664	SE001659	SE001660
Field Sample ID	H2-SE001667-0-0000	H2-SE001662-0-0000	H2-SE001663-0-0000	H2-SE001664-0-0000	H2-SE001659-0-0000	H2-SE001660-0-0000
Date Collected	05/31/2007	05/31/2007	05/31/2007	05/31/2007	05/31/2007	05/31/2007
Depth (inches)	0-3	0-4	0-6	0-6	0-2	0-5
Analyte Source	EPA_COE	EPA_COE	EPA_COE	EPA_COE	EPA_COE	EPA_COE
PCBS						
PCB, Total	.037	.12	.15	.11	.24	.063
Aroclor-1016	.022 U	.022 U	.023 U	.022 U	.021 U	.02 U
Aroclor-122	.022 U	.022 U	.023 U	.022 U	.021 U	.02 U
Aroclor-1232	.022 U	.022 U	.023 U	.022 U	.021 U	.02 U
Aroclor-1242	.022 U	.022 U	.023 U	.022 U	.021 U	.02 U
Aroclor-1248	.022 U	.022 U	.023 U	.022 U	.021 U	.02 U
Aroclor-1254	.022 U	.05	.083	.032	.16	.032 J
Aroclor-1260	.037	.072	.067	.078	.082	.031
Total Organic Carbon						
TOC	1730	18200	5320	1730	22100	8770
Grain Size						
Clay (%)	1.2	NA	NA	NA	NA	NA
Coarse Sand (%)	3.4	NA	NA	NA	NA	NA
Fine Sand (%)	14.7	NA	NA	NA	NA	NA
Gravel (%)	0.50	NA	NA	NA	NA	NA
Medium Sand (%)	79.6	NA	NA	NA	NA	NA
Silt (%)	0.60	NA	NA	NA	NA	NA
Inorganics						
Percent Solids (%)	75.2	76.3	74.5	77.1	79.0	84.7

Table 2-3. Summary of EPA sediment sampling results - 1 1/2 Mile Reach.

(Results are presented in dry weight parts per million, ppm, except as noted).

Site ID	T086	T086	T090	T090	T094	T094
Location ID	SE001660	SE001661	SE001657	SE001658	SE001654	SE001655
Field Sample ID	H2-SE001660-1-0000	H2-SE001661-0-0000	H2-SE001657-0-0000	H2-SE001658-0-0000	H2-SE001654-0-0000	H2-SE001655-0-0000
Date Collected	05/31/2007	05/31/2007	05/31/2007	05/31/2007	05/31/2007	05/31/2007
Depth (inches)	0-5	0-2	0-0	0-3	0-6	0-6
Analyte Source	EPA_COE	EPA_COE	EPA_COE	EPA_COE	EPA_COE	EPA_COE
PCBS						
PCB, Total	.24	.09	.3	.094	.12	.097
Aroclor-1016	.021 U	.022 U	.02 U	.021 U	.021 U	.021 U
Aroclor-122	.021 U	.022 U	.02 U	.021 U	.021 U	.021 U
Aroclor-1232	.021 U	.022 U	.02 U	.021 U	.021 U	.021 U
Aroclor-1242	.021 U	.022 U	.02 U	.021 U	.021 U	.021 U
Aroclor-1248	.021 U	.022 U	.02 U	.021 U	.021 U	.021 U
Aroclor-1254	.093 J	.042	.24	.054	.083	.048
Aroclor-1260	.15	.048	.056	.04	.035	.049
Total Organic Carbon						
TOC	33100	2660	1070	27200	968	2220
Grain Size						
Clay (%)	NA	NA	0.80	0.80	NA	NA
Coarse Sand (%)	NA	NA	8.5	0.10	NA	NA
Fine Sand (%)	NA	NA	10.6	63.7	NA	NA
Gravel (%)	NA	NA	2.3	0	NA	NA
Medium Sand (%)	NA	NA	77.3	33.0	NA	NA
Silt (%)	NA	NA	0.60	2.3	NA	NA
Inorganics						
Percent Solids (%)	80.1	75.6	84.3	79.0	78.2	79.6

Table 2-3. Summary of EPA sediment sampling results - 1 1/2 Mile Reach.
(Results are presented in dry weight parts per million, ppm, except as noted).

Site ID Location ID Field Sample ID Date Collected Depth (inches) Analyte Source	T094 SE001656 H2-SE001656-0-0000 05/31/2007 0-6 EPA_COE	T094 SE001656 H2-SE001656-1-0000 05/31/2007 0-6 EPA_COE	T098 SE001651 H2-SE001651-0-0000 05/31/2007 0-4 EPA_COE	T098 SE001652 H2-SE001652-0-0000 05/31/2007 0-4 EPA_COE	T098 SE001653 H2-SE001653-0-0000 05/31/2007 0-4 EPA_COE	T102 SE001648 H2-SE001648-0-0000 05/31/2007 0-2 EPA_COE
PCBS						
PCB, Total	.066	.075	.33	.18	.4	.11
Aroclor-1016	.022 U	.022 U	.03 U	.022 U	.022 U	.022 U
Aroclor-122	.022 U	.022 U	.03 U	.022 U	.022 U	.022 U
Aroclor-1232	.022 U	.022 U	.03 U	.022 U	.022 U	.022 U
Aroclor-1242	.022 U	.022 U	.03 U	.022 U	.022 U	.022 U
Aroclor-1248	.022 U	.022 U	.03 U	.022 U	.022 U	.022 U
Aroclor-1254	.029	.035	.17	.085	.3	.052
Aroclor-1260	.037	.04	.16	.095	.1	.058
Total Organic Carbon						
TOC	2470	3150	12900	1390	13800	5470
Grain Size						
Clay (%)	NA	NA	NA	NA	NA	1.9
Coarse Sand (%)	NA	NA	NA	NA	NA	0.20
Fine Sand (%)	NA	NA	NA	NA	NA	75.2
Gravel (%)	NA	NA	NA	NA	NA	0.10
Medium Sand (%)	NA	NA	NA	NA	NA	21.6
Silt (%)	NA	NA	NA	NA	NA	0.90
Inorganics						
Percent Solids (%)	76.0	75.1	55.7	74.4	77.1	75.9

Table 2-3. Summary of EPA sediment sampling results - 1 1/2 Mile Reach.

(Results are presented in dry weight parts per million, ppm, except as noted).

Site ID	T102	T102	T106	T106	T110	T110
Location ID	SE001649	SE001650	SE001646	SE001647	SE001644	SE001645
Field Sample ID	H2-SE001649-0-0000	H2-SE001650-0-0000	H2-SE001646-0-0000	H2-SE001647-0-0000	H2-SE001644-0-0000	H2-SE001645-0-0000
Date Collected	05/31/2007	05/31/2007	05/31/2007	05/31/2007	05/30/2007	05/30/2007
Depth (inches)	0-4	0-2	0-4	0-4	0-1	0-1
Analyte Source	EPA_COE	EPA_COE	EPA_COE	EPA_COE	EPA_COE	EPA_COE
PCBS						
PCB, Total	.2	.064	.17	.073	.021 U	.019 U
Aroclor-1016	.022 U	.02 U	.021 U	.022 U	.021 U	.019 U
Aroclor-122	.022 U	.02 U	.021 U	.022 U	.021 U	.019 U
Aroclor-1232	.022 U	.02 U	.021 U	.022 U	.021 U	.019 U
Aroclor-1242	.022 U	.02 U	.021 U	.022 U	.021 U	.019 U
Aroclor-1248	.022 U	.02 U	.021 U	.022 U	.021 U	.019 U
Aroclor-1254	.094	.031	.055	.036	.021 U	.019 U
Aroclor-1260	.11	.033	.11	.037	.021 U	.019 U
Total Organic Carbon						
TOC	3510	4280	1420	3000	3480	8200
Grain Size						
Clay (%)	0.80	0.70	NA	NA	NA	NA
Coarse Sand (%)	0.90	19.0	NA	NA	NA	NA
Fine Sand (%)	46.1	10.5	NA	NA	NA	NA
Gravel (%)	0.30	49.1	NA	NA	NA	NA
Medium Sand (%)	50.3	20.0	NA	NA	NA	NA
Silt (%)	1.6	0.70	NA	NA	NA	NA
Inorganics						
Percent Solids (%)	74.7	82.0	80.3	74.8	80.1	90.3

Table 2-3. Summary of EPA sediment sampling results - 1 1/2 Mile Reach.
(Results are presented in dry weight parts per million, ppm, except as noted).

Site ID Location ID Field Sample ID Date Collected Depth (inches) Analyte Source	T114 SE001642 H2-SE001642-0-0000 05/30/2007 0-6 EPA_COE	T114 SE001643 H2-SE001643-0-0000 05/30/2007 0-1 EPA_COE	T126 SE001639 H2-SE001639-0-0000 05/30/2007 0-3 EPA_COE	T126 SE001640 H2-SE001640-0-0000 05/30/2007 0-2 EPA_COE	T126 SE001641 H2-SE001641-0-0000 05/30/2007 0-2 EPA_COE	T130 SE001638 H2-SE001638-0-0000 05/30/2007 0-2 EPA_COE
PCBS						
PCB, Total	.16	.057	.12	.053	.17	.62
Aroclor-1016	.022 U	.02 U	.021 U	.019 U	.022 U	.065 U
Aroclor-122	.022 U	.02 U	.021 U	.019 U	.022 U	.065 U
Aroclor-1232	.022 U	.02 U	.021 U	.019 U	.022 U	.065 U
Aroclor-1242	.022 U	.02 U	.021 U	.019 U	.022 U	.065 U
Aroclor-1248	.022 U	.02 U	.021 U	.019 U	.022 U	.065 U
Aroclor-1254	.08	.029	.058	.022	.062	.5
Aroclor-1260	.083	.028	.06	.031	.11	.12
Total Organic Carbon						
TOC	28800	1100	3560	1690	22100	3890
Grain Size						
Clay (%)	0.70	0.20	0.30	0.10	0.80	NA
Coarse Sand (%)	1.1	4.5	0.40	9.9	0.20	NA
Fine Sand (%)	61.2	20.1	77.6	1.2	83.0	NA
Gravel (%)	5.9	15.9	0.10	76.7	2.1	NA
Medium Sand (%)	25.5	57.6	17.3	12.0	8.9	NA
Silt (%)	5.6	1.8	4.3	0.20	5.0	NA
Inorganics						
Percent Solids (%)	74.9	84.8	80.9	89.6	75.9	77.1

Table 2-3. Summary of EPA sediment sampling results - 1 1/2 Mile Reach.

(Results are presented in dry weight parts per million, ppm, except as noted).

Site ID	T134	T134	T134	T138	T138	T142
Location ID	SE001625	SE001626	SE001627	SE001628	SE001629	SE001630
Field Sample ID	H2-SE001625-0-0000	H2-SE001626-0-0000	H2-SE001627-0-0000	H2-SE001628-0-0000	H2-SE001629-0-0000	H2-SE001630-0-0000
Date Collected	05/30/2007	05/30/2007	05/30/2007	05/30/2007	05/30/2007	05/30/2007
Depth (inches)	0-4	0-4	0-4	0-3	0-5	0-4
Analyte Source	EPA_COE	EPA_COE	EPA_COE	EPA_COE	EPA_COE	EPA_COE
PCBS						
PCB, Total	.072	.066	.07	.083	.02 U	.16
Aroclor-1016	.021 U	.02 U	.022 U	.021 U	.02 U	.024 U
Aroclor-122	.021 U	.02 U	.022 U	.021 U	.02 U	.024 U
Aroclor-1232	.021 U	.02 U	.022 U	.021 U	.02 U	.024 U
Aroclor-1242	.021 U	.02 U	.022 U	.021 U	.02 U	.024 U
Aroclor-1248	.021 U	.02 U	.022 U	.021 U	.02 U	.024 U
Aroclor-1254	.021 U	.036	.03	.036	.02 U	.08
Aroclor-1260	.072	.03	.04	.047	.02 U	.075
Total Organic Carbon						
TOC	1590	8770	3710	3720	1810	4570
Grain Size						
Clay (%)	NA	NA	NA	0.80	0.30	NA
Coarse Sand (%)	NA	NA	NA	0.50	1.3	NA
Fine Sand (%)	NA	NA	NA	69.6	31.0	NA
Gravel (%)	NA	NA	NA	0.30	0	NA
Medium Sand (%)	NA	NA	NA	26.4	65.8	NA
Silt (%)	NA	NA	NA	2.3	1.7	NA
Inorganics						
Percent Solids (%)	79.1	83.1	76.7	80.1	82.9	71.1

Table 2-3. Summary of EPA sediment sampling results - 1 1/2 Mile Reach.

(Results are presented in dry weight parts per million, ppm, except as noted).

Site ID	T142	T142	T146	T146	T146	T150
Location ID	SE001631	SE001632	SE001633	SE001634	SE001635	SE001636
Field Sample ID	H2-SE001631-0-0000	H2-SE001632-0-0000	H2-SE001633-0-0000	H2-SE001634-0-0000	H2-SE001635-0-0000	H2-SE001636-0-0000
Date Collected	05/30/2007	05/30/2007	05/30/2007	05/30/2007	05/30/2007	05/30/2007
Depth (inches)	0-5	0-5	0-4	0-2	0-2	0-4
Analyte Source	EPA_COE	EPA_COE	EPA_COE	EPA_COE	EPA_COE	EPA_COE
PCBS						
PCB, Total	.32	.057	.18	.025	.02 U	.12
Aroclor-1016	.025 U	.021 U	.02 U	.02 U	.02 U	.023 U
Aroclor-122	.025 U	.021 U	.02 U	.02 U	.02 U	.023 U
Aroclor-1232	.025 U	.021 U	.02 U	.02 U	.02 U	.023 U
Aroclor-1242	.025 U	.021 U	.02 U	.02 U	.02 U	.023 U
Aroclor-1248	.025 U	.021 U	.02 U	.02 U	.02 U	.023 U
Aroclor-1254	.11	.031	.053	.02 U	.02 U	.051
Aroclor-1260	.21	.026	.13	.025	.02 U	.07
Total Organic Carbon						
TOC	13100	1620	4110	1660	11500	4610
Grain Size						
Clay (%)	NA	NA	NA	NA	NA	0.90
Coarse Sand (%)	NA	NA	NA	NA	NA	0.50
Fine Sand (%)	NA	NA	NA	NA	NA	77.8
Gravel (%)	NA	NA	NA	NA	NA	0.50
Medium Sand (%)	NA	NA	NA	NA	NA	17.6
Silt (%)	NA	NA	NA	NA	NA	2.6
Inorganics						
Percent Solids (%)	67.1	80.4	81.7	85.5	82.8	71.7

Table 2-3. Summary of EPA sediment sampling results - 1 1/2 Mile Reach.

(Results are presented in dry weight parts per million, ppm, except as noted).

Site ID	T150	T154	T154	T154	T158	T158
Location ID	SE001637	SE001622	SE001623	SE001624	SE001619	SE001620
Field Sample ID	H2-SE001637-0-0000	H2-SE001622-0-0000	H2-SE001623-0-0000	H2-SE001624-0-0000	H2-SE001619-0-0000	H2-SE001620-0-0000
Date Collected	05/30/2007	05/29/2007	05/29/2007	05/29/2007	05/29/2007	05/29/2007
Depth (inches)	0-5	0-2	0-6	0-2	0-6	0-5
Analyte Source	EPA_COE	EPA_COE	EPA_COE	EPA_COE	EPA_COE	EPA_COE
PCBS						
PCB, Total	.026	.032	.071	.022	.15	.08
Aroclor-1016	.021 U	.02 U	.019 U	.02 U	.023 U	.02 U
Aroclor-122	.021 U	.02 U	.019 U	.02 U	.023 U	.02 U
Aroclor-1232	.021 U	.02 U	.019 U	.02 U	.023 U	.02 U
Aroclor-1242	.021 U	.02 U	.019 U	.02 U	.023 U	.02 U
Aroclor-1248	.021 U	.02 U	.019 U	.02 U	.023 U	.02 U
Aroclor-1254	.021 U	.02 U	.019 U	.02 U	.036	.02 U
Aroclor-1260	.026	.032	.071	.022	.11	.08
Total Organic Carbon						
TOC	4020	1460	857	841	2400	2080
Grain Size						
Clay (%)	1.3	NA	NA	NA	NA	NA
Coarse Sand (%)	6.5	NA	NA	NA	NA	NA
Fine Sand (%)	43.9	NA	NA	NA	NA	NA
Gravel (%)	0.70	NA	NA	NA	NA	NA
Medium Sand (%)	48.5	NA	NA	NA	NA	NA
Silt (%)	-0.90	NA	NA	NA	NA	NA
Inorganics						
Percent Solids (%)	77.7	83.9	87.4	85.0	72.0	84.8

Table 2-3. Summary of EPA sediment sampling results - 1 1/2 Mile Reach.

(Results are presented in dry weight parts per million, ppm, except as noted).

Site ID	T158	T162	T162	T162	T166	T166
Location ID	SE001621	SE001616	SE001617	SE001618	SE001613	SE001614
Field Sample ID	H2-SE001621-0-0000	H2-SE001616-0-0000	H2-SE001617-0-0000	H2-SE001618-0-0000	H2-SE001613-0-0000	H2-SE001614-0-0000
Date Collected	05/29/2007	05/29/2007	05/29/2007	05/29/2007	05/29/2007	05/29/2007
Depth (inches)	0-2	0-3	0-6	0-6	0-4	0-6
Analyte Source	EPA_COE	EPA_COE	EPA_COE	EPA_COE	EPA_COE	EPA_COE
PCBS						
PCB, Total	.11	.02 U	.11	.17	.086	.07
Aroclor-1016	.02 U	.02 U	.02 U	.021 U	.019 U	.019 U
Aroclor-122	.02 U	.02 U	.02 U	.021 U	.019 U	.019 U
Aroclor-1232	.02 U	.02 U	.02 U	.021 U	.019 U	.019 U
Aroclor-1242	.02 U	.02 U	.02 U	.021 U	.019 U	.019 U
Aroclor-1248	.02 U	.02 U	.02 U	.021 U	.019 U	.019 U
Aroclor-1254	.077	.02 U	.039	.048	.04 J	.028
Aroclor-1260	.032	.02 U	.067	.12	.046	.042
Total Organic Carbon						
TOC	14500	1340	1150	1520	2290	1500
Grain Size						
Clay (%)	NA	1.7	0.70	1.3	NA	NA
Coarse Sand (%)	NA	14.2	9.5	5.0	NA	NA
Fine Sand (%)	NA	15.1	3.9	19.9	NA	NA
Gravel (%)	NA	6.3	1.7	3.6	NA	NA
Medium Sand (%)	NA	62.5	83.1	70.0	NA	NA
Silt (%)	NA	0.20	1.1	0.20	NA	NA
Inorganics						
Percent Solids (%)	81.8	82.4	84.2	81.4	88.3	85.6

Table 2-3. Summary of EPA sediment sampling results - 1 1/2 Mile Reach.

(Results are presented in dry weight parts per million, ppm, except as noted).

Site ID Location ID Field Sample ID Date Collected Depth (inches) Analyte Source	T166 SE001615 H2-SE001615-0-0000 05/29/2007 0-4 EPA_COE	T170 SE001610 H2-SE001610-0-0000 05/29/2007 0-2 EPA_COE	T170 SE001611 H2-SE001611-0-0000 05/29/2007 0-5 EPA_COE	T174 SE001607 H2-SE001607-1-0000 05/29/2007 0-6 EPA_COE	T174 SE001608 H2-SE001608-0-0000 05/29/2007 0-6 EPA_COE	T174 SE001609 H2-SE001609-0-0000 05/29/2007 0-6 EPA_COE
PCBS						
PCB, Total	.042	.11	.02 U	.51	.11	.075
Aroclor-1016	.021 U	.021 U	.02 U	.063 U	.02 U	.019 U
Aroclor-122	.021 U	.021 U	.02 U	.063 U	.02 U	.019 U
Aroclor-1232	.021 U	.021 U	.02 U	.063 U	.02 U	.019 U
Aroclor-1242	.021 U	.021 U	.02 U	.063 U	.02 U	.019 U
Aroclor-1248	.021 U	.021 U	.02 U	.063 U	.02 U	.019 U
Aroclor-1254	.021 U	.03	.02 U	.063 U	.025	.021
Aroclor-1260	.042	.078	.02 U	.51	.085	.054
Total Organic Carbon						
TOC	1570	1650	950	1020	1540	8540
Grain Size						
Clay (%)	NA	NA	NA	NA	0.70	0.20
Coarse Sand (%)	NA	NA	NA	NA	5.7	23.6
Fine Sand (%)	NA	NA	NA	NA	7.7	1.9
Gravel (%)	NA	NA	NA	NA	1.3	2.6
Medium Sand (%)	NA	NA	NA	NA	84.0	70.1
Silt (%)	NA	NA	NA	NA	0.60	1.7
Inorganics						
Percent Solids (%)	80.9	81.0	84.7	79.2	84.2	88.2

Table 2-3. Summary of EPA sediment sampling results - 1 1/2 Mile Reach.

(Results are presented in dry weight parts per million, ppm, except as noted).

Site ID	T170	T174	T178	T178	T178	T182
Location ID	SE001612	SE001607	SE001604	SE001605	SE001606	SE001601
Field Sample ID	H2-SE001612-0-0000	H2-SE001607-0-0000	H2-SE001604-0-0000	H2-SE001605-0-0000	H2-SE001606-0-0000	H2-SE001601-0-0000
Date Collected	05/29/2007	05/29/2007	05/29/2007	05/29/2007	05/29/2007	05/29/2007
Depth (inches)	0-6	0-6	0-6	0-5	0-4	0-6
Analyte Source	EPA_COE	EPA_COE	EPA_COE	EPA_COE	EPA_COE	EPA_COE
PCBS						
PCB, Total	.15	.17	.12	.14	.15	.034
Aroclor-1016	.021 U	.021 U	.022 U	.021 U	.022 U	.02 U
Aroclor-122	.021 U	.021 U	.022 U	.021 U	.022 U	.02 U
Aroclor-1232	.021 U	.021 U	.022 U	.021 U	.022 U	.02 U
Aroclor-1242	.021 U	.021 U	.022 U	.021 U	.022 U	.02 U
Aroclor-1248	.021 U	.021 U	.022 U	.021 U	.022 U	.02 U
Aroclor-1254	.077	.036 J	.049	.087	.068	.02 U
Aroclor-1260	.071	.13	.074	.057	.081	.034
Total Organic Carbon						
TOC	1440	11900	2260	1290	1190	1520
Grain Size						
Clay (%)	NA	1.2	NA	NA	NA	NA
Coarse Sand (%)	NA	1.9	NA	NA	NA	NA
Fine Sand (%)	NA	10.4	NA	NA	NA	NA
Gravel (%)	NA	0.10	NA	NA	NA	NA
Medium Sand (%)	NA	83.8	NA	NA	NA	NA
Silt (%)	NA	2.6	NA	NA	NA	NA
Inorganics						
Percent Solids (%)	79.2	81.2	76.9	80.2	75.5	82.2

Table 2-3. Summary of EPA sediment sampling results - 1 1/2 Mile Reach.
(Results are presented in dry weight parts per million, ppm, except as noted).

Site ID	T182	T182	T186	T186	T186	T190
Location ID	SE001602	SE001603	SE001580	SE001581	SE001582	SE001583
Field Sample ID	H2-SE001602-0-0000	H2-SE001603-0-0000	H2-SE001580-0-0000	H2-SE001581-0-0000	H2-SE001582-0-0000	H2-SE001583-0-0000
Date Collected	05/29/2007	05/29/2007	05/24/2007	05/24/2007	05/24/2007	05/24/2007
Depth (inches)	0-2	0-4	0-6	0-6	0-6	0-4
Analyte Source	EPA_COE	EPA_COE	EPA_COE	EPA_COE	EPA_COE	EPA_COE
PCBS						
PCB, Total	.073	.24	.057	.1	.023	.089
Aroclor-1016	.02 U	.021 U	.022 U	.021 U	.02 U	.022 U
Aroclor-122	.02 U	.021 U	.022 U	.021 U	.02 U	.022 U
Aroclor-1232	.02 U	.021 U	.022 U	.021 U	.02 U	.022 U
Aroclor-1242	.02 U	.021 U	.022 U	.021 U	.02 U	.022 U
Aroclor-1248	.02 U	.021 U	.022 U	.021 U	.02 U	.022 U
Aroclor-1254	.025	.056 J	.022 U	.04	.02 U	.03
Aroclor-1260	.048	.18	.057	.064	.023	.059
Total Organic Carbon						
TOC	1270	2460	1160	3900	930	7910
Grain Size						
Clay (%)	NA	NA	0.60	1.3	0.10	NA
Coarse Sand (%)	NA	NA	1.4	3.6	3.5	NA
Fine Sand (%)	NA	NA	30.9	19.4	9.4	NA
Gravel (%)	NA	NA	0.90	0.80	0.80	NA
Medium Sand (%)	NA	NA	65.4	74.8	85.6	NA
Silt (%)	NA	NA	0.80	0.10	0.60	NA
Inorganics						
Percent Solids (%)	82.9	80.8	77.5	78.5	81.6	76.9

Table 2-3. Summary of EPA sediment sampling results - 1 1/2 Mile Reach.
(Results are presented in dry weight parts per million, ppm, except as noted).

Site ID	T190	T190	T194	T194	T194	T198
Location ID	SE001584	SE001585	SE001586	SE001587	SE001588	SE001589
Field Sample ID	H2-SE001584-0-0000	H2-SE001585-0-0000	H2-SE001586-0-0000	H2-SE001587-0-0000	H2-SE001588-0-0000	H2-SE001589-0-0000
Date Collected	05/24/2007	05/24/2007	05/25/2007	05/25/2007	05/25/2007	05/25/2007
Depth (inches)	0-6	0-4	0-6	0-6	0-6	0-6
Analyte Source	EPA_COE	EPA_COE	EPA_COE	EPA_COE	EPA_COE	EPA_COE
PCBS						
PCB, Total	.25	.031	.14	.11	.026	.064
Aroclor-1016	.021 U	.022 U	.023 U	.022 U	.02 U	.023 U
Aroclor-122	.021 U	.022 U	.023 U	.022 U	.02 U	.023 U
Aroclor-1232	.021 U	.022 U	.023 U	.022 U	.02 U	.023 U
Aroclor-1242	.021 U	.022 U	.023 U	.022 U	.02 U	.023 U
Aroclor-1248	.021 U	.022 U	.023 U	.022 U	.02 U	.023 U
Aroclor-1254	.098	.022 U	.077	.022 U	.02 U	.023 U
Aroclor-1260	.15	.031	.061	.11	.026	.064
Total Organic Carbon						
TOC	1690	1920	8880	1460	2010	2290
Grain Size						
Clay (%)	NA	NA	NA	NA	NA	1.3
Coarse Sand (%)	NA	NA	NA	NA	NA	0.20
Fine Sand (%)	NA	NA	NA	NA	NA	82.6
Gravel (%)	NA	NA	NA	NA	NA	0
Medium Sand (%)	NA	NA	NA	NA	NA	15.1
Silt (%)	NA	NA	NA	NA	NA	0.80
Inorganics						
Percent Solids (%)	80.1	75.7	72.1	77.1	82.8	72.6

Table 2-3. Summary of EPA sediment sampling results - 1 1/2 Mile Reach.

(Results are presented in dry weight parts per million, ppm, except as noted).

Site ID	T198	T198	T202	T202	T202	T202
Location ID	SE001590	SE001591	SE001598	SE001599	SE001600	SE001600
Field Sample ID	H2-SE001590-0-0000	H2-SE001591-0-0000	H2-SE001598-0-0000	H2-SE001599-0-0000	H2-SE001600-0-0000	H2-SE001600-1-0000
Date Collected	05/25/2007	05/25/2007	05/25/2007	05/25/2007	05/25/2007	05/25/2007
Depth (inches)	0-6	0-4	0-2	0-4	0-6	0-6
Analyte Source	EPA_COE	EPA_COE	EPA_COE	EPA_COE	EPA_COE	EPA_COE
PCBS						
PCB, Total	.12	.12	.16	.29	.046 J	.21
Aroclor-1016	.022 U	.023 U	.024 U	.023 U	.023 UJ	.021 U
Aroclor-122	.022 U	.023 U	.024 U	.023 U	.023 UJ	.021 U
Aroclor-1232	.022 U	.023 U	.024 U	.023 U	.023 UJ	.021 U
Aroclor-1242	.022 U	.023 U	.024 U	.023 U	.023 UJ	.021 U
Aroclor-1248	.022 U	.023 U	.024 U	.023 U	.023 UJ	.021 U
Aroclor-1254	.047	.025	.079	.18	.023 UJ	.087
Aroclor-1260	.072	.096	.085	.11	.046 J	.12
Total Organic Carbon						
TOC	5760	2320	7170	1620	4160	11500
Grain Size						
Clay (%)	1.3	1.2	NA	NA	NA	NA
Coarse Sand (%)	0.40	0.10	NA	NA	NA	NA
Fine Sand (%)	78.3	76.0	NA	NA	NA	NA
Gravel (%)	0.20	0.10	NA	NA	NA	NA
Medium Sand (%)	19.1	21.4	NA	NA	NA	NA
Silt (%)	0.80	1.2	NA	NA	NA	NA
Inorganics						
Percent Solids (%)	75.9	73.5	69.8	72.3	73.3	78.0

Table 2-3. Summary of EPA sediment sampling results - 1 1/2 Mile Reach.

(Results are presented in dry weight parts per million, ppm, except as noted).

Site ID Location ID Field Sample ID Date Collected Depth (inches) Analyte Source	T206 SE001595 H2-SE001595-0-0000 05/25/2007 0-2 EPA_COE	T206 SE001596 H2-SE001596-0-0000 05/25/2007 0-6 EPA_COE	T206 SE001597 H2-SE001597-0-0000 05/25/2007 0-6 EPA_COE	T210 SE001592 H2-SE001592-0-0000 05/25/2007 0-4 EPA_COE	T210 SE001593 H2-SE001593-0-0000 05/25/2007 0-6 EPA_COE	T210 SE001594 H2-SE001594-0-0000 05/25/2007 0-6 EPA_COE
PCBS						
PCB, Total	.15	.055	.38	.27	.098	.22
Aroclor-1016	.023 U	.022 U	.043 U	.022 U	.022 U	.024 U
Aroclor-122	.023 U	.022 U	.043 U	.022 U	.022 U	.024 U
Aroclor-1232	.023 U	.022 U	.043 U	.022 U	.022 U	.024 U
Aroclor-1242	.023 U	.022 U	.043 U	.022 U	.022 U	.024 U
Aroclor-1248	.023 U	.022 U	.043 U	.022 U	.022 U	.024 U
Aroclor-1254	.079	.025	.29	.069	.042	.14
Aroclor-1260	.072	.03	.094	.2	.056	.079
Total Organic Carbon						
TOC	12000	2430	3310	2770	3130	10900
Grain Size						
Clay (%)	NA	NA	NA	0.70	1.9	2.0
Coarse Sand (%)	NA	NA	NA	0.30	0.10	0.20
Fine Sand (%)	NA	NA	NA	83.0	88.9	91.1
Gravel (%)	NA	NA	NA	0.40	0.40	0
Medium Sand (%)	NA	NA	NA	13.2	5.8	1.2
Silt (%)	NA	NA	NA	2.3	2.9	5.5
Inorganics						
Percent Solids (%)	72.0	76.0	77.7	76.9	76.4	69.7

Notes:

1. *Sample collection, analysis, and validation performed by United States Environmental Protection Agency (EPA) subcontractors.*
2. *Results provided to GE under a Data Exchange Agreement between GE and EPA.*

Data Qualifiers:

J - Estimated value.
U - Analyte not detected. The number reported refers to the detection limit.
NA - Not analyzed.

Table 2-4. Pomeroy Avenue routine (twice-weekly) water column field data.

Sample ID	Location	Date/Time	Temperature (°C)	pH	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)
LOC-6A-0420-1800	Pomeroy Ave. Bridge	4/20/07 18:00	8.46	9.20	0.137	12.60	8
LOC-6A-0423-1100	Pomeroy Ave. Bridge	4/23/07 11:00	9.30	6.82	0.137	12.90	5
LOC-6A-0426-1600	Pomeroy Ave. Bridge	4/26/07 16:00	10.06	7.59	0.180	12.40	4
LOC-6A-0501-1800	Pomeroy Ave. Bridge	5/1/07 18:00	11.30	7.20	0.214	16.10	3
LOC-6A-0503-1500	Pomeroy Ave. Bridge	5/3/07 15:00	13.10	7.72	0.256	10.90	3
LOC-6A-0507-1500	Pomeroy Ave. Bridge	5/7/07 15:00	14.63	6.37	0.354	11.30	2
LOC-6A-0510-1100	Pomeroy Ave. Bridge	5/10/07 11:00	16.45	7.24	0.406	10.50	3
LOC-6A-0515-1100	Pomeroy Ave. Bridge	5/15/07 11:00	14.10	7.30	0.383	13.00	4
LOC-6A-0521-1400	Pomeroy Ave. Bridge	5/21/07 14:00	13.80	6.99	0.237	10.80	5
LOC-6A-0530-1550	Pomeroy Ave. Bridge	5/30/07 15:50	21.10	7.15	0.367	10.68	2
LOC-6A-0601-1400	Pomeroy Ave. Bridge	6/1/07 14:00	21.74	7.42	0.455	9.13	5
LOC-6A-0607-0900	Pomeroy Ave. Bridge	6/7/07 9:00	13.65	6.65	0.274	9.76	5
LOC-6A-0611-1130	Pomeroy Ave. Bridge	6/11/07 11:30	17.64	7.30	0.431	8.53	3
LOC-6A-0614-1300	Pomeroy Ave. Bridge	6/14/07 13:00	17.13	6.62	0.435	10.00	7
LOC-6A-0618-1400	Pomeroy Ave. Bridge	6/18/07 14:00	22.63	7.48	0.509	7.97	3
LOC-6A-0621-0900	Pomeroy Ave. Bridge	6/21/07 9:00	18.07	6.69	0.494	8.24	3
LOC-6A-0625-0930	Pomeroy Ave. Bridge	6/25/07 9:30	18.19	7.34	0.491	10.92	3
LOC-6A-0628-1615	Pomeroy Ave. Bridge	6/28/07 16:15	24.45	6.86	0.506	8.70	5
LOC-6A-0702-1130	Pomeroy Ave. Bridge	7/2/07 11:30	18.12	7.60	0.592	9.51	5
LOC-6A-0706-1100	Pomeroy Ave. Bridge	7/6/07 11:00	20.16	7.14	0.560	9.90	10
LOC-6A-0710-1100	Pomeroy Ave. Bridge	7/10/07 11:00	23.50	7.22	0.464	8.90	4

Notes:
1.Field measurements collected by ARCADIS BBL.

Table 2-5. Pomeroy Avenue routine (twice-weekly) water column sampling results.
(Results are presented in parts per trillion, ppt, except as noted).

Sample ID	Location	Date Collected	Aroclor-1016 -1221, -1232, -1242	Aroclor 1248	Aroclor 1254	Aroclor 1260	Total PCBs	POC (ppm)	TSS (ppm)	VSS (ppm)
LOC-6A-0420-1800	Pomeroy Ave. Bridge	4/20/07 18:00	ND(11)	ND(11)	ND(11)	ND(11)	ND(11)	0.58	12.4	NA
LOC-6A-0423-1100	Pomeroy Ave. Bridge	4/23/07 11:00	ND(11) [ND(11)]	ND(11) [11 J]	ND(11) [ND(11)]	ND(11) [ND(11)]	ND(11) [11 J]	0.44 [0.40]	13.7 J [5.70 J]	NA [NA]
LOCATION-6A[6]	Pomeroy Ave. Bridge	4/26/07 16:00	ND(11)	ND(11)	ND(11)	ND(11)	ND(11)	0.26	3.60	NA
LOC-6A-0501-1800	Pomeroy Ave. Bridge	5/1/07 18:00	ND(11)	ND(11)	ND(11)	ND(11)	ND(11)	0.38	3.00	NA
LOC-6A-0503-1500	Pomeroy Ave. Bridge	5/3/07 15:00	ND(11)	ND(11)	ND(11)	ND(11)	ND(11)	0.31	3.00	NA
LOC-6A-0507-1500	Pomeroy Ave. Bridge	5/7/07 15:00	ND(11)	ND(11)	ND(11)	ND(11)	ND(11)	0.21	1.60	NA
LOC-6A-0510-1100	Pomeroy Ave. Bridge	5/10/07 11:00	ND(11)	ND(11)	ND(11)	ND(11)	ND(11)	0.25	1.20	1.70
LOC-6A-0515-1100	Pomeroy Ave. Bridge	5/15/07 11:00	ND(5.5)	ND(5.5)	ND(5.5)	ND(5.5)	ND(5.5)	0.27	1.70	1.70
LOC-6A-0521-1400	Pomeroy Ave. Bridge	5/21/07 14:00	ND(5.5)	ND(5.5)	5.5	ND(5.5)	5.5	0.55	4.60	ND(1.00)
LOCATION-6A[6]	Pomeroy Ave. Bridge	5/30/07 15:50	ND(5.5)	6.3 J	5.6	ND(5.5)	11.9 J	0.22	2.20	ND(1.00)
LOC-6A-0601-1400	Pomeroy Ave. Bridge	6/1/07 14:00	ND(5.5)	7.5 J	8.8	ND(5.5)	16.3 J	0.35	2.10	ND(1.00)
LOC-6A-0607-0900	Pomeroy Ave. Bridge	6/7/07 9:00	ND(5.5)	9.2 J	8.8	ND(5.5)	18 J	0.68	3.10	1.30
LOC-6A-0611-1130	Pomeroy Ave. Bridge	6/11/07 11:30	ND(5.5)	11 J	7.7	ND(5.5)	18.7 J	0.44	3.20	1.40
LOC-6A-0614-1300	Pomeroy Ave. Bridge	6/14/07 13:00	ND(5.5) [ND(5.5)]	7.4 J [10 J]	7.1 [5.7]	ND(5.5) [ND(5.5)]	14.5 J [15.7 J]	0.41 [0.35]	2.70 J [4.40 J]	1.80 [1.80]
LOC-6A-0618-1400	Pomeroy Ave. Bridge	6/18/07 14:00	ND(5.5)	5.60 PE	7.20 AF	ND(5.5)	12.8	0.28	1.30	ND(1.00)
LOC-6A-0621-0900	Pomeroy Ave. Bridge	6/21/07 9:00	ND(5.5)	6.30 PE	8.20 AF	ND(5.5)	14.5	0.31	2.20	ND(1.00)
LOC-6A-0625-0930	Pomeroy Ave. Bridge	6/25/07 9:30	ND(5.5)	9.8 PE	7.7 AF	ND(5.5)	17.5	0.32	3.20	2
LOCATION-6A[4]	Pomeroy Ave. Bridge	6/28/07 16:15	ND(5.5)	15.0 PE	20.0 AF	8.90 AG	43.9	0.33	2.30	1.10
LOC-6A-0702-1130	Pomeroy Ave. Bridge	7/2/07 11:30	ND(5.5)	10.0 PE	9.00 AF	ND(5.5)	19.0	0.46	2.90	ND(1.00)
LOC-6A-0706-1100	Pomeroy Ave. Bridge	7/6/07 11:00	ND(5.5) [ND(5.5)]	9.90 PE [12.0 PE]	11.0 AF [14.0 AF]	ND(5.5) [6.30 AG]	20.9 [32.3]	0.62 [0.59]	7.80 [7.30]	5.40 [3.80]
LOC-6A-0710-1100	Pomeroy Ave. Bridge	7/10/07 11:00	ND(5.5)	11.0 PE	9.30 AF	ND(5.5)	20.3	0.49	3.10	2.30

Notes:

1. *Samples were collected by ARCADIS BBL, and submitted to Northeast Analytical, Inc. for analysis of unfiltered PCBs, total suspended solids (TSS), particulate organic carbon (POC) and volatile suspended solids (VSS).*
2. *Samples collected between 4/20/07 and 6/14/07 have been validated as per Field Sampling Plan/Quality Assurance Project Plan (FSP/QAPP), General Electric Company, Pittsfield, MA ARCADIS BBL (approved March 15, 2007 and re-submitted March 30, 2007). Samples collected after 6/14/07 have yet to be validated.*
3. *Sampling methods involved the collection of composite grab samples at each location, representative of three stations (25, 50, and 75 percent of the total river width at each location) at 50 percent of the total river depth at each station.*
4. *NA - Not Analyzed.*
5. *ND(11) - Analyte was not detected. The number in parentheses is the associated detection limit.*
6. *Samples collected as part of Housatonic River 1 1/2 Mile Reach Semi-Weekly Water Column Sampling and Housatonic River Monthly Water Column Monitoring Program.*
7. *Field duplicate sample results are presented in brackets.*

Data Qualifiers:

J - Indicates that the associated numerical value is an estimated concentration.

PE - Aroclor 1248 is being used to report an altered PCB pattern exhibited by the sample. Actual Aroclor 1248 is not present in the sample, but is reported to more accurately quantify PCBs present in a sample that has undergone environmental alteration.

AF - Aroclor 1254 is being reported as the best Aroclor match. The sample exhibits an altered PCB pattern.

AG - Aroclor 1260 is being reported as the best Aroclor match. The sample exhibits an altered PCB pattern.

Table 2-6. Pomeroy Avenue storm event water column field data.

Sample ID	Location	Date/Time	Temperature (°C)	pH	Conductivity (mS/cm)	Dissolved Oxygen (mg/L	Turbidity (NTU)
LOC-6A-0415-1800	Pomeroy Ave. Bridge	4/15/07 18:00	2.64	7.50	0.308	18.00	24
LOC-6A-0415-2000	Pomeroy Ave. Bridge	4/15/07 20:00	2.39	7.55	0.297	15.00	20
LOC-6A-0415-2200	Pomeroy Ave. Bridge	4/15/07 22:00	1.93	8.00	0.265	14.80	25
LOC-6A-0416-0000	Pomeroy Ave. Bridge	4/16/07 0:00	1.82	7.75	0.252	13.25	19
LOC-6A-0416-0800	Pomeroy Ave. Bridge	4/16/07 8:00	2.43	8.30	1.760	14.40	116
LOC-6A-0416-1100	Pomeroy Ave. Bridge	4/16/07 11:00	2.45	7.87	0.152	12.70	142
LOC-6A-0416-1300	Pomeroy Ave. Bridge	4/16/07 13:00	2.44	8.80	0.134	15.10	134
LOC-6A-0416-1500	Pomeroy Ave. Bridge	4/16/07 15:00	2.38	9.15	0.121	15.80	110
LOC-6A-0416-1700	Pomeroy Ave. Bridge	4/16/07 17:00	2.25	7.90	0.109	13.00	115
LOC-6A-0416-1900	Pomeroy Ave. Bridge	4/16/07 19:00	2.16	8.20	0.106	13.25	ND
LOC-6A-0416-2100	Pomeroy Ave. Bridge	4/16/07 21:00	2.07	9.43	0.101	13.20	50
LOC-6A-0416-2300	Pomeroy Ave. Bridge	4/16/07 23:00	2.03	10.62	0.099	15.09	54
LOC-6A-0417-0100	Pomeroy Ave. Bridge	4/17/07 1:00	1.88	8.68	0.096	15.50	58
LOC-6A-0417-0300	Pomeroy Ave. Bridge	4/17/07 3:00	1.73	9.35	0.880	12.63	42
LOC-6A-0417-0500	Pomeroy Ave. Bridge	4/17/07 5:00	1.63	9.75	0.098	18.50	38
LOC-6A-0417-0700	Pomeroy Ave. Bridge	4/17/07 7:00	1.57	10.34	0.087	18.60	34
LOC-6A-0417-0900	Pomeroy Ave. Bridge	4/17/07 9:00	1.56	11.75	0.094	16.30	24
LOC-6A-0417-1100	Pomeroy Ave. Bridge	4/17/07 11:00	1.64	8.49	0.296	19.00	24
LOC-6A-0417-1500	Pomeroy Ave. Bridge	4/17/07 15:00	2.42	NA	NA	NA	23
LOC-6A-0417-1900	Pomeroy Ave. Bridge	4/17/07 19:00	2.75	NA	NA	NA	18
LOC-6A-0417-2300	Pomeroy Ave. Bridge	4/17/07 23:00	2.71	NA	0.111	18.00	16
LOC-6A-0418-1000	Pomeroy Ave. Bridge	4/18/07 10:00	2.88	NA	0.124	19.10	14
LOC-6A-0418-1600	Pomeroy Ave. Bridge	4/18/07 16:00	3.67	NA	0.129	19.00	NA
LOC-6A-0604-1700	Pomeroy Ave. Bridge	6/4/07 17:00	16.63	6.21	0.294	10.10	42
LOC-6A-0604-1900	Pomeroy Ave. Bridge	6/4/07 19:00	16.56	6.55	0.257	8.98	41
LOC-6A-0604-2100	Pomeroy Ave. Bridge	6/4/07 21:00	16.16	6.94	0.244	8.79	20
LOC-6A-0604-2300	Pomeroy Ave. Bridge	6/4/07 23:00	16.05	6.50	0.234	8.70	28
LOC-6A-0605-1000	Pomeroy Ave. Bridge	6/5/07 10:00	16.11	6.61	0.296	10.00	9
LOC-6A-0606-0830	Pomeroy Ave. Bridge	6/6/07 8:30	15.68	6.61	0.224	9.87	9

Notes:
1. Field measurements collected by ARCADIS BBL.
2. NA - Not available.

Table 2-7. Pomeroy Avenue Storm Event Sampling Results.

(Results are presented in parts per trillion, ppt, except as noted)

Sample ID	Location	Date/Time Collected	Aroclor-1016 -1221, -1232, -1242	Aroclor 1248	Aroclor 1254	Aroclor 1260	Total PCBs	POC (ppm)	TSS (ppm)	VSS (ppm)
LOC-6A-0415-1800	Pomeroy Ave. Bridge	4/15/07 18:00	ND(11)	ND(11)	20	33	53	2.3	23.7	NA
LOC-6A-0415-2000	Pomeroy Ave. Bridge	4/15/07 20:00	ND(11)	ND(11)	12	ND(11)	12	1.7	30.0	NA
LOC-6A-0415-2200	Pomeroy Ave. Bridge	4/15/07 22:00	ND(11)	22 J	23	14	59 J	2.7	39.7	NA
LOC-6A-0416-0000	Pomeroy Ave. Bridge	4/16/07 0:00	ND(11)	ND(11)	ND(11)	11	11	2.4	29.1	NA
LOC-6A-0416-0800	Pomeroy Ave. Bridge	4/16/07 8:00	ND(11)	ND(11)	180	93	273	19	446	NA
LOC-6A-0416-1100	Pomeroy Ave. Bridge	4/16/07 11:00	ND(11)	ND(11)	42	32	74	22	214	NA
LOC-6A-0416-1300	Pomeroy Ave. Bridge	4/16/07 13:00	ND(11)	14 J	48	29	91 J	20	194	NA
LOC-6A-0416-1500	Pomeroy Ave. Bridge	4/16/07 15:00	ND(11)	18 J	70	30	118 J	14	141	NA
LOC-6A-0416-1700	Pomeroy Ave. Bridge	4/16/07 17:00	ND(11)	15 J	53	26	94 J	13	188	NA
LOC-6A-0416-1900	Pomeroy Ave. Bridge	4/16/07 19:00	ND(11)	15 J	51	27	93 J	8.5	184	NA
LOC-6A-0416-2100	Pomeroy Ave. Bridge	4/16/07 21:00	ND(11)	12 J	41	24	77 J	7.3	84.6	NA
LOC-6A-0416-2300	Pomeroy Ave. Bridge	4/16/07 23:00	ND(11)	11 J	32	22	65 J	4.6	120	NA
LOC-6A-0417-0100	Pomeroy Ave. Bridge	4/17/07 1:00	ND(11)	14 J	70	33	117 J	8.1	183	NA
LOC-6A-0417-0300	Pomeroy Ave. Bridge	4/17/07 3:00	ND(11)	12 J	35	21	68 J	5.6	96.9	NA
LOC-6A-0417-0500	Pomeroy Ave. Bridge	4/17/07 5:00	ND(11)	22 J	100	67	189 J	3.6	297	NA
LOC-6A-0417-0700	Pomeroy Ave. Bridge	4/17/07 7:00	ND(11)	16 J	65	23	104 J	2.1	186	NA
LOC-6A-0417-0900	Pomeroy Ave. Bridge	4/17/07 9:00	ND(11)	13 J	36	ND(11)	49 J	2.2	77.2	NA
LOC-6A-0417-1100	Pomeroy Ave. Bridge	4/17/07 11:00	ND(11)	11 J	23	11	45 J	2.1	70.0	NA
LOC-6A-0417-1500	Pomeroy Ave. Bridge	4/17/07 15:00	ND(11)	ND(11)	31	15	46	1.8	45.6	NA
LOC-6A-0417-1900	Pomeroy Ave. Bridge	4/17/07 19:00	ND(11)	ND(11)	24	12	36	2.1	68.6	NA
LOC-6A-0417-2300	Pomeroy Ave. Bridge	4/17/07 23:00	ND(11)	ND(11)	13	ND(11)	13	2.0	61.0	NA
LOC-6A-0418-1000	Pomeroy Ave. Bridge	4/18/07 10:00	ND(11)	ND(11)	43	14	57	1.7	54.7	NA
LOC-6A-0418-1600	Pomeroy Ave. Bridge	4/18/07 16:00	ND(11)	ND(11)	ND(11)	ND(11)	ND(11)	1.1	26.9	NA
LOC-6A-0604-1700	Pomeroy Ave. Bridge	6/4/07 17:00	ND(5.5)	27 J	53	86	166 J	6.0	215	37.4
LOC-6A-0604-1900	Pomeroy Ave. Bridge	6/4/07 19:00	ND(5.5)	41 J	53	71	165 J	5.1	199	38.4
LOC-6A-0604-2100	Pomeroy Ave. Bridge	6/4/07 21:00	ND(5.5)	16 J	23	30	69 J	5.8	214	22.2
LOC-6A-0604-2300	Pomeroy Ave. Bridge	6/4/07 23:00	ND(5.5)	14 J	16	21	51 J	3.4	69.4	14.8
LOC-6A-0605-1000	Pomeroy Ave. Bridge	6/5/07 10:00	ND(5.5)	19 J	15	12	46 J	2.8	42.7	10.4
LOC-6A-0606-0830	Pomeroy Ave. Bridge	6/6/07 8:30	ND(5.5)	14 J	11	6.1	31.1 J	1.8	16.3	5.80

Notes:

1. *Samples were collected by ARCADIS BBL, and submitted to Northeast Analytical, Inc. for analysis of unfiltered PCBs, total suspended solids (TSS), particulate organic carbon (POC) and volatile suspended solids (VSS).*
2. *Samples have been validated as per Field Sampling Plan/Quality Assurance Project Plan (FSP/QAPP), General Electric Company, Pittsfield, MA, ARCADIS BBL (approved March 15, 2007 and re-submitted March 30, 2007).*
3. *NA - Not analyzed.*
4. *ND(5.5) - Analyte was not detected. The number in parentheses is the associated detection limit.*

Data Qualifiers:

J - Indicates that the associated numerical value is an estimated concentration.

Table 2-8. Pomeroy Avenue velocity profiles.

Pomeroy Avenue Gage Height (ft)	Water Surface Elevation (ft, NGVD 29)	Coltsville Gage Height (ft)	Date/ Time	Total Width (ft)	Station	Total Water Depth (ft)	Calculated Average Velocity (ft/s)	Calculated Discharge (cfs)
16.30	959.05	0.75	6/18/07 17:00	50.0	0+2	1.50	0.07	0.34
					0+5	1.70	0.11	0.75
					0+10	1.60	1.10	8.80
					0+15	1.35	0.95	6.41
					0+20	1.15	1.05	6.04
					0+25	1.10	1.15	6.33
					0+30	1.05	1.19	6.22
					0+35	0.95	1.20	5.70
					0+40	0.90	1.00	4.50
					0+45	1.20	0.45	2.70
					0+48	0.80	0.25	0.50
				Total Discharge				**47.94**
15.74	959.61	1.01	5/10/07 11:00	52.0	0+2	1.10	0.11	0.40
					0+5	2.60	0.34	3.54
					0+10	2.30	1.25	14.38
					0+15	2.00	1.30	13.00
					0+20	1.60	1.33	10.60
					0+25	1.80	1.15	10.35
					0+30	1.60	1.13	9.00
					0+35	1.20	1.15	6.90
					0+40	0.60	1.05	3.15
					0+45	0.60	0.95	2.85
					0+50	1.30	0.78	4.53
				Total Discharge				**78.29**
14.59	960.76	1.52	5/21/07 15:00	58.0	0+2	1.60	0.23	1.26
					0+5	3.10	0.65	8.06
					0+10	3.20	1.78	28.40
					0+15	3.20	1.70	27.20
					0+20	3.00	1.60	24.00
					0+25	2.70	1.60	21.60
					0+30	2.85	1.30	18.53
					0+35	2.90	1.35	19.58
					0+40	2.50	1.43	17.81
					0+45	2.60	1.15	14.95
					0+50	2.80	1.45	20.30
					0+55	1.10	0.68	2.60
					0+57	0.60	0.10	0.12
				Total Discharge				**203.14**
NA	NA	1.77	4/15/07 18:30	62.0	0+2	1.90	0.02	0.13
					0+5	2.80	0.21	2.30
					0+10	5.50	0.88	24.06
					0+15	5.50	1.38	37.81
					0+20	5.20	1.30	33.80
					0+25	5.30	1.40	37.10
					0+30	5.20	1.56	40.43
					0+35	5.00	1.55	38.75
					0+40	5.20	1.53	39.78
					0+45	5.00	1.40	35.00
					0+50	4.50	1.18	26.44
					0+55	3.60	0.81	14.58
					0+60	1.60	0.40	2.88
				Total Discharge				**332.93**

Table 2-8. Pomeroy Avenue velocity profiles.

Pomeroy Avenue Gage Height (ft)	Water Surface Elevation (ft, NGVD 29)	Coltsville Gage Height (ft)	Date/ Time	Total Width (ft)	Station	Total Water Depth (ft)	Calculated Average Velocity (ft/s)	Calculated Discharge (cfs)
13.52	961.83	1.96	4/27/07 12:30	62.0	0+2	1.40	0.13	0.61
					0+5	3.60	0.93	13.32
					0+10	4.90	1.05	25.73
					0+15	4.80	2.10	50.40
					0+20	4.60	1.95	44.85
					0+25	4.00	2.35	47.00
					0+30	3.80	2.08	39.43
					0+35	3.50	2.00	35.00
					0+40	3.30	1.78	29.29
					0+45	3.50	1.95	34.13
					0+50	2.80	1.90	26.60
					0+55	3.00	1.40	21.00
					0+60	1.60	0.93	6.66
				Total Discharge				**373.39**
11.10	964.25	2.49	4/19/07 15:00	66.0	0+2	1.80	0.03	0.19
					0+5	3.60	0.06	0.79
					0+10	6.20	0.88	27.13
					0+15	7.60	1.63	61.75
					0+20	7.10	1.83	64.79
					0+25	7.10	2.10	74.55
					0+30	6.90	1.80	62.10
					0+35	6.90	1.85	63.83
					0+40	6.60	1.63	53.63
					0+45	6.40	1.75	56.00
					0+50	5.80	1.80	52.20
					0+55	5.70	1.68	47.74
					0+60	4.60	0.98	22.43
					0+64	3.00	0.73	7.61
				Total Discharge				**594.53**
8.52	966.83	3.64	4/17/07 14:00	82.0	0+2	2.10	0.15	1.10
					0+5	2.40	0.20	1.92
					0+10	6.20	1.10	34.10
					0+15	7.30	1.95	71.18
					0+20	10.00	3.53	176.25
					0+25	10.00	4.25	212.50
					0+30	9.70	3.90	189.15
					0+35	9.80	4.48	219.28
					0+40	9.70	4.25	206.13
					0+45	9.50	4.20	199.50
					0+50	9.70	3.80	184.30
					0+55	9.50	4.10	194.75
					0+60	9.00	3.50	157.50
					0+65	8.10	2.70	109.35
					0+70	6.10	1.98	60.24
					0+75	3.40	1.00	17.00
					0+80	2.30	0.28	2.85
				Total Discharge				**2,037.08**

Notes:

1. Measurements of Pomeroy Avenue gage height, total river width, station locations, total water depths, and velocities were made by ARCADIS BBL on dates indicated.

Table 3-1. Summary statistics for sediment.

Dataset	Parameter	Units	2007 Supplemental Sampling Data Only					2007 Supplemental Sampling Data (Including Data from Unremediated Areas in the Upper 1/2 Mile)		
			Count	Arithmetic Mean	Minimum	Maximum	Std. Deviation	Count	Arithmetic Mean	Area-Weighted Average
Upper 1/2 Mile (all data)	PCB	mg/kg	51	0.60	0.01	11	1.6	81	0.51	0.56
	TOC	%	51	0.40	0.13	2.29	0.35	81	0.35	0.36
	PCB-OC	mg/kg OC	51	140	1.2	1247	235	81	163	149
Upper 1/2 Mile (0 - 6 in.)	PCB	mg/kg	39	0.24	0.01	2.0	0.35	69	0.29	0.26
	TOC	%	39	0.34	0.13	0.97	0.21	69	0.31	0.34
	PCB-OC	mg/kg OC	39	93	1.2	846	150	69	140	111
Upper 1/2 Mile (> 6 in.)	PCB	mg/kg	12	1.8	0.03	11	3.1	---		
	TOC	%	12	0.57	0.14	2.29	0.60	---		
	PCB-OC	mg/kg OC	12	292	5.5	1247	375	---		
1 1/2 Mile (0 - 6 in.)	PCB	mg/kg	97	0.17	0.01	1.9	0.24	---		0.18
	TOC	%	97	0.51	0.08	2.88	0.63	---		0.54
	PCB-OC	mg/kg OC	97	61	0.87	403	76	---		66

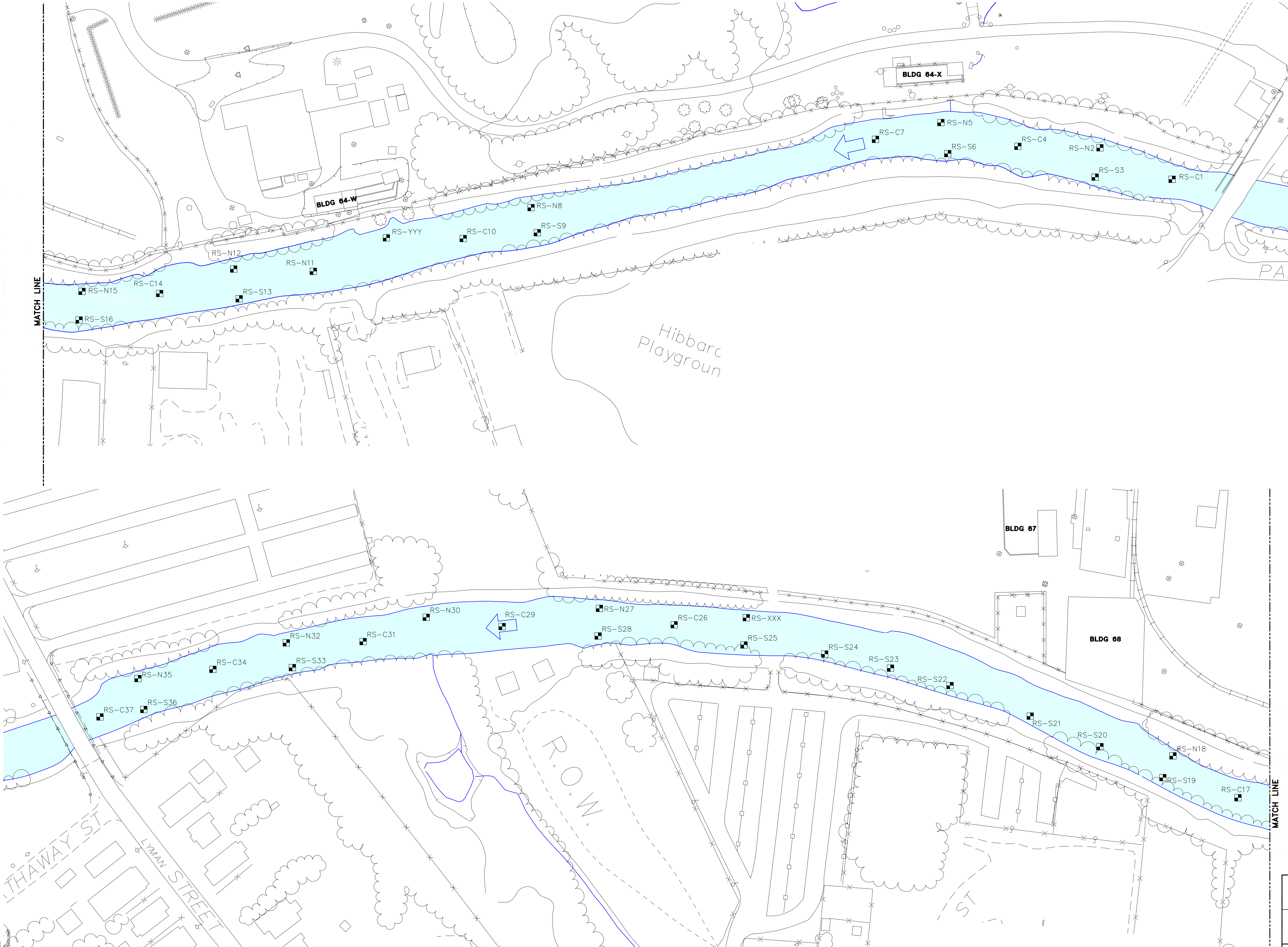
Notes:

1) Statistics including unremediated portions of the Upper 1/2 Mile Reach for depths below 6 inches not computed.

2) No unremediated areas within the 1 1/2 Mile Reach

3) There were 2 locations with multiple values in unremediated areas; these samples had unique field sample IDs, but were treated as duplicates and averaged. The count represents the number of Thiessen polygons created.

FIGURES



LEGEND:

TOP OF BANK

RS-C1 SEDIMENT SAMPLING LOCATION (GE)

NOTE:

1. ALL FEATURES AND LOCATIONS SHOWN ARE APPROXIMATE.

0 80' 160'

GRAPHIC SCALE

GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETTS

MODEL INPUT ADDENDUM - SUPPLEMENT

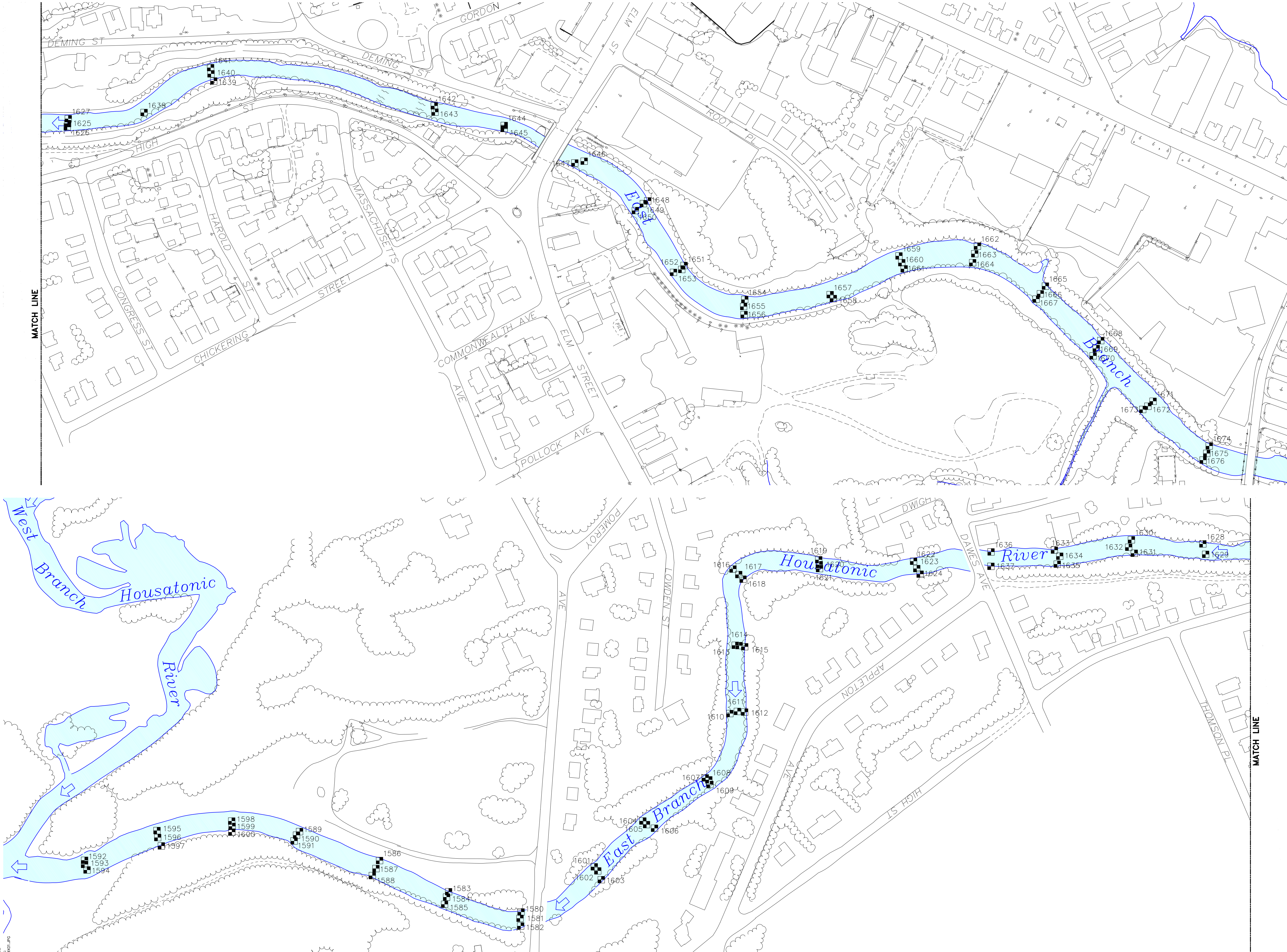
GE SUPPLEMENTAL SEDIMENT SAMPLING LOCATIONS - UPPER 1/2-MILE REACH

ARCADIS BBL

QEA

FIGURE

2-1



LEGEND:

TOP OF BANK

1651 SEDIMENT SAMPLING LOCATION (EPA)

NOTES:

1. ALL FEATURES AND LOCATIONS SHOWN ARE APPROXIMATE.
2. SAMPLE LABELS SHOWN INCLUDE ONLY THE UNIQUE PORTIONS OF THE SAMPLE IDS. PLEASE REFER TO TABLE 2–3 FOR FULL IDS.

0 160' 320'

GRAPHIC SCALE

GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETTS

MODEL INPUT ADDENDUM - SUPPLEMENT

EPA SEDIMENT SAMPLING LOCATIONS
1 1/2-MILE REACH

ARCADIS BBL QEA

FIGURE **2-2**

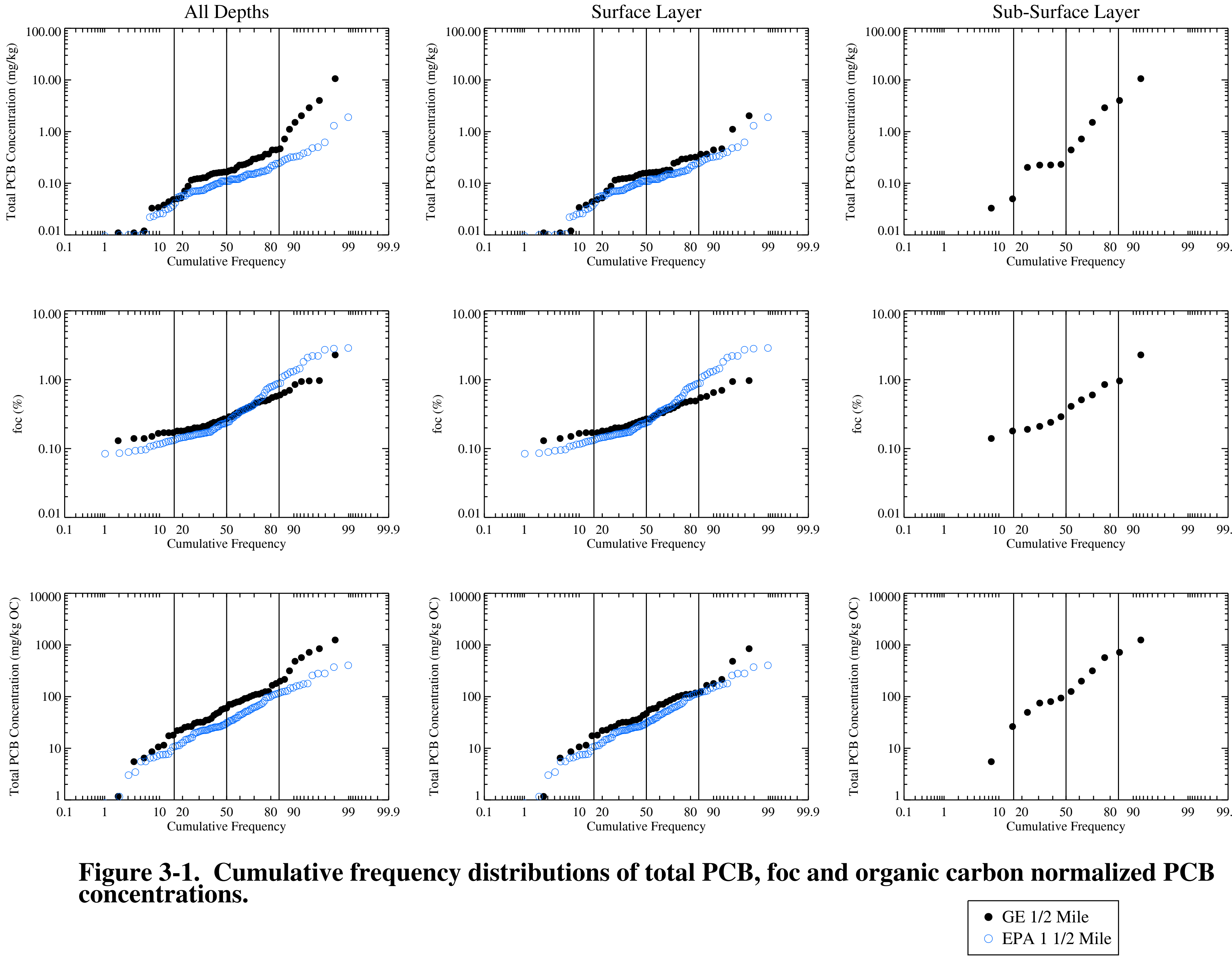


Figure 3-1. Cumulative frequency distributions of total PCB, foc and organic carbon normalized PCB concentrations.

cfo - E:\GENcms\analysis\post_remediation\sediment\ge_sediment_data_plot_20070709_9panel_log.pro
Wed Aug 01 12:11:08 2007

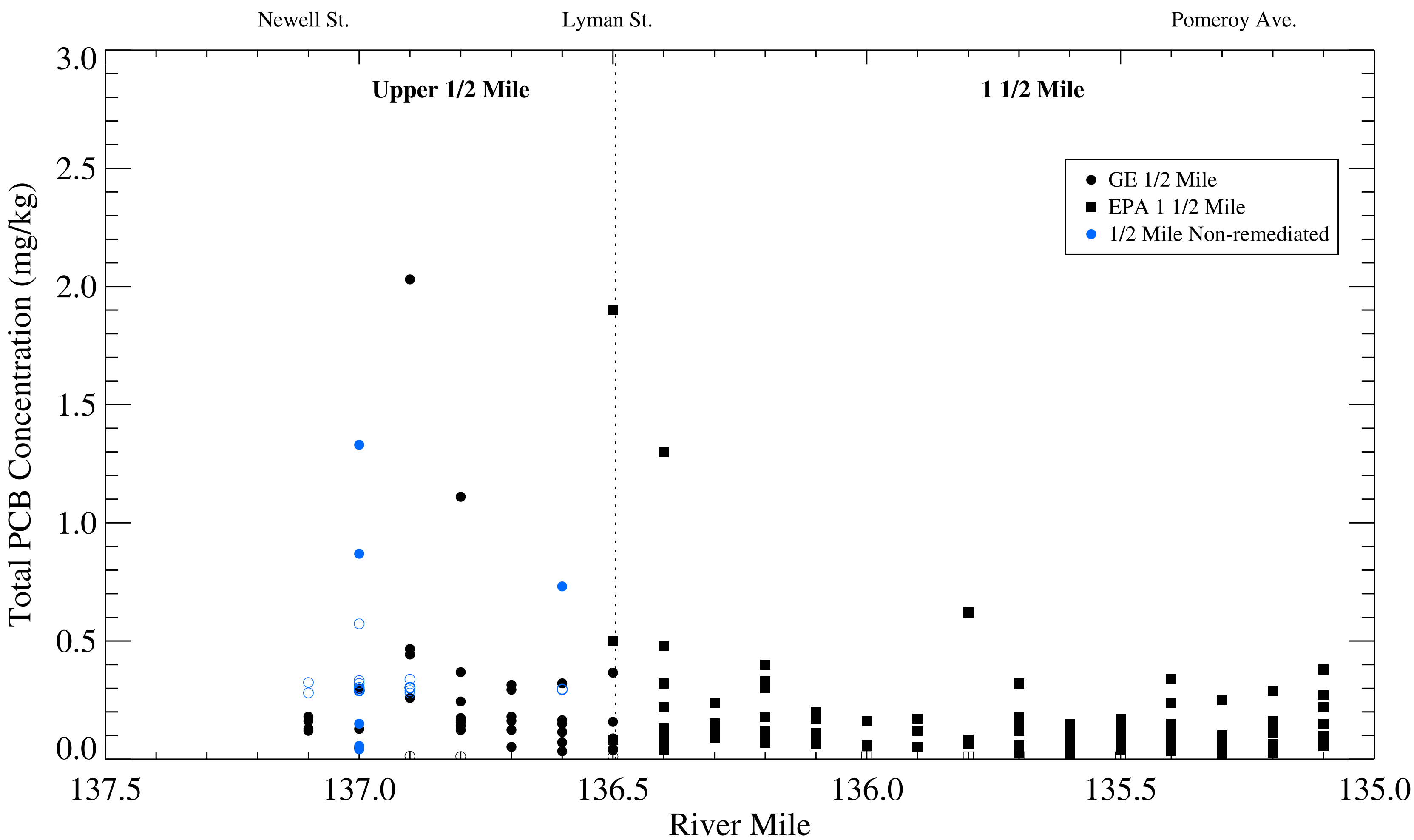


Figure 3-2. Spatial distribution of total PCB concentrations in East Branch surface sediments.

Note: Open symbols represent non-detects at 1/2 MDL.

cfo - E:\GENcms\analysis\post_remediation\sediment\ge_sediment_data_plot_20070709_9panel_log.pro
Wed Aug 01 12:11:17 2007

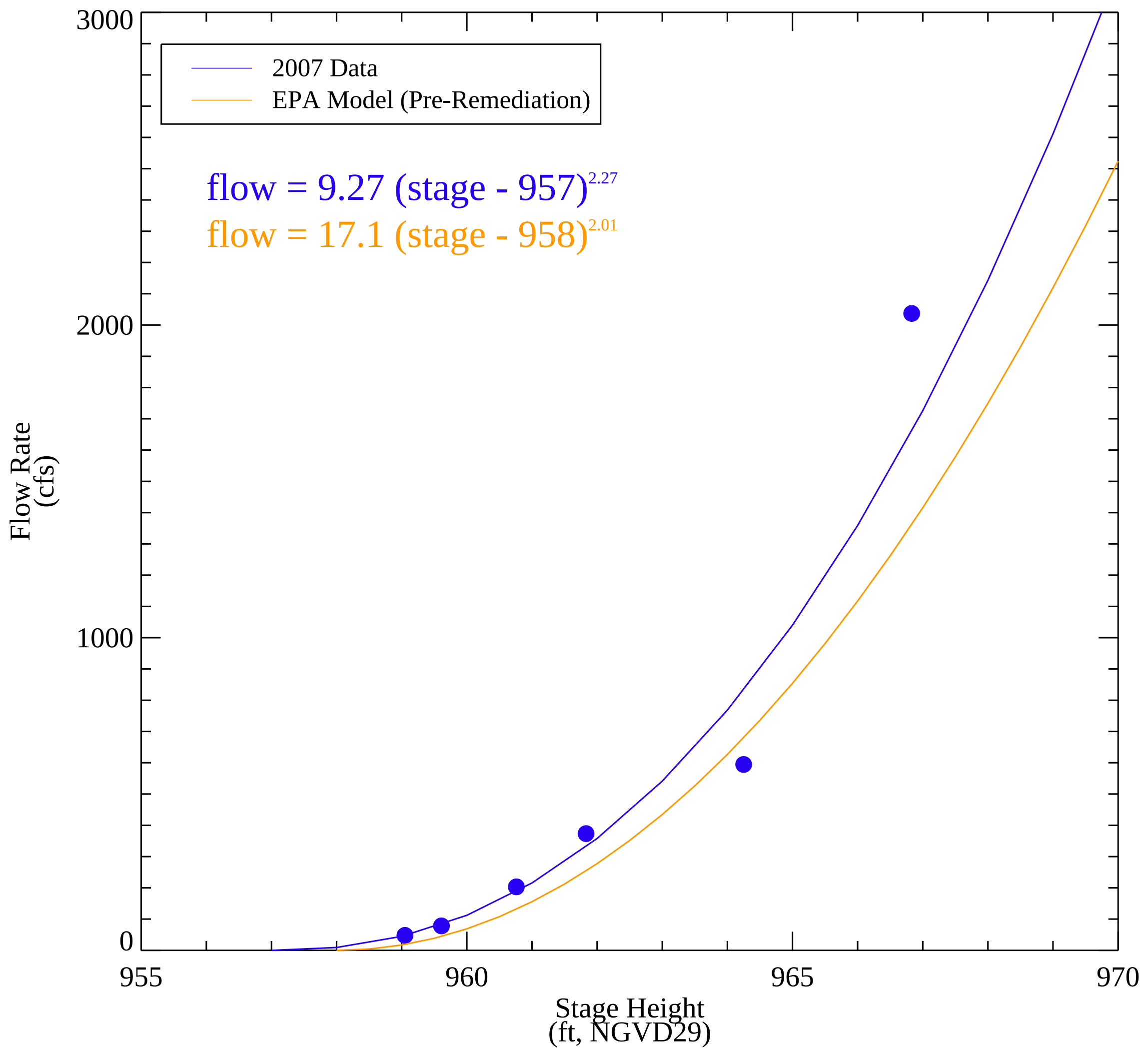


Figure 3-3. Comparison of Pomeroy Avenue stage-discharge rating curves for 2007 data and EPA model (pre-remediation).

DN - \\Daleel\E_DRIVE\GENcms\Documents\Memo_070702\Figures\070802\rating_curve2_070730.pro
Thu Aug 02 17:55:10 2007

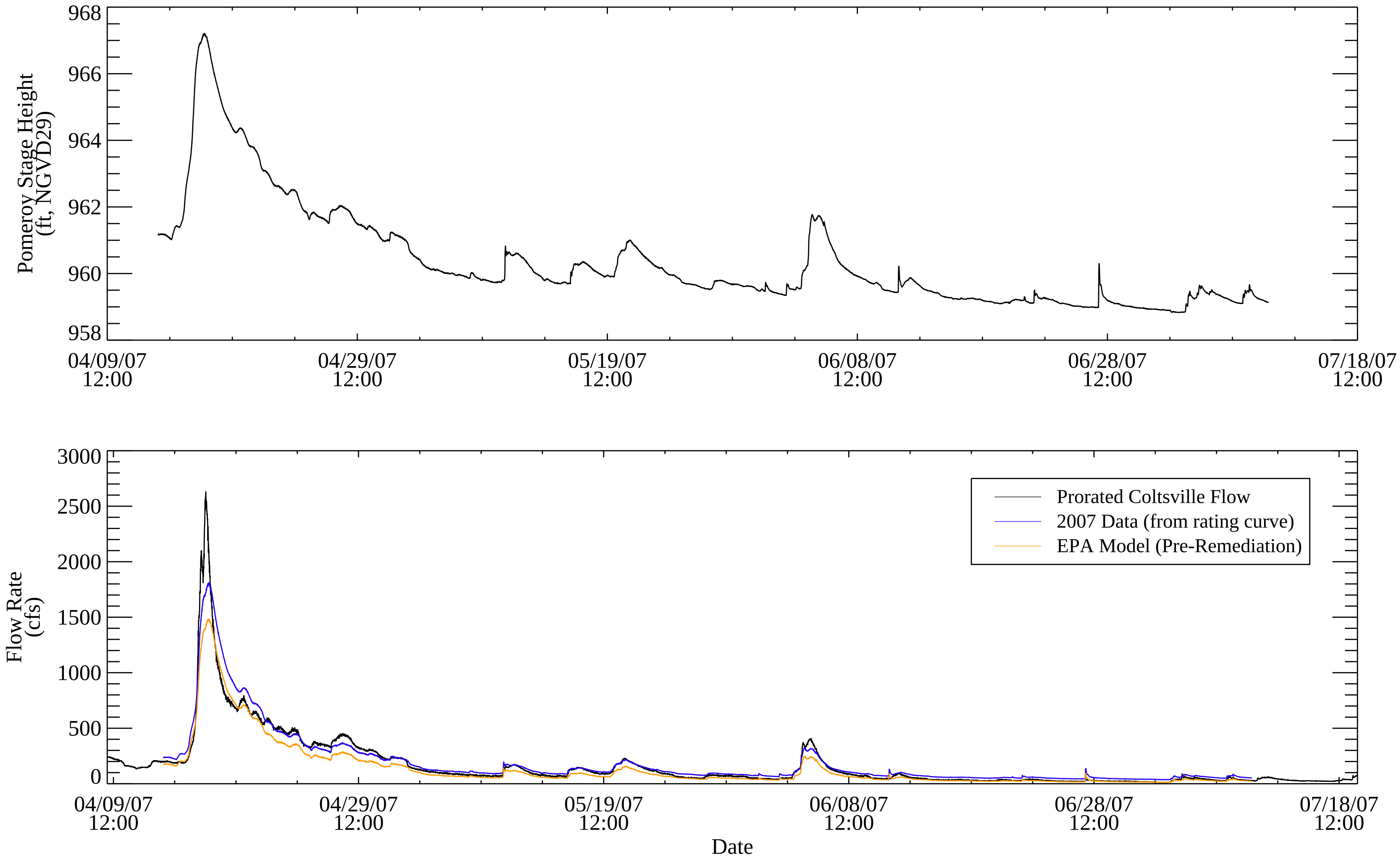


Figure 3-4. Temporal profile of flow rate and stage height at Pomeroy Avenue during 2007 Supplemental Sampling Program.

15-minute flow data from USGS Coltsville gage (1.19 proration factor applied). 15-minute stage data from Pomeroy Avenue. 2007 data and the EPA Model (pre-remediation) flow rates estimated from rating curves.

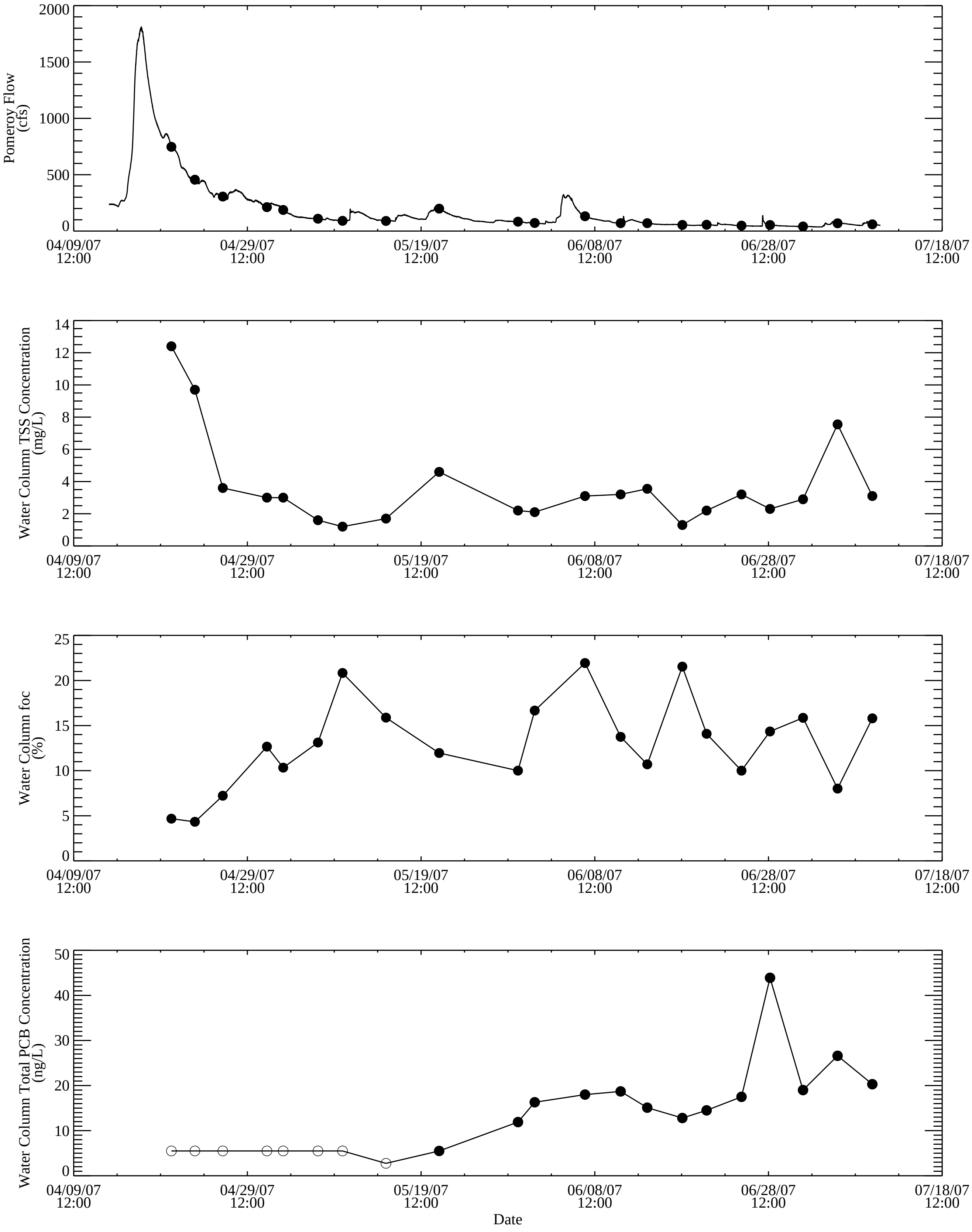


Figure 3-5. Water column flow, TSS, foc, and total PCB concentrations during routine monitoring (April - July 2007).

15-minute flow estimated from Pomeroy stage data and 2007 data rating curve with water column sampling events indicated as dots on the hydrograph.

Duplicates averaged. Concentrations below the detection limit plotted at half the detection limit as open symbols.

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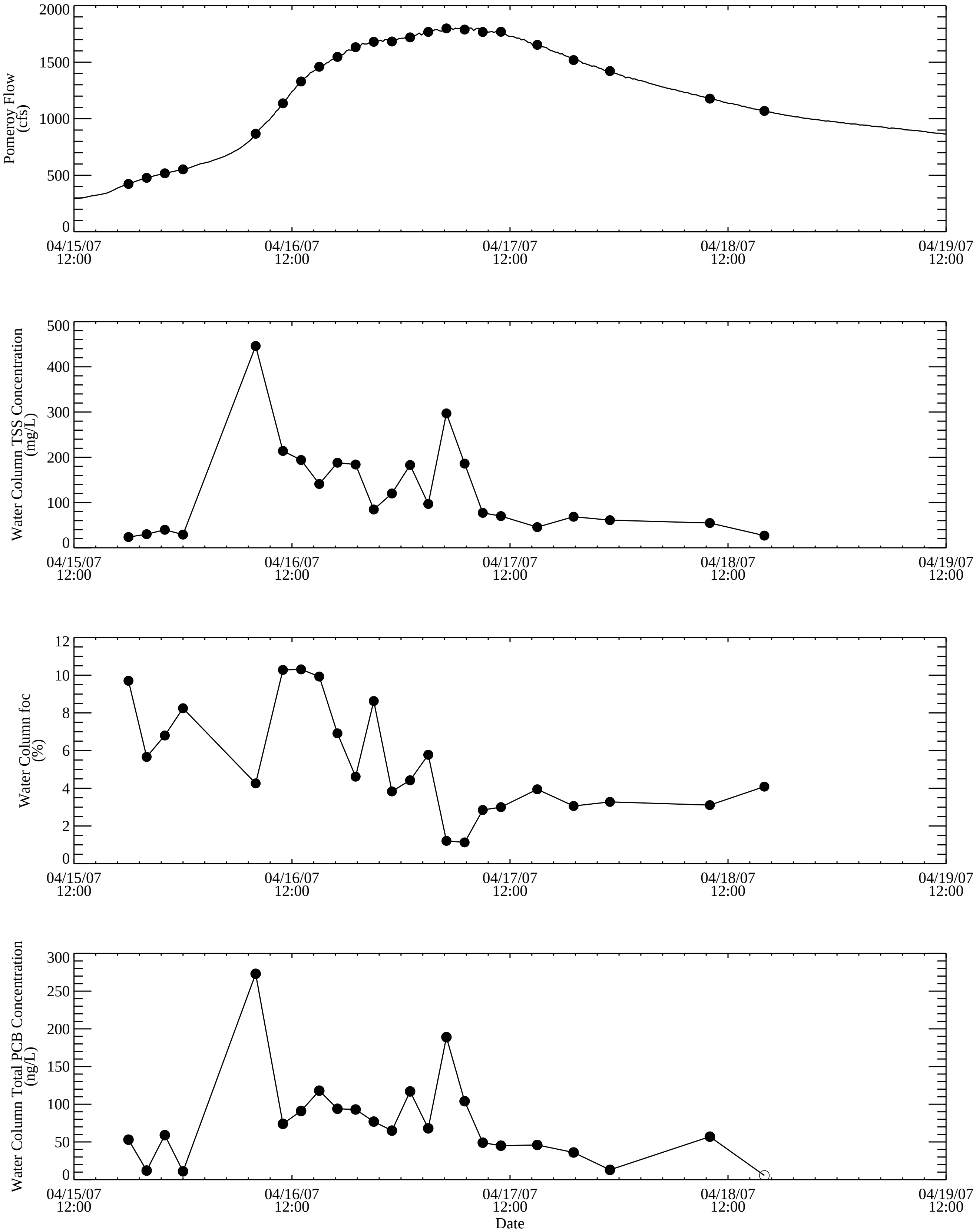

Figure 3-6a. Water column flow, TSS, foc, and total PCB concentrations during storm monitoring (April 2007).

15-minute flow estimated from Pomeroy stage data and 2007 data rating curve with water column sampling events indicated as dots on the hydrograph.

Duplicates averaged. Concentrations below the detection limit plotted at half the detection limit as open symbols.

DN - \\Daleel\E_DRIVE\GENcms\Documents\Memo_070702\Figures\070802\water_column_070801.pro
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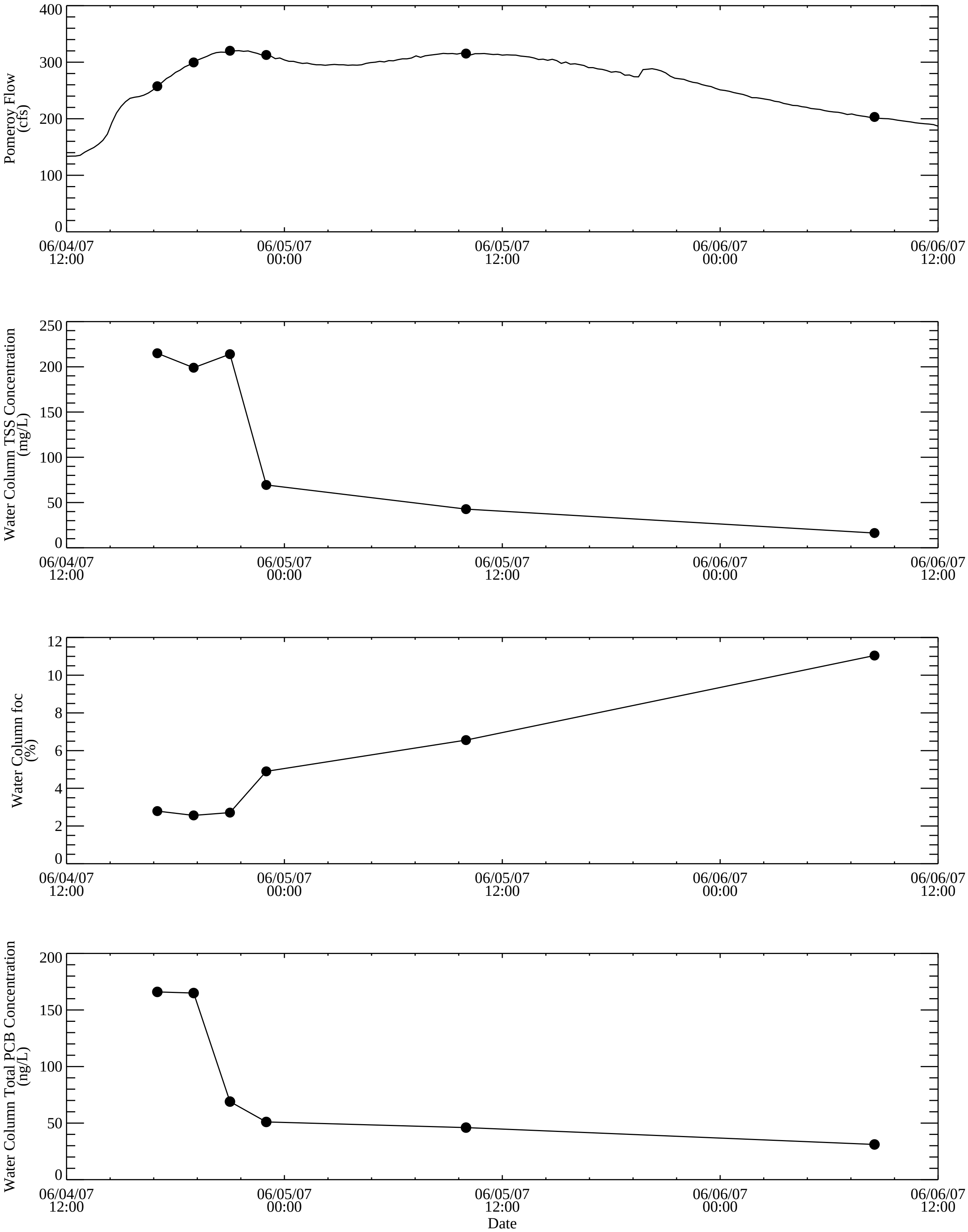

Figure 3-6b. Water column flow, TSS, foc, and total PCB concentrations during storm monitoring (June 2007).

15-minute flow estimated from Pomeroy stage data and 2007 data rating curve with water column sampling events indicated as dots on the hydrograph.

Duplicates averaged. Concentrations below the detection limit plotted at half the detection limit as open symbols.

DN - \\Daleel\E_DRIVE\GENcms\Documents\Memo_070702\Figures\070802\water_column_070801.pro

Thu Aug 02 17:55:54 2007

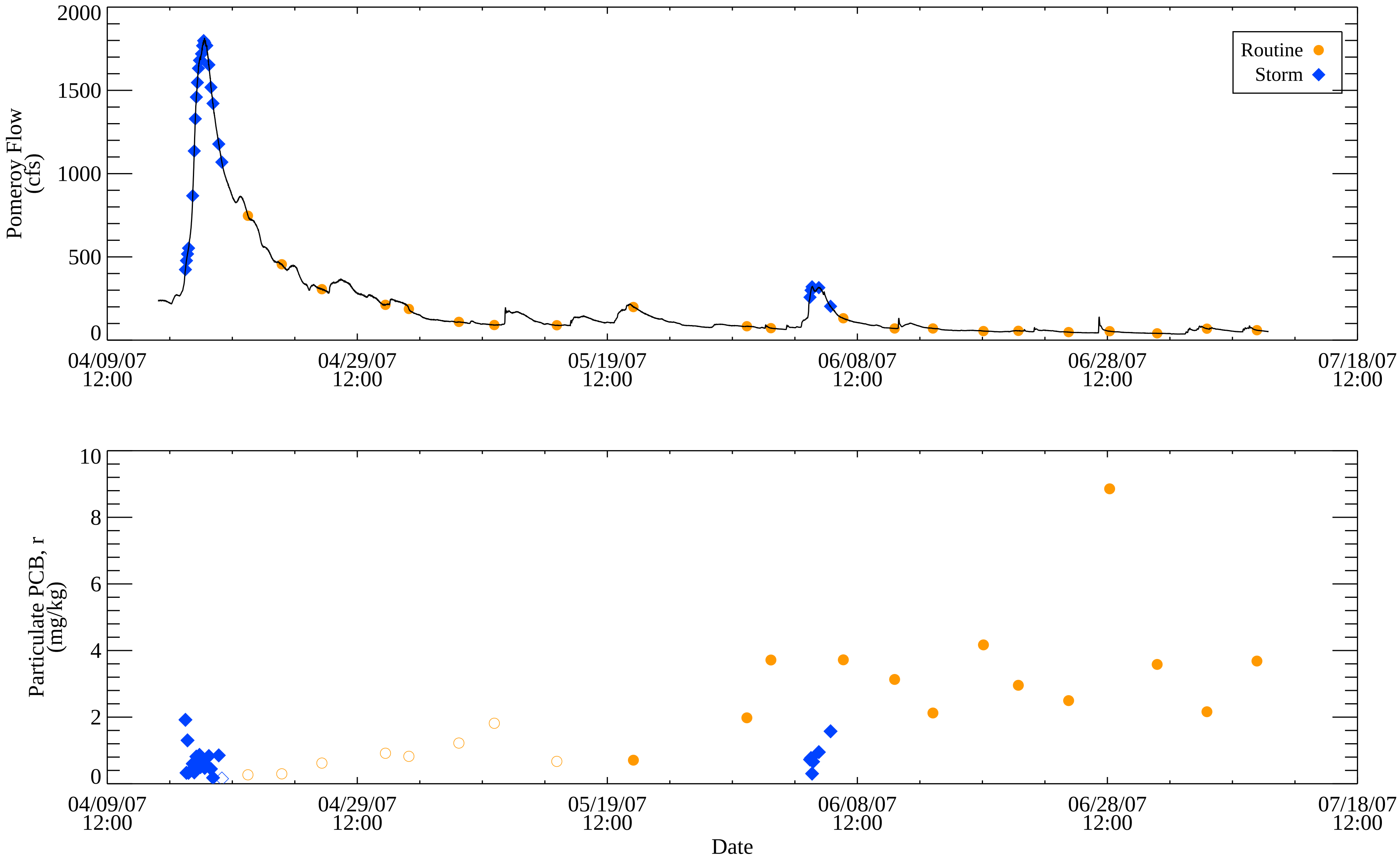

Figure 3-7. Flow and particulate-phase water column concentrations estimated from three-phase partitioning during routine and storm monitoring (April - July 2007).

15-minute flow estimated from Pomeroy stage data and 2007 data rating curve with water column sampling events indicated as orange and blue dots on the hydrograph.

Duplicates averaged. Concentrations below the detection limit plotted at half the detection limit as open symbols.

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Thu Aug 02 17:55:54 2007

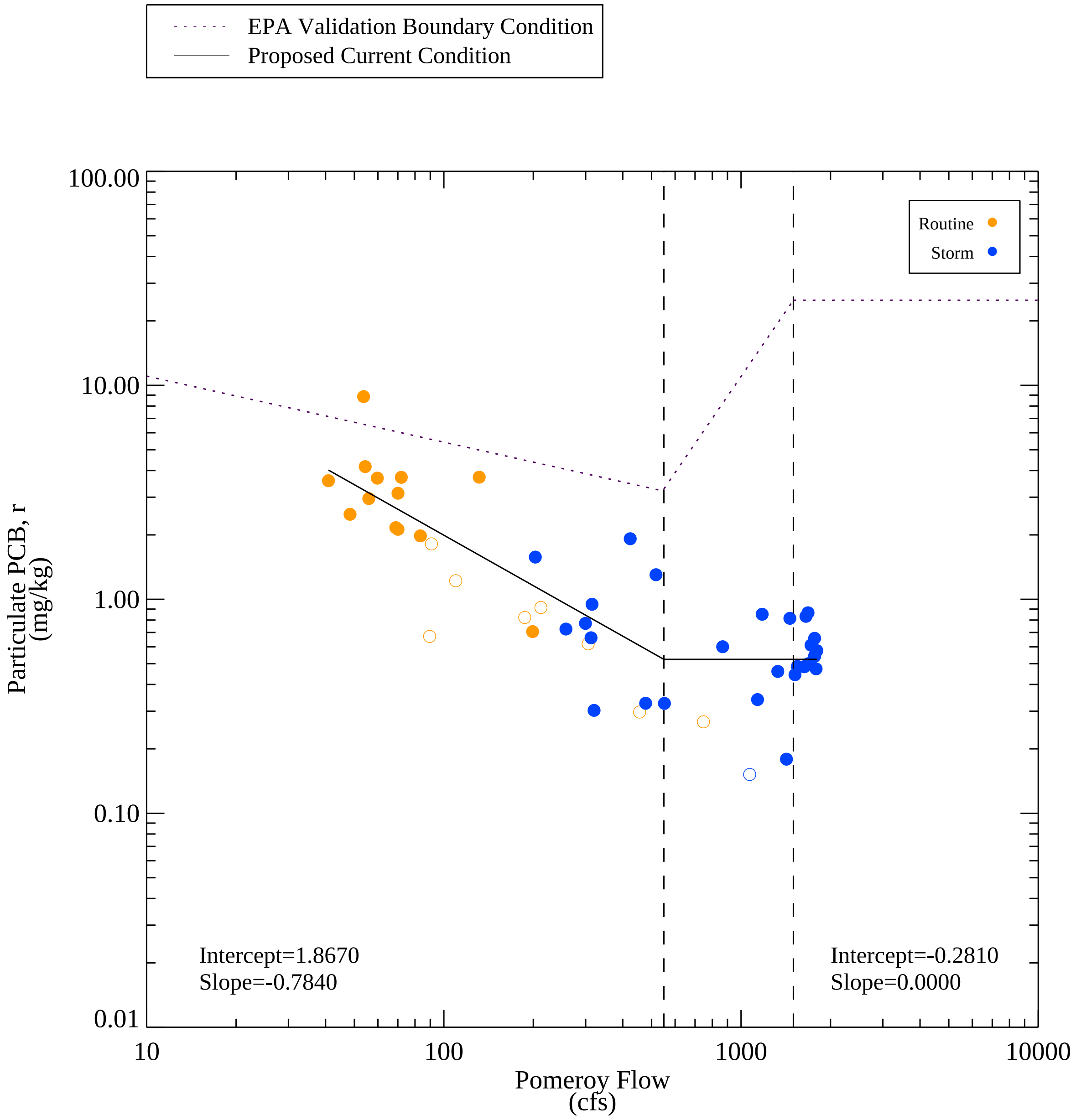

Figure 4-1. Proposed current condition based on stratified regression estimators for upstream boundary particulate-phase PCB water column concentrations vs flow.

15-minute flow estimated from Pomeroy stage data and 2007 data rating curve.
Duplicates averaged. Concentrations at half the detection limit used in calculations, and shown as open symbols. EPA regression estimators shown as dotted line, in purple.

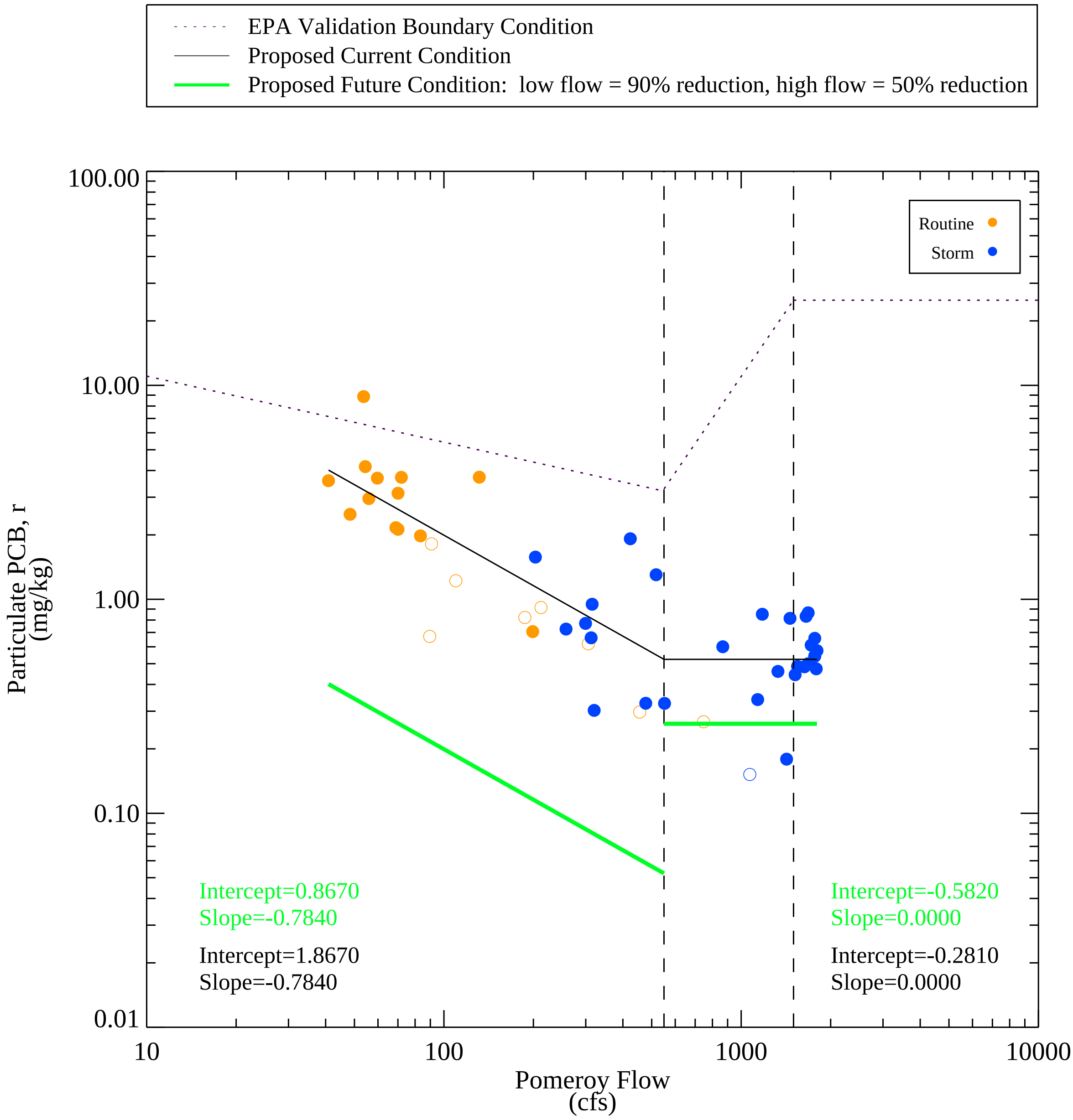

Figure 4-2. Proposed current condition based on stratified regression estimators for upstream boundary particulate-phase PCB water column concentrations vs flow, and anticipated future reductions.

15-minute flow estimated from Pomeroy stage data and 2007 data rating curve.
Duplicates averaged. Concentrations at half the detection limit used in calculations, and shown as open symbols. EPA regression estimators shown as dotted line, in purple.

DN - \\Daleel\E_DRIVE\GENcms\Documents\Memo_070702\Figures\070802\rating_curve2_070730.pro
Thu Aug 02 17:55:10 2007

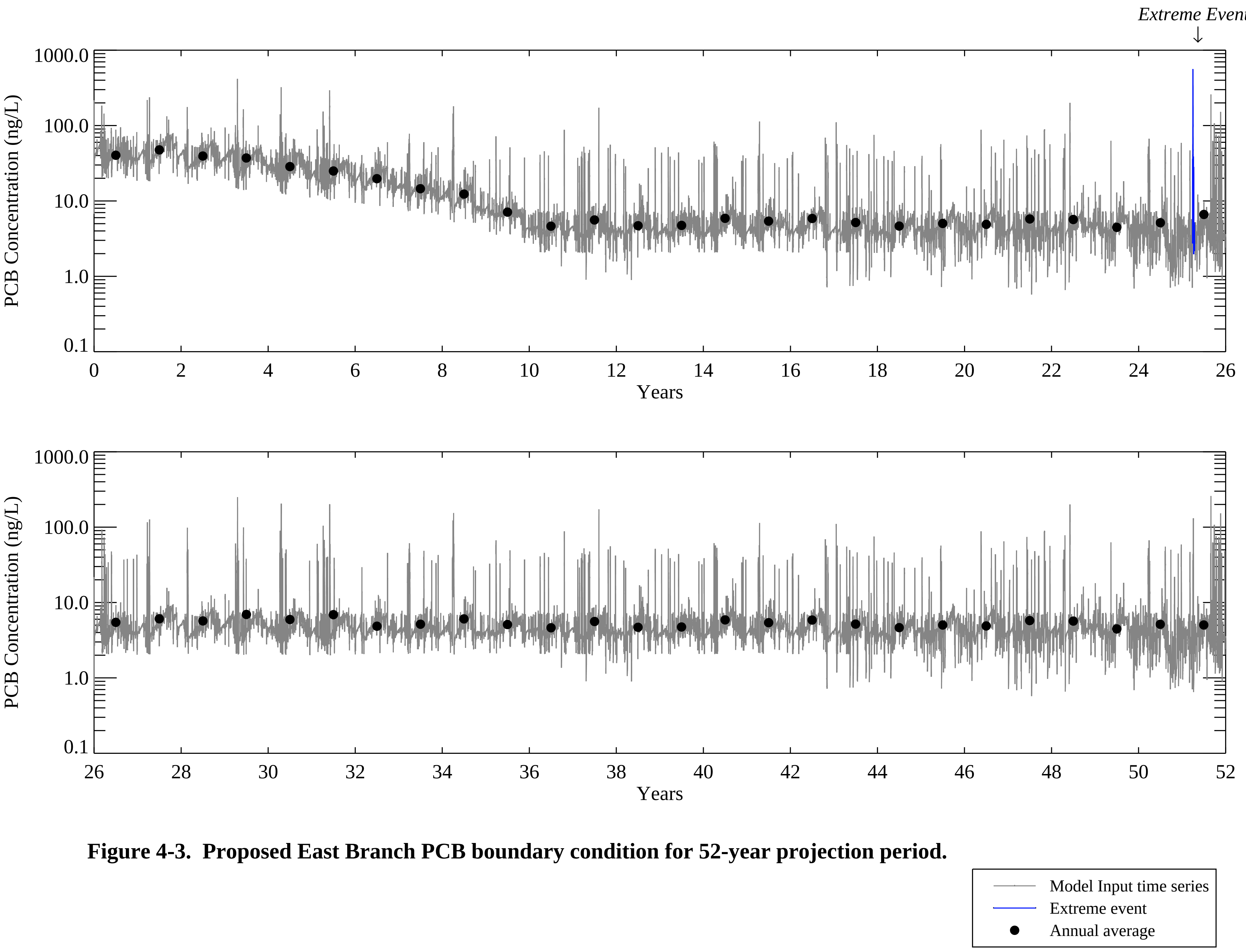

Figure 4-3. Proposed East Branch PCB boundary condition for 52-year projection period.